

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 76

ORDER NO. 665

THE APPLICATION OF THE DEKALB AGRICULTURAL ASSOCIATION, INC. FOR AN ORDER OF APPROVAL OF THE UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE BITTER LAKE UNIT AREA WITHIN T. LOS, RANGES 25 and 26 EAST, N. M. P. M., CONTAINING 9,032.38 ACRES MORE OR LESS, CHAVES COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at ten o'clock A. M. June 7, 1946 at Santa Fe, New Mexico before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this Z-day of June, 1946, the Commission having before it for consideration the testimony adduced at the hearing of said case, and being fully advised in the premises;

IT IS THEREFORE ORDERED THAT:

The order herein shall be knor as the:

"BITTER LAKE UNIT AGE_EMENT ORDER"

SECTION 1. (a) The project herein shall be known as the Bitter Lake Unit Agreement, and shall hereinafter be referred to as the Project.

(b) The plan by which the Project shall be operated shall be embraced in the form of unit agreement for the development and operation of the Bitter Lake Unit Area referred to in the petitioner's petition and filed with said petition and such plan shall be known as the Eitter Lake Unit Agreement Plan.

SECTION 2. The Bitter Lake Unit Agreement Plan shall be and is hereby approved.

SECTION 3. (a) The Unit Area shall be:

S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NM $\frac{1}{4}$, S $\frac{1}{2}$ Sec. 1; NE $\frac{1}{3}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 2; NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 10; NE $\frac{1}{4}$, E $\frac{1}{2}$ NM $\frac{1}{4}$, S $\frac{1}{2}$ Sec. 11; All Secs. 12, 13 and 14; E $\frac{1}{2}$ Sec. 15; E $\frac{1}{2}$ Sec. 22; All Secs. 23, 24 and 25; N $\frac{1}{2}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 26; NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 27, T. 10S, R. 25E; All Secs. 6, 7, 18 and 19; Lots 1, 2, E $\frac{1}{2}$ NM $\frac{1}{4}$ Sec. 30, T. 10S, R. 26E, N.M.P.M., Chaves County, New Mexico, contain-ing 9,032.38 acres, more or less.

(b) The Unit Area may be enlarged or diminished as provided in said plan.

SECTION 4. The unit operator shall file with the Commission an executed original, or executed counterparts thereof, of the Bitter Lake Unit Agreement not later than 30 days after the effective date thereof.

SECTION 5. Any party owning rights in the unitized substances who does not commit such rights to said Unit Agreement before the effective date thereof may thereafter become party thereto by subscribing to such Agreement or a counterpart thereof. The Unit Operator shall file with the Commission within 30 days an original of any such counterpart.

SECTION 6. The order herein shall become effective on the first day of the calendar month next following the approval of Commissioner of Public Lands and the Secretary of the Interior and shall terminate ipso facto on the termination of said Unit Agreement. The last Unit Operator shall immediately notify the Commission in writing of such termination.

Done at Santa Fe, New Mexico as of the day and year hereinabove designated.

OIL CONSERVATION COMMISSION

John J. Dempsey, Chairman John E. Miles, Member Spuckel R. R. Spurfier, Secretary

BEFORE THE OIL CONSERVATION COMPLESION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE DEKALB AGRICULTURAL ASSOCIATION, INC. FOR AN ORDER OF APPROVAL OF THE UNIT AGREEMENT FOR THE DEVELOPMENT AND OPER-ATION OF THE BITTER LAKE UNIT AREA WITHIN T. LOS, RANGES 25 and 26 EAST, N.M.P.M., CONTAINING 9,032.38 ACRES, MORE OR LESS, CHAVES COUNTY, NEW MEXICO.

Pursuant to notice by the Commission, duly made and published, setting June 7, 1946 at 10:00 A. M. for hearing in the above-entitled matter, said hearing was convened on said day at said hour in the Coronada Room at La Fonda Hotel, Santa Fe, New Mexico, the Commission sitting as follows:

> Commissioner of Public Lands John E. Miles, Member R. R. Spurrier, Secretary Carl B. Livingston

REGISTER

NAME

COMPANY

ADDRESS

Artesia, N. M. Artesia, N. M.

William B. Macey N. R. Lamb S. W. Ludwick Frank D. Gardner R. J. Heard R. F. Miller W. F. Patterson S. P. Hannifin Foster Morrell E. O. Hemenway E. C. Iden Marshall Rowley John E. Cochran, Jr. William J. Wright Charles R. Allen J. O. Seth W. R. McBride John M. Kelly Clarence Hinkle Roy 0. Yarbrough F. W. Hickman

Oil Conservation Commission State Bureau of Mines

Sinclair Prairie Oil Company "rayburg Oil Company Grayburg Oil Company

U. S. Geological Survey A. T. & S. F. Railway Company A. T. & S. F. Railway Company Carper Drilling Company Maljamar Coop. Rep. Agreement Maljamar Coop. Rep. Agreement Continental Oil Company Petroleum Prod. Ref. & Pro. Co. Petroleum Prod. Ref. & Pro. Co. Independent Geologist Hervey, Dow and Hinkle Oil Conservation Commission Oil Conservation Commission Roswell, N. M. Midland, Texas Artesia, N. M. Artesia, N. M. Santa Fe, N. M. Roswell, N. M. Roswell, N. N. Albuquerque, N. M. Albuquerque, N. M. Artesia, N. N. Artesia, N. M. Artesia, N. N. Ponca City, Okla. Santa Fe, N. M. Santa Fe, N. M. Roswell, N. M. Roswell, N. M. Santa Fe, N. M. Santa Fe, N. M.

Governor Miles:

Contlemen, the Commission is in session, and the Secretary will proceed with the order of business.

Mr. Hinkle:

I am Clarence E. Hinkle of Hervey, Dow and Hinkle, representing the DeKalb Agricultural Association. This is an application by the DeKalb Agricultural Association for the approval of a unit agreement to be known as the Bitter Lake Unit Agreement. The proposed unit area covers approximately 9,032.38 acres situated in Township 10 South, Ranges 25 and 26 East. All of the lands embraced in the proposed area are lands of the United States, with the exception of 120 acres in Section 2, Township 10S, Range 25E, which is State land. The agreement has been executed by all of the owners of the leases and pending applications for leases, except the lands which are embraced in the so-called Bitter Lake Migratory Wildlife Refuge, and there is a question whether leases will be issued for those lands. The area has baretofore been designated by the Director of the U. S. Geological Survey upon the application of the several lease owners as suitable for unitization. Under the terms of the agreement the operator is given authority to carry on necessary operations to explore and develop the unit area. The agreement provides for a test well to be drilled to a depth of 6,500 feet, unless gas or oil is found at a lesser depth. The proposed unit agreement follows substantially the unit agreements which have heretofore been approved by the Commission. That you may have before you the proposed unit area, here is a plat which has heretofore been filed with you. I might say that at this time the DeKalb Agricultural Association has already started a well in Section 13, which is near the center of the proposed

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unit area, and at the present time the well is below 3,500 feet. The geological information upon which this unit was formed was done by Mr. John Kelly, and I would like to have him sworm as a witness.

Mr. John M. Kelly, after being first duly sworn, testified as follows:

Mr. Hinkle:

What is your name?

^{ri}r. Kelly:

John M. Kelly.

Mr. Hinkle:

What is your profession?

Mr. Kelly:

I am a graduate engineer and geologist, and registered to practice in New Mexico.

Mr. Hinkle:

How long have you practiced?

Mr. Kelly:

Ten years.

Mr. Hinkle:

You were formerly the State Geologist?

Mr. Kelly:

That is right.

Mr. Hinkle:

You are familiar with the area involved in the proposed Bitter Lake Unit Agreement?

Mr. Kelly:

I am.

lir. Hinkle:

Have you performed any work in connection with at Agreement?

Mr. Kelly:

Upon information furnished me by Mr. Whelan, who did the magnetometer work, I prepared a contour map of the anticline.

Mr. Hinkle:

I hand you herewith the applicant's Exhibit A, and ask you to state whether that is a duplicate of the map made with the application before the U_{\bullet} S. Geological Survey for the designation of the Unit Area.

Mr. Kelly:

It is.

Mr. Hinkle:

You are familiar with the designation which has been made, and the boundaries as shown by the plat attached to the agreement?

Mr. Kelly:

Yes.

State whether in your opinion the area covers all or substantially all of the geological features.

Mr. Kelly:

I believe it covers all of the features as shown by the geological map and the area map.

Mr. Hinkle:

Are you familiar with the agreement?

Mr. Kelly:

Yes.

Mr. Hinkle:

State whether the operations under this agreement would have a tendency to promote the conservation of oil and gas and the prevention of waste.

^{ri}r. Kelly:

I believe it would promote proper development in the area.

Covernor Miles:

Anyone else want to be heard in this case? If not, the application is granted.

Mr. Livingston:

The next case is No. 77 in the matter of the application of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Black Hills Anticline Unit Area within Townships 17 and 18 South, Ranges 19 and 20 East, N.M.P.N., containing 17,626.62 acres, more or less, Chaves County, New Mexico.

Mr. Hinkle:

I ar Clarence E. Hinkle of Hervey, Dow and Hinkle, and am attorney for the applicant, the Magnolia Petroleum Company. This is the application of the Magnolia Petroleum Company for the approval of the proposed Bitter Lake Anticline Unit Agreement. The unit agreement which has been filed with the Commission contains a plat which shows the proposed unit area. The proposed unit area contains approximately 17,626.62 acres. All of the lands are lands of the United States, except certain lands aggregating 2,170.56 acres. The unit agreement has been signed by the owners of oil and gas leases covering all of the lands, except the owners of two leases, which are a very small portion of the total acreage. The area involved in the agreement was approved by the Director of the U. S. Geological Survey and the Secretary of the Interior as one proper for unitization. The agreement designates the Magnolia Petroleum Company as the unit operator, and under the terms of the unit is given power to carry on all work necessary for the exploration of the area. The operators agree to commence a well within six months after the approval, and drill the same to a depth of 7,000 feet, unless gas or oil is found at a lesser depth. The form follows substantially the same form as heretofore approved by this Commission and the Commissioner of Public Lands. Mr. Steve Hennifin, the District Land Man for Magnolia, is here, and I would like to have him testify.

Mr. S. P. Hannifin, after being first duly sworn, testified as follows:

Mr. Hinkle:

Please state your name.

Mr. Hannifin:

S. P. Hannifin.

Where do you reside?

Mr. Hannifin:

Roswell, New Mexico.

^Mr. Hinkle:

What is your official position?

Mr. Hannifin:

District Land Man for Magnolia Petroleum Company.

Mr. Hinkle:

How long have you been with the Magnolia Petroleum Company?

Mr. Hannifin:

20 years.

Mr. Hinkle:

Are you familiar with the so-called Bitter Lake Anticline Unit Agreement in Chaves County, New Mexico, which is the subject of the proposed unit agreement?

Mr. Hannifin:

Yes, sir.

Mr. Hinkle:

Do you know whether any geological investigation has been made of this area?

Mr. Hannifin:

Several years ago such an investigation was made by J. B. Hedley.

Mr. Hinkle:

Did Mr. Hedley rake a report in connection with the report of the designation of this area before the U. S. Geological Survey?

Mr. Hannifin:

He did, yes.

Mr. Hinkle:

I hand you herewith the report of Mr. J. B. Hedley, marked Exhibit A, on the Bitter Lake Anticline, Chaves County, and ask you whether it is a duplicate of the report filed with the application.

Mr. Hannifin:

It is.

Mr. Hinkle:

Does that map show the geological structure involved?

Mr. Hannifin:

Yes.

Mr. Hinkle:

Do you know whether the unit area covers all of the structures, according to the plat?

Mr. Hannifin:

It does.

Are you familiar with the terms of the unit agreement?

Mr. Hannifin:

Yes, sir.

Mr. Hinkle:

State whether in your opinion the operations under the proposed unit agreement, if a discovery is made, would tend to promote the conservation of oil and the prevention of waste.

Mr. Hannifin:

I believe it would. Yes, sir.

Governor Miles:

Anyone else want to be heard in this case? The application is granted. Next case.

Mr. Livingston:

The next case is No. 78 in the matter of the application of the Petroleum Products Refining and Producing Company for an order of approval of an irregular oil and gas well location in Section 36, T. 18N, R. 9W, Hospah Field, McKinley County, New Mexico, Well No. 48, to be located in the Southeast-Southwest-Southeast quarter of said section, 1220 feet Fast of the center section line, 330 feet North of the South line.

Mr. Sethi

My name is J. O. Seth, and I appear for the Petroleum Products Refining and Producing Company. This is an application to drill this well that I marked on this plat. The field and the development began many years ago, and was drilled on a lO-acre spacing. The old wells were not so located as to be in the center of each lO-acre tract. The proposal of this location is to get 660 feet East of the well already drilled. The lease is a State lease, and nobody would be hurt by the location. I would like to have Mr. McBride sworn.

Ir. W. R. McBride, after being first duly sworn, testified as follows:

Mr. Seth:

Your name, please.

Fir. McBride:

W. R. McBride.

Mr. Seth:

You are an officer of the PetroLeun Products Refining and Producing Company?

Mr. McBride:

Yes, sir.

Mr. Seth: ·

What is your position?

Mr. McBride:

Vice-President.

Fir. Seth:

You know the general location of these wells in the Hospah Done, do you not?

Mr. McBride:

Уез.

Mr. Seth;

That development began many years ago?

Mr. McBride:

I think back in 1928 or 1929.

Mr. Seth:

This application today is to drill the well marked on this plat?

Mr. McBride:

That is well No. 48. The Roman numerals there are the numbers we anticipate drilling, but this is well No. 1 here.

Mr. Seth:

I would like to have this plat marked for attention.

(NOTE: The plat at this point was marked Exhibit A for the record).

Mr. Seth:

The location you seek for this well is merely to keep it at 660 feet?

Mr. McBride:

Yes, and to correct some of the previous locations and in drilling additional wells we can try to keep them all within the proper spacing. They will (1) be the same distance from each other. We may have to come in an ask for another irregular spacing if it is necessary.

Mr. Seth:

Are all the wells on the same State lease owned by your Company?

Mr. McBride:

Yes, sir.

Mr. Seth:

I believe that is all.

Governor Miles:

Anybody else want to be heard in this case? The application is granted.

Mr. Livingston:

The next case is No. 79. The petitioner, through his attorneys, Kiker and Sanchez, has requested that the hearing date upon this petition be vacated and that said petition be set down for a hearing at some future time, owing to the fact that the petitioner, with other operators in the **Bulcher** Basin Gas Field, is endeavoring to formulate a spacing plan to present to the Commission.

The next case is No. 80 in the matter of the petition of Operators' Committee under Maljamar Cooperative Repressuring Agreement for amendment to Order No. 485, as amended by Order No. 595 of the Commission, to provide for the running of back allowable from the Maljamar Cooperative Repressuring area.

My name is John E. Cochran, Jr. I represent Maljamar Cooperative Repressuring Agreement. This is a matter in which the Maljamar Cooperative Repressuring Agreement asks that Order 485, as amended by Order 595 of this Commission to provide for the running of back allowable from the Naljamar Cooperative Repressuring Agreement. Order 485 entered by the Commission in Case 36 on November 14, 1942 was the order which approved the Caljamar Cooperative Repressuring Agreement and approved certain in-put wells and provided for the distribution on allowable on in-put wells to the other wells. Order 595 entered by the Commission on January 8, 1945 amended the original order and set up an allocation production plan for the area. Before that order was entered, and while the study was being made, it was agreed that in the interest of conservation at that time no back allowable would be allowed the area, and there was written on February 11, 1944 a letter by Mr. Kelly, then State Goologist, which provided that no back allowable be run from leases in the Maljamar area. Since that time, however, the allocation plan approved has been so successful that the operators feel that it would not be detrimental to the properties to run some back allowable which occurred for the reasons I will tell you. During November Nalco Refineries, Inc., who was a substantial crude buyer from the area had too much crude, and the Malco discontinued purchasing crude oil from a large number of leases in the area, and following that several operators had no pipe line connections, and a substantial back allowable accumulated by reason of having no outlet for time oil. As of June 1 there were approximately 20,000 barrels of back allowable which have not been run from certain leases within the area. This back allowable 's 's some instances unproduced, and in some cases has been produced and is

re. All of the operators in the area feel that they should be allowed in the the pipe line companies purchasing the oil a back allowable to exceed the rate the Commission allowed the State generally.

wors of leases and wells in this area feel that the way this should ve h. and would be for individual operators to make application to the Operator. - Committee, which is the manager of the Project, and designate the lease and the amount of back allowable that they feel should be run during a current month, which would not exceed the back allowable figure set for other parts of the State by the Commission. This would amount to probably a barrel a day per well, and in some instances three barrels a day per well, and where the oil is in storage a request would be made for permission to run this to the pipe line company, not to exceed ten barrels per day. After the applications have been made to the Operators' Committee by the operators, the operators feel that the Chairman of the Operators' Committee of the Maljamar Cooperative Repressuring Agreement should petition the Commission, or its deputies, administratively for authority to run back allowable during the current month. The reason for suggesting the matter be handled thus is when an operator makes application for back allowable the Operators' Committee will have an opportunity to study the request, and if it is in the interest of conservation the Chairman of the Operators' Committee would file the application with the Commission or its deputy. Due to the fact that the back allowable had its origin about the first of December, the Maljamar Repressuring Agreement asked that the Commission permit it to follow this procedure in requesting authority to run back allowable starting December 1, 1945. Mr. William J. Wright, Engineer for the Maljamar Cooperative Repressuring Agreement is here, and if the members of the Commission would care to ark him any questions he may be sworn. Do you have any questions you want to ask him?

Governor Miles:

Yes, will you bring him forward?

Mr. William J. Wright, after being first duly sworn, testified as follows:

Mr. Cochran:

Will you state your name?

Mr. Wright:

William J. Wright.

Mr. Cochran:

Where do you live?

Mr. ynight:

Maljanar.

Mr. Cochran:

Muat is your occupation?

Mr. Wright:

Project engineer for the Maljamar Cooperative Repressuring Agreement.

Mr. Spurrier:

Mr. Wright, give us an approximation of what percent of the production of any one well would this additional production be; that is, what the back allowable would constitute.

Mr. Wright:

From a daily run it should not exceed 15% of daily allowable, which would be from 1 to 3 barrels per day.

Mr. Cochran:

Mr..Wright, in your opinion, if the method of making up back allowable, as is hereby outlined, is followed, would that constitute underground waste?

Mr. Wright:

Definitely not.

Mr. Livingston:

Back to what period of time is it desired that back allowable be permitted to run?

Mr. Wright:

December 1, 1945.

Governor Miles:

Anyone else want to be heard in this case? If not, the application is granted.

Mr. Livingston:

The next case is 81 in the matter of the petition of the Grayburg Oil Company of New Mexico, Operator of Grayburg Cooperative and Unit Agreement, for an order for transfer of allowable from in-put wells to other wells of same basic leases in the unit area of Grayburg Cooperative and Unit Agreement, Eddy County, New Mexico.

Mr. Miller:

I am Raymond Miller of the Grayburg Oil Company, Artesia. The Grayburg Oil Company is the operator of a unit agreement located on Government lands. In connection with this unit cooperative agreement we are operating a repressuring plant. The last several months we have converted two top allowable wells to in-put wells situated in the NW4SE4 of Section 26, Township 17, Hange 29, the well known as Grayburg-Keeley 9-B. The other well, Western Production Company-Keeley 12-C, is located in SW4NE4 Section 25, Township 17, Hange 29. These wells were top allowable wells at the time they were put on as in-put wells, and since then we have been losing that allowable, and we request this allowable be transferred to other wells situated on the same basic leases. The Keeley B basic lease covers the $S_2^1 SN_4^2$ Section 24, $N_2^1 NN_4^2$ Section 25, $E_2^1 Section$ 26, Township 17, Range 29E. The Western-Keeley C lease covers the $N_2^1 SN_4^1$ and the $NN_4^1 SE_4^1$ of Section 13, $S_2^1 SE_4^1$ Section 24, all of Section 25, except the $N_2^1 NN_4^1$ and the N_2^1 of Section 24, all of Section 25, except the $N_2^1 NN_4^1$ and the N_2^1 of Section 24, all of Section 25, except the $N_2^1 NN_4^1$ and the N_2^1 of Section 24, all of Section 25, except the $N_2^1 NN_4^1$ and the N_2^1 of Section 24, all of Section 25, except the $N_2^1 NN_4^1$ and the N_2^1 of Section 24, all in Township 5, Hange 39E. Mr. R. J. Heard, Vice-President of the Grayburg Oil Company, is present, and I would like to have him heard. Mr. R. J. Head, after being first duly sworn, testified as follows:

Mr. Miller:

Your name is ---

Mr. Heard:

R. J. Heard.

Mr. Miller:

Where do you reside?

Mr. Heard:

Artesia.

Mr. Miller:

Your position with the Crayburg Oil Company?

Mr. Heard:

Vice-President.

Mr. Miller:

Mr. Heard, you have been in charge of the drilling and production of these subject wells?

Mr. Heard:

Yes.

Mr. Miller:

Do you know that these wells are capable of producing top unit allowable at the time they were converted to injection wells?

lir. Heard?

Yes∙

Mr. Miller:

In your opinion, if the wells were reconverted to producing wells at this time, would they produce top unit allowable?

Mr. Heard:

Yes.

Mr. Miller:

Do you think this unit allowable could be produced from other wells on this same basic lease without waste?

Mr. Heard?

Yes.

Mr. Miller:

Is there any question you want to ask Mr. Heard?

Mr. Spurrier:

Approximately how many wells do you intend to allocate this in-put production to, Mr. Heard?

Hr. Heard:

Approximately 17 wells on one basic lease, and I think around 12 or 14

on the othe

Mr. Spurrier:

Then that would be about 2 or 3 barrels per day per well, would it not?

Mr. Heard?

Yes, sir.

Mr. Spurrier:

This would be something less than 10% of each well's production?

Mr. Heard:

Yes, sir.

Mr. Miller:

We are requesting the Commission to make up back allowables on these wells, beginning May 1, 1946; that is, on these two subject in-put wells. We are also requesting the Commission to reserve jurisdiction in this case, that they may act administratively in the case of corrections, etc.

Mr. Spurrier:

You mean by that you contemplate drilling more in-put wells?

Mr. Miller:

Yes, that is right. There are more wells being drilled at the present time on these leases, and it is our intention to convert those to in-put wells.

Covernor Miles:

Anyone else want to be heard in this case? If not, the petition is granted.

Mr. Livingston:

The next case is No. 82 in the matter of the application of I. K. Mestbrook for an order of approval of an irregular oil and gas well location in SWANEA Section 22, T. 20N, Range 11W, N.M.P.M., McKinley County, New Mexico for I. K. Westbrook-Santa Fe Pacific Railroad Company Well No. 1, which location is 1594 feet South of the North line and 2411 feet West of the East line of said section. This well started off as a water well, and coems to be ending up as an oil well.

hr. Iden:

My name is E. C. Iden, and I would like to have Mr. I. K. Westbrook and Mr. E. O. Hemenway sworn.

Mr. E. O. Hemenway, after being first duly sworn, testified as follows:

Mr. Iden:

Your name is E. O. Hemenway?

Mr. Hemenway:

Yes.

Mr. Iden:

You are connected with the Santa Fe Pacific Railroad Company?

Mr. Hemenway:

I am Land Commissioner at Albuquezque.

Mr. Iden:

You are familiar with this application of I. K. Mestbrook?

Mr. Hemenway:

Yes.

Mr. Iden:

The Santa Fe Pacific Railroad Company is the owner of the land on which this well is located?

Mr. Hemenway:

Yes.

Mr. Iden:

State to the Commission Mr. Westbrook's activities with reference to this land, particularly with reference to grazing leases prior to the time he acquired the oil lease.

Mr. Hemenway:

Mr. Westbrook is a livestock operator in this part of McKinley County, and in connection with his livestock operations entered into a contract with a driller to drill him a deep water well, and when he got down a certain distance there was some showing of oil, and he immediately stopped his work on his water well and felt that there might be some advantage in attempting to get an oil well out of this prospect.

Mr. Iden:

You are familiar with the location of the well?

Mr. Hemenway:

It is in Section 22, Township 20 North, Range 11 West. It is in the SW_4^2 of the NE_4^1 .

Mr. Iden:

I believe as shown by the petition, it is 274 feet South of the quarter section line 40-acre subdivision line. Is that correct?

Mr. Hemenway:

That is about it. I think it is 274 feet South of the quarter line and 229 feet East of the West line of that 40-acre tract.

Mr. Idens

Stated in another way, it is 1594 feet South of the North line and 2411 feet West of the East line?

Mr. Hemenway:

Yes, sir.

Mr. Iden:

Did the grazing lease Mr. Westbrook had prior to an oil showing in the water well embrace other lands than this?

Mr. Hemenway:

Yes, as I recall, it took in all oil holdings in that township.

Mr. Iden:

He still has the grazing lease?

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Mr. Hemenway:

He has a purchase contract for the purchase of the surface rights.

Mr. Iden:

After the showing you gave him an oil and gas lease on certain lands for the purpose of protecting him in dvilling the well, further with the hope that he might get oil or gas?

Mr. Hemenway:

Yos.

