

Case No.

1592

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BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1592

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

February 4, 1959

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

Application of Amerada Petroleum Corporation
for an order extending the horizontal limits
of the Bagley-Upper Pennsylvanian Gas Pool
and for a non-standard gas proration unit.
Applicant, in the above-styled cause, seeks
an order extending the horizontal limits of
the Bagley-Upper Pennsylvanian Gas Pool to
include the E/2 of Section 33, and the NW/4
of Section 34, all in Township 11 South,
Range 33 East, Lea County, New Mexico. Ap-
plicant further seeks the establishment of
a 320-acre non-standard gas proration unit
in said pool consisting of the NE/4 of said
Section 33, and the NW/4 of said Section 34,
to be dedicated to the applicant's State
BT "M" No. 2 Well located in the SE/4 NE/4
of said Section 33.

CASE NO.

1592

BEFORE:

Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: The next case will be Case 1592.

MR. PAYNE: Case 1592. Application of Amerada
Petroleum Corporation for an order extending the horizontal
limits of the Bagley-Upper Pennsylvanian Gas Pool and for a
non-standard gas proration unit.

MR. KELLAHIN: Jason Kellahin, of Kellahin and
Fox, Santa Fe, New Mexico, representing the applicant. We
have two witnesses, Mr. Phelps and Mr. Miller.

(Witnesses sworn.)

MR. UTZ: Are there any other appearances to be made in this case? if not, you may proceed.

MR. KELLAHIN: Call Mr. Phelps as our first witness.

O R V A L E. P H E L P S, a witness called by and on behalf of the Applicant, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY: MR. KELLAHIN:

Q Will you state your name, please?

A Orval E. Phelps.

Q By whom are you employed, Mr. Phelps.

A Amerada Petroleum Corporation.

Q What is your position?

A Geologist.

Q What district do you operate in?

A I operate in southeastern New Mexico.

Q Are you familiar with the application which has been filed in Case 1592?

A Yes, I am.

Q Is the area involved in that application under your jurisdiction as geologist?

A Yes, sir, it is.

Q Have you previously testified before this Commission as an expert geologist and had your qualifications accepted?

A Yes, sir, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir, they are, if he has previously qualified.

Q (By Mr. Kellahin) Mr. Phelps, briefly state what is posed in the application before the Commission.

A Unitize some acreage for gas production in the Bagley-Upper Pennsylvanian Gas Pool and to extend the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool.

Q Now, referring to what has been marked as Exhibit A, would you state what that shows?

A Exhibit A is a plat of the Bagley field. We have shown with a dotted band the present horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool. Outlined with red lines are individual gas units, and the wells circled in red are individual unit gas wells.

Now, the proposed unit is indicated by hashed lines consisting of the NE/4 of Section 33, and the NW/4 of Section 34, Township 11 South, Range 33 East.

Q Now, how are the wells completed in the Bagley-Upper Pennsylvanian Pool shown in that exhibit?

A The Upper-Bagley wells are shown as gas wells.

Q Are they circled in red on the exhibit?

A Oh, yes, they are, the individual gas wells are circled in red.

Q And the well circled in green, what is that well?

A That well is the well proposed to serve the unit that we are wanting to unitize.

Q How is that well completed?

A It is completed as an oil well from the ninety-eight hundred foot zone and as a gas well from the Bagley-Upper Pennsylvanian Gas Zone. It is presently shut in.

Q Now, referring to the exhibit with reference to the unit proposed to be dedicated to the subject well, what is the ownership in that unit?

A Well, the acreage is all state acreage with Amerada having working interest in the NW/4 of Section 34, Township 11 South, Range 33 East, with the exception of the 40-acres in the NE/4 of the NW/4, which is held by Gulf.

Q How about the land in Section 33, if you recall, within the unit?

A That is Amerada acreage.

Q Referring to what has been marked as Exhibit B, will you state what that is, please?

A Exhibit B is a plat of the Bagley Field showing the line of west-east cross section to be used later as Exhibit D, and a line north-south cross section to be used later as Exhibit E.

Q Does that show the wells involved in Exhibit D and E to which you referred?

A Yes, sir.

Q Now, referring to what has been marked as Exhibit C, will you state what that is?

A Exhibit C is a structure map of the Bagley field showing the structural position of the proposed acreage.

Q On what formation is that contoured?

A The structure map is contoured on the top of the Pennsylvanian, which is also the top of the Bagley-Upper Pennsylvanian Gas Zone.

Q Now, in a previous case setting the vertical limits of the Bagley-Upper Pennsylvanian Pool, it was shown that the vertical limits of the Bagley-Upper Pennsylvanian lay between forty-two hundred fifty feet to forty-five hundred and ten feet. Do you have any reason to change that?

A No, I do not.

Q Is all of the proposed extension of the pool, with reference to Exhibit C shown to be underlain by the Bagley Pennsylvanian formation?

A Yes, it will fall, all of it will fall within the limits of the upper Pennsylvanian Gas Pool.

Q That is, between forty-two hundred fifty feet and forty-five hundred and ten feet as required by Order R-911?

A That's right.

Q Now, this matter refers to the Mathers B No. 1.

A The Mathers B No. 1 is a well producing oil from the same zone as the Upper Pennsylvanian Gas Pool, but in an earlier hearing

here we established that to be on a separate structure.

