

Case No.

1072

Application, Transcript,
Small Exhibits, Etc.

CASE 1072: Kewanee Oil Co. application for
order granting permission to inject water into
its Pearl Well #26, NW SW 30-17S-33E, & to
abandon gas injection used on said well.

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. 1072
Order No. R-841

APPLICATION OF KEWANEE OIL
COMPANY FOR AN ORDER GRANTING
PERMISSION TO INJECT WATER INTO
ITS PEARL WELL NO. 26 IN THE
NW/4 SW/4 OF SECTION 30, TOWN-
SHIP 17 SOUTH, RANGE 33 EAST,
MALJAMAR POOL, LEA COUNTY, NEW
MEXICO, FOR THE PURPOSE OF
SECONDARY RECOVERY AND FURTHER
FOR PERMISSION TO DISCONTINUE
THE INJECTION OF GAS HERETOFORE
AUTHORIZED FOR SAID WELL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
June 20, 1956, at Hobbs, New Mexico, before Daniel S. Nutter,
Examiner duly appointed by the Oil Conservation Commission of New
Mexico in accordance with Rule 1214 of the Rules and Regulations
of the New Mexico Oil Conservation Commission.

NOW, on this 9th day of July 1956, the Oil Conservation
Commission of New Mexico, hereinafter referred to as the "Com-
mission," a quorum being present, having considered said application
and the recommendations of the Examiner, Daniel S. Nutter, and being
fully advised in the premises,

FINDS:

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

(2) That the oil and gas lease involved in the appli-
cation is Federally owned, and the Supervisor of the United States
Geological Survey has interposed no objection to the application.

(3) That Kewanee Oil Company is the owner and holder
of a Federal Oil and Gas Lease and said lease covers the following
described land in Lea County, New Mexico, to-wit:

All Sec. 25, Twp. 17 South, Range 32 East;
Lots 1, 2, 3, and 4, and the E/2 W/2 Sec. 30,
Twp. 17 South, Range 33 East, containing
968.56 acres, more or less,

which said lease is designated as Kewanee Oil Company's "Pearl"
Lease.

(4) That applicant received authority for an unorthodox location for its Pearl Lease Well No. 26 by Order 770 on May 25, 1948, and that said well is located 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico. Further, that applicant received authority to inject gas into said well and into two other wells on said Pearl lease by Commission Order E-146, dated May 1, 1952, for the purpose of secondary recovery from the adjoining wells on said Pearl Lease, with the provision that no allowables from the aforesaid three gas injection wells would be transferred to the other wells on said Pearl Lease.

(5) That recent engineering studies have indicated that greater secondary recovery of oil can be accomplished by the initiation of a pilot water flood operation on the aforesaid Pearl Lease.

(6) That applicant has shown that to discontinue the injection of gas into its Pearl Well No. 26 and to convert said well to a water injection well will result in greater secondary recovery of oil.

(7) That said conversion of applicant's Pearl Well No. 26 to a water injection well is in the best interests of conservation and the prevention of waste.

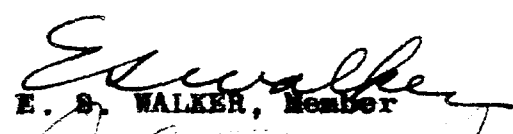
IT IS THEREFORE ORDERED:

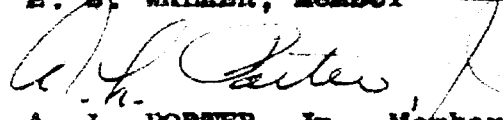
That the application of Kewanee Oil Company to discontinue the injection of gas into its Pearl Well No. 26, located 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico, and to convert said well to a water injection well be and the same is hereby approved.

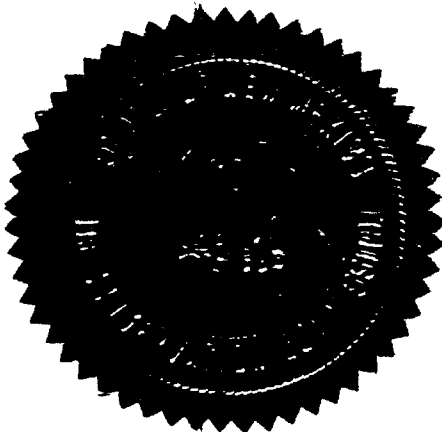
DONE at Santa Fe, New Mexico on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN F. SIMMS, Chairman


E. S. WALKER, Member


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



BEFORE THE
Oil Conservation Commission
SANTA FE, NEW MEXICO
June 20, 1956

IN THE MATTER OF:

CASE NO. 1072

TRANSCRIPT OF PROCEEDINGS

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

NEW MEXICO OIL CONSERVATION COMMISSION
 MABRY HALL - STATE CAPITOL
 SANTA FE, NEW MEXICO

REGISTER

HEARING DATE June 20, 1956 TIME: 9:00 a.m.