Mr. Iden:

It covers 160 acres surrounding this prospect?

Mr. Hemenway:

Yes.

Mr. Iden:

Does your company own all of the acreage adjacent to this particular acreage?

Mr. Hemenway:

We own immediately adjacent. Section 16 cornering to the Northwest is a school section. We own the others in the immediate vicinity.

Mr. Iden:

Generally speaking, how far is this from any other producing oil and gas well?

Mr. Hemenway:

Approximately 15 or 18 miles Northwest of any present production.

Mr. Iden:

Do you know the depth of the water well?

Mr. Hemenway:

Approximately 1100 feet.

Mr. Iden:

Do you know of any possible objection in permitting this well to be drilled in this location?

Mr. Hemenway:

No.

Fir. Iden:

I think that is all.

Governor Miles:

What is the approximate distance from this well to the corner of the school section you speak of?

Mr. Hemenway:

About 2900 feet approximately to the Southeast corner of the school section.

Mr. Iden:

Mr. Westbrook, will you take the stand?

Mr. Westbrook, after being first duly sworn, testified as follows:

Mr. Iden:

Your name is I. K. Westbrook?

Mr. Westbrook:

Yes, sir.

Mr. Iden:

You are the petitioner in this matter?

Mr. Westbrook:

Yes, sir.

Mr. Iden:

Where do you live?

Mr. Westbrook:

Crownpoint.

Mr. Iden:

How long have you lived there?

Mr. Westbrook:

29 years.

Mr. Iden:

May are a rancher in that community?

Mr. Westbrook:

Yes, sir, I have been a rancher there 29 years.

Mr. Iden:

You have heard Mr. Hemenway's testimony. Was it correct in all respects? Mr. Westbrook:

Yes, sir.

Mr. Iden:

You might desire to continue the drilling of this well with the hope of getting oil and gas?

Fir. Westbrook:

Yes, I would like to prospect for it.

Mr. Iden:

It was begun as a water well?

Mr. Westbrook:

Absolutely. Near the center of this township.

Mr. Iden:

At what depth did you encounter this oil and gas showing?

Mr. Westbre :

1092 feet.

Mr. Iden:

Is that where the well stands today?

Mr. Westbrook:

Yes, sir. There is quite a bit of oil comes off the water when you draw it.

Mr. Iden:

So far as you know, would it make a commercial well at this time?

Mr. Westbrook:

I do not know. There is quite a little showing, and the driller states it may be a commercial well.

Mr. Iden:

I believe that is all, unless the Commission has some questions.

Mr. Spurrier:

One question, Nr. Westbrook. You have a lease. Now do you have a plugging bond?

Mr. Westbrook:

The bond is accompanying my petition here.

Mr. Livingston:

Nr. Westbrook has on file a \$2500 corporate surety bond to go to a depth not to exceed 1500 feet, but the bond has not been accepted until the Commission grants its order.

Mr. Iden:

Based on that showing, we ask that the petition be granted.

Governor Miles:

Anyone else want to be heard on this case? If not, the application is granted. Meeting dismissed.

I certify that the above is a transcript of the proceedings in this matter as taken from my shorthand notes.

Mary E. Martin

Mary E. Martin, Stenographer

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE DEKALH AGRICULTURAL ASSOCIATION, INC. FAR AN ORDER OF APPROVAL OF THE UNIT AGREEMENT FOR THE DEVELOPMENT AND OPER-ATION OF THE BITTER LAKE UNIT AREA WITHIN T. 10S, RANGES 25 and 26 EAST, N.W.Y.H., CONTAINING 9,032.38 ACRES, MORE OR LESS, CHAVES COUNTY, NEW MEXICO.

Pursuant to notice by the Commission, duly made and published, setting June 7, 1946 at 10:00 A. M. for hearing in the above-entitled matter, said hearing was convened on said day at said hour in the Coronada Room at La Fonda Hotel, Santa Fe, New Maxico, the Commission sitting as follows:

> Commissioner of Public Lands John E. Miles, Member R. R. Spurrier, Secretary Carl B. Livingston

REGISTER

NAME

William B. Macey

N. R. Lamb

S. W. Ludwick Frank D. Gardner

R. J. Heard

R. F. Hiller

W. F. Patterson S. P. Hannifin

Foster Morrell

B. O. Hemermay

Marshall Rowley

William J. Wright

Charles R. Allen

John E. Cochran, Jr.

E. C. Iden

J. O. Seth

N. R. KoBride

John M. Kelly

F. W. Hickman

Clarence Hinkle

Roy O. Yarbrough

COMPANY

Oil Conservation Commission State Bureau of Mines

Sinclair Prairie Oil Company Trayburg Oil Company Grayburg Oil Company

U. S. Geological Survey A. T. & S. F. Railway Company A. T. & S. F. Railway Company Garper Drilling Company Maljamar Coop. Rep. Agreement Maljamar Coop. Rep. Agreement Maljamar Coop. Rep. Agreement Continental Oil Company Petroleum Prod. Ref. & Pro. Co. Petroleum Prod. Ref. & Pro. Co. Independent Geologist Hervey, Dow and Hinkle Oil Conservation Commission Oil Conservation Commission Artesia, N. M. Roswell, N. M. Midland, Texas Artesia, N. M. Artesia, N. H. Santa No, N. N. Roswell, N. M. Roswell, N. N. Albuquerque, N. M. Albuquerque, N. M. Artonia, N. M. Artesia, N. M. Artesia, N. N. Ponca City, Okla. Santa Fe, N. M. Santa Fe, N. M. Roswell, N. M. Roewell, N. M. Santa Fe. N. M. Santa Fe, N. H.

ADDRESS

Artesia, N. N.

Covernor Miles:

Centlemen, the Commission is in session, and the Secretary will proceed with the order of business.

Mr. Hinklet

I am Clarence E. Hinkle of Hervey, Dow and Hinkle, representing the DeKalb Agricultural Association. This is an application by the DeKaib Agricultural Association for the approval of a unit agreement to be known as the Bitter Lake Unit Agreement. The proposed unit area covers approximately 9,032.38 acres situated in Township 10 South, Ranges 25 and 26 East. All of the lands embraced in the proposed area are lands of the United States, with the exception of 120 acres in Section 2, Township 105, Range 258, which is State land. The agreement has been executed by all of the owners of the leases and pending applications for leases, except the lands which are embraced in the so-called Bitter Lake Higratory Wildlife Refuge, and there is a question whether leases will be issued for those lands. The area has heretofore been designated by the Director of the U. S. Geological Survey upon the application of the several lear ; owners as suitable for unitization. Under the terms of the agreement the operator is given authority to carry on necessary operations to explore and develop the wit area. The agreement provides for a test well to be drilled to a depth of 6,500 feet, unless gas or oil is found at a lesser depth. The proposed unit agreement follows substantially the unit agreements which have heretofore been approved by the Commission. That you may have before you the proposed unit area, here is a plat which has heretofore been filed with you. I night say that at this time the PoKalb Agricultural Association has already started a well in Section 13, which is near the center of the proposed unit area, and at the present time the well is below 3,500 feet. The geological information upon which this unit was formed was done by Mr. John Kelly, and I would like to have him sworn as a witness.

Mr. John M. Kelly, after being first duly sworn, testified as follows:

Mr. Hinkle:

What is your name?

nr. Kelly:

John N. Kelly.

Mr. Hinkles

What is your profession?

Mr. Kellyt

I am a graduate engineer and geologist, and registered to practice in New Mexico.

Nr. Hinklet

How long have you practiced?

Mr. Kally:

Ten yours.

Mr. Hinkle:

a were formerly the State Geologist?

Hr. Keily:

That is right.

Mr. Hinkle:

You are familiar with the area involved in the proposed Bitter Lake Unit Agreement?

Mr. Kelly:

I am.

Mr. Hinkler

lave you performed any work in connection with at Agreement?

Mr. Kelly:

Upon information furnished me by Mr. Nhelan, who did the magnetometer work, I prepared a contour map of the anticline.

Hr. Hinkle:

I hand you herewith the applicant's Exhibit A, and ask you to state whether that is a duplicate of the map made with the application before the U. S. Geological Survey for the designation of the Unit Area.

Mr. Kellyt

It is.

Mr. Hinkle:

You are familiar with the designation which has been mode, and the boundaries as shown by the plat attached to the agreement?

Mr. Kellyı

Yes.

Mr. Hirakler

State whether in your opinion the area covers all or substantially all of the geological features.

Mr. Kolly

I believe it covers all of the features as shown by the geological map and the area map.

Mr. Hinkles

Are you failliar with the agreement?

lir. Kelly

Yes.

Mr. Hinkles

State whether the operations under this agreement would have a tendency to promote the conservation of oil and gas and the prevention of waste.

Tr. Kelly

I believe it would promote proper development in the area.

Governor Milless

Anyone else must to be heard in this case? If not, the application is granted.

Mr. Livingston:

The ment same is No. 77 in the matter of the application of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Black Hills Anticline Unit Area within Townships 17 and 18 South, Ranges 19 and 20 East, N.M.P.M., containing 17,626.62 mores, more or less, Chaves County, New Maxico.

lir. Hinkle:

I am Clarence R. Hinkle of Hervey, Dow and Hinkle, and am attorney for the applicant, the Magnolia Petroleuma Company. This is the application of the Magnolia Petroleum Company for the approval of the proposed Bitter Lake inticline Unit Agreement. The unit agreement which has been filed with the Councission contains a plat which shows the proposed unit area. The proposed unit area contains approximately 17,626.62 acres. All of the lands are lands of the United States, except certain lands aggregating 2,170.56 scree. The whit agreement has been signed by the owners of oil and gas leases covering all of the lands, except the owners of two leases, which are a very small portion of the total accorde. The area involved in the agreement was approved by the Director of the U.S. Geological Survey and the Secretary of the Interior as one proper for unitization. The agreement designates the Magnolia PetroLeus Company as the unit operator, and under the terms of the unit is given power to carry on all work necessary for the exploration of the area. The operators agree to cossence a well within six months after the approval, and drill the same to a depth of 7,000 feet, wiless gas or oil is found at a lesser depth. The form follows substantially the same form as heretofore approved by this Commission and the Commissionor of Public Lands. Hr. Steve Mannifin, the District Land Man for Magnolia, is here, and I would like to have his testify.

Mr. S. P. Hannifin, after being first duly sworn, testified as follows:

Mr. Hinkler

Please state your name.

Mr. Hannifin:

S. P. Hannifin.

Where do you reside?

Hr. Hannifini

Rouwell, New Mexico.

¹¹r. Hinkley

What is your official position?

Mr. Hannifin:

District Land Han for Magnelia Petroleum Company.

Hr. Hinkles

How long have you been with the Magnolia Petroleum Company?

Mr. Hannifint

20 years.

Hr. Hinkles

Are you familiar with the so-called Bitter Lake Anticline Unit Agreement in Chaves County, New Mexico, which is the subject of the proposed unit agreement?

Mr. Hannifin:

Yes, air.

Mr. Hinkles

Do you know whether any geological investigation has been made of this area?

Mr. Hannifin:

Several years ago such an investigation was made by J. B. Hedley.

Mr. Hinklet

Did Mr. Hedley make a report in connection with the report of the designation of this area before the U.S. Geological Survey?

Mr. Hannifins

ne diù, yes.

Mr. Hinkler

I hand you herewith the report of Hr. J. B. Hedley, marked Exhibit A, on the Bitter Lake Antioline, Chaves County, and ask you whether it is a duplicate of the report filed with the application.

Mr. Hannifin:

It is.

Mr. Hinkle:

Dees that map show the geological structure involved?

Mr. Hannifins

Yes.

Mr. Kinkle:

Do you know whether the unit area covers all of the structures, according to the plat?

Mr. Hannifin:

It does.

Are you familiar with the torms of the unit agreement?

Mr. Hannifins

Yes, sir.

Mr. Kinkle:

State whether in your opinion the operations under the proposed unit agreement, if a discovery is made, would tend to premote the conservation of oil and the prevention of wastes

Mr. Hannifint

I believe it would. Yes, sir.

Governor Miles:

Anyone clse want to be heard in this case? The application is granted. Next case.

Mr. Livingston:

The next case is No. 78 in the matter of the application of the Petroleum Products Befining and Producing Company for an order of approval of an irregular oil and gas well location in Section 36, T. 188, R. 98, Hospah Field, McKinley County, New Mexico, Well No. 48, to be located in the Southcast-Southwest-Southeast quarter of said section, 1220 feet East of the center section line, 330 feet North of the South line.

Mr. Seth:

My name is J. O. Seth, and I appear for the Petroloum Products Refining and Producing Company. This is an application to drill this well that I marked on this plat. The field and the development began many years age, and was drilled on a 10-acre spacing. The eld wells were not so located as to be in the center of each 10-acre tract. The proposal of this location is to get 660 feet East of the well already drilled. The lease is a State lease, and nebody would be hurt by the location. I would like to have Mr. McBride sworn.

Mr. W. R. McBride, after being first duly sworn, testified as follows:

Mr. Sothi

Your name, please.

Mr. HoBridet

M. R. MoBride.

Hr. Sethi

You are an officer of the Petroleum Products Refining and Producing Company?

Mr. McBridos

Yes, sir.

Mr. Sothi

What is your position?

Mr. Mcarider

Vice-President.

Mr. Seihi

You know the general location of these wells in the Hospah Dome, do you not?

Mr. MoBride:

Yes.

Mr. Soths

That development began many years ago?

Hr. NoBride:

I think back in 1928 or 1929.

Kr. Sotht

This application today is to drill the well marked on this plat?

Hr. HoBrider

That is well No. 48. The Reman numerals there are the numbers we anticipate drilling, but this is well No. 1 here.

Mr. Sotht

I would like to have this plat marked for attention.

(NOTE: The plat at this point was marked Exhibit A for the record).

Hr. Seth:

The location you seek for this well is perely to keep it at 660 feat?

Mr. NoBridet

Yes, and to correct some of the previous locations and in drilling additional wells we can try to keep them all within the proper spacing. They will all be the same distance from each other. We may have to come in and ask for another irregular spacing if it is necessary.

Mr. Sethe

Are all the wells on the same State lease owned by your Company?

Mr. McBride:

Yes, sir.

Mr. Seth:

I believe that is all.

Covernor Miles:

Anybody else want to be heard in this case? The application is granted.

Mr. Livingstont

The next case is No. 79. The petitioner, through his attorneys, Kiker and Sanches, has requested that the hearing date upon this petition be vacated and that said petition be set down for a hearing at some future time, owing to the fact that the petitioner, with other operators in the Fulcher Basin Gas Field, is endeavoring to formulate a spacing plan to present to the Commission.

The next case is No. 80 in the matter of the petition of Operators' Committee under Naljamar Cooperative Repressuring Agreement for amendment to Order No. 435, as amended by Order No. 595 of the Commission, to provide for the running of back allowable from the Maljamar Cooperative Repressuring area.

hr. Cochrant

My name is John H. Cochran, Jr. I represent Kaljamar Cooperative Repressuring Agreement. This is a matter in which the Haljamar Cooperative Represeuring Agreement asks that Order 485, as amended by Order 595 of this Commission to provide for the running of back allowable from the Maljamar Cooperative Repressuring Agreement. Order 485 entered by the Commission in Case 36 on November 14, 1942 was the order which approved the Maljamar Cooparative Repressuring Agreement and approved certain in-put wells and provided for the distribution on allowable on in-put wells to the other wells. Order 595 entered by the Commission on January 8, 1945 amended the original order and set up an allocation production plan for the area. Before that order was entered, and while the study was being made, it was agreed that in the interest of conservation at that time no back allowable would be allowed the area, and there was written on February 11, 1944 a letter by Mr. Kelly, then State Geologist, which provided that no back allowable be run from leases in the Maljamar area. Since that time, however, the allocation plan approved has been so successful that the operators feel that it would not be detrimental to the properties to run some back allowable which occurred for the reasons I will tell you. During November Malco Refineries, Inc., who was a substantial crude buyer from the area had too much crude, and the Malco discontinued purchasing oruse oil from a large number of leases in the area, and following that several operators had no pipe line connections, and a substantial back allowable accumulated by reason of having no outlet for the cil. As of June 1 there were approximately 20,000 barrels of back allowable which have not been run from certain leases within the area. This back allowable is in some instances unproduced, and in some cases has been produced and is in storage. All of the operators in the area feel that they should be allewed to run currently to the pipe line companies purchasing the oil a back allemable at a rate not to exceed the rate the Commission allowed the State generally. All operators of leases and wells in this area feel that the way this should be handled would be for individual operators to make application to the Operators' Committee, which is the manager of the Project, and designate the lease and the amount of back allowable that they feel should be run during a current month, which would not exceed the back allowable figure set for other parts of the State by the Commission. This would amount to probably a barrel a day per well, and in some instances three barrels a day per well, and where the sil is in storage a request would be made for permission to run this to the pipe line company, not to exceed tan barrels per day. After the appli-uations have been made to the Operators' Committee by the operators, the operators feel that the Chairman of the Operators' Committee of the Haljamar Cooperative Repressuring Agreement should petition the Commission, or its deputies, administratively for authority to run back allowable during the current month. The reason for suggesting the matter be handled thus is when an operator makes application for back allowable the Operators! Committee will have an opportunity to study the request, and if it is in the interest of conservation the Chairman of the Operators' Constitue would file the application with the Commission or its deputy. Due to the fact that the back allowable had its origin about the first of December, the Maljamar Repressuring Agree-mant asked that the Commission permit it to follow this procedure in requesting authority to run back allowable starting December 1, 1945. Mr. Hilliam J. Wright, Engineer for the Maljamar Cooperative Repressuring Agreement is here, and if the members of the Commission would care to ask him any questions he may be sworn. Do you have any questions you want to ask him?

Governor Hiles:

Yes, will you bring him forward?

Hr. William J. Wright, after being first duly sworn, testified as follows:

Mr. Cochran:

Hill you state your name?

Hr. Wright:

William J. Wright.

Mr. Cochran:

Where do you live?

Hr. urights

Maljamar.

Mr. Cochrana

Hist is your occupation?

Mr. Wrights

Project engineer for the Maljemar Cooperative Hoproscuring Agreement.

Hr. Spariers

Hr. Wright, give us an approximation of what persent of the production of way one well would this additional production be; that is, what the back allowable would constitute.

Mr. Brights

From a daily run it should not exceed 15% of daily allowable, which would be from 1 to 3 barrels per day.

Mr. Cochrans

Mr. Wright, in your opinion, if the method of making up back allowable, as is horeby outlined, is followed, would that constitute underground waster

Hr. Wrights

Definitely not.

Mr. Livingston:

Back to what period of time is it desired that back allowable be per-

Mra Hrights

December 1, 1945.

Covernor Hiles:

Anyone also want to be heard in this dass? If not, the application is granted.

Hr. Livingston:

The next case is <u>81 in the matter</u> of the potition of the (rayburg Oil Company of New Hexico, Operator of Grayburg Cooperative and Unit Agreement, for an order for transfer of allowable from in-put wells to other wells of same basic leases in the unit area of Greyburg Cooperative and Unit Agreement, Eddy County, New Hexico.

Mr. Miller:

I am Maymond Hillor of the Grayburg Oil Company, Artesia. The Grayburg Oil Company is the operator of a unit agreement located on Government lands. In connection with this unit cooperative agreement we are operating a repressuring plant. The last several months we have converted two top allowable wells to in-put wells situated in the WHSEL of Section 26, Texaship 17, Mange 29, the well known as Grayburg-Keeley 9-B. The other well, Mestern Production Company-Newlay 12-C, is located in SHEREL Section 25, Texaship 17, Mange 29. Those wells were top allowable wells at the time they were put on as in-put wells, and since then we have open losing that allowable, and we request this allowable be transferred to other wells situated on the same basic loases. The Keeley B basic large covers the SAME Section 24, NAME Section 25, E& Section 26, Texaship 17, Mange 29E. The Western-Keeley C lease covers the NAME and the NEWLY of Section 13, SAME Section 24, all of Section 25, except the NAME of Section 13, SAME Section 24, all of Section 25, except the NAME of Section 26, all in Texaship 5, Mange 39E. Mr. N. J. Heard, Vice-President of the Grayburg Oil Company, is present, and I would like to have him heard.

meworn, testified as follows : Hr. R. J. Heard, after being first during

Mr. Milleri

Your name is ----

Mr. Heards

R. J. Heard.

Mr. Millers

Where do you reside?

Mr. Heards

Artesia.

Mr. Hillers

JAN T Your position with the Greatybury Of I

Mr. Heards

Vice-President.

Nr. Millers

.

Mr. Hard, you have been in charge care the drilling and production of these subject wells?

Mro Heards

Yes.

Mr. Hiller:

Do you know that these wells are cape to 1 and of producing top unit allowable at the time they were converted to injecti and

Mr. Heard?

Yes.

hr. miller:

In your opinion, if the wells were recorded to producing wells at this time, would they produce top mentit allower ??

fir. Heardy

Yes.

Mr. Miller:

____roduced from other wells Do you think this unit allowable oild be on this same basic lease without was te?

Mr. Heard?

Yes.

Mr. Hiller:

Mr. Spurrier:

Approximately how many wells do you interest allocate this in-put production to, Mr. Heard?

Mr. Heard:

Approximately 1.7 wells on one bas ic lease . I think around 12 or 14

on the other.

Mr. Spurrier:

Then that would be about 2 or 3 barrels per day per well, would it not?

Mr. Heard?

Yes, sir.

Mr. Spurrier:

This would be something less than 10% of each well's production?

Mr. Heards

Yes, mir.

Mr. Miller s

We are also requesting the Commission to make up back allowables on these wells, beginning May 1, 1946; that is, on these two subject in-put wells. We are also requesting the Commission to reserve jurisdiction in this case, that they many act administratively in the case of corrections, etc.

Mr. Sporrs. mrs

You mamman by that you contemplate drilling more in-put wells?

Mr. Miller :

Yes, that is right. There are more wells being drilled at the present time on the one leases, and it is our intention to convert these to in-put wells.

Governor PEiles:

Anyorne else want to be heard in this case? If not, the petition is granted.

Mr. Livingstons

The resext case is No. 82 in the matter of the application of I. K. Westbrock for an order of approval of an irregular oil (and gas well location in SW1NE1 Section 22, T. 20N, Range 11W, N.H.P., Hokinley County, New Maxie Co for I. K. Westbrock-Santa Fe Pacific Reilro (Cony) ay Well No. 1, which I coation is 1594 feet South of the North line ad 2) feet West of the Facent line of said section. This well started 1 as a water well, and second to be saiding up as an oil well.

Mr. Idens

My manne is E. C. Iden, and I would like to he hr. I. K. Westbrock and Mr. E _ O. Hemonway sworn.

Mr. E. O. Hemenway, after being first duly sworn testified as follows:

Mr. Iden:

Your name is E. O. Hemenway?

Mr. Hestermay:

Y08 **-**

Mr. Idene

You are connected with the Santa Ve Pacific Railroad Company?

Mr. llesonavay:

I am Land Commissioner at Albuquerque.

Mr. Iden:

You are familiar with this application of I. K. Westbrock?

Mr - Homonwayı

Y. 68.

Mr. Iden:

The Santa Fe Pacific Railroad Company is the owner of the land on which the las weell is located?

Mr. Hemenvey

Yes.

Hr. Ident

State to the Commission Mr. Westbrook's activities with reference to this Land, particularly with reference to grazing leases prior to the time he acquired the oil lease.

Hr. Bernethyl

Mr. Westbrook is a livestook operator in this part of HeKinley Comby, and in connection with his livestock operations entered into a contract with a circiller to drill him a deep water well, and when he got down a certain chistence there was some showing of edl, and he immediately stopped his work can bis water well and felt that there might be some advantage in attempting to got an edl well out of this prospect.

Mr. Iden:

Yeas are familiar with the location of the well?

Mr. Hemetmay

It is in Section 22, Township 20 North, Range 11 West. It is in the State of the MEL.

Mr. Ideas

I believe as shown by the petition, it is 274 feet South of the quarter section line 40-acre subdivision line. Is that correct?

Mr. Henerways

That is about it. I think it is 274 fost South of the quarter line and 229 feet Rest of the Host line of that 40-acre tract.

Mr. Idens

Stated in another way, it is 1594 feet South of the North line and 2411 ferent West of the East line?

Mr. Homenwayt

Yes, sir.

Mr. Iden:

Did the grasing lease Mr. Westbrook had prior to an oil showing in the watter well embrace other lands than this?

Fir. Hemonwayt

Yes, as I recall, it took in all oil holdings in that tomship.

Mr. Ident

He still has the grazing lease?

M. Hemanway:

Ho has a purchase montrast for the purchase of the surface rights.

Mr. Idens

After the showing you gave him an oil and gas lease on certain lands for the purpose of protecting him in drilling the well, further with the hope that he might get oil or gas?

Mr. Henenways

I48.

Mr. Ideas

It covers 160 acres surrounding this prospect?

Hr. Hensmay

Tes.

Mr. Iden:

Does your company own all of the acreage adjacent to this particular acreage?

Hr. Hemenwayt

We own immediately adjacent. Section 16 cornering to the Northwest is a school section. We own the others in the immediate vicinity.

Mr. Idens

Generally speaking, how far is this from any other producing oil and gas wall?

