

Case No. 100-100000
Triple completion
No. 13 - Los Angeles County

Case No.

2020

Application, Transcript,
Small Exhibits, Etc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Petroleum Corporation for an order authorizing the triple completion of its Wimberly Well No. 13, located in Unit M, Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Langlie Mattix Pool, the disposal of salt water into the Grayburg and San Andres formations in the interval from 3500 feet to 4200 feet, and the production of oil from the Justis-Blinbry Pool by means of two parallel strings of 3½-inch casing cemented in a common well bore. Applicant would dispose of the salt water through one string of casing, produce the Blinbry oil through 1½-inch tubing set in the second string of casing, and produce Langlie Mattix gas through the annulus of the 1½-inch tubing and the second casing string.

Case 2020

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

(Amerada's Exhibits 1 through 5 marked for identification.)

MR. NUTTER: The hearing will come to order, please.

The next case will be Case 2020.

MR. PAYNE: Application of Amerada Petroleum Corporation
for an order authorizing the triple completion of its Wimberly
Well No. 13, located in Unit M, Section 24, Township 25 South,



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Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Langlie Mattix Pool, the disposal of salt water into the Grayburg and San Andres formations in the interval from 3500 feet to 4200 feet, and the production of oil from the Justis-Blinbry Pool by means of two parallel strings of 3½-inch casing cemented in a common well bore.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, representing the applicant, and we will have one witness, Mr. Miller.

MR. PAYNE: I'll swear you in, Mr. Miller.

(Witness sworn.)

HERBERT MILLER

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Herbert Miller.

Q By whom are you employed and in what position?

A Amerada Petroleum Corporation. I'm a proration engineer.

Q Have you previously testified before this Commission as a petroleum engineer and had your qualifications accepted?

A Yes, I have.

MR. KELLAHIN: Are the witness's qualifications acceptable?



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MR. NUTTER: Yes, sir, they are.

Q Are you familiar with the application in case No. 2020 now before this Commission?

A Yes, sir, I am.

Q Would you state briefly what is proposed in this application?

A The proposal is to instigate a combination twin dual completion on the Amerada Winberly No. 13 Well by running two strings of 3½-inch casing and dualing one of the strings in the Langlie Mattix to produce gas from 2900 to 3250 and oil from the Blinbry open hole from 5300 to 5500 and utilize the other string as a salt waster disposal string into the San Andres at approximately 3500 to 4200. Our diagram there, we show Grayburg, that should be just the San Andres. There is an arrow there, it should be 3575 to 4200.

MR. NUTTER: Rather than 3500?

A Rather than 35.

Q Are you referring to one of the exhibits?

A Exhibit 2.

Q Now, referring to what has been marked as Exhibit No. 1, would you identify that, please?

A Exhibit No. 1 is a plat of the Amerada Winberly Lease and surrounding leases within a two mile radius. The various producing pays are identified on that site, each of the wells,



with the letters. For instance, our Wimberly No. 4, which is an East offset to the red arrowed No. 13 is a "D", and that would mean a Drinkard and Montoya dual completion.

MR. NUTTER: Drinkard and Montoya?

A Or Drinkard and Fusselman.

Q The key showing the well designations appears on the exhibit, does it not?

A Yes, sir. The key corresponds to the Commission's designation of these various reservoirs.

Q Under your application you propose to dispose of salt water in the San Andres. Is there any reduction within the two mile radius from the San Andres?

A No, there is not.

Q Referring to what has been marked as Exhibit No. 2, would you identify that exhibit?

A Exhibit 2 is our diagrammatic sketch of the proposed completion.

Q Would you discuss how this completion will be made?

A As previously stated, the completion will be utilizing two strings of 3½-inch casing and a third string of 1½-inch tubing. The water well will be using a 3½-inch casing which is to be plastic coated. The Blinbry will produce through the 1½-inch tubing with a packer set below the Langlie Mattix. The Langlie



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Mattix gas will be produced through the annulus of the $3\frac{1}{2}$ -inch casing. The diagram shows the cement sheath between the two strings of $3\frac{1}{2}$ -inch casing. The way we propose to cement this well is in the following manner: We plan to pump cement down the long string of $3\frac{1}{2}$ -inch casing and displace back up to the base of the short string of $3\frac{1}{2}$ -inch casing the calculated amount of cement. To do that, would, of course, depend on the caliper run on the well. However, I have calculated that 350 sacks of cement on an $8\frac{3}{4}$ hole would bring it back up to the base of the $3\frac{1}{2}$ -inch string. Then we would pump cement down the $3\frac{1}{2}$ -inch salt water string and displace back to above the top of the Tancil formation, which is the top of the Jalmat Gas Pool, which is at approximately the top of our cement, would be approximately 2100, the top of the Tancil is at 2127, the top of the Yates, which is the pay zone in the Jalmat, is at 2265. Our $9\frac{5}{8}$'s casing would be set at 850 feet, and it would be circulated back to the surface. This should protect all the fresh water sands.

MR. IRBY: What was the depth, please?

A 850 feet.

Q Do you know the depth of any fresh water sands in this area?

A It's my understanding that they're all above that figure.

Q Did you complete your description of the cementing of the $3\frac{1}{2}$ -inch salt water disposal string?



A Possibly I did not. I calculate that there would be, it would take 516 sacks to bring that cement back up to the 2100 figure, or a total of 866 sacks. We would, of course, run centralizers below the salt water string on the long string. We would utilize turbulizers above the base of the short string.

Q Now, this cementing program will leave an open interval between the 850 feet and below that to the --

A To the top of the cement.

Q -- top of the cement? A Yes, that is correct.

Q What would that interval be?

A It would be the difference between 850 and 2100, 1250 feet.

Q Are there any producing zones in that interval?

A No, sir, there aren't.

Q Are there any fresh water zones in that area?

A No, sir, not to my knowledge.

Q Now, referring to what has been marked as Exhibit No. 4, will you discuss that, please?

A Oh, Exhibit No. 4 is an electric log of the Wimberly No. 4 which is the offset to the proposed-to-be drilled Wimberly 13. The intervals of production are marked in red on the log. The top of the Tancil, as was previously stated, is at 2127, the top of the Yates, 2265, the base of the Yates and the top of the Seven Rivers is 2380. Incidentally, the vertical limits of the



Jalmat Gas Pool extend from the top of the Tancil to a point a hundred feet below the base of the Seven Rivers and thereby including all of the Yates. The base of the Seven Rivers is at 2938, that's also the top of the Queen, and the base of the Queen, 3224 and that's the top of the Grayburg. The top of the San Andres is 3575, the base of the San Andres at 4623, the top of the Clear Fork, which is, of course, the top of the Blinbry, is at 5,015, and, of course, this well that we propose to complete will be a Blinbry well in the interval 5300 to 5500, as marked on the log, as the probable producing interval of the well.

