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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Roswell, New Mexico
November 19, 1969

REGULAR HEARING

IN THE MATTER OF:

Application of Kincaid & Watson
Drilling Company for a unit
agreement, Eddy County, New Mexico.

Case No. 4254

Application of Kincaid & Watson
Drilling Company for a waterflood
project, Eddy County, New Mexico.

Case No. 4255

BEFORE: A. L. Porter, Examiner.

TRANSCRIPT OF HEARING

MR. PORTER: Case 4254.

MR. HATCH: Case 4254. Application of Kincaid & Watson Drilling Company for a unit agreement, Eddy County, New Mexico.

Are you planning on combining 4255?

MR. HINKLE: Yes.

MR. HATCH: Shall we call Case 4255 to save time?

MR. PORTER: Mr. Hinkle, before we get under way with that case, I would like to have just a moment here.

We will take about a five-minute recess.

(Whereupon, a short recess was taken.)

MR. PORTER: The hearing will come to order, please.

MR. HINKLE: Case No. 4254 has just been called, which is the application of Kincaid & Watson for approval of unit agreement. The next case, 4255, is a companion case in that it's an application of approval for a waterflood project which is co-extensive with the unit agreement.

I would like to move at this time that Case No. 4255 be consolidated with Case 4254 for purposes of

taking testimony.

MR. PORTER: Cases 4254 and 4255 will be consolidated for the purpose of taking testimony.

MR. HINKLE: We have one witness, Mr. Robert Fitting.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 3 were marked for identification.)

ROBERT FITTING

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name and your residence.

A My name is Robert D. Fitting. I live in Midland, Texas. I am a consulting petroleum engineer and geologist.

Q You are a graduate petroleum engineer?

A Yes, sir, from Stanford University.

Q Have you previously testified before the New Mexico Oil Conservation Commission?

A Yes, sir, I have.

Q Your qualifications as an engineer are a

matter of record with the Commission?

A Yes, sir.

MR. PORTER: The Commission accepts the witness as qualified.

Q (By Mr. Hinkle) Are you familiar with the application of Kincaid and Watson Drilling Company in Cases 4254 and 4255?

A Yes, sir, I am.

Q What is Kincaid and Watson Drilling Company seeking to accomplish with these applications?

A They are seeking to waterflood the northern part of the East Red Lake Queen Field.

Q And also for approval of the waterflood project?

A Approval of the waterflood project and also a unit agreement for the area.

Q Have you made a study of this area?

A Yes, sir, I have. The East Red Lake Queen Field is separated in two parts. There is a northern part that is separated from the southern part by two wells shown on Exhibit 1, the map.

They are Kincaid and Watson labeled Leonard Wells, that are certainly dry holes. The producing

wells to the north appear to be in the same separate reservoir.

Q Have you prepared or has there been prepared under your direction certain exhibits for introduction in this case?

A Yes, sir, there has. Exhibit 1 is an area map of the Red Lake East Field Area showing the unit outline with the proposed injection wells, the initial injection wells in red and the three additional wells that will be placed on injection shown as dashed triangles.

The unit outline is shown as well as the other wells drilled to the Queen Sand within a radius of two and one half miles from the center of the unit.

Q You made mention of the fact that the portion which is in the proposed unit area is separated from the other portion of the Red Lake Pool.

A Yes, sir.

Q Will you explain that?

A We made a study on Exhibit 2, which is a book of the material presented to the Commission on this hearing. On page thirty-one is a structure map of

the Queen horizon and it has very little characteristics other than being a monocline of limited area.

We attempted a net pay correlation and it was impossible with the information that we had to determine an equitable distribution of pay earth from the electric logs or from the sample logs of the wells that were drilled in the area.

Q Refer to the structural map, which is the last page of Exhibit No. 2, and explain that to the Commission.

A It's a Queen Sand structure map with all of the available points taken primarily from electric logs. It shows a monocline; no anticlinal structure. This, in my opinion, is a stratigraphic trap.

Q In other words, there's no structural condition to determine the boundaries of the unit particularly?

A No, sir. It appears to be controlled to the east by a change in facies from a sand to a shale and by permeability differences to the west.

Q Now, I believe you have testified to start with four injection wells?

A Yes, sir.

Q And you contemplate that there may be three

additional injection wells; is that right?

A That is correct.

Q Now, refer to the diagrammatic sketch, which is typical of the manner in which the injection wells will be completed, which is the third from the last of Exhibit 1.

A On page 29 is a diagrammatic sketch of the injection wells program. It shows the surface casing with the number of sacks of cement, where the oil string was set and the number of sacks used in each one of the initially proposed injection wells.

The two-inch tubing will be plastic lined and a packer set above the perforated interval. The intervals and the packer depths are shown on the diagrammatic sketch.

Q Now, the next exhibit in Exhibit No. 2 -- that is from the next to the last -- is a reduction decline curve. Would you explain that to the Commission?

A The production from all of the wells in the unit area were collected from the state records and each one of them -- the individual leases are shown from page 13 through 27.

These were combined into a field total on a

per well per month production basis starting with page ten and going through twelve is the field production. This field production was plotted with the left hand column, the oil production per well per month and time along the basis.

This decline graph clearly indicates that the field is in the last stages of primary depletion and that without real conservation as far as spending money, these are non-economic wells at the preset time.

Q Now, have the working interest owners who have acreage within the proposed unit area agreed upon a participating formula?

A Yes, sir. Several meetings were held and a study was made of the reservoir. It was decided that it was impossible to use any geological definitions of net pay and that the most factual basis that could be used was the number of wells with the estimated ultimate oil recovery if each of the tracts as determined from decline graph analysis, the cumulative oil recovery of the individual wells and the acres that were assigned to these individual wells.

From this study it was determined that the most equitable way to divide the unit participation was

on the basis of seventy-five percent of the cumulative oil recovery and twenty-five percent of the unit acres or wells which, of course, were the same so that they had complete agreement from all of the operators as to this participation formula.

Q Are you familiar with the formal unit agreement which is proposed to be used in this case and copies of which have been filed with the application?

A Yes, sir.

Q Who is designated as the unit operator?

