

~~Bohly -~~

~~Send copy of docket
to all operators in
the Roberts Pool area.
This case must be
in red on page~~

Case No.

1363

Application, Transcript,
Small Exhibits, Etc.

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 8, 1958

IN THE MATTER OF: Case No. 1363

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 8, 1958

IN THE MATTER OF:

Application of J. C. Watson Drilling Company
for an order authorizing the use of vacuum pumps
on certain wells in the Roberts Pool in Lea
County, New Mexico. Applicant, in the above-
styled cause, seeks an order authorizing the use Case 1363
of vacuum pumps on its Trimble No. 1 Well
located in the NE/4 NE/4 Section 11, Township
17 South, Range 32 East, and its Trimble No. 2
Well located in the SE/4 NE/4 of said Section
11, in the Roberts Pool, Lea County, New Mexico.

BEFORE: Mr. Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: The meeting convened in the offices of the
Oil Commission at 9:00 o'clock, and we hereby recessed the meeting
until 9:15 in Room 204, State Capital Building.

(Recess.)

MR. NUTTER: The hearing will come to order, please. The
first case on the docket will be Case No. 1363.

MR. COOLEY: Case 1363: Application of J. C. Watson
Drilling Company for an order authorizing the use of vacuum pumps
on certain wells in the Roberts Pool in Lea County, New Mexico.

(Witness sworn.)

EDWARD E. KINNEY

a witness, of lawful age, having been first duly sworn on oath,
testified as follows:

DIRECT EXAMINATION

MR. COOLEY: Would you state your name and position, please?

A Edward E. Kinney, a petroleum consultant, Artesia, New Mexico.

MR. COOLEY: Are you appearing on behalf of J. C. Watson Drilling Company?

A I am.

MR. COOLEY: Have you previously qualified as an engineering witness before this Oil Conservation Commission of New Mexico?

A I have, and I ask that my qualifications will be accepted in this case.

MR. NUTTER: Mr. Kinney is accepted as an expert witness.

MR. COOLEY: Mr. Kinney, are you familiar with the particular conditions in the Roberts Pool of Lea County, New Mexico?

A Yes, sir, I am familiar with the conditions in the Roberts Pool.

MR. COOLEY: Proceed.

A May I submit this map as Exhibit 1?

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

I submitted this map of the western part of the Roberts Pool. It's labelled Roberts Pool and was the original part until

development in the last year, year and a half. It covers Sections 1, 2, 3, 10, 11, and 12 of Township 17 South, Range 32 East.

My clients' wells are J. C. Watson Company Trimble Wells No. 1 and 2 in the east half of the northeast quarter of Section 11 of Township 17 South, Range 32 East. These wells were drilled in 1946. Casing was cemented in the Grayburg formation at 4,027 feet in No. 1 well, and 4,062 feet in No. 2 well. The No. 1 well was fractured in 1954. The No. 2 well was fractured in 1956.

The pay zones are the Basil, Grayburg and Upper San Andres formations. I would like to submit another exhibit here.

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

This Exhibit No. 2 in Case 1363 is the production record of the Watson Drilling Company Trimble lease Wells No. 1 and 2 on an annual and cumulative basis from the year 1946 through October, 1957. The No. 1 well to the end of October, 1957, has produced 66,209 barrels. The No. 2 well has produced 35,208 barrels. In both wells the decline was quite rapid between 1947 and '48; in the case of the No. 1 well it dropped fifty percent, and in the case of the No. 2 well it dropped about seventy percent, a little over.

The 1957 average production in these two wells is six and one-quarter barrels per day in the No. 1 well, and 1.3 barrels in the No. 2 well. The gas production is too small to measure.

Both wells are on the pump. Referring back to Exhibit 1, the wells in the southeast and southwest corners of Section 1 and

the like wells in Section 2 have already been plugged and abandoned in this Pool. The area shown in this map, as I said earlier, represents the early part of the Roberts Pool. Recent development in Township 17 South, Range 33 East in Sections 7, 8, and 17 has been included by the Oil Commission in the limits of the Roberts Pool. In my opinion this is apparently a separate reservoir from the western portion in Township 17 South, Range 32 East. The abandoned wells in Section 1, a solitary well in Section 12, together with the undeveloped acreage to the east in Section 12, plus some wells that we do not see, being over in Township 17 South, 33 East, a weak well in Unit C in Section 7, and a plugged and abandoned well in Unit G of Section 7 would seem to define a very definite separation between this western portion and the eastern portion of the Roberts Pool. In the western part of the Roberts Pool, the producing wells are owned by Leonard Nichols, Suppes and Kennedy, The Texas Company, and the Watson Drilling Company. Leonard Nichols owns the shallow producing rights under the Phillips and Ohio leases.

At the time of the application for this hearing, copies of the application were sent by registered mail to all producers in the Roberts Pool. My client, the Watson Drilling Company, desires to install a vacuum pump upon the Trimble 1 and 2 Wells for the purpose of increasing the oil recovery.

I would like to submit Exhibit No. 3.

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

Exhibit No. 3 in Case 1363 is a picture of the proposed vacuum unit that the Watson Drilling Company proposes to use on these wells. It consists of a large cylinder, 18 inches by 12 inches, with a stroke, maximum stroke of 15 inches, allowing a displacement of 100,000 cubic feet of gas per day, or two cubic feet per stroke. The unit displaces on both the pull and thrust of the piston, thereby maintaining a steady vacuum. It attaches to the walking beam of the pumping unit that is used to pump the well through the tubing. It is claimed by the manufacturers that this pump will hold from 16 inches to 24 inches of vacuum, dependent on the amount of gas that the well makes. This vacuum is applied to the top of the casing.

I do not offhand expect the pump to pull any more than 11 pounds, and the range will probably be from 6 to 11 pounds of vacuum upon the casing. This vacuum should reduce the weight effect of the gas column and slightly reduce the bottomhole pressure. The effect should permit the slight remaining reservoir pressure to push a little more oil into the well bore. This small pressure reduction in low permeability reservoirs will not in my opinion adversely affect the offset wells one quarter mile away.