Now, this log extends below our proposed-to-be drilled depth of Wimberly 13, but I went ahead and marked it since this Wimberly 4 was carried deeper. The Tubb sand top is 5680, the base 5739, the Drinkard, 5886 to 5942, the top of the Wichita Albany, which is the base of the Clear Fork, is 6300 and the top of the Fusselman is 6820.

Q I believe, Mr. Miller, you said the Jalmat extended to the point 100 feet below the base of the Seven Rivers?

A Above the base of the Seven Rivers, I stand corrected on that. The Langlie Mattix extends a hundred feet above the base of the Seven Rivers to the base of the Queen.

Q Now, are the completion intervals, the proposed completion intervals in the proposed well marked on that exhibit?

A Yes, they are.

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Q Do you have an exhibit showing the turbulizer you propose to use?

A Yes, sir, I believe that was Exhibit --

Q 3, and I passed it up.

A The purpose, of course, of that turbulizer is to reduce channeling by spacing the tubing strings apart so that the cement can flow evenly around each tubing string and it reduces the possibility of channeling. It's a rubber affair and it just sets up a turbulence and holds the strings apart. It also centralizes the string.

Q In your opinion, will the use of the centralizers and the turbulizer, as you have outlined, assure a cement sheath completely around each string of a 3½-inch casing?

A Yes, sir, we believe it will. There will be a number of those turbulizers; incidently, they'll be run about every third joint.

Q If you get a cement sheath around the 3½-inch strings, you will have two wells completed in one well bore?

A Yes, sir, that's the way we feel. It's hard for us to name this type of completion. We have looked around and found that in Canada it's called associated completion and they don't require packer leakage tests on this type of completion. They feel that the two strings are separated; of course, on our gas-oil dual that is more or less a conventional completion on that.



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MR. NUTTER: How do they know it's separated in Canada if they don't take tests?

A Beats me, I don't know.

Q Will this type of completion--

A I would assume if you had communication you would find out in your surface pipe that you had pressure up.

Q Will this type of completion achieve complete separation of the two producing zones?

A I believe so, yes, sir.

Q Will it also separate the salt water disposal well from the producing horizon?

A Yes, sir, I believe so.

Q How would you make leakage tests on this type of completion, Mr. Miller?

A A conventional packer could be run at any time to test the salt water string, it could be pressured up and if a leak should happen to occur above the cement, it could be squeezed with a conventional squeeze tool and cement could be put clear back up into the surface pipe. Of course, the other string could be tested by a surface measurement and a conventional packer leakage test.

Q Insofar as the dual completion for production is concerned, that is a conventional completion, is it not?

A Yes, sir.

Q Of the type that has heretofore been approved by this



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Commission?

A Yes, sir.

Q Now, this type of completion will require directional perforation, will it not?

A Yes, sir. We brought an exhibit. It's probably basic, but we thought it might be of interest to some of the Commission on this new type self orienting radiation device. That's Exhibit No. 5. We just photostated Schlumberger's pamphlet in which they explain their new type of perforator. The principle of the perforator is you use a weak radioactive focus source in one of the strings in combination with a gun that is self orienting in the other string. It has a measurement, the gun does, that measures the radioactive intensity, and as it's rotated, the intensity either increases or decreases and the optimum time to perforate is shown in this diagram. It's rather obvious the "C" position, the radioactivity is at the highest point and the gun is so geared to shoot in the opposite direction, perforate away from the highest radiation intensity, and it enables the Schlumberger people to positively never shoot into the opposite string.

In our particular completion we would have to use this or some other type of perforation device. We would have to use it when we perforate the salt water string and also when we perforate the Langlie Mattix string.

Q Has this device been used successfully in other areas?



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A Yes, this and others mention purely mechanical means is sometimes used. The advantage of this over a mechanical means, in the mechanical means the two strings, or three strings, of tubing have to be clamped together to keep the tubing itself from rotating. With this the tubing doesn't necessarily have to be clamped together.

Q Mr. Miller, what is the source of the water which you propose to dispose of in this well?

A The source is the least produced water from the Wimberly lease. Actually, it's primarily Fusselman water.

Q What volumes will you propose to dispose of?

A Our application called for a thousand barrels per day; at the present time we're producing 743 barrels per day.

Q Have you made any test of the San Andres formation with respect to its ability to take water?

A Yes, sir, we have tested another well on the lease and it will take water under gravity, under vacuum.

Q Your injection in this well will be under vacuum?

A Yes, sir.

Q Will this be an open or closed system?

A It will be a closed type system.

Q I believe you've already testified that your 3½-inch disposal string will be plastic lined?

A Yes, sir.



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Q Is the water corrosive?

A I have an analysis of the produced water which was made last week by Dowell. They list the parts per million; calcium, 2,665; magnesium, 5995; sodium, 19,550; the chloride, 34,400; the sulphate, 3,300; the bicarbonate, 345; the carbonate, 35, and the hydroxide, 0. This, in my opinion, is a mildly corrosive water. All salt water is of corrosive nature, but this indicates a mildly corrosive water.

Q What is being done with that water at the present time?

A It's being put in pits, open pits.

Q Do you anticipate any increase in the amount of produced water in the area?

A Yes, sir, there's that possibility. The Fusselman is a water drive formation and about 90 percent of the produced water at the present time comes from one of the wells, which is No. 6, and it's anticipated that we will have more water later on from the other wells.

Q Do you anticipate that the proposed salt water disposal portion of this well will be adequate to handle the volumes you will produce?

A Yes, sir.

Q What is the reason for Amerada applying for a completion of this type?

A Well, it's the same thing as Continental. It's purely



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economic. We have made some studies of the various costs of combination completions, and the cost as estimated for this completion is \$72,263. A Blinebry and Langlie Mattix dual, we estimate will cost \$57,431. The cost of a single water well to the 4220 would be \$900,932. The cost of a single Blinebry would be \$55,081, and the cost of a single Langlie Mattix would be \$39,867. I have taken and added some of those figures up and the cost of the three singles would be \$34,910, and, of course, you could apply that \$134,910 against the estimated cost of the associated well of \$72,263 and you would arrive at a savings of \$62,647. Applying that further, our assoicated well less our dualled well to the Langlie Mattix and Blinebry gives us a figure of the cost, additional cost of the salt water well of \$14,832 as against a single salt water well of \$39,962. If you take the difference between those two figures the savings on the combined salt water disposal well would be \$25,130.

Q Were Exhibits 1 through 4 inclusive prepared by you or under your supervision?

A Yes, sir, they were.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 through 5.

MR. NUTTER: Amerada's Exhibits 1 through 5 will be admitted.

Q Do you have anything else to add to your testimony?



A Just as a matter of interest, possibly. The type of completion that we're proposing is similar to the type that received quite a bit of publicity in Sunray Mid-Continent's sextuple completion in the North Ward Field in Jackson County, Texas. They set three strings of, instead of 3½-inch pipe, they set three strings of 2-7/8's inch pipe and then they dualled each of the strings of the 2-7/8's inch pipe similar to our Langlie Mattix and our Blinebry and they wound up with six completions producing gas, and I thought it might be of interest. It's similar to that completion.

