CASE 4025: Application of RALPH LOWE FOR AN EXCEPTION TO ORDER R-3221, AS AMENDED, EDDY COURTY.

Num ber -d5e Application Transcripts.

Small Exhibits

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BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

January 15, 1969

REGULAR HEARING

IN THE MATTER OF:

Application of Ralph Lowe) for an exception to Order)
No. R-3221, as amended,)
Eddy County, New Mexico.)

Case No. 4025

BEFORE: A. L. Porter, Jr., Secretary-Director Alex J. Armijo, Land Commissioner Governor David F. Cargo, Chairman

George Hatch, Counsel

TRANSCRIPT OF HEARING



MR. HATCH: Case 4025, Application of Ralph Lowe for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

MR. McDERMOTT: I am W. H. McDermott, appearing for Ralph Lowe in Case 4025. I have one witness I would like to have sworn in.

(Witness sworn.)

(Whereupon, Applicant's Exhibits Numbers 1, 2, 3, 4, 5, 6, inclusive, were marked for identification.)

EVERETT L. SMITH

called as a witness by the Applicant, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. McDERMOTT:

- Q Will you state your name, please?
- A Everett L. Smith.
- Q What is your occupation?
- A Petroleum Engineer.
- Q By whom are you employed?
- A Ralph Lowe.
- Q Are you acquainted with the Case No. 4025 before the Commission?
 - A I am.

- Q Have you ever testified before the Commission previously?
 - A Yes.
 - MR. McDERMOTT: Are his qualifications acceptable?
 MR. PORTER: Yes.
- Q Have you submitted an exhibit pertaining to the area involved in this application?
 - A Yes, sir.
- Q Now, at the present time, are there two pits being used for disposal of salt water?
- A That's right, on the Poker Lake State lease, and on the R. B. Federal lease.
 - Q What are the size of these particular pits?
 - A Those pits are approximately forty by thirty by four.
 - Q Will you describe where they are located?
- A They are located inside the tank battery fence, right at the tank batteries. The Poker Lake State pit is approximately 1,320 feet from the south, and 660 feet from the west line of Section 8. And the pit on the R. B. Federal lease is located at approximately 660 feet north of the intersection between Section 17 and Section 18.
 - O Are there any water wells located within this area?
 - A Yes, sir.

- Ω Where are they located?
- A There is one in Section 9, which is to the east, and one in Section 7, which is to the west.
- Have you had the opportunity to take water samples
 from the oil wells in the area?
- A Yes, I have had samples of the water taken and analyzed.
 - Q Are they submitted in Exhibits 4, 5, and 6?
 - A Right.
 - Q Will you discuss Exhibit Number 3?
- A Exhibit Number 3 is a water analysis of the water in Section 7, which is to the west of these Ralph Lowe leases. One thing I especially want to point out there, that the chloride is only 208, and sulphate is 380.
- Would you discuss the water analysis as shown by
 Exhibit 5?
- A Exhibit 5 is the analysis of the water from the R. B. Federal No. 1, Section 18. It has chloride content of 97,200, sulphate content of 570.
- Q Would you proceed on to Exhibit Number 6 on the water analysis on that well?
- A Number 6 is the R. B. Federal A No. 1, Section 17. It has a chloride content of 96,800, with a sulphate content of

O Did you have the opportunity to have water samples taken from the water wells in Sections 7 and 9?

A Yes. I gave the analysis of the water well in Section 7. The water well in Section 9 has a chloride content of 272, and a sulphate content of 2,120.

I would like to point out right here at this point that the sulphate content in the salt water produced from the oil wells is much lower than the sulphate content in these water wells.

Q In your analysis of these results, do you feel as though you have any seepage from your water tanks, that they are having any effect whatsoever on the water being produced out of the oil well?

A No. The water in Section--well, in Section 9, results were taken from the Bulletin 3 of this New Mexico Mining and Technology Ground Water Report of Eddy County. In, I believe, 1949, the sulphate content in that well was 1,710, with a chloride rather low, about 22. But the sulphate has gone from 1,710 to 2,120, which is kind of typical of a lot of wells in that area, the older they get, it seems like the water gets more mineralized, more contaminated the longer they are produced.

And these two wells, water wells show no evidence of any increase in chloride, to any appreciable amount at all.

If the water was seeping through from the oil water, water from the surface pits, it would appear that the chlorides would be much higher than they are.

MR. PORTER: Are you saying that they show no appreciable increase over what period of time?