A vacuum project which will enable pressure depleted reservoirs to produce a little more oil will promote conservation by securing this extra oil for use, rather than having it remain locked in the ground. This lease, these wells and the surrounding wells are too small to justify a pressure maintenance or at this time

the thought of a water flood project for the recovery of the remaining oil.

My client and some of the other operators desire to see whether or not a vacuum pump installed upon the casing will materially aid in recovering some addition oil from this reservoir.

I would like to submit photo-copies of letters from offset operators regarding this case. The first one is from The Texas Company, dated October 10th, 1957. It says: "Your letter dated September 20, 1957 concerning the upcoming request of your client, Watson Drilling Company, for a permit to use vacuum on its wells in the E/2 NE/4 of Section 11 - T-17S - R-32E, Roberts Pool, New Mexico, has been transmitted to this office for handling. The Texas Company has no objection to the initiation of this project and will make no opposition to your application before the New Mexico Oil Conservation Commission."

A letter from the Phillips Petroleum Company, I'm only going to read part of it. "The two wells located on your clients' lease described as the E/2 NE/4 of Section 11, Township 17S, Range 32E, Lea County, New Mexico, are apparently producing from the Grayburg formation at a depth of less than 5,000 feet. It is our understanding that your client proposes the use of vacuum on his wells and will file an application with the New Mexico Commission in order to request approval of this method of operation. Phillips Petroleum Company has undeveloped acreage offsetting the above lease, however, we do not operate any wells in the Roberts Field

and for this reason we do not wish to actively support or oppose such an application before the New Mexico Commission."

Letter from Leonard Nichols, Dallas, Texas. "In answer to your letter of October 14th concerning two old wells located in E/2 NE/4 Sec. 11-17S-32E, Roberts Pool, Lea County, New Mexico, belonging to a client of yours, this is to advise that I have no objections to this vacuum project you speak of. My offset wells to these wells are also very small producers. Therefore, any project that would help increase production in this pool will be welcomed."

And a letter from Suppes and Kennedy. "We have your registered letter to the Oil Conservation Commission for permission to place the Trimble Wells 1 and 2, Section 11, Township 17 South, Range 32 East, on Vacuum Pump. This is to advise you that we do not have any objection to this project, in fact, we are very anxious to see this project started."

As these letters have shown, The Texas Company offers no opposition to the application; the Phillips Petroleum Company, a base lease owner, neither supports nor opposes the requests. The two operators of producing wells, Leonard Nichols and Suppes and Kennedy, both support the request and are definitely interested in the final results.

A vacuum installation may offer a means of recovering additional oil from pressure depleted reservoirs which are too small to justify a pressure maintenance or water flood project.

Rule 307 of New Mexico Oil Conservation Commission Rules and Regulations states: "Vacuum pumps or other devices shall not be used for the purpose of creating a partial vacuum in any stratum containing oil or gas."

On behalf of my client, Watson Drilling Company, I hereby request an exception to Rule 307 and ask the Oil Conservation Commission to permit the installation of vacuum pumps on the marginal or stripper lease.

With the permission of the Examiner, I request that these exhibits be accepted in this case.

MR. NUTTER: The letter from the Texas Company has been identified as Applicant's Exhibit No. 4; the letter from Phillips, Applicant's Exhibit No. 5; the letter from Leonard Nichols, Applicant's Exhibit No. 6; and the letter from Suppes and Kennedy, Applicant's Exhibit No. 7.

(Applicant's Exhibits Nos. 4, 5, 6, & 7 marked for identification.)

Is there objection to the introduction of Applicant's Exhibits 1 through 7 in Case 1363? If there is no objection to the admission of these exhibits, they will be admitted as evidence. Do you have anything further, Mr. Kinney?

Does anyone have any questions of Mr. Kinney?

CROSS EXAMINATION

By MR. PORTER:

Q Has your client had experience with vacuum pumps in any other states?

A To the best of my knowledge, Mr. Porter, the Watson Drilling Company has not had experience in the use of vacuum pumps, although he has made some study of their operation in other cases near Wichita Falls.

MR. NUTTER: Any further questions? Mr. Cooley.

By MR. COOLEY:

Q Mr. Kinney, I was trying to follow you there and mark on the plat the offset operators. Who owns the remainder of the west half of Section 11 in which you have your two wells in the southeast quarter of Section 11?

A Well, Ohio has the base lease on the west half of Section 11, the southeast quarter and the west half of the northeast quarter is all Ohio. It's two fee leases, the Taylor on the west half of Section 11 and Trimble on the east half of Section 11. Nichols has the shallow producing rights.

Q So Nichols owns the entire remainder of Section 11 as far as --

A (Interrupting) Yes, sir.

Q -- as far as the affected horizon?

A Yes, as far as the affected horizon. Nichols owns all of Section 11, Section 10, south half of Section 3 and Section 2, all producing rights except for that one forty-A belongs to Suppes.

Q You say they own the shallow rights in Section 10 and the shallow rights in the Ohio well and the westernmost portion --

A (Interrupting) That I don't know.

Q You have no letter from Ohio?

A No.

Q Did you receive a return receipt from Ohio, or did you send them a notice of this case?

A Just a second, I can tell you who did get them. No, Ohio did not get a copy of this. Would you care for me to read into the record the companies notified?

Q Yes.

A The people notified were Boler and Nichols, Leonard Nichols, Brinson and Woodhall, W. E. Pitman, Shell Oil Company, Suppes and Kennedy, and The Texas Company. The people notified were taken from the list of operators in the proration schedule.

Q All the people who operated wells in the pool were notified?

A Yes, sir. Even those operating over in the east part of the pool.

Q You made some mention of water flood in this area. Is it your opinion that -- I believe you stated that this pool is not a proper subject for a water flood operation?

A From the small, thin pays that we have here and the low permeability it would not seem that it was a very good candidate for water flood.

Q Assume for the moment that water flood were instituted in the future in this pool, would the use of vacuum pools on the Watson lease have any adverse effect on the success of such a project?

A I can't say that it would have any adverse effect. The

vacuum pump that is to be installed is to pull a vacuum on the casing at the top and would only reduce the pressure slightly at the bottomhole. I cannot see it would have any adverse effect on the water flood.