MR. KELLAHIN: That's all the questions I have, Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q What kind of a packer is this that's going to separate the Langlie Mattix from the Blinebry?

A It would be a Hook Wall Packer, I'd assume.

Q Will you be able to achieve complete separations between those two zones with that packer?

A Yes, sir, I believe so.

Q What kind of pressure do you anticipate in the Blinebry?

A I don't have the bottom hole pressure with me. I can send that to you. Those zones have been produced for quite a number of years and the pressure is not excessive. Likewise, the

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Langlie Mattix is an old producing interval.

Q Will you be able to take packer leakage tests on that packer?

A Yes, sir.

Q Will you be able to artificially lift the Blinebry oil?

A Yes, conventional pumping through 1½-inch tubing could be instigated.

Q Now, this well hasn't been drilled as yet, is that correct?

A No, sir.

Q So you don't have any logs?

A No, sir, the only log we have is the four, and we anticipate this well will come in about 10 feet low to the No. 4.

Q The No. 4 is in the same acre tract as the proposed well?

A Yes.

Q I noticed here on the No. 4 well that the base of the Queen, which I believe is the lower limit of the Langlie Mattix Pool, is it not?

A That's right.

Q The base of the Queen is shown at 3224 on this well and you are talking about, on Exhibit No. 2, talking about the Langlie Mattix being produced from 2900 to 3250. What do you anticipate will be the perforated interval on the Langlie Mattix?

A It will depend, of course, on the log. I'm not just sure I follow. To the base of the Queen, 3224, it will probably



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have to be above that 3224. I stand corrected on that.

Q So, at any rate, these Langlie Mattix perforations will be limited and confined to the Queen formation?

A That's correct.

Q Approximately what interval will there be from the lowermost perforation of the Langlie Mattix to the uppermost perforation of the San Andres salt water disposal zone?

A That would be, roughly, from 3250, on our diagram, down to 3500. However, as corrected, it would be another 25 feet above that, so I'll lift 3224 to 3500.

Q I think you corrected that to 3575 also?

A Yes, 3575, that's right. 351 feet, if I didn't make an error there.

Q So you have approximately 350 feet of cement separating the Queen gas pay from the salt water disposal zone, is that correct?

A That's correct.

Q What interval do you have of separation between the lowermost perforation for the San Andres disposal zone and the uppermost perforation of the Blinbry producing zone?

A That would be from 4200 to 5300, which would be 1100 feet.

Q Is it your opinion that the 1100 feet of cement will separate the zones?

A Yes, sir. I believe so.



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Q You stated that you presently estimated that it would take how many sacks of cement to cement the long $3\frac{1}{2}$ -inch string up to the base of the short $3\frac{1}{2}$?

A 350 sacks, to displace up to the base of the short string.

Q In the event that it doesn't take 350 sacks and your cement comes up over the shoe of the short $3\frac{1}{2}$ -inch string, what will you do then?

A We'll just immediately start pumping the other string. We would just put enough cement to place it up there, calculated it up there, and then we would, as soon as we finished clearing tool on the one zone, we would immediately start pumping on the other zone.

Q So, if the cement had actually come up above the shoe of the short string --

A We should shove it on up. There's a possibility that there might be a short interval that we wouldn't have just right below if the cement didn't come up quite high enough there on the short string, but we don't feel --

Q The short string will be cemented immediately after the cementing of the long string?

A Yes, it will be one operation.

Q And before the cement has set up?

A Yes.

Q You propose to use turbulizers throughout the entire



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San Andres?

A Yes, sir, that's right.

Q Will they come on up into the Langlie Mattix?

A Yes, Langlie Mattix and on into the Jalmat.

Q And the long string of $3\frac{1}{2}$ will be centralized below the shor string?

A Below the short string.

Q From the base of the short string clear down to T. D., is that right?

A That's right.

Q Is the gas that was produced from the Langlie Mattix a dry or wet gas?

A It's dry.

Q Do you anticipate that you'll have any production problems producing this dry gas through the annulus between the $3\frac{1}{2}$ -inch pipe and $1\frac{1}{2}$?

A No, sir, we don't.

Q What will the interval from the top of the cement to the base of the $9\frac{5}{8}$'s inch pipe be filled with, mud?

A Mud, yes, sir.

Q Is there any San Andres production anywhere in the neighborhood, Mr. Miller?

A Not to my knowledge, and our geologists tell me that there is none.



MR. NUTTER: Any other questions of the witness?

MR. PAYNE: Yes, sir.

MR. NUTTER: Mr. Payne.

BY MR. PAYNE:

Q Mr. Miller, are there any other salt water disposal wells in the area with injection into the San Andres?

A No, sir, I don't believe there's any salt water disposal wells in the area.

Q What was the depth of the shallow zone that's productive of oil or gas?

A That would be the Jalmat, which is 2100 and/or 2265 is the top of the Yates. And it's not productive right in the immediate area. It's productive away, about a mile away.

Q What's the depth of the deeper zone productive of fresh water?

A I can't give that exact figure. We checked and found that 850 feet would clear all of the fresh water sands.

Q Now, I believe you testified that your injection is going to be by gravity?

A Yes, sir.

Q You are going to use a closed system?

A Yes, sir.

MR. NUTTER: And your 3½-inch disposal string will be plastic coated?

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A Yes, sir.

MR. PAYNE: That's all.

MR. NUTTER: Any further questions of Mr. Miller? He may be excused. Oh, one question, Mr. Miller.

BY MR. NUTTER:

Q I understood you to say that there would be approximately \$15,000 difference between the cost of this proposed triple completion and between the cost of a Blinebry Langlie Mattix dual, one being about \$72,000 and the other about \$57,000?

A That's correct.

Q And it would cost \$40,000 to drill a single disposal well?

A That's right.

Q So the difference between the cost of drilling a dual and a single disposal well, or drilling a triple, as you proposed here, would be about \$25,000?

A That's correct.

MR. NUTTER: Thank you.

(Witness excused.)

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

MR. KELLAHIN: That's all I have, Mr. Nutter.

MR. NUTTER: Does anyone have anything further for Case No. 2020? We'll take the case under advisement and take Case 2021.

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STATE OF NEW MEXICO)
: SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 1st day of August, 1960.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2020 heard by me on 7/27, 1960.

[Signature], Examiner
New Mexico Oil Conservation Commission



State of New Mexico
Oil Conservation Commission



August 18, 1960

Re: Case No. 2020
Order No. R-1750
Applicant:
Amerada Petroleum Corporation

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

Other _____

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. 2020
Order No. R-1750

APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR A GAS-SALT WATER
DISPOSAL-OIL TRIPLE COMPLETION IN
THE LANGLEY MATTIX POOL, IN THE
SAN ANDRES FORMATION AND IN THE
JUSTIS-BLINEBRY 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
July 27, 1960, at Santa Fe, New Mexico, before Daniel S. Mutter,
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 18th day of August, 1960, the Commission,
a quorum being present, having considered the application, the
evidence adduced, and the recommendations of the Examiner,
Daniel S. Mutter, 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, Amerada Petroleum Corporation, is
the owner and operator of the Wimberly Well No. 13, located in
Unit M, Section 24, Township 25 South, Range 37 East, MNPM, Lea
County, New Mexico.

