# 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 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.

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
William B. Macey	Oil Conservation Commission	Artesia, N. M.
N. R. Lamb	State Bureau of Mines	Artesia, N. M.
S. W. Ludwick		Roswell, N. M.
Frank D. Gardner	Sinclair Prairie Oil Company	Midland, Texas
R. J. Heard	rayburg Oil Company	Artesia, N. M.
R. F. Miller	Grayburg Oil Company	Artesia, N. M.
W. F. Patterson		Santa Fe, N. M.
S. P. Hannifin		Roswell, N. M.
Foster Morrell	U. S. Geological Survey	Roswell, N. M.
E. O. Hemenway	A. T. & S. F. Railway Company	Albuquerque, N. M.
E. C. Iden	A. T. & S. F. Railway Company	Albuquerque, N. M.
Marshall Rowley	Carper Drilling Company	Artesia, N. M.
John E. Cochran, Jr.	Maljamar Coop. Rep. Agreement	Artesia, N. M.
William J. Wright	Maljamar Coop. Rep. Agreement	Artesia, N. M.
Charles R. Allen	Continental Oil Company	Ponca City, Okla.
J. O. Seth	Petroleum Prod. Ref. & Pro. Co.	Santa Fe, N. M.
W. R. McBride	Petroleum Prod. Ref. & Pro. Co.	Santa Fe, N. M.
John M. Kelly	Independent Geologist	Roswell, N. M.
Clarence Hinkle	Hervey, Dow and Hinkle	Roswell, N. M.
Roy O. Yarbrough	Oil Conservation Commission	Santa Fe, N. M.
F. W. Hickman	Oil Conservation Commission	Santa Fe, N. M.

## Governor Miles:

Gentlemen, 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 heretofore 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 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?

rir. 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.

Mr. 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. 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.

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?

Fir. 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.

Tr. 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 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.

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 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 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.

Mr. Hannifin:

S. P. Hannifin.

Mr. Hinkle:

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. Hammifin:

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 make 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.

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 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 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 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 10-acre spacing. The old 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 nobody would be hurt by the location. I would like to have Mr. McBride sworm.

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

Mr. Seth:

Your name, please.

Mr. McBride:

W. R. McBride.

Mr. Seth:

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

Mr. McBride:

Yes, 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. McBride:

Yes.

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 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. 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 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 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.

Mr. Cochran:

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 Maljamar 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 proyided 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 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 allowabl 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 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 con servation 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 ask 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. Wright:

Maljamar.

Mr. Cochran:

What 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 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 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 NW\[ \frac{1}{2}\subseteq \fr

Mr. R. J. Heard, 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 Grayburg 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?

Mr. 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?

Mr. Heard:

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

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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.

Governor 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. Westbrook for an order of approval of an irregular oil and gas well location in SWANEA Section 22, T. 20N, Range llw, 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 seems to be ending up as an oil well.

Mr. 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 Albuquerque.

Mr. Iden:

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

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 Il West. It is in the  $SW_{\frac{1}{4}}$  of the  $NE_{\frac{1}{4}}$ .

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. Iden:

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?

## 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 drilling the well, further with the hope that he might get oil or gas?

Mr. Hemenway:

Yes.

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.

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. 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:

You 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?

Mr. 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. Westbrc :

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, Mr. Westbrook. You have a lease. Now do you have a plugging bond?

Mr. Westbrook:

The bond is accompanying my petition here.

Mr. Livingston:

Mr. 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, Stenographer