

Case No.

789

Application, Transcript,  
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 789  
Order No. R-568

THE MATTER OF THE APPLICATION OF  
KERSEY AND COMPANY FOR PERMISSION  
TO INSTITUTE A SECONDARY RECOVERY  
PROGRAM BY WATER FLOODING THE GRAY-  
BURG SAND OF THE RED LAKE OIL POOL OF  
EDDY COUNTY, NEW MEXICO, SAID PROGRAM  
TO CONSIST OF THE INJECTION OF WATER INTO  
APPLICANTS THOMPSON-STATE WELLS NOS. 1,  
2, 3 and 4, (FORMERLY OWNED BY DELHI OIL  
CORPORATION), ALL OF WHICH ARE LOCATED  
IN SW/4 OF SECTION 20, TOWNSHIP 17 SOUTH,  
RANGE 28 EAST, NMPM, AND THE DRILLING OF  
A FIFTH WELL FOR RECOVERY PURPOSES TO  
BE KNOWN AS KERSEY AND COMPANY'S THOMPSON-  
STATE WELL NO. 5, TO BE LOCATED 1650 FEET  
FROM THE WEST LINE AND 1000 FEET FROM THE  
SOUTH LINE OF SECTION 20, TOWNSHIP 17 SOUTH,  
RANGE 28 EAST, NMPM, IN A SO-CALLED "FIVE-  
SPOT" LOCATION.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on November 17, 1954, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 13<sup>th</sup> day of January, 1955, the Commission, a quorum being present, having considered the testimony adduced and the exhibits received at said hearing, and being otherwise fully advised in the premises,

FINDS:

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

(2) That Kersey and Company is the owner of an oil and gas lease covering the SW/4 of Section 20, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico.

(3) That the program proposed by petitioner to accomplish the recovery of oil through water injection will tend to prevent waste through the production of oil which might not otherwise be recovered, and should be approved upon the condition that said program be conducted in a workmanlike manner.

(4) That the proposed injection program can best be operated through the injection of water into applicant's Thompson-State Wells, 1, 2, 3 and 4 and the recovery of oil through a fifth well to be drilled as set out in the application.

(5) That a secondary recovery program through water injection is of an experimental nature in this particular pool, and periodic reports should be submitted to the Commission by the petitioner disclosing the progress of its program.

(6) That no objection has been entered to the granting of this application.

IT IS THEREFORE ORDERED:

1. That the application of Kersey and Company for permission to inject water into its Thompson-State Wells Nos. 1, 2, 3 and 4, all of which are located in the SW/4 of Section 20, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico, for the purpose of effecting the recovery of oil through water injection should be, and the same hereby is granted.

2. That permission is hereby granted to inject water into the Grayburg producing formation of the Red Lake Oil Pool of Eddy County, New Mexico, through said injection wells.

3. That permission is further granted for the drilling of a fifth well for recovery purposes, such well to be known as Kersey and Company's Thompson-State No. 5, and to be located 1650 feet from the west line and 1000 feet from the south line of Section 20, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico in the Red Lake Oil Pool, said well to be drilled to an approximate depth of 1900 feet subsurface to a sand member within the Grayburg section.

4. That the operator-applicant shall submit monthly reports to the Commission showing the monthly oil production and water production, and the amount of water injected into the reservoir through each injection well.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*John F. Simms, Jr.*  
JOHN F. SIMMS, JR., CHAIRMAN

*E. S. Walker*  
E. S. WALKER, MEMBER

*W. B. Macey*  
W. B. MACEY, MEMBER & SECRETARY





OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

March 8, 1955

Mr. E. E. Scannell  
517 Staley Building  
WICHITA FALLS, TEXAS

Dear Sir:

Reference is made to your letter of February 24, with inquiry about a water flood project which is under way in Section 20, Township 17 South, Range 28 East, Eddy County, New Mexico.

I attach a copy of Order R-568, which was issued in Case 789 after properly advertised hearing before the Commission. Our regulations do not require notification of offset operators in such instance, but the statute does require that we make proper legal advertisement in Santa Fe County (wherein the hearing was held) and in the county involved - in this case, Eddy County. This was done, and the matter was also advertised in the Hobbs paper for good measure.