(3) That the applicant proposes to complete the said
Wimberly Well No. 13 in such a manner as to permit the production
of gas from the Langley Mattix Pool through perforations from
2900 feet to 3250 feet, the disposal of salt water into the San
Andres formation in the interval from 3575 feet to 4200 feet, and
the production of oil from the Blinebry Pool through the open
hole from 5300 feet to 5500 feet.

(4) That the applicant proposes to produce the Blinebry
oil through 1-1/2 inch tubing and Langley Mattix gas through
the annulus between that tubing and string of 3-1/2 inch casing.

utilizing a hookwall packer to separate the producing horizons, and to dispose of salt water through a parallel string of 3-1/2 inch plastic coated casing, both of said 3-1/2 inch casing strings to be cemented in a common well bore.

(5) That the parallel strings of 3-1/2 inch casing should be cemented from the base of the lowest string to a depth of approximately 2100 feet.

(6) That centralizers or turbolizers should be installed on each joint of casing throughout each producing or disposal interval and on each of the first three joints above and below each interval.

(7) That inasmuch as there is approximately 1100 feet of separation between the disposal zone and the lowermost producing zone, and approximately 325 feet of separation between the disposal zone and the uppermost producing zone, and inasmuch as the entire interval, including the disposal and producing zones, will be adequately protected by cement, the mechanics of the proposed completion appear to afford adequate protection to prevent waste and to protect correlative rights.

(8) That although multiple completions incorporating a salt water disposal zone are inherently hazardous and normally should not be authorized, nevertheless the mechanics of this particular completion are feasible and in accord with sound conservation practices.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Petroleum Corporation, be and the same is hereby authorized to complete its Wimberly Well No. 13, located in Unit M, Section 24, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of gas from the Langlie Mattix Pool, the disposal of salt water into the San Andres formation, and the production of oil from the Blinbry Pool, the production of oil being through 1-1/2 inch tubing, the production of gas being through the annulus between that tubing and string of 3-1/2 inch casing, utilizing a hookwall packer to separate the producing horizons, and the disposal of salt water through a parallel string of 3-1/2 inch plastic coated casing, cemented in a common well bore.

PROVIDED HOWEVER, That the parallel strings of 3-1/2 inch casing shall be cemented from the base of the lowest string to a depth of approximately 2100 feet.

PROVIDED FURTHER, That centralizers or turbolizers shall be installed on each joint of casing throughout each producing

-3-
CASE No. 2020
Order No. R-1750

or disposal interval and on each of the first three joints above and below each interval.

PROVIDED FURTHER, That the applicant shall complete, operate, and produce said well in accordance with the provisions of Section V, Rule 112-A.

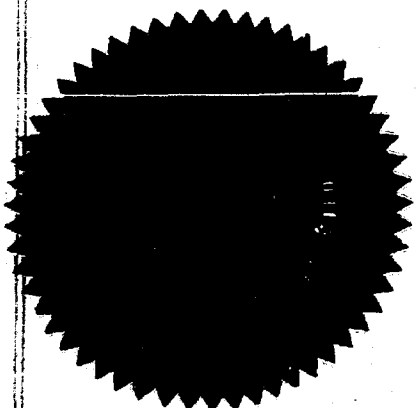
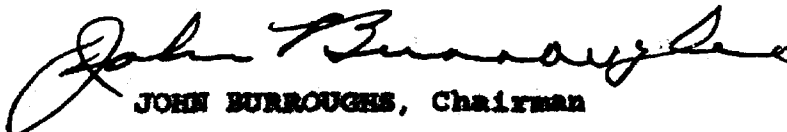
PROVIDED FURTHER, That the applicant shall, upon completion and annually thereafter during the Annual Gas-Oil Ratio Test Period for the Blinbry Pool, or as directed by the Secretary-Director of the Commission, take packer-leakage tests and such other tests as are necessary to ensure that there is no communication between any of the zones.

IT IS FURTHER ORDERED:

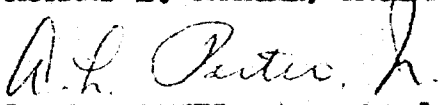
That jurisdiction of this cause is hereby retained by the Commission for such further order or orders as may seem necessary or convenient for the prevention of waste and/or the protection of correlative rights; upon failure of the applicant to comply with any requirement of this order, the Commission may terminate the authority herein granted and require the applicant or its successors and assigns to limit its activities to regular single-zone production in the interest of conservation.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



JOHN BURROUGHS, Chairman


MURRAY E. MORGAN, Member


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

enc/

JASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX
ATTORNEYS AT LAW

54 1/2 EAST SAN FRANCISCO STREET
POST OFFICE BOX 1713
SANTA FE, NEW MEXICO

AM 8:07

YUCCA 3-9396
YUCCA 2-2991

July 5, 1960

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Gentlemen:

Enclosed find application of Amerada Petroleum
Corporation for a triple completion of its
Wimberley Well No. 13, located in Section 24-
25S-37E, Lea County.

Very truly yours,

Jason W. Kellahin

Jason W. Kellahin

jwk:mas
enclosures 3

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Mailed
7-15-60
Q*

DOCKET: EXAMINER HEARING JULY 27, 1960

Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe, N.M.

The following cases will be heard before Daniel S. Nutter, Examiner, or Oliver E. Payne, Attorney, as alternate Examiner:

CASE NOS. 2023 through 2033 will not be heard before 1 p.m. on July 27, 1960.

CASE NOS. 2034 through 2040 will not be heard before 9 a.m. on July 28, 1960.

CASE 2017: Application of Continental Oil Company for an order authorizing an automatic custody transfer system to handle the Maljamar Pool production from its Miller "BX" lease comprising in pertinent part the E/2 of Section 14, Township 17 South, Range 32 East, Lea County, New Mexico.

CASE 2018: Application of Continental Oil Company for an order authorizing the triple completion of its Jicarilla Apache Well No. 27-2, located in the NW/4 NW/4 of Section 27, Township 25 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of oil from the Gallup formation, the production of oil from the Greenhorn formation and the production of oil from the Dakota formation through parallel strings of 4½ inch, 2 7/8 inch, and 4½ inch casing cemented in a common well bore. Applicant proposes to install tubing to the Gallup and the Dakota formations.

CASE 2019: Application of Continental Oil Company for an order authorizing the triple completion of its Northeast Haynes Apache Well No. 9-1, located in the NW/4 SW/4 of Section 9, Township 24 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Mesaverde formation, the production of gas from the Gallup formation and the production of gas from the Greenhorn formation through parallel strings of 2 7/8 inch, 4½-inch, and 4½-inch casing respectively, cemented in a common well bore. Applicant also proposes to install tubing in the latter two zones.

