

CASE 2776: Application of INTER-
NATIONAL OIL & GAS CORPORATION for
a waterflood project, Eddy County.

1-25240.

plication, Transcript,
and Exhibits, Etc.

Memo

From
D. S. NUTTER
CHIEF ENGINEER

To: Van-

Special matter?

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARMINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 20, 1963

Examiner Hearing

IN THE MATTER OF:

Application of International Oil & Gas Corporation for a waterflood project, Eddy County, New Mexico. Applicant in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, High Lonesome Pool, Eddy County, New Mexico, through one injection well located in Section 15, Township 16 South, Range 29 East.

Case No. 2776

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The hearing will come to order. Case 2776.

MR. DURRETT: Application of International Oil & Gas Corporation for a waterflood project, Eddy County, New Mexico.

MR. ROSEE: A. J. Rosee, appearing for the Applicant. I have one witness, Mr. Dick Davenport.

MR. UTZ: Are there any other appearances in this case? You may proceed, Mr. Rosee.

(Witness sworn)

DICK DAVENPORT

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



DIRECT EXAMINATION

BY MR. LOSEE:

Q Will you state your name, residence and occupation?

A Dick Davenport, Artesia, New Mexico, District Superintendent for International Oil & Gas Corporation.

Q Have you previously testified before this Commission?

A Yes, sir.

MR. LOSEE: Are the witness's qualifications acceptable?

MR.UTZ: Yes.

Q (By Mr. Losee) Would you please tell us what this application is about?

A It is an application of International Oil & Gas Corporation to seek authority to institute a waterflood project by the injection of water into the Queen formation known as the McCollister Federal #4 Well. After that time, development through Sections 12, 13, 14, 15 and 16, concerned in this application. McCollister Federal Wells Number 1 and 4 were completed in June, 1960 and were developed respectively. The waterflood project which had begun initially in 1957 in this area has since been sold and is now operated by General Western Company. This particular waterflood has not been what most people would describe as highly successful. It consisted of injection of 200 barrels of salt water into eight wells and their production is approximately 100 barrels of oil per day from some 12 or 13 producing wells.

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Q I will hand you what has been marked for identification as Exhibit No. 1 and ask you to state for the record what that portrays?

A Exhibit No. 1 is a Lease Plat showing the acreage owned and operated by International Oil & Gas Corporation as being the east half of the southeast one-half of Section 15, T16S, R29E. It shows our acreage, as well as a two mile radius around our acreage. The proposed injection well by International Oil & Gas Corporation is the Number 4 well. It offsets the Well No. 7, operated by General American Oil Company and approval to initiate oil injectivity to this Well No. 7 has been granted by the Commission and a Lease-Line Agreement will be completed between International Oil & Gas and General American Oil Company, prior to injection. If injection proves satisfactory, at a later date we will request approval to inject water into our No. 5, 6 and 3 wells, forming a peripheral pattern on the east half of Section 15.

Q That map also shows the location of the injection wells of General Western offsetting your acreage to the west in Sections 15 and 16?

A Yes, sir, it shows them in round circles, the blue colored circles.

Q This present application only covers, I believe you stated, the east half, southeast quarter of Section 15 and the two wells located thereon?



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A Yes, sir.

Q Well No. 4 in the southeast, southeast half of section is the proposed injection well location?

A Yes, sir, that is correct.

Q Please refer to what has been marked as Exhibit No. 2 and state what that portrays?

A Exhibit No. 2 is a tabulation of the production from the McCollister Federal No. 1, 2, 3 and 4 Wells, since they were drilled in 1959, up until March the 1st, 1963.

Q Why did you tabulate these four wells, two of which are not in this application?

A These four wells are in common storage to one central battery and the taking out of two of the wells would not depict what the actual production has been.

Q Referring now to the two wells covered by your application, that is the two wells, 1 and 4, do you know what it makes--what production per day is presently averaging on these two wells?

A No. 4 Well averages 4 barrels of oil per day and the No. 1 Well averages 5 barrels of oil per day.

Q Have you formed an opinion as to what stage of depletion these two wells are in?

A I would say they were in the stripper stage and approaching the economic limit.

Q What is the total accumulative production from



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these four wells that have been run into the common tank battery?

A It is approximately 132,000 barrels.