A Kincaid and Watson Drilling Company.

Q Is the formal unit agreement substantially the same form as heretofore been used and approved where all state lands are involved?

A Yes, sir.

Q Do you know whether or not the Commission of public lands has approved the formal unit agreement in this case?

A Yes, sir. Exhibit 3 is a letter from Mr. Bilberry stating that he approved the form and content of the unit agreement.

Q Now, is Kincaid and Watson seeking approval of a project allowable in this case?

A Yes, sir. It would be much easier to operate and produce the unit if we did have a unit allowable and we so request.

Q That is in accord with Rule 701 of the Commission?

A Yes, sir.

Q What is the status of the execution of the unit agreement by the various working interest owners?

A As I understand from Mr. Watson this morning that at least seventy-five percent of the unit has already signed and agreed to it.

Q All of the working interest owners have, through your meetings you have testified to, formally agreed to commit their interest to the unit agreement?

A One hundred percent of the operators and interest owners have agreed to the proposal of the water injection and the unit by letter ballot.

The percentage signing that I spoke of was the signing of the formal agreement. We anticipate no trouble in getting all of the interest owners to sign.

Q Have you made any calculations as to the recovery you anticipate through water injection, secondary recovery?

A We attempted a volumetric study of the reservoir and tried to make a material balance, but it was extremely difficult to come up with figures we thought were accurate. We had but one core analysis that was of the pay zone and unfortunately this well was drilled at a later time in the life of the reservoir, which never proved to be a good producer; but, it did give us some basis for comparing. But, still, it was not considered good enough to use so that as an arbitrary figure, we used an amount equivalent to the primary oil recovery.

Q And that is shown in Exhibit No. 2 to be 222,500 barrels?

A Yes, sir. It's interesting to note that the field to date has produced 223,439 barrels -- not to date, this is to the end of June of 1969, 223,439. The differences in the 222,500 to that figure is that we assumed an economic limit in the primary production where we believe most of the operators are operating at a loss at the present time.

Q Do you know whether or not Kincaid and Watson is seeking administrative approval or would like to have the right by the order of approval to have administrative approval in the future of additional

injection wells?

A Yes, sir. We propose only the three additional and we believe that that should adequately waterflood the area.

Q In your opinion, if the unit agreement is approved will it be in the interest of conservation and prevention of waste?

A Yes, sir, it will.

Q Will it tend to protect correlative rights?

A Yes, sir.

MR. HINKLE: We would like to introduce into evidence Exhibits 1 through 3.

MR. PORTER: No objection? Exhibits 1, 2 and 3 will be admitted.

MR. HINKLE: That's all we have.

MR. PORTER: Does anyone have a question of Mr. Fitting?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Fitting, again, what was the percentage of working interest ownership that has been committed to the unit to date?

A The commitment by letter ballot was one hundred

percent on the ~~creation~~ of the unit and the participation formula. The agreements have only recently been circulated and I am told by Mr. Watson that seventy-five percent of the unit has been returned as of today.

Q But, the participation formula was stated in the letter of agreement to unitize?

A Yes, sir.

Q So, you do have one hundred percent of agreement to the formula?

A That is correct.

Q Now, with respect to the mechanical construction of the well as depicted on Exhibit 29, I see that each well would have a packer installed and that injection would be through tubing.

A Correct.

Q Is it your proposal to use plastic lined tubing on these wells?

A It will be plastic lined as shown on page three, item six. What we propose to do is clean them out and then circulate hot water and equip the tubing and the packer with plastic coating before we use it.

Q Now, the annulus then between the tubing and the casing can be loaded with an inert fluid, can it not?

A Yes, sir.

Q Would you be agreeable to equipping that annulus with a pressure gauge at the surface to detect leakage?

A I would prefer it that way; yes, sir.

Q And the primary production to date has been 223,400 barrels. I believe as you stated on page three of Exhibit No. 2, you estimate that approximately the same amount of secondary oil would be recovered from the waterflood?

A Correct.

MR. NUTTER: Thank you. That's all.

MR. PORTER: Does anyone else have a question of Mr. Fitting? He may be excused.

(Witness excused.)

MR. PORTER: Does anyone have any further testimony to offer or any comment on the case? Cases 4254 and 4255 will be taken under advisement.

Call Case 4256.

I N D E X

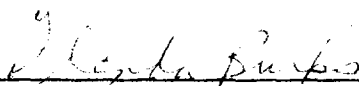
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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, GLENDA BURKS, Court Reporter 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.



Notary Public

My Commission Expires:

March 12, 1973

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
EAST RED LAKE UNIT AREA
EDDY COUNTY, NEW MEXICO

NOV 18 1964

Case 4254

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1 UNIT AGREEMENT
2 FOR THE DEVELOPMENT AND OPERATION
3 OF THE
4 EAST RED LAKE UNIT AREA
5 EDDY COUNTY, NEW MEXICO
6 NO. _____

7 THIS AGREEMENT entered into as of the 1st day of May,
8 1969, by and between the parties subscribing, ratifying or con-
9 senting hereto, and herein referred to as the "parties hereto";

10 W I T N E S S E T H:

11 WHEREAS, the parties hereto are the owners of working,
12 royalty or other oil or gas interests in the unit area subject
13 to this agreement; and

14 WHEREAS, the Commissioner of Public Lands of the State
15 of New Mexico is authorized by an Act of the Legislature (Sec. 1,
16 Ch. 88, Laws 1943, as amended by Sec. 1, Ch. 176, Laws of 1961)
17 (Sec. 7-11-39 N.M.S.A., 1953 Comp.), to consent to and approve
18 the development or operation of State lands under agreements
19 made by lessees of State land jointly or severally with other
20 lessees where such agreements provide for the unit operation
21 or development of part of or all of any oil or gas pool, field
22 or area; and

23 WHEREAS, the Commissioner of Public Lands of the State
24 of New Mexico is authorized by an Act of the Legislature (Sec. 3,
25 Ch. 88, Laws 1943 as amended by Sec. 1, Ch. 162, Laws 1951)
26 (Sec. 7-11-41 N.M.S.A., 1953 Comp.), to amend with the approval
27 of lessee, evidenced by the lessee's execution of such agreement
28 or otherwise, any oil and gas lease embracing State lands so
29 that the length of the term of said lease may coincide with the
30 term of such agreements for the unit operation and development