CASE 2020: Application of Amerada Petroleum Corporation for an order authorizing the triple completion of its Wimberly Well No. 13, located in Unit M, Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Langlie Mattix Pool, the disposal of salt water into the Grayburg and San Andres formations in the interval from 3500 feet to 4200 feet, and the production of oil from the Justis-Blinbry Pool by means of two parallel strings of 3½-inch casing cemented in a common well bore. Applicant would dispose of the salt water through one string of casing, produce the Blinbry oil through 1½-inch tubing set in the second string of casing, and produce Langlie Mattix gas through the annulus of the 1½-inch tubing and the second casing string.

CASE 2021: Application of Shell Oil Company for authority to recomplete its State BUA Well No. 2 (formerly its Bluit Unit Well No. 2) at an unorthodox oil well location in the Pennsylvanian formation within one mile of the Bluit Pennsylvanian Pool. Said well is located 1980 feet from the North line and 660 feet from the West line of Section 16, Township 8 South, Range 37 East, Roosevelt County, New Mexico.

CASE 2022: Application of Sinclair Oil & Gas Company for an order authorizing the dual completion of its Turner "B" SP Well No. 67, located in Unit L, Section 20, Township 17 South, Range 31 East, Eddy County, New Mexico, in such a manner as to permit the production of oil from the Grayburg-Jackson Pool and the production of oil from an undesignated Abo pool through parallel strings of 2-inch tubing.

The following cases will not be heard before 1 p.m. on July 27, 1960:

CASE 2023: Application of Honolulu Oil Corporation for an order authorizing it to institute a pressure maintenance project in the Horseshoe-Gallup Oil Pool by the injection of water into the Gallup formation through its Navajo Well No. 4, located in the SE/4 SE/4 of Section 5, Township 31 North, Range 17 West, San Juan County, New Mexico; applicant further seeks the adoption of special rules governing the operation of said project.

CASE 2024: Application of Humble Oil & Refining Company for an order authorizing it to institute a pressure maintenance project in the Horseshoe-Gallup Oil Pool by the injection of water into the Gallup formation through 29 wells located in Sections 3, 4, 9, 10, and 11, Township 31 North, Range 17 West, San Juan County, New Mexico; Applicant further seeks the adoption of special rules governing the operation of said project.

CASE 2025: Application of Socony Mobil Oil Company for permission to convert to water injection its Navajo "A" Well No. 9, located in NE/4 NW/4 of Section 14, Township 31 North, Range 17 West, Rio Arriba County, New Mexico, in conjunction with a proposed adjacent pressure maintenance project in the Horseshoe-Gallup Oil Pool.

CASE 2026: Application of The British American Oil Producing Company for an order authorizing the "slim-hole" completion of its Fullerton Well No. 7, located 1850 feet from the South and West lines of Section 11, Township 27 North, Range 11 West, Dakota Producing Interval, San Juan County, New Mexico, utilizing 2 7/8-inch tubing as casing.

- CASE 2027: Application of Hondo Oil & Gas Company for an amendment of Order No. R-1643 to provide an alternative to the fail-safe features required in the automatic custody transfer system authorized therein for the Hondo-Western-Yates State 647 lease, Empire-Abo Pool, Eddy County, New Mexico.
- CASE 2028: Application of Pan American Petroleum Corporation for an order authorizing it to commingle the production from the Empire-Abo Pool from all wells on eight separate leases in Sections 27 and 34, Township 17 South, Range 28 East, Eddy County, New Mexico. Applicant also seeks authorization of an automatic sustody transfer system to handle said commingled production.
- CASE 2029: Application of Pan American Petroleum Corporation for an amendment of Order R-1399 to permit the commingling of Empire-Abo Pool production from Federal Lease No. LC-064050-A, E/2 SE/4 of Section 34 and NW/4 SW/4 of Section 35, Township 17 South, Range 27 East, with the Empire-Abo Pool production from those leases for which commingling was approved by paragraph one of said order and to permit the commingling of Empire-Abo Pool production from Federal Lease No. NM-025602, NW/4 and N/2 SW/4 of Section 15, Township 18 South, Range 27 East with the Empire-Abo Pool production from those leases for which commingling was approved by paragraph two of said order. Applicant also seeks an amendment of Order No. R-1399-A to permit production from the above-described leases in Eddy County, to be handled by the automatic custody transfer systems authorized in said order.
- CASE 2030: Application of Pan American Petroleum Corporation for permission to commingle the Empire-Abo Pool production from eleven separate State leases in Townships 17 and 18 South, Range 28 East, Eddy County, New Mexico. Applicant further seeks permission to install automatic custody transfer facilities to handle said commingled production.
- CASE 2031: Application of Union Oil Company of California for approval of its South Caprock Queen Unit Agreement, which unit is to embrace 9526 acres in Townships 14 and 15 South, Ranges 30 and 31 East, Caprock Queen Pool, Chaves County, New Mexico.
- CASE 2032: Application of Union Oil Company of California for an order authorizing it to institute a waterflood project in the Caprock-Queen Pool on its proposed South Caprock Queen Unit by the injection of water into the Queen formation through ten wells located in Township 15 South, Range 31 East, Chaves County, New Mexico, and for authority to drill a water injection well at an unorthodox location, being 330 feet West of the East line and 1320 feet South of the North line of Section 18, Township 15 South, Range 31 East.

CASE 2033: Application of Cabeen Exploration Corporation for permission to complete its State 1-K Well located 1980 feet from the South and West lines of Section 11, Township 10 South, Range 32 East, in an undesignated Permo-Pennsylvanian pool in Lea County, New Mexico as a "slim-hole" completion, using 2-7/8 inch casing.

The following cases will not be heard before 9 a.m. on July 28, 1960

CASE 2034: Application of Gulf Oil Corporation for an order authorizing the dual completion of its J. N. Carson Well No. 6, located 330 feet from the South line and 965 feet from the East 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 Penrose-Skelly Pool and the production of gas from the Blinebry Gas Pool through parallel strings of 2 3/8-inch tubing.

CASE 2035: Application of Gulf Oil Corporation for an order authorizing the dual completion of its W. T. McCormack Well No. 12, located 554 feet from the North line and 1874 feet from the East line of Section 32, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Drinkard Pool and the production of oil from the Wantz-Abo Pool through parallel strings of 2 3/8-inch tubing.

CASE 2036: Application of Charles Loveless, Jr., for the establishment of a 280-acre non-standard gas unit in the Atoka-Pennsylvanian Gas Pool consisting of the NE/4, N/2 NW/4 and SW/4 NW/4 of Section 21, Township 18 South, Range 26 East, Eddy County, New Mexico. Applicant proposes that said unit be dedicated to the Brunner No. 1 Dayton Townsite Well to be located on an unorthodox location at a point 1650 feet from the North line and 2310 feet from the East line of said Section 21.

