

CASE 3929: Application of LEONARD
LATCH for three waterflood
projects, Eddy County, N. Mex.

Case Number

3929

Application

Transcripts

Small Exhibits

ETC.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 12, 1968

IN THE MATTER OF:

Application of Leonard Latch
for three waterflood projects,
Eddy County, New Mexico.

Case No. 3929

BEFORE: D. S. NUTTER

TRANSCRIPT OF HEARING

MR. NUTTER: Call Case No. 3929.

MR. HATCH: Application of Leonard Latch for three waterflood projects, Eddy County, New Mexico.

MR. LATCH: Mr. Examiner, I am going to represent myself, if I may, sir.

MR. NUTTER: Are you Mr. Latch?

MR. LATCH: Yes, sir.

(Witness sworn.)

(Applicant's Exhibits 1 through 4 marked for identification.)

* * * * *

LEONARD LATCH, the applicant, having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. NUTTER:

Q Would you state your name, please?

A My name is Leonard Latch, L-a-t-c-h.

Q You are the applicant in this case, Mr. Latch?

A I am, sir.

Q And you propose to represent yourself in this matter?

A Yes, sir.

Q Would you proceed?

A I am the owner and operator of several wells in the

Empire Field, Eddy County, New Mexico. The map I have here is Exhibit 1, will give the exact location of the area in question. Now, these wells are producing from a very shallow sand, the Yates Sand, to be exact. It's about, a thickness only of from 6 to 9 feet and most of the wells in the area are better than 15 years old and being shallow as they are, why, naturally the bottom hole pressure is practically nil at this time. The wells do make, they'll average close to a barrel of oil per day and probably a barrel and a half of water per day. So the area in question certainly needs something done to it.

Exhibit 2 is a map showing the wells that I plan to put under flood, a detailed map of the proposed waterflood and the wells that I do plan to make injection wells are circled. Now this is not a five-point pattern, but I have located the well, I think, the best possible location, in relation to the producing wells. There is one item I plan to do different here than other floods, or other floods nearby that was tried in this area, they had a lot of trouble in water break-throughs by injecting constantly in the injection wells. I am going to try an imbibition method, that is, inject in one well 24 hours, and in another well another 24, and just go around the clock, 24 hours to each well. I do not plan to

inject too great an amount of water because of this break-through proposition. I plan to put about two hundred barrels of water per well, or in the well I am injecting in, in each 24 hours. I am trying this system on another area not too far from here, and thus far, I haven't had any trouble with break-throughs.

Q You have five wells proposed so that would mean that you would be putting 200 barrels in each well every fifth day?

A Every fifth day, that is correct, that is my intention. My source well is the No. 2 Well in the Saunders B lease. I fracked this well several years ago and apparently the frack went down a fracture or something, into the lower water because it does make an abundance of salt water, so I have all the salt water I need and it is a very brackish water. I intend to use this water, plus the produced water from the three leases. I plan to reinject that water which will give me roughly some 25 barrels of produced water daily and I plan to add to that this 125 barrels of salt water from the well that is capable of making an abundance of salt water. As I have already stated, the reservoir is way down. I hope that this method will eliminate a lot of my problems or problems that have been had in this area with break-throughs. These wells in question on

these three leases have produced approximately 150,000 barrels of oil, primary. I hope to do that good by secondary. Certainly I'll take a bonus if one is available.

This flood will serve two purposes: 1, I will have a way of getting rid of produced water; and No. 2, I hope to recover considerably more oil by the secondary method.

Exhibit 3 is a detail of the injection wells showing the pipe, the pay sections, et cetera, and then Exhibit 4 is the logs of the wells in question. Now, they are all old cable tool wells. I did not drill these wells; I bought the most of them, all of them in this area. There were no electric log runs, and I have obtained copies of the logs from the United States Department of Interior and that's the only logs, to my knowledge, that are available on these wells.

Q Let's see, Mr. Latch, observing these various schematic diagrams of the wells which you have attached to your application, I presume they're the same as your Exhibit 3 there?

A Yes, sir.

Q It appears that the depth of the wells is approximately 450 feet, is that correct?

A Yes, sir, that is right.

Q And each one of them has seven-inch pipe down to the top of the pay with the exception of the Saunders A-6, which

has five and a half-inch pipe?

A Yes, sir.

Q And from 20 to 30 sacks of cement were used in cementing each one of those strings of casing?

A Yes.

Q Do you have any idea where the top of the cement is on these various wells?

A I have not run logs on it, no, but it should come up about 50 feet above the base of your pipe and it certainly is in order, these wells have been in for some time, so I'll inject down tubing with a packer on the tubing.

Q You will have tubing and a packer on each one?

A Yes, sir.

Q I notice on three of the exhibits, the notation "WT 120 to 125, WT 105 to 110, WT 120 to 125". Is this water?

A It is water, yes, but it is a brackish water, salt outcrops in this area.

Q So that's not fresh water sand?

A There are no fresh water sands to my knowledge in this area.

Q Where will the packer be set in each of the wells?

A Within 10 feet of the base of the pipe.

Q They are all open hole completions?

A : Yes, sir, they were all open hole cable tool completions, some of them as far back as '35.

Q This Saunders B-2, that makes all that water?

A Yes, sir.

Q What formation does that make that water from?

A Well it's, frankly, it's a gradational thing in there. I'm not sure whether this is the Yates or Seven Rivers, but it's coming from below.

Q It's an Empire Pool well, then?

A Oh, yes; yes, sir, lot of the geologists in the area call this Seven Rivers. Frankly, I think it's Yates, but that's a debateable question anyway, anyhow it's a sandy lime reservoir.

Q This is the only one that makes very much water?