THE WITNESS: Now, the pit on the Poker Lake State lease has been in use about five years, and on the R. B. Federal, they have been putting water in there about eight years. The wells were all completed in 1960.

- O Referring to the study made that you referred to, what is the date in there that the results were shown, in that particular report?
 - A On Section 9?
 - Q Yes.
 - A That was 1949.
- Q Do you have any comparable date or something closer, say like 1964 or 1965?
- A No, the only date we had was that one out of this report in our analysis of the water from this water well.
 - 0 What is the date out of the report?
 - A According to this ground water report, it was 5-1-49

when the sample was taken out of this water well in Section 9.

- Q At what depth do you obtain the water in this area?
- A That is approximately 300 feet.
- Q Is this water potable at that depth?
- A No, it is not.
- Q Do you have any analysis or any report as to the parts per million of chlorides, or dissolved minerals?
- A The well in Section 9 has a dissolved solids of 3,706. The well in Section 7 has a dissolved solids of 1,252.
- Q Under the standards set by the USGS, is this considered as potable water?
- A It is not. Potable water is described by the USGS as less than 500 parts per million.
- Q Do you think that there will be any contamination at all from the surface pits to the water at the first water level?
 - A No, I do not.
- Q Do you have any idea whether or not this water from these surface pits could possibly reach this first water level?
- A No, I don't--there is a lot of surface Redbeds and Blue shale that some cable tool holes have been drilled in this area, and I don't believe there is a chance of the water ever seeping down.
 - Q Were all these exhibits made under your supervision or

by you?

A I had the water samples taken by a Federal man, and the water analysis was run by the Western Company.

Q To your best knowledge, do you know of any potable water within the immediate area of these surface pits?

A Not potable water. Some of this water can be used for stock water. In fact, I think they are using it for stock water now.

 Ω Is it your basic conclusion that there will be no contamination at all?

A That's right. And the evidence as to the water analysis of 1949 and to date show no contamination whatever.

MR. McDERMOTT: I have no further questions of this witness.

MR. PORTER: Does anyone else have any questions?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Smith, I would like to qualify the location of those pits. You have them identified on your Exhibit Number 1.

A On Exhibit 1, you notice down in the lower right hand corner, the tank battery symbol, those pits are in the south end of the tank battery location. Their tank battery is a standard location on all tank batteries. I can give you a blueprint of

their tank battery standard locations, if you would like to have it.

MR. PORTER: Would you describe it by quarter quarter section, please?

THE WITNESS: Well, I had it here a minute ago. The pit on the State lease, Poker Lake State lease is approximately 1,320 from the south line, and 660 from the west line of Section 8.

MR. PORTER: That is the Poker Lake?

THE WITNESS: Yes, that is the Poker Lake State.

Now, the one on the R. B. Federal, both of those leases go into the same tank battery. It is located north of the—I mean about 660 feet south of the intersection of Sections 7, 8, 17, and 18.

- Q (By Mr. Nutter) In other words, that is almost on the line?
 - A Yes, sir.
- And about 660 feet south of the north side of the section?
 - A Right.
- Q Is that the only two tank batteries we are talking about, or do you have a third one?
 - A No, sir, that is the only two. This 9. 8. Pederal

and Poker Lake State go into the same tank battery.

- Q And then the incomplete circles, the dotted line circles are the location of the water wells?
 - A Yes, sir.
- O Structurally, do you recall the location of the water wells with reference to the pits?
- A Well, the surface dip there is about one and a half degrees to the west. Now, the subsurface formations generally dip to the southeast.
- O Subsurface, the dip is to the southeast, but surfacewise the dip is to the west toward the river?
 - A Yes, sir.
- Q So could be assume then that the pits that you are talking about would be down dip surfacewise from the water well in Section 9?
 - A Surfacewise, yes, sir, it would be down dip.
- Q And that would probably be about on strike with the water well up there in Section 7?
 - A Yes, sir.
 - O How deep is the well in Section 7?
- A I don't have the exact depth. It is around 300 feet, approximately.
 - Q And the well in Section 9?

A It should be approximately the same depth.

MR. PORTER: Would that put it in the Redbeds?

THE WITNESS: Well, the way those sands are in Eddy
County, you can't always tell exactly until you hit the water.
There is an example over in Section 14, 19 South, 27 East, two
water wells drilled twenty feet apart, and according to this
water report 3, one of them was hard and the other one was soft,
and there was about a 50 foot differential in the water levels.
So those are just entrapped sands, and you will find one here,
and maybe yonder you won't find one.