Q Is it still your opinion that that is on a separate structure?

A Yes, it is.

MR. UTZ: Where is that well located, sir?

A That well is located in the SE of the NW/4 of Section 33, 11 South, 33 East.

Q (By Mr. Kellahin) Now, is this plat and the owners shown on it designed to show the limits of the Bagley-Upper Pennsylvanian Pool?

A No, it does not show the limits of the pool.

Q What are the limits of the pool there, Mr. Phelps?

A This is strictly a porosity development plat and shows the limits of the Upper Pennsylvanian Gas Pool.

Q Now, referring to what has been marked as Exhibit D, will you state what that shows. What does Exhibit D indicate, Mr. Phelps?

A Exhibit D is a west-east electric log cross section. It is across the proposed acreage here showing Amerada's Well No. 2 State BT "M", Amerada's State No. 1 BT "P" Well, and the Amerada No. 1 State BT "M" Well. This is a cross section showing the Bagley Upper Pennsylvanian Gas Pool to be a continuous zone across the field, with the porosity in each zone indicated in black opposite the porous zone.

Q Do you find porosity development throughout the area

as shown by that cross section?

A Yes, I do. It is present through the three wells shown.

Q Based upon your previous testimony that the Bagley-Upper Pennsylvanian Gas Zone is a porosity development, in your opinion, does the area shown on the exhibit fall within the Bagley-Upper Pennsylvanian Gas Pool?

A Yes it does. It is present all the way across.

Q What is the status of the well shown on the Exhibit?

A The BT "M" No. 2 will be the unit gas well for the proposed acreage. The BT "P" is now a drilling well in the Bagley field, and the BT "M" 1 is a well projected to the Devonian formation, which at the present time is producing oil from the Devonian.

Q Now, the BT "P" Well No. 1 falls within the NW/4 of Section 34, is that correct?

A That is correct.

Q Did you have any test of the Bagley-Upper Pennsylvanian Pool in that well?

A Yes, we tested the Bagley-Upper Pennsylvanian Gas Zone as we were going down on a drill stem test, covered from 8622 to 8676.

Q Now, what were the results of that test, did it show whether or not the area was productive in the Upper Pennsylvanian Gas Zone?

A Yes, on that test the pool was opened for four hours.

We had gas to the surface in three minutes with a volume of 426 feet per day recorded, 280 feet of slightly gas cut mud, plus 750 feet of distillate cut mud. At TD we encountered 88 feet of 75 per cent mud, gas and distillate cut mud plus two hundred feet of distillate.

Q Now, does that test indicate to you that the Bagley-Upper Pennsylvanian Pool is productive in the area proposed to be dedicated to the subject well?

A Yes, it is. It indicates that you have porosity there with gas present.

Q Now, why haven't you tested your BT "M" Well No. 1 in the Upper zone?

A The latest test we had on that was taken 11/6/58. At that time the well pumped eighty barrels of oil and 990 barrels of water, and we don't feel that it would be advisable to use that as a gas well, lifting that much water from the Devonian.

Q Now, referring to what has been marked as Exhibit E, would you state what that shows?

A Exhibit E is a north-south electric log cross section. It also indicates the Bagley-Upper Pennsylvanian Gas Zone to be present in a line running north and south with porosity development in each well through the zone.

Q Does that indicate that the area is productive of gas from the Upper Pennsylvanian Gas Zone?

A Yes, sir, in my opinion it does. You have the zone well developed with porosity developed in each zone.

Q Now, with reference to Shell State A No. 1, does that show that porosity in that well?

A Yes, it does.

Q In a previous case it was shown that the area was not productive. Do you have any opinion as to why a standard unit consisting of the E/2 of Section 33 should not be formed?

A No, I don't.

Q In your opinion, is all the acreage proposed to be included in the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool under this application productive of gas.

A Yes, it is. In my opinion, it is.

Q Now, with reference to the SE/4 of Section 33, Mr. Phelps, what is your thought on that?

A SE/4 of 33. At the present time it is not in the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool, but I feel that that would be, should be included in the horizontal limits of the pool.

Q Well, should that acreage be dedicated to the dual completion of the BT "M" Well No. 2?

A Well, not at the present time. The Shell well was tested through that zone at the time that they drilled it, and from the results of the test there is a possibility that that could not produce gas. They had a drill stem test from 8590 to

8766. The tool was opened two hours, recovered 910 feet of mud plus 5,190 feet of salt water. At the time that was tested, that was included, the part of the Upper Pennsylvanian Gas Zone, and extend well beyond the zone.

Q Is that the reason you propose to dedicate instead the NW/4 of Section 34 to the State BT "M" Well No. 2?

A Yes, it is.

Q Now, is all of the unit proposed to be dedicated to the BT "M" Well No. 2, in your opinion, productive of gas from the Upper Pennsylvanian Gas Zone?

A Yes, it is.

Q On what do you base that conclusion?

A From the Cross section we have here. It shows that the zone is a continuous zone over the acreage with porosity developed in the zone.

Q Did you taken into consideration the drill stem test in regard to your conclusion?

A Yes, I did.

Q Has a test been made on the State BT "M" Well No. 2?

A No, we did not test the zone, Upper Pennsylvanian Gas Zone when we drilled.