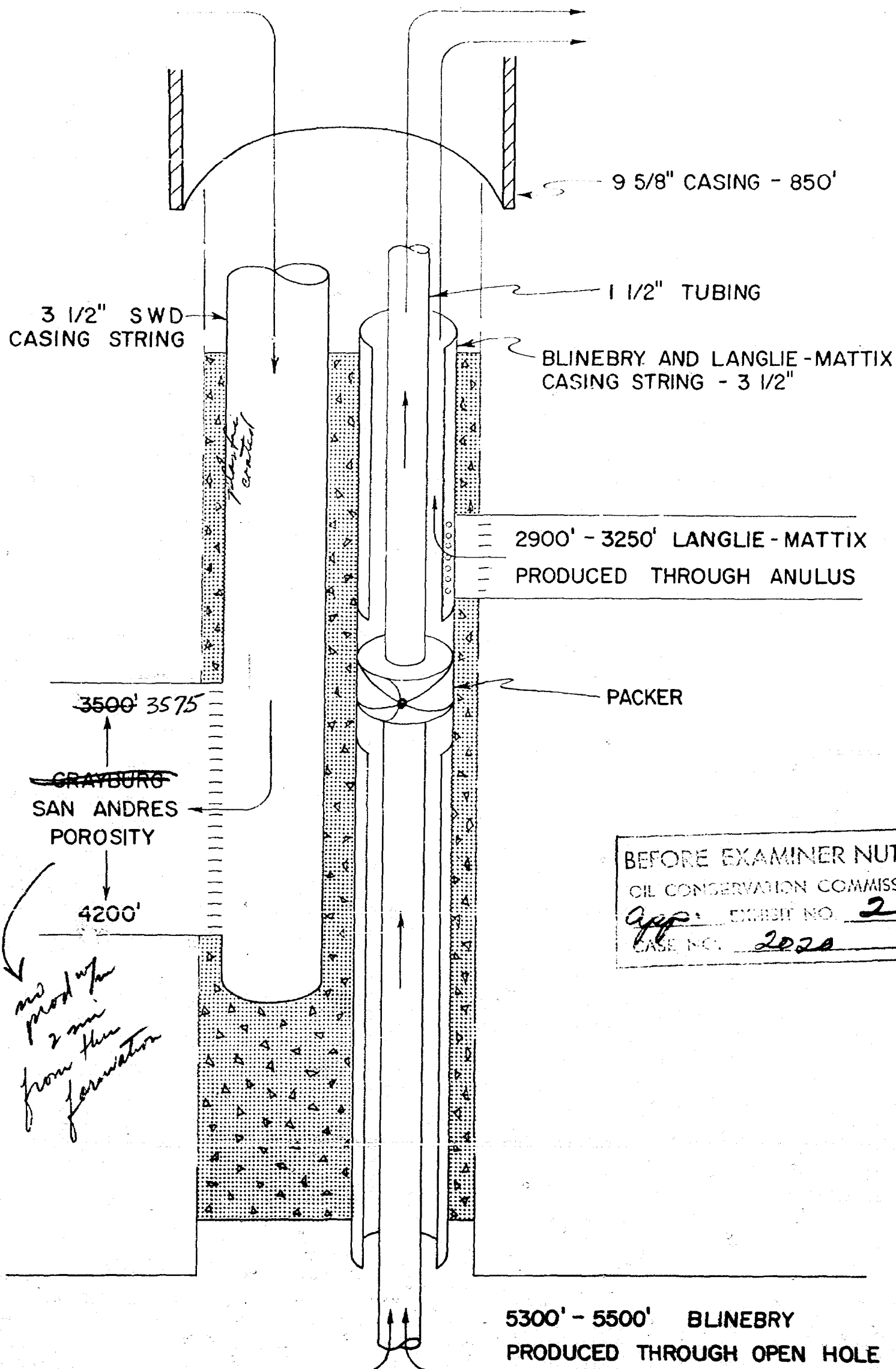
CASE 2037: Application of Sun Oil Company for the creation of a new oil pool for Wolfcamp production to be designated as the Jenkins-Wolfcamp pool and to consist of Sections 2, 3, 4, 8, 9, 10 and 11 of Township 9 South, Range 34 East, Lea County, and Sections 34 and 35, Township 8 South, Range 34 East, Roosevelt County, New Mexico. Applicant further seeks the promulgation of special rules and regulations for said pool including a provision for 80-acre drilling and proration units.

CASE 2038: Application of Benson-Montin-Greer Drilling Corporation for an order authorizing the dual completion of the Jones Well No. 1, located in Unit P, Section 17, Township 28 North, Range 13 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from an undesignated Gallup Pool and the production of gas from the West Kutz-Dakota Pool through parallel strings of 1 1/2-inch OD tubing.

CASE 2039: Application of Southwest Production Company for approval of an unorthodox oil well location in the Gallegos-Gallup Oil Pool for its Rummel Federal Well No. 1, located 790 feet from the North line and 1190 feet from the West line of Section 36, Township 27 North, Range 12 West, San Juan County, New Mexico.

CASE 2040: Application of Neville G. Penrose, Inc., for an order authorizing the dual completion of its Grizzel Well No. 1, located in Unit G, Section 5, Township 22 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Tubb Gas Pool and the production of oil from the Drinkard Pool through the casing-tubing annulus and 2 3/8-inch tubing respectively.

COMBINATION TWIN WELL
AND DUAL COMPLETION
AMERADA - WIMBERLY NO. 13
JUSTIS AREA - LEA CO., NEW MEXICO



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
App: EXHIBIT NO. 2
CASE NO. 2020

100-10000-1000

2000 10 01

BEFORE THE

NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF THE APPLICATION OF
AMERADA PETROLEUM CORPORATION FOR AN
ORDER PERMITTING THE TRIPLE COMPLETION
OF ITS WIMBERLEY WELL NO. 13, LOCATED
IN SECTION 24-258-37E, LEA COUNTY, FOR
THE PURPOSE OF PRODUCING GAS FROM THE
LANGLIE-MATTIX AND OIL FROM THE BLINERRY,
AND DISPOSING OF SALT WATER INTO THE
GRAYBURG-SAN ANDRES.

Case No.

2020

APPLICATION

APPLICANT AMERADA PETROLEUM CORPORATION STATES THAT:

1. Applicant owns and operates the Wimberley Well No. 13, located 660 feet from the south line and 330 feet from the west line of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico.
2. Applicant proposes to triple complete the well in order to:
 - a) Produce gas from the Langlie-Mattix pool, as described in the form application for dual completion attached hereto and made a part hereof;
 - b) Produce oil from the Blinerry pool, as described in the form application for dual completion attached hereto and made a part hereof; and
 - c) Dispose of salt water in the Grayburg-San Andres zone, as described in the form application for salt water disposal attached hereto and made a part hereof.
3. The proposed casing and completion program is shown on Exhibit A attached hereto and made a part hereof.
4. The location of the subject well, the locations of all offset wells and other wells within a two-mile radius of the subject well, the formations from which each is producing or has produced, and the names of all lessees within a two-mile radius of the subject well are shown on Exhibit B attached hereto and made a part hereof.
5. The proposed triple completion will not endanger or allow communication between separate oil, gas and fresh water sources.