NAME:	REPRESENTING:	LOCATION
Layton A. Webb	Sinclair Oil & Gas Co.	Midland, Tex.
John M. Webster	Sinclair Oil & Gas Co.	Midland, Texas
B.G. IVERSON	KEWANEE OIL CO	ODDSAN, TEXAS
J.F. HARRISON	KEWANEE OIL CO.	MALJAMARZ, N.M.
J.F. Harrison	etc, Kewanee	Midland, Texas
G.W. Eaton, Jr.	Standard Oil and Gas	Roswell, N.M.
Charles Beal	Darney Lockburn	Hobbs, NM
J.W. Trice	STANDARD OIL & GAS	ROSWELL N.M.
Ross L. Malone	Standard	Roswell, N.M.
(W) L. Linder	CCC	Hobbs
J.M. Langer	CCC	Hobbs
John M. Campbell	Campbell & Russell	Roswell NM

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO
JUNE 20, 1956

IN THE MATTER OF: :

CASE 1072: (Readvertisement) Application of the :
Kewanee Oil Company in compliance with :
Rule 701 (a) of the Commission State- :
wide Rules and Regulations for an :
order granting permission to inject :
water into its Pearl Well No. 26 in the :
NW/4 SW/4 of Section 30, Township 17 :
South, Range 33 East, Maljamar Pool, :
Lea County, New Mexico, for the purpose :
of secondary recovery and secondly for :
permission to abandon gas injection :
heretofore used on said well. Appli- :
cant, in the above-styled cause, seeks :
an order granting permission to inject :
water into its Pearl Well No. 26 lo- :
cated 2615 feet from the South line and :
25 feet from the West line of Section :
30, Township 17 South, Range 33 East, :
Lea County, New Mexico, for the purpose :
of secondary recovery from the Grayburg :
formation of the Maljamar Pool, and :
further applicant requests permission :
to abandon its practice of gas inject- :
ion into said well previously granted :
by Order R-146. :

BEFORE:

Mr. Daniel S. Nutter, Examiner.

P R O C E E D I N G S

MR. NUTTER: The hearing will come to order. The first case on the docket this morning will be Case 1072, the Application of the Kewanee Oil Company in compliance with Rule 701 (a) of the Commission Statewide Rules and Regulations for an order granting permission to inject water into its Pearl Well No. 26 in the NW/4 SW/4 of Section 30, Township 17 South, Range 33 East.

B. G. IVERSON,

called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. HANNERS:

Q Your name is B. G. Iverson? A Yes.

Q You live at Odessa? A Right.

Q What is your position with the Kewanee Oil Company?

A A division engineer for the western division.

Q Do you have charge of the Maljamar area?

A It comes under our jurisdiction.

Q In your Odessa office? A Yes, sir.

Q Do you hold a degree in engineering, Mr. Iverson?

A Yes, sir, I do.

Q What school? A Texas Tech.

Q What year? A 1949.

Q Have you been associated with Kewanee since that time?

A Yes, sir, I have.

Q You have been actively in charge of the Maljamar district?

A For the past year, I have been in the Odessa office, and also was in Maljamar for three years.

Q Mr. Iverson, this is an application to convert a gas injection well to a water injection well, the well being Pearl Well No.26. Tell me, sir, in 1952 was your company given permission to inject gas into three of the wells on your Pearl lease and describe that by land description in that application. Were you given permission in 1952?

A Yes, sir.

Q And this is an application to abandon that gas injection in your Pearl Well No. 26, and to initiate a pilot water flood operation?

A That's right.

Q Turning now to your application, do you have a copy of your application?

A No, sir, I don't.

Q I will loan you one. Does the application state which has been --

MR. GURLEY: Mr. Hanners, do you wish to have this man qualified as an expert witness?

MR. HANNERS: Yes, sir.

MR. GURLEY: Will you ask the question?

Q Have you previously testified in the hearing before the Commission?

A No, sir.

Q I believe you testified you received a degree in Petroleum Engineering in what year?

A 1949.

Q And have you been actively engaged in the practice of your profession since that time?

A That is right.

MR. HANNERS: Has the Commission any further questions?

MR. NUTTER: No, sir.

MR. HANNERS: Thank you, sir.

Q In the application which has been filed with the Commission, Mr. Iverson, does it show the location of your Pearl Well No. 26?

A Yes, sir.

Q From what formation are the wells on the adjoining area of your Pearl lease producing?

A They produce from the Grayburg, locally referred to as the Sixth Zone.

Q Does your application attach a log of the intake well in your Pearl oil lease?

A A driller's log, only.

Q Where would you obtain the water that you would inject into the Pearl Well?

A We have an abandoned oil well in the SE/4 of Section 25, which adjoins this section, and we have gone into that well and re-completed it in the Rustler Formation as a water producing well.