Hearing was then held on November 17, 1954, at which time the applicant, Kersey and Company, presented testimony with regard to its proposed water flooding, and no objection was entered. I believe the order itself will indicate the Commission's disposition of the matter.

Our case record in this matter is open at all times to you if you wish to look it over, along with the well files concerned. I am enclosing a copy of Kersey and Company's original application in the case, if you wish to study it.

Very truly yours,

W. B. Macey, Secretary-Director

WBM:nr

cc: Kersey and Company  
c/o Mr. Chas. Loveless  
Box 5613  
ROSWELL, N M

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Y

MAIN OFFICE OCC

1955 FEB 23 AM 9:01

**E. E. SCANNELL**

OIL INVESTMENTS

517 STALEY BUILDING

WICHITA FALLS, TEXAS

Feb. 24, 1955

*Ref Case No  
we will write him  
Kersey & Co  
Case 789  
Order R-568*

Oil Conservation Commission,  
Box 871  
Sante Fe, New Mexico.

Dear Sirs:

The records show that an application has been made for the drilling of a well located in the Center of the SW $\frac{1}{4}$  Sec. 20, T-1 7S, R-28E, Eddy County, ~~Texas~~, and understand that this well is now drilling. *nm*

Understand also that a water-flooding project is being initiated in this area, the intention being to use the other four wells located on this quarter section as in put wells.

I am the operator of two wells located in the S $\frac{1}{2}$  of the SE $\frac{1}{4}$  of this same section. Under the arrangements mentioned above, one of the wells to be used as input wells for water injection is a direct offset to the West of my lease.

Please advise if you have any information concerning this flooding project, if there has been a hearing on the matter and, in matters of this nature, if the surrounding lease owners are notified. No notification of a hearing connected with this project has been received by me.

Your early reply regarding this inquiry will be greatly appreciated.

Yours very truly,

  
E. E. SCANNELL

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

January 17, 1955

Mr. Charles Loveless  
Box 5613  
ROSWELL, NEW MEXICO

Dear Sir:

We attach copy of Order R-568 issued under date of January 13, 1955, in Case 789, which was brought upon your application submitted on behalf of Kersey and Company.

Very truly yours,

W. B. Macey  
Secretary - Director

WBM:mr

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Y

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Re: APPLICATION OF KERSEY AND COMPANY )  
FOR PERMISSION TO INJECT WATER INTO )  
THE RED LAKE POOL IN SECTION 20, )  
TOWNSHIP 17 SOUTH, RANGE 28 EAST, )  
N.M.P.M., EDDY COUNTY, NEW MEXICO FOR )  
SECONDARY RECOVERY OF OIL. )

Case No. 789

A P P L I C A T I O N

COMES NOW Kersey and Company, and hereby makes application to the New Mexico Oil Conservation Commission for a permit to inject water into the Red Lake Pool in Eddy County, New Mexico for secondary recovery purposes and, in support of such Application, states:

1. That there is attached hereto, marked Exhibit "A" and made a part hereof, a plat showing the location of four proposed water input wells, which wells are Kersey and Company (formerly Delhi Oil Corporation) Nos. 1, 2, 3 and 4 Thompson-State located respectively, 2310' from the West line and 1650' from the South line; 990' from the West line and 1650' from the South line; 2310' from the West line and 330' from the South line; and 990' from the West line and 330' from the South line, all in the Southwest Quarter of Section 20, Township 17-South, Range 28-East, Eddy County, New Mexico. That Exhibit "A" shows also the location of a proposed new five-spot Red Lake production well to be located 1650' from the West line and 1000' from the South line of Section 20. (5)
2. That the producing formation is a sandstone member lying within the Grayburg section and is found at approximately 1900 feet subsurface. That said Exhibit "A" shows the estimated pool limit and an isopachus contour of the thickness of the producing formation (not to be confused with the effective producing sand).
3. That the proposed new five-spot production well will be cored through the producing formation. That the cores will be analyzed to determine the content of unrecovered oil, porosity, permeability, probable recoverable oil by water flooding and adaptability of available water for the flood. That if the said core analysis demonstrates the feasibility of the flood, said four producing wells will be converted to input wells and a pilot flood commenced. That ultimately the flood area will be extended if the pilot flood proves effective and economical.
4. That Kersey and Company now have title to a water well capable of producing approximately 700 barrels of fresh water per day and filters settling tanks, storage tanks and high pressure pumps capable of delivering water to the head of the input wells at pressures in excess of 400 pounds per square inch. That said plant is located in Section 19, Township 17-South, Range 28-East, approximately one mile from the input wells.
5. That the four field wells to be converted to water input wells are presently producing a combined total of approximately three barrels of oil per day.
6. That the name and address of the operator of the project is:

Kersey and Company  
P. O. Box 305  
Artesia, New Mexico



WHEREFORE, applicant requests permission from the New Mexico Oil Conservation Commission to proceed with said secondary recovery pilot program, as set forth in the above Application.

KERSEY AND COMPANY

By: Charles C. Loveless, Jr.  
Charles C. Loveless, Jr.  
P. O. Box 5613  
Roswell, New Mexico  
Joint Venturer

ESTIMATED POOL LIMIT  
FORMATION THICKNESS

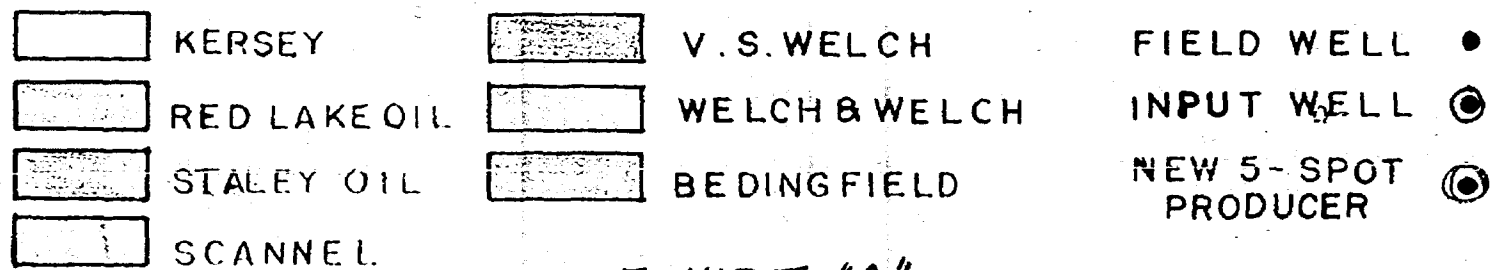
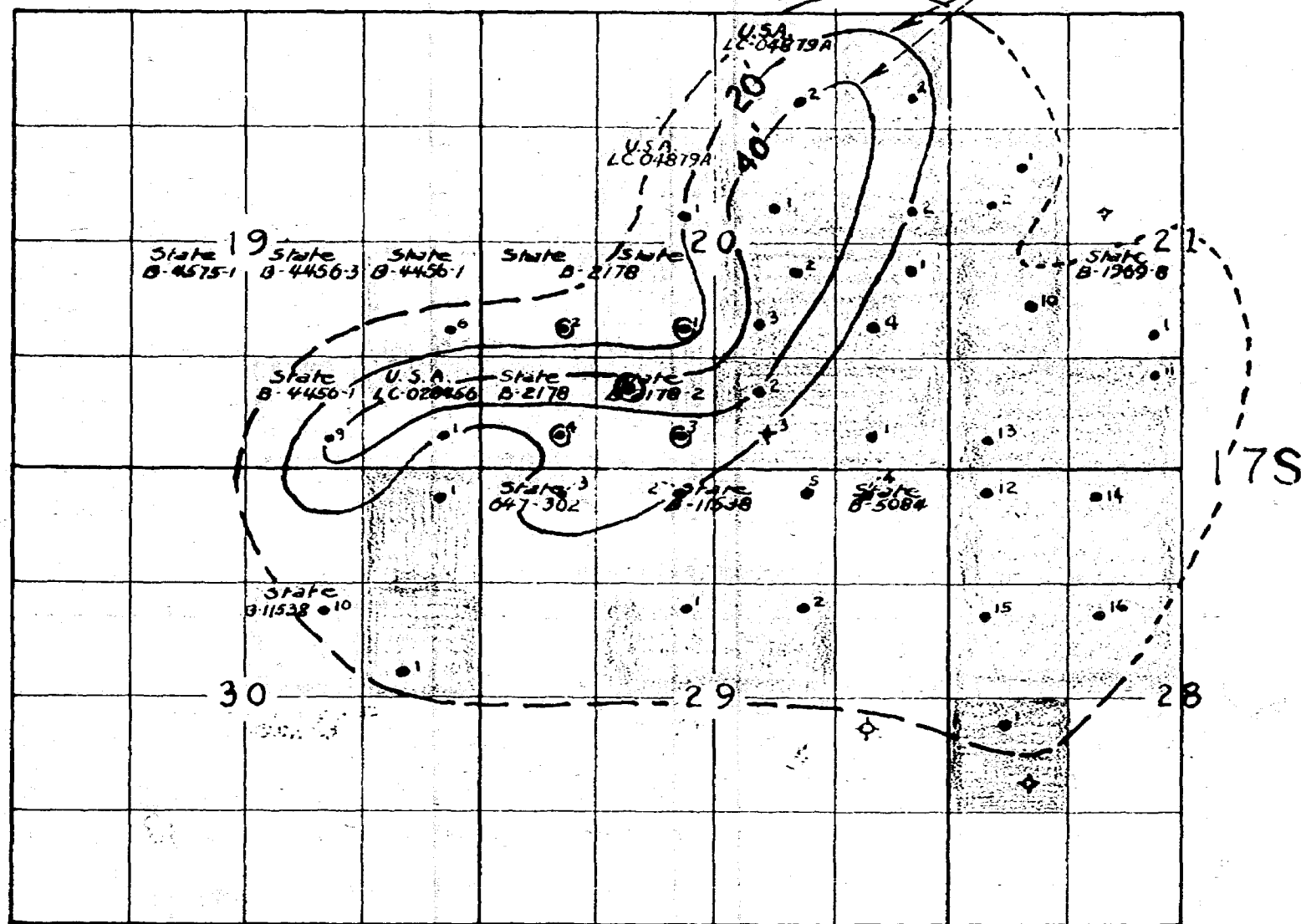


