

Application of
for a waterflood project,
High Lonesome Pool, Eddy County.

See
give
order
of
to
you

25/50

plication, Transcript,
and Exhibits, Etc.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

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SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 21, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of General American Oil
Company of Texas for a waterflood project,
Eddy County, New Mexico. Applicant, in
the above-styled cause, seeks authority to
institute a waterflood project by the in-
jection of water into the Queen formation,
High Lonesome Pool, Eddy County, New Mexico,
through 16 wells in Sections 11, 12, 13 and
14, Township 16 South, Range 29 East.

Case 2755

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 2755.

MR. DURRETT: Application of General American Oil
Company of Texas for a waterflood project, Eddy County, New
Mexico.

MR. RUSSELL: John F. Russell, appearing for the appli-
cant. I have one witness, Mr. Miller.

MR. UTZ: Are there other appearances in this case?

(Witness sworn.)

MR. UTZ: You may proceed, Mr. Russell.

RAYMOND MILLER

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



follows:

DIRECT EXAMINATION

BY MR. RUSSELL:

Q Will you state your name, address and name and address of your employer?

A Raymond Miller, Artesia, New Mexico. My employer is General American Oil Company of Texas.

Q In what capacity are you employed and for how long have you been employed in that capacity?

A New Mexico District Engineer for eight years.

Q Have you previously qualified to testify as an expert by this Commission?

A I have.

Q Are you familiar with the application of General Oil Company of Texas in Case 2755?

A I am.

Q Will you state the sections and the formations and the pool in which you seek to initiate this waterflood project?

A It is portions of Sections 11, 12, 13 and all of Section 14, Township 16 South, Range 29 East, NMPM. It's the High Lonesome Pool.

Q What formation?

A It's Penrose sand of the Queen formation.

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Q Is the applicant the owner and operator of the working interest of the leases covering these sections and the formation?

A They are.

Q At what interval do you propose to inject water for the secondary recovery of oil?

A The top of the sand in the highest well is 1990 and the base of the sand in the lowest well is 2140.

Q What type of waterflood project do you propose to initiate?

A We intend to initiate a peripheral waterflood.

(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

Q Referring to what has been marked as Exhibit No. 1, will you explain what that exhibit shows?

A It is a plat of a portion of Township 16 South, Range 29 East and 30 East. It shows the location of General American's property in the High Lonesome Pool. It depicts the wells that are producing there and the lessees within two miles of the proposed injection wells and the formations from which all wells produce.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)



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Q Referring to what has been marked as Exhibit 2, will you please explain what that exhibit shows?

A It shows our proposed flood plan and depicts the injection wells, the wells we propose to convert to injection in various stages and each well that will be converted in Stage 1, 2 or 3 is identified by a symbol.

Q There's a different symbol for each well in each stage of your project?

A Yes.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

Q Referring to what has been marked as Exhibit No. 3, is that the well logs covering the three proposed injection wells for Stage A, Stage 1, rather?

A That's correct.

Q What information is shown on these logs?

A It identifies the well by leases, name, well number, section, township and range and location within the section. It shows the oil or gas sands or zones, important water sands, the casing record, mudding and cementing record, the initial production, any well stimulation and the formations encountered during drilling of the well.

Q Now, all of the well logs which will be offered into



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evidence contains that same information, do they not?

A That is correct.

Q Mr. Examiner, for the purpose of saving time we have some twenty-three wells, all of which are identified in our application by a stage in which they will be put on and it gives the name and location of each of the wells. I would like to include the application in the record to avoid the repetition of describing every well.

MR. UTZ: That will be satisfactory.

Q Now, that first exhibit contains, not the first exhibit, but Exhibit No. 3 contains three separate well logs, does it not?

A That's correct.

Q Which is the three wells you propose to use in the Stage 1?

A Yes, sir.

Q Assuming that Stage 1 of your proposed flood is successful, do you have any opinion of how long it might be before you would go into Stage 2?

A Oh, I should say somewhere in the neighborhood of ninety days after commencement of injection.