A That is correct, I fracked that well.

Q Is it deeper than the others?

A No, but it certainly sets up a frack. I have an abundance of water, I know it's not coming from up the pipe because I put a packer in there and checked the pipe. It's definitely coming from down hole somewhere.

Q You fracked into some kind of an aquifer down there?

A I do know from other wells that have been deepened

there is an abundance of salt water below the producing horizon about 50 feet and apparently we got in it.

Q What does the average well make as far as water is concerned, about a barrel and a half?

A Yes, sir, barrel and a half to two barrels a day, and about a barrel of oil.

MR. NUTTER: Any other questions of Mr. Latch?

A I might add on that the early flood that was tried in this area, they did have considerable trouble from this break-through and from this ~~imbibition~~ method I am hoping to control that. It will take longer to flood it, but I think from what evidence I have on hand, I am hoping to get away from the break-through.

Q (By Mr. Nutter) You have three leases here, the Saunders A, Saunders B and the Travis?

A Yes, sir.

Q Is there a difference in ownership?

A They're federal leases; I have received the green light from the U. S. G. S.

Q They have different names, are there different overrides?

A Different overrides is the reason for that. They are all federal leases.

Q In order for the project allowable to be transferable across the lease lines, they would have to be consolidated, these overrides, or brought together under some kind of an agreement, or would you, rather than attempt to do that, would you prefer that each lease just stand on its own so far as allowable?

A Just let each lease stand on its own, at least for the time being. If it works --

Q You would go to the trouble of getting them consolidated?

A -- that's right, and do a little additional drilling also.

Q So actually what we'll have then, would be two floods. We'll have the flood on the Travis where you have three injection wells and the flood on the Saunders A where you have two injection wells and there is no injection well on the Saunders B, so in effect, we are approving two floods then?

A That is correct.

MR. NUTTER: Does anyone have any questions of Mr. Latch? Mr. Latch, we have got what has been identified as your Exhibits No. 1, 2 and No --

MR. LATCH: Should be a 3 and 4.

MR. NUTTER: What is Exhibit 3?

MR. LATCH: The first two are maps, and the second one is a detail of the pipe, scale of the wells and the pay section.

MR. NUTTER: That's 3, isn't it?

MR. LATCH: Yes, sir, and 4 would be those well logs, or drillers logs from the O. C. C., or from the U. S. G. S.

MR. NUTTER: Oh, that are attached to these?

MR. LATCH: Yes, that are attached.

MR. NUTTER: All right, we will identify them in that manner. Mr. Latch's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits
1 through 4 admitted in evidence.)

MR. NUTTER: Do you have anything further, Mr. Latch?

MR. LATCH: I believe not.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3929? We will take the case under advisement.

I N D E X

WITNESS		PAGE
<u>LEONARD LATCH</u>		
Examination by Mr. Nutter		2
EXHIBITS	MARKED	OFFERED AND ADMITTED
Applicants 1 through 4	2	10

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter 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, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand this 21st day of November, 1968.

Ada Dearnley
 Ada Dearnley

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Foreman hearing of Case No. 3929
 heard by me on 11/12/68 1968.
[Signature]
 New Mexico Oil Conservation Commission

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. 3929
Order No. R-3573

APPLICATION OF LEONARD LATCH
FOR TWO WATERFLOOD PROJECTS,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 12, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 19th day of November, 1968, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, 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, Leonard Latch, seeks permission to institute two waterflood projects on his Saunders A and Travis Leases in the Empire (Yates-Seven Rivers) Pool by the injection of water into the Yates formation through five injection wells located in Sections 12 and 13 of Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico.

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

(4) That the proposed waterflood projects should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

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CASE No. 3929
Order No. R-3573

(5) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Leonard Latch, is heraby authorized to institute the two following waterflood projects on his Saunders A and Travis Leases in the Empire (Yates-Seven Rivers) Pool by the injection of water into the Yates formation through the following-described wells in Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico:

Latch Empire Travis Waterflood Project

Injection wells:

Leonard Latch Travis Well No. 1 - Unit O - Section 12
Leonard Latch Travis Well No. 2 - Unit O - Section 12
Leonard Latch Travis Well No. 3 - Unit P - Section 12

Latch Empire Saunders Waterflood Project

Injection wells:

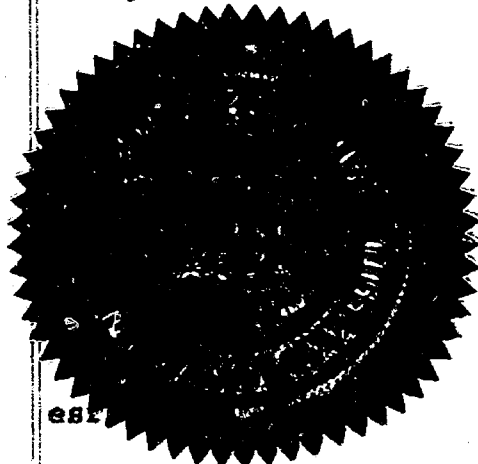
Leonard Latch Saunders "A" Well No. 2 - Unit B - Section 13
Leonard Latch Saunders "A" Well No. 6 - Unit H - Section 13

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) 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

David F. Cargo
DAVID F. CARGO, Chairman

Guston B. Hays
GUSTON B. HAYS, Member

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



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

IN REPLY REFER TO:

October 18, 1968

Mr. Leonard Latch
1812 Texas Avenue
Lubbock, Texas 79401

Dear Sir:

By copy of letter to the New Mexico Oil Conservation Commission, you request approval to operate a waterflood project of the Yates formation in T. 17 S., R. 27 E., N.M.P.M., Eddy County, New Mexico on that portion of oil and gas leases described as follows:

Las Cruces 048491-B

sec. 13: NE $\frac{1}{4}$

New Mexico 025603

sec. 12: S $\frac{1}{2}$ SE $\frac{1}{4}$

You propose to inject produced water with a line drive flood pattern and the following wells are to be converted to water injection:

Well No. and Lease

No. 1-Travis
No. 2-Travis
No. 3-Travis
No. 2-Saunders "A"
No. 6-Saunders "A"

Location

SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12
SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12
SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12
NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13
SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office, and hereby approved subject to approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.