EXHIBIT "A"



PHONES:  
OFFICE 5300  
HOME 4353  
4758

Case 789  
Wern.

P. O. BOX 5613

Eugene E. Nearbury  
Charles C. Loveless, Jr.  
ROSWELL, NEW MEXICO

MAIN OFFICE OCC

1954 NOV 2 PM 1:19

November 2, 1954

Mr. Bill Macey, Secretary  
New Mexico Oil Conservation Commission  
State Capitol  
Santa Fe, New Mexico

Dear Mr. Macey:

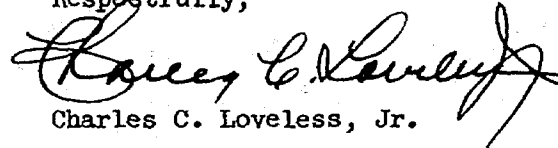
Enclosed find three copies of the Application of Kersey and Company for permission to inject water into Red Lake Pool, Eddy County, New Mexico for purposes of attempting a pilot water flood project.

I want to thank you at this time for permitting me an extension beyond the usual deadline for filing applications to be heard at the state-wide hearing during the current month.

We will plan to appear with one or more witnesses to give oral testimony at the public hearing.

Thank you in advance for your kind assistance. Warmest personal regards.

Respectfully,

  
Charles C. Loveless, Jr.

CCL:jy  
Encls.

PHONES:  
OFFICE 5300  
HOME 4353  
4758

Case 789  
Wern.