Q I said the BT "M" No. 2?

A Oh, the BT "M" 2. Yes, we have a drill stem test on the BT "M" 2 which covered from 8610 to 8682. The tool was opened

four hours, gas in five minutes, volume of 8,770 feet of gas per day.

Q Were Exhibits A through E inclusive prepared by you or under your direction and supervision?

A Yes, they were.

MR. KELLAHIN: At this time we would like to offer Exhibit A, B, C, D, and E in evidence.

MR. UTZ: Without objection Exhibits A through E will be accepted in evidence.

MR. KELLAHIN: Those are all the questions I have.

MR. UTZ: Are there questions of the witness?

MR. PAYNE: Yes.

MR. UTZ: Mr. Payne.

CROSS EXAMINATION

BY: MR. PAYNE:

Q I am not quite sure why you believe that the NW/4 of Section 34 is productive of gas from the Bagley-Upper Pennsylvanian and that the SE/4 of Section 33 might not be?

A Well, the BT "P" at the present time is a drilling well in the Bagley field, and we drilled that well to approximate depth of ten thousand feet and in going down we tested the Bagley-Upper Pennsylvanian Gas Zone. You will notice on the cross section beneath the well is the test that we had on that. We covered that zone with two separate tests, and we did recover gas with some distillate on the first drill stem test. Now, from

that, with the treatment, I feel that that would break open and produced much more gas than what was indicated on the drill stem test. Now, for the SE/4 of Section 33, the Shell Oil Company drilled that well and they tested the zone, upper gas zone, Upper Pennsylvanian Gas Zone, and they had an interval there from 8590 to 8765 which included part of the Bagley-Upper Pennsylvanian Gas Zone and extended well below that zone. They recovered 910 feet of mud plus 5,190 feet of salt water on that test. There is a possibility that that may not make gas from that zone, but they covered quite an interval when they tested that.

MR. PAYNE: Thank you.

EXAMINATION BY MR. UTZ:

Q Mr. Phelps, do I understand that you are asking for the E/2 of 33 to be put into the Upper-Bagley Pennsylvanian Pool?

A E/2 of 33 to be included in the horizontal limits of the pool, yes, sir.

Q You don't think the Shell well is productive, why do you want to put it in the pool?

A I think there is a possibility that it could be if the zone were perforated, selectively perforated. I think there is a possibility that it could be productive.

Q Don't you think it would be better to keep it out of the pool until we know whether it is productive or not, otherwise we might have dry acreage in the pool?

A Yes, sir, that's correct, sir.

MR. KELLAHIN: If the Commission please, we are not particularly concerned whether the SE/4 of Section 33 is or is not included in the pool. It was included in the application with the idea that it is possibly productive, and with the further idea that it would square off the pool boundaries as it is normally done. If it were omitted from the pool boundaries, we have no objection.

MR. UTZ: The Commission usually attempts to, tries to avoid including dry acreage in pool boundaries. Are there any other questions of the witness?

Q (By Mr. Utz) Mr. Phelps, are there any wells drilled to the north of the requested unit?

A No, sir, there are not.

Q You have no control then, actually, on your contours?

A No. The three wells that are covered in the cross section are in the northern limits of the control you have there.

Q In regard to your Mathers B No. 1, did you log that well and did you have control of the contour in that well?

A Yes, I did. As I explained in an earlier hearing here, we have some points that are not shown on this map, that would be the Amerada No. 1 Kelsey, which is northwest of the Mathers B No. 1. That well is flat on top of the Pennsylvanian with the Mathers B No. 1, and also we have the Welch No. 1 State A Well, which is due west of the Mathers B 1, which is approximately 25 feet low on the top of the Pennsylvanian, which does give you

control there to put that on separate structure.

Q Do you think that there is a possibility that the NE/4 of 33 might be on that structure?

A No, sir, I do not. We tested the Mathers B 1 as we were going down, tested the Upper-Pennsylvanian Gas Zone and got oil from that zone, and on the Amerada State No. 2 BT "M", we tested approximately the same interval in the Bagley-Upper Pennsylvanian Gas Zone and got gas from the same zone. You will notice on the map here the top of the Pennsylvanian is just approximately flat there. I have a minus datum of minus 4349 on the Mathers B No. 1. On the BT "M" No. 2 I have a minus datum of minus 4343, so that is just practically flat across there.

Q Getting back to this Shell State A No. 1, was the zone that you show porosity in, permeability, rather, tested in that well?

A The packer is set at 8590, which would be very near the top of the Bagley-Upper Pennsylvanian Gas Zone as shown on this cross section. Now, the bottom of that test was at 8766, which would be well below that zone.

Q So that in effect that zone, the entire zone was tested on that DST, wasn't it? The zone which you show?

A There is approximately six feet there on the top that was not tested.

Q Then it would be your opinion that any production from that well would be from the upper six feet of that zone, or

do you think that it was just a bad drill stem test?

A Well, not necessarily from the upper six feet, but I think that if you would take a drill stem test of the Bagley-Upper Pennsylvanian Gas Zone, separate unit, you would get a different test on it. There is a possibility that you could get water below that Bagley-Upper Pennsylvanian Gas Zone down to the bottom of the test, which was 8766.

MR. UTZ: Any other questions of the witness? If there are none, the witness may be excused.

(Witness excused.)