Hr. Henekanyt

Approximately 15 or 18 miles Northwest of any present production.

Hr. Idens

D you know the depth of the water well?

Hr. Hemennay's

Approximately 1100 fest.

Mr. Iden:

Bo you know of any possible objection in permitting this well to be drilled in this location?

Mr. Henenay:

No.

Mr. Iden:

I think that is all.

Governor Miles:

What is the approximate distance from this well to the corner of the school section you speak of?

Mr. Henomey:

About 2900 fest approximately to the Southeast corner of the school section.

Mr. Idens

Mr. Hestbrook, will you take the stand?

Mr. Westbrook, after being first duly sworn, testified as follows:

Mr. Ideni

Your name is I. K. Westbrook?

Mr. Westbrook:

Yes, sir.

Mr. Idens

You are the petitioner in this matter?

Hr. Hestbrocks

Yes, sir.

fir. Idens

Waere do you live?

Hr. Usstbrook:

Grownpoint.

Mr. Idens

How long have you lived there?

Itre Hestbrooks

29 years.

Mr. Idens

You are a rancher in that commuty?

Mr. Nestbrooks

Yes, sir, I have been a rancher there 29 years.

Hr. Idens

You have heard Mr. Hemenway's testimony. Has it correct in all respects?

Mr. Heatbrook:

Yes, sir.

Mr. Iden:

You might desire to continue the drilling of this well with the hope of getting oil and gas?

Mr. Heatbrook:

Yes, I would like to prospect for it.

Mr. Ident

It was begun as a water well?

Hr. Westbrook:

Absolutely. Near the center of this township.

Hr. Iden:

At what depth did you encounter this oil and gas showing?

Mr. Hestbrook:

1092 foot.

Mr. Idens

Is that where the well stands today?

Mr. Westbrook:

Yes, sire There is quite a bit of oil comes off the water when you draw it.

Mrs Ident

So far as you know, would it make a commercial well at this time?

Mr. Nestbrooks

I do not know. There is quite a little showing, and the driller states it may be a commercial well.

Mr. Ident

I believe that is all, unless the Cormission has some questions.

Mr. Spurriers

One question, Nr. Kestbreek. You have a lease. Now do you have a plugging bond?

Mr. Nentbrookt

The bond is accompanying my petition here.

Mr. Livingstont

Mr. Nostbrook has on file a \$2500 corporate surety hand to go to a depth not to acceed 1500 feet, but the bond has not been accepted until the Commission grants its order-

Mr. Idens

Based on that showing, we ask that the petition be granted.

Covernor Hilest

Anyone else want to be heard on this case? If not, the application is granted. Meeting dismissed.

I certify that the above is a transpript of the proceedings in this matter as taken from my enorthand notes.

Mary S. Martin, Stonographer

HISPORE THE OIL CONSERVATION CONTINUESION

IN THES DEFINE OF THE APPLICATION OF THE DEHALD AUNICULTURAL ASSOCIATION, INC. YOU TO ODER OF APPROVAL OF THE UNIT AGREEPENT FOR THE DEVELOPMENT AND OPEN-MATION OF THE ULTURE LAKE UNIT AREA WIGHIN T. 103, RANGES 25 and 26 MAST, PLANE.M., CONTAINING 9,032.38 ACRES, MORE OR LESS, CHAVES COUNTY, NEW MEXICO.

Fursuant to notice by the Commission, duly made and published, setting June 7, 1945 at 10:00 c'eleck A. M. for hearing in the above-entitled matter, Said L tring use convened on said day at said hour in the Coronada Room at La Fonda Hotel, Santa Fe, New Mexico, the Commission sitting as follows:

Commissioner of Public Lands, John E. Milus, Member R. R. Spurrier, Secretary Carl B. Livingston

REQISTER

MANE

William B. Macey No R. Lazo S. H. Ludulck Frank D. Gardner R. J. Hoard R. F. Miller W - F. Patter on 5 . P. Flamitin Foster Monall 3. O. Romanney B. 6. Idea Marchall Rowley John He Cooligram, Jr. William J. Wright Cherless R. 111en J. O. Seth V - R. McIndo John H- Kelly Clarence Hinkle ROY 0. Yarbrouch Fe N. ELeknam

011 Conservation Commission State Sureau of Mines

COMPANY

Sinclair Frairie Oil Company Orayburg Oil Company Grayburg Oil Company

U. S. Geological Survey A. T. & S. F. Railway Co. A. T. & S. F. Railway Co. Carper Drilling Company Hal jamar Coop. Rep. Agreement Hal jamar Coop. Rep. Agreement Continental Gil Company Petroleum Prod. Ref. & Pro. Co. Petroleum Prod. Ref. & Pro. Co. Independent Coologist Hervey, Dow and Hinklo Oil Conservation Commission Oil Conservation Commission ADDRESS

Artesia, N. H. Artesta, N. H. Rosmell, H. H. Midland, Texas Artolia, N. M. Artonia, N. M. Canta Fo, N. N. Rosmell, N. M. itomall, N. N. Albuquerque, N. M. Albuquerque, N. M. Artusia, H. N. Artonia, N. N. Artesia, N. N. Ponce City, Okla. Santa Fe, N. M. Santa Fo, N. H. Roswell, N. H. Roswell, N. M. Rebbs, N. H. Santa Fo, P. M.

aovenoa files:

Continuen, the Commission is in session, and the Secretary will proceed with the order of business.

Mr. Hinkler

I an Clarence E. Hinkle of Hervey, For and Kinkle, representing the DoKalb Agricultural Association. This is an application by the Denalb Agricultural Association for the approval of a anit agreement to be known as the slitter lake this Agreement. The proposed unit uses covers approxina boly 9,002. 38 acres situated in Tormship 10 South, Hangos 25 and 26 East. ALL of the lands embraced in the proposed area are lands of the United Status, with the exception of 120 acres in Section 2, Township 103, Range 2522, which is State land. The agreement has been executed by all of the owners of the lesses and perking applications for leases, except the larks which are expressed in the so-called Mitter Lake Migratory Wildlife Hefuge, and there is a question whether leases will be issued for those lands. The eres his heretofore been designated by the Director of the U.S. Goological Survey upon the application of the several lease owners as suitable for mitization. Under the terms of the agreement the operator is given authority to carry an accessary operations to explore and develop the unit area. The agreement provides for a test well to be drilled to a depth of 6,500 foat, unless gas or oil is found at a lesser douth. The proposed wit agreement follows substantially the unit agreements which have heretofore been approved by the Commission. That you may have before you the proposed unit area, here is a plat which has heretofore been filed with you. I might say that at this time the Dekalb Agricultural Association has already started a woll in Section 13, which is near the center of the proposed unit area, and at the present time the well is below 3,500 feet. The geological information upon which this unit was formed was done by Mr. John Kelly, and I would like to have him sworn as a witness.

Mr. John M. Kelly, after being first duly sworn, tostified as follows:

im. Hinkler

What do your name?

Mr. Kally:

John M. Kelly.

Mr. Hinklet

What is your profession?

Hr. Kally:

I am a graduate engineer and geologist, and registered to practice in New Mexico.

Mr. Hinkles

Now long have you practiced?

Mr. Kolly:

Ten ynars,

Mr. Hinkles

You were formerly the State Heologist?

Mr. Kolly:

That is right.

Mr. Hinklet

Are you familiar with the area involved in the proposed Bitter Lake Unit Agreement?

Nr. Kellyt

T am.

My, Minkles

Have you parformed any work in connection with that Agreement?

Mr. Kellys

Upon information furnished so by Mr. Whelen, who did the magnetoseter work, I prepared a countour map of the antioline.

Mr. Hinklos

I hand you herewith the applicant's Exhibit A, and ask you to state whether that is a duplicate of the map made with the application before the U.S. Geological Survey for designation of the Unit Area.

Mr. Kolly:

It is.

Hr. Hinkles

You are familiar with the designation which has been made, and the boundaries as shown by the plat attached to the agreement?

Mr. Kelly:

Yes.

State whether in your opinion the area covers all or substantially all of the geological features.

Mr. Kelly:

I believe it covers all of the features as shown by the geological map and the area map.

Hr. Hinklet

Are you familiar with the agreement?

Mr. Kelly:

Yes.

Nr. Hinklet

State whether the operations under this agreement would have a tendency to promote the conservation of oil and gas and the prevention of waste.

Mr. Kelly:

I believe it would promote proper development in the area.

Governor Milss:

Anyone also want to be heard in this case? If not, the application is granted.

Mr. Livingston:

The next case is No. 77 in the matter of the application of the Magnelia Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Black Hills Anticline Unit Area within Townships 17 and 18 South, Manges 19 and 20 East, N.N.P.M., containing 17,626.62 acres, more or less, Chaves County, New Mexico.

Mr. Hinkles

Mould need;

Block Hills

antichir lim

agreement !!

I am Clarance E. Hinkle of Hervey, Dow and Hinkle, and am attorney for the applicant, the Magnolia Patroleum Company. This is the application of the Magnolia Petroleum Company for the approval of the proposed Bitter Lake Anticline Unit Agreement. The unit agreement which has been filed with the Commission contains a plat which shows the proposed unit area. The proposed unit area contains approximately 17,626.62 acres. All of the lands are lands of the United States, except certain lands aggregating 2,170.56 acres. The unit agreement has been signed by the owners of oil and gas leases covering all of the lands, except the owners of two leases, which are a very small portion of the total acreage. The area involved in the agreement was approved by the Director of the U.S. Geological Survey and the Secretary of the Interior as one proper for unitization. The agreement designates the Magnolia Petroleum Company as the unit operator, and under the terms of the unit is given power to carry on all work necessary for the exploration of the area. The operators agree to commence a well within six months after the approval, and drill the same to a depth of 7,000 feet, unless gas or oil is found at a losser depth. The form follows substantially the same form as heretofore approved by this Commission, and the Commissioner of Public Lands. Mr. Stave Hannifin, the District Land Man for Magnolia is here, and I would like to have him testify.

Hr. S. P. Hannifin, after being first duly sworn, testified as follows:

Mr. Hinkle:

Ploase state your name.

Hr. Hannifint

S. P. Hannifin.

where do you reside?

Mr. Hannifins

Roswell, New Mexico.

Nr. Hinkle:

. What is your official position?

Hr. Hannifin:

District Land Man for Magnolia Patroleum Company.

Mr. Hinkle:

Now long have you been with the Magnolia Petroleum Company?

Mr. Hamifint

20 yr 118.

Mr. Hinklet

J.

Are you familiar with the so-called Bitter Lake Anticline Unit Agreement in Chaves County, New Mexico, which is the subject of the propesed unit agreement?

Mr. Hannifint

Yes, sir.

Mr. Hinklet

Do you know whether any geological investigation has been made of this area?

Mr. Hannifing

Several years ago such an investigation was made by J. B. Hedley.

Mr. Hinkles

Did Mr. Hedley make a report in connection with the report of the designation of this area before the U. S. Geological Survey?

Mr. Hannifint

He did, yes.

Mr. Hinkles

I hand you herewith the report of Mr. J. B. Hedley, marked Exhibit A, on the Bitter Lake Anticline, unaves 'county, and ask you whother it is a duplicate of the report filed with the application.

Hr. Hannifing

It is.

Mr. Hinkles

Does that map show the geological structure involved?

Mr. Hannifine

Yes.

Mr. Hinkler

Do you know whether the unit area covers all of the structures, according to the plat?

No. Hannifin:

It does.

Hr. Hinkles

Are you familiar with the terms of the unit agreement?

Mr. Hennifint

Yos, sir.

Mr. Hinkles

State whether in your opinion the operations under the proposed unit agreement, if a discovery is made, would tend to promote the conservation of oil and the prevention of waste.

ni: Hannifins

I believe it would. Yes, sir.

Governor Miles:

Anyone else mant to be heard in this case? The application is granted. Next case.

Mr. Livingston:

The next case is No. 75 in the matter of the application of the Petrolcum Preducts Refining and Preducing Company for an order of approval of an irregular eil and gas well location in Section 36, T. 18N, R. 9W, Hospah Field, McKinley County, New Mexico, Well No. 48, to be located in the Southeast-Southwest-Southeast quarter of said section, 1220 feet East of the center section line, 330 feet North of the South line.

Hr. Seth:

My name is J. O. Seth, and I appear for the Petroleum Products Hafining and Producing Company. This is an application to drill this well that I marked on this plat. The field and the development began many years ago, and was drilled on a 10-more spacing. The old wells were not to located as to be in the center of each 10-more truct. The proposal of this location is to get 660 flat East of the well already drilled. The lease is a State lease, and nebedy would be hurt by the location. I would like to have Mr. HoBride sworn.

Mr. W. R. HoBride, after being first duly sworn, testified as fellows:

Mr. Seth:

Your name, please.

Hr. Homrides

W. R. MoBride.

Hr. Sothi

You are an officer of the Petroleum Products Refining and Producing Company?

Mr. MoBride:

Yes, Sir.

Mr. Sothi

What is your position?

Mr. HeBride:

Vice-President.

Mr. Sath:

You know the general location of these wells in the Hospah Doze, do you not?

- 5 -
Mr. NoBride:

X05 .

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Mr. Seth:
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That development began many years ago?

Mr. MoBrides

I think back in 1928 or 1929.

Mr. Sethi

This application today is to drill the well marked on this plat?

Mr. NoBridet

That is well No. 48. The Roman mumerals are the numbers we anticipate drilling, but this is well No. 1 here.

Nr. Sethi

I would like to have this plat marked for attention.

(NOTE: The plat at this point was marked Subibit A for the record).

Mr. Seth:

The location you seek for this well is merely to keep it at 660 feet?

Mr. Hobrides

Yes, and to correct some of the previous locations and in drilling additional wells we can try to keep them all within the proper spacing. They will all be the same distance from each other. We may have to come in and ask for another irregular spacing if it is necessary.

Hr. Sethi

Are all the wells on the same State lease owned by your Company?

Mr. Nobrica:

Tes, sir.

Mr. Seth:

I believe that is all.

Governor Hilses

Anybody else want to be heard in this case? The application is granted.

Mr. Livingston:

The next case is No. 79. The petitioner, through his attorneys, Kiker and Saches, has requested that the hearing date upon this petition be vacated and that said petition be set down for a hearing at some future time, owing to the fact that the petitioner, with other operators in the Fulcher Basin Gas Field are endeavoring to formulate a spacing plan to present to the Commission.

The next case is No. 80 in the matter of the petition of Operators' Committee under Maljamar Cooperative Repressuring Agreement for amendment to Order No. 485, as amonded by Order No. 595 of the Commission, to provide for the running of back allowable from the Maljamar Cooperative Repressuring area.

Mr. Coohran:

Hy num is John B. Cochran, Jr. I represent Maljamar Cooperative Hoprossuring Agreement. This is a matter in which the Malianar Cooperative Repressuring Agreement asks that Order 485, as amonded by Order 595 of this Comission to provide for the running of back allowable from the flal jamar cooperative Repressuring Agreement. Order 485 antered by the Commission in Case 36 on November 14, 1942 was the order which approved the Maljamar Coopenitive Representing Agreement and approved certain in-put wells and provided for the distribution on allowable on in-put wells to other wells. Order 595 entered by the Commission on January 3, 1945 amended the original order and set up an allocation production plan for the area. Before that order was entered, and while the study was being made, it was agreed that in the intervist of conservation at that time no back allowable would be allowed the area, and there was written on February 11, 1944 a letter by Hr. Kelly, then State Geologist, which provided that no back allowable be run from leases in the Maljamar area. Since that time, however, the allocation plan approved has been so suscessful that the operators feel that it would not be detrimental to the properties to run some back allowable which occurred for the reasons I will tell you. During November Malco Fierineries, Inc., who we a substantial orule buyer from the area had too much erade, and the Maleo discontinued purchasing crude oil from a large mumber of leases in the area, and following that several operators had no pipe lines connections, and a sub-stantial back allowable accumulated by reason of having no outlet for the oil. At of june 1 there were approximately 20,000 barrols of back allowable which have not been run iron certain leases within the area. This back allowable is in some instances unproduced, and in some cases has been produced and is in storage. All of the operators in the area feel that they should be allowed to renourrently to the pipe line companies purchasing the oil a back allowable at a rate not to exceed the rate the Commands in allowed the State generally. All operators of leases and wells in this area feel that the way this should be handled would be for individual operators to make application to the Operators' Condities, which is the manager of the Project, and designate the lease and the amount of back allowable that they feel should be run during a current month, which would not exceed the back allowable figure set for other parts of the State by the Commission. This would amount to probably a barrel a day per well, and in some instances three barrels a day per well, and where the oil is in storage a request would be made for permission to run this to the pipe line company, not to ercoad ten barrols per day. After the applications have been made to the operators ' Committee by the operators, the operators feel that the Chaizman of the Operators! Committee of the Maljamar Cooperative Repressuring Agreement should pett the the Commission, or its deputies, administratively for authority to run back allowable during the current month. The reason for suggesting the matter be handled thus is when an operator makes application for back allowables the Operators' Committee will have an opportunity to study the request, and if it is in the interest of con-servation the Chairman of the Operators' Committees would fills the application with the Commission or its deputy. Due to the fact that the back allowable had its origin about the first of December, the Maljamar Repressuring Agree-ment asked that the Commission permit it to follow this procedure in requesting authority to run back allowable starting December 1, 1945. Mr. William J. Wright, Engineer for the Maljamar Cooperative sepressuring Agreement is here, and if the members of the Commission would care to ask him any questions he my be sworn. Do you have any questions you want to ask him?

Governor Miles:

Yes, will you bring him forward?

Mr. William J. Wright, after being first duly sworn, testified as follows:

hr. Cochrant

Will you state your name?

Mr. Wright:

William J. Wright.

Mr. Cochrant

Where do you live?

Hr. Wright:

Maljamar.

Mr. Coohrant

What is your occupation?

Mr. Wrighti

Project engineer for the Maljamar Cooperative Repressuring Agreement.

Mr. Spurriers

Mr. Wright, give us an approximation of what percent of the production of any one well would this additional production be; that is, what the back allowable would constitute.

Hr. Wrights

From a daily run it should not exceed 15% of daily allemable, which would be from 1 to 3 barrels per day.

Mr. Cochrani

Hr. Wright, in your opinion, if the method of making up back allowable, as is hereby outlined, is followed, would that constitute underground waste?

Nr. Wright:

Definitely not.

Mr. Livingston:

Back to what period of time is it desired that back allowable be per-

Hr. Wright:

December 1, 1945.

Governor Miles:

Anyone else want to be heard in this case? If not, the application is granted.

Mr. Livingston:

The next case is all in the matter of the petition of the Grayburg Cil Company of New Mexico, Operator of Grayburg Cooperative and Unit Agreement, for an order for transfer of allowable from in-put wells to other wells of same basic leases in the unit area of Grayburg Cooperative and Unit Agreement, Eddy County, New Maxico.

Hr. Hiller:

I an Haymond Miller of the Grayburg Oil Company, Artesia. The Grayburg Oil Company is the operator of a unit agreement located on Government lands. In connection with this unit cooperative agreement we are operating a repressuring plant. The last several months we have converted two top allowable wells to in-put wells situated in the NWSSE? of Section 26, Township 17, Range 29, the well known as Grayburg-Keeley 9-B. The other well, Western Production Company-Kapley 12-C, is located in SW2NE2 Section 25, Township 17, Hange 29. These wolls were top allowable wells at the time they were put on as in-put wells, and since then we have been losing that allowable, and we request this allowable be transforred to other wells situated on the same basic leases. The Kealey B basic loase covers the SaSHA Section 24, Name Section 25, E& Section 26, Tomuship 178, Range 29E. The Western-Keeley C lease covers the NaSW and the NW18E2 of Section 13, 528E4 Section 24, 211 of Section 25, except the Hill and the Wg of Section 26, all in Township S, Range 29E. Hr. R. J. Heard, Vice-President of the Grayburg Oil Company is present, and I would like to have him heard.

Hr. H. J. Heard, after being first duly sworn, testified as follows:

Mr. Killer:

ţ.

£

Your name is ---

Mr. Heardt

R. J. Heard.

Mr. Miller:

where do you reside?

Mr. Heards

Artesia.

Br. Niller:

Your position with the Grayburg Oil Company?

Mr. Heards

Vice-President.

Mr. Milleri

Mr. Heard, you have been in charge of the drilling and production of these subject wells?

Mr. Heard:

Tet.

Mr. Hiller:

Do you know that these wells are capable of preducing top unit allowable at the time they were converted to injection wells?

Mr. Heards

Yes.

Mr. Millers

In your opinion, if the wells were reconverted to producing walls at this time, would they produce top unit allowable?

Mr. Heard:

Yes.

Mr. Milleri

Do you think this unit allowable could be produced from other wells on this same basic lease without waste?

Mr. Hoards

Yas.

Mr. Millort

Is there any question you want to ask hir. Heard?

Kr. Spartisri

Approximately how many wells do you intend to allocate this in-put production to, Mr. Heard?

Mr. Heards

Approximately 17 wells on one basic lease, and I think around 12 or 14

on the other.

Mr. Spuriers

Then that would be about 2 or 3 barrels par day per well, would it not?

Mr. Heards

Yes, sir.

Mr. Spurriers

This would be something less than 10% of each well's production?

Mr. Heards

Yes, sire

Mrs Milleys

We are requesting the Commission to make up back allowables on these wells, beginning May 1, 1946; that is, on these two subject in-put wells. We are also requesting the Commission to reverve jurisdiction in this case, that they may not administratively in the case of corrections, etc.

Mr. Spurriert

You mean by that you contemplate drilling more in-put wells?

Mr. Hiller:

Yes, that is right. There are more wells being drilled at the present time on these leases, and it is our intention to convert those to in-put wells.

Governor Hiloss

Any line also want to be heard in this case? If not, the potition is granted.

Mr. Livingston:

The next case is No. 82 in the matter of the application of I. K. Nestbrook for an order of approval of an irregular oil and gas well location in SW1021 Section 22, T. 20N, Range LLW, N.M.P.M., McKinley County, New Mexico for I. K. Mestbrook-Santa Fe Pacific Railroad Company Well No. 1, which location is 1594 feet South of the North Line and 2411 feet West of the East Line of said section. This well started off as a water well, and secure to be ending up as an oil well.

Hr. Idona

My name is E. C. Iden. I would like to have Mr. I. K. Heatbrook and Mr. E. O. Hemenway sworn.

No. 3. O. Hemenway, after being first duly sworn, testified as follows:

Hr. Idon:

Your name is B. O. Henenway?

Hr. Haushwayi

703.

Hr. Idens

You are connected with the Santa Fo Pacific Bailroad Company?

ifr. lisnomayt

I an Land Commissioner at Albuquerque.

Ar. Idens

You are familiar with this application of I. K. Westbrook?

Av. Hessenways

Tec.

Mr. Ident

The Santa Fa Pacific Railroad Company is the owner of the land on which this woll is located?

Mr. Hemanwayt

168.

Mr. Ideat

State to the Commission Mr. Mestbrook's activities with reference to this land, particularly with reference to grasing leases prior to the time he acquired the oil lease.

Mr. Henenwayt

In. Westbrook is a litestock operator in this part of Nokinley County, and in connection with his livestock operations entered into a contrast with a drillor to drill him a deep water well, and when he got down a certain distance there was some showing of oil, and he immediately stopped his work of his mater well and felt that there might be some advantage in attempting to get an oil well out of this prospect.

Mr. Iden:

You are familiar with the loostion of the well?

Mr. Nouenstay1

It is in Section 22, Township 20 North, Range 11 West. It is in the SW} of the NE2.

Mr. Ideas

I believe as shown by the petition, it is 274 feet South of the quarter section line 40-acre subdivision line. Is that correct?

Mr. Heterways

That is about it. I think it is 274 feat South of the quarter line and 229 feat East of the Mest line of that 40-acre tract.

Mr. Ident

Stated in another way, it is 1594 feet South of the North line and 2411 feet West of the Nast line?

Mr. Hegenway:

Yos, sire

Mr. Ident

Did the grazing lease Hr. Hestbrook had prior to an oil showing in the water well entrace other lands than this?

hr. Revenage

Yes, as I recall, it took in all oil holdings in that township.

Mr. Ident

He still has the grasing lease?

Mr. Homerowayt

He has a purchase contract for the purchase of the surface rights.

fir. Ident

After the showing you gave him an oil and gas lease on certain lands for the purpose of protecting him in drilling the well, further with the hope that he might get oil or gas?

Mr. Homesmeys

Yes.

Hr. Ident

It opvers 160 acres surrounding this prospecty

Mr. Homenways

Yes.

Hr. Idens

Does your company own all of the acreage adjacent to this perticular acreage?

Mr. Hemanways

We own immediately adjacent. Section 16 cornering to the Morthwest is a school section. We own the others in the immediate vicinity.

Mr. Ideal

Generally speaking, how far is this from any other producing eil and gas well?

Mr. Henemayt

Approximately 15 or 18 miles Northwest of any present production.

Mr. Ident

Do you know the depth of the water well?

Mr. Homeswayt

Approximately 1100 feet.

Hr. Ideat

Do you know of any possible objection in permitting this well to be drilled on this location?

Mr. Hemenwayi

No.

Mr. Idens

I think that is all.

Governor Hiles:

What is the approximate distance from this will to the corner of the school section you speak of?