1 of part or all of any oil or gas pool, field or area; and

2 WHEREAS, the Oil Conservation Commission of the State
3 of New Mexico (hereinafter referred to as the "Commission") is
4 authorized by an Act of the Legislature (Sec. 12, Ch. 72, Laws
5 1935, as amended, Sec. 65-3-14 N.M.S.A., 1953 Comp.) to approve
6 this agreement and the conservation provisions hereof; and

7 WHEREAS, the parties hereto hold sufficient interests
8 in the East Red Lake Unit Area covering the land hereinafter
9 described to give reasonably effective control of operations
10 therein; and

11 WHEREAS, it is the purpose of the parties hereto to
12 enable institution and consummation of secondary recovery opera-
13 tions, to conserve natural resources, prevent waste and secure
14 other benefits obtainable through development and operation
15 of the Penrose sand subject to this agreement under the terms,
16 conditions and limitations herein set forth;

17 NOW, THEREFORE, in consideration of the premises and
18 the promises herein contained, the parties hereto commit to
19 this agreement their respective interests in the Penrose sand
20 in the below defined unit area, and agree severally among them-
21 selves as follows:

22 1. UNIT AREA: The following described land is hereby
23 designated and recognized as constituting the unit area:

24 Township 16 South, Range 28 East, N.M.P.M.

25 Section 35 - $SE\frac{1}{4}SE\frac{1}{4}$

Section 36 - $SW\frac{1}{4}$

26 Township 17 South, Range 28 East, N.M.P.M.

Section 1 - Lots 3 and 4 ($N\frac{1}{2}NW\frac{1}{4}$), $S\frac{1}{2}NW\frac{1}{4}$

Section 2 - Lots 1 and 2 ($N\frac{1}{2}NE\frac{1}{4}$), $S\frac{1}{2}NE\frac{1}{4}$

27 containing 517.68 acres, more or less

28 Exhibit "A" attached hereto is a map showing the unit
29 area and the boundaries and identity of tracts and leases in

1 said area to the extent known to the unit operator. Exhibit "B"
2 attached hereto is a schedule showing to the extent known to the
3 unit operator the acreage, percentage and kind of ownership of
4 oil and gas interests in all lands in the unit area. However,
5 nothing herein or in said schedule or map shall be construed as
6 a representation by any party hereto as to the ownership of any
7 interest other than such interest or interests as are shown on
8 said map or schedule as owned by such party. Exhibits "A" and
9 "B" shall be revised by the unit operator whenever changes in
10 ownership in the unit area render such revisions necessary or
11 when requested by the Commissioner of Public Lands, hereinafter
12 referred to as "Commissioner".

13 2. UNITIZED LANDS AND UNITIZED SUBSTANCES: All oil
14 and gas in the Penrose sand of the Queen formation underlying
15 the unit area are herein called Unitized Substances and, to-
16 gether with the surface rights incident to the ownership thereof,
17 are unitized under the terms of this agreement. All land com-
18 mitted to this agreement with respect to the Penrose sand of
19 the Queen formation shall constitute land referred to herein
20 as "Unitized Land" or "land subject to this agreement".

21 The Penrose sand of the Queen formation is defined to
22 mean the sand and reservoir encountered between the subsurface
23 depths of 1550 feet and 1585 feet, in the Kincaid & Watson
24 Drilling Company, Resler and Sheldon No. 1 well located in the
25 SE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 2, Township 17 South, Range 28 East, N.M.P.M.

26 3. UNIT OPERATOR: Kincaid & Watson Drilling Company,
27 a New Mexico corporation, whose address is 300 Booker Building,
28 Artesia, New Mexico, is hereby designated as unit operator and
29 by signature hereto commits to this agreement all interest in

1 Unitized Substances vested in it as set forth in Exhibit "B",
2 and agrees and consents to accept the duties and obligations
3 of unit operator for the discovery, development and production
4 of Unitized Substances as herein provided. Whenever reference
5 is made herein to the unit operator, such reference means the
6 unit operator acting in that capacity and not as an owner of
7 interests in Unitized Substances; and the term "working interest
8 owner" when used herein shall include or refer to unit operator
9 as the owner of a working interest when such an interest is
10 owned by it.

11 4. RESIGNATION OR REMOVAL OF UNIT OPERATOR: Unit
12 operator shall have the right to resign at any time but such
13 resignation shall not become effective until a successor unit
14 operator has been selected and approved in the manner provided
15 for in Section 5 of this agreement. The resignation of the
16 unit operator shall not release the unit operator from any
17 liability or any default by it hereunder occurring prior to the
18 effective date of its resignation.

19 Unit operator may, upon default or failure in the per-
20 formance of its duties or obligations hereunder, be subject to
21 removal by the same percentage vote of the owners of working
22 interests determined in like manner as herein provided for the
23 selection of a new unit operator. Such removal shall be effec-
24 tive upon notice thereof to the Commissioner.

25 The resignation or removal of the unit operator under
26 this agreement shall not terminate its right, title or interest
27 as the owner of a working interest or other interest in Unitized
28 Substances, but upon the resignation or removal of unit operator
29 becoming effective, such unit operator shall deliver possession

1 of all equipment, materials and appurtenances used in conducting
2 the unit operations and owned by the working interest owners to
3 the new duly qualified successor unit operator, or to the owners
4 thereof if no such new unit operator is elected, to be used for
5 the purpose of conducting unit operations hereunder. Nothing
6 herein shall be construed as authorizing removal of any material,
7 equipment and appurtenances needed for the preservation of any
8 wells.