APPLICANT AMERADA PETROLEUM CORPORATION REQUESTS THAT this matter be set for hearing before an examiner, that notice of hearing be given as required by law, and that upon conclusion of the hearing the Commission enter its order authorizing the proposal set forth above.

KELLAHIN & FOX

By Jason W. Kellahin
Jason W. Kellahin
Attorney

AMERADA PETROLEUM CORPORATION

By Thomas W. Lynch
Thomas W. Lynch
Attorney

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Justis and Langlie-Mattix		County Lea	Date June 29, 1960
Operator Amerada Petroleum Corporation		Lease Ida Wimberley	Well No. 13
Location of Well "M"	Section 24	Township 25 South	Range 37 East

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☐ NO ☒
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Langlie-Mattix	Blinbry
b. Top and Bottom of Pay Section (Perforations)	2900-3200' (est.)	5300-5500' (est.)
c. Type of production (Oil or Gas)	Gas	Oil
d. Method of Production (Flowing or Artificial Lift)	Flow	Flow

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- Yes c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- No d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Western Natural Gas Company	Box 1387	Anaconda, Montana
Olsen Oils, Inc.	Drawer 2	Jal, New Mexico
El Paso Natural Gas Company	Box 1384	Jal, New Mexico
Atlantic Refining Company	Box 1610	Midland, Texas
Tidewater Oil Company	Box 547	Hobbs, New Mexico
Anderson-Prichard Oil Corp.	Liberty Bank Building	Oklahoma City, Oklahoma
Jal Oil Company	Box 1744	Midland, Texas
Hamilton Dome Oil Company		Hamilton Dome, Wyoming

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification **June 29, 1960**

CERTIFICATE: I, the undersigned, state that I am an a petroleum engineer of the Amerada Petroleum Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Hubert D. Miller
Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard production unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

APPLICATION
TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION
NOT PRODUCTIVE OF OIL OR GAS

Pool Name Justis and Langlie-Mattix County Lea
Operator Amerada Petroleum Corporation
Address Box 2040 Tulsa 2, Oklahoma
Lease Name Ida Wimberley Well No. 13
Depth to top of injection zone 3500'
Depth to base of injection zone 4200'
Size of surface casing 9-5/8"
Length of surface casing 850'
Number of sacks of cement used on surface casing Well not drilled
Size of long string 3-1/2"
Length of long string 4230'
Number of sacks of cement used on long string Well not drilled
Size of tubing None Length of tubing None
Depth of tubing packer setting None
Name and model of packer None
Is injection through tubing or long string or annulus? Long String
Is injection through perforations or open hole? Perforations
Was the well drilled for salt water disposal purposes? No
List perforated intervals and number of sacks of cement used on any squeeze cementing operations _____
What is depth of the shallowest zone productive of oil or gas in this pool? 2700'
What is depth of the deepest zone containing fresh water in this pool? 750'
Are there any other salt water disposal wells in this pool using this same zone for injection purposes? No If so, list operator, lease and well number _____
What is the approximate volume of salt water to be injected daily? 1,000 barrels
Will system be open or closed type? Closed
Will injection be by gravity or pump pressure? Gravity
If by pump pressure, give approximate number of pounds per square inch _____
Will it be necessary for water to be filtered or chemically treated? No

Is this well so cased and completed that water can enter no other formation than the above set out injection zone? Yes

1. Attach a complete full-scale electrical log of this well. (One copy to OCC).
Well not drilled.

2. List names and addresses of all offset operators and surface owners.

Western Natural Gas Company	Box 1387	Anaconda, Montana
Olsen Oils, Inc.	Drawer 2	Jal, New Mexico
El Paso Natural Gas Company	Box 1384	Jal, New Mexico
Atlantic Refining Company	Box 1610	Midland, Texas
Tidewater Oil Company	Box 547	Hobbs, New Mexico
Anderson-Prichard Oil Corp.	Liberty Bank Bldg.	Oklahoma City, Oklahoma
Jal Oil Company	Box 1744	Midland, Texas
Hamilton Dome Oil Company		Hamilton Dome, Wyoming
Ida May Wimberley	Box 1071	Jal, New Mexico
Glenn Wayne Wimberley	35 Minquill Drive	Newark, Delaware
Lewis Woodrow Wimberley	Box 74	Quartz Hill, California
Lewie Elane Wimberley Tisdail	719 Arbor Drive	Vandenberg AFB, California
Gurvis Earl Wimberley	Box 1071	Jal, New Mexico
Jewell Ella Ward	Box 365	Jal, New Mexico
Mary Elsie Jones Turner	Box 211	Jal, New Mexico

3. Have notices of this application been sent by registered mail or given to all offset operators and to the New Mexico State Engineer? Yes

4. Attach waivers from all offset operators and New Mexico State Engineer.

5. Attach waivers from surface owners of land on which well is located or a letter from company making application to the surface owner explaining said application and requesting waiver. Surface owners have been sent copy of application.

6. No application will be processed until Item 1 has been attached to the application. Should all necessary waivers not accompany application, the Commission shall hold such application for a period of fifteen (15) days from date of receipt in the Santa Fe office. If, after said fifteen (15) day period, no protest or request for hearing is received in the Santa Fe office, the application will then be processed.

Amerada Petroleum Corporation

By Herbert D. Miller

STATE OF OKLAHOMA

COUNTY OF TULSA

BEFORE ME, The undersigned authority, on this day personally appeared Herbert D. Miller, known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein and that said report is true and correct.