MR. KELLAHIN: I would like to call Mr. Miller, if I may, please.

HERBERT MILLER, a witness called by an on behalf of the Applicant, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY: MR. Kellahin:

Q Will you state your name, please.

A Herbert Miller.

Q By whom are you employed and in what position, Mr. Miller?

A Amerada Petroleum. I am a proration spacing engineer.

Q And what area do you operate or do you work?

A I work out at Tulsa and this is in my area here too.

Q Mr. Miller, have you ever testified before this Commission

before?

A No, sir, I haven't.

Q Would you state briefly your educational qualifications and professional engineering --

A I graduated from Oklahoma University in 1941, went to the army, and then the last eleven years I have worked for Amerada in various engineering jobs.

Q How long have you been a probation engineer for Amerada.

A Last year.

Q What were you doing prior to that?

A I was district engineer for the East Texas District.

Q Were you actively engaged in the profession of engineering on behalf of Amerada during the eleven years that you say you worked for them?

A Yes.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Mr. Miller, referring to what has been marked as Exhibit F, will you state what that shows?

A Exhibit F is an electric log of the BT "M" Well No. 2, the well that we plan to dedicate the 320 acres to. It merely shows the upper limits of the Bagley-Upper Pennsylvanian Gas Pool at minus 4250, and the perforations of the Bagley-Upper Pennsylvanian Gas Zone there are 8626 to 8638, 8644 to 8656, 8662 to 8678, and also the lower limit of the Bagley Pennsylvanian Gas Zone at 4510.

Now, this upper zone produces through the casing and then the well is dualled into the 9,800 foot zone, and the lower zone is perforated 9886 to 9898, and seven inch casing is set at 9919. There is a Baker Model D Packer set at 9800, and of course, the tubing is strung into that Baker Model D Packer. The lower zone produces through the tubing.

Q Now, was the dual completion of this well approved by the Commission?

A Yes, this dual completion was approved by Case No. 1517, Order R-1263, effective 10/25/58. We are producing the oil zone, the 9800 foot oil zone, but we've had the 8600 foot gas zone shut in pending the approval of a unit, 320-acre unit.

Q Now, the log, does it show the upper and lower limits of the Bagley-Upper Pennsylvanian?

A Yes, it does.

Q Now, Mr. Miller, you've heard the testimony of Mr. Phelps in regard to the Amerada State BT "P" Well No. 1. Tell us what the status of that well is?

A Well, that well has a little bit of history that is out of the ordinary. The well was spudded in 11/13/58. Amerada set 13 3/8 surface casing at 330 feet, and then they set the 9 5/8, with 1450 sacks, and it was set at 3729. Then the well was drilled through the 8600 foot section and it was drill stem tested, as was brought out by Mr. Phelps. The drill stem test produced some 6000 cubic feet of gas per day. The well was drilled on to the 9800

foot zone. It was drill stem tested also, and finally drilled to 9920 feet, and the company set a 5 1/2 inch liner at 9919, with the top of a Brown type C casing hanger and type C-R Packer set at 3668. In other words, there was the intermediate string set down part way, and then this liner was set the remainder, on down to 9919. This liner was cemented with seven hundred sacks of cement and everything went fine until we went to complete the well, and during the completion of the well, the liner apparently collapsed and when we went back in with the tubing, why we couldn't get down below 3700, and we kept working the well over and finally decided that the best thing to do would be to side track the hole, so we set a 3 inch whipstock, and we recovered 314 feet of that 3 1/2 inch pipe thinking that we could clean the hole up, and we were not able to, and finally we set a 3 inch whipstock. This whipstock was approximately 6 1/2 feet from the old hole. We are now drilling in this side hole at approximately 8000 feet, and it is now 2 degrees off, and we plan to completed the well in the 9800 foot zone as an offset to the BT "M" No. 2.

Q Now, in your opinion, would any treatment or work over of the Bagley Upper Pennsylvanian Gas Zone increase the production from that zone?

A Yes, it has been my experience that acid materially increases the production of a gas well.

Q Was that done on the BT "M" Well No. 1?

A It was just a drill stem test and there was a chance

that the formation was plugged off and possibly account for that small drill stem test through the 8600 foot zone.

Q Now, you heard testimony of Mr. Phelps in regard to Shell's well in the SE/4 of Section 33. Do you have anything--

A The only thing that I could add to that is when you take a drill stem test and the lower portion of your drill stem test is in salt water, in certain instances the salt water will flood the entire zone out and all you get is salt water, and I am not saying that that is productive or that it isn't but the fact, as Mr. Phelps pointed out, that the lower packer was down deep, below the lower upper gas zone, it is possible that the water below the zone watered out the zone itself.

Q Now --

A Actually, that is not as conclusive a test as we have on the State "P" No. 1. We recovered no salt water on that test.

Q Now, on the basis of your experience as an engineer, would you consider that test on the Shell well as indicating or not indicating whether that area is productive of gas?

A It is not a conclusive test one way or the other.

Q Now, would you consider the test and the information gathered on the BT "P" Well No. 1 as conclusive?

A Yes, sir, it is a conclusive test.

Q In your opinion, is the acreage proposed to be dedicated to the well No. 2 productive of gas from the Bagley-Upper Pennsylvanian

Gas Pool?

A Yes, sir.