9 5. SUCCESSOR UNIT OPERATOR: Whenever the unit operator
10 shall resign as unit operator or shall be removed as hereinabove
11 provided, the owners of the working interests, according to
12 their respective participating interests in all Unitized Land,
13 shall, by a majority vote of the remaining owners of the working
14 interest, select a successor unit operator; provided that, if
15 a majority but less than seventy-five percent (75%) of the
16 participating working interest qualified to vote is owned by
17 one party to this agreement, a concurring vote of sufficient
18 additional parties, so as to constitute in the aggregate not
19 less than seventy-five percent (75%) of the total (excluding
20 the unit operator) participating working interests, shall be
21 required to select a new operator. Such selection shall not
22 become effective until (a) a unit operator so selected shall
23 accept in writing the duties and responsibilities of unit
24 operator, and (b) the selection shall have been approved by
25 the Commissioner. If no successor unit operator is selected
26 and qualified as herein provided, the Commissioner at his
27 election may declare this unit agreement terminated.

28 6. ACCOUNTING PROVISIONS† The unit operator shall pay
29 in the first instance all costs and expenses incurred in conducting

1 unit operations hereunder, and such costs and expenses and the
2 working interest benefits accruing hereunder shall be apportioned,
3 among the owners of the unitized working interests in accordance
4 with an Operating Agreement entered into by and between the unit
5 operator and the owners of such interests, whether one or more,
6 separately or collectively. Any agreement or agreements entered
7 into between the working interest owners and the unit operator
8 as provided in this section, whether one or more, are herein
9 referred to as the "Operating Agreement". No such agreement
10 shall be deemed either to modify any of the terms and conditions
11 of this unit agreement or to relieve the unit operator of any
12 right or obligation established under this unit agreement and
13 in case of any inconsistencies or conflict between this unit
14 agreement and the Operating Agreement, this unit agreement shall
15 prevail.

16 7. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except
17 as otherwise specifically provided herein, the exclusive right,
18 privilege and duty of exercising any and all rights of the
19 parties hereto which are necessary or convenient for prospecting
20 for, producing, storing, allocating and distributing the Unitized
21 Substances are hereby delegated to and shall be exercised by
22 the unit operator as herein provided. Acceptable evidence of
23 title to said rights shall be deposited with said unit operator
24 and, together with this agreement, shall constitute and define
25 the rights, privileges and obligations of unit operator. Nothing
26 herein, however, shall be construed to transfer title to any
27 land or to any lease or operating agreement, it being understood
28 that under this agreement the unit operator, in its capacity as
29 unit operator, shall exercise the rights of possession and use

1 vested in the parties hereto only for the purposes herein speci-
2 fied.

3 8. PLAN OF OPERATIONS: The initial plan of operation
4 shall be filed with the Commissioner and the Commission concur-
5 rently with the filing of this unit agreement for final approval.
6 Said initial plan of operation and all revisions thereof shall
7 be as complete and adequate as the Commissioner and the Commission
8 may determine to be necessary for timely operation consistent
9 herewith. Reasonable diligence shall be exercised in complying
10 with the obligations of the approved plan of operation.

11 It is recognized and agreed by the parties hereto that
12 all of the land subject to this agreement is reasonably proved
13 to be productive of Unitized Substances in paying quantities
14 and that the object and purpose of this agreement is to formu-
15 late and to put into effect a secondary recovery project in
16 order to effect additional recovery of Unitized Substances,
17 prevent waste and conserve natural resources. The parties hereto
18 agree that the unit operator may, subject to the consent and
19 approval of a plan of operation by the working interest owners,
20 the Commissioner and the Commission, inject into the unitized
21 formation, through any well or wells completed therein, brine,
22 water, air, gas, liquefied petroleum gases and any one or more
23 other substances or combination of substances whether produced
24 from the unit area or not, and that the location of input wells,
25 the rates of injection therein and the rate of production shall
26 be governed by standards of good geologic and petroleum engineer-
27 ing practices and conservation methods. Subject to like approval
28 the plan of operation may be revised as conditions may warrant.

29 9. TRACT PARTICIPATION: In Exhibit "B" attached hereto,

1 there are listed and numbered the various tracts within the
2 unit area and set forth opposite each tract is a figure which
3 represents the percentage of participation allocated to such
4 tract calculated on one hundred percent tract commitment.

5 The percentage of participation of each tract was deter-
6 mined in accordance with the following formula:

7 Percentage Participation of each Tract

8 EQUALS

9 $75\% \times \frac{\text{Cumulative Oil Production from Tract to December 1, 1966}}{\text{Cumulative Oil Production from Unit Area to December 1, 1966}}$
10

11 PLUS

12 $25\% \times \frac{\text{Surface Acres in Tract}}{517.68 \text{ Acres}}$
13

14 10. ALLOCATION OF UNITIZED SUBSTANCES: All Unitized
15 Substances produced and saved from the unit area (except any
16 part of such Unitized Substances used in conformity with good
17 operating practices on unitized land for drilling, operating,
18 camp and other production or development purposes and for
19 pressure maintenance or unavoidable loss) shall be apportioned
20 among and allocated to the committed tracts within the unit
21 area in accordance with the respective tract participation,
22 as set forth in the schedule of participation in Exhibit "B"
23 or any revision thereof. The amount of Unitized Substances so
24 allocated to each tract, and only that amount (regardless of
25 whether it be more or less than the amount of the actual pro-
26 duction of Unitized Substances from the well or wells, if any,
27 on such tract), shall for all intents and purposes be deemed
28 to have been produced from such tract.

29 The Unitized Substances allocated to each tract shall

1 be distributed among, or accounted for to, the parties executing,
2 consenting to or ratifying this agreement entitled to share in
3 the production from such tract in the same manner, in the same
4 proportions and upon the same conditions as they would have
5 participated and shared in the production from such tract had
6 this agreement not been entered into and with the same legal
7 force and effect.

8 No tract committed to this agreement shall be subse-
9 quently excluded from participation hereunder on account of
10 depletion of Unitized Substances, and nothing herein contained
11 shall be construed as requiring any retroactive adjustment for
12 production obtained prior to the effective date of the joinder
13 of any tract.

14 If the royalty, overriding or working interest in any
15 tract are divided with respect to separate parcels or portions of
16 such tract and owned severally by different persons, the per-
17 centage participation assigned to such tract shall, in the
18 absence of a recordable instrument executed by all owners and
19 furnished to unit operator fixing the divisions of ownership,
20 be divided among such parcels or portions in proportion to
21 the number of surface acres in each.