Q Which would result in an average production from each of the wells of what figure?

A Approximately 32,500 barrels.

Q Have you formed an opinion as to the amount of oil you would recover under this application by secondary recovery methods, which would not otherwise be recovered by primary recovery?

A Yes, I have. Secondary recovery would recover an amount equal to that of primary or an additional 132,000 barrels of oil.

Q I now hand you what has been marked for identification as Exhibit No. 3 and ask you to state what that portrays?

A Exhibit No. 3 is a graphic form of the tabulated data of Exhibit No. 2, which shows the four wells in relation to production versus time.

Q This graph also shows that those wells are in an advanced or stripper state of depletion at this time?

A That is correct.

Q Please refer to what has been marked as Exhibit No. 4 and state what that reflects?

A Exhibit No. 4 is a Gamma Ray Neutron Log of the proposed injection wells of the McCollister Well No. 4 and 1.



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As noted, we entered this well with 100 sacks of cement. The well is a completed open hole from 1969 to 1999. Injectivity would be through the open hole into the Penrose section of the Queen formation.

Q And the Penrose section is between 1969 and 1999?

A That is correct.

Q Please refer to what has been marked as Exhibit No. 5 and state what that portrays?

A It is a sketch of the existing casing which is also in the proposed program for injection. Water would be injected through the 5½" casing set at 1969 and would be cemented with 100 sacks of cement. And, 8-5/8" casing would be set at 436' and would be cemented with 100 sacks of cement. This well was drilled with cam tools and during drilling we encountered small volumes of water from 300 to 307 feet. At 400 to 410 feet, we encountered water at the rate of approximately 2 barrels per hour. So from 400 to 410 feet from the surface, we cemented in order to isolate this water. Also there was a volume of salt water from 1735 to 1755, estimated to be about 18 barrels per hour, the calculated fill-up for the 100 sacks around the 5½' casing. Therefore, this salt water zone is also isolated.

Q How far, if any, is this salt stringer set into the salt section?

A We had our first salt stringer from 385 to 395 and a high dry stringer from 395 to 415, so it would be 21 feet



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into the top of the salt.

Q Do you feel like this casing program will adequately protect the small volumes of both fresh and salt water in the area?

A Yes, I do.

Q I will hand you what has been marked Exhibit 6 and ask you if that is the letter from Caprock Water Company in which they offer to furnish water for this McCollister Federal Number 6?

A Yes, Exhibit Number 6 is a letter from Caprock Water Company stating that they will sell us water for production injectivity.

Q What is the source of that water?

A It's from the Red Lake source.

Q Do you know what kind of water that is?

A It's a semi-fresh water. It's rather brackish. They have some fresh water zones and some that have a small volume of salt in them. The brackish, I don't know the amount of uranium chloride but it's low.

Q You earlier mentioned the General Western flood to the west, is not what most people would say was a highly successful flood. For what reasons do you believe it is possible to conduct a successful flood in this area?

A They are injecting such low volumes of water that they are not going to get a satisfactory increase in production



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and the reason for this is that they are injecting a saturated salt water and they are not able to get the water in the ground that is necessary.

Q And you feel that the fresh water from Caprock will allow you to put more water in?

A In their best well, they are injecting 50 barrels per day and we are planning to get 175 to 200 barrels per day into the ground initially.

Q If the Commission sees fit to grant this application, do you feel that you can get oil that would not otherwise be recovered by primary methods?

A Yes, sir.

Q Do you feel that correlative rights would be protected under your proposed application?

A Yes, sir.

Q Were these exhibits prepared by you or under your direction?

A Yes, sir.

MR. LOSER: Applicant moves introduction of Exhibits 1 through 6.

MR. UTZ: Without objection, Exhibits 1 through 6 will be entered into the record.

MR. LOSER: I think I'd like to make a short statement at this time.

MR. UTZ: Go ahead.



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MR. LOSEE: Thank you. This application for approval to inject into this one well is made for the purpose of allowing the applicant to obtain injectivity data on the well. At such time as this data has been completed, it is intended by the applicant to make application to enlarge the flood and also probably to unitize the east half of Section 15 because one tract is a state owned tract and the remainder is federally owned and there is only one well on the state lease. To protect the equities between the parties, this flood, as to this 60 acre tract, we propose would be controlled by Rule 701. Actually, this General Western flood is operating under a capacity order. Although it is surely not producing as such at the time, the application is made to enlarge the flood to cover the east half of 15. It is probably proposed that we would ask for buffer zone treatment. I think that is the applicant's case.