Q In your opinion, is the area proposed to be included in the Bagley-Upper Pennsylvanian Gas Pool productive of gas?

A Yes, sir.

Q Would you make reservation as to a portion of Section 33?

A Well, there is some doubt as to the Shell acreage there, but in my own personal opinion, I think it is productive.

Q Now, Mr. Miller, has the proposed unit been agreed to by all of the parties concerned?

A Yes, it is. Amerada secured the lease, or the lease on the State "P" with exception of the 40-acres that is owned by Gulf as marked on Exhibit No. A. We received that from Vincent Coxie, I believe is the name, and George Conley, and they have agreed to the formation of the unit. Also, I have a letter from Gulf Oil Corporation in which they agreed to it.

Q Do you have a copy of that letter for the Commission?

A Yes, sir.

MR. KELLAHIN: I would like to have that marked as Exhibit G please.

Q (By Mr. Kellahin) Were Exhibits F and G prepared by you or under your direction and supervision, or Exhibit F?

A Yes, sir.

Q Where is the original of Exhibit G?

A It is in our Midland office.

Q Could that be made available to the Commission?

A Yes, sir.

Q In the event they request it?

A Yes, sir.

MR. KELLAHIN: At this time we would like to offer Exhibits F and G.

MR. UTZ: Without objection, Exhibit F and G will be accepted.

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

MR. UTZ: Are there questions of the witness?

MR. FISCHER: Yes.

MR. UTZ: Mr. Fischer.

CROSS EXAMINATION

BY: MR. FISCHER:

Q Mr. Miller, do you know what the shut in pressures were on the Shell, during the drill stem test?

A No, sir, I don't have that, and I don't know whether Mr. Phelps has that or not. Do you have the pressure on that drill stem test? We didn't drill that well and our records are sketchy. We operate the well at the present time. We took 80-acres, Amerada's acreage and 80-acres that Shell had. We took over the operation of the well and we don't have too good a record of the well.

Q You don't have the drill stem test record from the service company that took the drill stem --

A Well, I haven't. Possibly Mr. Phelps does.

MR. PHELPS: Nothing other than what is shown here.

A The cross section itself.

Q Well, in line with this drill stem test and the acidizing of that Shell well, or rather --

A That Shell well now, mind you, is producing from the 9800 foot zone.

Q Your drill stem test --

A Was 8600, that's right.

Q Did they acidize that well? Did you say they acidized that well, or did Mr. Phelps?

MR. PHELPS: To my knowledge, they didn't, it was just a drill stem test as they were going down.

A As we brought out, there has been testimony before the Commission that the 8600 is not productive there, but different companies have different opinions, and we have a different opinion.

MR. FISCHER: That's all.

MR. UTZ: Any other questions of the witness? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Do you have anything further in this case?

MR. KELLAHIN: No.

MR. UTZ: Are there any statements to be made in this

case?

MR. FAYNE: I have a statement, Mr. Examiner, from Gulf Oil Corporation which reads as follows:

"Gulf Oil Corporation will have an interest in Amerada Petroleum Corporation's proposed 320-acre gas proration unit in the Bagley-Upper Pennsylvanian Gas Pool. Therefore, we concur with them in their application in Case 1592 scheduled for Examiner Hearing February 4, 1959.

W. A. Shellshear, P. O. Box 669, Roswell, New Mexico."

MR. UTZ: Are there any other statements to be made? If there are not, the case will be taken under advisement, and the hearing will be recessed until 1:30.

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO) ss

I, Joseph A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript, and that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 11th day of February, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
 NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examining Hearing of Case No. 1582, heard by me on *Feb. 9, 1959*.
Harold H. [Signature], Examiner
 New Mexico Oil Conservation Commission

**BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO**

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

**CASE NO. 1882
Order No. E-1233**

**APPLICATION OF AMERADA PETROLEUM
CORPORATION FOR AN ORDER EXTENDING
THE HORIZONTAL LIMITS OF THE BAGLEY-
UPPER PENNSYLVANIAN GAS POOL IN LEA
COUNTY, NEW MEXICO, AND FOR A 320-
ACRE NON-STANDARD GAS PRORATION UNIT
IN SAID POOL.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 4, 1959, at Santa Fe, New Mexico, before Elvis A. Uta, 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 February, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Elvis A. Uta, 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 seeks an order extending the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool to include the E/2 of Section 33 and the NW/4 of Section 34, Township 11 South, Range 33 East, NMPM, Lea County, New Mexico.
- (3) That the above-described acreage may reasonably be presumed to be productive of gas from the Bagley-Upper Pennsylvanian Gas Pool.
- (4) That the applicant further proposes the establishment of a 320-acre non-standard gas proration unit in the Bagley-Upper Pennsylvanian Gas Pool comprising the NE/4 of said Section 33 and the NW/4 of said Section 34. Said unit is to be dedicated to applicant's State BT "M" Well No. 2, located 1980 feet from the North line and 660 feet from the East line of said Section 33.

-2-
Case No. 1582
Order No. R-1338

(5) That approval of the subject application will not cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool in Lea County, New Mexico, be and the same are hereby extended to include the E/2 of Section 33 and the NW/4 of Section 34, Township 11 South, Range 23 East, NMPN, Lea County, New Mexico.