Q Is that the well that you name on your chart as your Pearl 12, water supply?

A That is right.

Q Have you attached to the application a platt showing the location of the intake well?

A Yes, sir.

Q The location of other wells on your Pearl lease?

A Yes, sir.

Q And showing the operators within the half mile radius on your Pearl lease?

A Yes, sir, we have.

Q How will you accomplish the water injection?

A Through two-inch tubing with a production packer set inside the casing near the shoe, injected by pump pressure.

Q Is there also attached to your application a description of the casing in your intake well?

A We have a description of the casing as to size and casing depth and how many sacks of cement were used.

Q Mr. Iverson, what is the purpose of your water injection application, for what purpose was it made?

A Well, for -- to receive greater ultimate recovery, help in prevention of waste in the interest of conservation.

Q Is it your opinion that the granting of the Commission to convert from gas to pilot water injection on the Well 26 will permit greater ultimate recovery and be in the interest of conservation and prevention of waste?

A Very definitely.

MR. HANNERS: Has the examiner any questions?

MR. NUTTER: Yes.

Q (By Mr. Nutter.) I think as a matter of record you should read these casing and cementing programs into the record.

A The description of the intake well casing is as follows: Eight and five-eighths inch set at 1272 feet, cemented with 100 sacks; seven inch set at 3930, cemented with 200 sacks.

Q What is the location of that well, Mr. Iverson?

A The location is 2,615 feet from the South line, 25 feet from the West line of Section 30, Township 17 South, Range 33 East.

Q And that is your Pearl Well No. 26?

A Pearl Well 26.

MR. HANNERS: That was a Five Spot location?

A It was drilled as a Five Spot location with approval from the Commission.

MR. HANNERS: Have you had a similar application with the United States Geological Survey?

A Yes, sir, we have.

MR. HANNERS: Does the examiner have any further questions?

MR. NUTTER: No, I don't think so. Are you going to introduce these logs as exhibits?

MR. HANNERS: Yes, sir. The logs and platts are attached to our application which is filed as part of the record, and we

thought to simplify it by not offering here additional exhibits. We recommend that the application be granted.

MR. NUTTER: Does anyone have any questions of the witness?

Q (By Mr. Reeder.) Mr. Iverson, have you any water analysis on the water which you propose to use?

A Yes, sir, we have taken several analyses of them and the water does appear compatible. In other words, it will mix with the water in the Grayburg Formation.

Q Do you have that analysis with you?

A No, sir, I don't.

Q Do you recall roughly the chloride content of that water?

A No, sir, I don't.

Q This water source, is that immediately above the salt?

A Yes, sir, it is probably the last red bed and sand zones of that salt, we have opened in that well perforated intervals between 750 and 899 -- I'm sorry, 954.

Q 750 and --

A 954.

Q Would this water be considered compatible, do you recall from the analysis?

A I don't think it would be.

Q Is it brackish?

A Brackish water, not very much so.

Q Would it be possible for you to furnish the Commission with a copy of the water analysis that you have? A Yes, sir.

MR. REEDER: I believe that is all.

MR. HANNERS: We will furnish the copy of the analysis if you desire.

MR. NUTTER: Does anyone else have any further questions of the witness? If not, the witness may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have any further statements or testimony in this case? If not, we will take the case under advisement.

* * * * *

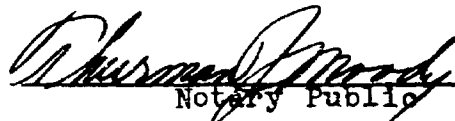
C E R T I F I C A T E

STATE OF NEW MEXICO)

:ss
COUNTY OF BERNALILLO)

I, THURMAN J. MOODY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and later same was reduced to typewritten transcript by me and/or under my personal supervision, and that same is a true and correct transcript to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 26th day of June, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.


Notary Public

MY COMMISSION EXPIRES

April 3, 1960.

NEW MEXICO OIL CONSERVATION COMMISSION
MABRY HALL - STATE CAPITOL
SANTA FE, NEW MEXICO

REGISTER

HEARING DATE May 23, 1956 TIME: 9:00 a.m.