99 OCT 21 11:11

2. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressures for the injection wells and production for the producing wells in the project area.
3. This approval does not preclude the necessity for further approval when the project is expanded to include other wells and leases or the necessity to submit the usual notices and reports on wells involved.

Sincerely yours,

(Orig. 250) ROBERT L. BECKMAN

Robert L. Beckman
Acting District Engineer

cc:
N.M.O.C.C., Santa Fe ✓
Roswell
File
Accounts

RLB:lh 10/18/68

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

November 19, 1968

C
Mr. Leonard Latch
1812 Texas Avenue
Lubbock, Texas 79401

Dear Sir:

O
Enclosed herewith is Commission Order No. R-3573, entered in Case No. 3929, approving the Latch Empire Travis Waterflood Project and the Latch Empire Saunders Waterflood Project.

P
Injection is to be through the five authorized water injection wells, each of which is to be equipped with a string of tubing set in a packer located within approximately ten feet of the casing shoe.

The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer.

Y
As to allowable, our calculations indicate that when all of the authorized injection wells have been placed on active injection, the maximum allowable which the Empire Travis Project will be eligible to receive under the provisions of Rule 701-E-3 is 140 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less and the maximum for the Empire Saunders Project is 196 barrels per day.

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

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

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Mr. Leonard Latch
1812 Texas Avenue
Lubbock, Texas 79401

C
O
P
Y
In order that the allowable assigned to each 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 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/DSN/ir

cc: Oil Conservation Commission
Hobbs and Artesia, New Mexico

U. S. Geological Survey
Artesia, New Mexico

Mr. D. E. Gray
State Engineer Office
Santa Fe, New Mexico

ROUGH DRAFT FOR WATERFLOOD LETTERS

Mr. Leonard Latch
1812 Texas Avenue
Lubbock, Texas 79401

*and the
Latch Empire Sambores*

Dear Sir:

Enclosed herewith is Commission Order No. R-3573, entered in Case No. 3929, approving the *Latch Empire Thors Waterflood Project* Waterflood Project.

Injection is to be through the five authorized water injection wells, each of which is to be equipped with a string of tubing set in a packer located, approximately, ten feet of the casing shoe.

The casing-tubing annulus in each well shall be loaded with an inert fluid and equipped with a pressure gauge at the surface to facilitate detection of leakage in the casing, tubing, or packer.

the Empire Thors Project
As to allowable, our calculations indicate that when all of the 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 140 barrels per day when the Southeast New Mexico normal unit allowable is 42 barrels per day or less *and the maximum for the Empire Sambores Project is 196 barrels per day.*

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

In order that the allowable assigned to ^{*each*} 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 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

cc: OCC: Hobbs x
Artesia x
Aztec x

USGS *Artesia*

Mr. Frank Irby, State Engineer Office, Santa Fe, New Mexico
Mr. D. E. Gray

DOCKET: EXAMINER HEARING - TUESDAY - NOVEMBER 12, 1968

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

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

CASE 3927: Application of Gulf Oil Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a producing oil well at an unorthodox location 5 feet from the North line and 1,315 feet from the West line of Section 33, Township 19 South, Range 35 East, as an infill well in the West Pearl Queen Unit Waterflood Project, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3928: Application of Jake L. Hamon for the creation of a new oil pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Devonian oil pool for its State "K-33" Well No. 1 located 1980 feet from the South and West lines of Section 30, Township 16 South, Range 36 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 80-acre proration units.

CASE 3929: Application of Leonard Latch for three waterflood projects, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute three waterflood projects by the injection of water into the Yates formation through five wells on his Saunders A, B, and Travis leases located in Sections 12 and 13 of Township 17 South, Range 27 East, Empire (Yates-Seven Rivers) Pool, Eddy County, New Mexico.

CASE 3930: Application of Pan American Petroleum Corporation for a dual completion and water injection, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Meyers "B" Federal Well No. 4 located in Unit E of Section 21, Township 24 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 2950 feet to 3090 feet, Jalmat Gas Pool, and the injection of water for secondary recovery purposes into the Seven Rivers-Queen formations, Langlie-Mattix Pool, in the open-hole interval from 3295 feet to 3650 feet through parallel strings of tubing.

CASE 3931: Application of Pan American Petroleum Corporation for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation in the interval from 4239 feet to 4389 feet in its Farrell Federal Well No. 10 located in Unit F of Section 28, Township 7 South, Range 33 East, and in

November 12, 1968

Examiner Hearing

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Docket No. 33-68

(Case 3931 continued)

the interval from 4402 to 4422 feet in its State "DF" Well No. 1 located in Unit I of Section 25, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico.

CASE 3932: Application of Pan American Petroleum Corporation for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Justis-Blinebry and Justis-Fusselman Pools in the wellbore of its State "AJ" Well No. 6 located in Unit M of Section 30, Township 25 South, Range 38 East, Lea County, New Mexico, with the provision that no more than one single allowable will be produced from said well.