CROSS EXAMINATIONBY MR. UTZ:

Q Mr. Davenport, how far up the hole will the 100 sacks of cement come on the 5 $\frac{1}{2}$ " casing?

A Approximately 1400'. The top of the cement is around 1400'.

Q Approximately 1400'?

A Yes, sir.

Q The top of your pay is around 1970, isn't it?

A Yes, sir.



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Q Do you intend to inject through the casing or tubing?

A Through the casing.

Q Is this new casing, this 5½?

A It was new when we ran it. The well was completed in 1960.

Q 1960?

A Yes, sir, in May of 1960.

Q What formations are--let me ask you this. Your 8-5/8 comes to 486 and that is circulated?

A No, sir, it is with 100 sacks of cement and it will come back to at least 200'.

Q So from 485 to 1500 you will have no cement?

A That is right.

Q What formations are in that zone?

A There are several. Sand--

Q Oil sand?

A No, sir.

Q This is the circulation zone?

A There is no law circulation zone in the area to my knowledge.

Q It would take approximately 200 sacks to fill that zone up, wouldn't it, if you wanted to circulate it?

A Yes, sir.

MR. UTZ: Are there any other questions of this witness?



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MR. IRBY: I have one question.

MR. UTZ: Mr. Irby.

MR IRBY: Is the source of your water that you are getting from Caprock Company, is that the same as to be taken by Cima Capitan spoken of in their Case 2775?

A Yes, it would be. I can't state for sure that it would be the exact same source but it would be similar water.

MR. IRBY: Do you have an analisis available of this water?

A Not with me, no, sir.

MR. IRBY: Can you obtain one.

A Yes, sir.

MR. IRBY: Will you send me one?

A Yes, sir.

MR. IRBY: Tahnk you.

MR. UTZ: Are there any other questions of this witness?
the witness may be excused. The case is to be taken under advisement.

MR. DURRETT: I will like to state for the purpose of the record that the Commission has received a letter from Mr. Frank E. Irby, Chief Water Rights Division, State Engineering Office, which reads in part as follows: "This office offers no objection to the conversion of this well to an injection well provided the surface casing is set 10 feet below the base of



Rustler and sufficient cement to circulate behind the casing is in place."

This letter will be placed in the file if anyone would like to read it in its entirety.

* * * * *

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, STEVEN McCRYSTAL, 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 6th day of May, 1963.

Stephen McCrystal
NOTARY PUBLIC
COURT REPORTER

My Commission Expires:

I do hereby certify that the foregoing is a complete and correct transcript of the proceedings in the Examination of the New Mexico Oil Conservation Commission No. 2776, heard by me John A. [Signature] 19.63.
[Signature], Examiner
New Mexico Oil Conservation Commission



1933 MAR 14 11 32

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF :
INTERNATIONAL OIL & GAS CORPORATION :
FOR A WATERFLOOD PROJECT, HIGH LONESOME : No. 2776
POOL, EDDY COUNTY, NEW MEXICO. :
:

APPLICATION

COMES INTERNATIONAL OIL & GAS CORPORATION, by its
attorneys, Losee and Stewart, and states:

1. That it is the operator and the sole working
interest owner of two producing oil wells located within the
High Lonesome Pool, Eddy County, New Mexico, and within the
proposed project area covered by this application; said pro-
ject area is described as follows:

Township 16 South, Range 29 East, N.M.P.M.

Section 15: E/2 SE/4

containing 80 acres, more or less.

2. There is attached hereto and by reference made a
part hereof, a plat showing the location of the proposed injec-
tion well and the location of all other wells and lessees with-
in a radius of two miles from said proposed injection well.

3. That the two wells within said project area have
reached the advanced or "stripper" state of depletion and ap-
plicant proposes to inject water into the producing Penrose
section of the Queen formation in sufficient quantities and

and under sufficient pressure to stimulate the production of oil from the producing well in the project area.

4. That applicant proposes to inject the water into the producing Penrose section of the Queen formation in its McCallister Federal No. 4 well located in the SE/4 SE/4 Section 15, Township 16 South, Range 29 East.