Mr. Hononway:

About 2900 feet approximately to the Southeast corner of the school section.

Mr. Idees

Fire Heatbrook, will you take the stand?

Mr. Wastbrook, after being first duly morn, testified as follows:

Pir. Ideal

Your mans f.s I. K. Hesstbrevokt

Mr. Heatbreak

Yes, mir.

Mr. Ideni

You are the petritionar in this matter?

Mr. Mertbareokt Tet, eir.

Hr. Idens

Where do grow 15.vet

Hr. Westburgeks

Crommpelin C.

iir. Ideas

How long have you lived there?

Hr. Hestborocks

29 3704.18 -

hr. Iden.s

You are a runcher in that community?

Mr. Hostbrooks

Tes, sir, Thave been a runcher there 29 years.

Hr. Idena

Tota have heard Hra Henering's testimony. Was it correct in all respects?

Hr. Kestbrook:

Yes, sir.

hr. Iden:

You sight desire to continue the drilling of this well with the hope of getting oil and gas?

Hr. Hestbrook:

Yes. I wild like to prospect for it.

Mr. Iden:

It may begun as a water well?

Hr. Kostorociki

Absolutely. Hear the center of this tomship.

Hr. Ideni

At mat dep th did you encounts. This oil and gas showing?

Mr. Westbrook

1092 feet.

Mr. Ident

Is that where the well stands today?

Mr. Westbrook?

Yes, sir. There is quite a bit of oil comes off of the water when you drew it.

Mr. Iden:

So far as you know, would it make a commercial well at this time?

Mr. Westbrooks

I do not know. There is quite a little showing, and the driller states it my he a commercial well.

hr. Idens

I believe that is all, unless the Commission has some questions.

Hr. Spurrieri

One question, Mr. Westbrook. You have a lease. Now do you have a plugging bood?

Mr. Hestbrooks

The bond is accompanying my petition here.

Mr. Livingston:

Hr. Hestbrook has on file a \$2500 corporate surely bond to go to a depth mot to exceed 1500 feets, but the band has not been accepted until the commission grants its order.

Mr. Ident

Based on that showing, we ask that the potition be granted.

Governor Hiles

Any one else want to be heard in this case. If not, the application is granted. Neeting disaisecd.

I certify that the above is a transcript of the proceedings in this matter as taken from my shorthand notes.

Mary E. Martin, Stenographior

DEFORE THE OIL CONSERVATION COMPLESSION OF THE STATE OF NEW NEXICO

IN THE MATTER OF THE APPLICATION OF THE DEKALE AGRICULTURAL ASSOCIATION, INC. FOR AN ORDER OF APPROVAL OF THE UNIT AGREEMENT FOR THE DEVELOPMENT AND OPER-ATION OF THE BETTER LAKE UNIT AREA WITHIN T. LOS, RANGES 25 and 26 BAST, N.M.P.H., CONTAINING 9,032.38 ACRES, MORE OR LESS, CHAVES COUNTY, NEW MEXICO.

Pursuant to notice by the Commission, duly made and published, setting June 7, 1946 at 10:00 o'clock A. H. for hearing in the above-ontitled matter, said hearing was convened on said day at said hour in the Coronada Room at La Fonda Hotel, Santa Fe, New Mexico, the Commission sitting as follows:

> Commissioner of Public Lands, John E. Miles, Member R. R. Spurrier, Secretary Carl B. Livingston

REQISTER.

COMPANY

State Bureau of Mines

Oil Conservation Commission

Sinclair Prairie Oil Company

NAME.

William B. Macoy N. R. Lamb S. N. Ludwick Frank D. Gardner R. J. Heard R. F. Miller H. F. Patterson S. P. Hannifin Foster Horrell S. O. Homenmay B. C. Iden Harshall Rowley John R. Cochran, Jr. William J. Wright Charles R. Allen J. O. Seth W. R. McBride John H. Kelly Clarenco Hinkle Roy U. Yarbrough F. H. Hickman

Grayburg Oil Company Grayburg Oil Company U. S. Geological Survey A. T. & S. F. Hailway Co. A. T. & S. F. Hailway Co. Carper Drilling Company Maljamar Coop. Rep. Agreement Maljamar Coop. Rep. Agreement Continental Oil Company Petroleum Prod. Ref. & Pro. Co. Petroleum Prod. Ref. & Pro. Co. Independent Geologist Hervey, Dow and Hinkle Oil Conservation Commission Oil Conservation Commission

ADDRESS

Artesia, M. H. Artesia, N. M. Roswell, N. H. Midland, Texas Artesia, N. N. Artesia, N. H. Santa Fe, N. M. Roswell, H. M. Roswell, N. M. Albuquerque, M. M. Albuquerque, N. N. Artesia, N. H. Artsuis, H. H. Artesia, N. M. Ponca City, Okla. Santa Fe, N. M. Santa Fe, N. M. Roswell, N. M. Roswell, N. M. Hobbs, N. N. Santa Fe, N. N.

flovernor Miles:

Contlemen, the Commission is in session, and the Secretary will proceed with the order of business.

Mr. Hinklos

I am Clarence E. Hinkle of Hervey, Bow and Hinkle, representing the LeXalb Agricultural Association. This is an application by the DeKalb Agricultural Association for the approval of a unit agreement to be known as the Eitter Lake Unit Agreevent. The proposed unit area covers approxinatoly 9,032.38 acros situated in Township 10 South, Ranges 25 and 26 Past. all of the lands embraced in the proposed area are lands of the United States, with the exception of 120 sores in Section 2, Township 103, Hange 251, which is State land. The agreement has been executed by all of the owners of the leases and pending applications for leases, except the lands which are embraced in the so-called Bitter Lake Migratory Wildlife Hefuge, and there is a question whether leases will be issued for those lands. The area has heretofore been designated by the Director of the U.S. Geological Survey upon the application of the several lease owners as suitable for willization. Under the terms of the agreement the operator is given authority to carry on necessary operations to explore and develop the unit area. The agreement provides for a test well to be drilled to a depth of 6,500 feet, unless gas or oil is found at a lesser depth. The proposed unit agreement follows substantially the unit agreements which have heretofore been approved by the Commission. That you may have before you the proposed wit area, here is a plat which has heretefore been filed with you. I night say that at this time the DeKalb Agricultural Association has already started a well in Section 13, which is near the center of the proposed unit area, and the present time the well is 1 ow 3,500 feet. The geological information upon which this unit was formed was done by Mr. John Kelly, and I would like to have him sworn as a witness.

Mr. John H. Kelly, after being first duly sworn, testified as follows:

Mr. Hinkle:

What is your name?

Mr. Kallyı

John H. Kelly.

Mr. Hinkle:

What is your profession?

Mr. Kellyı

I am a graduate engineer and geologist, and registered to practice in New Mexico.

Mr. Hinkles

How long have you practiced?

Mr. Kellyt

Ten years.

Hr. Hinkles

You were formerly the State Geologist?

Hr. Kelly:

That is right.

Mr. Hinkle:

Are you familiar with the area involved in the proposed Bitter Lake Unit Agreement?

Mr. Kelly:

I am.

Mr. Minkler

Have you performed any work in connection with that Agreement?

Mr. Kelly:

Upon information furnished me by Mr. Whelen, who did the magnetometer work, I prepared a countour map of the anticline.

Hr. Hinkle:

I hand you herewith the applicant's Exhibit A, and ask you to state whether that is a duplicate of the map made with the application before the U. S. Geological Survey for designation of the Unit Area.

Mr. Kelly:

It is.

Mr. Hinkles

You are familiar with the designation which has been made, and the boundaries as shown by the plat attached to the agreement?

Mr. Kelly:

Y08.

Mr. Hinkle:

State whether in your opinion the area covers all or substantially all of the geological features.

Mr. Kelly:

I believe it covers all of the features as shown by the geological map and the area map.

Mr. Hinkle:

Are you familiar with the agreement?

Mr. Kelly:

Yes.

Mr. Hinklet

State whether the operations under this agreement would have a tendency to promote the conservation of oil and gas and the prevention of waste.

Mr. Kelly:

I believe it would promote proper development in the area.

Governor Miles:

Anyone else want to be heard in this case? If not, the application is granted.

Mr. Livingston

The next case is No. 77 in the <u>matter</u> of the application of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Black Hills Anticline Unit Area within Townships 17 and 18 South, Ranges 19 and 20 East, N.M.P.M., containing 17,626.62 acres, more or less, Chaves County, New Mexico.

Mr. Hinkle:

I am Clarence E. Hinkle of Hervey, Dow and Hinkle, and am attorney for the applicant, the Magnolia Petroleum Company. This is the application of the Magnolia Petroleum Company for the approval of the proposed Bitter Lake Anticline Unit Agreement. The unit agreement which has been filed with the Commission contains a plat which shows the proposed unit arek. The proposed unit area contains approximately 17,526.62 sores. All of the lands are lands of the United States, except certain lands aggregating 2,170.56 acres. The unit agreement has been signed by the owners of oil and gas leases covering all of the lands, except the owners of two leases, which are a very small portion of the total acreage. The area involved in the agreement was approved by the Director of the U. S. Geological Survey and the Secretary of the Interior as one proper for unitization. The agreement designates the Magnolia Petroleum Company as the unit operator, and under the terms of the unit is given power to carry on all work necessary for the exploration of the area. The operators agree to commence a well within six months after the approval, and drill the same to a depth of 7,000 feet, unless gas or oil is found at a lesser depth. The form follows substantially the same form as heretofore approved by this Commission, and the Commissioner of Public Lands. Mr. Steve Hannifin, the District Land Man for Magnolia is here, and I would like to have him testify.

Mr. S. P. Hannifin, after being first duly sworn, testified as follows:

Mr. Hinkle:

Please state your name.

Kr. Hannifin:

S. P. Hannifin.

Mr. Hinkles

where do you reside?

Mr. Hannifins

Roswell, New Maxico.

Mr. Hinkles

What is your official position?

Mr. Hannifint

District Land Man for Magnolia Petroleum Company.

Mr. Hinkle:

How long have you been with the Magnolia Petroleum Company?

Mr. Hamifin:

20 years.

Mr. Hinkler

Are you familiar with the so-called Bitter Lake Anticline Unit Agreement in Chaves County, New Mexico, which is the subject of the proposed unit agreement?

Mr. Hannifint

Yes, sir.

Mr. Hinkle:

Do you know whether any geological investigation has been made of this area?

Mr. Hannifin:

Several years ago such an investigation was made by J. B. Hedley.

Mr. Hinkles

Did Nr. Hedley make a report in connection with the report of the designation of this area before the U. S. Geological Survey?

Mr. Hannifint

He did, yes.

Mr. Hinkle:

I hand you herewith the report of Mr. J. B. Hedley, marked Exhibit A, on the Bitter Lake Anticline, Chaves County, and ask you whether it is a duplicate of the report filed with the application.

Mr. Hannifin:

It is.

Mr. Hinkle:

Does that map show the geological structure involved?

Mr. Hannifin:

Yes.

Mr. Hinkle:

Do you know whether the unit area covers all of the structures, according to the plat?

Ho. Hannifins

It does.

· · · -

Mr. Hinkle:

Are you familiar with the terms of the unit agreement?

Mr. Hannifin:

Yes, sir.

Mr. Hinkle:

State whether in your opinion the operations under the proposed unit agreement, if a discovery is made, would tend to premote the conservation of oil and the prevention of waste.

Marchifin:

I believe it would. Yes, sir.

Governor Miles :

Anyone alle whent to be heard in this case? The application is granted. Next case.

Mr. Liviagston:

The next case is No. 72 in the matter of the spplication of the Petrolcum Products Refining and Producing Company for an order of appreval of an integular cil and gas well location in Section 36, T. 188, R. 9W, Hospah Field, McKinlay Commity, New Maxico, Well No. 48, to be located in the Southcast-Southwest-Southemat quarter of said section, 1220 feet East of the center section line, 330 feet North of the South line.

Mr. Sethe

My name is J. O. Seth, and I appear for the Petraleum Products Refining and Producing Company. This is an application to drill this well that I marked on this plat. The field and the development began many years ago, and was drilled on a 10-acre spacing. The old wells were not so located as to be in the center of each 10-acre trust. The proposal of this location is to get 560 fest East of the well already drilled. The lease is a State lease, and nobody would be heart by the location. I would like to have Mr. Houseds sworn.

Mr. W. R. McBride, after being first duly sworn, testified as follows:

Mr. Soth:

Your name, plause.

Mr. McBride:

W. R. MeBride.

Mr. Geth:

You are an officer of the Petroleum Products Refining and Producing Company?

Mr. McBride:

les, sir.

Mr. Seth:

What is your position?

Mr. McBride:

Vice-President.

Mr. Seth:

You know the general location of these wells in the Hospah Dome, do you not?

Mr. MoBride:

X48.

Mr. Seth:

That development began many years ago?

Mr. MoBride:

I think back in 1928 or 1929.

Mr. Seth:

This application today is to drill the well marked on this plat?

Mr. MoBride:

That is well No. 48. The Roman muserals are the numbers we anticipate drilling, but this is well No. 1 here.

Nr. Seth:

I would like to have this plat marked for attention.

(HOTE: The plat at this point was marked whibit A for the record).

Mr. Seth:

The lor-tion you seek for this well is merely to keep it at 660 feet?

Mr. HoBride:

Yes, and to correct some of the previous locations and in drilling additional wells we can try to keep them all within the proper spacing. They will all be the same distance from each other. We may have to come in and ask for another irregular spacing if it is necessary.

Mr. Seth:

Are all the wells on the same State lease owned by your Company?

Mr. MoBrides

Yes, sir.

Hr. Seth:

I believe that is all.

Governor Miles:

inybody else want to be heard in this case? The application is granted.

fir. Livingston:

The next case is No. 79. The petitioner, through his attorneys, Kiker and Saches, has requested that the hearing fats upon this petition be vacated and that said petition be set down for a hearing at some future time, owing to the fact that the petitioner, with other operators in the Fulcher Basin (has field are endeavoring to formulate a spacing plan to present to the Commission.

The next case is No. 60 in the matter of the petition of Operators' Cognittee under Maljamar Cooperative Repressuring Agreement for amendment to Order No. 485, as amended by Order No. 595 of the Commission, to provide for the running of back allowable from the Maljamar Cooperative Repressuring area.

Hr. Coohran:

My name is John E. Coohran, Jr. I represent Maljamar Cooperative Repressuring Agreement. This is a matter in which the Hiljamar Cooperative Repressuring Agreement asks that Order 485, as amended by Order 595 of this Commission to provide for the running of back allowable from the Haljamar Cooperative Repressuring Agreement. Order 485 entered by the Commission in Case 36 on November 14, 1942 was the order which approved the Maljamar Cooperative Repressuring Agreement and approved certain in-put wells and provided for the distribution on allemable on in-put wells to other wells. Order 595 entered by the Commission on January 8, 1945 emended the original order and set up an allocation production plan for the area. Before that order was entered, and while the study was being made, it was agreed that in the interest of conservation at that time no back allowable would be allowed the area, and there was written on February 11, 1944 a letter by Mr. Kelly, then State Geologist, which provided that no back allowable be run from leases in the Maljamar area. Since that time, however, the allocation plan approved has been so successful that the operators feel that it would not be detrimental to the properties to run some back allowable which occurred for the reasons I will tell you. During November Malco Refineries, Dac., who was a substantial crude buyer from the area had too much crude, and the Malco discontinued purchasing crude oil from a large number of leases in the area, and following that several operators had no pipe line connections, and a substantial back allowable accumulated by reason of having no outlet for the oil. As of June 1 there were approximately 20,000 barrels of back allowable which have not been run from certain leases within the area. This back allowable is in some instances unproduced, and in some cases has been produced and is in storage. All of the operators in the area feel that they should be allowed to run currently to the pipe line companies purchasing the oil a back allowable at a rate not to exceed the rate the Commission allowed the State generally. All operators of leases and wells in this area feel that the way this should be hundled would be for individual operators to make application to the Operators! Committee, which is the manager of the Project, ar de, gnate the loase and the amount of back allowable that they feel should be remaining a current month, which would not exceed the back allowable figure set for other parts of the State by the Commission. This would amount to probably a barrel a day per well, and in some instances three barrels a day per well, and where the oil is in storage a request would be made for permission to run this to the pipe line company, not to exceed ten barrels per day. After the applications have been made to the Operators! Committee by the operators, the operators feel that the Chairman of the Operators' Committee of the Maljamar Cooperative Repressuring Agreement should petition the Commission, or its deputiss, munistratively for authority to run back allowable during the ourrent month. The reason for suggesting the matter be handled thus is when an operator makes application for back allomable the Operators' Committee will have an opportunity to study the request, and if it is in the interest of conservation the Chairman of the Operators' Committee would file the application with the Commission or its deputy. Due to the fact that the back allowable had its origin about the first of December, The Maljamar Repressuring Agreement asked that the Commission permit it to follow this procedure in requesting authority to run back allowable starting December 1, 1945. Mr. William J. Wright, Engineer for the Maljamar Cooperative Representing Agreement is here, and if the nembers of the Commission would care to ask him any questions he may be sworn. No you have any questions you want to ask him?

Governor Miles:

Yos, will you bring him forward?

Mr. William J. Wright, after being first duly sworn, testified as follows:

Mr. Cochrant

Will you state your name?

Mr. Wright:

William J. Wright.

Mr. Cochrani

Where do you live?

ltr. Wright:

Haljamar.

Mr. Cochrant

What is your occupation?

Mr. Wright:

Project engineer for the Maljamar Cooperative Repressuring Agreement.

Mr. Spurrier:

Mr. Wright, give us an approximation of what parcent of the production of any one well would this additional production be; that is, what the back allowable would constitute.

Mr. Wrights

From a daily run it should not exceed 15% of daily allowable, which would be from 1 to 3 barrels per day.

Mr. Coohran;

Hr. Wright, in your opinion, if the method of making up back allowable, as is hereby outlined, is followed, would that constitute underground waste?

Mr. Wright:

Definitely not.

Hr. Livingston:

Back to what period of time is it desired that back allowable be per-

Mr. Wright:

December 1, 1945.

Governor Hiles:

Anyone else want to be heard in this case? If not, the application is granted.

Mr. Livingston:

The next case is 81 in the matter of the petition of the Grayburg Oil Company of New Mexico, Operator of Grayburg Cooperative and Unit Agreement, for an order for transfer of allowable from in-put wells to other wells of same basic leases in the unit area of Grayburg Cooperative and Unit Agreement, Eddy County, New Mexico.

Mr. Miller:

I am Raymond Miller of the Grayburg Oil Company, Artesia. The Grayburg Oil Company is the operator of a unit agreement located on Government lands. In connection with this unit cooperative agreement we are operating a repressuring plant. The last several months we have converted two top allowable wells to in-put wells situated in the NW4SE4 of Section 26, Township 17, Range 29, the well known as Grayburg-Keeley 9-B. The other well, Western Production Company-Keeley 12-C, is located in SW4NE4 Section 25, Township 17, Range 29. These wells were top allowable wells at the time they were put on as in-put wells, and since then we have been losing that allowable, and we request this allowable be transferred to other wells situated on the same basic leases. The Keeley B basic lease covers the S4SW4 Section 24, N4NW4 Section 25, E3 Section 26, Township 175, Range 29E. The Western-Keeley C lease covers the N4SW4 and the NN4SE4 of Section 13, S4SE4 Section 24, all of Section 25, except the N2NW4 and the W4 of Section 26, all in Township 5, Range 29E. Hr. R. J. Heard, Vice-President of the Grayburg Oil Company is present, and I would like to have him heard.

Mr. R. J. Heard, after being first duly sworn, testified as follows:

Mr. Millor:

Your name is ---

Mr. Heard:

R. J. Heard.

Mr. Miller:

where do you reside?

Mr. Heard:

Artesia.

Mr. Miller:

Your position with the Gruyburg Oil Company?

Mr. Heard:

Vice-President.

Mr. Millert

Mr. Heard, you have been in charge of the drilling and production of these subject wells?

Mr. Heards

Tiz.

Mr. Millers

No you (how that these wells are capable of producing top unit allowable at the time they were converted to injection wells?

Nr. Heard:

Yas.

Mr. Miller:

In your opinion, if the wells were reconverted to producing wells at this time, would they produce top unit allowable?

Mr. Heard:

Yes.

Mr. Miller:

Do you think this unit allowable could be produced from other wells on this same basic lease without waste?

Mr. Hoards

Yes.

Mr. Millor:

Is there any question you want to ask Mr. Heard?

Mr. Spurrier:

Approximately how many wells do you intend to allocate this in-put production to, Mr. Heard?

Mr. Heard:

Approximately 17 wells on one basic lease, and I think sround 12 or 14

on the other.

Mr. Spurrier:

Then that would be about 2 or 3 barrels par day par well, would it not?

Mr. Heards

Yes, sir.

Mr. Spurriers

This would be something less than 10% of each well's production?

Hr. Heards

Yes, sir.

Br. Hillers

He are requesting the Commission to make up back allowables on these welks, beginning May 1, 1946; that is, on these two subject in-put wells. We are also requesting the Commission to reserve jurisdiction in this case; that they may act administratively in the case of corrections, etc.

Mr. Spurrier:

You mean by that you contemplate drilling more in-put wells?

Mr. Miller:

Yes, that is right. There are more wells being drilled at the present time on these leases, and it is our intention to convert those to in-put wells.

Governor Miles:

Any one else want to be heard in this case? if not, the petition is granted.

Mr. Livingston:

The next case is No. 82 in the matter of the application of I. K. Hestbrook for an order of approval of an irregular oil and gas well lecation in SWHME Section 22, T. 20N, Range ILW, N.M.P.M., McKinley County, New Marico for I. K. Westbrook-Santa Ye Pacific Railroad Company Hell No. 1, which location is 1594 feet South of the North Line and 2411 feet West of the East line of a.id section. This well started off as a water well, and seems to be ending up as an oil well.

Hr. Iden:

My name is E. C. Iden. I would like to have Mr. I. K. Mestbrook and Mr. E. C. Hemeneny sworn.

Hr. E. O. Hemenway, after being first duly sworn, testified as follows:

Mr. Ident

Your name is E. O. Hemenway?

Mr. Hemonwayi

Tes.

Mr. Idens

You are connected with the Santa Fe Pacific Railread Company?

Mr. Henoravay:

I am Land Commissioner at Albuquerque.

Mr. Idon:

You are familiar with this application of I. K. Westbrook?

Mr. Honseway:

Yes.

Mr. Iden:

The Santa Fe Pacific Railroad Company is the owner of the land on which this well is located?

Mr. Hemanitay1

Ies.

Hr. Ident

State to the Commission Nr. Hestbrook's activities with reference to this land, particularly with reference to grasing leases prior to the time he acquired the oil lease.

Nr. Remainayt

Mr. Heatbrook is a livestock operator in this part of NoKinley County, and in connection with his livestock operations entered into a contract with a driller to drill him a deep water well, and when he got down a certain distance there was some showing of oil, and he immediately stopped his work on his water well and felt that there might be some advantage in attempting to get an oil well out of this prospects.

Mr. Iden:

Toy, are familiar with the location of the well?

Mr. He innays

It is in Section 22, Township 20 North; Range 11 West. It is in the SW1 of the MB2.

Mr. Idens

I believe as shown by the petition, 16 14 274 feat South of the quarter section line 40-acre subdivision line. Is the correct?

Mr. Hensunay:

That is about it. I think it is 274 feet South of the quarter line and 229 feet East of the West line of that 40-acre tract.

Mr. Idon:

Stated in another way, it is 1594 feet South of the North line and 2411 feet Ment of the East line?

Mr. Hemonwayt

Yes, sir.

Mr. Ident

Bid the grazing lease Mr. Mestbrook had prior to an oil showing in the water well emornee other lands than this?

Mr. Herennayt

Yes, as I recall, it took in all oil holdings in that township.

hr. Idea:

He still has the grazing lease?

Mr. Hemermay:

He has a purchase contract for the purchase of the surface rights. Mr. Iden:

After the showing you gave him an oil and gas lease on cortain lands for the purpose of protecting him in drilling the well, further with the hope that he might get oil or gas?

Mr. Henenways

Yes.

Mr. Iden:

It covers 160 acres surrounding this prospect? Mr. Hemotoway:

Yes.

Mr. Iden:

aoreage?

Dees your company own all of the acreage adjacent to this particular Mr. Homenways

We own immediately adjacent. Section 16 cornering to the Northmost is a school section. We own the others in the immediate visinity. Mr. Iden:

gas well?

Generally speaking, how far is this from any other producing oil and Mr. Homermay:

Approximately 15 or 18 miles Northwest of any present production. Mr. Iden:

Do you know the depth of the water well? Mr. Honomays

Approximately 1100 feet.

Mr. Iden:

drilled on this location?

Do you know of any possible objection in parmitting this well to be Mr. Hemenway:

No.

Hr. Iden:

I think that is all.

Governor Miles:

What is the approximate distance from this well to the corner of the school section you speak of?

Mr. Hemonway:

About 2900 feet approximately to the Southeast corner of the school section.

Mr. Idens

Mr. Westbrook, will you take the stand?

Mr. Westbrock, after being first duly sworn, testified as follows:

6.00.44

hr. Iden:

Your name is I. K. Westbrook?