CASE 3933: Application of Texaco, Inc., for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Drinkard formation through its C. H. Lockhart Federal NCT Well No. 8 located in Unit P of Section 18, Township 22 South, Range 38 East, Drinkard Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of a well response.

CASE 3934: Application of Texaco Inc., 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 Drinkard formation through the Drinkard string of its multiple completed (tubingless) V. M. Henderson Well No. 8 located in Unit E of Section 30, Township 21 South, Range 37 East, Drinkard Pool, Lea County, New Mexico.

CASE 3935: Application of Sinclair Oil Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by injection of water into the Yates and Seven Rivers formations through its B Davis Well No. 1 located 330 feet from the South and West lines of Section 34, Township 23 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

November 12, 1968

Examiner Hearing

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Docket No. 33-68

- CASE 3936: Application of Tenneco Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates and Seven Rivers formations in the perforated interval from approximately 2920 feet to 3134 feet in its E. J. Wells Well No. 2 located in Unit G of Section 12, Township 25 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.
- CASE 3937: Application of Anadarko Production Company for an amendment to Order No. R-2977, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2977, as corrected by Order No. R-2977-A, which authorized a cooperative waterflood project in the Square Lake Pool, Eddy County, New Mexico, to delete the water injection well previously authorized to be drilled 2630 feet from the South line and 2650 feet from the East line of Section 31, Township 16 South, Range 31 East, and to authorize for water injection its Grier Federal Well No. 6 located 1980 feet from the South and East lines of said Section 31.
- CASE 3938: Application of Aztec Oil & Gas Company for compulsory pooling and a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pictured Cliffs formation underlying Lots 6, 7, NE/4 SW/4, and SE/4 SW/4 of Section 6, Township 29 North, Range 10 West, Aztec-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Said non-standard unit to be dedicated to a well to be drilled 1830 feet from the South line and 1530 feet from the West line of said Section 6. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.
- CASE 3939: Application of Aztec Oil & Gas Company for four unorthodox gas well locations, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of unorthodox Blanco-Mesaverde Gas Pool locations for four wells located as follows:

SAN JUAN COUNTY, NEW MEXICO

Township 30 North, Range 11 West

Hampton Well No. 4 - 1,140 feet from the West line
and 970 feet from the North line
of Section 13

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Examiner Hearing

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Docket No. 33-68

(Case 3939 continued)

Township 31 North, Range 12 West

Richardson Well No. 7 - 1,584 feet from the East line
and 1,621 feet from the South line
of Section 15

East Well No. 10 1,770 feet from the North line
and 790 feet from the West line of
Section 26

East Well No. 8 790 feet from the South and East
lines of Section 26.

CASE 3940:

Application of Shell Oil Company for an amendment to Order No. R-2808, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2808 to permit the dedication of a non-standard proration unit authorized therein to its Livingston Wells Nos. 7 and 2 located in Units V and W, respectively, of Section 3, Township 21 South, Range 37 East, Tubb Gas Pool, Lea County, New Mexico. Applicant further seeks authority to produce the allowable assigned to said unit from either of the aforesaid wells in any proportion.

CASE 3941:

Application of Agua, Inc., for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, proposes to dispose of produced salt water into the San Andres formation in the open-hole interval between the casing shoe set at 2050 feet and a cement plug at 5400 feet after cleaning out and acidizing the well between 2050 feet and 3600 feet in its Empire-Abo SWD Well No. 01, formerly the Humble Federal Empire-Abo Well No. 3, located in Unit O of Section 1, Township 18 South, Range 27 East, Empire-Abo Field, Eddy County, New Mexico.

CASE 3942:

Application of Cities Service Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Yates and Seven Rivers formations in the perforated interval from approximately 3790 feet to 3834 feet in its Closson "B" Well No. 18 located in Unit M of Section 19, Township 22 South, Range 36 East, Jalmat Pool, Lea County, New Mexico.