5. There is attached hereto and by reference made a part hereof, copies of the Gamma Ray-Neutron Log on the proposed injection well.

6. There is attached hereto, and by reference made a part hereof, a graphic description of the proposed injection well casing program. Injection will be made into the open hole interval between 1969 and 1999 feet below the surface.

7. Caprock Water Company or another similar company is the source of water for this project.

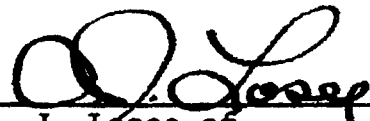
8. That until such time as applicant has been able to determine the feasibility of the proposed peripheral flood of its lease in the High Lonesome Pool, the applicant will conduct said pilot waterflood project in accordance with the allowable provisions of Rule 701 of the New Mexico Oil Conservation Commission.

9. The approval of this waterflood project will be in the interest of conservation, will prevent waste and correlative rights will be protected.

WHEREFORE, applicant prays that an order be entered

authorizing the applicant to institute the aforesaid water-flood project by the injection of water into the producing Penrose section of the Queen formation through the injection well hereinabove described.

INTERNATIONAL OIL & GAS
CORPORATION

By 
A. J. Losee of
Losee and Stewart
Attorneys at Law
P. O. Drawer 239
Artesia, New Mexico

Case 2776

Heard 3-20-63

Rec. 3-21-63

1. Grant International Oil Co. a water flood project consisting of E/2 SE/4 sec. 15. 165-28E.
2. Rule 701 shall control this flood.
3. Grant permission to convert these McCallister Fed. #1 SESE 15-165-28E to an injection well.
4. Since this injection is to be thru casing, the casing shall be tested to 2000 psi. If the test fails then the water shall be injected thru tubing internally coated tubing & below a packer.

S. Pool is High Lonesome. - Grayburg.
+ S.A.

INTERNATIONAL OIL & GAS CORPORATION

825 PETROLEUM CLUB BUILDING
DENVER 2, COLORADO

Case 2776

RECEIVED FEB 24 PM 1 21

ADDRESS REPLY TO:

P. O. Box 427
Artesia, New Mexico
February 23, 1963

Mr. A. L. Porter, Jr., Secretary
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Please set for hearing on the next docket an application from International Oil & Gas Corporation to initiate a one well pilot injection system in the High Lonesome Pool, Eddy county, New Mexico.

International Oil & Gas Corporation desires to inject water into the Penrose section of the Queen formation in its McCallister Federal No. 4 well located in the SE/4 SE/4 Section 15, T. 16 S. R. 29 E. Injection will be through 5 1/2" OD 14.00# casing set at 1969' cemented with 100 sx cement. Injection will be into open hole interval 1969-99'.

Formal application with attached exhibits will be filed in the near future by our attorneys, Losee and Stewart, Artesia, New Mexico.

Very truly yours,

INTERNATIONAL OIL & GAS CORPORATION

Richard J. Davenport
Richard J. Davenport
District Superintendent

RJD/ih

cc: Losee & Stewart

DOCKET MAILED

Date 3/8/63

221

No. 10-63

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 20, 1963

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, as alternate examiner:

- CASE 2773: Application of C. W. Trainer for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Hume-Queen Unit Area comprising 1,240 acres of State land in Township 16 South, Range 34 East, Lea County, New Mexico.
- CASE 2774: Application of C. W. Trainer for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, Hume-Queen Pool, Lea County, New Mexico, through 15 wells located in Sections 7, 8, 9, and 17, Township 16 South, Range 34 East.
- CASE 2775: Application of Cima Capitan, Inc. et al, for a waterflood project, Eddy County, New Mexico. Applicants, in the above-styled cause, seek authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formation, Red Lake Pool, Eddy County, New Mexico, through 13 wells located in Sections 22 and 27, Township 17 South, Range 28 East.
- CASE 2776: Application of International Oil & Gas Corporation for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, High Lonesome Pool, Eddy County, New Mexico, through one injection well located in Section 15, Township 16 South, Range 29 East.
- CASE 2777: Application of Consolidated Oil & Gas, Inc., for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Apache Well No. 2-16 at an unorthodox location 790 feet from the North line and 1850 feet from the West line of Section 16, Township 26 North, Range 3 West, Blanco Mesaverde Pool, Rio Arriba County, New Mexico.
- CASE 2778: Application of Tenneco Oil Company for a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled

-2-

Docket No. 10-63

cause, seeks approval of the Central Totah Gallup Unit Area comprising 2,738 acres of Federal and Fee lands in Townships 28 and 29 North, Range 13 West, San Juan County, New Mexico.