P. O. BOX 5613

Eugene E. Nearburg  
Charles C. Loveless, Jr.  
ROSWELL, NEW MEXICO

MAIN OFFICE OCC

1954 NOV 2 PM 1:19

November 2, 1954

Mr. Bill Macey, Secretary  
New Mexico Oil Conservation Commission  
State Capitol  
Santa Fe, New Mexico

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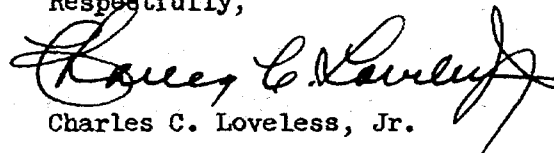
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Thank you in advance for your kind assistance. Warmest personal regards.

Respectfully,

  
Charles C. Loveless, Jr.

CCL:jy  
Encls.

BEFORE THE  
Oil Conservation Commission  
SANTA FE, NEW MEXICO  
November 17, 1954

IN THE MATTER OF:

CASE NO. 789 - Regular Hearing

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES  
COURT REPORTERS  
ROOMS 105, 106, 107 EL CORTEZ BUILDING  
TELEPHONE 7-9546  
ALBUQUERQUE, NEW MEXICO

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
November 17, 1954

IN THE MATTER OF:

The application of Kersey & Company for approval of a water-injection program for secondary recovery.

Applicant, in the above-styled cause, seeks an order approving its proposed water-injection program for secondary recovery of oil from Kersey & Company's Thompson-State Wells No. 1, No. 2, No. 3 and No. 4 (formerly operated by Delhi Oil Corporation), all of which are located in SW/4 Section 20, Township 17 South, Range 28 East, Eddy County, New Mexico, in the Red Lake Pool; applicant proposes to drill for injection purposes a fifth well, its Thompson-State No. 5, as a centrally located "five-spot" location, and utilize an injection zone in the Grayburg formation at an appropriate depth of 1850 to 1950 feet.

Case No. 789

BEFORE:

Honorable Edwin L. Mechem  
Mr. E. S. (Johnny) Walker  
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 789. Mr. Kersey, do you have a statement you want to make?

MR. KERSEY: Yes, I want to explain what we propose to do. This is an application for secondary recovery on the southwest quarter of Section 20, Township 17 South, Range 28 East, Eddy County, New Mexico. The production in the area is practically depleted and we propose to initiate a secondary recovery with water

flood, by drilling an orthodox location "five-spot", between four existing wells. Upon drilling this well we will have the cores analyzed and see if water flooding is possible, and if it is we will inject water then in the four existing wells and use the core-holes as a production hole. We have an adequate supply of water, about six to seven hundred barrels a day, and the approval of the adjacent operators have been obtained. We are more or less in the middle of our acreage, so that there is not too much acreage that is adjacent to our operation. That about covers the proposal, I believe. It is in the Grayburg section, the section varies from ten to 30 feet in thickness.

MR. MACEY: To your knowledge there has never been any water flooding tried in this area in the Grayburg?

A No, there hasn't been any tried in this area. This will be its first trial. It is problematical, of course, as to how successful it will be.

MR. MACEY: To review what you said, Mr. Kersey, as I understand it you are going to, if the cores indicate that a flooding program is feasible, you are going to inject water into Wells No. 1, 2, 3 and 4?

A That is right.

By:MR. MACEY: And produce the well to be drilled?

A The well to be drilled, it will be the production hole, the well to be drilled.

Q What are you going to call that proposed well, are you going to have a number?

A Yes, it will be Thompson No. 5.

Q Do you have any idea what might be done regarding the allow-



able, you are going to abandon four 40-acre tracts?

A Yes, I would presume at a later date when we see what its success will be we should probably be entitled to an allowable for 160 acres, since we are using 160 acres as a trial, for the trial flood. However, I am not going to ask for that now.

MR. MACEY: You are going to wait and see?

A Going to wait and see.

MR. MACEY: That is all I have. Any questions of the witness? If not the witness may be excused.

(Witness excused.)

MR. MACEY: Before we proceed with the next case, we have a number of copies of suggested Rules in Case 790. I think it would be advisable if we handed those out to the people that are present and let you examine them during the noon hour and then we will take the case up when we come back from recess.

(Recess.)

STATE OF NEW MEXICO )  
                              : SS.  
COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 23rd day of November, 1954.

  
Notary Public, Court Reporter

My Commission Expires:

June 19, 1955

