BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1468

TRANSCRIPT OF HEARING

JUNE 11, 1958

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

I N D E X

	DIRECT	CROSS
J. Nelson Edge	4	8
E. V. Boynton	11	19

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JUNE 11, 1958

IN THE MATTER OF:

CASE NO.1468 Application of Continental Oil Company for the establishment of a new Blinebry gas pool and for the promulgation of special rules and regulations. Applicant, in the above-styled cause, seeks an order establishing a new pool for Blinebry gas production to be designated as the Warren-Blinebry Gas Pool with horizontal limits consisting of the E/2 of Section 28, Township 20 South, Range 38 East, Lea County, New Mexico. The applicant further seeks the promulgation of special pool rules similar to those adopted for the Blinebry Gas Pool, as set forth in Order R-610, subject to modification of certain of said rules.

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: The hearing will come to order, please. The first case on the docket this afternoon will be Case 1468.

MR. PAYNE: Application of Continental Oil Company for the establishment of a new Blinebry gas pool and for the promulgation of special rules and regulations.

MR. KELLAHIN: Jason Kellahin of Kellahin & Fox, Santa Fe, representing the applicant, Continental Oil Company. The same two

witnesses who testified in Case 1467 and were sworn for the purpose of this case also, will be the witnesses. I would like to call as the first witness, Mr. Edge.

J. NELSON EDGE,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A J. Nelson Edge.

Q Are you the same Mr. Edge who testified in Case 1467 and was sworn for purposes of this case?

A I am.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir, they are.

Q Mr. Edge, have you made a study of the area involved in the application in Case 1468? A Yes, I have.

Q Have you studied the structure of the Blinebry pay zone in this area? A I have.

Q Have you prepared a geological structure map in the process of this study?

A Yes, sir, we have. The structure map on the Blinebry, which will be marked as Exhibit 1, we would like to submit.

Q Now, referring to what has been marked as Exhibit No. 1, Mr. Edge, what does that show?

A This structure, in the same area as the previous case, is similar, almost identical, in structure. The contour interval here is on the Blinebry marker as designated by the Commission, and the contour interval in this case is 25 feet also. Here you can see again, the closure on the Warren unit structure in question, and the amount of closure would be approximately the same as that of the Tubb, possibly a little less. We have a minimum closure between the low well and the highest well there of approximately 50 feet, again, and the significant fact again, is the existence of this separate structure. The wells -- Terry-Blinebry oil wells have been colored green, the proposed unit is outlined in red, and the gas -- the oil wells are green, and the gas wells are red -- colored red, and dry holes are yellow.

Q Is this a closed anticline structure?

A This is a close anticline structure as was the case before.

Q Comparing the structure between the area in this application and the Blinebry gas pool?

A This closure would compare to the larger structure to the south. The Blinebry gas pool in the Terry-Blinebry fringes around this. It is relatively small, but horizontal structure -- vertical structure, I am sorry, is approximately 150, 200 feet, 200 to 250 feet on the Blinebry Pool itself, whereas we have 60 to 80 feet of closure on the Warren unit structure.

Q Are you familiar with the lithology of the Blinebry pay zone involved in this case?

A Yes. Here again, I have run samples on nearby wells through this zone and have correspondence.

Q Would you describe this study and tell its significance?

A The lighology of the Blinebry pay zone which is the upper member of the Yeso formation is primarily dolomite. The texture of the dolomite is generally fine crystalline, granular having a tan to light brown color. Associated with this dolomite are varying amounts of evaporites in the form of anhydrite inclusions. These inclusions are interstitial in nature and probably have direct relationship to the porosity and permeability of these oil bearing strata. The erratic nature of the porosity and the permeability here would be the significant factor in this case.

Q Now, have you prepared a cross-section study of the area involved? A I have.

Q Is that shown on Exhibit No. 1? I mean, the location of the wells involved?

A Yes. The line of the cross-section is traced by the brown dashed line, and the wells included are circled.

Q Now, referring to what has been marked as Exhibit No. 2, will you state what that shows?

A Exhibit No. 2 is a north-south cross-section extending from the Warren Unit Drinkard No. 10 over the Warren Unit structure down through the Terry Blinebry producing oil zone and back up to the Blinebry on top of the Blinebry Gas Pool. Here the designation of colors are: the perforated intervals have been colored red in the

wells that are classified as gas wells, and the perforated intervals are green, colored green where they are classified as oil wells in the Terry Blinebry Oil Pool. These would then be the gas wells in the Blinebry Gas Pool. The structure -- structural comparison is roughly equivalent; these wells are somewhat higher that produce gas.

Q Which wells are you referring to as being higher, Mr. Edge?

A The three gas wells on the cross-section, the Shell Taylor No. 1, Shell Livingston No. 1, and the Conoco Hawk "B" 3 are gas wells and they compare somewhat higher to the Continental Unit "BT" No. 8. You can see that the effect between the two structures -- structurally relationship has some bearing on the type of accumulation, evidently.