CASE 2737:

(Continued from January 23, 1963 Examiner Hearing)

Application of Gulf Oil Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, including provisions for 640-acre spacing therein. This case was continued to the March 20, 1963 examiner hearing by Order No. R-2429.

CASE 2761:

(Continued)

Application of Compass Exploration, Inc., for the creation of a Gallup Gas Pool, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order deleting certain acreage from the South Blanco-Tocito Pool and re-designating portions of said acreage to comprise a new Gallup gas pool for its Northwest Lindrith Well No. 1-3, located in Unit K of Section 3, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

CASE 2746:

(Continued)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Continental National Insurance Group and all other interested parties to appear and show cause why the Kenneth V. Barbee Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 9, Township 11 South, Range 25 East, NMPM, Chaves County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.

iqg/

No. 10-63

SUPPLEMENTAL DOCKET - EXAMINER HEARING - WEDNESDAY, MARCH 20, 1963

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND
OFFICE BUILDING, SANTA FE, NEW MEXICO

The following case will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, as alternate examiner:

CASE 2779:

Application of Marathon Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Indian Basin Unit Area, comprising 5786 acres, more or less, of State and Federal Lands in Townships 20 $\frac{1}{2}$ and 21 South, Range 23 East, Eddy County, New Mexico.

205 SOUTH FOURTH ST.

TELEPHONE 746-6911

CAPROCK WATER COMPANY

P. O. BOX 607

ARTESIA, NEW MEXICO

March 15, 1963

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 6
CASE NO. 2776

International Oil and Gas Corporation
P. O. Box 427
Artesia, New Mexico

Gentlemen:

Subject: Waterflood Project
High Lonesome Field

This is to assure you that Caprock Water Company
will sell you the necessary water to conduct
your proposed waterflood program.

We have a line near your leases and can very
easily serve your project.

Yours Very Truly

CAPROCK WATER COMPANY

H. N. Morgan
H. N. Morgan
HNM/dt

EXHIBIT NO. 6

A. J. LOSEE
EDWARD B. STEWART

LAW OFFICES
LOSEE AND STEWART
CARPER BUILDING - P. O. DRAWER 239
ARTESIA, NEW MEXICO

RECEIVED
1963 MAR 12 AM 8

SHERWOOD 6-3508

11 March 1963

Mr. Elvis A. Utz, Examiner
New Mexico Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Re: Application of International Oil & Gas
Corporation for a waterflood project,
Eddy County, New Mexico, Case No. 2776

Dear Mr. Utz:

We supplement letter dated February 23, 1963 of Mr. Richard J. Davenport in connection with the captioned application, by enclosing triplicate copies of formal application with attached exhibits.

With a carbon copy of this letter, we are furnishing Mr. Irby of the State Engineer's Office with a like copy of this application. In the event Mr. Irby's office has any objection to this application, I should appreciate being advised of this fact prior to the date set for hearing thereon. In the event that office has no objection to this application, I should appreciate receiving a copy of their written advice to your office advising that they approve this application.

If there is anything further I can furnish either party in this matter, please do not hesitate to advise me.