November 12, 1968

Docket No. 33-68

Examiner Hearing

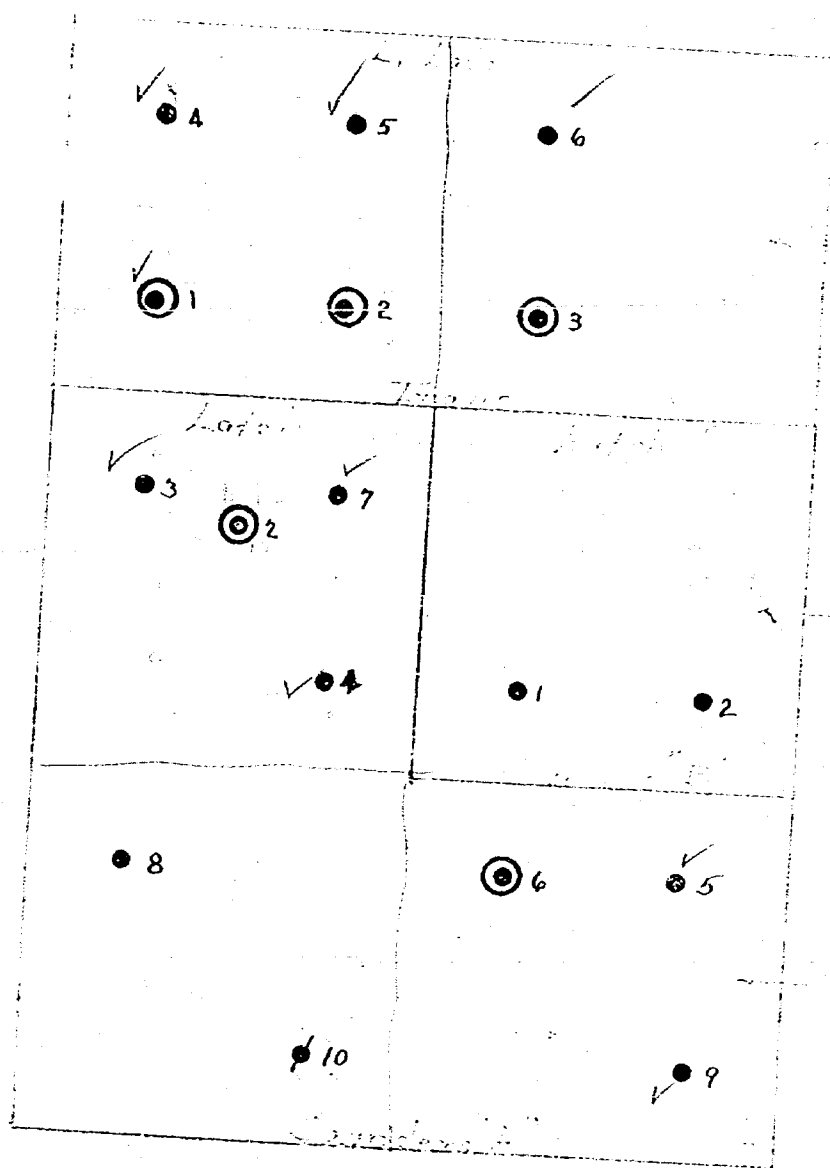
-5-

- CASE 3943: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Lynn A-28 Well No. 5, located in Unit A of Section 28, Township 23 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Yates formation of the Jalmat Gas Pool through the casing-tubing annulus and to dispose of produced salt water through tubing into the Seven Rivers formation of said pool in the interval from 3340 to 3374 feet.
- CASE 3944: Application of Sun Oil Company for a pressure maintenance project, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its James McFarland Lease by the injection of water into the San Andres formation through its James McFarland Well No. 4 located in the NW/4 SW/4 of Section 20, Township 7 South, Range 33 East, Chaveroo-San Andres Pool, Roosevelt County, New Mexico. Applicant further seeks the promulgation of special rules to govern operation of said pressure maintenance project.
- CASE 3945: Application of Mobil Oil Corporation for lease commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Vacuum Grayburg-San Andres production from its State "G" lease comprising the W/2 NE/4 and SE/4 NE/4 of Section 24, Township 17 South, Range 34 East, Lea County, New Mexico, with Vacuum Grayburg-San Andres production from that portion of its Bridges State lease comprising the W/2 of said Section 24, allocating the production to each lease on the basis of monthly well tests.

Detailed Map
Proposed Water Flood

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 3929

200 BW in each
well every
5 days



● Producing Well

⊙ Injection Well
Same later "A" project

Travis Project
2 inj 40's = 84 bbls
4 extra wells: $4 \times 14 = 56$
140 bbls total
2 inj 40's = 84 bbls
1 prod 40 = 42 "
5 extra wells
 $5 \times 14 = 70$
176 bbls total

L. Latch
Travis #1
330 S x 2310 E
Sec. 12 - 17-27

Cptcl. 9-27-50

100

200

300

400

500

Brackish water

potholes w/in 10 feet of
base of pipe - all are
open hole completions

7" @ 412 - 25 SY.

TD 440 By 430-39 Yates Sand

Treated 1000' incl 430-39
I.P. 25 BOPD

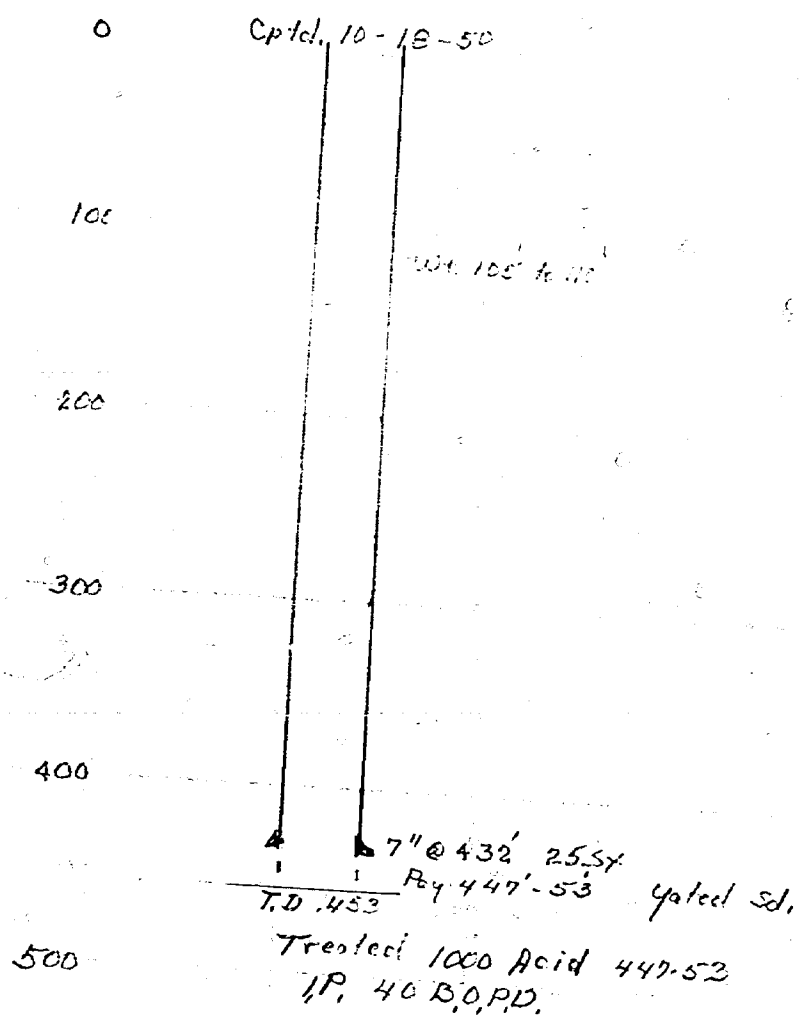
BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 3 (5 parts)