Q (By Mr. Nutter) How much water is being produced at the present time, Mr. Smith?

A In the Poker Lake State lease, it is approximately 35 barrels a day. And the R. B. Federal No. 1-A, is about 6 barrels a day. And the R. B. "AY" Federal No. 1, it is approximately 125 barrels a day.

- O So we have here maybe 160 to 170 barrels a day?
- A Yes, sir.
- Q Are there any dry holes in the immediate vicinity of this pool which could be used for disposal of water?

A Well, there a holes up there. There is one up in-I believe that is Section 4, but don't know how available it would be to put salt water in. I think there is a dry hole

in Section 17.

- Ω Does the Ralph Lowe estate have any dry holes on its leases?
 - A No, sir, they do not.
- Q What is this well in the northwest of the northwest of Section 17?
- A Northwest of the northwest--that is a Bass well, I believe, isn't it?
 - Q Well, I believe it is on the R. and B. lease?
- A My map doesn't show a well. That shows the oil well there, yes, that is the No. 1-YD in the northwest of the northwest of 17.
- Q Well, it appears on this exhibit that I have, that there is also a dry hole shown there in that 40-acre tract?
 - A Well, that I don't have any information on.
- Q And then up here in Section 8, Mr. Smith, immediately north of your tank battery there, it appears that there is a dry hole there. Do you know what depth that well is?
- A No, I don't have it. It shows here, 3,761 total depth.
 - 9 3,761?
 - A Yes.
 - Q Do you know of any study that has been made to

consider the feasibility of using that well for salt water disposal?

- A No, sir.
- Q You made no study?
- A No, sir.
- Q Mr. Smith, what is this, the line that runs around here on this exhibit? Is that the outer boundary of the leases?

A Yes, that State lease covers two and a little better sections. I believe on your map it has it in red, and they photostated those after they drew the red lines around those leases.

MR. NUTTER: I believe that is all.

MR. McDERMOTT: If the Commission please, it appears that we had a statement to three unlined surface pits in the application, whereas we are only asking for the use of two. I presume it would be necessary to republish in that case, or just have it corrected?

MR. PORTER: You asked for two?

MR. McDERMOTT: That is all. We only have two in the area, although I notice in the application--

THE WITNESS: Well, the application was stated for the R. and B. Federal and Federal A, but they go in the same pit.

MR. PORTER: Since you are asking for less, we don't feel it would be necessary to readvertise, since you are actually asking for less than what appears in the advertisement.

Does anyone else have any question of Mr. Smith?

MR. McDERMOTT: At this time, I would like to have all the exhibits admitted in evidence.

MR. PORTER: What are those numbers?

MR. McDERMOTT: Exhibits 1 through 6.

MR. PORTER: If there is no objection, the Exhibits will be admitted. If there are no further questions, the witness may be excused.

(Whereupon, Applicant's Exhibits Numbers 1, 2, 3, 4, 5, 6, inclusive, were admitted in evidence.)

Is there anything further to be offered in this Case?

Tf not, the Commission will take the Case under advisement, and proceed to Case 4028.

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EXHIBITS Applicant's Exhibits Numbers 1 through 6	MARKED 2	OFFERED AND ADMITTED 14

STATE	OF	NEM	MEXICO)	
)	ss.
COUNTY	OF	BEI	RNALILLO)	

I, SAMUEL MORTELETTE, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Symuel Modelettz
COURT REPORTER



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87801

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

GOVERNOR DAVID F. CARGO CHAIRMAN

LAND COMMISSIONER ALEX J. ARMIJO

MEMBER

March 3, 1969

Mr. W. H. McDermott Re: Case No. 4025
Attorney at Law Order No. R-3684
Post Office Box 1143
Santa Fe, New Mexico
Ralph Lowe

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

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. 4025 Order No. R-3684

APPLICATION OF RALPH LOWE FOR AN EXCEPTION TO ORDER NO. R-3221, AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 15, 1969, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 28th day of February, 1969, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

PINDS:

- (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, Ralph Lowe, is the owner and operator of certain wells located in Sections 8, 17, and 18, Township 25 South, Range 30 East, NMPM, Corral Canyon-Delaware Pool, Eddy County, New Mexico.
- (3) That effective January 1, 1969, Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any

-2-CASE No. 4025 Order No. R-3684

other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

- (4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.
- (5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), M.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.
- (6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the continued disposal of salt water, produced by applicant's wells located in said Sections 8, 17, and 18, in two unlined surface pits located north of the well in Unit M of said Section 8 and east of the well in Unit A of said Section 18.
- (7) That the applicant is presently disposing of approximately 160-170 barrels of produced water per day in the subject pits.
- (8) That there are no shallow fresh water wells in the vicinity of the subject plts.
- (9) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination.
- (10) That the applicant should be parmitted to continue to dispose of salt water, produced by his wells located in said Sections 8, 17, and 18, in the above-described surface pits.