Mr. Westbrock:

Yes, sir.

Mr. Iden:

You are the petitioner in this matter?

Mr. Mestbrookt Yes, sir.

Mr. Idens 🖓

Where do you live?

Mr. Westbrook:

Crompoint.

Nr. Ident

How long have you lived there?

Mr. Westbrook:

29 years.

Mr. Iden:

You are a rancher in that community?

Mr. Westbrooks

Yes, sir, I have been a rancher there 29 years.

Mr. Ident

Ton have heard Mr. Hemenmay's testimony. Mas it correct in all respects?

Hr. Wastbrooks

Yes, sir.

hr. Idon:

You might desire to continue the drilling of this well with the hope of getting oil and gas?

Mr. Westbrook:

Yes. I would like to prospect for it.

Mr. Iden:

It was begin as a water well?

Mr. Westbrooks

Absolutely. Near the center of this township.

Mr. Idens

At what depth did you encounter this oil and gas showing?

Mr. Hestbrook:

1092 feet.

Mr. Iden:

Is that where the well stands today?

Mr. Westbrook?

Yes, sir. There is quite a bit of oil comes off of the water when you draw it.

Mr. Iden:

So far as you know, would it make a commercial well at this time?

Mr. Hestbrook:

I do not know. There is quite a little showing, and the driller states it may be a commercial well.

Mr. Iden:

I believe that is all, unless the Commission has some questions.

Mr. Sparriers

One question, Nr. Westbrook. You have a lease. Now do you have a pluggie wond?

Mr. Hestbrook:

The bond is accompanying my petition here.

Mr. Livingston:

Hr. Hestbrook has on file a \$2500 corporate surety bond to go to a depth not to exceed 1500 feet, but the bond has not been accepted until the Commission grants its order.

Mr. Iden:

Based on that showing, we ask that the petition be granted.

Governor Hiles:

any one else want to be heard in this case. If not, the application is granted. Neeting diamissed.

I certify that the above is a transcript of the proceedings in this matter as taken from my shorthand notes.

Mary E. Martin 15ary Re Martin, Stonographor

cc: New Mexico Santa Fe,				Mr. Guy Shepard Commissioner of Public Lands State Land Office Santa Fe, New Mexico Dear Mr. Shepard:		J. N. HERVEY HIRAN N. OOW CLARENCE E. WINKLE W. E. BONDURANT. JR. GRORGE H. MUNXER, JR.	
co Oil Conservation Commission , New Mexico					10 X X	LAW OFFICES EY. DOW & I WELL, NEW ME tober 21,	
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LAW OFFICES HERVEY, DOW & HINKLE Roswell, New Mexico

C H, HERVEY HIRAH M, OL CHARENCE E, HIN. 'LE CLARENCE E, HIN. 'LE W, E, BONDURANY, JR GEORGE H, HUNKER, JR

May 22, 1946

Mr. Carl B. Livingston Oil Conservation Commission Santa Fe New Mexico

Dear Mr. Livingston:

This will acknowledge receipt of your letter of May 20th advising that cases No. 76 and 77, being the applications of DeKalb Agricultural Association, Inc., and Magnol's Petrolsum Corporation for approval of the Bitter Lake Unit Agreement and Black Hills Anticline Unit agreement, respectively, have been set for hearing at Santa Fe, on June 7, 1946, at 10 A.M.

The writer expects to be present at the hearing.

Yours very truly, HERVEY, DOW & HINKLE ₿y_

CEH/mds

NOTICE OF FUBLICATION STATE OF NEW MEXICO OH Conservation Commission he Oil Conservation Commission, vided by law, hereby gives notice following bearing to be held at Bar New Marico at 10:00 A. M., June 8: 01 Santa une 7,

New Marico at 10:00 A. M., June 7, 946: Case 76 In the matter of the application of the DeKalb Agricultural Association. Inc. for an order of approval of the Unit Agreement for the development and op-eration of the Bitter Lake Unit Area within T. 108, Range 25 and 26 East. N.M.P.M. containing 9,032.38 acres. more or less, Chares County, New Mexico. Case 77 In the matter of the application of the Magnolis Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Biack Hills Anticime Unit Area withn-in Townships 17 and 18 South, Ranges 19 and 20 East, N.M.P.M. containing 17,626.63 acres, more or less, Chaves County, New Mexico. Case 78 In the matter of the application of the Petroleum Products Refining and Producing Company for an order of ap-proval of an irregular oil and gas well location in Section 36, T. 18N, R. 9W, 1

location in Section 36, T. 18N, R. 9W, Hospah Field, McKinley County, New Mexico, Well No. 48 to be located in the Southeast-Southwest-Southeast quarter of said section, 1220 feet East of the center section line, 330 feet Forth of the South line. Uses 79

of said section, 1220 feet East of the center section line, 330 feet forth of the South line. Case 70 In the matter of the application of the Southern Union Production Com-pany for an order providing for 160-acre spacing for gas wells in the Fulcher Basin Field, consisting of Sections 34 and 35, T. 30N, R. 12W, Bections 1, 2, 3, E% 10, 11, 12 and 13, T. 29N, R. 12W. Sections 7, 17, 16, 19, 20 and 21, T. 29N, Nexico. Case 80 In the matter of the petition of Op-erators' Committee under Maljamar Co-operalive Repressuring Agreement for amendment to Order No. 485, as amend-ed by, Order No. 595 of the Commission, to provide for the running of back al-lowable from the Maljamar Cooperative Repressuring Area. Char 81 In the matter of the petition

Repressuring Area. Case 81 In the matter of the petition of the Grayburg O¹¹ Company of New Mexico Operator of Jiayburg Cooperative and Unit Agreement for an order for trans-fer of allowable from in-put wells to other wells of same basic leases in the unit area of Grayburg Cooperative and Unit Agreement, Eddy County, New Mex-ico.

Unit Agreentent, have been of said Com-Given under the seal of said Com-mission at Santa Fe, New Mexico on May 20, 1946. OIL CONSERVATION COMMISSION OIL CONSERVATION COMMISSION By: R. R. SPURRIER, Secretary

.....

(SEAL) Pub. May 21, 1946.

Bv...

Affidavit of Publication

ł State of New Mexico, ss. County of Şanta Fe

> C. B. Floyd being first duly sworn, I,

declare and say that I am the (Business Manager) (Banaphof the Santa Fe

New mexican, a daily newspaper, published in the English

Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy which is hereto atached, was published in said paper on the machine week

for one time conservice weeksnamthemanastay shanshinin the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, or muse for verkerennerennerennerinterfirst publication being on the one time

21st day of May 19.46, and raber bergadina-

ti mannan, that payment for said advertisement has been (duly made), or (assessed as court costs); that the in dersigned has personal knowledge of the matters and things set forth in this affidavit.

6,08 \$

\$..... \$..... \$....6.08

Subscribed and sworn to before me this 21 At A.D., 194. day of make Notar, Public

Manager

My Commission expires

14, 1949

LEA COUNTY OPERATORS COMMITTEE DRAWER I HOBBS, NEW MEXICO

May 23, 1946

Mr. Carl B. Livingston Oil Conservation Commission Santa Fe, New Mexico

Dear Carl:

This is to acknowledge receipt of notice of

publication for cases #76-77-78-79-80 & 81.

This will be published in the Hobbs Daily

News Sun, as of today.

Yours truly,

WHV:gi

NOTICE OF PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION CONTISSION

The Oil Conservation Commission, as provided by law, hereby gives notice of the following hearing to be held at Santa Fe, New Mexico at 10:00 A. M., June 7, 1946:

Case 76.

In the matter of the application of the DeKalb Agricultural Association, Inc. for an order of approval of the Unit Agreement for the development and operation of the Bitter Lake Unit Area within T. 10S, Ranges 25 and 26 East, N.N.P.M. containing 9,032.38 acres, more or less, Chaves County, New Mexico.

Case 77.

In the matter of the application of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for the development and operation of the Black Hills Anticline Unit Area within Townships 17 and 18 South, Ranges 19 and 20 East, N.M.P.M. containing 17,626.62 acres, more or less, Chaves County, New Mexico.

Case 78.

In the matter of the application of the Petroleum Products Refining and Producing Company for an order of approval of an irregular oil and gas well location in Section 36, T. 18N, R. 9W, Hospah Field, McKinley County, New Mexico, Well No. 48 to be located in the Southeast-Southwest-Southeast quarter of said section, 1220 fest East of the center section line, 330 feet North of the South line.

Case 79.

In the matter of the application of the Southern Union Production Company for an order providing for 160-acre spaling for gas wells in the Fulcher Sasin Field, consisting of Sections 34 and 35, T. 30N, R. 12W, Sections 1, 2, 3, E_2^{\pm} 10, 11, 12 and 13, T. 29N, R. 12W, Sections 7, 17, 18, 19, 20 and 21, T. 29N, R. 11W, N.M.P.M., San Juan County, New Maxico

Case 20.

In the matter of the petition of Operators' Committee under Maljamar Cooperative Hepressuring Agreement for amendment to Order No. 485, as amended by Order No. 595 of the Commission, to provide for the running of back allowable from the Maljamar Cooperative Repressuring Area.

Case Cl.

In the matter of the patition of the Grayburg Oil Company of New Mexico Operator of Grayburg Cooperative and Unit Agreement for an order for transfer of allowable from in-put wells to other wells of same basic leases in the unit area of Grayburg Cooperative and Unit Agreement, Addy County, New Mexico.

Given under the seal of said Commission at Santa Fe, New Mexico on May 20, 1946.

GIL CONSERVATION CONSTSSION

R. R. Spurier, Secretary By:

SEAT:

STATE BUREAU OF MINES & MINERAL RESOURCES Box 871

Santa Je, New Mexico

JOHN M. KELLY

May 20, 1946

Honorable Glarence E. Hinkle Hervey, Dow and Hinkle Roswell, New Mexico

Dear Clarence:

- Re: Case No. 76, Application of DeKalb Agricultural Association, Inc. for an order of approval for development and operation of Bitter Lake Unit Area.
- Re: Cass No. 77, Application of Magnolia Petroleum Corporation for an order of approval for development and operation of Black Hills Anticline Unit Area.

The above-captioned cases have been set for hearing at Santa Fe, New Mexico on June 7, 1946 at 10:00 A. M.

Will you please acknowledge receipt of this notice?

With kindest personal regards.

Yours very truly,

Chief Clerk and Legal Adviser

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NOTICE OF FUBLICATION STATE OF NEW MEXICO Oil Conservation Commission rided by law, hereby gives notice following hearing to be held at Sa New Merico at 15:00 A. M., June

The boltowing that it is to be here at Santa Fe. New Merico at 15:00 A. M., June 7, 1946: Case 76 In the matter of the application of the DeKalb Agricultural Association, Inc. for an order of approval of the Unit Agreement for the development and op-tation of the Bitter Lake Unit Area Lithin T. 106, Range 25 and 26 East, N.M.P.M. containing 9,032.38 acres, more or less, Chaves Counly, New Mexico. Case 77 In the matter of the application of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for this development and operation of the Black Hi'lt Anticline Unit Agreement 17,626.62 acres, more or less, Chaves County, New Mexico. Case 18 In the matter of the application of the Petroleum Products Refining and Producing Company for an order of ap-proval of an irregular oil and gas well location in Section 36. T. Jan R. Buw

Producing Company for an order of ap-proval of an irregular oil and gas well location in Section 35, T. 18N, R. 9W, Hospah Field, McKinley County, New Mexico, Well No. 48 to be located in the Southeast-Southwest-Southeast quarter 71 seld section, 1220 feet East of the center section line, 330 feet North of the Bouthern Union Production Com-pany for an order providing for 160-acre spacing for gas wells in the Fulchet Basin Field, consisting of Sections 34 and 35, T. 10N, R. 13W, Ecctions 1, 2, 3, EV 10, 11, 12 and 13, T. 29N, R. 13W, Sections 7, 10N, R. 13W, Ecctions 1, 2, 3, EV 10, 11, 12 and 13, T. 29N, R. 13W, Sections 7, 17, 18, 19, 20 and 21, T. 29N, R. 11W, N.M.P.M., San Juan County, New Mexico. Case 58 In the matter of the petition of Op-erators' Committee under Maljamar Co-operative Repressuring Agreem-nt for amendment to Order No. 485, as amend-ed by Order No. 385 of the To Commission, to provide for the ruinfing of back al-lowable from the Maljamar Cooperative In the matter of iks petition of the Grayburg Oil Company of New Mexico Operator of Grayburg Cooperative and Unit Agreement for an order for trans-fer of allowable from in-put wells to other wells of same back leases in the unit area of Grayburg Cooperative and Unit Agreement, Eddy County, New Mex-to. Given under the seal of said Com-torion at Santa Fe, New Mexico ou

Unit Agreenters, and too. Oliven under the seal of said Com-mission at Banta Fe, New Mexico on May 20, 1916. OIL CONSERVATION COMMISSION By: R. R. SPURRIER, (SEAL) Becretary.

(8EAL) Pub. May 21, 1946.

By.....

Affidavit of Publication

State of New Mexico, County of Santa Fe

1, C. B. Floyd being first duly sworn,

ss.

declare and say that I am the (Business Manager) (Bilinmin of the Santa ... Fo

New "exican , a daily , ispo, r, published in the English Language, and having a general circulation in the ty and ly of Santa Fe, State of

New Mexico, and being a newspaper duly qualifie to pub. legal notices and advertisements under the provisions of Chapter 167 c the Session Laws of 1937; that the publication, a copy which is hereto atached, was , ublished in said paper of concerning the

for one time communive weeker and seathers a monday refut Schneidskind the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, onganger howersk for

one time weeksmean wuntively on the first publication being on the

toomounding; that payment for said advertisement has been (duly made), or (assessed as count costs); that the undersigned has personal knowledge of the matters and things set forth in this alfidavit.

Manager Subscribed and sworn to before me this 21 At (, A.D., 194. mari day of notice Notary Public

My Commission expires une 14, 1949

me at \$ 6.08

times, \$..... Tax \$.....

\$ 6.08

AFFIDAVIT OF PUBLICATION

County of Chaves State of New Mexico.

I, Thomas G. Summers

Publisher

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement there-

of for a period of _____

One weeks,

beginning with the issue dated

and ending with the issue dated.....

22 May onas ummers ublisher.

Sworn and subscribed to before me

7 え this day of . may . 19. Marie Hum mers

Notary Public.

My commission expires

19.¥ mar 9 (Seal)

Run May 22 NOTICE OF PUBLICATION State of New Mexico Oil Conservation Commission The Oil Conservation Commis-sion, as provided by law, hereby gives notice of the following hear-ing to be held at Santa Fe, New, Mexico at 10:00 a. m., June 7, 1946:

Mexico at 10:00 a. m., June 7, 1946: CASE 76. In the matter of the applica-tion of the DeKalb Agricultural Association, Inc., for an order of approval of the Unit Agreement for the development and opera-tion of the Bitter Lake Unit Area within T. 10S. Ranges 25 and 26 East, N.M.P.M. containing 9,032.38 acres, more or less, Chaves Coun-ty, New Mexico. CASE 77. In the matter of the applica-tion of the Magnolia Petroleum Company for an order of approval of the Unit Agreement for the Black Hills Anticlino Unit Area within Townships 17 and 18 South, Ranges 19 and 20 East, N. M. P. M. containing 17,626.62 acres, more or less, Chaves Coun-ty, New Mexico. Given under the seal of said Commission at Santa Fe, New Mexico, on May 20, 1948. Oil Conservation Commission By: R. R. Spurrier, Secretary.

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STATE BUREAU OF MINES & MINERAL RESOURCES

Box 871

Santa Je, New Mexico

JOHN M. KELLY

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AIR MAIL - SPECIAL DELIVERY

May 20, 1946

The Roswell Daily Record Roswell, New Mexico

Gentlemen:

Re: Notice of Publication - Case Nos. 76 and 77.

Please publish the enclosed notice once, <u>immediately</u>. Please proprieted the notice careful, and send a copy of the paper carrying such notice.

UPON COMPLETION OF THE PUBLICATION, PLEASE SEND PUBLISHER'S AFFIDAVIT.

For payment please submit statement in duplicate, accompanied by voucher executed in duplicate. The vouchers must be signed by a notary in the space provided on the back of the voucher. The necessary blanks are enclosed.

Very truly yours,

Chief Clerk and Legal Adviser

Encl mem

NELÉR CHEROR COO

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CONTINENTAL OIL COMPANY

FAIR BUILDING FORT WORTH 2, TEXAS

H. L. JOHNSTON Regional Manager of Production Southwestern Region November 22, 1957

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Gentlemen:

Enclosed for your file is one copy each of two letters which indicate approval by the United States Geological Survey of the Bell Lake Unit Plan of Development for 1958 and the Initial Participating Area for the Devonian Formation.

Very truly yours,

file 76

HLJ-MP Encs



CORRECTION The preceding ______ documents were incorrectly filmed. They are refilmed following this target. HAD HAND IN WAY 5

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NOV 1 9 1957

Continental Oil Company 1710 Tair Building

Gont Linnen

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On Hovember 19, effective as of April 20, 1999, Acting Elector of the Geological Survey, Arthur A. Baker, approved your application dated October 29 for the 5,747.56-acre initial partitipating eres under the Bell Lake unit egreement, Les County, pating eres under the Bell Lake unit egreement, Les County, Der Marico, Ho. 18-08-001-1066.

Baclosed are two copies of the approved application for your records. It is assumed that you will furnish the State of new Mexico or any other interveted principal with whatever evidence for Mexico or any other interveted principal with whatever evidence

yours,

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CALL OF THE

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RECEL H. L. JOHRST NOV15 195 PERMILES वि र कि



A REPORT ON THE BITTER LAKE UNIT ARKA CHAVES COUNTY, NEW MEXICO BY and the start "

JOHN M. KELLY CONSULTING GROLOGIST

ROSWELL, NEW MEXICO JANUARY 31,1948 THE BITTER LAKE UNIT AREA CHAVES COUNTY, NEW MEXICO

Scope of Report :

The purpose of this report is to describe the structural conditions found in the above mentioned unit area, to be accompanied by a map showing the details of structure as found by magnetometic surveys.

The anticline, which is embraced in the Bitter Lake Unit Area, was discovered by the magnetometer, on a reconmaissance survey conducted by M. Wholan of Artesia, New Mexico. After the reconnaissence discovery the structure was thoroughly Meyped in detail, the work consuming several weeks time during 1945.

ocation

The Bitter Lake Unit Area is located in central Chaves County, New Mexico. Approximately eight miles east of Roswell, in Township 10 South, Ranges 25 and 26 East, N.M.P.M.

Tonography:

The chief physiographic feature of the area is the irregulat bluff that borders the Pecces River on the east and rises 200 to 300 feat above the former flood plain.

The Bitter Lakes Unit Area borders the Pecos River on the east and is, for the greater part, on the top of this bluff. The altitude of the flood area on the Peccs is about 3500 feet rising to 3750 feet on top of the bluff.

A graded main highway from Roevell to Tatum borders the structure on the south and all supplies and equipment can be transported to the area by means of this highway. Two ranch roads running north and south traverse the Unit Area and these roads are serviceable in any weather.

Stratigraphy:

Chalk Bluff Formation

The outcropping rocks are of Permian origin and have been classified by Lang as belonging to the Chalk Eluffs formation. This formation consists of redbeds, salt, hypsum, and anhydrite, it is approximately 1000 feet thick as is shown by the log of the New State Petroleum Company's well in Section 27, "-10-S., R-26-E.

-2-

Chuphdere Formation:

San Andres Limestone Member is from 1200 to 1300 feet thick and is composed almost entirely of limestons, dolomitic limestone and dolomite. The upper part of the formation is largely thin bedded and light gray in color. Huch of it is dolomitic and large parts of both the limestone and dolomitic limestone are argillaceous and very fine grained. The lower part consists of dark gray, thick bedded, massive limestone much of which is coarse grained.

The Gloristta Sandatone member is immediately below the San Andres and is the dividing formation between it and the Teso formation below. This bed is between about 50 and 100 feet thick and consists of cream colored sandstone, with coarse white quartz grains.

Yoso Formation:

The Yeso formation, consisting largely of gypsum and red bads with interbedded shale and sands, is approximately 1900 feet in thickness.

Abo Formation:

Below the Yeso is the Abo formation, consisting of red sands, arkosic material, red shales, and some interbedded lineatone, it is approximately 1000 feat thick.

-3-

livec o Formation :

This formation consists of gray granuler and sedium orystalline gray limestones, in part cherty. In the Dokall Thits & Section 35, N-10-5, R-28-5 or incidel fragments are abundant, fulbulinds are present. This meetion is approximately 300 for in this mes and is the basel Persian penber.

Pro-Permian Formations

Insectiately underlying the Huson is the Magdelema of the Pomicylvanian period and estimated to be 500 feet thick. This for ation consists of drark petroli forous lines stores and several in terbedded mands. Below the Pennsylvanian it is estimated that there is 300 to 400 feet of Pechn forantion, of Devonian aso. This formation correlates of chert and silicional limestories and deplonite.

The Right field Coll 31 Sec tion 18, T-11-5, 2-27-2, dr-filed. through the Devoration and encountered Legneous seterial sate Clouth of 6613 feet.

The above described setion at the Bitter Lake Whit Area. which a total of 6000 feet to be drilled to theroughly test the metroleum possibilities of the sedimentery section which likes above the igneous formation, and ountered in Rich field *s Collid and due to regional dip, will be anountered at a lessor despite on the Bitter Lake Unit Area.

Strazenter i

The structure is that of an anticline, located north and yest of a fissure fault in Township 10 South, Ranges 25 and 26 East. The fault, is no doubt, a small displacement in line with the 3-0 fault; a prosiment feature extending several allos in a northeasterly direction from Township 17 South, Stange 19 East. The Shaffer well, drilled in Section 30, 7-10-5, "-20-5, encountered considerable scalt water in the Cloristic Standatorne, 3045 fact while the New State voll, in Section 37, "-10-5, R-26-7, and only 3% miles cost of the Shuffer Well, was a aid not to have encountered any water in the Cleristic Seudetone est 2223 feet. Promutingly there is a fault between the wells, which seals off the sult we ter encountered in the Shuffer Well. The ampetometer work in the mean bears out this contention.

The antiolinal axis of the structure extends from costion 25, 7-10-3, R-25-2 to Section 12, T-10-3, R-25-3. The apex of the anticline appears to be Located between Sections 12 and 1.3, R-30-5, R-25-N.

The structural dips are rather regular, with a flattening to the sortheast. The extent of structural closure is not detersize blo, but correlative magnetometer readings to a zero game, datum plane shows that the sinimum magnetic closure is over place 75 Sams points; or from plus 100 sammes datum to plus 179 seconds fatum.

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The study of the attached map contoured on magnetic restings given a much better conception of the structure.

Conclusion!

The Bitter Lake Unit Area, being a structural feature, in the Persian sedimentary basin, mapped on magnetic surveys, is deserving of a test for its oil and gas possibilities.

Connervial production may be encountered in one or serveral zones in the Pormian, Pennsylvanian or Devonian forwations. These formations are at present producing in Contensions. New Mexico or Mest Toxas. Novewer, a well about be drilled to the ignoous formation which should be onnountered at a dapth of 8000 feet or less, to adequately test these zones.

Coppositively submitted, Xelly .Tobe Consulting Geologist

-7-







M P LAKE UN17 AREA





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J, M, HERVEY HIRAM M, DOW CLARENCE E, HINKLE W, E, BONDURANT, JR.

GEORGE H. HUNKER, JR.

LAW OFFICES HERVEY, DOW & HINKLE ROSWELL, NEW MEXICO

July 2, 1946

New Mexico Oil Conservation Commission State Capitol Santa Fe, New Mexico

Attention: Carl Livingston

RE: Bitter Lake Unit Agreement

Gentlemen:

We hand you herewith approved copy of the Unit Agreement for the development and operation of the Bitter Lake Unit Agreement. You will recall that this agreement was approved by the Conservation Commission and by the Commissioner of Public Lands on June 7. This agreement was approved by the Secretary of the Interior on June 25, 1946, and became effective on July 1, 1946.

Yours very truly HERVEY, DOW & HINKLE BY G

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CEH:S Encl.

U. S. GEOLOGICAL SURVEY RECEIVED JUN 1 0 1946 ROSWELL, NEW MEXIC

UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION OF THE BITTER LAKE UNIT AREA

OHAVES COUNTY

STATE OF NEW MEXICO

I. Sec. No. 441

This agreement, entered into, as of the $\underline{12}$ day of $\underline{1946}$, 1946, by and between the parties subscribing or conserting hereto, hereinafter called the parties hereto,

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

WHEREAS, the parties hereto are the owners of operating, royalty, or other oil or gas interests in the unit area subject to this agreement;

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent avoidable waste, and secure other benefits obtainable through development and operation of the unit area subject to this agreement under and pursuant to the provisions of sections 17, 27, and 32 of the Act of Congress approved February 25, 1920, entitled "An Act to promote the mining of coal, phosphate, oil, oil shale, gas and sodium on the public domain, "41 Stat. 443, 448, 450, as amended or supplemented by the acts of March 4, 1931, 46 Stat. 1523, and August 21, 1935, 49 Stat. 676; 30 U.S.C. 226, 184 and 189;

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Chap. 88, Laws 1943) to consent to or approve this agreement on behalf of the state of New Mexico, insofar as it covers and includer lands and mineral interests of the State of New Mexico; and WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by an Act of the Legislature (Chap. 72, Laws 1935) to approve this agreement and the conservation provisions hereof;

NOW, THEREFORE, for and in consideration of the premises and the promises hereinafter contained, the parties hereto agree as follows:

ENABLING ACT 1. The Act of February 25, 1920, <u>supra</u>, <u>AND</u> <u>REGULATIONS</u> as amended, and all pertinent regulations heretofore and all pertinent and reasonable regulations hereafter issued thereunder, and not inconsistent with the provisions hereof, including operating regulations, are accepted and made a part of this agreement. Likewise, the Act of the Legislature of the State of New Mexico (Shap. 83, Laws 1943) and the Act of the Legislature of the State of New Mexico (Chap. 72, Laws 1935) and all pertinent regulations issued under said acts are hereby accepted and made part of this agreement.