(2) That a 320-acre non-standard gas proration in the Bagley-Upper Pennsylvanian Gas Pool comprising the NE/4 of said Section 33 and the NW/4 of said Section 34 be and the same is hereby established. Said unit is to be dedicated to the applicant's State NT "H" Well No. 2, located 1980 feet from the North line and 680 feet from the East line of said Section 33.

IT IS FURTHER ORDERED:

That this order, and all of the provisions herein contained, shall become effective March 1, 1959.

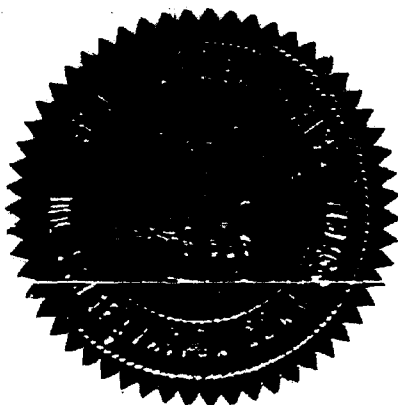
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John Burroughs
JOHN BURROUGHS, Chairman

Murray E. Morgan
MURRAY E. MORGAN, Member

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



ir/

JASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX

ATTORNEYS AT LAW
54½ EAST SAN FRANCISCO STREET
POST OFFICE BOX 1713
SANTA FE, NEW MEXICO

TELEPHONES
YUCCA 3-9396
YUCCA 2-2266

January 12, 1959

Feb Regular

1959 JAN 13 PM 1:50

MAIN OFFICE OCC

Oil Conservation Commission
of New Mexico
P. O. Box 891
Santa Fe, New Mexico

Attention: Mr. A. L. Porter

Gentlemen:

Attached is an application to be filed in behalf
of Amerada Petroleum Corporation for an order ex-
tending the horizontal limits of the Bagley-Upper
Pennsylvanian Gas Pool, and for the formation of
a non-standard 320-acre proration unit in said pool.

It is requested that, if possible, this application
be set for hearing before the Oil Conservation Com-
mission at the regular state-wide hearing February
18, 1959.

Your attention to this matter is greatly appreciated.

Yours very truly,

Jason W. Kellahin
Jason W. Kellahin

JWK:j
Encl.

cc: Mr. H. D. Bushnell
Amerada Petroleum Corporation

*1-22-59
Docket - Mailed
B P*

BEFORE THE OIL CONSERVATION COMMISSION OF THE
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
AMERADA PETROLEUM CORPORATION FOR AN)
ORDER EXTENDING THE HORIZONTAL LIMITS)
OF THE BAGLEY-UPPER PENNSYLVANIAN GAS)
POOL TO INCLUDE THE E/2 OF SECTION 33)
AND THE NW/4 OF SECTION 34-11S-33E,)
LEA COUNTY, NEW MEXICO, AND TO FORM A)
NONSTANDARD 320-ACRE PRORATION UNIT)
COMPOSED OF THE NE/4 OF SECTION 33 AND)
THE NW/4 OF SECTION 34-11S-33E, LEA)
COUNTY, NEW MEXICO.)

CASE NO. _____

APPLICATION

COMES NOW Amerada Petroleum Corporation and alleges and states the following:

1. Applicant is the owner and operator of the State BT "M" No. 2 Well, located in the SE/4 of NE/4 of said Section 33-11S-33E, dually completed in the Upper Pennsylvanian formation adjacent to the Bagley-Upper Pennsylvanian Gas Pool and in the Lower Pennsylvanian oil formation by Order No. R-1263, dated October 25, 1958.

2. Heretofore this Commission by its Order No. R-991, dated May 1, 1957, defined and designated the Bagley-Upper Pennsylvanian Gas Pool, and said order, as amended by Order No. R-1059, dated September 30, 1957, by Order No. 1091, dated November 27, 1957, by Order No. R-1105, dated December 30, 1957, and by Order No. R-1238, dated August 14, 1958, defined the horizontal limits of the said gas pool to include:

N/2 and SE/4 of Section 3-12S-33E;
N/2 of Section 4-12S-33E;
NE/4 of Section 10-12S-33E;
S/2 of Section 34-11S-33E;
All in Lea County, New Mexico.

The above lands comprise the area outlined on EXHIBIT "A", attached to and made a part hereof.

3. Applicant can show that the horizontal limits for this gas pool should be extended to include:

E/2 of Section 33 and NW/4 of Section 34,
All in Township 11 South, Range 33 East.

4. Applicant here proposes to form a 320-acre nonstandard gas proration unit consisting of the NE/4 of said Section 33 and the NW/4 of said Section 34, for the purpose of prorating gas produced from the Upper Pennsylvanian formation in the State BT "M" No. 2 Well, located as described in paragraph 1 above, as an exception to Rule 2 of this Commission's Order No. R-1091, dated November 27, 1957.

WHEREFORE, Applicant respectfully requests that this application be set for hearing, that notice of such hearing be given as required by law, and, upon conclusion of said hearing, that this Commission enter its order to extend the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool to include the E/2 of Section 33 and the NW/4 of Section 34-11S-33E, Lea County, New Mexico, and to approve the formation of a nonstandard gas proration unit of 320 acres, in exception to Rule 2 of Order No. R-1091, consisting of the NE/4 of said Section 33 and the NW/4 of said Section 34.