Q Do you have knowledge in some areas in Oklahoma that there is a feeling that the use of vacuum pumps in the early development of that area had some adverse effect on water floods in that area?

A I know that opinion is held by some people in and around Bartlesville where they had vacuum pumps. They used all types of operations up there in the old days, but I am not familiar with the exact nature of their vacuum pumps, whether they were on a tubing with a packer in which they might have had some air contamination going down the casing, or whether they were at the top of the casing with all air and other extraneous gasses excluded, I am not familiar.

Q It is your testimony that it would not have any adverse effect?

A I do not think it would. The casing is set low in the Grayburg formation. There wouldn't be any opportunity for air to go back down the casing and mix with the formation, causing excessive corrosion or otherwise adversely affect the formation, and all we would be doing would be lowering the pressure, allowing what remaining reservoir pressure exists to push oil in the well bore.

MR. COOLEY: I believe that is all. Thank you.

MR. NUTTER: Mr. Utz.

By MR. UTZ:

Q Mr. Kinney, as I understand your application here, you are applying only for the use of this specific mechanical device, not a blanket approval for the use of any type of vacuum pumps?

A That is correct. My client proposes to use just this type installation and to try the unit to see if it will recover enough oil to be economical.

MR. UTZ: That's all.

MR. COOLEY: Thomas Vacuum Pump is the only designation for this?

A That's the only designation we have, Mr. Cooley. This is merely a sales flyer and shows the pump, called Thomas and manufactured in Russell, Kansas, by the S and H Manufacturing Company.

By MR. NUTTER:

Q Mr. Kinney.

A Yes, sir.

Q You stated that various of the operators own the shallow rights in certain of these sections in the Roberts Pool. Do the shallow rights that these operators own include the Grayburg formation?

A The operators, to the best of my knowledge, own the rights to 5,000 feet which includes all the Grayburg and into the San Andres.

Q So the entire productive formation of the Roberts Pool is included in the shallow rights that these operators own?

A Yes, sir.

Q You have notified all of the operators in the pool, whether they be in the west end that we are concerned with here or in the east end of the pool?

A Yes, sir.

Q You have received replies from three operators who own wells, and Phillips Petroleum Company who has no wells in the area. You received a reply from Leonard Nichols, who, according to the oil proration schedule operates 19 wells in the pool?

A Yes, sir.

Q We don't show a reply from Boler and Nichols. Is Leonard Nicholds the identical Nichols who is a partner in the partnership of Boler and Nichols?

A Yes, he is the managing partner.

Q Would you presume he is speaking for Boler and Nichols when he waived the objection to vacuum pumps?

A Yes, I do presume.

Q He operates 19 wells as Leonard Nichols and 10 wells as Boler and Nichols?

A That's correct.

Q You received a letter from Suppes and Kennedy?

A Yes, sir.

Q And one from The Texas Company?

A Yes, sir.

Q How about Brinson and Woodhall?

A No reply from Brinson and Woodhall. For the record here,

The Texas Company has a direct east offset to the No. 1 well. Leonard Nichols has all of the other direct offsets to the Trimble 1 and 2 wells. The Suppes well is one-half mile away, and the Brinson and Woodhall is about a mile and a half away from this project.

Q So no reply was received from Brinson and Woodhall, but their well is a mile and a half away from the subject wells?

A Yes, sir.

Q Did you receive a reply from W. E. Pitman?

A No, sir.

Q Where are his wells located?

A His wells are located over in Township 17, Range 32 East, in Sections 7 and 8.

Q How far away would that be, then?

A It would be nearly two miles.

Q Did you receive a reply from Shell Oil Company?

A No, sir, I did not receive one.

Q How far away are their wells?

A They are in the same area, Township 17 South, 33 East, about two miles. Shell Oil Company had a representative at the hearing yesterday. I do not know if they have any here today.

Q That takes care of everybody except J. C. Watson -- do they object? Mr. Kinney, what evidence is there that the two separate producing areas would not be the same reservoir?

A The only evidence that we have that they are two separate

reservoirs have been the spread between Sections 2 and 11 of Township 17 South, Range 32 East; the development in Section 7, in the east part of Section 7, Township 17 South, Range 33 East in which there has been only four wells drilled; one in the southwest quarter of Section 1, one in the southeast quarter of Section 1, one in the northwest quarter of Section 12, and one in the northeast quarter of the northwest quarter of Section 7. The two wells in Section 1 have long since been plugged and abandoned. The well in Section 12 is operated by The Texas Company and has not been offset further to the east. The well in the northeast of the northwest of Section 7 is a weak well. That intervening undeveloped acreage with this weak well on either side seems to me to indicate a barrier, a permeability barrier between the two reservoirs.

Q So you have an interval there of approximately a mile or a little more?

A A mile.

Q That has never been developed?

A Yes, sir.

Q Surrounded on both sides by either weak wells or plugged and abandoned wells?

A Yes, sir.

Q Mr. Kinney, is it not true that the use of vacuum pumps in some instances will cause a reduction of the reservoir pressure and a consequent increase in the amount of gas that's produced by wells?

A Yes, sir. It probably will increase the amount of gas that will be produced; however, the present production is so very small that it would take a major increase to be important. If that should occur, there are in the area two possibilities of sale of this gas. To the north in the Anderson Ranch Pool, the Valley Gas Corporation operates a gasoline plant and is in the market for additional gas. To the southwest is the Maljamar Repressuring Project, and I feel sure that they would be in the market for some additional gas.

Q What distance from this area in question are these two possible sources of a market for the gas?

A The Maljamar Repressuring Project is about four miles, three to four miles, southwest. The Anderson Ranch Plant of the Valley Gas Company is approximately six miles north.

Q Would an effort be made to sell the gas in the event that the gas-oil ratios increased and a considerable volume of gas was being produced?

A I am sure that the operators in the field would do all within their power to sell the gas and get the additional revenues therefrom.