NAME:	REPRESENTING:	LOCATION
<i>Harold C. Bratton</i>	<i>Harold C. Bratton</i>	<i>Bratton, N.M.</i>
<i>J. M. Mc Cague</i>	<i>Shell Oil Co.</i>	<i>Hobbs,</i>
<i>E. J. Noel</i>	<i>EL PASO NAT. GAS</i>	<i>FARMINGTON NM</i>
<i>James C. Thudiner</i>	<i>El Paso Nat. Gas Co.</i>	<i>El Paso, Texas</i>
<i>John D. Albright</i>	<i>Entire Gas Co.</i>	<i>Hobbs, N.M.</i>
<i>D. C. Morris</i>	<i>Ohio Oil Co.</i>	<i>Midland, Texas</i>
<i>Tom Steele</i>	<i>" " "</i>	<i>" "</i>
<i>S. O. Farrell Couch</i>	<i>" " "</i>	<i>Kovaton "</i>
<i>J. W. Neal</i>	<i>R. Olsen</i>	<i>Hobbs</i>
<i>C. W. Rader</i>	<i>OCC</i>	<i>Hobbs,</i>
<i>John A. Mc</i>	<i>OCC</i>	<i>San E.</i>
<i>J. W. Gray</i>	<i>"</i>	<i>"</i>
<i>R. C. H. H. H.</i>	<i>H. H. H.</i>	<i>Midland</i>
	<i>"</i>	<i>Hobbs</i>

BEFORE THE
OIL CONSERVATION COMMISSION
Hobbs, New Mexico
May 23, 1956

IN THE MATTER OF:)
CASE NO. 1072)

TRANSCRIPT OF PROCEEDINGS

OIL CONSERVATION COMMISSION
Hobbs, New Mexico
May 23, 1956

In the matter of the application of the
Kewanee Oil Company in compliance with
Rule 701 (a) of the Commission Statewide
Rules and Regulations for an order grant-
ing permission to inject water into its
Pearl Well No. 26 in the NW/4 SW/4 of
Section 30, Township 17 South, Range 33
East, Maljamar Pool, Lea County, New Mex-
ico, for the purpose of secondary recovery
and secondly for permission to abandon gas
injection heretofore used on said well.

Applicant, in the above-styled cause, seeks
an order granting permission to inject water
into its Pearl Well No. 26 located 2615 feet
from the South line and 25 feet from the West
line of Section 30, Township 17 South, Range
33 East, Lea County, New Mexico, for the pur-
pose of secondary recovery from the Grayburg
formation of the Maljamar Pool, and further
applicant requests permission to abandon its
practice of gas injection into said well
previously granted by Order R-146.

CASE No. 1072

DIRECT EXAMINATION

EXAMINER MANKIN: The hearing will come to order. The first case on the docket today is Case No. 1072, the application of Kewanee Oil Company in compliance with Rule 701-A, for an order granting permission to inject water into its Pearl Well No. 26 in the Maljamar Pool, Lea County, New Mexico. We have received a letter dated May 8, 1956, addressed to the Oil Conservation Commission, a letter from G. T. Hanners, Counsel representing Kewanee Oil Company, the following letter: "Gentlemen, the water injection application of Kewanee Oil Company has been set for a hearing before the Examiner at Hobbs on the morning

of May 23rd, but I have a conflicting prior setting with certain court appeals in Denver for the same time; I therefore, ask that the May 23rd hearing shall be continued until such time soon thereafter as cases will again come on for hearing before the Examiner at Hobbs." Signed, Very truly, G. T. Hanners, Counsel for Kewanee Oil Company. Based upon the letter from the applicant in this case, this case, without objection, will be continued to the next Examiner Hearing at Hobbs, which will be June 20, 1956, at 9 a.m., before Examiner, Dan S. Nutter. As such will be readvertised for that particular Examiner Hearing. Is there objection to continuing this case? If not, the case will be so continued to June 20, 1956.

STATE OF NEW MEXICO)
COUNTY OF SANTA FE) ss

I, Nancy Chowning, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Hobbs, New Mexico, is a true and correct record, to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico this 25th day of September, 1956.

Nancy Chowning

MAIN OFFICE GOC
1936 AUG 8 AM 1:05

LAW OFFICES
G. T. HANNERS
STANSELL BUILDING
LOVINGTON, NEW MEXICO
July 31, 1956

Subscribed 8-2-26

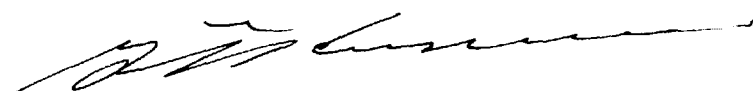
Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Docket No. 1,072
Order No. R-841
Kewanee Oil Company

Will you please have the reporter send me two copies of the transcript of the June 20th hearing in Hobbs; insofar as the same related to the Kewanee application identified by the above numbers. Tell the reporter that I used only one witness, Mr. B. G. Iverson, but I would like the transcript to include the questions and comments by the Commission Engineer and all statements and comments by any other persons during the progress of the Kewanee hearing. Please ask the reporter to include his invoice with the transcripts.