CASE NO. 3929

L. Latch
Travis #2
330'S + 1650 E
Sec 12-17-27



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

L. Latch
Travis #3
330'S + 990'E
Sec. 12-17-27

Cptd. 11-16-50

0

100

200

300

400

500

W. 120-25

7" @ 435' 25' 34"
By 448-54 Yates Rd.
Treated: 1000 Gall 448-54'
LP, 10 B.P.D.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

L. Latch
Saunders "A"-2
330' 11" N 80 E
Sec 12 - 17 - 27

Cp'd. 2-26-47

0
100
200
300
400
500

7" @ 418' 20 5x.

Pay 429' to 55' Yates St

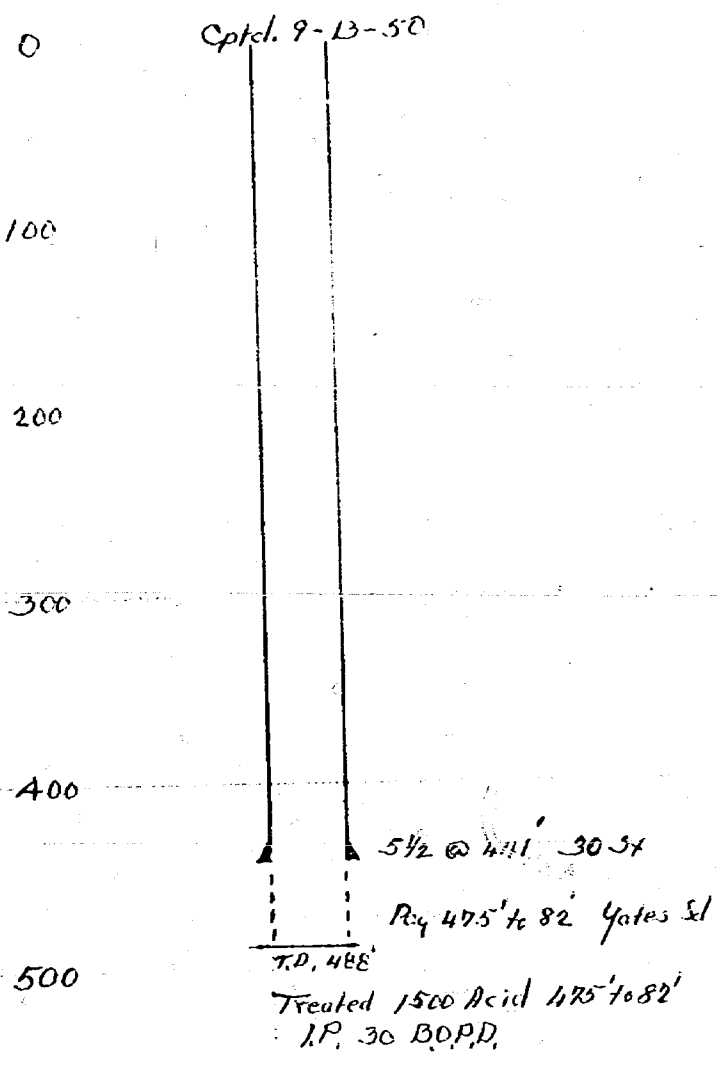
P.B. T.D. 465

T.D. 479

Treated 1000 Acid 429' 55'
I.P. 15 BOPD.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

L. Latch " "
Saunders A-6
1650' N + 1045' E
Sec. 13-17-27



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

Place Artesia, N.M.
 Date 9-30-49

Glenn Staley
 Production Office
 Hobbs, New Mexico

Designate UNIT well is located in
Range 13-17S-27E.

D	C	B	A
E	F	G	H
L	K	J	I
M	N	O	P

NOTICE OF COMPLETION OF: (Lease) Leonard Latch Well No. 2-A
James O. Saunders
330 feet from N line: 1980 feet from N line;
 Section 13 Township 17 Range 27

DATE STARTED August 15, 1949
 DATE COMPLETED August 26, 1949
 ELEVATION _____
 TOTAL DEPTH S.L. 479
 CABLE TOOLS x ROTARY TOOLS _____

CASING RECORD

SIZE <u>8"</u>	DEPTH <u>260</u>	SAX CEMENT <u>heavy mud</u>
SIZE <u>7"</u>	DEPTH <u>418</u>	SAX CEMENT <u>20</u>
SIZE _____	DEPTH _____	SAX CEMENT _____

TUBING RECORD

SIZE 2" DEPTH 418

ACID RECORD

NO. GALS. 500 gal
 NO. GALS. _____
 NO. GALS. _____

SHOT RECORD

NO. CTS. _____
 NO. CTS. _____
 NO. CTS. _____

FORMATION TOPS

Anhydrite 30
 Top Salt none
 Base Salt none
 Red Sand 210
 Brown Lime 289
 White Lime _____
 Oil or Gas Pay 418-439
 Water 70-210

Initial Production Test 15 bbl. Pumping x Flowing _____
 Test After Acid or Shot 15 bbl.