Herbert D. Miller

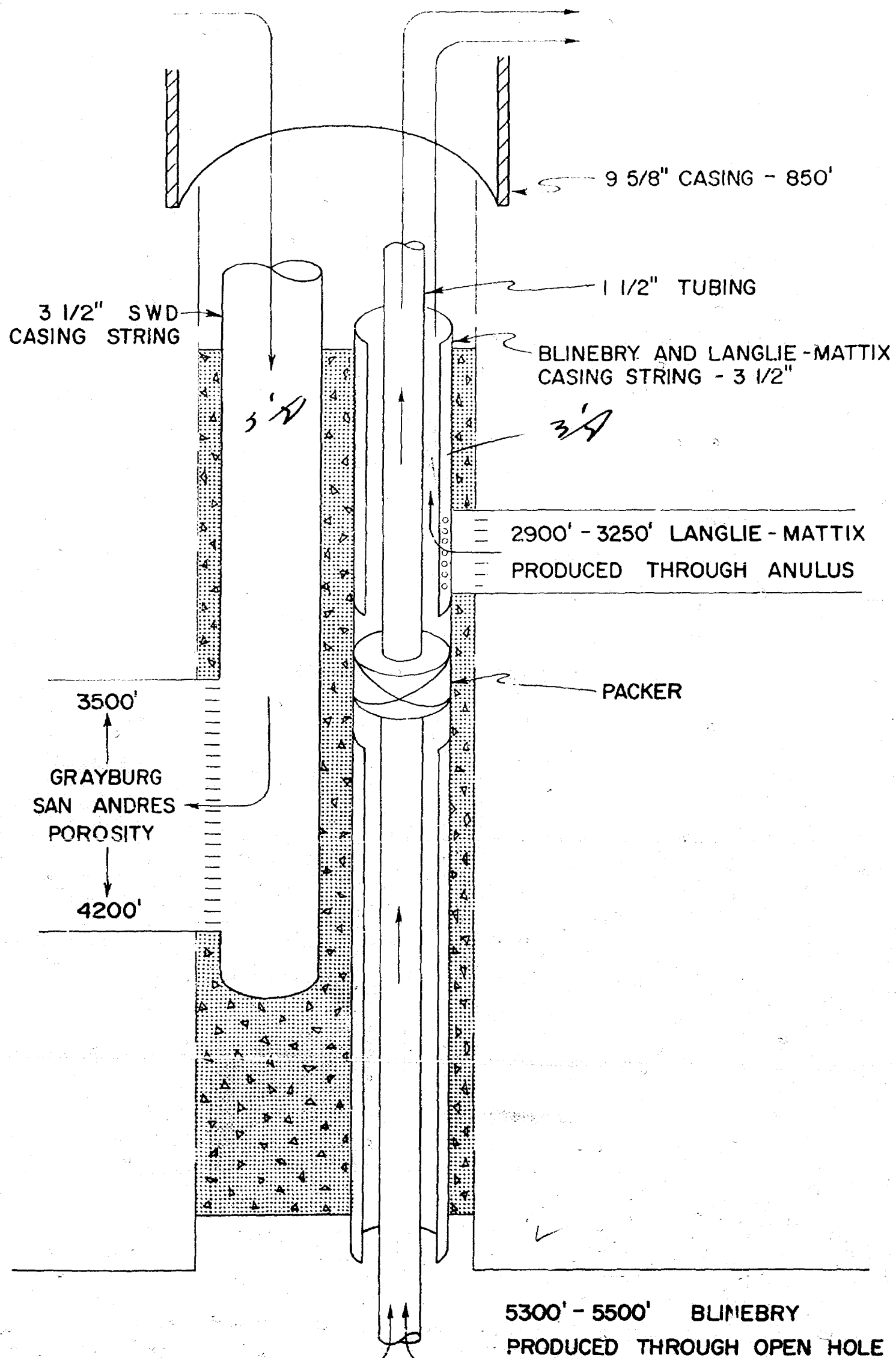
SUBSCRIBED AND SWORN to before me, this the 29th day of June, 1960.

Margaret Jayar Lee
Notary Public in and for

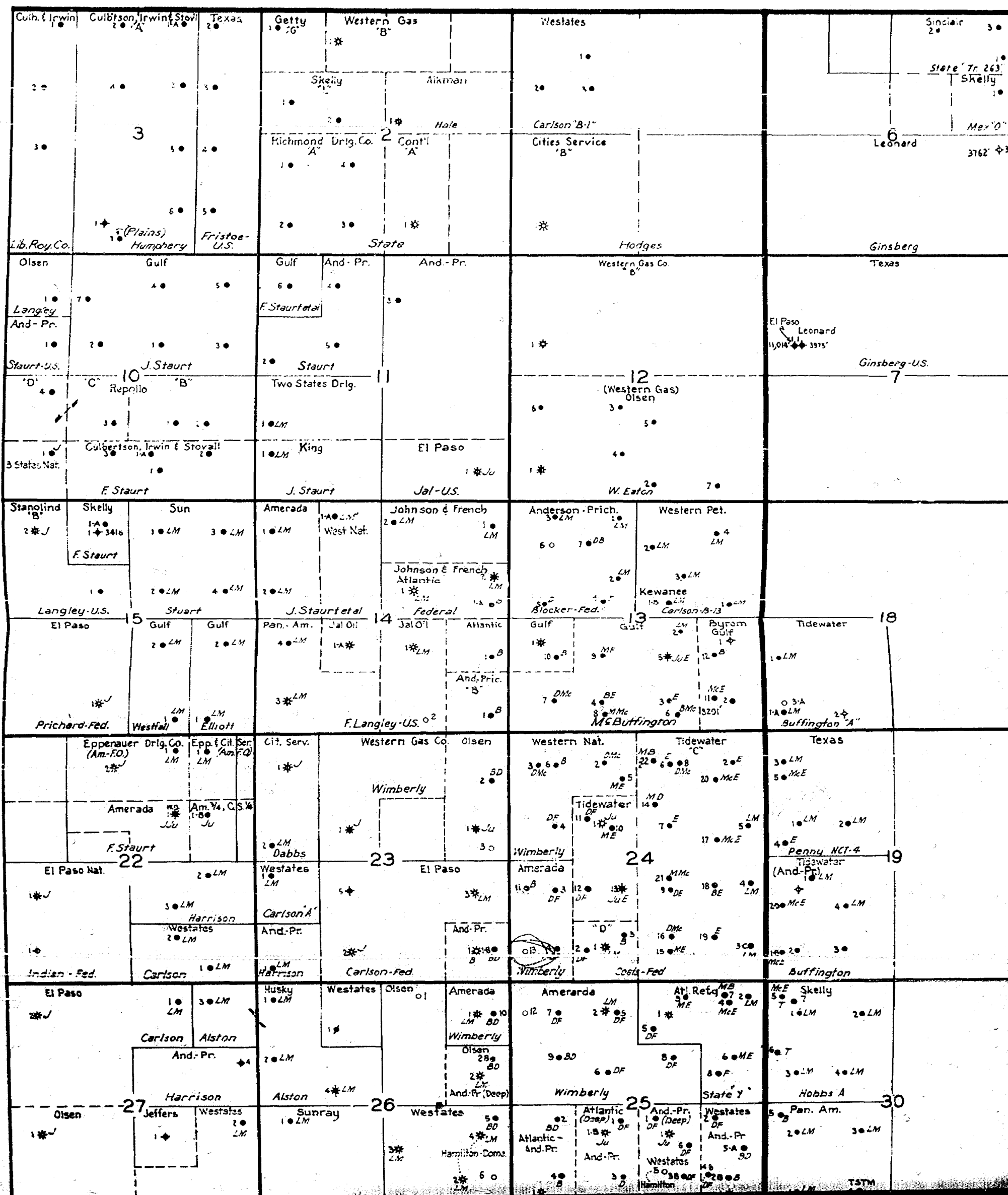
My Commission Expires November 30, 1963

Tulsa County, Oklahoma

COMBINATION TWIN WELL
AND DUAL COMPLETION
AMERADA - WIMBERLY NO. 13
JUSTIS AREA - LEA CO., NEW MEXICO



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