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Q Referring to Exhibit No. 4, is that the logs of the



wells covering the proposed five injection wells to be included in Stage No. 2?

A It is.

Q Assuming the Stage No. 2 is successful, do you have any opinion as to how long it would be after the commencement of Stage 2 that you would move into Stage 3?

A Oh, not more than six months to a year anyway.

(Whereupon, Applicant's Exhibit No. 5 was marked for identification.)

Q Referring to what has been marked as Exhibit 5, does that exhibit contain the logs of the eight proposed injection wells to be added in Stage No. 3?

A It does.

Q Now, the sixteen wells which have been covered by these three exhibits are all shown on Exhibit No. 2 with a different designation for the wells in each stage, is that correct?

A That's correct.

Q When you have completed Stage 2 of the peripheral flood, do you feel at this time that the information and results of the flood may cause you to change your mind and go over to a pattern flood?

A Well, we naturally hope to stay with the peripheral

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flood. I believe that this would be the proper method of approach, but if information we receive during the first two stages indicate that we should abandon the peripheral flood and go to a pattern flood, why we will at that time.

Q And you have prepared plans accordingly?

A We have, yes, sir.

(Whereupon, Applicant's Exhibit No. 6 was marked for identification.)

Q Referring to what has been marked as Exhibit 6, will you explain that exhibit?

A It's a plat depicting our flood plan No. 2, our pattern plan, which is essentially 80-acre five-spot pattern and if at the end of Stage 2 in the peripheral flood the early history in the flood so indicates that we can more properly flood this area with a pattern flood, we will abandon our peripheral plan and adopt this pattern flood.

Q When you say you will abandon the peripheral flood, you are referring to Stage 3, are you not?

A Yes, sir. The wells for Stage 1 and Stage 2 are common to both the flood plan No. 1 and flood plan No. 2, the peripheral and pattern flood.

(Whereupon, Applicant's Exhibit No. 7 was marked for identification.)



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Q Referring to what has been marked as Exhibit No. 7, does that contain the logs of the proposed seven injection wells for Stage 3 of your flood project if you change from the peripheral flood to the pattern flood?

A It does.

Q Will the pattern flood then include the three wells covered by our Exhibit No. 3, which was Stage 1, and the five wells covered by Exhibit 4 which was the Stage 2 of the peripheral flood?

A Yes.

Q Exhibit 6 show all fifteen wells to be included in the pattern flood with a different symbol for each stage?

A It does.

Q Will you please explain your plan of injecting water into these various wells included in the proposed flood project?

A We propose, of course, to pull the present string of tubing, clean wells out to total depth and run plastic coated, internally plastic coated tubing, with a Hookwall packer and hydraulic anchor. The bottom of the tubing will be set within fifty feet of the bottom of the production string of casing in each well.

Q In your opinion will there be any commingling of any of the waters which were found in any of the formations which



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these wells were initially drilled?

A No, sir.

Q Will you explain the reason for that?

A Well, in drilling of these wells the only or the major water encountered is in the red sand in the upper member of the Queen formation and in each case the production string of casing was cemented with enough cement to come from the hundred to two hundred feet above that red sand water. The only other water that occurred in these wells is in minor amounts above the salt section and it has either been cemented or mudded off in each case.

Q How many producing oil wells are located on the two leases to be covered by this proposed waterflood project?

A There are thirty.

Q Are these wells presently in the stripper stage?

A They are all marginal and stripper stage.

Q What is the average production of oil per day for these wells?

A For January, 1963 it was slightly less than ten barrels per well per day.

Q Have you initiated cooperative lease line agreements with all operators which have producing wells offsetting your proposed flood?



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A The only operator who has producing wells offsetting us is International Oil and Gas Corporation. We have verbally agreed on a lease line cooperative plan. It is now being drafted and will be executed in the near future.

Q You have reached agreement as to the agreement itself, but it hasn't been physically executed, is that correct?