Q Now, based on your study of structural and lithology of the Blinebry producing zone, is it reasonable to conclude that there is a separation between the Terry Blinebry and the proposed Warren Blinebry Pools?

A In answer to that question, we can look at the cross-section and it can be seen that the structurally high wells do, in fact, produce gas, whereas the lower wells in the saddle do produce oil. Therefore, there is some relationship shown as to the location on the structure as to what the fluid of the formation is. And we have further evidence, reservoir data, that will be submitted later that will probably add to this.

Q Now, if a separation does exist, as has been found by the

Commission previously between the Blinebry and the Terry Blinebry, would on the same reasoning, a separation exist between the pools involved and the proposed Warren Blinebry Pool?

A It would be logical to presume so.

Q Were Exhibits 1 and 2 prepared by you or under your direction and supervision?

A Yes, sir, they were.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Without objection, Continental's Exhibits 1 and 2 in Case 1468 will be admitted.

MR. KELLAHIN: That's all the questions I have of the witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Edge, there is one principal difference, is there not, between the proposed new pool to the north and the pool to the south, as compared with the previous case for the Tubb, in that the interval between the two zones or the two pools in the Tubb was penetrated by dry holes, and this is productive all the way, is it not?

A That's true, yes. That is the main difference. This one unit, Blinebry 21, was one well that went to the Tubb that separated the two Tubb structure closures, and it was dry in the Tubb, but it does produce oil here.

Q That was one of the wells that was dry in the Tubb in the other case?

A Yes, it was dry in the Tubb.

Q Does there seem to be any difference in the permeability and porosity as you go from south to north on this cross-section?

A Well, by the log itself you cannot determine the amounts of permeability. The porosity indicated by the neutron, indicates to be a good porosity development in the first zone or the upper zone of the Blinebry BT No. 8. You can see, by correlation between the wells roughly, the porosity zones that have been perforated and are productive intervals and they are essentially the same or are correlative to those that produce gas on the higher wells.

Q Is it your opinion that Warren Unit Well No. 8 there is producing gas from the lower portion of the perforated interval?

A I don't have the facts on that. I believe they were individual tests, were they not?

Q So, to your knowledge, you don't know where the gas is coming from in that well, whether it be the upper or lower perforations?

A No.

Q Well, in your opinion, Mr. Edge, the distance between the Warren Unit No. 8 and the Warren Unit No. 21 is relatively short, being something like a half a mile. What would be the principal cause for one well to be a gas producing well and the other a oil producing well?

A I am sure that would be a reservoir problem, and I could not answer it, but just the fact that it does produce gas is all I could say.

Q Now, is it possible to have a gas well in the Terry Blinebry Oil Pool?

A To my knowledge, it isn't.

Q So if you have a gas well producing from the Blinebry formation in an area north of the Terry Blinebry Oil Pool, it of necessity requires another Blinebry Pool, doesn't it?

A It seems so.

Q Geologically speaking, do you see why -- any reasons that the Rules to be adopted for the Warren Blinebry Pools should be different for the Blinebry Gas Pool?

A Geologically speaking, no.

MR. NUTTER: Anyone have any questions of Mr. Edge?

MR. KELLAHIN: I would like to ask one more question, please.

Q Mr. Edge, in line with the questioning by Mr. Nutter, as to the different situation between this and the preceding case in that oil production is found between the two pools, is that the same type of situation upon which the Commission based a finding of separation between the Terry Blinebry Oil Pool and the Blinebry Gas Pool?

A Yes, that was part of the basis.

MR. KELLAHIN: That's all.

MR. NUTTER: Any further questions of Mr. Edge? If not, he

may be excused.

(Witness excused)

E. V. BOYNTON,

recalled as a witness, having been previously duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q State your name, please.

A E. V. Boynton.

Q Are you the same Mr. Boynton who testified in Case 1467 and were sworn -- and was sworn for the purpose of this case?

A I am.

MR. KELLAHIN: Are the witness' qualification acceptable?

MR. NUTTER: Yes, sir, He may proceed.

Q (By Mr. Kellahin) Mr. Boynton, are you familiar with the application in Case 1468? A Yes, I am.

Q Referring to Exhibit No. 1, which has been introduced in evidence, do you have any further comment to make on that Exhibit?

A Some of the things that the Exhibit shows were not mentioned. The outline of the proposed new pool is shown in red, the outline of the Terry Blinebry Oil Pool is shown encompassing the oil wells colored in green, which are Terry Blinebry oil wells, and the outline of the Blinebry Gas Pool is also outlined in green.

Q Now, does that also show the distance of the subject gas well in this case from the nearest Blinebry gas production?

A Yes. The distance to the nearest Blinebry Gas Well is 10,500 feet.

Q And, in your opinion, is the Warren Unit BT Well No. 8 located on a separate distinct structure, Blinebry Gas Pool to the south?

A It is.