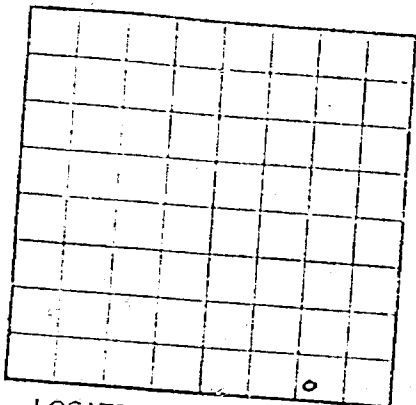
Initial GAS VOLUME _____

SCHEDULE NO. _____ DATE 9-30-49

PIPE LINE TAPPING OIL New Mexico Asphalt & Ref. Co. Artesia, N.M.

REMARKS _____ COMPANY May Hightower

SIGNED BY: _____



U.S. Land Office No. 42, 1941
Approved by U.S. Dept. of the Interior

U.S. LAND OFFICE Las Cruces
SERIAL NUMBER 06361
LESSOR OR PERMIT TO PROSPECT Analysis

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY
Company Leonard Latch
Lessor or Tract xxxxxx Address 1812 Texas Ave. Lubbock, Texas 79401
Well No. 3 Sec. 12 T. 17 R. 27 Meridian N.M.P. Field Empire State N.M. County Eddy
Location 330 ft. N. of S. Line and 990 ft. E. of E. Line of Sec. 12 Elevation xxxxxx
The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.
Date Dec. 13, 1950 Signed Harold Kersy Title Partner Agent

The summary on this page is for the condition of the well at above date.
Commenced drilling Oct. 23, 1950, 19..... Finished drilling Nov. 16, 1950, 19.....

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 450 to 453' No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 120 to 125 No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<u>7"</u>	<u>17</u>	<u>10</u>		<u>435'</u>	<u>COMMON</u>				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
	<u>435'</u>	<u>25</u>	<u>Plug</u>		

MARK

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set

Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
Acidized with 1000 gallons from 450-455'						

TOOLS USED

Rotary tools were used from feet to feet, and from feet to feet

Cable tools were used from feet to feet, and from feet to feet

DATES

....., 19..... Put to producing Dec. 2, 1950....., 19.....

The production for the first 24 hours was barrels of fluid of which % was oil; % emulsion; % water; and % sediment. Gravity, °Bé.

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYEES

..... M. M. Vandagriff Driller Driller

..... John Eskue Driller Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	25	25	Gyp & Anhy
25	125	100	Anhy
125	225	100	Red Beds & Gyp
225	255	30	Anhy & Red Beds
255	285	30	Red Beds
285	345	60	Anhy & Red Beds
345	375	30	Anhy
375	391	16	Anhy & Red Beds
391	410	19	Anhy
410	440	30	Anhy & Lime
440	450	10	Lime
450	453	3	Lime Pay - 3/4 bbl oil/day
453	454	1	Lime - Hard
TD 454'			
FROM—	TO—	TOTAL FEET	FORMATION

(OVER)

10-43094-2

FORMATION RECORD—CONTINUED

ARTEZIA OFFICE

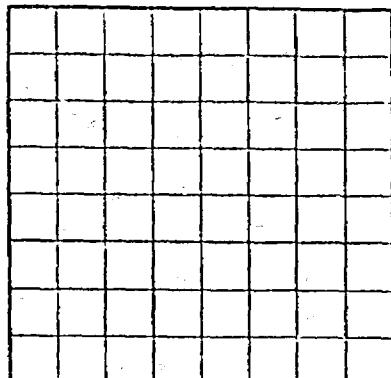
Bullet Bureau No. 42-R352
Approval expires 11-30-15

Form 9-330

U. S. LAND OFFICE LAG. CRUCES

SERIAL NUMBER 069361

LEASE OR PERMIT TO PROSPECT



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
OCT 16 1950

ARTEZIA OFFICE

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY
Leonard Latch

1812 Texas Ave. Lubbock, Texas 79401

Company ~~Proctor & Co. Inc.~~ Address ~~1812 Texas Ave., Lubbock, Texas~~

Lessor or Tract Travis Field Empire State L. Tex.

Well No. 1 Sec. 12 T. 17 R. 27 Meridian N. 17. E. County Eddy

Location 330 ft. {N.} of S. Line and 231 ft. {E.} of W. Line of Sec. 12 Elevation (Derivat. from relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Harold Kersey

Date Oct. 14, 1950 Title Agent

The summary on this page is for the condition of the well at above date.

Commenced drilling Sept. 7, 1950 Finished drilling Sept. 27, 1950

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 436-439 to No. 4, from to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from 120-125 to No. 3, from to

No. 2, from to No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
7"	17.7	10V	used	412'	Open				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7"	412'	25	Plug		

FOLD

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
 Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
Acidized with 1000 gallons from 436-439 on Sept. 28, 1950						

TOOLS USED

Rotary tools were used from feet to feet, and from feet to feet
 Cable tools were used from feet to feet, and from feet to feet

DATES

....., 19..... Put to producing Sept. 29, 1950, 19.....

The production for the first 24 hours was barrels of fluid of which 100... % was oil; %
 emulsion; % water; and % sediment. Gravity, °Bé. 35.....

If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYEES

..... W. M. Vandagriff....., Driller Driller
 John Eskue....., Driller Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	45	45	Gyp & Anhydrite
45	118	73	Anhydrite
118	218	100	Anhydrite and Red Beds
218	225	7	Red Bed
225	241	16	Anhy
241	271	30	" & Shale
271	300	29	" & Red Beds
300	412	112	" & Shale
412	419	7	Lime
419	424	5	Brown Lime
424	436	12	Anhy & Lime
436	439	3	Sandy Lime (OIL)
439	440	1	Lime - hard
TD 440'			
FROM—	TO—	TOTAL FEET	FORMATION

U. S. LAND OFFICE Las Cruces
SERIAL NUMBER 662361.....
LEASE OR PERMIT TO PROSPECT Travis

U. S. GEOLOGICAL SURVEY
 DEPARTMENT OF THE INTERIOR
 RECEIVED
 OCT 1 1950

A blank 10x10 grid for graphing, consisting of 10 columns and 10 rows of squares. The grid is used for plotting the graph of the function $y = \frac{1}{2}x^2$.