A That is correct. They are going to convert in our first, when we convert our first stage wells they are going to convert their No. 4, which is located in the Southeast, Southeast of Section 15, and subsequently they will convert other wells, another well, No. 3 McAllister, which is in the Northeast, Northeast of Section 15. Essentially the plan is that each company will have two producers and two injection wells on the common lease line.

Q Have you received verbal approval from the United States Geological Survey as to the proposed plan?

A Yes, they have approved the entire plan and are withholding written approval on it until such time as we file this lease line agreement between General American and International Oil and Gas.

Q In your opinion will the granting of this application result in a maximum recovery of oil from the leases and prevent waste and protect correlative rights?



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A Yes, sir.

Q Where will you obtain the water for this flood?

A We intend to purchase it from Caprock Water Company.

Q At what rate do you anticipate that the water will be injected?

A Well, during fillup why we probably will be from three to six hundred barrels per well per day. Of course, after we receive response, why injection volumes will be regulated by proration of the producing wells.

Q Will this water be injected under pressure, and if so, what do you anticipate that the injection pressure will be?

A It will be under pressure and, oh, I imagine somewhere in the neighborhood of a thousand pounds, but we will probably design for 1500 in our system.

Q If this application is approved, do you request that the Commission set the allowable on the basis of Rule 701?

A We do.

Q Do you further request that this application be approved for the peripheral flood and that the Commission retain jurisdiction of this case for the purpose of giving administrative approval to the change from the peripheral flood to the pattern flood after the completion of Stage 2 if the experience at that time determines it is more feasible to go to the pattern



flood?

A We so request, yes, sir.

MR. RUSSELL: Mr. Examiner, I offer into evidence Exhibits 1 through 7.

MR. UTZ: Without objection, Exhibits 1 through 7 will be entered into the record.

(Whereupon, Applicant's Exhibits 1 through 7 were admitted in evidence.)

MR. RUSSELL: I have no further questions of the witness.

MR. UTZ: Are there questions of the witness?

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Miller, what is the range of production on the wells in this unit?

A One well makes 31 barrels of oil per day and I think our smallest well is slightly less than one barrel per day.

Q Who did you say owned the flood to the west?

A It's International Oil and Gas Corporation. That was formerly Western Development Company.

Q Is that flood operating under Rule 701?

A Now the flood that you have reference to is the General Western on further west. The International, it's my

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understanding that they have either already filed or are in the process of filing an application to convert their McAllister No. 4 to an injection well, but they have received no flood program yet. The General Western flood to the west, I believe, is the capacity type flood, but the entire property only makes about 100 barrels of oil per day so it's not a problem.

Q Do you intend to make any pressure tests on the casing of your injection wells?

A Well, of course, most of these wells were fractured during completing and they withstood pressure at that time. We propose to run this string of tubing with a packer and hydraulic anchor and I don't believe, of course, we will pressure test it that way, but I think that any pressure tests of the casing as such are unnecessary in this case.

Q You are going to inject water through tubing in all cases?

A Yes, sir, internally plastic coated.

Q Five percent at the bottom of the tubing?

A Within fifty feet of the bottom of the production string, yes, sir.

Q Are all these open hole completions?

A They are. The casing is set immediately above the Penrose sand in dolomitic stringer that's right above the sand.



MR. UTZ: Are there other questions of the witness?

If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Any other statements to be made in this case?

The case will be taken under advisement.

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 1st day of March, 1963.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing of Case No. 2255 heard by me on Feb. 21, 1963.
[Signature] Examiner
New Mexico Oil Conservation Commission

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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE FEBRUARY 21, 1963

TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
Ronald J. Jacobs	Skelly Oil Co.	Tulsa, Okla.
John F. Russell	Gen. Amer. Oil Co. of Texas	Roswell
Roy J. Miller	- - - - -	Artesia, N.M.
Sam & A. J. Davis	Richardson & Bass	24. W. 10th, Tex.
Stacy Acklin	- - - - -	- - - - -
H. L. McCannell	Superior Oil	Midland
Richard F. Morrison	Smith, McKinney, Korman & Anderson	Santa Fe
Frank E. Luby	State Engr	Santa Fe
W. C. Heston	Hossey, Heston & Hinkle	Roswell
H. M. L. J. J.	Cal. Oil Corp	Pampa, Texas
V. T. Lyle	Continental Oil Co.	ROSOWELL, N.M.
J. Levine	Continental Oil Co.	Emery, N.M.
	Continental Oil Co.	Santa Fe