Q Mr. Kinney, what is your opinion as to the consequences of the installation of vacuum pumps on the Watson Trimble lease? Do you feel that this is going to cause a reduction in reservoir pressure and migration of oil and necessitate the installation of vacuum pumps in offsetting wells?

A I do not think that the vacuum pumps installed on the Watson Trimble wells will sufficiently reduce the bottomhole pressure to permit migration of oil from offset leases. These Grayburg sands are low permeability in the range from 1 to approximately 40 millidarcies, with most of it being on the lower end of the scale. The slight reduction that a vacuum pump will make will not in my opinion be transmitted an eighth of a mile to the end of the Watson lease.

Q So you feel that any effect that the vacuum pumps will have on the reservoir will be in the immediate vicinity of the wells, and not beyond the lease lines?

A That is my opinion. However, should there be any effect past the lease border, the letters submitted here in evidence have shown that the offset operators are most desirous of finding that out, and are interested in installing the same equipment.

Q And you had waivers of objection from all the immediate offsets?

A Yes, sir.

MR. NUTTER: Thank you. Any further questions of Mr. Kinney? If not, he may be excused.

(Witness excused.)

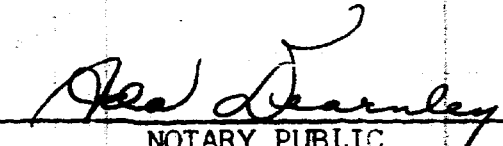
Does anyone have anything further they wish to offer in Case 1363? We will take the case under advisement and proceed to Case No. 1365.

C E R T I F I C A T E

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

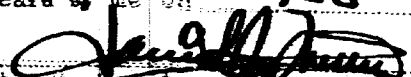
WITNESS my Hand and Seal this 7th day of February, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.


 NOTARY PUBLIC

My commission expires:

June 19, 1959.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1363 heard by me on 1-8, 19 58.

 Examiner
 New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

January 21, 1958

Mr. Edward E. Kinney
P.O. Box 715
Artesia, New Mexico

Dear Mr. Kinney:

We enclose two copies of Order R-1114 issued January 20, 1958,
by the Oil Conservation Commission in Case 1363, which was heard on
January 7th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

C
O
P
Y

G. B. SUPPES & B. E. KENNEDY

OIL PRODUCERS

Artesia, New Mexico

November 23, 1957

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 2
CASE 1323

Barney Cockburn
c/o J. C. Watson Drilling Co.
Box 105
Artesia, New Mexico

Dear Sir:

We have your registered letter to the Oil Conservation Commission for permission to place the Trimble Wells 1 and 2, Section 11, Township 17 South, Range 32 East, on Vacuum Pump.

This is to advise you that we do not have any objection to this project, in fact, we are very anxious to see this project started.

Yours very truly,

SUPPES AND KENNEDY

By *B. E. Kennedy*

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 1363
Order No. R-1114

APPLICATION OF J. C. WATSON DRILLING
COMPANY FOR AN ORDER AUTHORIZING THE
USE OF VACUUM PUMPS ON CERTAIN WELLS
IN THE ROBERTS POOL, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 7, 1958, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 20th day of January, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Daniel S. Nutter, 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, J. C. Watson Drilling Company, proposes to install vacuum pumps on the following described wells in the Roberts Pool:

Trimble No. 1 Well	NE/4 NE/4	Section 11, Township 17 South, Range 32 East, NMPM
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Trimble No. 2 Well	SE/4 NE/4	Section 11, Township 17 South, Range 32 East, NMPM
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all in Lea County, New Mexico.

(3) That approval of the subject application will not cause waste, but may prevent waste, through the recovery of oil which might not otherwise be recovered.

(4) That all operators in the Roberts Pool were notified of the subject application and that there has been no objection by any of said operators to approval of the same, and further that waivers of objection were received from all operators offsetting the above-described wells.

-2-

Case No. 1363
Order No. R-1114

(5) That the gas production from the above-described wells may be increased as a result of the use of vacuum pumps thereon.

(6) That the subject application should be approved provided however, that no gas should be flared from the above-described wells, without special order of the Commission, if and when the gas-oil ratios exceed 2,000 cubic feet of gas to one barrel of oil.

IT IS THEREFORE ORDERED:

(1) That the application of J. C. Watson Drilling Company for permission to use vacuum pumps of the type proposed on the following described wells in the Roberts Pool, be and the same is hereby approved, to-wit:

Trimble No. 1 Well NE/4 NE/4 Section 11, Township 17 South,
Range 32 East, NMPM

Trimble No. 2 Well SE/4 NE/4 Section 11, Township 17 South,
Range 32 East, NMPM

all in Lea County, New Mexico.

PROVIDED HOWEVER, That no gas shall be flared from said wells, without special order of the Commission, if and when the gas-oil ratios exceed 2,000 cubic feet of gas to one barrel of oil.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. L. Weclem

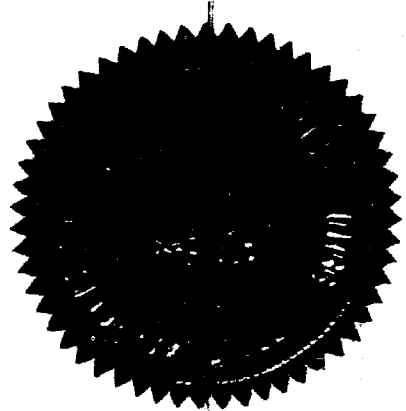
EDWIN L. WECHEM, Chairman

M. E. Morgan

MURRAY E. MORGAN, Member

A. L. Porter, Jr.

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



ir/

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 1-9-58

CASE 1363

Hearing Date 1-7-58
9am @ SF DSN

My recommendations for an order in the above numbered cases are as follows:

Enter an order authorizing the applicant to install vacuum pumps on the subject wells.

Provide that no gas shall be flared from the subject wells ^{without special order of the Commission} if and when the GOR is in XS of 2000 to 1.

