

CASE 2007: Application of Otto Reynolds &
John R. Yarbrough for special rules govern-
ing gas wells in Bloomfield-Farmington Pool

Casa No.

2007

Application, Transcript,
Small Exhibits, Etc.

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. 2007
Order No. R-1723

APPLICATION OF OTTO REYNOLDS AND
JOHN R. YARBROUGH FOR THE PROMUL-
GATION OF SPECIAL RULES GOVERNING
GAS WELLS IN THE BLOOMFIELD-
FARMINGTON OIL POOL, SAN JUAN COUNTY,
NEW MEXICO, AND FOR APPROVAL OF THREE
UNORTHODOX GAS WELL LOCATIONS IN SAID
POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
July 6, 1960, at Santa Fe, New Mexico, before Elvis A. Utz,
Examiner duly appointed by the Oil Conservation Commission of
New Mexico, hereinafter referred to as the "Commission," in
accordance with Rule 1214 of the Commission Rules and
Regulations.

NOW, on this 21st day of July, 1960, the Commission, a
~~quorum~~ being present, having considered the application, the
evidence adduced, and the recommendations of the Examiner,
Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required
by law, the Commission has jurisdiction of this cause and the
subject matter thereof.

(2) That the applicants, Otto Reynolds and John R. Yar-
brough, are the operators of the following-described wells in
Township 29 North, Range 11 West, Bloomfield-Farmington Oil Pool,
San Juan County, New Mexico:

Otto Reynolds Seitzinger No. 1, located 2310
feet from the North line and 990 feet from the
East line of Section 23,

Otto Reynolds Lohman No. 1, located 330 feet
from the North line and 2310 feet from the
West line of Section 24,

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CASE No. 2007
Order No. R-1723

Otto-Reynolds Gale No. 1, located 2247 feet
from the North line and 334 feet from the
West line of Section 24.

(3) That the applicants seek an order promulgating rules
governing the drilling, spacing, and production of gas wells in
said Bloomfield-Farmington Oil Pool.

(4) That the applicants further seek approval of unorthodox
gas well locations for the three above-described wells.

(5) That the evidence indicates that the subject wells are
producing from the same common source of supply that has hereto-
fore been designated and defined as the Bloomfield-Farmington Oil
pool.

(6) That accordingly the Statewide Rules and Regulations
relative to well locations and proration units for oil wells
should apply to the subject wells.

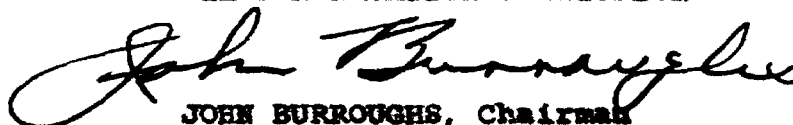
(7) That the subject wells are on orthodox locations for
oil wells, and thus the requested unorthodox well locations are
not necessary.

IT IS THEREFORE ORDERED:


That all wells located within the vertical and horizontal
limits of the Bloomfield-Farmington Oil Pool, San Juan County,
New Mexico, shall be drilled, spaced, and prorated in accordance
with the Statewide Commission Rules and Regulations pertaining
to oil wells, including a gas-oil ratio limitation of 2000 to 1.

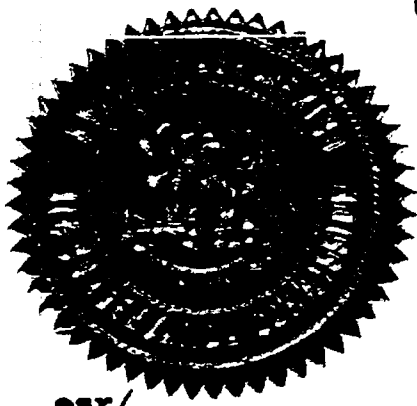
DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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



esr/

GOVERNOR
JOHN BURROUGHS
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
MURRAY E. MORGAN
MEMBER



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

P. O. BOX 871
SANTA FE

July 21, 1960

Mr. John W. Burrese
Box 161
Farmington, New Mexico

Re: Case No. 2007
Order No. R-1723
Applicant:

Otto Reynolds & John R. Yarbrough

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

ir/

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC x

Other Oliver Seth - Santa Fe, N. M.

100
K-100

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 7-7-60

CASE 2007 Hearing Date 7-6-60

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

1. Grant Otto Reynolds NSK's as requested.
Otto Reynolds - Sitzinger #1, 2310/N, 990/E sec. 23
" " - Lohman #1 330/N, 2310/W sec. 24
" " - Hale #1 2247/N, 334/W sec. 24
all in. 29-11 and in Bloomfield - Jam-
ington Oil Pool.
2. The allowable to be granted these
wells shall in accordance with
present oil Pool policy i.e. 20%
unit allowable x 2000.
- 3 (Set G & R limit for Pool at.
2000 :1)

Smith. W.

Staff Member

BEFORE THE
OIL CONSERVATION COMMISSION
in the
STATE CORPORATION COMMISSION
HEARING ROOM, BASEMENT
CAPITOL BUILDING
Santa Fe, New Mexico
July 6, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Otto Reynolds and John R. Yarbrough for the promulgation of special rules governing gas wells drilled in the Bloomfield-Farmington Oil Pool. Applicant, in the above-styled cause, seeks an order promulgating special rules governing, among other things, the definition, spacing and location of gas wells in the Bloomfield-Farmington Oil Pool, San Juan County, New Mexico. Applicant further seeks approval of unorthodox gas well locations for three wells in said pool.

Case 2007

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2007.

MR. PAYNE: Application of Otto Reynolds and John R. Yarbrough for the promulgation of special rules governing gas wells drilled in the Bloomfield-Farmington Oil Pool.

MR. BURRESS: Mr. Examiner, I am John Burress, Consulting Geologist in Farmington, and have been retained by Mr. John Yarbrough to represent Mr. Reynolds and Mr. Yarbrough, and if your Examiner please, this is my first appearance before the Commission.



MR. PAYNE: Mr. Reynolds and Mr. Yarbrough will actually be representing themselves.

MR. REYNOLDS: That is right.

MR. BURRESS: I worked on this last well they drilled there and I have prepared a few Exhibits for you on this case.

MR. PAYNE: All right, sir.

(Witness sworn.)

JOHN BURRESS

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

MR. BURRESS: In our petition we ask that we be allowed to produce these non-standard gas wells and, also, we seek a forty acre spacing on the Farmington gas wells. And, in this, how many Exhibits shall I submit?

MR. UTZ: Three.

MR. SETH: We would like to appear for El Paso in the case.

MR. UTZ: All right.

MR. SETH: We would like to be in on the distribution of those Exhibits.

(Whereupon, Exhibits 1 through 3 were marked for identification)

DIRECT EXAMINATION

BY MR. PAYNE:

Q Would the witness please state his name?

A John W. Burress.



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Q Mr. Burress, have you testified before the Commission Examiner thereof, previously?

A No, sir, I have not.

Q Would you explain, briefly, your educational and professional background?

A Yes, sir. I have a Bachelor of Science in Geology from Alpine, Texas, the date of January, 1953, and I attended the University of New Mexico for a year in graduate school, but I did not receive my Masters, however. While attending the University and shortly thereafter, I worked for the Pubco Petroleum Corporation in Albuquerque, and then I went with Stephen H. Kinne in Farmington as a geologist for him and, also, a civil engineer and consulting engineer, and in September of '59 I went out on my own as a consultant.

Q You have had some experience in the San Juan Basin?