22 The Unitized Substances allocated to each tract shall
23 be delivered in kind to the working interest owners and parties
24 entitled thereto by virtue of the ownership of oil and gas
25 rights therein or by purchase from such owners. Each working
26 interest owner and the parties entitled thereto shall have
27 the continuing right to receive such production in kind at a
28 common point within the unit area and to sell or dispose of
29 the same as it sees fit. Any extra expenditure incurred by

1 unit operator by reason of the delivery in kind of any portion
2 of the Unitized Substances shall be borne by the party receiving
3 the same in kind. In the event any party hereto shall fail to
4 take or otherwise adequately dispose of its proportionate share
5 of the production from the unit area concurrently, as and when
6 produced, then so long as such conditions continue, unit operator,
7 for the account and at the expense of such party and in order to
8 avoid curtailing the operation of the unit area, may sell or
9 otherwise dispose of such production to itself or others on a
10 day-to-day basis at not less than the prevailing market price
11 in the area for like production, and the account of such party
12 shall be charged therewith as having received such production.
13 The net proceeds, if any, of the Unitized Substances so disposed
14 of by unit operator shall be paid to the party entitled thereto.

15 Any party receiving in kind or separately disposing of
16 all or any part of the Unitized Substances allocated to any
17 tract, shall be responsible for the payment of all royalty on
18 the lease or leases and tracts contributed by it and received
19 into the unit.

20 If there are any tracts within the unit area not com-
21 mitted hereto as of the effective date hereof but which are
22 subsequently committed hereto under the provisions of Section
23 22 (Subsequent Joinder), or if any tract is excluded from the
24 unit area as provided for in Section 21 (Loss of Title), the
25 schedule of participation as shown in Exhibit "B" shall be
26 revised by the unit operator and distributed to the working
27 interest owners and the Commissioner to show the new percentage
28 participation of all the then effectively committed tracts;
29 and the Revised Exhibit "B", upon approval by the Commissioner,

1 shall govern all the allocation of production from and after
2 the effective date thereof until a new revised Exhibit "B"
3 is filed and approved as hereinabove provided.

4 11. PAYMENT OF RENTALS, ROYALTIES AND OVERRIDING

5 ROYALTIES: All rentals due the State of New Mexico shall be
6 paid by the respective lease owners in accordance with the terms
7 of their leases.

8 All royalties due the State of New Mexico under the
9 terms of the leases committed to this agreement shall be computed
10 and paid on the basis of all Unitized Substances allocated to
11 the respective tracts by the formula established by Section 9
12 hereof; provided, however, the State shall be entitled to take
13 in kind its share of the Unitized Substances allocated to the
14 respective leases, and in such case the unit operator shall
15 make deliveries of such royalty oil in accordance with the terms
16 of the respective leases.

17 If any lease committed hereto is burdened with an over-
18 riding royalty, payment out of production or other charge in
19 addition to the usual royalty, the owner of each such lease
20 shall bear and assume the same out of the Unitized Substances
21 allocated to the lands embraced in each such lease as provided
22 herein.

23 Each overriding royalty owner who ratifies this agree-
24 ment represents and warrants that he is the owner of the interest
25 in a tract or tracts within the unit area as his interest appears
26 in Exhibit "B" attached hereto. If any such interest in a tract
27 or tracts should be lost by title failure or otherwise in whole
28 or in part during the term of this agreement then the overriding
29 royalty interest of the party representing himself to be the

1 owner thereof shall be reduced proportionately and the interest
2 of all parties shall be adjusted accordingly.

3 12. LEASES AND CONTRACTS CONFORMED AND EXTENDED INsofar
4 AS THEY APPLY TO LANDS WITHIN THE UNITIZED AREA: The terms,
5 conditions and provisions of all leases, subleases, operating
6 agreements and other contracts relating to the exploration, drilling,
7 development or operation for oil or gas of the lands committed
8 to this agreement, shall as of the effective date hereof, be
9 and the same are hereby expressly modified and amended insofar
10 as they apply to lands within the unit area to the extent neces-
11 sary to make the same conform to the provisions hereof and so
12 that the respective terms of said leases and agreements will be
13 extended insofar as necessary to coincide with the terms of this
14 agreement and the approval of this agreement by the Commissioner
15 and the respective lessees shall be effective to conform the
16 provisions and extend the terms of each such lease as to lands
17 within the unit area to the provisions and terms of this agree-
18 ment; but otherwise to remain in full force and effect. Each
19 lease, sublease or contract relating to the development and
20 operation for oil and gas of the lands within the unit area,
21 shall continue in force beyond the term provided therein as
22 long as this agreement remains in effect. Termination of this
23 agreement shall not affect any lease which pursuant to the terms
24 thereof or any applicable laws would continue in full force and
25 effect thereafter. Drilling, producing or secondary recovery
26 operations performed hereunder upon any tract of the unitized
27 lands shall be accepted and deemed to be performed on each of
28 the tracts committed to this agreement and operations or produc-
29 tion pursuant to this agreement shall be deemed to be operations

1 upon and production from each tract committed hereto. The
2 development and operation of the unitized lands under the terms
3 hereof shall be deemed full performance of all obligations for
4 development and operation with respect to each and every part
5 or separately owned tract within the unit area, regardless of
6 whether there is any development of any part or tract of the
7 unit area.

8 The leases embracing lands of the State of New Mexico
9 having only a portion of the land committed hereto, shall be
10 segregated as to that portion committed and that portion not com-
11 mitted, and the terms of such leases shall apply separately
12 to such segregated portions commencing as of the effective date
13 hereof. Notwithstanding any of the provisions of this agreement
14 to the contrary, any lease embracing lands of the State of New
15 Mexico having only a portion of its land committed hereto shall
16 continue in full force and effect beyond the term provided therein
17 as to all lands embraced in such lease (whether within or without
18 the unit area), (1) if, and for so long as oil or gas are capable
19 of being produced in paying quantities from some part of the
20 lands embraced in such lease committed to this agreement; or
21 (2) if, and for so long as some part of the lands embraced in
22 such lease committed to this agreement are allocated Unitized
23 Substances; or (3) if, at the expiration of the secondary term
24 the lessee or the unit operator is then engaged in bona fide
25 drilling or reworking operations on some part of the lands em-
26 braced therein and for so long as such operations are being
27 diligently prosecuted, and if they result in the production of
28 oil or gas said lease shall continue in full force and effect
29 as to all the lands embraced therein so long thereafter as oil

1 or gas in paying quantities is being produced from any portion
2 of said lands.