AMERADA PETROLEUM CORPORATION

By H. D. Bushnell

H. D. Bushnell

Kellahin and Fox

By Jason W. Kellahin

Attorneys for Applicant.



PETROLEUM AND ITS PRODUCTS

GULF OIL CORPORATION

P. O. DRAWER 669 • ROSWELL, NEW MEXICO

January 29, 1959

F. E. CURTIS, JR.
DISTRICT LANDMAN

FORT WORTH
PRODUCTION DIVISION

Proposed Gas Unit - NW 1/4
Section 33 and NE 1/4 Section
34-11S-33E, Lea County, New
Mexico, Map R-23.
Gulf's Lease No. 53966.

Amerada Petroleum Corporation
P. O. Box 591
Midland, Texas

Attention: Mr. John Cornwall

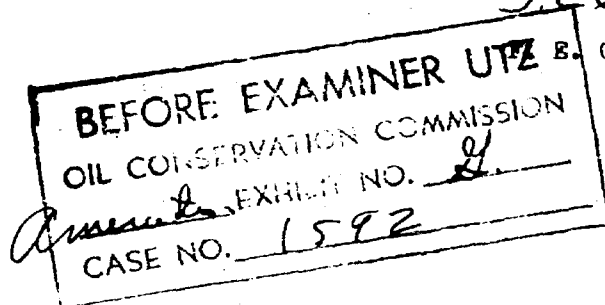
Gentlemen:

Reference is made to telephone conversation between Mr. John Cornwall and F. E. Curtis, Jr., on January 13, 1959, wherein Mr. Cornwall proposed formation of gas unit covering the above described premises using Amerada's No. 2 State "BTH" as unit well.

This is to advise that Gulf is agreeable to the formation of a gas unit covering all dry gas and associated liquid hydrocarbons in and under the above described premises on the same basis as the two units formed by Gulf and Amerada by instruments dated February 24, 1958, and covering S/2 Section 34-11S-33E.

Very truly yours,

F. E. Curtis, Jr.
F. E. CURTIS, JR.



OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 2-10-59

CASE 1592

Hearing Date 2-9-59

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

Approve as follows:

1. Extend Horizontal limits of Bagley - upper Perm. Pool by adding E/2 sec. 33, NW/4 sec. 34, 115-33E. I personally don't feel they have proven SE/4 of 33 has been proven productive but neither did D+P for the NW/4 of sec. 4, 125-33E.
2. approve NSP for Amerada - BTM #2, 6ENE sec. 33, 125-33E consisting of the NE/4 sec. 33 + NW/4 sec. 34, 125-33E. I also think that if Amerada feels the SE/4 of sec. 33 is productive they should communitize with the E/2 of 33.

Frank W. [Signature]

Staff Member

Caution of Symbols
This is a test message
which has been sent for
testing purposes only. It
is not to be used for the
proper symbol.

WESTERN UNION TELEGRAM

W. P. MARSHALL, President

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of transmission is indicated by the symbol.

STANDARD
Day Letter
Night Letter
International
Telegram
Symbol

LA036 SSF 009

1959 JAN 29 AM 9:49

L HWA 014 PD=ROSWELL NMEX 29 9 12AM=

NEW MEXICO OIL CONSERVATION COMMISSION=

STATE CAPITOL BUILDING SANTA FE NMEX=

ATTENTION MR A L PORTER JR:

GULF OIL CORPORATION WILL HAVE AN INTEREST IN
AMERADA PETROLEUM CORPORATION'S PROPOSED 320 ACRE GAS
PRORATION UNIT IN THE BAGLEY UPPER PENNSYLVANIAN GAS
POOL. THEREFORE, WE CONCUR WITH THEM IN THEIR APPLICATION
IN CASE 1592 SCHEDULED FOR EXAMINER HEARING FEBRUARY 4,
1959=

W A SHELLSHEAR P O BOX 669 ROSWELL NEW MEXICO==

320 1592 4 1959= WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

February 24, 1959

Mr. Jason Kellahin
Kellahin & Fox
P.O. Box 1713
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Amerada Petroleum Corporation,
we enclose two copies of Order R-1338 issued February 18, 1959,
by the Oil Conservation Commission in Case 1592, which was heard
on February 4th at Santa Fe before an examiner.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

2-26-59
Order sent to Gulf
in Roosevelt
BT

SUPPLEMENTAL DOCKET: EXAMINER HEARING FEBRUARY 4, 1959

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

The following case will be heard before Elvis A. Utz, Examiner:

CASE 1595: Application of John J. Dempsey Associates for the assignment of a minimum allowable to one gas well in the Fulcher Kutz-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order assigning a minimum allowable to one gas well in the Fulcher Kutz-Pictured Cliffs Gas Pool in order to prevent premature abandonment thereof, said well being the Hutchison Well No. 1 located 660 feet from the North line and 635 feet from the East line of Section 1, Township 29 North, Range 13 West, San Juan County, New Mexico.