A Yes, sir, I have.

Q All right, sir, please proceed.

A Which part of our petition would you like us to take first, the forty acre basis?

Q Whichever you prefer. First, perhaps, maybe you should come out with what you would consider the definition of an oil well and a gas well.

A I am not an engineer. As far as the definition of an oil well and a gas well in the Farmington area, I would not know what to say, as far as the gas-oil ratio to determine the two. Since we have been working up there, the Farmington wells have been producing



oil for some time, and last year, I believe, there were Farmington wells that are producing oil now, and these three wells in question.

MR. REYNOLDS: The Hare, Gale and the Lohman, and Otto Reynolds Lohman were drilled in anticipation of getting oil, but we got gas.

MR. UTZ: What is the GORS of these wells?

A We have none of these ratio tests, they are not producing any oil at all, there may be a little liquid in the gas.

MR. UTZ: Do you have any gravity on these liquids?

A No, sir. There, we have not been able to, as far as I know, there hasn't been, no.

MR. REYNOLDS: We got a sample there and it's a dry, blue gas.

MR. BURRESS: It's a dry gas, as far as vapor, there may be a little in the gas.

MR. UTZ: You are not producing through separators?

THE WITNESS: No, sir, we are not. None of them are producing at all, no, they're all shut in waiting the outcome of this hearing.

Q (BY MR. PAYNE) El Paso has already bought right of way and paid for it and they are ready to hook them up?

A On one of them they want to buy the right of way. I am not too familiar with the Lohman and the Gale, I am not too familiar. I am more familiar with the Seitzinger. They had another consultant employed when they drilled those wells.



Q (BY MR. PAYNE) What is the applicant proposing relative to spacing?

A We ask that the Commission grant us permission to produce Farmington gas wells on a forty acre spacing instead of the 160 acre spacing. The nature of the Farmington sands are lenticular and intermingling. I believe it's impossible to correlate from one well to the next, even on this well at 660 feet from the others you cannot identify the same sands, I do not believe. When I first started working on it I thought it was a mis-pack and drew some structure on the first sand below the Ojo Alamo and I have recently come to the conclusion now that that is even impossible. The only actual time line that you can have is the base of the Ojo, the sands in the Farmington are erratic and certainly not correlating from one well to the other, as I hope this cross-section will demonstrate. The waste of the Ojo Alamo is quite evident in all the Fruitlands and Pictured Cliffs and is pretty evident in each and every well, but in your Farmington sands they just run up and down the Section. You get them where you drill them, and there is no picking the exact top of a certain sand. They're erratic and I feel, in some cases, they're not more than two or three hundred feet thick, and as far as length of them, that is hard to tell. I have not been able to identify any trend in any of those sands, and I got every log that is possible. If a person had every log of every Farmington well up there, it might be, you might be a little more successful in identifying these trends. There were some wells, years ago,



when the first Farmington well was drilled in 1920 or 1919.

MR. REYNOLDS: It was thirty, some wells in there are over thirty years old.

MR. BURRESS: None of them were logged as far as where in producing open-hole completions. It's on record in the Commission Office over in Aztec, what the people feel they're producing. So I don't think they're all accurate, because they were all open-hole.

Q (BY MR. PAYNE) You don't know if the three wells are actually perforated in the same interval as the Bloomfield-Farmington oil wells?

A These three, the Seitzinger is not. I know it's perforated from 840 to 847. The Lohman was perforated--

MR. REYNOLDS: They're definitely not.

MR. BURRESS: Many of them are the same, and another example, I wish to say here in just a minute. The Lohman was perforated at 700 feet. So about ten foot sections there, perforations.

MR. UTZ: What would be that Subject "C"?

THE WITNESS: Subject "C" would be fifty, 4797, I believe. 4797. Now, a direct off-set to the West on the Otto Reynolds-Seitzinger in the S. W. 1/4 of the N. E. 1/4 due South of the Basin. Natural Gas No. 1, Hare Well, there are two wells producing oil at this time from the Farmington, and there is no log on them, they're open-hole completions. The rumor is they are producing from around 700 feet.

MR. REYNOLDS: I put them on the pump myself, and the

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shoes on both of them were at 700 and open-holes at 33. They were producing three years.

THE WITNESS: The Northwest part of this forty acres, there is another well which John owns. That is producing at 700 feet from good, clean sands, and from what I have heard on the cores they are good sand.

Q (BY MR. PAYNE) Did you have those cores analyzed?

MR. REYNOLDS: No, just cored them and perforated.

THE WITNESS: I cored the same section in the Seitzinger and I have cores reports here which you may want also as evidence.

MR. UTZ: I would like the legal description of those two oil wells you are talking about.

THE WITNESS: I don't have the legal description.

MR. UTZ: You don't have them marked?

THE WITNESS: I have another plat here. This is a plat that was surveyed for Mr. John Yarbrough, it just shows the location of these wells.

MR. UTZ: Which wells are you speaking of?

THE WITNESS: These other three little wells here, these two here, and this one right here (indicating).

MR. UTZ: Southwest of 23?

THE WITNESS: No, sir, that is in the Southwest of the Northeast of 23.

MR. UTZ: All in the Southwest of 23?

THE WITNESS: Southwest, no, sir. This is the whole sec-



tion here (indicating) that is the Southwest of the Northeast. Sec. right here (indicating).

MR. UTZ: Those are known as what?

MR. REYNOLDS: They're Number 1, Number 2 and 3 Hare, with L. Hare-Burger Drilling Company and I sold these wells to Burger Drilling Company. I drilled them and cleaned out two old wells and put them on the pump, and drilled the new one myself, and operated them for about three years.

MR. PAYNE: I would like to pin down this Burger. Do you feel the oil section, the vertical limits of this oil pool, is the same as the vertical limits of what you call a gas pool in this same area, or do you supply from the present oil pool and this gas interval which you have perforated into these three wells?

THE WITNESS: Sir, I feel that due to the lenticular nature of the sands there is, unless there is a frac, no communication. These sands are awfully hard, at this time, to identify and, let's say, from a broad general standpoint there is any vertical limit to the gas or to the oil. It might be, I feel, you can have an oil sand separated, and gas sand separated, like a water sand, as far as that goes. These sands, in many instances are anywhere from five to fifteen feet thick and your permeability is quite restricted and most of them are, due to the cementing or matrix. I have core analysis of good sand which in the base Ojo Alamo No. 1 and No. 1 Hare, is this large sand at 700 and about 710 feet, or 725. Between 710 and 745, and I cored the same sand, and I thought this



Otto Reynolds-Seitzinger and the permeability, or the larger permeability was .2 millidarcies and it averaged around 2 to 5.0, 2 to 5 millidarcies. However, your porosities ran between 10 and 22, good porosities. The well saturations were low, in all your sands in the Farmington, I found, that the oil saturations were low, but your water saturations, I would say, around 85 to 90% in that one particular sand, and over to the West there is the same sand and they are producing oil.

Q (BY MR. PAYNE) Do you have any proposal relative to pro-rating these gas wells in this area, and if so, on what basis?

A The gas wells we have are relatively small. I believe the Lohman is 250,000.

MR. REYNOLDS: 260,000.

THE WITNESS: The Seitzinger at 61,000.

MR. UTZ: What kind of test was that?

THE WITNESS: Three hour test, wasn't it?

MR. REYNOLDS: That was, yes, three hour test.

THE WITNESS: What size choke, do you know?

MR. REYNOLDS: No, I don't.