3 13. CONSERVATION: Operations hereunder and production
4 of Unitized Substances shall be conducted to provide for the
5 most economical and efficient recovery of said substances without
6 waste, as defined by or pursuant to state laws or regulations.

7 14. DRAINAGE: In the event a well or wells producing
8 oil or gas in paying quantities should be brought in on land
9 adjacent to the unit area draining Unitized Substances from the
10 lands embraced therein, unit operator shall drill such offset
11 well or wells as a reasonably prudent operator would drill
12 under the same or similar circumstances.

13 15. COVENANTS RUN WITH LAND: The covenants herein
14 shall be construed to be covenants running with the land with
15 respect to the interests of the parties hereto and their suc-
16 cessors in interest until this agreement terminates, and any
17 grant, transfer or conveyance of an interest in land or leases
18 subject hereto shall be and hereby is conditioned upon the
19 assumption of all privileges and obligations hereunder by the
20 grantee, transferee or other successor in interest. No assign-
21 ment or transfer of any working, royalty or other interest
22 subject hereto shall be binding upon unit operator until the
23 first day of the calendar month after the unit operator is
24 furnished with the original photostatic or certified copy of
25 the instrument of transfer.

26 16. EFFECTIVE DATE AND TERM: This agreement shall
27 become effective at 7:00 a.m. on the first day of the month
28 following approval by the Commissioner and shall remain in
29 effect so long as Unitized Substances are capable of being

1 produced in quantities sufficient to pay the costs of operation
2 and should production cease, so long thereafter as diligent
3 drilling, reworking or other operations (including secondary
4 recovery operations) are in progress on the unitized land and
5 so long thereafter as Unitized Substances so established or
6 restored can be produced as aforesaid. This agreement may
7 also be terminated at any time by not less than seventy-five
8 percent (75%) of the total participating working interests
9 signatory hereto with the approval of the Commissioner.

10 17. RATE OF PRODUCTION: All production and disposal
11 thereof shall be in conformity with allocations, allotments
12 and quotas made or fixed by the Commission and in conformity
13 with all applicable laws and lawful regulations.

14 18. APPEARANCES: Unit operator shall, after notice
15 to other parties affected, have the right to appear for and
16 on behalf of any and all interests affected hereby before the
17 Commissioner of Public Lands and the New Mexico Oil Conservation
18 Commission, and to appeal from orders issued under the regula-
19 tions of the Commissioner or Commission or to apply for relief
20 from any of said regulations or in any proceedings on its own
21 behalf relative to operations pending before the Commissioner
22 or the Commission; provided, however, that any other interested
23 party shall also have the right at his own expense to appear
24 and to participate in any such proceeding.

25 19. NOTICES: All notices, demands or statements
26 required hereunder to be given or rendered to the parties hereto
27 shall be deemed fully given, if given in writing and sent by
28 postpaid registered mail, addressed to such party or parties
29 at their respective addresses set forth in connection with the

1 signatures hereto or to the ratification or consent hereof or
2 to such other address as any such party may have furnished in
3 writing to party sending the notice, demand or statement.

4 20. UNAVOIDABLE DELAY: All obligations under this
5 agreement requiring the unit operator to commence or continue
6 secondary recovery operations or to operate on or produce
7 Unitized Substances from any of the lands covered by this agree-
8 ment shall be suspended while, but only so long as, the unit
9 operator despite the exercise of due care and diligence, is
10 prevented from complying with such obligations, in whole or in
11 part, by strikes, war, acts of God, federal, state or municipal
12 law or agencies, unavoidable accidents, uncontrollable delays
13 in transportation, inability to obtain necessary materials in
14 open market, or other matters beyond the reasonable control of
15 the unit operator whether similar to matters herein enumerated
16 or not.

17 21. LOSS OF TITLE: In the event title to any tract of
18 unitized land or substantial interest therein shall fail and
19 the true owner cannot be induced to join the unit agreement
20 so that such tract is not committed to this agreement or the
21 operation thereof hereunder becomes impracticable as a result
22 thereof, such tract may be eliminated from the unitized area,
23 and the interest of the parties readjusted as a result of such
24 tract being eliminated from the unitized area. In the event of
25 a dispute as to the title to any royalty, working or other
26 interest subject hereto, the unit operator may withhold payment
27 or delivery of the allocated portion of the Unitized Substances
28 involved on account thereof without liability for interest until
29 the dispute is finally settled, provided that no payments of

1 funds due the State of New Mexico shall be withheld. Unit
2 operator as such is relieved from any responsibility for any
3 defect or failure of any title hereunder.

4 22. SUBSEQUENT JOINDER. Joinder of any overriding
5 royalty or other similar nonoperating interest owner, at any
6 time, must be accompanied by joinder and consent of the corres-
7 ponding working interest owner in order for such overriding
8 royalty or other similar nonoperating interest to be regarded
9 as effectively committed hereto. Joinder of any working interest
10 owner, at any time, must be accompanied by his appropriate
11 joinder to the Operating Agreement in order for such interest
12 to be regarded as effectively committed hereto. A subsequent
13 joinder shall be effective as of the first day of the month
14 following the approval by the Commissioner and the filing with
15 the Commission of duly executed counterparts of the instrument
16 or instruments committing the interest of such owner to this
17 agreement.

18 23. COUNTERPARTS. This agreement may be executed in
19 any number of counterparts, no one of which needs to be executed
20 by all parties and may be ratified or consented to by a separate
21 instrument in writing specifically referring hereto, and shall
22 be binding upon all those parties who have executed such a
23 counterpart, ratification or consent hereto with the same force
24 and effect as if all such parties had signed the same document
25 and regardless of whether or not it is executed by all other
26 parties owning or claiming an interest in the lands within the
27 unit area.