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE FEBRUARY 21, 1963

TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:
Jason W. Kellahin	Kellahin & Fox	Santa Fe
Garrett P. Whitworth	EPNG	El Paso, Tex
George Eaton	Paw American	Farmington
JH Hoover	Gulf	Roswell N.M.
WV Koster		
Eric Revell	Humble	Holt
D.D. Itles	Shell	Roswell
Gary Helgeson	El Paso	El Paso, Tex.
M.L. Armstrong	OCC	Artesia
D.L. Ott		El Paso
M.T. Johnson	Odessa Natural Gas Co.	Odessa, Tex.
Hal S. Davis	Apache Corp	Midland, Tex
Phil R. Harts	Producers, Inc.	Farmington, Tex
W. T. Edwards	Odessa Natural Gas Co.	Odessa, Texas
James H. Hays	Producers, Inc.	
Chas E. Malone	Woodward & Lothrop	Roswell

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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

REGISTER

HEARING DATE FEBRUARY 21, 1963 TIME: 9 A.M.

NAME:	REPRESENTING:	LOCATION:

MAIN OFFICE OCC

1963 FEB 7 AM 8:52

LAW OFFICES OF
JOHN F. RUSSELL
SUITE 1010 SECURITY NATIONAL BANK BUILDING
P. O. DRAWER 640
ROSWELL, NEW MEXICO

TELEPHONE 622-4641
AREA CODE 505

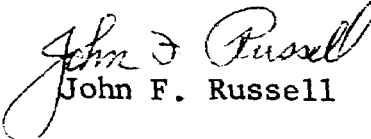
February 6, 1963

Mr. A. L. Porter
Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to our letter dated January 30, 1963, forwarding the application of General American Oil Company of Texas for a waterflood project. I transmit herewith in triplicate the exhibits referred to in the application. Copies of these exhibits will also be sent to the state engineer.

Very truly yours,


John F. Russell

JFR:sah

Encl.

LAW OFFICES OF
JOHN F. RUSSELL
SUITE 1010 SECURITY NATIONAL BANK BUILDING
P. O. DRAWER 640
ROSWELL, NEW MEXICO

January 30, 1963

Rec'd
21 1963 JAN 31 AM 8:2
MAIN OFFICE OCC
TELEPHONE 622-4641
AREA CODE 505

Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Gentlemen:

We transmit herewith the Application of General American Oil Company of Texas for a proposed waterflood project. It is respectfully requested that this Application be accepted at this time for filing to insure publication for the examiner's hearing on February 21. The exhibits referred to will be furnished not later than next week.

Very truly yours,

John F. Russell
John F. Russell

JFR:sah

Encl.

cc: Mr. Frank Irby
General American Oil Company of Texas

DOCKET MAILED

Date 2/8/63
R

RECEIVED 600
1933 JAN 31 AM 8 21

BEFORE THE OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF)
GENERAL AMERICAN OIL COMPANY OF TEXAS)
FOR AN ORDER AUTHORIZING THE INJECTION)
OF WATER INTO THE QUEEN FORMATION FOR)
THE PURPOSE OF SECONDARY RECOVERY IN)
SECTIONS 11, 12, 13 and 14, TOWNSHIP)
16 SOUTH, RANGE 29 EAST, IN THE HIGH)
LONESOME POOL, EDDY COUNTY, NEW MEXICO.)

Case No. 2155

A P P L I C A T I O N

COMES NOW General American Oil Company of Texas by
its attorney, John F. Russell, and states:

1. It is the owner and operator of the working interest
covering the Queen Formation underlying Sections 11, 12, 13 and 14,
Township 16 South, Range 29 East, in the High Lonesome Pool, Eddy
County, New Mexico.