THE WITNESS: The Seitzinger?

MR. REYNOLDS: Southern Union ran it for us on the Seitzinger, I witnessed that test, and it was a three hour test. I think it was a 24 hour test through 3/2 choke, and the volume was so small we did use a small choke and, I believe, our rate on that open flow was 61,000. The permeability would be around 42,000, calculated



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deliverability. It had the best stabilization of any that I have heard. I would calculate a thirty day draw-down, it was less than two pounds of pressure, it would be pretty good stabilization. We are scared to frac it or frac into water sand or oil, perhaps another gas, we don't know. I don't know but what probably twenty feet from the well bore may be a beginning of another sand, a water sand, and I am afraid to frac it. Then again, it might be an oil well, it's hard to tell. This is quite a complicated area and it's limited by about four or five Sections in the Bloomfield City Limits. Up there it differs from anything else I know of in the State of New Mexico and, due to the nature of deposition of these sands, I feel, in order to properly drain, well, not in order to properly drain, the forty acre spacing would not still properly drain the gas, and 160 acres would definitely not drain the gas.

MR. UTZ: Do you have any proposal to well locations on the forties?

MR. REYNOLDS: Well, in my opinion, I was not trying to change anything as far as the locations. The reason our locations are unorthodox, we were drilling for oil and set it up on the Standard Oil location and we missed the oil and got gas, and that is why we have unorthodox gas wells.

MR. UTZ: Because they're closer than 790?

MR. REYNOLDS: Yes, sir.

MR. PAYNE: We will swear you in, Mr. Reynolds.

(Whereupon, witness was sworn.)



MR. REYNOLDS: Here is our selfish interest, up there.

Some of my leases are only forty acres, and when we move on there to drill a well, we don't know whether we are going to get a gas well or an oil well, and if we stick it in the center of the forty and we get an oil well, ten barrel, then we can't drill these other four locations, and that kills four wells on account of the spacing. So, if we can keep our spacing and then not move in there and drill a well regardless of whether I get a gas well or an oil well, I won't have to plug it. You see what I mean?

MR. UTZ: The point is, if you drill in the center of the forty, you can't drill any other wells without being closer than 660?

MR. REYNOLDS: If I get oil, if I get gas, if that forty is going to carry gas instead of oil, then I am all right.

MR. UTZ: You won't expect any more than a forty allowable for the entire forty, no matter how many wells you had on the forty?

MR. REYNOLDS: It costs me a dollar a foot. If I make a 10 barrel or 5 barrel well, I can very easily afford to put four oil wells on that forty.

MR. UTZ: With the top allowable with the forty acres?

MR. REYNOLDS: That is correct.

MR. UTZ: To be produced from the wells in any proration?

MR. REYNOLDS: That is right.

MR. UTZ: Since we are talking about gas wells, the problem is what the gas wells should be allowed to produce and how they



are located and how they should be defined.

MR. REYNOLDS: See, what I don't know, I don't know whether I am going to get gas or oil. I drilled eleven wells in there and these last four, I drilled them on oil well locations, expecting to get oil, and they tell me the sand factor is such that I get, will get four to six millimeters, cubic feet, and the chances are they will eventually go to oil, and we will have to divert them to an oil well.

MR. UTZ: Where would this oil come from?

MR. REYNOLDS: Those educated boys over there in El Paso, they came and said this: It's condensation of your Pictured Cliff and gas coming up in a series of cold water and condensing, or what ever it can be in Farmington, and we feel in Farmington it's not a crude oil, we know that. And that is the most sensible explanation I have had put to me in the four years I have been up there. They take that Pictured and move it to the laboratory and condense it to 62.94 octane Farmington oil. They don't tell you, they show you.

MR. UTZ: What color is that liquid?

MR. REYNOLDS: Light green.

MR. PAYNE: Mr. Examiner, as you are well aware, the Commission cannot base a decision on evidence other than that presented at the hearing, provided all parties are present and you are taking administrative notice of certain facts briefly presented, and I believe at this time you should take administrative notice of all Commission Records relative to the Bloomfield-Farmington Oil Pools so



that those can be analyzed and you can seek some kind of decision in this case.

MR. UTZ: The Examiner will certainly take in/and study Commission Records insofar as it pertains to the sand in this particular area.

Mr. Burress, I note some contours which are sketched on Exhibit 2 here, right on top of Farmington.

A (BY MR. BURRESS) When I took those contours I thought they were, but I have the conclusion now, they are as accurate a contour map a person can prepare in that area, and they would be on the top of the Kirkland, or the base of the old Alamo, that these contours were drawn on the first S. P. connection below the Ojo Alamo. When I first started working I thought that might be a little time line, it is not. However, they are pretty close, I'd say within fifteen feet of being accurate. I mean, there is for some reason, some sand that comes in the fifteen or twenty vertical spacing below the base of the Ojo.

Q Now, this area that you say is Farmington Sands, what is the vertical thickness of that area?

A In feet?

Q Yes.

A It would be, it's been established, I believe, time-wise that the Farmington Sands are lenticular sand bodies within the Kirkland shale. Kirkland extends vertically from the base of the Alamo, to the base of the Fruitland Sands, as I understand it. The



particulars, the nomenclature of the area.

Q About 900 feet, then?

A In that general, that is the footage, yes, sir. I one time thought it would be possible to say that the upper three to four hundred feet of the Farmington Sands would be oil producing and the lower would be gas, but that is inaccurate.

MR. UTZ: Now, in relation to the oil in the Farmington area, are these gas sands generally higher?

THE WITNESS: Than the oil sands?

MR. UTZ: Yes, sir.

MR. REYNOLDS: The oil is always on top, gas is below.

MR. BURRESS: I think they're individual reservoirs, that is my opinion. Each one of those little Sands has an individual reservoir and it's either going to contain oil, gas or water. Now, there may be some Sands in there correlatable from one well to the other, but I think in those Sands there are permeability restrictions at very close intervals in and out of the sands, due to the clay matrix which contains an awful lot of water and your permeability, in many cases, less than 0.1 millidarcies. As far as an accurate definition in Farmington Sands, I believe it would be impossible to identify each and every sand, it's just like, I don't know what it would be like.

MR. PAYNE: It makes it very difficult administratively.

THE WITNESS: It makes it very difficult geologically.

MR. REYNOLDS: The only thing you can do is raise and



start digging. At a dollar a foot, that is the only way you can find out.

MR. BURRESS: We are not trying to, in this case, we are not trying to set any precedents or to start people drilling on smaller gas well locations. I mean, we won't attempt if we had we would have drilled a Pictured Cliff, tried to get a forty acre space on Pictured Cliff. It's just we are not trying to change anything and if the Commission would just give us permission to produce ours up there, we don't want the major companies to get upset and think we are going to force them and offset operators to use on the forty acre spacing. As I understand, the major companies don't have very much acreage in the Farmington-Bloomfield, ownership of the Farmington formation, Farmington rights in the Bloomfield area.

MR. UTZ: What kind of pressure do you have on these wells?

MR. BURRESS: Anywhere from 375 pounds to 425 pounds. The Lohman had only 410 pounds pressure.

MR. REYNOLDS: 440.

MR. BURRESS: The shut-in pressure on the Seitzinger was 378 pounds.

MR. UTZ: That is well head?

MR. BURRESS: Yes, sir.

MR. REYNOLDS: It will build that in less than an hour.

MR. UTZ: It will establish that in an hour?

MR. REYNOLDS: Yes, sir.