28 IN WITNESS WHEREOF, the undersigned parties hereto have
29 caused this agreement to be executed as of the respective dates

ATTEST

Secretary

Date: _____

Address: _____

ATTEST:

Secretary

Date: _____

Address: _____

ATTEST:

Secretary

Date: _____

Address: _____

ATTEST:

Secretary

Date: _____

Address: _____

STATE OF NEW MEXICO)
 : ss
COUNTY OF _____)

My Commission Expires:

Notary Public

STATE OF NEW MEXICO)
 : ss
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day
of _____ 1969 by _____, _____ President of
Bogle & Kemper Oil Company, a _____ corporation, on behalf
of said corporation.

My Commission Expires: _____

Notary Public

STATE OF _____)
 : ss
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day
of _____ 1969 by _____, _____ President of
Pearson-Sibert Oil Company of Texas, a _____ corporation,
on behalf of said corporation.

My Commission Expires: _____

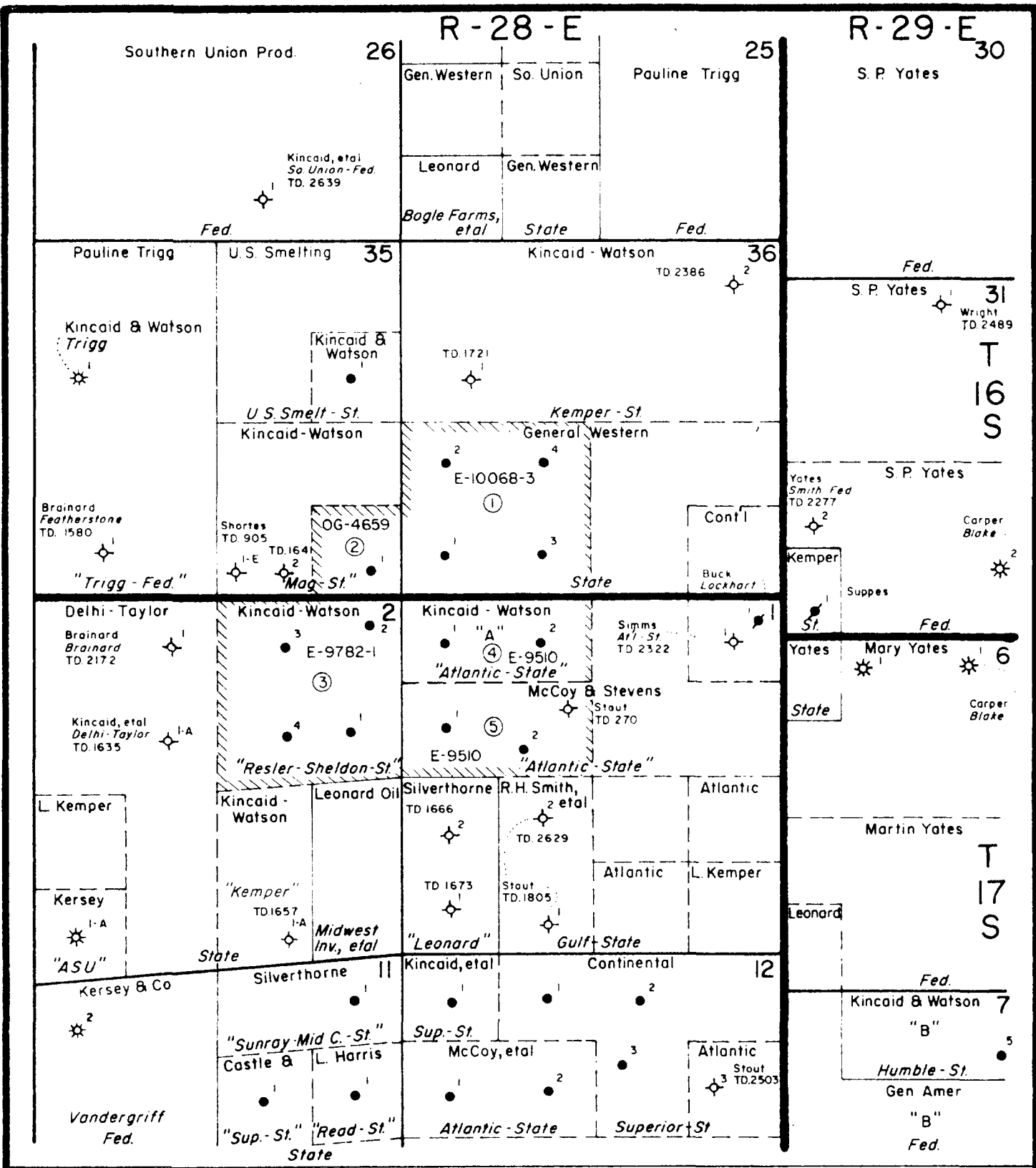
Notary Public

STATE OF _____)
 : ss
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day
of _____ 1969 by _____, _____ President of
A. F. Gilmore Company, a _____ corporation, on behalf
of said corporation.

My Commission Expires: _____

Notary Public



EAST RED LAKE UNIT

Eddy County, New Mexico

EXHIBIT "A"

- LEGEND -

- - Producing Oil Well
- ☼ - Producing Gas Well
- ⦿ - Abandoned Producer
- ⊕ - Dry Hole
- Unit Boundary
- ② Tract Number
- State Lands

0 2000' 4000'