Very truly yours,


A. J. Losee

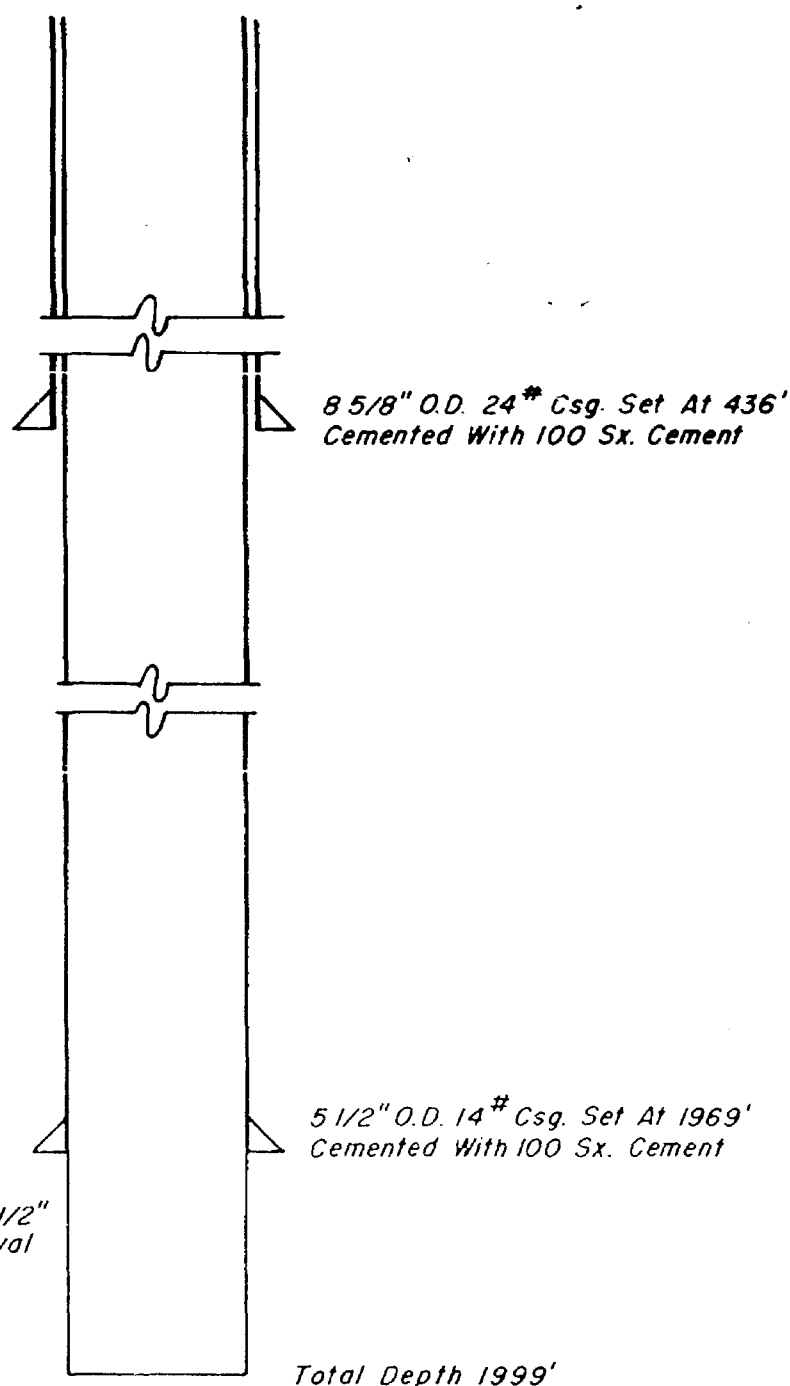
AJL/bk
Enclosures
cc Mr. R. J. Davenport
Mr. Frank Irby

INTERNATIONAL OIL AND GAS CORPORATION

McCALLISTER FEDERAL NO. 4 WELL

EXISTING AND PROPOSED CASING PROGRAM
FOR WATERFLOOD INJECTIVITY TESTS

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 2776



Proposed Injection Down 5 1/2"
Casing Into Open Hole Interval
1969'-1999'

Total Depth 1999'

EXHIBIT No. 5

TABULATION OF PRODUCTION
INTERNATIONAL OIL & GAS CORPORATION
McCALLISTER FEDERAL NO. 1, 2, 3 & 4 WELLS

	1950	1951	1952	1953
JANUARY		3487	3392	2918
FEBRUARY		3578	2061	2716
MARCH		3217	4101	2992
APRIL		3131	3932	2923
MAY		3608	3711	3202
JUNE	679	3977	3041	2787
JULY	1799	3328	2534	2328
AUGUST	2085	4182	3552	2198
SEPTEMBER	1696	4003	3352	1865
OCTOBER	2401	4207	3228	1701
NOVEMBER	2071	4075	2870	1681
DECEMBER	3478	4411	3059	1711
	18975	48606	38500	33111

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 1716

EXHIBIT NO. 2



STATE ENGINEER OFFICE

1963 MAR 19 STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

March 19, 1963

ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

Mr. A. L. Porter, Jr.
Secretary-Director
Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of International Oil and Gas Corporation for a waterflood project, High Lonesome Pool, Eddy County, New Mexico. Only one well is involved in this application, it being in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 15, Township 16 South, Range 29 East, N.M.P.M.