MR. UTZ: Then the only way you can recover your gas from



these individual zones that you believe exist in this area, then is to drill on closer spacing?

MR. BURRESS: Yes, sir, I think that is right. I meant to submit these core analysis as Exhibit 3.

MR. UTZ: Do you have a log on your Lohman?

MR. BURRESS: Yes, sir.

MR. UTZ: Do you release that log?

MR. REYNOLDS: Oh, yes.

MR. BURRESS: I have got several copies and I would be happy to leave one copy, if you like.

MR. UTZ: Yes, sir, I would like to have one.

Do you have your perforated interval marked?

MR. BURRESS: That is, as I understand, the perforation is about 700 to 710, weren't they, Mr. Reynolds?

MR. REYNOLDS: No, they weren't.

MR. BURRESS: Higher perforations, 740 to 750.

MR. UTZ: Where is the casing shoe on this well?

MR. BURRESS: They plug back and they drill, I think they set the shoe on that drill at TD at 800 and first perforated this lower sand, which was water. They perforated the Gulf of Mexico there, and they plugged it back and re-perforated the upper zone.

MR. REYNOLDS: We put a packer plug and come up and perforated the next one up there and made 260,000 natural.

MR. UTZ: Any other questions of the witness?



CROSS EXAMINATION

BY MR. SETH:

Q Mr. Reynolds, I am not clear exactly just what area you want to space?

A I think the Bloomfield-Farmington area, the East side of it is in the Township there, 330 feet East of the Lohman Well. I think that the boundary of the Bloomfield-Farmington gas in that area, from there on East, the Farmington carries gas, from there on West it carries oil.

MR. BURRESS: May I make a suggestion, sir? I would like to suggest in this, if we have to set up a geographic limit to this forty acre gas spacing for Farmington Wells, that we say Section 13, 14, 15, 22, 23 and 24, 25, 26 and 27. The Sections in Township 29 North, Range 11 West. I think that would very easily cover the Farmington production right there.

Q How were they vertically?

A Vertically from the Ojo Alamo to the top of the Fruitland, approximately 900 feet. Does that sound reasonable to everybody?

MR. UTZ: I don't know.

MR. REYNOLDS: I think that condition in there is like the old Gates Pool in Texas. I think that oil and gas from Farmington both have seepage from the Pictured and Fruitland and from those thirty-some old, dry holes that were drilled back in the twenties and the teens.

MR. BURRESS: That couldn't be, if that was so, that would



completely defeat our purpose because one well would drain all the old seepage.

MR. REYNOLDS: It feeds in there wherever it can.

MR. BURRESS: In the porosity series, each one of these little Sands we encounter has an individual reservoir and it's completely restricted, either by permeability restriction on and above and below and on each end of it.

MR. REYNOLDS: That is it, exactly.

MR. BURRESS: Anything to get in and out, but to drill it.

Q (BY MR. SETH) Which El Paso is it that has percolation from below?

A (BY MR. REYNOLDS) They can take that Picture gas and put it through a series of cold waters and condense it, and end up with green oil.

Q In the Sections that you named, you expect Mr. Burress to encounter either oil or gas, you don't know which when you drill?

A That is right, sir.

Q Then we can't straighten these out horizontally, the oil pool from the gas pool, under your theory.

MR. BURRESS: At this time, I don't think so. I don't think we know enough about it, Mr. Seth.

Q Do you feel it's in separate sand lenses?

A Yes, sir.

Q Now, Mr. Reynolds, you indicated that the chances are these wells will go to oil, you made that statement, I believe. Do



you believe then this gas is associated with the oil in some manner?

A Well, there has been any number of wells to the North of us up there that has gone to oil, and that old, old well there just West of the Bloomfield Schoolhouse, right West of the Bloomfield Schoolhouse, it was drilled 590 foot in 1926, and I believe Mr. Cautill give them some, too, and they took and piped it over to Bloomfield there and they used gas from that well for twenty-nine years, and they woke up one morning and every cookstove and heater in town was flowing. They had to unhook it. I drilled a Pictured in a Fruitland well, and we went through there and we would like to have got blood out of the hole with oil and gas.

Q You think it might turn to oil, however, it will be twenty-nine years?

A Eventually, I don't know how long it might be. It might be ninety days, it might be thirty years.

Q Now, are these three wells that you have been testifying about, are they perforated within the same vertical limits that oil is encountered?

A No, sir. If you don't like what you got, just keep drilling.

Q And, these particular cases, the Lohman and the Gale and the Seitzinger, do they have perforations?

A Oh, yes, those three gas wells are approximately--

Q They're at where, the well is encountered in other portions?



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ALBUQUERQUE, NEW MEXICO

PHONE CH 3-6691

A They're deeper, they're a deeper lens.

Q Now, the El Paso records show as far as the Seitzinger Well is concerned, they own the gas rights, do your records reflect something else?

A On the Farmington?

Q All of the gas rights, the Seitzinger acreage. What is the description of that well location?

MR. BURRESS: That forty is the Southeast of the Northeast of Section 23, forty acres.

A (BY MR. REYNOLDS) I bought all that acreage off of Basin Natural Gas.

Q The question is, do you consider that you own all of the gas rights?

MR. BURRESS: Yes, sir, just through the Farmington only.

Q Through to the ^{base} banks of the Farmington?

A (MR. REYNOLDS) You own the Pictured and Fruitland and deep rights, I think.

Q Now, a similar question. You got authority, I believe, from an unorthodox location of Well No. 1?

A That is an oil well.

Q What happened on that well?

A We fraced it, and we are pumping frac oil back down.

Q And, you consider that to be an oil well?

A Yes, we do.

MR. UTZ: Where is that well located?



A Section 14. Nelson Reynolds, Otto Reynolds No. 1.

Q On this permeability you testified, I believe, there was a two pound draw-down on the 24 hour test, was it?

MR. BURRESS: There was much less than two pounds on 24 hours. I think that was calculated out, as I recall, the tester told me they calculated around two pounds on the thirty day test.

Q What about the Seitzinger No. 1?

A There was indication of permeability and porosity in that one particular sand.

Q That situation is apparently not common though, in the other wells?

A That is very true, as evidence from the core report of good, clean sandstone.

Q I believe, Mr. Reynolds, you testified as to one well established within an hour, is that the kind of permeability?

A I was speaking in the Lohman, while he was testing this well, I waited for it to stabilize.

Q What Lohman, do you know now, the stabilization?

A No.

Q Was that stabilized within an hour?

A (BY MR. REYNOLDS) I don't know. The Lohman, yes, sir.

MR. BURRESS: They shut it in and it reached 400 pounds within an hour.

MR. SETH: That would be an indication of good permeability?



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PAGE 2

A Yes, sir.

Q How large an area would you think that well would drain, Mr. Reynolds?

A That is, you would just have to start drilling around it, 'til you found out. It might go a mile and a half, it might not be a hundred yards.

Q You don't really know?

A On that 100 we couldn't get that same lens. Yes, we did, we got that same lens across that 100.

Q Then we would expect that to drain the entire 100, as far as that particular portion of formation is concerned.

A You might move and it would be so hard either couldn't get through it.

Q I thought the lens extended across the entire area?

A The depth is about the same in the lens, but permeability could tighten up a drill, a drill hole.

Q You don't know whether it does or not?

A No, sir.

Q I didn't get the quality of the gas from the Gale Well.

MR. BURRESS: Never has been perforated.

Q How recently was that completed?