2. It proposes to commence the injection of water in
the Queen Formation between the intervals of 1,990 feet to 2,140
feet.

3. It proposes to conduct a peripheral flood project in
three stages. The injection wells for the first stage of such
peripheral flood are described as follows:

First Stage

- (1) Bosworth No. 3 in 14-16S-29E - 990' from South line and
2310' from East line
- (2) Brewer No. 24 in 13-16S-29E - 1980' from South line and
1980 from West line
- (3) Brewer No. 27 in 14-16S-29E - 990' from South line and
660' from West line

Within approximately three months of the commencement of the initial stage, it proposes to add the following injection wells:

Second Stage

- (4) Brewer No. 2 in 12-16S-29E - 660' from South line and 660' from West line
- (5) Brewer No. 14 in 13-16S-29E - 1980' from North line and 1980' from East line
- (6) Brewer No. 19 in 12-16S-29E - 660' from South line and 1980' from East line
- (7) Brewer No. 20 in 14-16S-29E - 660' from North line and 1980' from West line
- (8) Brewer No. 25 in 13-16S-29E - 660' from North line and 990' from East line

In the event the peripheral development proves feasible, Applicant then proposes to add the following injection wells:

Third Stage

- (9) Brewer No. 3 in 14-16S-29E - 660' from North line and 1980' from East line
- (10) Brewer No. 8 in 11-16S-29E - 660' from South line and 660' from East line
- (11) Brewer No. 12 in 13-16S-29E - 1980' from South line and 660' from West line
- (12) Brewer No. 15 in 12-16S-29E - 660' from South line and 1980' from West line
- (13) Brewer No. 21 in 14-16S-29E - 660' from North line and 660' from West line
- (14) Brewer No. 23 in 14-16S-29E - 660' from South line and 1980' from West line
- (15) Brewer No. 26 in 12-16S-29E - 660' from South line and 990' from East line
- (16) Bosworth No. 4 in 14-16S-29E - 990' from South line and 990' from East line

In the event, after the completion of the Second Stage, the peripheral waterflood development does not prove feasible, Applicant proposes to change to a pattern flood using the above described injection wells for Stages One and Two and adding as injection wells in the pattern flood the following wells:

Pattern

- (1) Bosworth No. 1 in 14-16S-29E - 1980' from South line and 660' from East line
- (2) Brewer No. 1 in 14-16S-29E - 660' from North line and 660' East line
- (3) Brewer No. 5 in 14-16S-29E - 1980' from North line and 1980' from East line
- (4) Brewer No. 7 in 13-16S-29E - 1980' from North line and 660' from West line
- (5) Brewer No. 9 in 13-16S-29E - 660' from North line and 1980' from West line
- (6) Brewer No. 13 in 14-16S-29E - 1980' from North line and 660' from West line
- (7) Brewer No. 18 in 14-16S-29E - 1980' from South line and 1980' from West line

4. Applicant attaches hereto as Exhibit 1 a plat showing the location of the injection wells for Stage One and also showing the location of all other wells within a radius of two miles from said proposed injection wells and the lessees within said two mile radius.

5. It attaches hereto as Exhibit 2 a copy of the well log for each of the initial proposed injection wells and the record of the casing program of said proposed injection wells.

6. Applicant proposes to flood the Queen Formation at depths ranging from 1,990 feet to 2,140 feet from the surface at an approximate minimum rate of 300 barrels of water per day per well and an approximate maximum of 600 barrels of water per well per day. The water used will be purchased from Caprock Water Company.

WHEREFORE, Applicant requests that the Commission set this matter down for hearing before its examiner, publish notice as required by law, and after hearing, issue its order authorizing the injection of water as aforesaid.

Respectfully submitted,

GENERAL AMERICAN OIL COMPANY OF TEXAS

BY:

John F. Russell
John F. Russell
Post Office Box 640
Roswell, New Mexico

Its attorney

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

March 6, 1963

**Mr. John Russell
Attorney at Law
Post Office Box 640
Roswell, New Mexico**

Dear Mr. Russell:

Enclosed herewith is Commission Order No. R-2443, entered in Case No. 2755, approving the General American Oil Company of Texas High Lonesome Waterflood Project.