Include among findings that waivers of objection to the use of vacuum pumps were received from all ~~for~~ offset operators. ~~than~~

San Miller
Staff Member

DOCKET: EXAMINER HEARING JANUARY 7, 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe, NM

The following cases will be heard before Daniel S. Nutter, Examiner:

- CASE 1356: Application of Cities Service Oil Company for permission to institute a pilot water flood project in Township 14 South, Range 31 East, Caprock-Queen Pool, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a pilot water flood project in the Caprock-Queen Pool, Chaves County, New Mexico, by injecting water into the Queen formation through the following intake wells:
- Government "B" No. 5, NW/4 NE/4 Section 10;
Government "B" No. 6, SE/4 SE/4 Section 3;
Government "B" No. 10, NE/4 SE/4 Section 3;
Government "B" No. 14, SE/4 SW/4 Section 3,
- all in Township 14 South, Range 31 East.
- CASE 1357: Application of Standard Oil Company of Texas for an order authorizing the production into a common tank battery of all oil produced from five leases in the Atoka Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the production into a common tank battery of all oil produced from the Atoka Pool from the following described leases: SW/4 SE/4, NW/4 NW/4, NW/4 SE/4, SE/4 NW/4, and SW/4 NE/4 of Section 12, Township 18 South, Range 26 East, Eddy County, New Mexico.
- CASE 1358: Application of Magnolia Petroleum Company for an order cancelling Order R-984, and granting authority to commingle the liquid hydrocarbons produced from the Pictured Cliffs and Mesaverde formations into central tank batteries located on certain leases in the Blanco Mesaverde Gas Pool, Tapacito-Pictured Cliffs Gas Pool and certain undesignated Pictured Cliffs and Mesaverde gas pools in Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order cancelling Order No. R-984, and granting authority to commingle the liquid hydrocarbon production from the Pictured Cliffs and Mesaverde formations into central tank batteries located on certain of the applicant's leases in Township 26 North, Range 2 West; Township 26 North, Range 3 West; Township 27 North, Range 2 West, and Township 27 North, Range 3 West, in Rio Arriba County, New Mexico.
- CASE 1359: Application of El Paso Natural Gas Company for an order extending the time allowed for making annual deliverability and shut-in pressure tests, and requesting allowables for 237 gas wells in certain prorated, non-prorated, and undesignated gas pools in San Juan and Rio Arriba Counties, New Mexico. Applicant, in the above-styled cause, seeks an

CASE 1359 continued

order extending the time allowed for making annual deliverability and shut-in pressure tests, and requesting allowables for 237 gas wells in the Blanco Mesaverde, Fulcher Kutz-Pictured Cliffs, West Kutz-Pictured Cliffs, Aztec-Pictured Cliffs, South Blanco-Pictured Cliffs, Ballard-Pictured Cliffs, Otero, Canyon Largo, East Companero Dakota, Tapacito, West Kutz-Fruitland, North Los Pinos-Fruitland, and South Los Pinos-Fruitland Gas Pools and in undesignated Fruitland, Pictured Cliffs, and La Ventana gas pools in San Juan and Rio Arriba Counties, New Mexico.

CASE 1360:

Application of Gulf Oil Corporation for an order suspending the cancellation of underage accrued to eight gas wells in the Eumont, Jalmat, Tubb, and Blinebry Gas Pools, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order suspending the cancellation on January 1, 1958, of the underage accrued to the following gas wells in the Eumont, Jalmat, Tubb, and Blinebry Gas Pools:

Eumont Pool

Bell-Ramsay St. "C" No. 1, NW/4 SE/4 Section 34,
Township 20 South, Range 37 East

Jalmat Pool

Arnott-Ramsay "E" No. 2, SW/4 SE/4 Section 16,
Township 25 South, Range 37 East

Arnott-Ramsay "E" No. 5, SW/4 NW/4 Section 16,
Township 25 South, Range 37 East

J. R. Holt "A" No. 2, SE/4 SW/4 Section 16,
Township 24 South, Range 37 East

Tubb Pool

Hugh No. 7, NE/4 NW/4 Section 14, Township 22
South, Range 37 East

Harry Leonard "E" No. 4, NE/4 NE/4 Section 16,
Township 21 South, Range 37 East

Blinebry Pool

J. N. Carson "A" No. 4, SW/4 SE/4 Section 28,
Township 21 South, Range 37 East

H. Leonard "E" No. 4, NE/4 NE/4 Section 16,
Township 21 South, Range 37 East

all in Lea County, New Mexico.

CASE 1361:

Application of The Texas Company for an order suspending the cancellation of underage accrued to two gas wells in the Eumont Gas Pool and Jalmat Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order suspending the cancellation on January 1, 1958, of the underage accrued to the following gas wells in the Eumont and Jalmat Gas Pools:

Texas Company Riddel Well No. 2, NE/4 NE/4
Section 12, Township 21 South, Range 36 East;

Texas Company State of New Mexico "B" (NCT-2)
Well No. 3, NW/4 NW/4 Section 16, Township 23
South, Range 36 East;

all in Lea County, New Mexico.

CASE 1362:

Application of Schermerhorn Oil Corporation for an order suspending the cancellation of underage accrued to one well in the Eumont Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order suspending the cancellation on January 1, 1958, of the underage accrued to the following named gas well in the Eumont Gas Pool:

Schermerhorn Oil Corporation Gulf-State
No. 1 Well, SE/4 SW/4 Section 31, Township
18 South, Range 37 East,

Lea County, New Mexico.

CASE 1363:

Application of J. C. Watson Drilling Company for an order authorizing the use of vacuum pumps on certain wells in the Roberts Pool in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the use of vacuum pumps on its Trimble No. 1 Well located in the NE/4 NE/4 Section 11, Township 17 South, Range 32 East, and its Trimble No. 2 Well located in the SE/4 NE/4 of said Section 11, in the Roberts Pool, Lea County, New Mexico.

CASE 1364:

Application of Cities Service Oil Company for an oil-oil dual completion in the Vacuum Pool and Vacuum-Seven Rivers Pool in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State "K" No. 2 Well located 1980 feet from the North line and 660 feet from the East line of Section 27, Township 17 South, Range 35 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Vacuum Pool through one inch tubing and oil from the Vacuum-Seven Rivers Pool through two inch tubing.