EXHIBIT "B" TO UNIT AGREEMENT
EAST RED LAKE UNIT
EDDY COUNTY, NEW MEXICO

| Description and Number of Acres | Lease No. & Date | Basic Royalty | Lessee of Record | Overriding Royalty and Production Payment | | Working Interest Owner & Percentage | Percent Participation of Tract |
|---|----------------------------|------------------|------------------------------------|--|-----------|--|--------------------------------------|
| | | | | Owners & Percentage | Payment | | |
| SW $\frac{1}{4}$ Sec. 36, T. 16 S., R. 28 E. - 160 acres. HBP | E-10068 5/15/56 HBP | State 12.5 | General Western Petroleum Corp. | Casex | 1.750000 | Bogle & Kemper Oil Company | 14.899 |
| | | | | Hinkle Development Company | 5.468750 | Dalevco Oils | 4.964 |
| | | | | General Western | | A. F. Gilmore Co. | 16.432 |
| | | | | Development Corp. | 10.035163 | L. C. Harris | 4.015 |
| | | | | | | E. M. Jennings | 6.692 |
| | | | | | | Kincaid & Watson Drilling Co. | 17.385 |
| | | | | | | M. A. Kline | 5.799 |
| | | | | | | W. H. Openshaw | 2.676 |
| | | | | | | Pearson-Sibert Oil Co. of Texas | 16.432 |
| | | | | | | C. B. Read | 4.015 |
| SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 35, T. 16 S., R. 28 E., 40 acres | OG-4659 10/21/58 HBP | State 12.5 | Lonnie Kemper | Lonnie Kemper | 3.5 | Kincaid & Watson Drilling Co. | 35.000 |
| | | | | | | Durham Drilling Co., Inc. | 25.000 |
| | | | | | | Bogle & Kemper Oil Company | 30.000 |
| | | | | | | Dalevo Oils | 10.000 |
| | | | | | | | 5.383838 |
| | | | | | | | 29.615251 |

| Tract No. | Description and Number of Acres | Lease No. & Date | Basic Royalty | Lessee of Record | Overriding Royalty and Production Payment | | Working Interest Owner & Percentage | Percent Participa- of Tract | |
|--------------|--|---------------------------|------------------|--|---|------------------------------|---|--|-----------|
| | | | | | Owners & Percentage | | | | |
| 3 | Lots 1 & 2 (N½NE¼), S½NE¼ Sec. 2, T. 17 S., R. 28 E. 158.64 acres | E-9782 2/21/56 HBP | State 12.5 | Dale Resler & Vilas P. Sheldon dba Resler & Sheldon | Dale Resler & Vilas P. Sheldon Up to 25 bpd Above 25 bpd Lonnie Kemper | 6.250 12.500 3.125 | Durham Drilling Co., Inc. Kincaid & Watson Drilling Co. Pearson-Sibert Oil Co. of Texas Dalevco Oils Bogle & Kemper Oil Company A. F. Gilmore Co. M. A. Kline | 12.50 17.50 21.25 5.00 15.00 21.25 7.50 | 28.106353 |
| 4 | Lots 3 & 4 (N½NW¼) Sec. 1, T. 17 S., R. 28 E. - 79.04 acres HBP | E-9510 11/15/55 HBP | State 12.5 | Atlantic Rich- field Company | Atlantic Richfield Company Bogle & Kemper Oil Company Joanne D. Garlinger | 6.25000 .46875 2.65825 | Durham Drilling Company, Inc. Kincaid & Watson Drilling Co. Pearson-Sibert Oil Co. of Texas Dalevco Oils Bogle & Kemper Oil Company F. F. Gilmore Co. M. A. Kline | 12.50 17.50 21.25 5.00 15.00 21.25 7.50 | 19.307438 |
| 5 | S½NW¼ Sec. 1, T. 17 S., R. 28 E.- 80 acres | E-9510 11/15/55 HBP | State 12.5 | Atlantic Rich- field Company | Atlantic Richfield Company | 12.5 | R. M. Boice L. C. Harris E. M. Jennings W. G. McCoy W. H. Openshaw C. B. Read C. A. Shuey N. L. Stevens | 12.500 12.500 20.834 12.500 8.333 12.500 8.333 12.500 | 17.587112 |

19.307438

17.587112

State of New Mexico

RECEIVED
NOV 14 1969

HINKLE, BONDURANT & CHRISTY
ROSWELL, NEW MEXICO



Commissioner of Public Lands

November 13, 1969

ALEX J. ARMIJO
COMMISSIONER

P. O. BOX 1148
SANTA FE, NEW MEXICO

Hinkle, Bondurant & Christy
600 Hinkle Building
Roswell, New Mexico 88201

Re: East Red Lake Unit
Eddy County, New Mexico

Gentlemen:

We wish to advise you that the proposed East Red Lake Unit, Eddy County, New Mexico, has been approved as to form and content by the Commissioner of Public Lands, as of this date.

Please correct your Exhibit "B" to read Lease E-10068 Assignment 3, and lease E-9782 Assignment 1. Also may we have a copy of your Operating Agreement.

Very truly yours,

Ted Bilberry
Ted Bilberry, Director
Oil and Gas Department

TB/ML/s

| | |
|-----------------------------|----------------------|
| BEFORE THE | |
| OIL CONSERVATION COMMISSION | |
| Santa Fe, New Mexico | |
| <i>App</i> | Exhibit No. <i>3</i> |
| Case No. <i>4254-4255</i> | |

CLARENCE E. HINKLE
W. E. BONDURANT, JR.
S. B. CHRISTY IV
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

LAW OFFICES
HINKLE, BONDURANT & CHRISTY
600 HINKLE BUILDING
ROSWELL, NEW MEXICO 88201

March 20, 1970

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) MU 3-4691

TELEPHONE (505) 622-6510
POST OFFICE BOX 10

70 MAR 23 AM 8 35

4-224

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

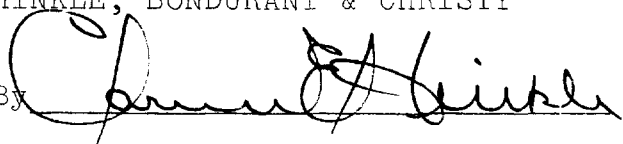
We enclose copy of Unit Agreement for the Development and Operation of the East Red Lake Unit Area, Eddy County, which you will note from the attached certificate has been approved by the Commissioner of Public Lands as of March 16, 1970. Under the terms of the unit, it will be effective as of April 1.

All interests shown on Exhibit "B", both working interests and royalty interests, have been committed to the unit agreement except the interest of R. R. Boice in Tract 5. We have now received word that this interest will also be committed, making 100% commitment. This copy is filed in compliance with Order R-3880 entered in Case No. 4254.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

By



CEH:cs

Enc.

cc: Kincaid & Watson Drilling Company
cc: Pearson-Sibert Oil Co. of Texas