Yours very truly,



GTH:lbr

MAIN OFFICE OCC
1956 MAY 24 PM 8:54

LAW OFFICES
G. T. HANNERS
STANSELL BUILDING
LOVINGTON, NEW MEXICO
May 8, 1956

Case # 1072

Recd
Noted 6/1/56
to

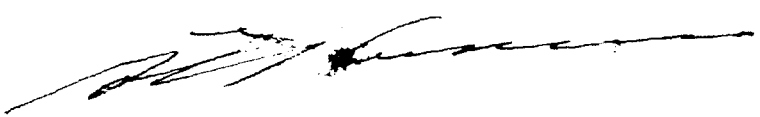
Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Kewanee Oil Company Application
Hearing for May 23rd, at Hobbs

The water injection Application of Kewanee Oil Company has been set for hearing before the Examiner, at Hobbs, on the morning of May 23rd, but I have a conflicting prior setting in the Circuit Court of Appeals, at Denver, for the same time. I, therefore, ask that the May 23rd hearing be continued until such time soon thereafter as cases will again come on for hearing before the Examiner at Hobbs.

Yours very truly,



GTH/jnw

CC:

Mr. B. G. Iverson
Kewanee Oil Company
Odessa, Texas

315786

Mr. R. A. McGill
Kewanee Oil Company
Maljamar, New Mexico

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

July 13, 1956

C
O
P
Y

Mr. G. T. Hanners
Stansell Building
Lovington, New Mexico

Dear Sir:

In behalf of your client, Kewanee Oil Company, we enclose two copies of Order R-841 issued July 9, 1956, by the Oil Conservation Commission in Case 1072, which was heard on June 20th in Hobbs.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

brp
Encls.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

Case # 1072

IN THE MATTER OF THE APPLICATION OF
KEWANEE OIL COMPANY FOR PERMISSION
TO INJECT WATER INTO ITS PEARL WELL
NO. 26, IN THE NW $\frac{1}{4}$ SW $\frac{1}{4}$ OF SECTION 30,
TOWNSHIP 17 SOUTH, RANGE 33 EAST, FOR
THE PURPOSE OF SECONDARY RECOVERY, AND
TO ABANDON GAS INJECTION HERETOFORE
PERMITTED.

No.

APPLICATION

The Kewanee Oil Company applies for permission to inject water in its Pearl well above described to promote secondary recovery, and, in support thereof, respectfully shows to the Commission as follows:

1. That the applicant is a corporation organized under the Laws of the State of Delaware, and is authorized to transact business in the State of New Mexico, that its mailing address in connection with this application is Post Office Box 3786, Odessa, Texas.

2. That the applicant is the owner and holder of federal oil and gas lease, Serial No. LC-058697b, insofar as the same covers the following described lands in Lea County, New Mexico, to-wit:

All of Section 25, Township 17 South,
Range 32 East, and Lots 1, 2, 3 and 4
and in the East Half of West Half of Section
30, Township 17 South, Range 33 East,
containing 968.56 acres, more or less,

and said oil and gas lease is known and designated as the applicant's Pearl lease, and that the lands covered by said oil and gas lease are located in the Maljamar Field of Lea County, New Mexico.

3. That on May 1, 1952, and in the case No. 356, the Oil Conservation Commission of the State of New Mexico by Order permitted the injection of gas into applicant's Pearl well No. 26 in the Northwest Quarter of Southwest Quarter of said Section 30, together with other wells, for the purpose of secondary recovery from the Grayburg-San Andreas formation from which adjoining wells on such lease were producing, and the applicant seeks permission to abandon such gas injection insofar only as such Pearl No. 26 well is concerned, and to conduct a pilot water flood operation through such well for the purpose of secondary recovery from the adjoining wells on such lease; and the applicant is setting forth below the information required by applicable rules and regulations of the Commission:

(1) That applicant's Pearl well No. 26 is 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, and was originally drilled as a five spot location; that the applicant owns and operates 20 oil wells on such Pearl lease producing from the Grayburg formation, and two dual completion wells producing from the Queens Sand and through which gas is injected into the Grayburg formation and one other gas injection well; and that there is attached hereto as Exhibit "A" a plat showing the location of the intake well and the location of all other wells on such Pearl lease, and the names of the lessees-operators within one-half mile radius of such Pearl lease.

(2) That the formation from which the wells are producing or have produced on such Pearl lease is the lower Grayburg formation of Permian age, and locally referred to in the Maljamar area as the Sixth Zone.

Unrecorded
per Order 141
order 770
on 3/25/48
2615' x 25'
25' x 25'

(3) The formation to be affected by the water injection is the lower Grayburg formation, which is a porous dolomite found at depths ranging from approximately 4180 to 4230 feet.

(4) The log of the intake well is hereto attached as Exhibit "B".

(5) The description of the intake well's casing is as follows:

8 5/8ths inch, set at 1272 feet, cemented with 100 sacks.

7 inch, set at 3930 feet, cemented with 200 sacks.