CASE 1365:

Application of Cabot Carbon Company for an oil-oil dual completion in the King-Devonian Pool and King-Wolfcamp Pool in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its H. L. Lowe "B" Well No. 1, located 467 feet from the South line and 850 feet from the East line of Section 26, Township 13 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from both the King-Devonian Pool and King-Wolfcamp Pool through parallel strings of $1\frac{1}{2}$ inch tubing.

CASE 1366:

Application of Signal Oil and Gas Company for an oil-gas dual completion in the Skaggs Pool and an undesignated Drinkard gas pool in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Fred Turner No. 1 Well located 660 feet from the South line and 560 feet from the East line of Section 6, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Skaggs Pool and gas from an undesignated Drinkard gas pool through parallel strings of tubing.

CASE 1367:

Application of Felmont Oil Corporation for approval of its Etcheverry Unit Agreement in Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order approving its Etcheverry Unit Agreement embracing 1,920 acres, more or less, of State of New Mexico lands consisting of S/2 Section 32, S/2 Section 33, Township 14 South, Range 34 East, and all of Sections 4 and 5, Township 15 South, Range 34 East, Lea County, New Mexico.

CASE 1368:

Application of Ambassador Oil Corporation for an order granting approval of applicant's proposed pilot water flood project in the Square Lake Pool in Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its proposed pilot water flood project for the purpose of secondary recovery in which water will be injected into the Grayburg and San Andres formations through six injection wells located in the SW/4 NW/4, SW/4 SW/4, NE/4 SW/4, and SW/4 SE/4 of Section 29, and NE/4 SE/4 of Section 30, and the NE/4 NW/4 of Section 32, Township 16 South, Range 31 East, Square Lake Pool, Eddy County, New Mexico.

BARNEY COCKBURN

OIL OPERATOR
ARTESIA, NEW MEXICO

November 20, 1957

MAIN OFFICE OCC

1957 NOV 21 PM 1:32

SKW 1-7-58

Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

Re: Application for hearing
reference to Trimble Lease
Section 11, T17S, R32E
Lea County, N.M.

Please direct any correspondence in reference to the
above named lease and application for hearing to Mr.
E. E. Kinney, P. O. Box 715, Artesia, New Mexico up to
and including December 1, 1957, after December 1,
we shall be in the office.

Thanking you for your cooperation, we are,

Yours very truly,

J. C. WATSON DRILLING COMPANY

By

Sec-Treas.

note

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE
J. C. WATSON DRILLING COMPANY FOR AN
ORDER GRANTING AN EXCEPTION TO RULE 307
OF THE NEW MEXICO OIL CONSERVATION
COMMISSION RULES AND REGULATIONS TO
PROVIDE FOR A VACUUM RECOVERY PROJECT
ON THE E $\frac{1}{2}$ NE $\frac{1}{4}$ OF SECTION 11, TOWNSHIP
17 SOUTH, RANGE 32 EAST.

Case No. _____

See log 17-32

APPLICATION

Comes the undersigned, J. C. Watson Drilling Company, Mr. Barney Cockburn, President, and hereby makes application for approval of an exception to Rule 307 of the New Mexico Oil Conservation Commission Rules and Regulations for a vacuum recovery project in the Roberts Pool, Lea County, New Mexico, and in support thereof respectfully show:

1. The two wells have decreased in their rate of production to a total of 5 $\frac{1}{2}$ barrels per day. This is very close to the economic limit of operation. The two well unit is too small to admit of a repressuring or water flood operation. The only secondary recovery method which appears to be feasible at this time is a vacuum project; that is creating a vacuum in the well bore by a means of a vacuum pump at the surface for the purpose of lowering the bottom hole pressure and permitting the formation pressure to push more oil into the well bore.

2. Vacuum pumps have been and are currently being used in North Texas, Illinois, Oklahoma, Kansas, and Nebraska. The J. C. Watson Drilling Company believes that the installation of vacuum pumps upon these two wells will aid in the recovery of more oil than will be recovered by continuation of present primary producing methods and will thereby promote the conservation of oil. The gas produced from these wells is in a quantity too small to be measured.

3. The offset operators have been notified of this contemplated project and of the proposed hearing. No objections have been advanced. Copies of this application will be sent by registered mail to all operators in the Roberts Pool.

J. C. Watson Drilling Company

By *Barney Cockburn*
Barney Cockburn, President
Box 105
Artesia, New Mexico

Attest *E. M. Perry*
E. M. Perry, Sec.-Treas.

November 13, 1957

REGISTERED NO. **2506**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To Boller + Nichols
Moham, N.H.

POD Form 2006
Sept. 1955

REGISTERED NO. **2510**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To Shelly Oil Co.
Roanoke, N.H.

POD Form 2006
Sept. 1955

REGISTERED NO. **2507**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To Burison H L + Wood
Midland, Tex.

POD Form 2006
Sept. 1955

REGISTERED NO. **2511**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To Supper + Kinner
City

POD Form 2006
Sept. 1955

REGISTERED NO. **2508**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To Leonard Nichols
Moham, N.H.

POD Form 2006
Sept. 1955

REGISTERED NO. **2508**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

From E E Kinner
City

To The J. C. Watson
Dorchester, N.H.