According to our calculations, when all of the various stages of authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is as follows:

**Stage I 546 barrels per day
Stage II 1218 barrels per day
Stage III (peripheral or pattern) 1260 barrels per day**

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe Office of the Commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify both of the aforementioned Commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

-2-

wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

Your cooperation in keeping the Commission so informed as to the status of the project and the wells therein will be appreciated.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/DSM/lr

cc: Mr. M. L. Armstrong
Oil Conservation Commission
Artesia, New Mexico

Case File 2755

GENERAL AMERICAN OIL COMPANY OF TEXAS

MAIN OFFICE OCC

1964 MAR 26 PM 1:17

DISTRICT OFFICE
BOX 416
LOCO HILLS, NEW MEXICO
March 24, 1964

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico


Dear Sir:

This is to notify you that General American Oil Company of Texas, pursuant to Order No. R-2443, has initiated Stage II of its High Lonesome Waterflood Project by commencing of water injection into Brewer #20, on February 29, 1964, Brewer #2, #14, and #19 on March 6, 1964 and Brewer #25 on March 23, 1964.

Forms C-127 will be filed with the District II office when it becomes necessary to adjust allowables to any affected well.

Very truly yours,

GENERAL AMERICAN OIL COMPANY OF TEXAS

By: 
R. J. Heard
District Superintendent

RJH/rlc

cc: Mr. M. L. Armstrong
Oil Conservation Commission
Artesia, New Mexico

cc: M. W. Krouskop
cc: File

GENERAL AMERICAN OIL COMPANY OF TEXAS

DISTRICT OFFICE
BOX 418
LOCO HILLS, NEW MEXICO
October 28, 1963

Mr. A. L. Porter, Jr.
Secretary - Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

*File
Case File
2755*

Dear Sir:

This is to notify you that the undersigned company, pursuant to Order No. R-2443, has initiated Stage I of our High Lonesome Waterflood Project by commencing the injection of water into Brewer Nos. 24 and 27 and Bosworth No. 3, on October 16, 1963.

When it becomes necessary to adjust the allowable of any affected well, a Form C-127 will be filed with the District II office.

Very truly yours,

GENERAL AMERICAN OIL COMPANY OF TEXAS

By: *R. J. Heard*
R. J. Heard
District Superintendent

cc: Mr. M. L. Armstrong
Oil Conservation Commission
Artesia, New Mexico
cc: N. W. Krouskop
cc: File

1963 OCT 29 AM 9:31
MAIN OFFICE OCC

Case 2755

Heard 2-21-63

Rec. 2-26-63

1. Gen. Am. permission to begin a water flood project in the High Lanesome - Penrose oil pool.

2. Grant the use of the certain wells to be used as injection wells as follows:

(a) The wells listed on the application for stages I + II shall be approved for injection wells for either the peripheral or pattern flood.

(b) The wells listed as III stage peripheral flood wells shall be approved for injection wells only if the peripheral pattern is used.

(c) The wells listed as injection wells if the pattern is changed to a "pattern" flood shall be approved only if the pattern flood is to be used by the applicant.

3. Rule 201 shall regulate the production of oil from this flood.

4. Must have flood order attached.

Thos. W. C.

5. Water shall be injected thru tubing & below a packer set in the lower part of the production casing.

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. 2755
Order No. R-2443

APPLICATION OF GENERAL AMERICAN OIL
COMPANY OF TEXAS FOR A WATERFLOOD
PROJECT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 21, 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 6th 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, General American Oil Company of Texas, seeks authority to institute a peripheral three-stage waterflood project in the High Lonesome Pool by the injection of water into the Queen formation underlying Sections 11, 12, 13, and 14, Township 16 South, Range 29 East, NMPM, Eddy County, New Mexico.

(3) That the applicant also seeks authority to change to a pattern waterflood at termination of the second stage of the peripheral flood if satisfactory recovery is not being achieved.