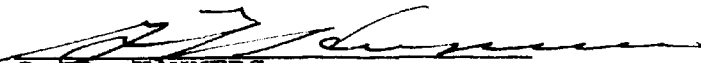
(6) It is proposed to inject water through two-inch tubing with a production packer set at 3880 feet; the annular space between the tubing and the casing will be filled with lease crude; the water will be obtained from applicant's water supply well, known as Pearl No. 12-X-WS in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of the above numbered Section 25; and the amount of water to be injected will be approximately 300 barrels per day.

(7) That the name and address of the operator of this pilot flood operation will be this applicant.

4. That under permission heretofore granted by the Commission, the applicant has heretofore been injecting gas into its Pearl well No. 26 for the purpose of secondary recovery from the Grayburg formation by its adjoining wells on such Pearl lease, and that, as the result of engineering studies of reservoir conditions, it is the applicant's belief ~~that~~ greater secondary recovery can now be accomplished through water flooding, and that the same will be in the best interests of conservation and prevention of waste.

WHEREFORE, applicant prays that the Commission fix a time and place for the hearing on this Application, and that,

upon hearing, the applicant be granted permission to abandon the gas injection heretofore permitted for its Pearl well No. 26 and be granted permission to inject water therein for the purpose of secondary recovery from the Grayburg formation by its adjoining wells on such Pearl lease.


G. T. HANNERS
Lovington, New Mexico
Attorney for applicant

STATE OF New Mexico)
COUNTY OF Lea) SS

B. G. Iverson, being first duly sworn on oath, deposes and says that he is the Division Engineer for the West Texas-New Mexico Division of Kewanee Oil Company, that he has read the foregoing application and knows and understands the contents thereof, and that the matters and things therein stated are true except such matters as are therein stated on information and belief, and as to them he believes them to be true.

B. G. Iverson

Subscribed and sworn to before me this the 17th
day of April, 1956.


Notary Public

My commission expires:

Sept. 4, 1957

LOG OF INTAKE WELL
PEARL NO. 26

	Top of Line:	3833'
11-3-48	3815' to 3825'	Anhydrite
	3825' to 3833'	Anhydrite
	3833' to 3835'	Gray lime
	3835' to 3845'	Gray lime
11-4-48	3845' to 3855'	Gray lime
	3855' to 3865'	Gray lime
	3865' to 3875'	Gray lime
11-5-48	3875' to 3885'	Gray lime
	3885' to 3890'	Gray lime
		Ran steel line measurement and hole corrected to 3923'
	3923' to 3925'	Gray lime
	3925' to 3931'	Gray lime
11-6-48 to 11-10-48		Running and cementing 7" OD Casing, drilling plugs and testing water shut off.
11-10-48	3931' to 3944'	White and gray lime
11-11-48	3944' to 3948'	White and gray lime, some crystalline lime
	3948' to 3953'	White lime
	3953' to 3959'	White lime
	3959' to 3965'	White lime, little show of anhydrite
	3965' to 3970'	White lime, little show of anhydrite
11-12-48	3970' to 3975'	White lime, and anhydrite
	3975' to 3980'	White lime, sand, and anhydrite break
	3980' to 3993'	White lime, sand, and anhydrite break
	3993' to 4000'	White lime, trace of anhydrite
11-13-48	4000' to 4004'	White lime
	4004' to 4010'	White lime, trace of stain
	4010' to 4023'	White lime, light stain, little gas
	4023' to 4032'	White lime, trace of oil stain
11-14-48	4032' to 4047'	Gray sand, trace of oil, little more gas
	4047' to 4053'	White lime and gray sand
	4053' to 4055'	White lime
	4055' to 4065'	White lime, little gray sand
11-15-48	4065' to 4070'	Gray sand, trace of oil stain
	4070' to 4075'	White lime
	4075' to 4080'	White lime, trace of gray sand
11-16-48	4080' to 4094'	White lime, trace of gray sand
	4094' to 4100'	White lime, little of oil stain
11-17-48	4100' to 4107'	White lime
	4107' to 4110'	White lime
	4110' to 4120'	White lime
	4120' to 4132'	White lime, some gray sand

11-18-48	4132' to 4147'	White lime, some gray sand
	4147' to 4150'	White lime
	4150' to 4156'	White lime, some gray sand
	4156' to 4170'	White lime, some gray sand
11-19-48	4170' to 4175'	White lime, trace of gray sand
	4175' to 4178'	White lime
	4178' to 4183'	White lime, some good light brown sand, good oil show
		(Tools showed top of pay at 4180')
	4183' to 4190'	White lime, some good light brown sand, good oil show
	4190' to 4200'	White lime, some good sand, fair stain. (150' of oil in hole).
	4200' to 4205'	White lime, very little stain in sand. (200' of oil in hole).
11-20-48	4205' to 4212'	White lime, gray sand, light stain
	4212' to 4220'	Gray sand, trace of oil stain
	4220' to 4225'	Gray sand, fair oil stain
	4225' to 4230'	Gray sand and white lime, fair stain
	4230'	Total depth