IT IS THEREFORE ORDERED:

(1) That the applicant, Ralph Lowe, is hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended,

-3-CASE No. 4025 Order No. R-3684

to continue to dispose of water produced in conjunction with the production of oil or gas, or both, by his wells located in Sections 8, 17, and 18, Township 25 South, Range 30 East, NMPM, Corral Canyon-Delaware Pool, Eddy County, New Mexico, in the two unlined surface pits located north of the well in Unit M of said Section 8 and east of the well in Unit A of said Section 18 until further order of the Commission.

- (2) That the Commission may by administrative order rescind such authority whenever it reasonably appears to the Commission that such rescission would serve to protect fresh water supplies from contamination.
- (3) 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 CONSTRUCTION COMMISSION

DAVID F. CARGO, Chairman

ALRX J. ARMIJO, Member

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

Docket No. 2-69

DOCKET: REGULAR HEARING - WEDNESDAY - CANUARY 15, 1969

OTE CONSERVATION COMMISSION - 9 A.M. - MORGAN HABL, STATE DAND OFFICE BUILDING, SANTA TE, NEW MEXICO

(1) Consideration of the oil allowable for February, 1969; ALLOWABLE:

(2) Consideration of the allowable production of gas for February, 1969, from thirteen prorated pools in Lea, Eddy and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine promated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for February, 1969.

CASE 3996: (Continued from the December 18, 1968, Regular Hearing) Application of Martin Yates, III, for an exception to Order No. R-3221, as amended, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, after January 1, 1969. Said exception would be for the applicant's Cordie King Well No. 1 located in Unit L of Section 22, Township 23 South, Range 26 East, Dark Canyon (Delaware) Fool, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of produced salt water in an unlined surface pit located in the aforesaid quarter-quarter section.

CASE 4021;

Application of Charles B. Read for an exception to Order No. R-3221, as amended, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order probabite the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Rooseveli. Counties, New Mexico, after Canuary 1, 1969. Said exception would be for the applicant's well limited in Unit I of Sestion 16, Township 20 South, Range 33 East, West Teas rates-Reven Rivers Fool, Lea County, New Mexico. Applicant Feeks authority to continue to dispose of produced salt water in an unimed surface pit located in the aforesaid that J.

Regular Hearing - Wednerus January 15, 1969

Set N 2-69

"ASE 4022 :

Application of Ernert A. Canson in a compress to Order No. A-3221, we amended the metry haw Mexico. Applicant, in the above styled stude, seeks in exception to Order No. R-3221, 48 amended, Which order prohibits the disposal of writer produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaven, and Roosevelt Countries, New Mexico, after Canuary 1, 1969. Said exception would be for the applicantle Atlantic State Well No. 1 Tranted in Unit ! of Yeation 16, Township 20 South, Range 33 Bast, West Teas Yater-reven Rivers Pool, Let County, New Mexico, Appliesnt seeks authority to continue to dispose of produced salt water in an unlined surface pit located in the aforesaid Unit d.

CASE 4023: Application of Ernest A. Hanson for salt water disposal, Eddy County, New Mexico. Applicant. in the above-styled cause, seeks asthocity to dispose of produced salt water into the Queen formation in the perforsted interval from approximately 1994 feet to 2178 feet in his Weigh Pederal Well No. 2 located 1650 feet from the North line and 2310 feet from the West line of Section 22, Mownship 19 South, Pange 28 East, East Millman Queen-Grayburg Pool, Eddy Tounty, New Mexico.

CASE 4024: Application of V. S. Welch for an exception to Order No. R-3221, as amended, Eddy County, New Markey. Applicant, in the abovestyled gause, seeks an except of the Ander No. E-3221, as amended, which order prohibite the disposal or water produced in conjunction with the production of (i) on the surface of the ground in Lea, Eddy, Chaves, and Postevert Countres, New Mexico, after January 1, 1969. Said exception would be for the applicant's wells located in Section 27, T. Waship 18 South, Range 31 East, Shugarh fool, Eddy dounty. New Meximo. Applicant weaks authority to continue to dispose of produced suft water in unlined surface pits located in raid Seation 27, In the miteriative, applicant seeks a temporary extension of it least six manths in which to comply with the provisions of smid sides.