(4) That the proposed waterflood project is feasible and will be in the interest of achieving greater ultimate recovery of oil.

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

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CASE No. 2755
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(6) That in order to protect all producing formations in the area, water injection should be accomplished through tubing below a packer set in the lower part of the casing in all injection wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, General American Oil Company of Texas, is hereby authorized to institute a peripheral three-stage waterflood project in the High Lonesome Pool by the injection of water into the Ogan formation underlying Sections 11, 12, 13, and 14, Township 16 South, Range 29 East, NMPM, Eddy County, New Mexico, through the following-described wells, and in the following stages:

STAGE I

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Bosworth Well No. 3, located 990 feet from the South line and 2310 feet from the East line of Section 14;

Brewer Well No. 24, located 1980 feet from the South line and 1980 feet from the West line of Section 13;

Brewer Well No. 27, located 990 feet from the South line and 660 feet from the West line of Section 14.

STAGE II

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Brewer Well No. 2, located 660 feet from the South line and 660 feet from the West line of Section 12;

Brewer Well No. 14, located 1980 feet from the North line and 1980 feet from the East line of Section 13;

Brewer Well No. 19, located 660 feet from the South line and 1980 feet from the East line of Section 12;

Brewer Well No. 20, located 660 feet from the North line and 1980 feet from the West line of Section 14;

Brewer Well No. 25, located 660 feet from the North line and 990 feet from the East line of Section 13.

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STAGE III

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Brewer Well No. 3, located 660 feet from the North line and 1980 feet from the East line of Section 14;

Brewer Well No. 8, located 660 feet from the South line and 660 feet from the East line of Section 11;

Brewer Well No. 12, located 1980 feet from the South line and 660 feet from the West line of Section 13;

Brewer Well No. 15, located 660 feet from the South line and 1980 feet from the West line of Section 12;

Brewer Well No. 21, located 660 feet from the North line and 660 feet from the West line of Section 14;

Brewer Well No. 23, located 660 feet from the South line and 1980 feet from the West line of Section 14;

Brewer Well No. 26, located 660 feet from the South line and 990 feet from the East line of Section 12;

Bosworth Well No. 4, located 990 feet from the South line and 990 feet from the East line of Section 14.

(2) That in lieu of Stage III above, the applicant is hereby authorized to convert the waterflood project to a pattern-type flood utilizing the following-described injection wells:

PATTERN

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM

Bosworth Well No. 1, located 1980 feet from the South line and 660 feet from the East line of Section 14;

Brewer Well No. 1, located 660 feet from the North line and 660 feet from the East line of section 14;

Brewer Well No. 5, located 1980 feet from the North line and 1980 feet from the East line of Section 14;

Brewer Well No. 7, located 1980 feet from the North line and 660 feet from the West line of Section 13;

Brewer Well No. 9, located 660 feet from the North line and 1980 feet from the West line of Section 13;

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CASE No. 2755
Order No. R-2443

Brewer Well No. 13, located 1980 feet from the North line and 660 feet from the West line of Section 14;

Brewer Well No. 18, located 1980 feet from the South line and 1980 feet from the West line of Section 14.

(3) That all water injection shall be accomplished through tubing below a packer set in the lower part of the casing in all injection wells.

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

(5) 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.

(6) 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

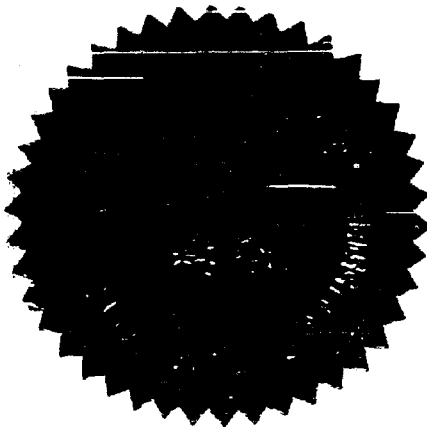
JACK M. CAMPBELL, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

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



esr/