A (BY MR. REYNOLDS) When was it drilled? Just before Christmas we completed that well, and we cased and cemented and we are waiting on this hearing to see whether we can produce it or not. Is it a gas well?



A It's definitely a gas well, it's about like the Lohman.

Q Why do you say that?

A There is gas shooting all over from the Lohman, so both wells are about the same.

Q You think that is a pretty good indication? Were there four of these?

A Three of them.

Q Three of them?

A Yes, sir.

MR. SETH: I believe that is all we have. Thank you.

MR. UTZ: Mr. Burress, really all that you are interested in is in being able to produce these unorthodox gas well locations?

A (BY MR. BURRESS) Yes, sir, and also that we get forty acre spacing, mainly because Mr. Yarbrough owns forty acres, Mr. Yarbrough owns the forty acres which the Seitzinger is on. That is our dilemma right now.

MR. UTZ: If you had a 160 acre spacing and four unorthodox gas wells on that 160, you would have them communitized, wouldn't you?

MR. REYNOLDS: Yes, sir.

MR. UTZ: Are there other questions?

MR. SETH: What allowable would you expect for these wells?

MR. REYNOLDS: Well, I don't think that one of them will deliver a 220 pound line more than 1,000 a day.

MR. SETH: The assignment of the allowable, I mean, what the Commission fixes the allowable for, for these three wells on



what basis?

MR. REYNOLDS: That has got to be done, no allowable is set by the Farmington gas.

MR. SETH: What would you expect it to be, on what basis, a forty acre, twenty acre, one hundred and sixty?

MR. REYNOLDS: We would like it to be on a forty acre basis for gas wells.

MR. UTZ: On straight acreage basis, deliverability.

MR. REYNOLDS: Forty acre unit.

MR. BURRESS: If we didn't we would just get permission to drill four wells on the 160, and each well contribute to the 160 acre allowable, and then we wouldn't be forced to communitize with the rest of the 160.

MR. UTZ: Yes, sir. We are trying to bring out, now, Mr. Burress, what kind of proration, in the event of proration, here you are asking for, proration in this case?

MR. REYNOLDS: We didn't think that, we thought you did that, and you told us how much we could sell.

MR. PAYNE: The advertisement is broad enough, Mr. Examiner, to adapt any pool rules that the Commission feels appropriate. Prior to the determining gas allowable, if there is to be such, you have to know what a gas well is, however.

MR. UTZ: Are there any other questions?

MR. SETH: No, thank you.

MR. UTZ: The witness may be excused. (Witness excused.)



MR. UTZ: Any other statements in this case?

MR. SETH: We would like to make a statement.

El Paso, of course, is opposed to forty acre spacing of the gas in this area, but we would certainly have no objection to the base of the 160 for proration, and they will be permitted to drill as many wells as they want to on the 160. I think the testimony and the evidence relating to permeability, considering that factor alone, would indicate these wells would drain at least 160 acres.

MR. UTZ: Any other statements?

The case will be taken under advisement.



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ALBUQUERQUE, NEW MEXICO
PHONE CH 3-6691

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS

I, LEWELLYN NELSON, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype, and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

DATED this 18 day of July, 1960, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Llewellyn Nelson
NOTARY PUBLIC

My Commission Expires:
June 14, 1964

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7002, heard by me on July 6, 1960.

[Signature] Examiner
New Mexico Oil Conservation Commission



El Paso Natural Gas Company

MAIL OFFICE 000

El Paso, Texas

1930 JUL 13 PM 1-10

July 13, 1930

REGISTERED MAIL

Mr. Otto V. Reynolds
Post Office Box 403
Bloomfield, New Mexico

Re: Reynolds-Seitzinger #1 Well
T-29-N, R-11-W
Section 23: NE/4
San Juan County, New Mexico

Dear Mr. Reynolds:

According to our records, the captioned Farmington Formation gas well was recently completed by you in the SE/4 NE/4 of Section 23, in which El Paso owns full gas rights from the surface to the base of the Pictured Cliffs Formation. As you do not own the Farmington gas rights under the SE/4 NE/4 of Section 23, it will be necessary for you and El Paso to agree on a satisfactory solution to this matter.

Attached hereto is a plat showing El Paso's working interest ownership in the acreage on which you have filed an application to the Oil Conservation Commission requesting special rules governing the spacing and location of gas wells within the Bloomfield-Farmington Oil Pool.

Please advise immediately of any suggestions or proposals which you may have regarding this matter.