DEFINITIONS 2. For all purposes of this agreement, certain terms used herein are defined

as follows:

(a) "Secretary" shall mean the Secretary of the Interior of the United States and those persons or agencies duly authorized to act for and in his behalf.

(b) "Supervisor" shall mean the Oil and Gas Supervisor of the United States Geological Survey and those persons or egencies duly authorized to act for and in his behalf.

(c) "Commissioner" shall mean the Commissioner of Fublic Lands of the State of New Mexico.

-2-

(d) "Commission" shall mean the Oil Conservation Commission of the State of New Mexico and those persons duly authorized to act for and in its behalf.

UNIT AREA 3. The following described lands are hereby designated and recognized as constituting the unit area:

SINE, SEINT, SEINT, SI Sec. 1; NEISE, SISE, Sec. 2; NEISE, SISE, Sec. 10; NEI, EINW, SWINW, SI Sec. 11; All Secs. 12,13 and 14; EI Sec. 15; EI Sec. 22; All Secs. 23,24 and 25; NI, NEISW, SEE Sec. 26; NEINEL Sec. 27, T. 10 S., R. 25 E. All Secs. 6, 7, 18 and 19; Lots 1, 2, EINW, Sec. 30, T. 10 S., R. 26 E., N.M. P.M., Chaves County, New Mexico, containing 9,032.38 acres, more or less.

The above described unit area includes certain lands included within the Bitter Lake Migratory Wildfowl Refuge and it is hereby agreed that if such land is committed hereto no wells shall be drilled on said land except with the consent in writing of the head of the Agency having jurisdiction over said Refuge.

The Unit Operator, with the consent of a majority in interest of the Working Interest Owners and subject to the approval of the Secretary, the Commissioner and the Commission, may enlarge the unit area to include other lands believed to be commercially productive of the unitized substances, or shall, subject to approval of the Secretary, the Commissioner and the Commission, diminish the unit area to exclude lands not in any participating area hereunder believed to be barren of the unitized substances.

Exhibit "A" attached hereto is a map on which is outlined the herein established Unit Area, together with the ownership of the land and leases in said area. Exhibit "B" attached hereto is a schedule showing the nature and extent of ownership of oil and gas rights in all land in the Unit Area to which this unit agreement will become applicable by signature hereto, or to a counterpart hereof by the owners of such rights, and land so committed to this agreement is hereinafter referred to as "unitized lands" or "land subject to this agreement". Said exhibits shall be revised by the Unit Operator whenever any change in the Unit Area or ownership of rights render such change necessary, and the revised exhibits shall be filed with the cup.rvisor.

-3-

UNITIZED SUBSTANCES

4. All oil, gas, natural gasoline, and associated fluid hydrocarbons producible from land subject to this agreement, in any and all sands or horizons, are

unitized under the terms of this agreement and hereinafter are called "unitized substances".

UNIT OPERATOR 5. Dekalb Agricultural Association, Inc., with offices at DeKalb, Illinois, is hereby designated as Unit Operator and by signature hereto commits to this agreement all interests in unitized substances vested in it as set forth in the schedule attached hereto marked Exhibit B and agrees and consents to accept the duties and obligations of Unit Operator to conduct and manage the operation of skid unit area for the discovery and development of unitized substances as herein provided. Herein whenever reference is made to the Unit Operator, such reference is understood to mean the unit Operator acting in that capacity and not as an owner of interests in unitizel substances, and whenever reference is made to an owner of unitized substances, such a reference shall be understood to include any interests in unitized substances owned by the Unit Operator.

The Unit Operator shall have the right to resign at any time provided that any well drilled hereunder is placed in a satisfactory condition for suspension, or is satisfactorily abandoned under the Federal Oil and Gas Operating Regulations, if on Federal land, and under the laws of the State of New Mexico, and the rules and regulations of the Commission, if on state or patented land, but no Unit Operator shall so be relieved from the duties and obligations of Unit Operator for a period of three(3) months after notice of intention to relinquish such duties and obligations has been served by him on all other parties hereto and the Secretary and the Commissioner, unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the

-4-

duties and obligations of the Unit Operator prior to the date on which relinouishment by or removal of Unit Operator becomes effective. The parties hereto or a duly oualified new Unit. Operator shall have an option to purchase at its then depreciated market value all or any part of the equipment, material, and appurtenances in or upon the land subject to this agreement. owned and used by the retiring Unit Operator, in its capacity as such operator, or make other arrangements satisfactory to the retiring Unit Operator for the use thereof. Any equipment, material, and appurtenances not so purchased or arranged for as to the use thereof within said time limit and not necessary for the preservation of wells may be removed by the retiring unit Operator at any time within six (6) months after his relinquishment or removal becomes effective, but if not so removed shall become the joint property of the owners of working interest rights in land then subject to this agreement. The termination of any rights as Unit Operator under this agreement shall not of itself terminate any right, title, or interest which the Unit Operator may then have in the unitized substances, but the Unit Operator shall have the right and option in connection with its resignation to reassign or retransfer to its several predecessors in interest all of its interest in the lands and leases severally acquired from them, together with its working interest in the unitized substances, and upon such delivery be discharged from any future liability as a working interest owner hereunder; said reassignments to be effective as to said transferee thereupon, subject, however, to the approval of the Secretary as to transfers of interest in lands of the United States and subject, however, to the approval of the Commissioner as to interests in lands of the State of New Mexico.

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SUCCESSOR UNIT OPERATOR 6.

Whenever the Unit Operator shall discontinue or relinquish his rights as Unit Operator

or shall fail to fulfill his duties and obligations as Unit Operator under this agreement, the owners of the unitized working interests in the participating area on an acreage basis, or the owners of working interests according to their total acreage interest in the unit area until a participating area shall have been established, shall select a new Unit Operator. A majority vote of the working interests so qualified to vote shall be required to select a new Unit Operator; provided that if the majority of the working interests rights which are at any time qualified to vote in selecting a new Unit Operator are owned by one party to this agreement then a vote of at least two owners of working interests qualified to vote shall be required to select a new operator. Such selections shall not become effective until (a) a Unit Operator so selected . shall agree and consent in writing to accept the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Secretary and the Commissioner. In the absence of the selection of an acceptable Unit Operator by the working interest owners within six (6) months after notice by Unit Operator of intention to relinquish its rights as Unit Operator, this Unit Agreement shall automatically terminate.

The Unit Operator shall be subject to removal by the Working Interest Owners in the same manner as herein provided for the selection of a new Unit Operator.

RIGHTS AND OBLIGATIONS OF UNIT OPERATOR Except as hereinafter specified, the exclusive right, privilege and duty of exercising any and all rights of the parties

-6-

signatory hereto which are necessary or convenient for prospecting for, producing, storing, and disposing of the unitized substances are hereby vested in the Unit Operator and shall be exercised by said Unit Operator as provided in this agreement. Acceptable evidence of title to said rights shall be deposited with sold Unit Operator and, together with this agreement, shall constitute and define said Unit Operator's rights, privileges, and obligations in the premises; provided, that nothing herein shall be construed to transfer title to any land, or to any operating agreement or leases, it being understood that under and pursuant to this agreement the Unit Operator, in its cepacity as Unit Operator shall exercise the rights of possession and use vested in the parties hereto only and exclusively for the purposes herein specified. The Unit Operator shall pay all costs and expenses of operations with respect to the unitized land, and no part thereof shall be charged to the royalty owners. The matter of allocation and handling such costs and expenses is left to private arrangement between the Unit Operator and the other working interest owners. The Unit Operator shall render to the owners of unitized interests entitled thereto an account of the operations on unitized lands during the previous calendar month, shall pay in value or deliver to each party entitled thereto a proportionate and allocated share of the products produced hereunder, and account for all costs and benefits of operations under this agreement in conformity with operating agreements, leases or other independent contracts between the Unit Operator and the parties hereto either collectively or independently.

-7-

The development and operation of land subject to this agreement under the terms hereof shall be deemed full performance by Unit Operator of all obligations for such development and operation with respect to each and every part or separately owned tract subject to this agreement, regardless of whether there is any development of any particular part or tract of the unit area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or any of them.

DRILLING 8. Within six (6) months from the TO DISCOVERY effective date of this agreement, Unit Operator shall begin to drill an adequate test well at a location upon the Unit Area to be approved by the Supervisor, if such location is upon lands of the United States, and if upon State lands or patented lands, such location shall be approved by the Conmission, and having commenced such operations shall thereafter continue drilling dilligently to a depth not less than 6500 feet unless oil or gas which can be produced in paying quantities is encountered in said well at a lesser depth or unless, at a lesser depth, an igneous or metamorphic formation or some other condition or formation is encountered which would render further drilling inadvisable or impracticable. If said first well, drilled as aforesaid, fails to encounter the unitized substances, Unit Operator or his successor shall thereupon commence within six (6) months after the completion of the former well, and drill, one at a time, additional wells unril a productive well is

-8-

completed to the satisfaction of the Supervisor and Commissioner, or until it is reasonably proved that the unitized land is incapable of producing the unitized substances; provided that the Secretary and Commissioner may grant extension of time for the commencement of any such well; and provided further that nothing herein contained shall preclude any Operator from effectively resigning as provided in Section 5 hereof before any obligation to commence a second or subsequent well accrues hereunder, and be relieved of the obligation to commence such well. Upon failure to comply with the drilling requirements of this section the Secretary may, after reasonable notice, declare this unit agreement terminated.

- 4. - 1

PLAN OF FURTHER 9. Within sixty (60) days from completion of a DEVELOPMENT AND OPFRATION well capable of producing the unitized substances as aforesaid, Unit Operator shall submit for the approval of the Supervisor, the Commissioner, and the Commission an acceptable plan of development for the Unit Area, which plan or a subsequent modification thereof, when so approved shall constitute the further drilling and operating obligations of Unit Operator. Reasonable diligence shall be exercised by the Unit Operator in complying with the drilling and p ducing obligations of the approved plan of development and said plan shall, subject to like approval be modified or supplemented in whole or in part from time to time as may be required to meet changed conditions or to protect the interests of all parties to this agreement and the further obligations of the Unit Operator shall be conformed thereto; provided that in no event shall the operator under any such plan, or otherwise, be under any ooligation to drill any well to any formation that does not afford a fair possibility for encountering the unitized substances in paying quantities. Well drilling operations including well completions, producing practices and well abandonments, shall be in accordance with the Plan of Development and Operation. All operations thereunder shall be subject to the approval of the Supervisor as to wells on federal land and by the Commission for wells on state and private land.

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During any period when it shall appear that an acceptable plan of development cannot be adopted because of the inability of the Supervisor, the Commissioner and the Commission to agree upon the terms thereof, the Unit Operator may, in accordance with the applicable regulations referred to in Section 1 hereof, proceed with reasonable diligence to drill other wells to determine the limits of production and to develop the productive portion of the unit area, and may and shall operate all productive wells in conformity with good operating oractices, and the conservation principies of this agreement.

10. Upon completion of a productive PARTICIPATION AFTER well as aforesaid, Unit Operator DISCOVERY shall submit for the approval of the Secretary, the Commissioner and the Commission a schedule of lands based on subdivisions of the public land survey, including all subdivisions one-half or more of the acreage of which is then regarded as reasonably proved to be productive of unitized substances in paying quantities; all land in said schedule, when approved, to constitute a participating area effective as of the date of first production. Said schedule shall set forth the percentage acreage interest of each owner of rights in the participating area thereby established. Such percentage acreage interest shall govern the ellocation of production from and after the date the participating area becomes effective. With the approval of the Secretary, Commissioner and the Commission, a separate participating area may be established for any separate deposit of unitized substances or for any group of such deposits. The participation areas so established shall be enlarged

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from time to time in like manner and subject to like approval whenever such action appears proper as a result of further drilling operations to include additional land then regarded as reasonably proved to be productive in paying quantities, and a new schedule of percentage acreage interests conformable thereto shall thereupon be fixed. The effective date of any such enlargement shall be the first of the month next following the month in which the well is completed which demonstrates the propriety of the enlargement, and any unitized substances theretofore produced from such well shall be allocated to the lease on which the well is drilled. A well shall be deemed completed when equipped and successfully tested for production, all of which shall be done diligently. No land once included in a participating area shall be excluded from such participating area on account of depletion of the unitized substances the efrom, or for any cause save loss of title. It is the intent of this Section that a participating area shall at all times represent as nearly as possible the area known or reasonably estimated to be productive in paying quantities; but, regardless of any increase in the participating area, nothing herein contained shall be construed as requiring any retroactive apportionment of any sums accrued or paid for production obtained prior to the effective date of increase of the participating area.

Until a participating area or areas has or have been established as herein-provided, or in the absence of agreement at any time between the Unit Operator, the Secretary, the Commissioner, and the Commission as to the proper boundaries of a participating area, the portion of all payments affected by such absence of agreement, except the royalties due the United States and the State of New Mexico, may be impounded in a mutually acceptable bank.

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ALLOCATION OF PRODUCTION --ROYALTIES 11.

Except as provided in Section 12, all

unitized substances produced under this agreement, except any part thereof used for production and development purposes thereunder, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of land of the participating area, and for the purpose of determining any benefits that accrue on an acreage basis as a result of operations under this agreement, each such tract shall have allocated to it such percentage of said production as its area bears to the said participating area. Unitized substances produced from any participating area and used in confirmity with good operating practice under an approved plan of operation for repressuring or cycling in any participating area shall be free from any royalty charge. If Unit Operator introduces gas obtained from sources other than the unitized substances into any participating area hereunder for use in repressuring, stimulation of production or increasing ultimate recovery in conformity with a plan first approved by the Supervisor, the Commissioner and the Commission, a like amount of gas, with due allowance for loss or shrinkage thereof from any cause, may be drawn from the formation into which the gas was introduced, royalty free as to dry gas but not as to the products extracted therefrom, provided that such withdrawal shall be at such time as may be provided in the plan of operation or as may otherwise be consented to by the Supervisor, the Commissioner and the Commission, as conforming to good petroleum engineering practice, and provided further that such right of withdrawal shall terminate on the termination of the unit.

Except as otherwise herein provided, royalties shall be paid or delivered as provided by existing leases or contracts,

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at the lease or contract rate upon the unitized substances allocated to the lease or tract. Settlement shall be made on or before the 20th day of each month for the unitized substances produced during the preceding calendar month. Such royalties shall be paid by the party operating the wells, but nothing herein shall operate to relieve the lessees, or any of them, of their obligation to pay rentals and royalties under the terms of their respective leases.

The right is hereby secured to the United States and the State of New Mexico under existing or future laws and regulations to elect to take their respective royalty shares in kind or value.

DEVELOPMENT	- 12
OR OPERATION	
ON NON-PARTICI-	
PATING LAND	

 $C_{\rm c}$

Any party hereto other than Unit Operator owning or controlling a majority of the working interest rights in

any unitized tract included in the non-participating area having thereon a regular well location in accordance with a well-spacing pattern established under an approved plan of development and operation may drill a well at such location at his own expense, unless within 90 days of receipt of notice from said party of his intention to drill the well Unit Operator elects and commences to drill such well in like manner as other wells are drilled by Unit Operator under this agreement.

If such well is not drilled by Unit Operator and results in production such that the land upon which it is situated may properly be included in a participating area, the party paying the cost of drilling such well shall be reimbursed one hundred fifty percent (150%) of the average cost of drilling similar producing wells in the unitized area, and the well

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shall be operated pursuant to the terms of this agreement all as though the well had been drilled by the Unit Operator.

If any well drilled by Unit Operator or by an owner of working interest rights as provided in this section obtains production insufficient to justify inclusion in a participating area of the land on which said well is situated, said owner of working interests at his election, within 30 days of determination of such insufficiency, shall be wholly responsible for and may operate and produce the well at his sole expense and for his sole benefit. If such well was drilled by Unit Operator, said owner of working interests shall pay the Unit Operator a fair salvage-value price for the casing and other equipment left in the well.

Wells drilled at the sole expense of any party other than Unit Operator or produced at his sole expense and for his sole benefit shall be subject to the drilling and producing requirements of this agreement the same as though drilled or produced by Unit Operator; and royalties in amount or value of production from any such well as well as rental charges, if any, shall be paid as specified in the lease affected, unless otherwise authorized in writing by the lessor.

RENTAL AND ROYALTY PAYMENTS 13.

The Unit Operator, on behalf of the respective 1 usees, shall pay, or at

the election of the Secretary of the Interior as to Federal leases and at the election of the Commissioner as to State leases shall deliver in kind, all royalties and shall pay all rentals due the United States and the State of New Mexico respectively, on account of operations by Unit Operator on unitized land and shall distribute the cost

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thereof to the appropriate parties conformably with their respective rental and royalty obligations; provided, that nothing herein contained shall operate to relieve the lessees, or any of them, of their obligation to pay rentals and royalties under the terms of their respective leases.

On request of any party, Unit Operator at its election shall pay other royalties on his behalf in accordance with a schedule furnished by him and charge the cost thereof to his account; provided, that Unit Operator shall incur thereby no responsibility to any royalty owner, but such responsibility shall be and remain an obligation of the parties requesting payment thereof.

GOVERNMENT ROYALTIES AND RENTALS 14. Royalty due the Unites States on account of unitized Federal land shall be computed

as provided in the operating regulations and paid as to all unitized substances on the basis of the amounts thereof allocated to such land as provided herein at the rates specified in the respective Federal leases; provided, that, for leases on which the royalty rate depends on the daily average production per well, said average production for any participating area shall be determined in accordance with the operating regulations as though all the unitized land within the same participating area were a single consolidated lase, and provided that during the period of the national emergency declared by the President May 27, 1 9 4 1, Proclamation No.2487, 55 Stat. 1647, upon a determination by the Secretary of the Interior that a new oil or gas field or deposit has been discovered by virtue of a well or wells drilled under this agreement, the royalty on production. from such new field or

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deposit allocated to Federal land subject to this agreement at the time of such discovery shall, during the 10-year period following the date of such discovery, be paid in value or delivered in kind at a flat rate of $12\frac{1}{2}$ per centum unless a lower rate is prescribed in the lease.

Rental for land of the United States subject to this agreement at the rates specified in the respective Federal leases shall be paid, suspended, or reduced as determined by the Secretary of the Interior, pursuant to applicable law and regulations.

<u>CONSERVATION</u> 15. Operations and production of unitized substances shall be conducted so as to

provide for the most economical and efficient recovery of said substances to the end that maximum yield may be obtained without waste, as defined by or pursuant to State or Federal law or regulation; and shall be limited to such production as can be put to beneficial use with adequate realization of fuel and other values.

DRAINAGE 16. Unit Operator shall take appropriate and adequate measures to prevent drainage of unitized substances from unitized land by wells on land not subject to this agreement, or, with the approval of the Secretary as to federal interests and of the Commissioner as to state interests, and at the election of the Unit Operator as to private interests, pay a fair and reasonable compensatory royalty, as determined by the Supervisor as to federal interests, and the Commissioner as to state interests subject to this agreement and by agreement between the Unit Operator and royalty owners, as to private interests.

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LEASES AND CON-TRACTS CONFORMED TO AGREEMENT 17. The parties hereto or consenting hereto holding interests in

leases embracing unitized land of the United States or of the State of New Mexico consent that the Secretary and Commissioner, respectively, may, and said Secretary and Commissioner, by their approval of this agreement, do hereby establish, alter, change or revoke the drilling, producing, and royalty requirements of such leases and the regulations in respect thereto, to conform said requirements to the provisions of this agreement, but otherwise the terms and conditions of said leases shall remain in full force and effect.

Owners and lessors of orivately owned lands or of interests therein, including royalty interests, and including their heirs, executors, administrators, successors and assigns, by subscribing or consenting to this agreement, in person or by attorney in fact, do hereby severally agree that the respective leases covering their several lands or interests therein, may be and remain in force and effect for the respective primary terms therein stated, and so long thereafter as oil or gas may be produced therefrom in quantities sufficient to justify the cost of production; and also in the event that any of the land embraced in any such lease is during the primary term of such lease included within a participating area duly selected and approved under this unit plan of development, so that each owner becomes entitled to a share in the proceeds of production from the participating area, payable at the respective lease rates on the production allocated on an acreage basis to the portion of the lease within the particicating area, then each such lease is hereby extended, without

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further delay rental obligation, as to the land embraced therein which is so included in such participating area, for the full term of this unit plan as herein stated.

The Secretary, Commissioner and, except as otherwise provided in the preceding paragraph of this Section, all parties hereto further determine, agree and consent that during the effective life of this agreement, drilling and producing operations performed by the Unit Operator upon any unitized land will be accepted and deemed to be operations under and for the benefit of all unitized leases subject hereto; that no such lease shall be deemed to expire by reason of failure to produce wells situated on land therein embraced; that if a discovery of a valuable deposit of unitized substances is made anywhere on the unitized land, each such lease in effect on or after the date of such discovery shall be deemed to continue in force and effect as to land in the unit area, as long as unitized substances are produced anywhere on unitized land in paying quantity; that prior to such discovery of unitized substances anywhere on unitized land, the expiration date of each unitized lease embracing lands of the United States shall be the date prescribed in such lease subject to such proferential right to a new lease as may be authorized by law; and the suspension of all operations and production on the unitized land pursuant to direction or consent of said Secretary and Commissioner shall be deemed to constitute such suspension pursuant to such direction or consent with respect to each such lease, and that no lease shall expire on account of such suspension, as to land in the unit area.

The parties hereto or consenting hereto, holding interests in leases subject to this agreement embracing

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lands other than those of the United States or of the State of New Mexico or holding interests in any other agreements that involve oil and gas rights in lands in the Unit Area, consent and agree, to the extent of their respective interests, that all such leases and agreements shall conform to the provisions of this agreement.

OOVENANTS The covenants herein shall be construed 18. RUN WITH LAND to be covenants running with the land to the extent of the interests of the parties hereto until this agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee, or other successor in interest and as to federal land, shall be subject to approval by the Secretary, and as to lands of the State of New Mexico, shall be subject to the approval of the Commissioner. No transfer of any interest in and to any of the unitized lands or affecting the production therefrom shall be binding upon the Unit Operator until the first day of the next calendar month after the Unit Operator has been furnished with an original, photostatic or certified copy of the instrument of transfer.

EFFECTIVE 19. This agreement shall become effective DATE ANU TERM on the first day of the calendar month next following approval by the Secretary of the Interior and the Commissioner, provided however that nothing herein shall be construed to waive or limit the right of the Commission to approve this agreement pursuant to applicable state law. Except as otherwise provided as to private leases by the second paragraph of Section 17 hereof, this agreement shall terminate on December 31, 1949, unless (1) such date of

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expiration is extended by the Secretary and the Commissioner; or (2) a valuable discovery of unitized substances has been made on unitized land, in which case the agreement shall remain in effect as long as unitized substances can be produced from the unitized land in paying quantities; or (3) it is reasonably determined prior to the expiration of the fixed term or any extension thereof that the unitized land is incapable of commercial production of unitized substances, and, after notice of intention to terminate the agreement on such ground is given by Unit Operator to all parties In interest at their last known address the agreement is terminated with the approval of the Secretary of the Interior and the Commissioner; or (4) it is terminated as provided in section 6 or 8 hereof. This agreement may be terminated at any time by consent of the owners of not less than 75 per centum, on an acreage basis, of working interests signatory hereto with the approval of the Secretary and the Commissioner.

RATE OF PROSPECT- 20. All production and the disposal ING, DEVELOPMENT, AND PRODUCTION thereof, shall be in conformity with allocations, allotments and quotas made or fixed by the Commission under any State Statute; provided however that the Secretary is vested with authori - pursuant to the amendatory acts of Congress of March 4, 1931, and August 21, 1935, supra, to alter or modify from time to time in his discretion the rate of prospecting and development, and, within the limits made or fixed by the Commission to modify the quantity and rate of production under this agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof

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and the public interest to be sorved thereby to be stated in the order of alteration or modification; provided further that no such alteration or modification shall be effective as to any lands of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Commissioner and as to any lands of the State of New Mexico or privately owned lands subject to this agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

UNAVOIDABLE DELAY 21. All obligations under this agreement requiring Unit Operator to commence or continue drilling or to operate on or produce oil or gas from any of the lands covered by this agreement shall be suspended while, but only as long as, the Unit Operator is prevented from complying with such obligations, in whole or in part, by strikes, lockouts, acts of God, Federal, State or municipal law or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to the matters herein enumerated or not.