4230
 3880

 350

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 CON-
SIDERING:

CASE NO. 356
ORDER NO. R-146

THE APPLICATION OF KEWANEE OIL
COMPANY TO CONVERT PEARL WELLS
NOS. 22 AND 24, SEC. 25, TWP. 17 SOUTH,
RANGE 32 EAST, NMPM, AND PEARL WELL
NO. 26, W/2 SEC. 30, TWP. 17 SOUTH, RANGE
33 EAST, NMPM, MALJAMAR POOL, LEA
COUNTY, NEW MEXICO, FROM PRODUCING
OIL WELLS TO GAS-INJECTION WELLS, AND
FOR PERMISSION TO INJECT GAS PRODUCED
FROM CORBIN 'A' WELL NO. 3, NW/4 SEC. 10,
TWP. 18 SOUTH, RANGE 33 EAST, NMPM, LEA
COUNTY, NEW MEXICO, INTO THE GRYABURG-
SAN ANDRES HORIZONS OF THE MALJAMAR
POOL RESERVOIR, THROUGH PEARL WELLS
NOS. 22, 24 AND 26.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This matter came on for hearing at 9 o'clock a. m. on April 15, 1952, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 1st day of May, 1952, the Commission, a quorum being present, having considered the testimony adduced at said hearing, and being fully advised in the premises,

FINDS:

- ✓ (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- ✓ (2) That the acreage involved in the application is Federally owned, and the Supervisor of the United States Geological Survey interposes no objection to the application.
- ✓ (3) That Kewanee Oil Company is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 058697 (b) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

Case No. 356
Order No. R-146

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✓ All Sec. 25, Twp. 17 South, Range 32 East, NMPM;
Lots 1, 2, 3, and 4, E/2 W/2 Sec. 30, Twp. 17 South,
Range 33 East, NMPM, and containing 968.56 acres,
more or less,

which said lease is designated as Kewanee Oil Company's "Pearl" Lease.

(4) That a total of 27 wells, three of which are abandoned or were dry holes, have been drilled upon said lands; that each of said wells was drilled to a sufficient depth to test the Grayburg-San Andres horizons encountered from a depth ranging from 4150 feet to 4250 feet; that at the present time there are 24 producing wells on said lease, producing from the Grayburg-San Andres horizons; that the present oil production from said lease is approximately 365 barrels per day.

(5) That Kewanee Oil Company is the owner and holder of Federal Oil and Gas Lease Las Cruces Serial No. 029489 (a) insofar as said lease covers the following described land in Lea County, New Mexico, to-wit:

W/2 Sec. 10, Twp. 18 South, Rge. 33 East, NMPM,
and containing 320 acres, more or less,

which said lease is known as its Corbin "A" Lease.

(6) That there is located on Corbin "A" Lease one gas well which, although shut in at the present time, has an open-flow potential of 7,900,000 cubic feet of gas per 24 hours; that said gas well produces from the Queen sand, encountered from a depth of 4225 feet to 4327 feet.

(7) That, in accordance with the provisions of Order No. 763 and Order No. 770, Pearl Wells Nos. 22, 24 and 26 were originally drilled as unorthodox five-spot locations.

(8) That it would be in the interest of conservation, prevent waste and enable Kewanee Oil Company to obtain a greater ultimate recovery of oil and hydrocarbons if Pearl Wells Nos. 22, 24 and 26 were converted from producing wells to gas-injection wells, and gas produced from Corbin "A" Well No. 3 injected in the reservoir underlying the Pearl Lease through said three wells, as gas-injection wells.

(9) That Kewanee Oil Company does not desire the current oil allowable produced from Pearl Wells Nos. 22, 24 and 26 to be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas-injection wells.

IT IS THEREFORE ORDERED:

That the Kewanee Oil Company be, and the same hereby is granted permission:

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Case No. 356
Order No. R-146

(1) To convert Pearl Wells Nos. 22 and 24, in Sec. 25, Twp. 17 South, Rge. 32 East, NMPM, and Pearl Well No. 26, in the W/2 Sec. 30, Twp. 17 South, Rge. 33 East, NMPM, Maljamar Pool, Lea County, New Mexico, from producing oil wells to gas-injection wells;

(2) To inject gas produced from Corbin "A" Well No. 3, in the W/2 Sec. 10, Twp. 18 South, Rge. 33 East, NMPM, Corbin Pool, Lea County, New Mexico, into the Grayburg-San Andres horizons of the Maljamar Pool reservoir, through Pearl Wells Nos. 22, 24 and 26.