Leonard Latch

Company ~~Tracts of the Government~~ Address ~~Box 20, Eddy, N. Mex.~~
Lessor or Tract _____ Field _____ Empire _____ State N. Mex.
Well No. 2 _____ Sec. 12 _____ T. 17 _____ R. 27 _____ Meridian NMP _____ County Eddy
Location 320 ft. {N} of _____ S. Line and 165 ft. {E} of _____ E. Line of _____ Sec. 12 _____ Elevation _____

Signed Harold Kerner

The summary on this page is for the condition of the well at above date.

Commenced drilling Oct. 8, 1950, 19..... Finished drilling Oct. 18, 1950, 19.....

(Denote gas by G)

No. 1, from 449¹ to 452¹ No. 4, from to
No. 2, from to No. 5, from to
No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from 105' to 110' No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

[illegible]

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
7" OD	432	2.5	Plug		

MARK

FOLD

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
 Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
Acidized with 2000 gallons from 449' to 452' on Oct. 18, 1950						

TOOLS USED

Rotary tools were used from feet to feet, and from feet to feet
 Cable tools were used from feet to feet, and from feet to feet

DATES

....., 19..... Put to producing Oct. 21, 1950....., 19.....
 The production for the first 24 hours was barrels of fluid of which % was oil; %
 emulsion; % water; and % sediment. Gravity, °Bé. 25.....
 If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
 Rock pressure, lbs. per sq. in.

EMPLOYEES

..... M. N. Vandagriff....., Driller , Driller
 John Eskue....., Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	40	40	Caliche & Gyp
40	150	110	Anhy
150	300	150	Anhy & Red Beds
300	390	90	Anhy
390	432	42	Anhy & Lime Shells
432	436	4	Sandy Lime - slight show of oil
436	437	1	Sand
437	447	10	Lime
447	449	2	Lime - with slight show of oil
449	452	3	Sandy Lime - Oil Pay
452	453	1	Hard Lime
			453 Total Depth
FROM—	TO—	TOTAL FEET	FORMATION

(OVER)

10-43054-2

FORMATION RECORD—CONTINUED

AREA CODE 806
PORTER 3-9359

AREA CODE 806
NIGHT SWIFT 5-8213

LEONARD LATCH
1812 ~~27~~ TEXAS AVE.
LUBBOCK, TEXAS 79401

October 8, 1968

Case 3979

11 OCT 10 PM 8 21

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico

Attention Mr. Dan Nutter, Chief Engineer

Gentlemen:

Re: Proposed Waterflood
Empire Field, Eddy County,
New Mexico

This application applies to three leases operated by Leonard Latch,
which are:

- No. 1 Saunders A Lease S/2 & NW/4 of NE/4 of Sec. 13-17-27
- No. 2 Saunders B Lease NE/4 of NE/4 Sec. 13-17-27
- No. 3 Travis Lease S/2 of SE/4 Sec. 12-17-27

These leases produce from the Yates Sand Formation at a depth of 500 ft.

Enclosed is the data which you require, in order to make application for
a waterflood. I would appreciate it if you would set me a hearing for
me at the earliest possible date, as I will need to have the flood in
operation by Jan. 1, 1969.

I will be injecting the produced water from the wells on the various
leases involved, and will not be using any fresh water. One well which
we fraced into bottom hole water is capable of making all the water we
would need in order to carry out the proposed waterflood.

LL/ca

Yours very truly,

Leonard Latch
Leonard Latch

DOCKET MAILED

Date *11-1-68*

DRAFT
GMH/esr

Spec ltr

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:

GMH *ALP*

CASE No. 3929

Order No. R-3573

dm

APPLICATION OF LEONARD LATCH
FOR ~~THREE~~ WATERFLOOD PROJECTS,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 12, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this _____ day of November, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, 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, Leonard Latch, seeks permission to
institute ^{two} ~~three~~ waterflood projects on his Saunders A, ~~D~~ and
Travis Leases in the Empire (Yates-Seven Rivers) Pool by the
injection of water into the Yates formation through five injec-
tion wells located in Sections 12 and 13 of Township 17 South,
Range 27 East, NMPM, Eddy County, New Mexico.

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

(4) That the proposed waterflood projects should result in
the recovery of otherwise unrecoverable oil, thereby preventing
waste.

(5) That the subject application should be approved and the projects should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Leonard Latch, is hereby authorized to institute the ^{Two}~~three~~ following waterflood projects on his Saunders A, ~~B~~ and Travis Leases in the Empire (Yates-Seven Rivers) Pool by the injection of water into the Yates formation through the following-described wells in Township 17 South, Range 27 East, NMPM, Eddy County, New Mexico:

Latch Empire Travis Waterflood Project

Injection well 3:

Leonard Latch Travis Well No. 1 - Unit O - Section 12
Leonard Latch Travis Well No. 2 - Unit O - Section 12
Leonard Latch Travis Well No. 3 - Unit P - Section 12

Latch Empire Saunders Waterflood Project

Injection well 3:

Leonard Latch Saunders "A" Well No. 2 - Unit B - Section 13
Leonard Latch Saunders "A" Well No. 6 - Unit H - Section 13

Waterflood Project

Injection well :

(2) That the subject waterflood projects shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(3) That monthly progress reports of the waterflood projects herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) 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.