MASE 4025; Application of Expresse for an exception to see the as amerded. Eddy County, New Mexico, applicant, to the terms of styled sause, weeks an exception to order No messal or which under prohabite the displace i water produced in tion with the promothich of his on the confide of the ground on Lea, Eddy, Thistory and Audientiff tunniles, wew Muxicus Aither January 1 (1969) Star of the option would be for the applicant to leases in central no. 8, it. ital i8. Formatip ablancia Fange 30. East, Corners when but hady bunky New Haxass oppose the reek: Note only to sentimos to dispose of produced with Water in three unlined surfees puts is suited in lettern 8 17 and 18

DUCKET No. 2-69

- CASE 4026s Application of Fred Pool Drilling Company For an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in loss, Eddy, Chaves, and Roosevelt Counties, New Mexico, after Canuary 1, 1969.

 Said exception would be for the applicantic leases located in Sections 8 and 9, Township 25 South, Sange 30 Eddy, Chaves authority to continue to dispose of produced salt water in three unlined surface pits located in the SW/4 NW/4 and the SE/4 SE/4 of said Section 8, and the SW/4 SW/4 or said section 9.
- CASE 4027s Application of MacDonald oil derivation for an exception to Order No. R-3221, as amended, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in hea, Eddy, Chaves, and Roosevelt Counties, New Mexico. After Canuary 1, 1869. Said exception would be for the applicant's sinclair Parke Well No. 1 located in Unit F of Section 12, Township 17 South, Range 30 East, Caskson Abs Pool, Eddy County, New Mexico. Applicant seeks authority to continue to dispose of produced sait water in an unlined surface pit located in the aforesaid Unit W.
- CASE 4028: Southeastern nomenglature gase willing for an order for the creation, extension and abolishment of cartain pools in Lea Chaves, Rossevelt and Eddy Contres, New Mexico.
 - (a) Cheate a new pool in Thames fourty. New Mexico, classified as an oil pool for San Andres production and designated as the Siete-San Andres Paul. The distributory val. In the Salid Brown, Sr. Federal "TM" Well No a rotated in onit P or Section 17. Township 8 South, Range 31 Fest. NM. A. Jaid pool should comprise the following described areas:

Figure 1.4 8 south, range, ... and 1. smfM $_{2}$ satisfies the $_{1}$

Docket No. 2-69

(Case 4028 continued)

(b) Create a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Vacuum Morrow Gas Pool. The discovery well is Phillips Petroleum Company, Lea No. 23 located in Unit P of Section 30. Township 17 South, Range 34 East, NMPM. Said pool should comprise the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM Section 30: E/2

(c) Create a new pool in Lea County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Wilson-Wolfcamp Gas Fool. The discovery well is Phillips Petroleum Company, Wilson "J" No. 1 located in Unit O of Section 5, Township 21 South, Range 35 East, NMPM. Said pool should comprise the following-described areas

TOWNSHIP 21 SOUTH, RANGE 35 EAST, NMPM Section 5: Lots 9, 10, 15 and 16

(d) Extend the Middle Allison-Pennsylvanian Pool in Lea and Roosevelt Counties, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 36 EAST, NMPM Section 33: SW/4

TOWNSHIP 9 COURT, RANGE 35 EAST, NMPM Section 1: SE/4

TOWNSHIP 9 SOUTH, RANGE 36 EAST, NMPM Section 4: SE/4
Section 6: All

(e) Extend the North Bagley-Lower Fennsylvanian Pool in Lea County, New Mexico, to include thereins

TOWNShip 11 SOUTH, FANGE 33 EAST, NMPM Section 7: SE/4
Section 30: NW/4
Section 32: SE/4

Docket No. 2-69

(f) Extend the Cerca-Upper Pennsylvanian Pool in Lea County, New Mexico, to include therain:

TOWNSHIP 13 SOUTH, RANGE 34 EAST, NMPM Section 33: SE/4

(g) Extend the Flying "M" Fennsylvanian Fool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMFM Section 10: SW/4

(h) Extend the Teague-Blinebry Fool in Lea County, New Mexico, to include therein:

TOWNSETP 23 SOUTH, RANGE 37 EAST, NMFM Section 20: NE/4

(i) Abolish the East Inba-Pennsylvanian Pool in Lea County, New Mexico, described as:

TOWNSHIP 10 SOUTS, RANGE 34 EAST, NMPM Section 30: SW/4

(j) Extend the Vada-Pennsylva ian Pool in Lea County, New Mexico, to include thereins

COUNSETP 9 SOUTH, FANGE 34 EAST, NMPM Section 22: NW/4

TOWNSELL 10 SOUTH, PANCE 33 LAST, NMFM Section 25: E/2 Section 36: N/2

Figure 10 Scart, Pange 34 East, NM20 Section 9: W/2 Section 16: NW/4 Section 19: S/2 Section 30: S/2

(k) Extend the Valoa-Pennsylvanian Pool in Lea County, New Mexico, to include therein.

TOWNSHIP 10 SOUTH, RANGE 33 EAST, NMFM Sention 25: W/2 Section 36: SE/4

COWNSELD 1) SOUTH, FANGE 34 EAST, NAPM section 4: Lots 1, 2, and 3, E/2 SW/4, and SE/4

(1) Extend the vertical limits of South Hope Strawn gas pool to include all of the Pennsylvanian formation and redesignate said pool as the South Hope-Pennsylvanian Pool; extend the horizontal limits of said South Hope-Pennsylvanian gas pool to include therein:

TOWNSHIP 18 SOUTH, FANGE 23 EAST, NAPM Section 19: All

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County

THE WESTERN COMPANY Service Laboratory

BEFORE THE OIL CORSERVATION COMMISSION Sunha Fe, New Muxico Exhibit No. ~ Case No. 122-5

WATER ANALYSIS

Date Sampled Ralph Lowe Estate Operator 1-7-69 Date Received Water Well Ralph Lowe Estate Well Submitted by Field Jones Worked by About 600' or 700' Northeast of **Formation** Other Description Pool Drilling Co. - Superior State #1 Well, Sec 4-T25-s-R30-E Depth

CHEMICAL DETERMINATIONS

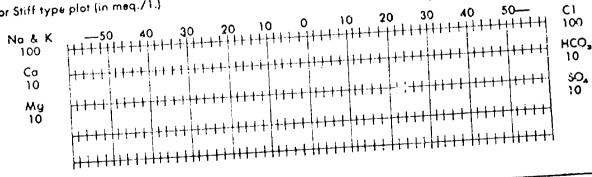
CHEMICAL DETERMINATIONS				
Density 1.005 @ 71 F		рч7.6	None	
IronNo Trace		Hydrogen Sulfide	256 ppm	
Sodium and Potassium	252 ppm	<u>Bicarbanate</u>	2, 120 ppm	
Calcium	655 ppm	Sulfate	ppmppm	
Magnesium	151 ppm	Phosphate ————————————————————————————————————	ррт	
Chloride	272 ppm	as Sodium Chloride		

Total dissolved solids 3,706 ppm

Remarks:

for Stiff type plot (in meq./1.)

Eddy, New Mexico



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BAMPLE	NO	-	

THE WESTERN COMPANY Service Laboratory

BEFORE THE O'L CONSERVATION COMMISSION S. ma Fe, New M. xico Exhibit No. 3

WATER ANALYSIS

Operator

Ralph Lowe Estate

Water Well

Well Field

Formation

Depth

County

Eddy, New Mexico

Date Sampled

Date Received

1-7-69

Submitted by

Ralph Lowe Estate

Worked by

Jones

Other Description

Northwest $\frac{1}{4}$ of Northwest $\frac{1}{4}$ of Sec

7, T-25-S-R-30-E

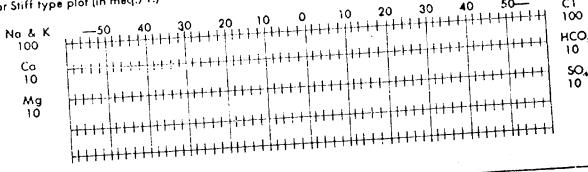
CHEMICAL DETERMINATIONS

8.9 1.005 @ 71°F None Hydrogen Sulfide -Very Faint Trace 293 iron _ Bicarbonate -234___ 380 Sodium and Potassium ____ Sulfate -88 Calcium -Phosphate — Magnesium . as Sodium Chloride 208 Chloride -

Total dissolved solids 1, 252 ppm.

Remarks:

for Stiff type plot (in meq./1.)



SAMPLE NO.