Very truly yours,

EL PASO NATURAL GAS COMPANY

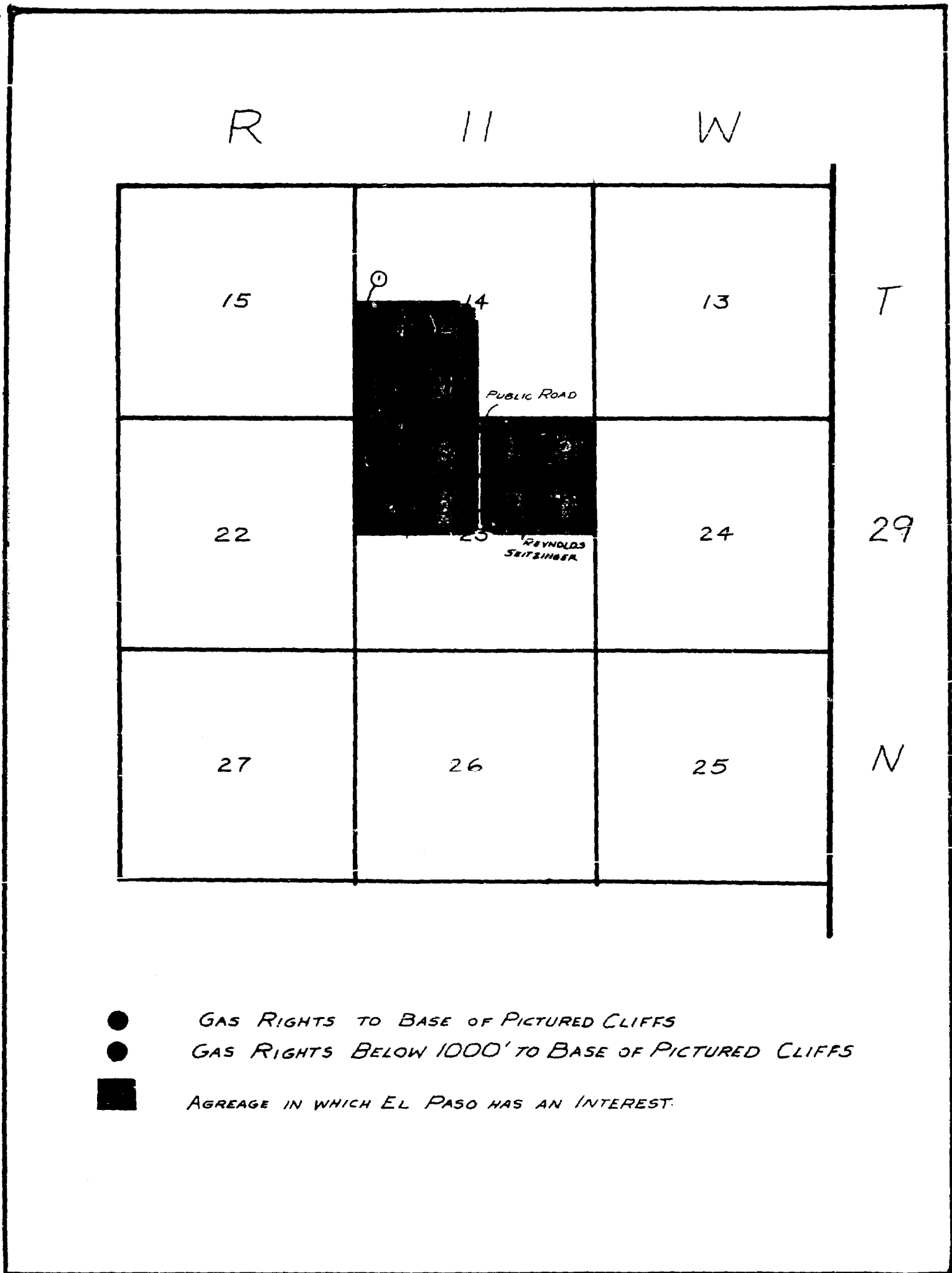
By Sam Smith, Manager
Land Department

SS:JMH:eah

cc: Mr. V. M. Plummer
Mr. H. H. Lines
Mr. Norman Woodruff

cc: Oil Conservation Commission
Of the State of New Mexico

COPY



JOHN W. BURRESS

CONSULTING GEOLOGIST

P. O. BOX 161

FARMINGTON, NEW MEXICO

June 9, 1960

RECEIVED JUN 10 1960

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

Dear Mr. Porter:

I am writing this letter for and acting as agent and representative of Mr. Otto V. Reynolds of Bloomfield, New Mexico and Mr. John R. Yarbrough of Amarillo, Texas, who are owners and operators of the herein discussed Farmington Formation Gas Wells in the Bloomfield Farmington Pool.

I ask that a case be called before the New Mexico Oil Conservation Commission wherein the operator requests:

Approval of the following non-standard Farmington Formation Gas Well Locations:

1. Otto V. Reynolds # 1. Seitzinger, located 2310' from the North Line and 990' from the East Line of Section 23, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.
2. Otto V. Reynolds # 1. Lohman, located 330' from the North Line and 2310' from the West Line of Section 24, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.
3. Otto V. Reynolds # 1. Gale, located 2247' from the North Line and 334' from the West Line of Section 24, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

That the Oil Conservation Commission change the spacing ruling for Farmington Formation gas wells from 160 acres per well to 40 acres per well.

Please send all communications in this matter to me at the above address.

Yours Very truly,

John W. Burress

C C: Otto V. Reynolds

C C: John R. Yarbrough

not
accounting
plot

W. B. Burress
6-22-60

No. 18-60

DOCKET: EXAMINER HEARING JULY 6, 1960

Oil Conservation Commission - 9 a.m., State Corporation Commission Hearing Room, Basement, Capitol Building, Santa Fe, New Mexico.

The following cases will be heard before Elvis A. Utz, Examiner, or Oliver E. Fayne, Attorney, as alternate Examiner:

- CASE 2002: Application of Rice Engineering & Operating, Inc. for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Skelly State "D" Well No. 3, located 2310 feet from the South line and 660 feet from the East line of Section 1, Township 20 South, Range 36 East, Lea County, New Mexico, with injection to be in the lower San Andres formation with the injection interval from 4,450 feet to 4,950 feet.
- CASE 2003: Application of El Paso Natural Gas Company for a gas-gas dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Warren Well No. 1-A (PM) located in Unit K, Section 25, Township 28 North, Range 9 West, San Juan County, New Mexico, in such a manner as to permit the production of gas from the South Blanco-Pictured Cliffs Pool and the production of gas from the Blanco Mesaverde Pool through the casing-tubing annulus and 2 inch tubing respectively.
- CASE 2004: Application of La Plata Gathering System, Inc., for the establishment of a 345.59 acre non-standard gas proration unit in the Blanco Mesaverde Gas Pool, Rio Arriba County, New Mexico, and for an unorthodox gas well location. Applicant, in the above-styled cause, seeks the establishment of a 345.59 acre non-standard gas proration unit in the Blanco Mesaverde Gas Pool, consisting of all of partial Sections 30 and 31, Township 32 North, Range 5 West, Rio Arriba County, New Mexico. Applicant proposes to dedicate said unit to a well to be drilled on an unorthodox location 990 feet from the North line and 713 feet from the East line of said Section 31.
- CASE 2005: Application of Argo Oil Corporation for an order force-pooling the interests in a 160-acre non-standard gas proration unit in the Jalmat Gas Pool. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests within the vertical limits of the Jalmat Gas Pool in a 160-acre non-standard gas proration unit consisting of the E/2 NE/4 of Section 21 and the W/2 NW/4 of Section 22, both in Township 25 South, Range 37 East, Lea County, New Mexico.

CASE 2006: Application of Pan American Petroleum Corporation for an extension of the no-flare exception granted by Order No. R-1451. Applicant, in the above-styled cause, seeks an extension of the one-year exception to the no-flare provision of the rules for the Otero Gallup Oil Pool, Rio Arriba County, New Mexico, for its Jicarilla 35 Well No. 1, which exception was granted by Order R-1451.

CASE 2007: Application of Otto Reynolds and John R. Yarbrough for the promulgation of special rules governing gas wells drilled in the Bloomfield-Farmington Oil Pool. Applicant, in the above-styled cause, seeks an order promulgating special rules governing, among other things, the definition, spacing and location of gas wells in the Bloomfield-Farmington Oil Pool, San Juan County, New Mexico. Applicant further seeks approval of unorthodox gas well locations for three wells in said pool.

CASE 2008: Application of Gulf Oil Corporation for an order authorizing a salt water disposal well. Applicant, in the above-styled cause, seeks an order authorizing the disposal of produced salt water through its Lea State "CR" (NCT-A) Well No. 3, located 3300 feet from the South line and 1980 feet from the West line of Section 2, Township 16 South, Range 32 East, Lea County, New Mexico, with injection to be in the lower Wolf-camp formation in the interval from 9,911 feet to 10,200 feet.

CASE 2009: Application of Gulf Oil Corporation for a 200-acre non-standard gas proration unit and for an order force-pooling the interests therein. Applicant, in the above-styled cause, seeks the establishment of a 200-acre non-standard gas proration unit in the Blinebry Gas Pool, consisting of the SW/4 and the SW/4 SE/4 of Section 23, Township 22 South, Range 37 East, Lea County, New Mexico, to be dedicated to the O. I. Boyd Well No. 3, located 1980 feet from the South and West lines of said Section 23. Applicant further seeks an order force-pooling the interests of those in said non-standard gas proration unit who have gas rights within the vertical limits of the Blinebry Gas Pool, including the following named persons or parties who have not consented to the pooling agreement:

W. B. Trammel; Mrs. Carrie Gidwitz; Harry L. Jones and Isabel Jones; Heirs, Devisees and Personal Representatives of William T. Pitt, Deceased; Peter M. Smith; Adam F. Arnold; Cranfill Fowler; George W. Clark; Charles W. Hastings; John E. McConnell, Jr.; Lionel L. Shatford; Ernest O. Knapp, J. Paul Knapp, Gertrude K. Schrecengost, Mildred K. Stoneburner,

ocket No. 18-60

Evelyn Neel, and Maude S. Knapp, Jointly; Robert R. McKee; and all other persons or parties owning oil and gas interests in the SW/4 and SW/4 SE/4 of Section 23, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 2010:

Application of Sinclair Oil & Gas Company for permission to commingle production from two separate leases. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the Empire-Abo Pool production from its M. Yates "B" Lease consisting of the S/2, NE/4, S/2 NW/4 and the NE/4 NW/4, with such production from a portion of its State Eddy 32 lease consisting of the NW/4 NW/4 of Section 34 and the SE/4 NW/4 of Section 32, all in Township 17 South, Range 28 East, Eddy County, New Mexico, after separately metering the production from one lease only.