This office offers no objection to the conversion of this well to an injection well provided the surface casing is set 10 feet below the base of Rustler and sufficient cement to circulate behind the casing is in place.

Yours truly,

S. E. Reynolds
State Engineer

FEI/ma
cc-Mr. A. J. Losee
F. H. Hennighausen

By: *Frank E. Irby*
Frank E. Irby
Chief
Water Rights Division

INTERNATIONAL OIL & GAS CORPORATION

825 PETROLEUM CLUB BUILDING

DENVER 2, COLORADO

MAIN OFFICE 000

963 APR 11 AM 11 16

ADDRESS REPLY TO:

P.O. Box 427

Artesia, New Mexico

April 10, 1963

Mr. A. L. Porter, Jr., Secretary
Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Re: Case No. 2776, Order No. R-2458,
International Oil & Gas Corporation,
High Lonesome Pool Waterflood
Application.

Dear Mr. Porter:

International Oil & Gas Corporation has received your approved Order No. R-2458 concerning its proposed injectivity tests in the High Lonesome Pool, Eddy County, New Mexico. With regards to this Order, in Paragraph 2, a stipulation is made concerning testing the casing to 2,000 psi and, in event of a casing leak, water injection be accomplished through internally plastic coated tubing under a packer.

International Oil & Gas Corporation would like to point out that, although there was no mention of testing casing or injecting through tubing either during the testimony or questioning period by the Oil Commission or State Engineers representatives, we are quite willing to test the casing. Testing the casing would have been accomplished without this stipulation as we feel we are prudent operators and being so, we could not afford to initiate injection without knowing the condition of the pipe. However, International Oil & Gas Corporation does have objection to the phrase "internally plastic coated tubing," in event of a casing leak. This, we feel is an operating problem and without any evidence on the subject, there should not be a mandatory requirement as to the kind of tubing to be used.

A. L. Porter, Jr.
April 10, 1963
Page 2

International Oil & Gas Corporation plans to proceed and test the casing pending injection equipment installation and, should the results of this test indicate a casing leak, will file for a new hearing requesting deletion of the "internally plastic coated" stipulation.

Very truly yours,

INTERNATIONAL OIL & GAS CORPORATION

R. J. Davenport
R. J. Davenport
District Superintendent

RJD:cm

cc: State Engineers Office
Santa Fe, New Mexico
Attn: Mr. S. E. Reynolds

Losee and Stewart
Carper Building
Artesia, New Mexico

International Oil & Gas Corporation
825 Petroleum Club Building
Denver 2, Colorado

Memo

From

JAMES M. DURRETT JR.
GENERAL COUNSEL

To Examiner

Check case file. Case No
2755. We granted General
American Oil Co & Sefar
3 stage flood in Secs. 11,
12, 13, 14 T16S R29E.
This probably will offset
that flood.

State of New Mexico
Oil Conservation Commission



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

OTHER _____

**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. 2776
Order No. R-2458**

**APPLICATION OF INTERNATIONAL OIL
& GAS CORPORATION FOR A WATERFLOOD
PROJECT, HIGH LONESOME POOL, EDDY
COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on March 20, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 27th day of March, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 applicant, International Oil & Gas Corporation, seeks permission to institute a waterflood project in the High Lonesome Pool by the injection of water into the Penrose section of the Queen formation through its McCallister Federal Well No. 4, located in the SE/4 SE/4 of Section 15, Township 16 South, Range 29 East, NMPM, Eddy County, New Mexico.
- (3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (4) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil.
- (5) That the applicant proposes to inject water down 5 1/2-inch OD casing into an open hole interval at approximately 1969

-2-

CASE No. 2776
Order No. R-2458

to 1999 feet; that in order to assure adequate protection of producing formations in the area, if the casing will not withstand 2000 pounds pressure psi, injection should be accomplished through internally plastic-coated tubing installed in a packer set above the injection interval.