CONFLICT 22. Neither the Unit Operator nor the work-OF ing Interest Owners nor any of them shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability for delay or failure in whole or in part to comply therewith to the extent that said Unit Operator, Working Interest Owners or any of them are hindered, delayed, or prevented from complying therewith

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reason of failure of Unit Operator to obtain the joint consent of the representatives of the United States and the representatives of the State of New Mexico in and p bout any matter or thing concerning which it is required herein that Such joint consent be obtained. The parties hereto and consenting hereto, including the Commission, agree that all powers and authority vested in the Commission in and by any provisions of this contract are vested in the Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico. DISCRIMINAT ION The Unit Operator expressly agreed ducted hereunder, it shall not discriminate against any that in any and all operations conemployee or applicant for employment because of race, creed, color, or national origin and shall require an identical provision to be included in all subcontracts. SUBSEQUENT JOINDER Any person owning rights in the area who does not commit such rights hereto prior to the unitized substances within the unit effective date hereof, may thereafter become parties hereto

by subscribing this agreement, and if such parties are working interest owners they shall also subscribe the operating contract and comply with all terms and conditions therein set forth.

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COMMITMENT OF STATE LANDS

25. This agreement provides for approval hereof by the Commissioner

and the Commission, and in addition contains provisions authorizing the Commissioner and the Commission to exercise certain functions. It is hereby understood and agreed that, in view of the small percentage of State lands in the unit area which may be committed hereto, the Commissioner and Commission will exercise none of the functions prescribed in this agreement, except as to operations on State lands, until such time as said State lands, or a portion thereof, are included in an approved participating area.

In the event the Commissioner or Commission should not approve this agreement it shall nevertheless be effective upon approval by the Secretary of the Interior and thereupon all of the provisions of this agreement pertaining to the functions of the Commissioner or Commission shall be of no effect.

<u>COUNTERPARTS</u> 26. This agreement may be executed in any number of counterparts with the same force and effect as if all parties had signed the same document.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed and have set opposite their respective names the date of execution.

-22(a)

L.T. Lewis Ceris Date anders /v ioma 1. Date "Jullare 11. Bal al Date richall Ø]] Date \$18/46 Date Xlock, 120 Date Date Date Date Date Date DEKALB AGRICULTURAL ASSOCIATION, INC., ₩ 5/77/46 Date ΒY ATTEST Secretary

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APPROVAL - CERTIFICATION - DETERMINATION

Purcuant to the Statutory authority in the Secretary of the Interior, under the act approved March 4, 1931, 46 Stat. 1523, and the act approved August 21, 1935, 49 Stat. 674, amending the act approved February 25, 1920, 41 Stat. 437; 30 U.S.C. 226, 184 and 189, in order to secure the proper protection of the public interest, I hereby take the following action this 25⁻⁻⁻ day of 2000, 1946.

- A. Approve the attached agreement for the development and operation of the Bitter Lake Unit Area.
- B. Determine and certify that the plan of development and operation contemplated in said agreement is for the purpose of more properly conserving oil or gas resources of said unit area and is necessary or advisable in the public interest.
- C. Certify that each and every losse heretofore or hereafter issued for lands of the United States subject to, or which may hereafter become subject to, said agreement shall be excepted in determining holdings or control under the provisions of any section of the Act of Congress approved February 25, 1920, and amendments thereto.

Acting Secretary of the Interior

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STATE OF	NEW MEXICO
COUNTY OF	onavre -

6

On this 18 day of May 1946 before me personally appeared L.T.Lewis and wife Netlie T. Lewis, Thomas T. Sanders, Jr., and wife Dora Danders, to me known to be the person a described in and who executed the foregoing instrument, and acknowledged that the ferecuted the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires actober 3, 1949

STATE	OF _	NEA MET	(100)
COUNTY	OF	CHAVES	3

On this 18 day of Kay , 194 6, before me personally appeared Bonnie H. Matlock and Husband Bruce K. Natlock Hatlock to me known to be the person B described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act end deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: Metaber 3, 1949

NEW MEXICO

aus Notary Public

Notary Public

STATE OF CHAVES COUNTYOF

day of May 194 8 before me Edith 0, Haroball and husband Sam Mershall 18 On this personally appeared to me known to be the person " to me known to be the person described in and who executed the foregoing instrument, and acknowledged that the y executed the same as their free pot and dood

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: Kelober 3, 1949

free act and deed.

Notary Public

-25-

STATE OF NEW MEXICO COUNTY OF CHAVES

On this 10 day of , 194<u>6</u>, before me May_ personally appeared Bellert and when to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires altalini 3, 1949

are Notary Public

STATE OF NEW HEXE CO COUNTY OF CHAVES

On this _____ day of _____, 194_, before me personally appeared were E. Keimig and husband Phil Helmig ______ to me known to be the person ______ described in and who executed the foregoing instrument, and acknowledged that the executed the same as their free act and deed.

IN WITNESS WHEREOF, I have nereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires:

Notary Public

Martin 3, 1949

STATE OF COUNTY OF

_ day of 🔄 _____, 194___, before me On this personally appeared

to me known to be the person to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as free ect and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires:

Notary Public

-25-

STATE OF ILLINOIS) COUNTY OF _______ SB

On this <u>27</u> day of <u>May</u>, 1946, before me personally appeared <u>June</u> to me personally known, who, being by me duly sworn did say that he is the <u>President of DeKalb Agricultural Associa-</u> tion, Inc., and that the seal affixed to said instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said <u>June</u>, acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

Notary Fublic

My Commission Expires:

1948

EXHIBIT "B"

Bitter Lake Unit Agreement Chaves County, New Mexico

Schedule Showing the Nature and Extent of Ownership of Oil and Gas Rights in All Lands in the Unit Area

FEDERAL LANDS

		•
OWNERSHIP OIL AND GAS LEASES OR APPLICATIONS	NO. OF ACRES	LAS CRUCES SERTAL NUMBER
Bonnie H. Matlock	2440	063769
$S_{2}^{\frac{1}{2}}NE_{4}^{\frac{1}{2}}$, $SE_{4}^{\frac{1}{2}}NW_{4}^{\frac{1}{2}}$, $S_{2}^{\frac{1}{2}}$ Sec. 1; $E_{2}^{\frac{1}{2}}$ Sec. 11; $W_{2}^{\frac{1}{2}}$ Sec. 12; $W_{2}^{\frac{1}{2}}NW_{4}^{\frac{1}{4}}$ Sec. 13; $N_{2}^{\frac{1}{2}}NE_{4}^{\frac{1}{2}}$, $S_{2}^{\frac{1}{2}}NV_{2}^{\frac{1}{2}}$, $S_{2}^{\frac{1}{2}}$ Sec. 14: $E_{2}^{\frac{1}{2}}SE_{4}^{\frac{1}{4}}$ Sec. 15; All Sec. 23, T. 10 S., R. 25 E.	· •	
Mary E. Helmig	360	064148
NELNWL, SHWL, SELSWL FAWL Sec. 11 SWLSEL Sec. 10; NELNWL Sec. 14; SELNEL Sec. 15, T. 10 S., R. 25 E.	; 	
Nellie T. Lewis	1760	061505
$E_{2}^{1}NW_{4}^{1}$, $S_{2}^{1}NE_{4}^{1}$, S_{2}^{1} Sec. 13; All Secs. 24 and 25, T. 10 S., R. 25 E.		
Edith G. Marshall	360	063776
$SW_{4}^{1}SE_{4}^{1}$ Sec. 15; E_{2}^{1} Sec. 22, T. 10 S., R. 25 E.		
Bert Ballard	560	062045
N_{2}^{1} , SE ¹ ₄ , NE ¹ ₄ SW ¹ ₄ Sec. 26; NE ¹ ₄ NE ¹ ₄ Sec. 27, T. 10 S., R. 25 E.		
Thomas T. Sanders, Jr.	1673.20	061479
All Secs. 6 and 7, T. 10S., R.26E; $E_{2}^{\frac{1}{2}}$ Sec. 12, $N_{2}^{\frac{1}{2}}NE_{4}^{\frac{1}{2}}$ Sec. 13, T. 10S, R. 25E.		
L. T. Lewis	1439.18	059219
All Secs. 18 and 19; NW_{4}^{1} Sec. 30, T. 10 S., R. 26 E.		,
Bitter Lake Migratory Wildfowl Ref (Unleased)	<u>uge</u> 320	
EJSEL Sec. 10; SWLSWL Sec. 11; NWLNW	t Sec.14;	

NiNEt, SWINET, NWISEI Sec. 15, T. 108., R. 25E.

STATE LANDS

OWNERSHIP OIL AND GAS LEASES	NO. OF ACRES	SERIAL NUMBER
DeKalb Agricultural Association NE $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 2, T. 10 S., R. 25 E.	<u>, Inc</u> . 80	E -353
<u>DeKalb Agricultural Association,</u> $SE_{4}^{1}SE_{4}^{1}$ Sec. 2, T. 10 S., R. 25 E	<u>Inc.</u> 40	3-3063

TOTAL

9,032.38 acres

CERTIFICATE OF APPROVAL

STATE OF NES MOXICO

The undersigned, having this day examined an agreement for the co-operative or unit operation and development of a prospective oil or gas field or area, which agreement is entitled "Unit Agreement for the Development and Operation of the Bitter Lake Unit Area, Chaves County, State of New Nexico," entered into between DeKalb Agricultural Association, Inc., Operator, and likewise subscribed by numerous Working Interest Owners and Royalty Owners, to which agreement this certificate is attached; and

WHEREAS, upon examination thereof, the Commissioner finds:

a. That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said field;

b. That under the operations proposed, the State will receive its fair share of the recoverable oil or gas in place under its lands in the area affected;

c. That the agreement is in other respects for the best interest of the State;

d. That the agreement provides for the unit operation of the field, for the allocation of production, and the sharing of proceeds from a part of the area covered by the agreement on an acreage basis as specified in the agreement.

NCW, THEREFORE, by virtue of the authority conferred upon me by Chapter 88 of the Laws of the State of New Vexico, 1943, approved April 14, 1943, I, the undersigned, Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said agreement, as to the Lands of the State of New Mexico included in said Bitter Lake Unit Area Agreement, and subject to all the provisions of the aforesaid Chapter 88 of the Laws of the State of New Vexico, 1943.

Executed this 7th day of June, A. D., 1946.

ommissioner of Public Lands of the State of New Merico.

12.5.8



LAW OFFICES HERVEY DOW. & HINKLE ROSWELL NEW MEXICO

May 9, 1946

U.M.HERVEY HIRAM M.DOW CLARENCE E.HINKLE

W. E.BONDURANT, JR.

Mr. Carl Livingston New Mexico Oil Conservation Commission Santa Fe New Mexico Re: Bitter Lake Uni

Re: Bitter Lake Unit Agreement Chaver County, New Mexico

Dear Mr. Livingston:

In accordance with our letter of April 29, 1946, we enclose herewith three executed copies of the Application for Approval of the Bitter Lake Unit Agreement.

Yours very truly,

HERVEY, DOW & HINKLE By Clasence & Atenhle

CEH/mds Encs.

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

APPLICATION FOR APPROVAL OF BITTER LAKE UNIT AGREEMENT, CHAVES COUNTY, NEW MEXICO.

New Mexico Oil Conservation Commission Santa Fe New Mexico

Comes the undersigned, the DeKalb Agricultural Association, Inc., and files herewith three copies of a proposed unit agreement for the development and operation of the Bitter Lake Unit Area, Chaves County, Now Mexico, and hereby makes application for the approval of said agreement by the New Mexico Oil Conservation Commission and in support thereof, shows:

1. That the unit area designated in said agreement covers 9,032.38 acres situated in Township 10 South, Ranges 25 and 26 East, N.M.P.M., Chaves County, New Mexico. All of the lands embraced in said unit area are lands of the United States, except the EisEi, SwisEi Sec. 2, T 10 S., R 25 E., N.M.P.M., which are lands of the State of New Mexico.

That said agreement has been executed by the owners of oil and gas leases and pending applications therefor embracing all of the land within said unit area except the $E_2^1SE_4^1$ Sec. 10; $SW_4^2SW_4^1$ Sec. 11; $NW_4^1NW_4^2$ Sec. 14; $N_2^1NE_4^1$, $SW_4^2NE_4^1$, $NW_4^2SE_4^2$ Sec. 15, T 10 S., R 25 E., N.M.P.M., which said lands are within the Bitter Lakes Migratory Wildfowl Refuge.

2. That the area designated in said unit agreement has heretofore been designated by the Director of the United States Geological Survey as one suitable and proper for unitization, and all of the lands embraced therein are believed to be situated on the same geological structure. 3. That the undersigned is designated as Unit Operator in said agreement and the unit operator is given authority under the terms of said agreement to carry on operations necessary for the exploration and development of the unit area for oil and gas subject to the regulations of the Secretary of the Interior and the Commissioner of Public Lands of the State of New Mexico and the New Mexico Oil Conservation Commission and that under the terms thereof a test well for oil or gas is to be drilled upon some part of the unit area to a depth of 6,500 feet, unless oil or gas is found at a lesser depth, or unless at a lesser depth, an igneous or metamorphic formation or some other condition or formation is encountered which would render further drilling inadvisable or impracticable.

4. That said proposed unit agreement follows substantially the same form as unit agreements heretofore approved by the Oil Conservation Commission, the Commissioner of Public Lands of the State of New Mexico and the Secretary of the Interior, and it is believed that operations to be carried on under the terms thereof will promote the economical and efficient recovery of oil and gas to the end that the maximum yield may be obtained from the field or area i.' cil or gas should be discovered in paying quantities, and the production is to be limited to such production as may be put to beneficial use with ade mate realization of fue! and other values, and it is further believed that such agreement will be in the interest of conservation of oil and gas and the prevention of waste as contemplated by the oil conservation statutes of the State of New Mexico.

5. That upon an order being entered by the New Mexico Oil Conservation Commission approving said unit agreement and after the approval thereof by the Commissioner of Public Lands of the State of New Mexico and the Secretary of the Interior

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of the United States, an approved copy of said agreement will be filed with the New Mexico Oil Conservation Commission.

WHEREFORE, the undersigned applicant respectfully requests that a public hearing be held on the matter of the approval of said unit agreement as provided by the statutes of the State of New Mexico and the regulations of the New Mexico Oil Conservation Commission, and that upon said hearing said unit agreement be approved by the New Mexico Oil Conservation Commission.

Respectfully submitted,

DEKALB AGRICULTURAL ASSOCIATION, INC., By 47/14/2 PM

ATTEST: Roberto Secretary

UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION OF THE BITTER LAKE UNIT AREA

CHAVES COUNTY

STATE OF NEW MEXICO

This agreement, entered into, as of the 18 day of <u>Man</u>, 1946, by and between the parties subscribing or consenting hereto, hereinafter called the parties hereto,

I. Sec. No.

 $W-I-T-N-E-S-S-E-T-H_1 > 0$

WHEREAS, the parties hereto are the owners of operating, royalty, or other oil or gas interests in the unit area subject to this agreement;

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent avoidable waste, and secure other benefits obtainable through development and operation of the unit area subject to this agreement under and pursuant to the provisions of sections 17, 27, and 32 of the Act of Congress approved February 25, 1920, entitled "An Act to promote the mining of coal, phosphate, oil, oil shale, gas and sodium on the public domain, "41 Stat. 443, 448, 450, as amended or supplemented by the acts of March 4, 1931, 46 Stat. 1523, and August 21, 1935, 45 Stat. 676; 30 U.S. . 226, 184 and 189;

WHEREAS, the Commissioner of Fublic Lands of the State of New Mexico is authorized by an Act of the Legislature (Chap. 88, Laws 1943) to consent to or approve this agreement on behalf of the state of New Mexico, insofar as it covers and includes lands and mineral interests of the State of New Mexico; and WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by an Act of the Legislature (Chap. 72, Laws 1935) to approve this agreement and the conservation provisions hereof;

NOW, THEREFORE, for and in consideration of the premises and the promises hereinafter contained, the parties hereto agree as follows:

ENABLING ACT 1. The Act of February 25, 1920, <u>supra</u>, <u>AND</u> <u>REQULATIONS</u> as amended, and all pertinent regulations heretofore and all pertinent and reasonable regulations hereafter issued thereunder, and not inconsistent with the provisions hereof, including operating regulations, are accepted and made a part of this agreement. Likewise, the Act of the Legislature of the State of New Mexico (Shap. 88, Laws 1943) and the Act of the Legislature of the State of New Mexico (Chap. 72, Laws 1935) and all pertinent regulations issued under said acts are hereby accepted and made part of this agreement.

DEFINITIONS 2. For all purposes of this agreement, certain terms used herein are defined

as follows:

(a) "Secretary" shall mean the Secretary of the Interior of the United States and those persons or agencies duly authorized to act for and in his behalf.

(b) "Supervisor" shall mean the Oil and Gas Supervisor of the United States Geological Survey and those persons or egencies duly authorized to act for and in his behalf.

(c) "Commissioner" shall mean the Commissioner of Fublic Lands of the State of New Mexico.

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(d) "Commission" shall mean the Oil Conservation Commission of the State of New Mexico and those persons duly authorized to act for and in its behalf.

UNIT AREA

3. The following described lands are hereby designated and recognized as constituting the unit area:

S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ Sec. 1; NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 2; NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ Sec. 10; NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ Sec. 11; All Secs. 12, 13 and 14; E $\frac{1}{2}$ Sec. 15; E $\frac{1}{2}$ Sec. 22; All Secs. 23, 24 and 25; N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ Sec. 26; NE $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 27, T. 10 S., R. 25 E. All Secs. 6, 7, 18 and 19; Lots 1, 2, E $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 30, T. 10 S., R. 26 E., N.M.P.M., Chaves County, New Mexico, containing 9,032.38 acres, more or less.

The above described unit area includes certain lands included within the Bitter Lake Migratory Wildfowl Refuge and it is hereby acreed that if such land is committed hereto no wells shall be drilled on said land except with the consent in writing of the head of the Agency having jurisdiction over said Refuge.

The Unit Operator, with the consent of a majority in interest of the Working Interest Owners, and subject to the approval of the Secretary, the Commissioner and the Commission, may enlarge the unit area to include other lands believed to be commercially productive of the unitized substances, or shall, subject to approval of the Secretary, the Commissioner and the Commission, diminish the unit area to exclude lands not in any participating area hereunder believed to be barren of the unitized substances.

Exhibit "A" attached hereto is a map on which is outlined the herein established Unit Area, together with the ownership of the land and leases in said area. Exhibit "B" attached hereto is a schedule showing the nature and extent of ownership of oil and gas rights in all land in the Unit Area to which this unit agreement will become applicable by signature hereto, or to a counterpart hereof by the owners of such rights, and land so committed to this agreement is hereinafter referred to as "unitized lands" or "land subject to this agreement". Said exhibits shall be revised by the Unit Operator whenever any change in the Unit Area or ownership of rights render such change necessary, and the revised exhibits shall be filed with the tup.rviajr.

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UNITIZED SUBSTANCES and out t land, such selected been served by him notice of intention ligations of and regulations of under provided that any well drilled hereunder is placed in a satisfacsubstances, such a reference shall that interests in unitized substances owned by the Unit Operator. stances, and whenever reference is provided. discovery and development tory condition to conduct consents the schedule attached offices at DeKalb, interests in unitized substances vested in it Operator called "unitized substances" ject to this UNIT OPERATOR unitized under the terms of this the bo The capacity and reference and under the laws of the State of Ner Mexico, and the rules the Federal vil and Gas Operating Regulations, if Unit Operator shall so Commissioner, and Unit Operator shall have the right to resign to accept the duties and obligations and Herein whenever reference is made to the Unit Operator, and Unit Operator for a period of three(3) months after approved by signature hereto agreement, for ы 8 1 manage ຸຕ 4 not understood to mean the unit Operator acting in op the Commission, suspension, or is satisfactorily Illinois, is hereby designated DeKalb Agricultural Association, All oil, gas, natural gasoline, and associated to relinquish such duties and obligations has fluid hydrocarbons producible from] and suband unless a new Unit Operator shall have a11 hereto marked Exhibit B as an owner of interests in unitized subthe operation of said unit area for the ц Н shall have taken over other parties hereto and the Secretary of unitized substances as any be relieved from the duties and oband all sands or commits to this agreement agreement and hereinafter if on state or patented be understood to include any made to an owner and of Unit Operator as set forth and horizons, ය ස agrees assumed abandoned of unitized herein H Unit at any time on Federal and with a i e land, ц Ц 811 are been the Unit မ ရ ရ material, and 8 8 market value all Operator shall have an relinguishment or removal becomes the retiring Unit Operator owned and used by appurt enances on which relinquishment removed shall for the preservation of wells may be removed effective. duties interest owner hereunder; said reassignments Mexico. 0f approval 8 S delivery be its working several nection but the which shall termination interest rights lands the Commissioner to such operator, the United to the Operator and said the not and obligations Unit Operator shall predecessors with о Њ Unit Operator may then leases of itself use thereof transferee thereupon, The parties hereto discharged the of any rights as interest its resignation appurtenances not so purchased become 14 at any time within six (6) months States Secretary in land then ç о Н severally 0 0 0 or make other arrangements satisfactory the retiring Unit terminate any upon any part of the equipment, material, 6 and the joint ц Ц in interest within said time limit option to purchase at its of the Unit Operator from by or removal interests the unitized substances, the land subject subject, 28 8 acquired for the use thereof. have any Unit subject сі 0 сі 0 property or a future liability reascign transfers have subject, 211 the right Ë right, Operator under effective, however, duly gualified Operator, from lands ю њ ct O of Unit Operator in the unitized subs о Њ よれの them, this title, он to this agreemen 0 H о F however, 4 5 9 4 5 8 and to the approva interest prior retransfer с ц т ъ У and оH et 0 the agreement. interest in ці Ц

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signatory hereto which are necessary or convenient for substances are hereby vested in the Unit Operator and shall agreement, shall deposited with said Unit Operator and, together with this ment. be exercised by said Unit Operator as provided in pecting for, producing, storing, and disposing the Unit Operator, in its capacity as Unit Operator vided, that nothing herein shall be construed to rights, privileges, and obligations in the premises; proand parties hereto exercise the rights of possession and use vested in it being understood that under and pursuant to this agreement title shall render to the owners of unitized interests entitied and the other working interest owners. The matter of allocation and handling such costs and expenses expenses of specified. .and agreement in conformity with operating account for all costs allocated share of the products produced hereunder, and during the previous calendar month, shall pay in value or other independent contracts between the Unit Operator deliver thereto an is left no part thereof shall be charged to the royalty owners. the parties hereto either collectively or independently. to any land, or to any operating agreement Acceptable evidence of title to said rights shall be to private arrangement between t 0 account each party entitled thereto a proportionate operations with respect to the unitized The Unit Operator shall pay all costs only and exclusively for the purposes herein constitute and define said Unit Operator's о Њ the operations on unitized and benefits of operations under this the Unit Operator agreements, leases The Unit Operator 0 F о Г transfer lands and this agreethe unitized shall land leases, -sord о Н

> ary of them or other contract regardless of whether there is any development part or separately owned tract subject to this agreement, anything to particular part development and operation with respect to each and every formance by Unit Operator of all obligations for such agreement under The development and operation of land subject to this the contrary in any lease, operating agreement the terms hereof shall be deened full peror tract by and between the parties hereto, of the unit area, notwithstanding of any он

DRILLING

Operator aforesaid, gas which can be produced in paying quantities is encounted dilligently to a depth not less than 6500 feet unless oil commenced such operations shall thereafter continue drilli States, and if upon State lands or patented lands, such (6) months advisable or formation is encountered which would render further drilling an igneous or metemorphic formation or some other condition in said well at a lesser depth location shall Supervisor, if such location is upon lands of the United at a location upon the Unit Area to be ppproved Unit Operator shall begin to drill an adequate test well DISCOVERY ЮН after fails his successor shall thereupon commence within impracticable. be approved by the Commission, and having the completion of the former well, to encounter the unitized substances, Uni-တ Within six (6) months from effective date of this agreement, If said first well, drilled or unless, at a lesser depti ð V the 0 17 0 and dr ğ

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a time, additional wells until a

productive well

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PLAN OF FURTHER DEVELOPMENT AND OPERATION a11 Secretary and Commissioner may grant extension of time for the オゴセン the 0 H the diligence shall be exercised by the Unit Operator in complying with modification thereof, when so approved shall constitute the further Secretary may, after reasonable notice, declare this unit agreesigning as provided in Section 5 hereof before any obligation to herein contained shall preclude any Operator from effectively recommencement of any such well; and provided further that nothing or until it is reasonably proved that the unitized land is incompleted to the satisfaction of the Supervisor and Commissioner, on federal land and by the Commission for wells on state and private under producing practices and well abandonments, shall be in accordance possibility for encountering the unitized substances in paying tion Operator shall be conformed thereto; provided that in no event shall required velopment and said plan shall, subject to like approval be modified drilling and operating obligations of Unit Operator. Reasonable plan of development for the Unit Area, which plan or a subsequent of the Supervisor, the Commissioner, and the Commission an acceptable stances as aforesaid, Unit Operator shall submit for the approval ment terminated to comply with the drilling requirements of this section the relieved commence a second or subsequent well accrues hereunder, and be capable of producing the unitized substances; provided that the land quantities. supplemented in whole or in part from time to time as may be parties to this agreement and the further obligations of the Unit drilling and producing obligations of the approved plan of deoperator under any such plan, or otherwise, be under any obligato drill any well to any formation that does not afford a fair shall be subject to the approval of the Supervisor as to wells Flan of Development and Operation. to meet changed conditions or to protect the interests of of the obligation to commence such well. Well drilling operations including well completions, i D Within sixty (60) days from completion of well capable of producing the unitized sub-မှ All operations there-Upon failure ά reasonably proved to be productive of unitized substance ceptable plan of development cannot be adopted because o of unitized substances or for any group of such deposits participating area may be established for any separate d the Secretary, Commissioner and the Commission, a separa and shall operate all productive wells in conformity wit may, Commission to agree upon the terms thereof, the Unit Ope the inability of the Supervisor, the Commissioner and th centage acreage interest of each owner of rights in the of first production. to constitute a participating area effective as of the d in paying quantities; all land in said schedule, when ap good operating practices, and the conservation principle to develop the productive portion of the unit area, and participating area or the participating area becomes effective. shall govern the allocation of production from and after pating area thereby established. one-half or more of the acreage of which is then regarde divisions of the public land survey, including all subdi sioner and the Commission a schedule of lands based on s shall submit for the approval of the Secretary, the Comm PARTICIPATION of this agreement drill other wells to determine the limits of production to in Section 1 hereof, proceed with reasonable diligenc DISCOVERY in accordance with the applicable regulations refer During any period when it shall appear that an Said schedule shall set forth the areas so established shall be enla 10. .