CASE 2011

Application of Socony Mobil Oil Company for a "slim-hole" oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its E. O. Carson Well No. 22, located 1830 feet from the South line and 660 feet from the West line of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Paddock Pool and the production of oil from the Wantz-Abo Pool using parallel strings of 2 7/8 inch tubing cemented in a common well-bore.

CASE 2012:

Application of Max Pray for the creation of a new oil pool for Devonian production and for the promulgation of special rules and regulations for said pool. Applicant, in the above-styled cause, seeks an order creating a new oil pool for Devonian production consisting of the W/2 of Section 27, E/2 of Section 28, NE/4 of Section 33 and the NW/4 of Section 34, Township 12 South, Range 37 East Lea County, New Mexico. Applicant further seeks the promulgation of special rules and regulations governing said pool including a provision for temporary 80-acre oil proration units

NEW MEXICO OIL CONSERVATION COMMISSION
Well Location and Acreage Dedication Plat

Form C-28
Revised 5/1/57

2020 2007

Section A.

Date April 15, 1960

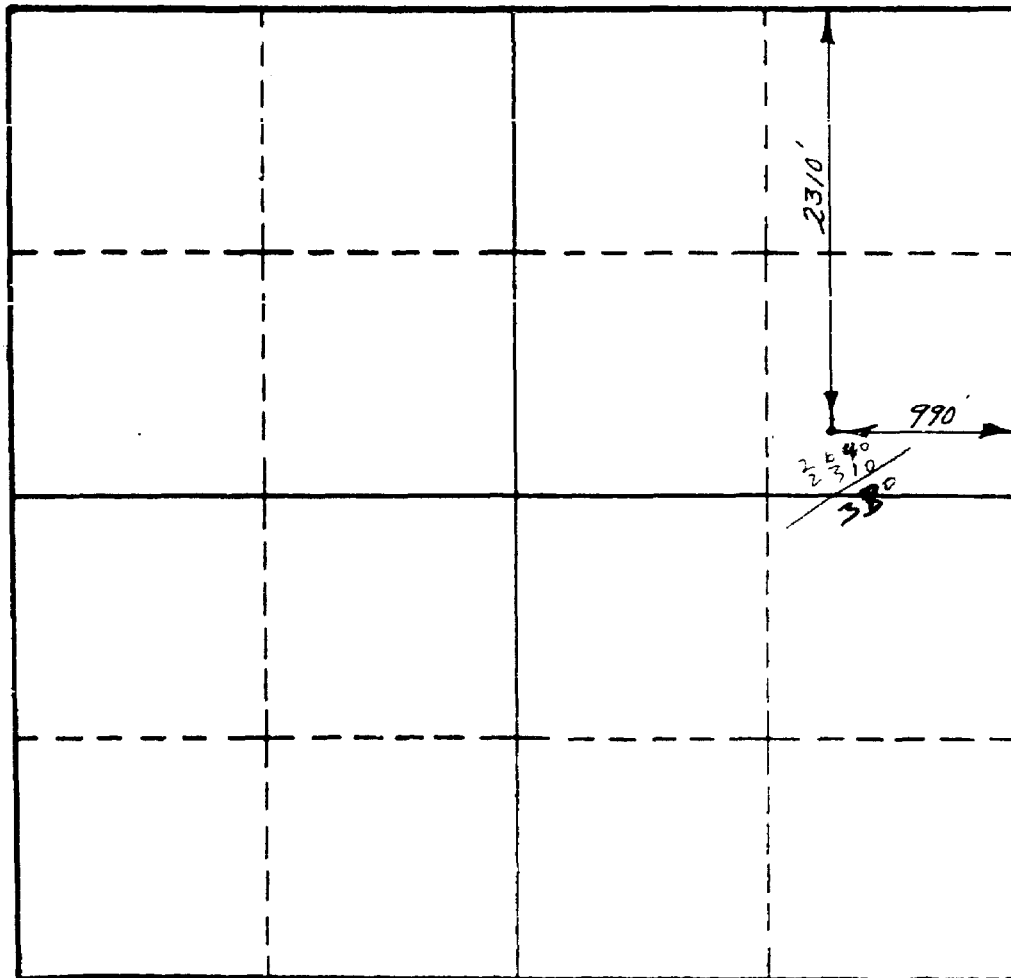
Operator Otto Reynolds Lease Seitzinger
Well No. 1 Unit Letter H Section 23 Township 29 North Range 11 West NMPM
Located 2310 Feet From North Line, 990 Feet From East Line
County San Juan G. L. Elevation 5477-180 Dedicated Acreage 10 Acres
Name of Producing Formation Farminston Pool Bloomfield Farminston

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below?
Yes No X
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes X No . If answer is "yes," Type of Consolidation Designated Operator
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner

Land Description

Section B



This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Otto Reynolds
(Operator)

(Representative)

Bloomfield, New Mexico
Address

This is to certify that the well location shown on the plat in Section B was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed April 14, 1960

C. L. Hotal
Registered Professional
Engineer and/or Land Surveyor.

Certificate No. 300

(See instructions for completing this form on the reverse side.)

NEW MEXICO OIL CONSERVATION COMMISSION
Well Location and Acreage Office Plat

Form C-28
Revised 5/1/57

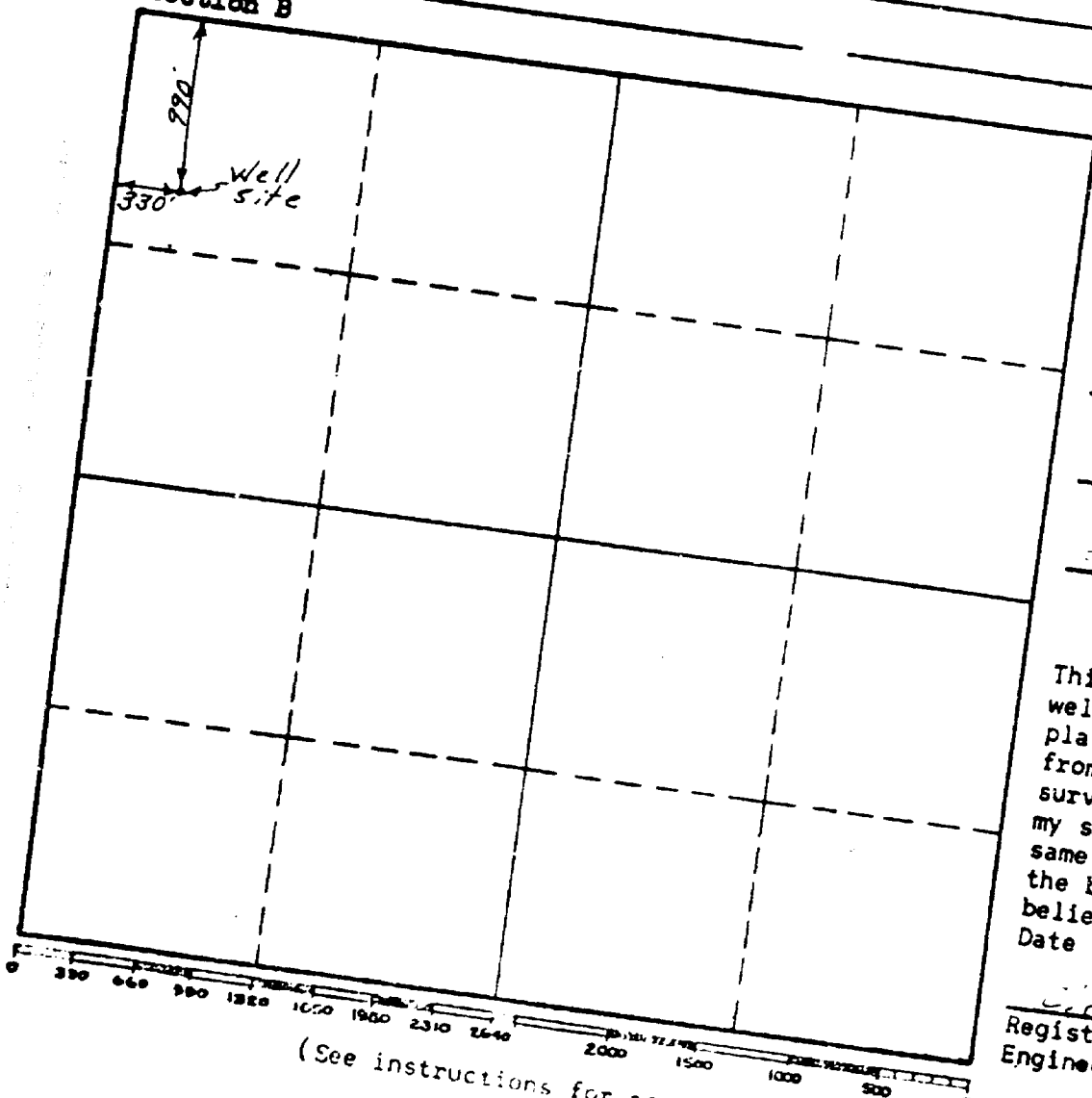
Section A.