THE WESTERN COMPANY Service Laboratory

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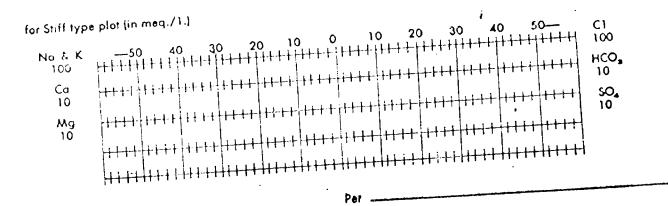
WATER ANALYSIS

1-10-69 Date Sumpled Ralph Lowe Operator 1-10-69 Date Received State #1 Well Bill Scott Submitted by Poker Lake Field Koehl Worked' by Sec. 8, T-25-S, R-30-E Delaware Other Description Formation 660 F59WL 3673-3679' Depth Eddy, New Mexico County

CHEMICAL DETERMINATIONS

7.2 1.101 at 65°F None Density Hydrogen Sulfide Faint trace 281 Bicarbonate -, ppm <u>50,900</u> Sodium and Potassium. 540 Sulfate ppm 7,740 Calcium . 1,580 Phosphate ppm Magnesium as Sodium Chloride 96,400 Chloride

Remarks:



Field

THE WESTERN COMPANY

Service Laboratory

WATER ANALYSIS

Operator Ralph Lowe 1-10-69 Date Sampled Well R. B. Federal #1 1-10-69 Date Received

> Poker Lake Submitted by Bill Scott

Formation Dolaware Worked by

Koehl

Depth 3639-36451 Other Description Sec. 18, T-23-S, R-30-E 660 FNOEL

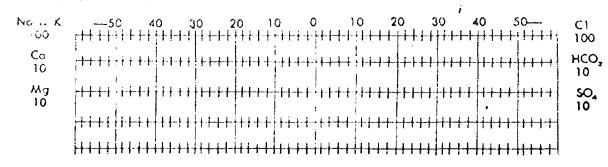
County Eddy, New Mexico

CHEMICAL DETERMINATIONS

Density1.101 at 65°F		pH7.5			
Iron Fair Trace			Hydrogen Sulfide	None	_
Sodium and Potassium	55,450	ррт	· Bicarbonate ·	329	ppm
Calcium	7,680	ppm	Sulfate	570	ppm
Magnesium	1,608	ppm	Phosphate		ppm
Chloride	97,200	ppm a	s Sodium Chloride		ppm

Remarks:

for Stiff type plot (in meq./1.)



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THE WESTERN COMPANY Service Laboratory

PISTORE 1477
OIL CONSERVATION C. WASSAON
S are Fo, New a city
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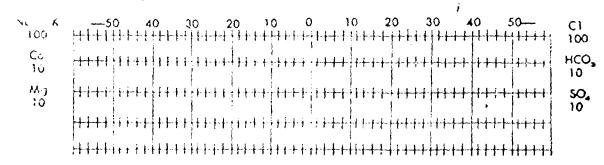
WATER ANALYSIS

Operator Ralph Lowe Date Sampled 1-10-69 Well R. B. Federal "AY" #1 Date Received 1-10-69 Field Poker Lake Submitted by Bill Scott **Formation** Worked' by Delaware .Koehl Other Description Sec. 17, T-25-S, R-30-E Depth 3687-3692 CITENA 614 FAL County Eddy, New Mexico

CHEMICAL DETERMINATIONS

Remarks:

for Stiff type plot (in meq./1.)



Per ____

RAILROAD COMMISSION REPORTS PREPARED PROPERTY MANAGEMENT LEASE APPRAIBALS EVALUATIONS

EVERETT L. SMITH

REGISTERED PROFESSIONAL ENGINEER

98 St

COMPLETE ENGINEERING SERVICE BOTTOM HOLE PRESSURES GAS-OIL RATIOS WELL COMPLETIONS

WEST TEXAS OIL REPORTS AND ENGINEERING SERVICE

TELEPHONE MU 4-6381 - P. 0. 80X 953 401 WILKINSON-FOSTER B∰LOING

MIDLAND, TEXAS

December 9, 1968

LAMAR ESCHBERGER
REGISTERED PROFESSIONAL ENGINEER

Care 11.25

State of New Mexico Oil Conservation Commission P. O. Box 1148 Santa Fe, New Mexico

Dear Sir:

In accordance with Rule 1203, application is hereby made on behalf of Ralph Lowe for an Examiner's Hearing before the Oil Conservation Commission for the purpose of presenting evidence to obtain the Commission's approval to dispose of produced oil field brine into surface evaporation pits on his leases located in the Corral Canyon (Delaware) Field, Eddy County, New Mexico.