POD Form 2006
Sept. 1955

REGISTERED NO. **2509**

Value \$ 50 Spec. del'y fee \$ 3

Fee \$ 50 Ret. receipt fee \$ 3

Surcharge \$ 3 Ret. del'y fee \$ 3

Postage \$ 3 ☐ Airmail

Postmaster, By HA

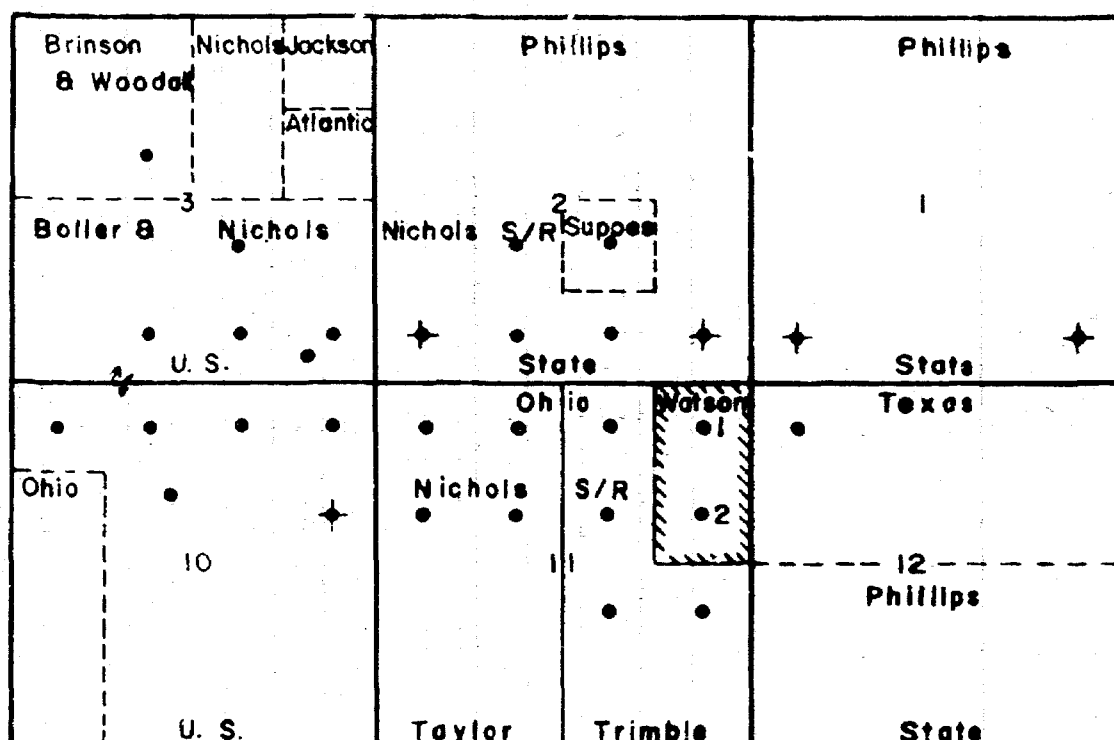
From E E Kinner
City

To W. E. Pittman
Midland, Texas

NOTE: Registered receipts for J. C. Watson Drilling Company in regard application for vacuum project.

Case No. 1363
Exhibit No. 1

BEFORE THE
OIL COMMISSION
SANTA FE, NEW MEXICO
App. 1
CASE 363



ROBERTS POOL

T17S R32E

Lea County, New Mexico

Dec. 1957 E.E. Kinney

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT NO. 1363
CASE 1363

Case No. 1363

Exhibit No. 2

WATSON DRILLING COMPANY - TRIMBLE LEASE - SEC. 11-T17S-R32E

ANNUAL OIL PRODUCTION DATA

<u>Year</u>	<u>#1</u>	<u>Total</u>	<u>#2</u>	<u>Total</u>
1946	13,883	13,883	8,658	8,658
1947	10,102	23,985	10,106	18,764
1948	5,281	29,266	2,785	21,549
1949	5,670	34,936	2,645	24,194
1950	5,988	40,924	2,759	26,953
1951	4,782	45,706	2,587	29,540
1952	4,118	49,824	1,637	31,177
1953	4,092	53,916	1,199	32,376
1954	4,451	58,367	993	33,369
1955	2,888	61,255	762	34,131
1956	3,067	64,322	688	34,819
1957	1,887	66,209	389	35,208 10 mos.

thru
Oct →

6/5 1957

1.5 1957

Jan - 10 - 1957



You Too, Can Increase YOUR PRODUCTION

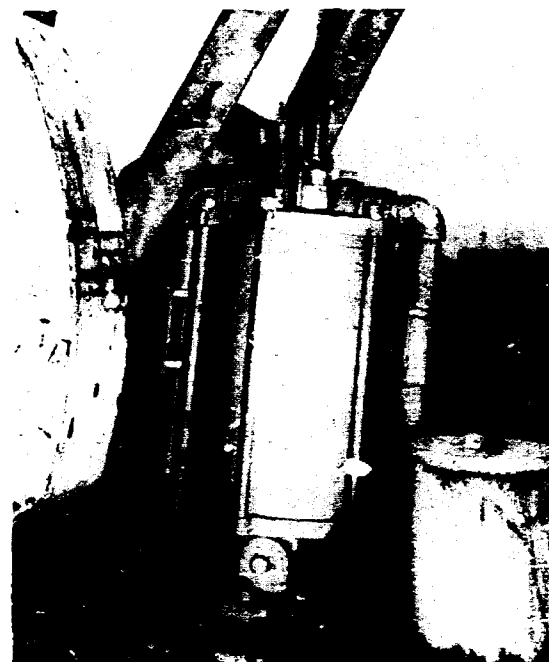
WITH THE NEW

TOMMY'S VACUUM PUMP

PATENT PENDING

Auxiliary Unit Attached Directly To Well !!

- ★ **TOMMY'S VACUUM PUMP**, an auxiliary unit, is increasing production on many wells in both new and stripper fields.
- ★ The **TOMMY'S VACUUM PUMP**, is a double acting pump, giving constant uniform vacuum, pulling up to 26 points. The exhausts are tied together so that the gas may be re-claimed for regular use.
- ★ **EASILY INSTALLED** on beam or jack type unit in just a few hours.
- ★ **PUMPS NOW IN USE** in Centralia, St. Elmo and Salem, Ill.; Creek County and Oklahoma City, Oklahoma; Russell, Kansas and Kimball, Nebraska.



★ *Furnished Complete With:*

Unbreakable Oil Cup
Two 6-ft. Special Vacuum Hose
Beam Clamp With Bolts
Adaptor for Piston Rod Extension

*Call or Write Today
For More Details*

EXCLUSIVE SALES RIGHTS

S. & H. MFG. CO.

PHONE HU 3-4252

RUSSELL, KANSAS

PHONE HU 3-2755

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
WEST TEXAS DIVISION
O. F. SEBESTA, ASSISTANT DIVISION MANAGER



P. O. BOX 1720
FORT WORTH 1, TEXAS
October 10, 1957

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1743
CASE 1743

Mr. Edward E. Kinney
Box 715
Artesia, New Mexico

Dear Sir:

Your letter dated September 20, 1957 concerning the upcoming request of your client, Watson Drilling Company, for a permit to use vacuum on its wells in the E/2 NE/4 of Section 11 - T-17S - R-32E, Roberts Pool, New Mexico, has been transmitted to this office for handling.