Operator Otto Regulus
Well No. 2 Unit Letter D Section 33 Township 33 North Range 11 West N.M.P.M.
Located 290 Feet From North Line, 330 Feet From West Line
County San Juan G. L. Elevation 5506 Dedicated Acreage 10 Acres
Name of Producing Formation San Juan Pool Bloomfield
1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below?
Yes No
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes No . If answer is "yes," Type of Consolidation
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner

Land Description

Section B



This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

Otto Regulus
(Operator)

(Representative)

Bloomfield, New Mexico
Address

This is to certify that the well location shown on the plat in Section B was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed June 13, 1950

Ed. H. H. H.
Registered Professional
Engineer and/or Land Surveyor.

Certificate No. 300
the reverse side

(See instructions for completing this form on the reverse side)

NEW MEXICO OIL CONSERVATION COMMISSION
Well Location and Acreage Dedication Plat

Form C-128
Revised 5/1/57

Section A.

Date February 10, 1960

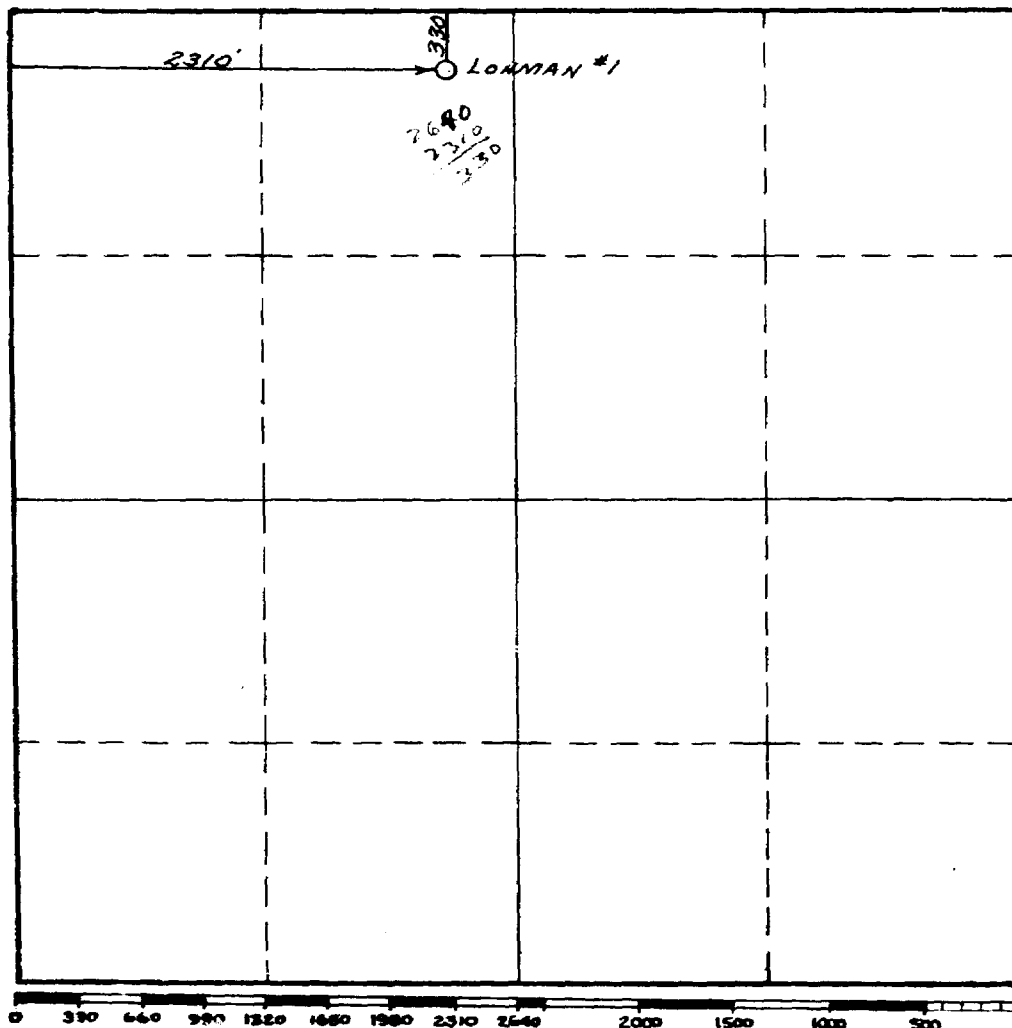
Operator V. Otto Reynolds Lease Lohman
Well No. 1 Unit Letter 24 Township 29N Range 11W NMPM
Located 330 Feet From North Line, 2310 Feet From West Line
County San Juan G. L. Elevation 5498.5 Dedicated Acreage Acres
Name of Producing Formation Pool

1. Is the Operator the only owner* in the dedicated acreage outlined on the plat below?
Yes No .
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes No . If answer is "yes," Type of Consolidation
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner

Land Description

Section B



This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

(Operator)

(Representative)

Address

This is to certify that the well location shown on the plat in Section B was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed Feb. 10, 1960

E. J. Hamilton
Registered Professional
Engineer and/or Land Surveyor.

Certificate No. 1457

(See instructions for completing this form on the reverse side)

INSTRUCTIONS FOR COMPLETION:

1. Operator shall furnish and certify to the information called for in Section A.
2. Operator shall outline the dedicated acreage for both oil and gas wells on the plat in Section B.
3. A registered professional engineer or land surveyor registered in the State of New Mexico or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
4. All distances shown on the plat must be from the outer boundaries of Section.
5. If additional space is needed for listing owners and their respective interests as required in question 3, Section A, please use space below

* "Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1953 Comp.)