(6) That the subject application should be approved and the project should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, International Oil & Gas Corporation, is hereby authorized to institute a waterflood project in the High Lonesome Pool by the injection of water into the Penrose section of the Queen formation through its McCallister Federal Well No. 4, located in the SE/4 SE/4 of Section 15, Township 16 South, Range 29 East, BHPM, Eddy County, New Mexico.

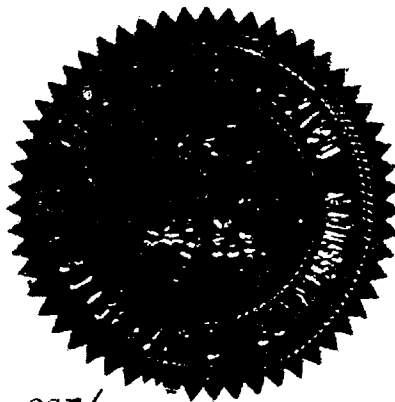
(2) That the applicant shall test the casing in the subject well prior to injection and upon notification to the Commission's Artesia office, and if the casing will not withstand 2000 pounds pressure psi, injection shall be accomplished through internally plastic-coated tubing installed in a packer set above the injection interval.

(3) That the subject waterflood project shall be governed by the provisions of Rule 701 of the Commission Rules and Regulations, including the allowable provisions thereof, and including the provisions with respect to expansion of the waterflood project.

(4) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

E. S. Walker
E. S. WALKER, Member

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

esr/

DRAFT

JMD/esr

March 22, 1963

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. 2776

Order No. R- 2458

APPLICATION OF INTERNATIONAL OIL
& GAS CORPORATION FOR A WATERFLOOD
PROJECT, HIGH LONESOME POOL, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
March 20, 1963, at Santa Fe, New Mexico, before Elvis A. Utz,
Examiner duly appointed by the Oil Conservation Commission of New
Mexico, hereinafter referred to as the "Commission," in accordance
with Rule 1214 of the Commission Rules and Regulations.

NOW, on this _____ day of March, 1963, the Commission,
a quorum being present, having considered the application, the
evidence adduced, and the recommendations of the Examiner,
Elvis A. Utz, 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 applicant, International Oil & Gas Corporation,
seeks permission to institute a waterflood project in the High
Lonesome Pool ~~in the E/2 SE/4 of Section 15, Township 16 South,~~
~~Range 29 East, NMPM, Eddy County, New Mexico,~~ by the injection of
water into the Penrose ~~Sand~~ ^{Section} of the Queen formation through its
McCallister Federal Well No. 4, located in the SE/4 SE/4 of Sec-
tion 15, Township 16 South, Range 29 East, NMPM, Eddy County,
New Mexico.

(3) That the wells in the project area are in an advanced
state of depletion and should properly be classified as "stripper"
wells.

(4) That the proposed waterflood project is in the interest of conservation and should result in recovery of otherwise unrecoverable oil.

(5) That the applicant proposes to inject water down 5 1/2-inch OD casing into an open hole interval at approximately 1969 to 1999 feet; that in order to assure adequate protection of producing formations in the area, if the casing will not withstand 2000 pounds pressure psi, injection should be accomplished through internally plastic-coated tubing installed in a packer set above the injection interval.

(6) That in order to protect correlative rights, the applicant should not start injection until a lease line agreement has been executed with the operator offsetting applicant to the west. *the project approved and should be*

(6) That the subject application should be governed by the provisions of Rule 701 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, International Oil & Gas Corporation, is hereby authorized to institute a waterflood project in the High Lonesome Pool by the injection of water into the Penrose section of the Queen formation through its McCallister Federal Well No. 4, located in the SE/4 SE/4 of Section 15, Township 16 South, Range 29 East, NMPM, Eddy County, New Mexico.

PROVIDED HOWEVER, That the applicant shall not start injection until a lease line agreement has been executed with the operator offsetting applicant to the west.

(2) That the applicant shall test the casing in the subject well prior to injection, *and upon notification to the Commission's Artesia office,* and if the casing will not withstand 2000 pounds pressure psi, injection shall be accomplished through internally plastic-coated tubing installed in a packer set above the injection interval.

(3) That the subject waterflood project shall be governed by the provisions of Rule 701/ *of the Commission Rules and Regulations,* including the allowable provisions

thereof, and including the provisions with respect to expansion of the waterflood project.

(4) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

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