Upon completion of a producti

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well as aforesaid, Unit Opera

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pleted which demonstrates the propriety of the enlargement, successfully tested for production, all of which shall be drilled. A well shall be deemed completed when equipped and well shall be allocated to the lease on which the well is and any unitized substances theretofore produced from such 0 H shall be construed as requiring any retroactive apportionment any increase in the participating area, nothing herein contained Section that a participating area shall at all times represent FOT count of depletic or the unitized substances therefrom, or area shall be excluded from such participating area on acthe effective date of increase of the participating area. to be productive in paying quantities; but, regardless of as nearly as possible the area known or reasonably estimated done diligently. any sums accrued or paid for production obtained prior any cause save loss of title. Until a participating area or areas has or have been es-No land once included in a participating It is the intent of this đ

tablished as herein-provided, or in the absence of agreement at any time between the Unit Operator, the Secretary, the Commissioner, and the Commission as to the proper boundaries of a part cipating area, the portion of all payments affected by such absence of agreement, except the royalties due the United States and the State of New Mexico, may be impounded in a mutually acceptable bank.

mission, as conforming to good petroleum engineering prac be consented to by the Supervisor, the Commissioner and t as may be provided in the plan of operation or as may oth on the termination of the unit. and provided further that such right of withdrawal shall therefrom, provided that such withdrawal shall be at such royalty free as to dry gas but not as to the products ext drawn from the formation into which the gas was intriduce allowance for loss or shrinkage thereof from any cause, m Commissioner and the Commission, a like amount of gas, wi duces gas obtained from sources other than the unitized s shall be free from any royalty charge. If Unit Operator conformity with a plan first approved by the Supervisor, stimulation of production or increasing ultimate recovery into any participating area beceunder for use in repressu operation for repressuring or cycling in any participatin stances produced from any participating area and used in basis as a result of operations under this agreement, en formity with good operating practice under an approved pl as its area bears to the said participating area. Unitiz tract shall have allocated to it such percentage of said

Except as otherwise herein provided, royalties shall paid or delivered as provided by existing leases or contr

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from time to time in like manner and subject to like	
approval whenever such action appears proper as a re-	ALLOCATION OF 11. Except as provided in Section 12,
sult of further drilling operations to include addition-	ROYALTIES unitized substances produced under
al land then regarded as reasonably proved to be productive	agreement, except any part thereof used for production :
in prying quantities, and a new schedule of percentage acreage	development purposes thereunder, or unavoidably lost, sl
interests conformable thereto shall thereupon be fixed. The	be deemed to be produced equally on an acreage basis from the deemed to be produced equally on an acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the deemed to be produced equally on the acreage basis from the acreage basis from the deemed to be produced equally on the acreage basis from the acrea
effective date of any such enlargement shall be the first of	several tracts of land of the participating area, and for

Operator on unitized land and shall distribute the cost	similar producing wells in the unitized area, and the well
Merico respectively, on account of operations by Unit	one hundred fifty percent (150%) of the average cost of drilling
all rentels due the United States and the State of New	paying the bost of drilling such well shall be reimbursed
leases shall deliver in kind, all royalties and shall pay	may properly be included in a participating area, the party
leases and at the election of the Commissioner as to Scate	in production such that the land upon which it is situated
the election of the Secretary of the Interior as to Federal	If such well is not drilled by Unit Operator and results
respective lessees, shall pay, or	ator under this ag
RETLL AND 13. The Unit Operator, on behalf of the ROYALTY	well in like manner as other wells are drilled by Unit
	notice from sa
charges, if any, shall be paid as specified in the lease	location at his own expense, unless within 90 days of re-
uch well as well	and operation may drill a
or produced by Unit Operator; and royalties in amount or	attern established under a
ing requirements of this agreement the same as though drill	ing thereon a regular well location in accordance
than Unit Operator or produced at his sole expense and for his sole benefit shall be subject to the drilling and produ	het incl
drilled at the sole expense of a	DEVELOPMENT 12. Any party nereto other that only OR OPERATION ON NON-FARTICI- Operator owning or controlling a major-
pay the onther equipment	
the limit Operator, said owner or working interes	regulations to elect to take their respective royalty shares
se and for his sole benefit. If such well wa	the State of New Mexico under existing or future laws and
onsible for and may operate and produce the	The right is hereby secured to th
of determination of such insufficiency, shall be wholly	crms of their respective l
er of working interests at his election, within 30	
production insufficient to justify inclusion in a participa	Such royalties shall be paid by the party operating the
as provided in this section obt	nces produced during
If any well drilled by Unit Operator or by an owner of	lry of each month for the uni
s though the well had been drilled by the l	at the lease or contract rate upon the unitized substances
shall be operated pursuant to the terms of this agreement	

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COVERNMENT ROYALTIES AND RENTALS discovered by virtue of a well or wells drilled under this agreement, the royalty on production from such new field or Interior that a new oil or gas field or deposit has been 55 Stat. 1647, upon a determination by the Secretary of the declared by the President May 27, 1941, Proclamation No.2487, and provided that during the period of the national emergency same participating area were a single consolidated lease, ing regulations as though all the unitized land within the pating area shall be determined in accordance with the operatproduction per well, said average production for any particishall be and remain an obligation of the parties requesting account; provided, that Unit Operator shall incur thereby no shall pay other royalties on his behalf in accordance with a nothing herein contained shall operate to relieve the respective rental and royalty obligations; provided, that leases on which the royalty rate depends on the daily average fied in the respective Federal leases; provided, that, for allocated to such land as provided herein at the rates specipayment thereof. responsibility to any royalty owner, but such responsibility schedule furnished by him and charge the cost thereof to his rentals and royalties inder the terms of their respective lessees, or any of them, of their obligation to pay unitized substances on the basis of the amounts thereof as provided in the operating regulations and paid as to all leases On request of any party, Unit Operator at 1ts election ب 4. Royalty due the Unites States on account of unitized Federal land shall be computed

> deposit allocated to Federal land subject to this ag at the time of such discovery shall, during the 10-y period following the date of such discovery, be paid value or delivered in kind at a flat rate of 125 per unless a lower rate is prescribed in the lease.

thereof to the appropriate parties conformably with their

Rental for land of the United States subject to agreement at the rates specified in the respective F leases shall be paid, suspended, or reduced as deter by the Secretary of the Interior, pursuant to applic law and regulations.

CONSERVATION 15. Operations and production of un substances shall be conducted s

provide for the most economical and efficient recove said substances to the end that maximum yield may be tained without waste, as defined by or pursuant to S or Federal law or regulation; and shall be limited t production as can be put to beneficial use with adec realization of fuel and other values.

<u>PRAIMAGE</u> 16. Unit Operator shall take approp and adequate measures to prevent drainage of unitize stances from unitized land by wells on land not subj this agreement, or, with the approval of the Secreta to federal interests and of the Commissioner as to s interests, and at the election of the Unit Operator private interests, pay a fair and reasonable compens royalty, as determined by the Supervisor as to feder interests, and the Commissioner as to feder gubject to this agreement and by agreement between t unit Operator and royalty owners, as to private inter

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LEASES TRACTS TO AGRE regulations in respect thereto, to conform said requirements hereby establish, alter, change or revoke the drilling Commissioner, by their approval of this agreement, do Commissioner, respectively, may, and said Secretary and conditions of said leases shall remain in full force and to the provisions of this agreement, but otherwise the terms producing, and royalty requirements of such leases and effect. the State of New Mexico consent leases AGREENENT Owners and lessors AND COM-CONFORMED embracing unitized land of 5. of privately The parties hereto or ing hereto holding interests in that the Secretary and the United States owned lands consentę. and 0 H оf the of f

that each owner becomes entitled to a share in the proceeds of the land embraced in any such lease is during the primary primary terms therein stated, and so long thereafter as oil therein, may be and remain in force and effect for the respective ing their heirs, executors, administrators, successors and acreage basis to the portion of the lease within the particirespective lease rates on the production allocated on an of production from the participating area, payable at selected and approved under this unit plan of development, justify the cost of production; and also in the event that any or gas may be produced therefrom in quantities sufficient to the respective leases covering their several lands or interests person or by attorney in fact, do hereby severally agree that assigns, by subscribing interests therein, including royalty interests, and includpating area, then term of such lease included within a participating area duly each such lease is or consenting to this agreement hereby extended, without the ц Ц SO

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therein for the full term of further delay rental obligation, as to the land The Secretary, Commissioner and, which γ γ so included in this unit plan as such participating except herein as S stat o g

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of failure to produce wells situated on land there said Secretary and Commissioner shall be deemed on the unitized land pursuant to direction or cons by law; and the suspension of all operations and States shall be the unte prescribed in such lease date of each unitized lease embracing lands of the long as unitized substances are produced anywhere to continue in force and effect as to land in the hereto; that no such lease shall be deemed any unitized land will be accepted and deemed to b respect to such suspension pursuant to such direction or cons such preferential right to a new lease as may be unitized substances anywhere on unitized land, the land in paying quantity; that prior to such discov effect on or ces is made anywhere on the unitized land, each su that if a discovery of a valuable deposit of uniti tions under and for the benefit of all unitized le producing operations performed by the Unit Operato during the effective life of this agreement, drill parties hereto further determine, agree and conser provided in the preceding paragraph of on account of such suspension, as to each such lease, and that no lease sha after the date of such discovery shal land in the this Sectio to expi ct

interests The parties hereto or consenting hereto, hold ц Ц leases subject to this agreement embj

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respective interests, that all such leases and agreements agreements that involve oil and gas rights in lands Stare WITH LAND shall conform the Unit Area, consent and agree, to the extent of their lands COVENANTS of New Mexico or holding interests in any other other than those of the United States ð 10. the provisions The covenants herein shall be construed of this agreement. о Н of the ц Ц

and obligations hereunder by the grantee, transferee, or of interest in land or leases subject hereto shall be and agreement terminates, and any binding upon the Unit Operator until the first day of the next State other hereby is conditioned upon the assumption of all privileges the extent of the interests of the parties hereto until this unitized Commissioner. subject to calendar month of transfer. an original, successor in interest and as to federal land, shall be of New Mexico, shall be subject to the approval of the lands or affecting the production therefrom shall be approval by the Secretary, and as to lands of the photostatic or certified copy of the instrument after the Unit Operator has been furnished with No transfer of any interest in and to any of the to be covenants running with the land to grant, transfer or conveyance

DATE AND TERM next following approval by the Secretary of the Interior and terminate on December 31, 1949, unless (1) such date of approve this agreement pursuant to applicable state law. be construed to waive or limit the right of the Commission to the Commissioner, provided however that nothing herein shall EFFECTIVE second Except paragraph of Section 17 hereof, this agreement shall as otherwise provided as to . 9 1 9 . This agreement shall become effective 0p the first day of the calendar month private leases by the

> Secretary and the working interests signatory hereto with the approva owners of not less than 75 per centum, on an acres This agreement may be terminated at any time by co: approval of the Secretary of the Interior and the or (4) it is terminated as provided in sections 6 their last known address the agreement is terminat ground is given by Unit Operator to all parties in after notice of intention to terminate the agreeme capable of commercial production of unitized subst term or any extension thereof that the unitized la reasonably determined prior to the expiration of t remain in effect as long as unitized substances ca been made on unitized land, in which case the agre from the unitized land in paying quantities; or (3 or (2) a valuable discovery of unitized substances expiration is extended by the Secretary and the Oc Commissioner.

agreement, such authority being hereby limited to ment, and, within the limits made or fixed by the C or modification to modify the quantity and rate of production under time in his discretion the rate of prespecting and August 21, 1900, supra, the amendatory acts of Congress of March 4, 1931, that the Secretary is vested with authority pursuar the Commission under any State Statute; provided ho with allocations, allotments and quotas made or fix RATE OF PROSPECT-ING, DEVELOPMENT, AND PRODUCTION н. С the public interest, the purpos 80 • to alter or modify from tim All production and the dis thereof, shall be in confo

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are hindered, delayed, or prevented from complying therewith said Unit Operator, Working Interest Owners or any of them hereto, or be subject to any forfeiture, termination or expiration in whole or in part to comply therewith to the extent that any rights hereunder or under any leases or contracts subject CONFLICT law SUPERVISION by strikes, lockouts, acts of God, Federal, State or municipal while, tinue drilling and herein enumerated or not. control of in open market, or other matters beyond the reasonable in transportation, from complying with such obligations, any of UNAVOIDABLE approval thereof by the Commission and rate of production in the absence of specific written owned lands subject to this agreement as to the quantity and the public interest to be served thereby to be stated the specific written approval thereof by the Commissioner the rate of prospecting and development in the absence of in the order of alteration or modification; provided fureffective as ther that no such alteration or modification shall be as to any lands of the State of New Mexico or privately or agencies, unavoidable accidents, uncontrollable delays the lands covered by this agreement shall be suspended but only as to any penalty or liability for delay or failure the Unit Operator whether similar to the matters to any lands of the State of New Mexico as 88. or to 51. long inability to obtain necessary materials Neither the Unit Operator nor the working Interest Owners nor any of them shall operate on or All obligations under this agreement requiring Unit Operator to commence or as, the Unit Operator is prevented produce oil or in whole or 67.2.S in part, from о F, et C 002-SUBSEQUENT JOINDER and consenting hereto, including the Commission, agree by reason of failure of Unit Operator to obtain the joi and that all powers and authority vested in the Commission that such joint consent be obtained. the representatives of the State of New Mexico in and a consent of the representatives of the United States and now or hereafter be provided by the law of the State subject in any case to appeal or judicial review as may provisions of the laws of the State of New Mexico and Commission and shall be exercised by it pursuant to the any matter identical provision to be included in NOM-DISCRIMINATION contract and comply with all terms and conditions by subscribing this agreement, and if effective date hereof, may thereafter area who does not commit such rights hereto prior creed, color, or national origin and shall require an employee or applicant for ducted hereunder, New Mexico. ing interest owners they shall also subscribe the operset forth. by any provisions of this contract are vested in th or thing concerning which it is required her 84 42 ر. ۲ با م Any person owning rights in shall not discriminate against any The Urit Operator expressly agrees unitized substances within the uni that in any employment because of race, and all operations con The parties heret such parties become parties h all subcontracts

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be of no effect. State lands, until such time as said State lands, or a COUNTERPARTS to the functions of the Commissioner or Commission shall upon approval by the Secretary of the Interior and therescribed in this agreement, except as to operations on and Commission will exercise none of the functions prethe unit area which may be committed hereto, the Commissioner certain functions. the same document. the same force and effect as if all parties had signed upon all of the provisions of this agreement pertaining approve this pgreement it shall nevertheless be effective area. portion thereof, are included in an approved participating that, in view of the small percentage of State lands in authorizing the Commissioner and the Commission to exercise and the Commission, and in addition contains provisions COMMITMENT OF STATE LANDS IN WITNESS WHEREOF, the parties hereto have caused In the event the Commissioner or Commission should not ະ 20 0 សូ ភូមិ It is hereby understood and agreed This agreement may be executed in any number of counterparts with This agreement provides for approval hereof by the Commissioner

this agreement to be executed and have set opposite their respective names the date of execution.

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APPROVAL -CERTIFICATION - DETERMINATION

674, 0 Fj the following action this proper protection of the public interest, 437; 30 U.S.C. Stat. the Interior, under the act approved March 4, 1931, 46 amending the act approved February 25, Pursuant 1523, and the act approved August 21, 0 0 225, 184 and 189, in order to the Statutory authority in the Secretary __day с Ц I hereby take 1935, 1920, for secure the the 49 Stat. 41 Stat 1946.

- 2-Approve the development and operation of Lake Unit Area attached agreement the Bitter
- ω necessary H H H resources more development and operation contemplated Determine and certify that interest. said agreement properly (). Ну 0 advisable said unit conserving oil is for the purpose Ë eree the public the plan and is 0 H 8 8 90 90 0 Њ о Ӊ
- may hereafter and agreement shall ing holdings visions of any section of the Act of the United States subject to, Certify that each and Congress tofore amendments thereto. с Н approved February hereafter issued С Н become subject contro! 90 D excepted in every lease hereunder the pro-25, 1920, HOH to, о Н lands of determinsald which

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Secretary о F the Interior

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NETWRY, SANME, S SW.SET Sec. 10; 1 SETNET Sec. 15; 25 E. S; NEL, SELNWE, S; Sec. 1; E; Sec. 11; W? Sec. 12; W? NWE 5:c. 13; N?NEL, S?N?, S? Sec. 14; E; SEL Sec. 15; All Sec. 23, T. 10 S., R. 25 E. S ac S ac E/WWA, S/WEA, S/ Sec. . Secs. 24 and 25, T. 10 25 E. न्यूय. SwitsEi Sec. T. 10 S., R. Bitter Lake Migratory Wildfowl Refuge OWNEASHIP OIL AND GAS LEASES OF APPLICATIONS EZSEL Sec. 10; SWLSWL Sec. 11; NWLNWL Sec. 14; NZNEL SWLNEL, NWLSEL Sec. 15, T. 108., R.25E. All Secs. 18 and 19; NW2 Sec. T. 10 S., R. 26 E. Thomas T. Mary Bonnie H. Ŀ Bert Ballard Nellie Edith 11 Secs. 6 Sec. 12, 25E. 1 T. Lewis 2 2 7 7 7 7 ۲IJ I Schedule Showing the Nature and Extent of of Oil and Gas Rights in All Lands in the ဂ T. Lewis , NELSWL Sec. 2 , T. 10 S., R. Helmig Marshall Sanders, Matlock Nand 7, T. : NaNEt Sec. ម្ម សូភូ ភូមិ SELSWL ISTL Sec. 11; ; NELNWL Sec. 14; **म म** ५० н , |ਪ |ਮ ເນ ၉ ၀. 10 S., R. . ນິດ ບັງ 13; All .0 8., R. 10S.,R.26E; . 13, T. 10S FEDERAL LANDS ູເຊ NELNEL J. ເວ 0 NO. OF 1760 2440 1439.18 1673.20 560 360 360 Ownership Unit Area LAS CRUCES SERIAL NUMBER 059219 061479 062045 063776 061505 063769 064148

Bitter Lake Unit Agreement Chaves County, New Mexico

LIETHXE

STATE LANDS

OWNERSHIP OIL AND GAS LEASES	NO. OF ACRES	SERIAL NUMBER
DeKalb Agricultural Associati	<u>on, Inc</u> . 80	E-353
$\begin{array}{l} \text{NE}_{4}^{1}\text{SE}_{4}^{1}, \text{ SW}_{4}^{1}\text{SE}_{4}^{1} \text{ Sec. 2, 1. 10} \\ \text{R. 25 E.} \end{array}$	S.,	
DeKalb Agricultural Associati	<u>on, Inc.</u> 40	B- 3063
$E_{t}^{1}SE_{t}^{1}SE_{t}^{1}Sec. 2, T. 10 S., R. 2$	5 E.	
		7
TOTAL Designed for the state of the state State of the state of the st	9,032.38 a	cres
1997 - 1997 -		**** * } *
Law OF		-
J. M. MERVEY HIRAM M. DOW ROSWELL, N		

RENCE E. HINKLE W. E. BONDURANT, JR.

GEORGE H. HUNKER, JR

April 29, 1946

Mr. Carl Livingston New Mexico Oil Conservation Commission Santa Fe, New Mexico.

Dear Mr. Livingston:

Re: Bitter Lake Unit Agreement Chaves County, New Mexico.

I enclose for your information copy of application, the original of which will be forwarded to you next week for approval of the Bitter Lake Unit Area, Chaves County, N.M.

We also enclose three copies of the unit agreement which are the copies referred to in the application. The original of the application has been forwarded to the office of the DeKalb Agricultural Association, Inc., in DeKalb, Illinois for execution and will be transmitted to you as soon as received.

The object of sending you a copy at this time before filing the original agreement, is that I have been informed that it is likely that there will be a hearing hold upon another unit agreement in Chaves County proposed by the Richfield Oil Corporation to be known as the Comanche area unit agreement, the latter part of May, and we are extremely anxious to have this hearing held at the same time. However, if I am not correct in that application has not been made for a hearing to be held in May, we would still like to have the hearing at that time, as it is necessary that the unit agreement be approved as quickly as possible on account of drilling operations.

I would appreciate your advising me as to this situation at your earliest convenience.

With kindest regards, we are

Yours very truly, HERVEY, DOW & HINKLE 1 1 41 ~ A

NEW MEXICO OIL CONSERVATION COMMISSION SANTA FE, NEW MEXICO

APPLICATION FOR APPROVAL OF BITTER LAKE UNIT AGREEMENT, CHAVES COUNTY, NEW MEXICO.

New Mexico Oil Concervation Commission Santa Fe New Mexico

Comes the undersigned, the DeKalb Agricultural Association, Inc., and files herewith three copies of a proposed unit agreement for the development and operation of the Bitter Lake Unit Area, Charss County, New Mexico, and hereby makes application for the approval of said agreement by the New Mexico Gil Conservation Commission and in support thereof, shows:

1. That the unit area designated in said agreement covers 9,032.38 acres situated in Township 10 South, Ranges 25 and 26 East, N.M.P.M., Chaves County, New Mexico. All of the lands embraced 14 said unit area are lands of the United States, except the missel, Swisel Sec. 2, T 10 S., R 25 E., N.M.P.M., which are lands of the State of New Mexico.

That said agreement has been executed by the owners of uil and gas leases and pending applications therefor embracing all of the land within said unit area except the RisEl Sec. 10; SW2SW2 Sec. 11; NW2NW2 Sec. 14; NigNE2, SW2NE2, NW2SE2 Sec. 15, T 10 S., R 25 E., N.M.P.M., which said lands are within the Bitter Lakes Migratory Wildforl Refuge.

2. That the area designated in aid unit agreement has heretofore been designated by the Director of the United States Geological Survey as one suitable and proper for unitization, and all of the Linds embraced therein are believed to be situated on the same geological structure.

> 3. That the undersigned is designated as full in said agreement and the unit operator is given aut the terms of said agreement to carry on operations n the exploration and development of the unit area for subject to the regulations of the Secretary of the in the Commissioner of Fublic Lands of the Secretary of the in the New Maxico Oil Conservation Commission and that a terms thereof a test well for all or gas is to be dr nome part of the unit area to a depth of 5,500 feet, or gas is found at a lesser depth, or unless at a is an igneous or metamorphic formation or some other con formation is encountered which would render further a inadvisable or impracticable.

values, and it is further believed that such agreement put to beneficial use with adequate realization of fi and the production is to be limited or area if oil or ő will promote the economical and efficient recovery of believed that operations to be carried on under the Conservation Commission, the Commissioner of Public the same form as unit agreements heretofore approved waste as contemplated by the oil conservation statute State of New Mexico and the Secretary of the Interio: State of New Mexico. the interest of concervation of oil and the end that the maximum yield may be obtained In That said proposed unit agreement follows Zas should be discovered in paying to such production 3as and the

5. That upon an order being entered by the Mo Oil Conservation Commission approving said unit agree after the approval thereof by the Commissioner of Pul of the State of New Mexico and the Secretary of the 1

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of the United States, an approved comy of said agreement will be filed with the New Mexico Oil Conservation Commission.

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WHEREFORE, the undersigned applicant respectfully requests that a public hearing be held on the matter of the approval of said unit agreement as provided by the statutes of the State of New Mexico and the regulations of the New Nexico Oil Conservation Commission, and that upon said hearing said unit agreement be approved by the New Mexico Oil Conservation Commission.

By_

Respectfully submitted, DEKALB AGRICULTURAL ASSOCIATION, INC.,

ATTEST:

این کرد در داری

Secretary