DOCKET: EXAMINER HEARING FEBRUARY 4, 1959

OIL CONSERVATION COMMISSION 9 a.m., Mabry Hall, State Capitol, SANTA FE

The following cases will be heard before ELVIS A. UTZ, Examiner:

- CASE 1587: Application of Cabot Carbon Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its J. L. Reed Well No. 2 located 660 feet from the North and East lines of Section 35, Township 13 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the King-Wolfcamp Pool and King-Devonian Pool through parallel strings of $1\frac{1}{2}$ " tubing.
- CASE 1588: Application of Atlantic Refining Company to commingle the production from several separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Ellenburger, McKee, Fusselman, Montoya, Blinbry, Drinkard, and Queen formations on its State "Y" lease comprising the N/2 NE/4 and the SE/4 NE/4 of Section 25, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant proposes to separately meter the production from each formation except the Queen prior to being commingled.
- CASE 1589: Application of Humble Oil & Refining Company for an exception to Rule 16 of Order R-586 and for an exception to Rule 303 of the Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the classification of a 48-degree gravity oil well as a gas well in the Tubb Gas Pool, said well being its dually completed State "V" Well No. 11 located in the NE/4 SW/4 of Section 10, Township 21 South, Range 37 East, Lea County, New Mexico. Applicant further seeks permission to commingle the liquid hydrocarbons produced from the Tubb zone of said State "V" Well No. 11 with Tubb oil produced from its State "V" Well No. 7 located in the SE/4 SW/4 of said Section 10. Applicant further seeks permission to commingle the Blinbry condensate produced from said State "V" Well No. 11 with the Blinbry oil produced from its State "V" Well No. 1 located in the SW/4 SW/4 of said Section 10.
- CASE 1590: Application of Rex Moore for an order authorizing a gas injection project in San Juan County, New Mexico, and for the promulgation of special rules and regulations in connection therewith. Applicant, in the above-styled cause, seeks an order authorizing it to inject gas into the Gallup formation of the Bisti-Lower Gallup Oil Pool through its Scott No. 5 Well located 2115 feet from the South line and 2080 feet from the West line of Section 3, Township 24 North, Range 10 West, San Juan County, New Mexico. Applicant further proposes that special rules and regulations be promulgated to govern the above-described project, which rules would provide for the transfer of the allowable from the injection well to producing wells, transfer of allowables from wells which have

been shut-in for observation or to increase the efficiency of the project, operation of the wells on a net gas-oil ratio basis giving allowance for gas injected, and such other rules and regulations as the Commission deems necessary.

CASE 1591:

Application of Angels Peak Oil Company for the assignment of minimum allowables to two gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order assigning minimum allowables to two gas wells in the Fulcher Kutz-Pictured Cliffs Gas Pool in order to prevent premature abandonment thereof, said wells being applicant's Angels Peak Well No. 3 located 595 feet from the North line and 1240 feet from the East line of Section 11 and Angels Peak Well No. 5 located 285 feet from the North line and 1520 feet from the West line of Section 11, both in Township 28 North, Range 11 West, San Juan County, New Mexico.

CASE 1592:

Application of Amerada Petroleum Corporation for an order extending the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool and for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order extending the horizontal limits of the Bagley-Upper Pennsylvanian Gas Pool to include the E/2 of Section 33, and the NW/4 of Section 34, all in Township 11 South, Range 33 East, Lea County, New Mexico. Applicant further seeks the establishment of a 320-acre non-standard gas proration unit in said pool consisting of the NE/4 of said Section 33, and the NW/4 of said Section 34, to be dedicated to the applicant's State BT "M" No. 2 Well located in the SE/4 NE/4 of said Section 33.

CASE 1593:

Application of The Texas Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing a 241-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the NE/4 of Section 5, Township 20 South, Range 37 East, and the S/2 SE/4 of Section 32, Township 19 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to applicant's J. W. Cooper Well No. 5 located 1668 feet from the North line and 1650 feet from the East line of said Section 5.

CASE 1196:

Application of The Ibex Company for permission to expand its water flood project in the Artesia Pool, Eddy County, New Mexico, and for eight unorthodox well locations. Applicant, in the above-styled cause, seeks an order permitting the expansion of its Artesia Water Flood Project No. 2, authorized by Order No. R-966 in the Artesia Pool, Eddy County, New Mexico, to convert to water injection a well in the NW/4 NW/4 of Section 28 and a well in the SW/4 NE/4 of Section 28, both in Township 18 South, Range 28 East. Applicant further seeks approval of eight unorthodox well locations in Sections 21 and 28 of the aforementioned township.

CASE 1594:

Application of The Ibox Company for permission to install three separate lease automatic custody transfer systems. Applicant, in the above-styled cause, seeks an order authorizing it to install three separate lease automatic custody transfer systems, one on its Welch Duke State Lease, one on its Resler Yates State Lease and the other on its McNutt State Lease, all in the Artesia Field, Township 18 South, Range 28 East, NMPM, Eddy County, New Mexico. Applicant further seeks permission to consolidate multiple tank batteries on said Resler Yates State Lease in exception to Rule 309 of the Commission Rules and Regulations.

CONTINUED CASE

CASE 1573:

Application of Southwestern, Inc. Oil Well Servicing for permission to make a "slim hole" completion. Applicant, in the above-styled cause, seeks an order authorizing it to utilize the "slim hole" method of completion for a well located in the SE/4 NW/4 Section 32, Township 16 South, Range 30 East, Square Lake Pool, Eddy County, New Mexico. Applicant proposes to utilize 2½ inch tubing as a substitute for casing in the above-described well.