IT IS FURTHER ORDERED:

That no oil allowable produced from Pearl Wells Nos. 22, 24 and 26, be transferred to other wells on the Pearl Lease by reason of said three wells being converted from producing oil wells to gas-injection wells.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

GUY SHEPARD, Member

R. R. SPURRIER, Secretary

S E A L

LAW OFFICES
G. T. HANNERS
STANSELL BUILDING
LOVINGTON, NEW MEXICO

April 19, 1956

Oil Conservation Commission
Santa Fe, New Mexico

Kewanee application
for water injection

Gentlemen:

There are enclosed triplicate copies of the application of the Kewanee Oil Company, Maljamar field and Odessa office, to abandon the gas injection heretofore permitted in its Pearl well No. 26 and to conduct water flood operations through that well to better promote secondary recovery.

We would like the case placed on the docket for notice and hearing, but inasmuch as no objection is anticipated, we would prefer for the hearing to be held before your Examiner at Hobbs, if the circumstances warrant.

Will you please advise of the docket number, the time for hearing, and whether or not the matter may be heard before your Hobbs Examiner.

Yours very truly,

GTH/jnw

Cc:

Mr. B. G. Iverson
Kewanee Oil Company
Odessa, Texas

Mr. R. A. McGill
Kewanee Oil Company
Maljamar, New Mexico

*Notified B.G. Iverson
by phone on 5/2/56
of date of hearing
on 5/23/56
@ Hobbs.
(m)*

order R-46

LAW OFFICES
G. T. HANNERS
STANSELL BUILDING
LOVINGTON, NEW MEXICO
June 23, 1956

Case # 1072

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Docket No. 1072
Kewanee application

As suggested by the Commission Engineer during the hearing on the above application, we are enclosing triplicate copies of Water Analyses from the water supply well Pearl No. 12-X-WS identified in the application.

If there be further requirements or information desired in connection with the application, we will be glad to supply the same.

Yours very truly,



GTH/jnw

CC:

Mr. B. G. Iverson
Division Engineer
Kewanee Oil Company
Post Office Box 3786
Odessa, Texas

TREAT-RITE CHEMICAL CO.

INCORPORATED

MONAHANS, TEXAS

RESULT OF WATER ANALYSES

Copy

TO: Mr. W. H. Mills LABORATORY NO. M35516
Box 3786, Odessa, Texas SAMPLE RECEIVED 3-17-55
 RESULTS REPORTED 3-18-55

COMPANY Kewanee Oil Company LEASE Pearl B
 FIELD OR POOL Maljamar
 SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lea STATE Texas
 SOURCE OF SAMPLE, AND DATE TAKEN: 750' (O.G. Junior)
 NO. 1 Raw water-swabbed from Pearl B #12 at 895' to 954'. 3-16-55
 NO. 2 Produced water-taken at east separator from wells #13, 19, 18, 16 & 11. 3-16-55
 NO. 3 The two above mixed in equal proportions.
 NO. 4 _____

REMARKS: _____

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
SPECIFIC GRAVITY AT 60-60° F	1.0075	1.2048		
PH WHEN SAMPLED				
PH WHEN RECEIVED	7.1	6.9		
TOTAL ALKALINITY AS CaCO ₃	200	220		
SUPERSATURATION AS CaCO ₃	0	-		
UNDERSATURATION AS CaCO ₃	-	62		
TOTAL HARDNESS AS CaCO ₃	1,985	25,648		
CALCIUM AS CaCO ₃	992	4,814		
MAGNESIUM AS CaCO ₃	993	20,831		
SODIUM AND/OR POTASSIUM	412	138,421		
SULFATE AS SO ₄	2,134	3,776		
CHLORIDE AS NaCl	4,944	154,430		
SILICA AS SiO ₂	9.5	4.5		
IRON AS Fe	1.80	3.68		
MANGANESE AS Mn	0.45	0.35		
BARIUM AS Ba	none	none		
TURBIDITY ELECTRIC	7	134	60	
COLOR AS Pt	1.5	16.5		
DISSOLVED SOLIDS AT 103°C.	9,485	322,151		
TOTAL SOLIDS AT 103°C.	9,492	322,285		
TEMPERATURE OF	ND	ND		
CARBON DIOXIDE CALCULATED	31	50		
DISSOLVED OXYGEN WINKLER	ND	ND		
HYDROGEN SULPHIDE	none	5.0		
RESIDUAL CHLORINE	none	none		

NOTE: ND-Not Determined. All Results Reported as Parts Per Million. Divide by 17.1 to Convert Grains Per Gallon

Additional Determinations and Remarks

The above waters are compatible as exemplified by the resulting turbidity of an equal proportioned mixture. Sample #2 turned black after sampling which indicated hydrogen sulfide might have resulted from bacterial action. If not, the presence of iron in sample #1 would give significance; however, the iron in sample #1 is very likely due to corrosion in this well. In any event these factors could be eliminated by water treatment. When this water well has been completed and cleaned out we will be able to proceed toward a definite plan of treatment.

By

Waylan C. Martin
 Waylan C. Martin, B.S., M.A.

Curtis Talley