The Texas Company has no objection to the initiation of this project and will make no opposition to your application before the New Mexico Oil Conservation Commission.

Yours very truly,

HNW-cb

PHILLIPS PETROLEUM COMPANY

BARITEVILLE, OKLAHOMA

November 2, 1957

PRODUCTION DEPARTMENT
L. E. FITZJARRALD
MANAGER

EARL GRIFFIN
GENERAL SUPERINTENDENT
JACK TURNER
TECHNICAL ADVISER
H. S. KELLY
CHIEF ENGINEER

In re: Roberts Pool - Lea County, New Mexico -
Proposed Vacuum Project

Mr. Edward E. Kinney
P. O. Box 715
Artesia, New Mexico

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Case No. 5
1363

Dear Sir:

A copy of your letter of October 14, 1957, addressed to our Hobbs, New Mexico office has been forwarded to this office for reply.

The two wells located on your clients' lease described as the E/2 NE/4 of Section 11, Township 17S, Range 32E, Lea County, New Mexico are apparently producing from the Grayburg formation at a depth of less than 5,000 feet. It is our understanding that your client proposes the use of vacuum on his wells and will file an application with the New Mexico Commission in order to request approval of this method of operation.

Phillips Petroleum Company has undeveloped acreage offsetting the above lease, however, we do not operate any wells in the Roberts Field and for this reason we do not wish to actively support or oppose such an application before the New Mexico Commission.

Yours very truly,

L. E. Fitzjarrald
L. E. Fitzjarrald

LEF:JPB:AJR

LEONARD NICHOLS

OIL PRODUCER

1101 ~~XXX~~ MERCANTILE SECURITIES BUILDING

Dallas 1, Texas

October 17, 1957

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1
CASE 1362

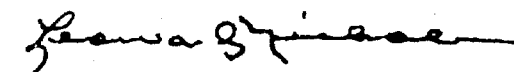
Mr. Edward E. Kinney
Box 715
Artesia, New Mexico

Dear Mr. Kinney:

In answer to your letter of October 14th concerning two old wells located in E/2 NE/4 Sec. 11-17S-32E, Roberts Pool, Lea County, New Mexico, belonging to a client of yours, this is to advise that I have no objections to this vacuum project you speak of.

My offset wells to these wells are also very small producers. Therefore, any project that would help increase production in this pool will be welcomed.

Yours very truly,


Leonard Nichols

LN/esg

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

November 8, 1957

Mr. Edward E. Kinney
P.O. Box 715
Artesia, New Mexico

Dear Sir:

We are in receipt of your letter of November 5, 1957, wherein you have requested a hearing for an exception to Rule 307 to permit your client, Mr. Barney Cockburn, to pump two wells in the E/2 NE/4 of Section 11, Township 17 South, Range 32 East, Lea County, New Mexico, by means of a vacuum pump.

Our records reflect that the two wells in the E/2 NE/4 of said Section 11, the Trimble No. 1 and the Trimble No. 2, are owned and operated by J. C. Watson Drilling Company. The application will either have to be filed in the name of said J. C. Watson Drilling Company or Commission Forms C-110 filed showing transfer of ownership if the wells have in fact been transferred to Mr. Cockburn.

It is the opinion of the Commission that inasmuch as the use of vacuum pumps will not only affect the offset operators but ultimately every other operator in the pool, that you should notify each operator in the pool of your proposal.

It is therefore requested that you file your application in triplicate, setting forth the name of the operator, the names and locations of the wells involved, the reasons for the need of vacuum pumps, the disposition being made of gas produced from the wells, and such other pertinent information as may be necessary. Accompany your application with evidence such as registered mail receipts that all of the operators in the Roberts Pool were sent a copy of the application.

We are presently planning to schedule an examiner hearing in Santa Fe on or about December 10; your application, if received forthwith, will be set for hearing at that time.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

ALP/DSN:bo

C
O
P
Y

GEOLOGY
VALUATION

305 CARPER BLDG.

MAIN OFFICE OCC

EDWARD E. KINNEY

PETROLEUM CONSULTANT

BOX 715

ARTESIA, NEW MEXICO

LEASES
TAXATION

PHONE SHAWWOOD 8-3171

RECEIVED NOV 6 11:33

November 5, 1957

*Am to Mr. Porter
5x long 12-10*

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

Dear Pete:

My client, Mr. Barney Cockburn, desires to initiate a vacuum recovery project upon two wells in the E/4 NE/4 Section 11-T17S-R32E, Lea County, New Mexico. These wells are located in the Roberts Pool.

Rule 307 of the New Mexico Oil Conservation Commission specifically prohibits the use of vacuum pumps or other devices for creating a vacuum.

On behalf of my client, I hereby apply for a hearing, preferably at Hobbs, before the Oil Conservation Commission to request an exception to Rule 307 for the purpose of permitting said client to use a vacuum pump.

Will you kindly advise when this hearing may be scheduled and what other data you may desire. The offset operators and the U. S. Geological Survey have been notified regarding this proposed project.

Very truly yours,

Edward E. Kinney
Edward E. Kinney

EEK/kw

cc: Mr. Barney Cockburn
300 Carper Bldg.
Artesia, New Mexico

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. Box 871
Santa Fe, New Mexico

Date November 22, 1957

Mr. E. E. Kinney
P.O. Box 715
Artesia, New Mexico

Gentlemen:

Your application for an exception to Rule 307 for J. C. Watson Drilling
Company

dated November 13, 1957 has been received, and has been tentatively
scheduled for hearing before an Examiner on
January 7, 1958

A copy of the docket will be forwarded to you as soon as the matter is
advertised.

Very truly yours,


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

ga