The pits are to be located as follows:

Poker Lake State 8 - 25 - 30 R\$B Federal 18 - 25 - 30 R\$B "A" Federal 17 - 25 - 30

Interested parties have this day been furnished a copy of this request. They are:

Perry R. Bass, Box 171; Midland, Texas 79701 Fred Pool Drilling Co., Box 100, Orla, Texas 79770 U. S. Geological Survey, Drawer U, Artesia, New Mexico W. W. Snyder Estate, Box 726, Lovington, New Mexico J. George Ross, Box 1291, Pecos, Texas 79772 New Mexico State Land Office, Box 1148, Santa Fe, New Mexico Ralph Lowe, Box 832, Midland, Texas 79701

Yours truly,

Everett L. Smith, Petroleum Engineer

ELS:ar

CC: 8

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RAILROAD COMMISSION REPORTS PREPARED PROPERTY MANAGEMENT LEASE APPRAISALS EVALUATIONS

COMPLETE ENGINEERING BERVICE BOTTOM HOLE PRESSURES WELL COMPLETIONS

Car. 4025

WEST TEXAS OIL REPORTS

AND ENGINEERING SERVICE

TELEPHONE MU 4-6381 - P. D. BOX 953 401 WILKINSON-FOSTER BUILDING

LAMAR ESCHBERGER REDISTERED PROFESSIONAL ENGINEER

MIDLAND, TEXAS

EVERETT L. SMITH REGISTERED PROFESSIONAL ENGINEER

October 21, 1968

Oil Conservation Commission Drawer DD Artesia, New Mexico

Attention: Mr. Armstrong

Dear Sir:

We are writing in behalf of Ralph Lowe concerning his three leases located in the Corral Canyon (Delaware) Field, Eddy County, New Mexico. Ralph Lowe sincerely requests an exemption to the "no-pit" order on the leases listed below.

They are all producing into the same tank battery and only one evaporation pit would be necessary to take care of all the salt water produced. The leases are currently producing approximately 150 barrels per day. The wells concerned are the:

> Pok. La. St. Well #1M 8-25-30 R&B Fed Well #1A 18-25-30 R&B "A" Fed Well #1Y D 17-25-30

The Federal leases are in the Poker Lake unit operated by Perry

Yours truly,

Everett L. Smith, Petroleum Engineer

ELS:ar

cc: occ

Ralph Lowe

OCY 22 1053

GMH/esr 2-20-69

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:

Sow

CASE No. 4025

Order No. R- 2684

AM

APPLICATION OF RALPH LOWE FOR AN EXCEPTION TO ORDER NO. R-3221, AS AMENDED, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 15, 1969, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____day of February, 1969, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Ralph Lowe, is the owner and operator of certain wells located in Sections 8, 17, and 18, Township 25

 Compression

 South, Range 30 East, NMPM, Corral-Delaware Pool, Eddy County, New Mexico.
- (3) That effective January 1, 1969, Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any

other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

- (4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.
- (5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.
- (6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the continued disposal of salt water, produced by applicant's wells located in said Sections worth of the will in Unit M of 8, 17, and 18, in three unlined surface pits located in said Sections 8, 17, and 18, and east of the well in Unit Aiof said Section 18.
- (7) That the applicant is presently disposing of approximately 160-170 barrels of produced water per day in the subject pits.
- (8) That there are no shallow fresh water wells in the vicinity of the subject pits.
- (9) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination.

(10) That the applicant should be permitted to continue to dispose of salt water, produced by his wells located in said Sections 8, 17, and 18, in the above-described surface pits.

IT IS THEREFORE ORDERED:

- said Scotion 18 (1) That the applicant, Ralph Lowe, is hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to continue to dispose of water produced in conjunction with the production of oil or gas, or both, by his wells located in Sections 8, 17, and 18, Township 25 South, Range 30 East, NMPM, Corral-Delaware Pool, Eddy County, New Mexico, in the two unlined?

 (north of the well in Unit M of said)
 surface pits located in said Sections 8, 17, and 18, until further order of the Commission.
- (2) That the Commission may by administrative order rescind such authority whenever it reasonably appears to the Commission that such rescission would serve to protect fresh water supplies from contamination.
- (3) 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.