Q Now, referring to Exhibit No. 2, which is in evidence, do you have any comments to make in connection with that Exhibit?

A This, as I stated previously, is a north-south cross-section through the Warren unit structure and the saddle through the Blinebry Gas Pool to the south. The perforation in wells that produced gas are colored in red, arbitrarily, and those that produce oil, green, arbitrarily, and down here, the wells are classified as gas wells.

Q Well now, examining the Exhibit, Mr. Boynton, it would appear that the Shell Taylor No. 1 is producing gas from the lower interval and those which Continental has offsetting the Terry-Blinebry producing oil. Do you have any explanation of that?

A I have it unofficially that it was a poor cement job on that well, in which case the gas from this well is probably coming from the upper zone. However, if there is a good cement job, and that is not the case, then it would indicate that the higher structural wells will produce gas. Each zone has its own gas cap, and we will produce gas on the higher structural wells.

Q Now, have you made an examination of back pressure test on the Blinebry formation?

A I have an Exhibit No. 3, which is a 4. back pressure test in the Blinebry zone taken March 25, 1958. I might point out here that this Exhibit shows the open flow capacity of the well to be 2700 MCF per day whereas the application showed it to be approximately 7600 MCF a day. The difference in potentials there is the result of having to kill the well with oil or mud twice. It also shows the gas-oil ratio to be 26,186 to 1, and the gravity of the liquid hydrocarbon to be 56 degrees API.

Q Now, have you made a study of the formation in regard to the isobars and prepared an isopach map?

A From the October, 1957 bottom hole pressure survey we have prepared an isobaric map, which is Exhibit No. 4. On this map, the Warren Unit "BT" No. 8 is colored in red, which indicates that it is a gas well. Terry-Blinebry oil wells are colored in green, and Blinebry gas wells to the south are colored in red, and Terry-Blinebry dry holes are colored in yellow. Again, we have the outline of the Terry-Blinebry Pool shown in green, and the outline of the Blinebry Gas Pool shown in green.

Q Now, what does that Exhibit indicate as to the pressure in relation to structure, if anything?

A This Exhibit, if you will compare it to Exhibit No.1, indicates that bottom hole pressures closely follow structure in this area and is an indication that as we go down structure the permeability decreases.

Q Is that the significance of the pressure variation, then?

A That is. This is on the same basis, as stated a while ago, that the Terry Blinebry Pool was separated from the Blinebry Pool, and it was shown -- previous tests showed that hydrocarbons would not migrate from one of these areas to another, since this same situation exists -- has existed between the Blinebry and Terry Blinebry except between the Warren Unit and Terry Blinebry Pool, by analogy, then, I believe the Warren BT No. 8 is producing from a separate reservoir.

Q You referred to a previous case. Would that be case 277 which was the base for Order R-610?

A That's true, yes.

Q Do you have any evidence that there is no communication between well bores in the low pressure area?

A Well, there is certain indications that there is no communication. One is that we were unable to get our Terry Blinebry oil wells to produce before they were fractured, and the formation up in this area would give up nothing on drill stem test until they were fractured. Also, recently I caused a communications test to be conducted. If you will look at Exhibit 4 in Section 34, Wells Nos.18, 20, and 14, and in Section 33, Well No.17, were shut in for a period of forty-eight hours, and then at that time Wells No. 20, No. 17 and 14 were opened and flowed at a rate of flow that would draw their casing pressure down to around 160 to 200 pounds. This was continued for a period of two weeks, and there was no in-

dication of the drop in the bottom hole pressure in Well No. 18. During the flow period of the other three wells, there was a bottom hole pressure bomb constantly in Well No. 18.

Q Do you have any reason to believe that these wells are draining an area in excess of the limits of the fractured --

A Since they would not produce, naturally I have no reason to believe that they are, no.

Q Now, in the event a new pool was designated for Blinebry production from the Warren unit BT Well No. 8, do you have any suggestion as to Rules governing production from the pool?

A I suggest that Rules be adopted for the Warren unit, Warren Blinebry Gas Pool similar to those now in effect in the Blinebry Gas Pool.

Q Do you have any specific recommendation as to any change that should be made?

A Again, since this was a wildcat, we were looking for production. We perforated below the lower limits of the Blinebry as they exist in the Blinebry Gas Pool and to almost the top of the formation. We would like to include that with the pool limits.

Q In connection with the application which was filed in this case, certain changes in the present Rules in the Blinebry Gas Pool were suggested as Rules for the proposed pool. Do you have any comment on those?

A The change in Rules No. 7 and No. 9 were merely to get the word Warren Blinebry Gas Pool into the record, and Rule No. 18,

which defines a gas well in the Warren Blinebry Pool, also defined a gas well in the Blinebry Gas Pool. However, we withdraw that proposal and would adopt the same definition for gas wells and oil wells in this pool as previously designated in the Blinebry Pool.

Q Are there any other proposed changes other than changing the name of the pool?

A Rule No. 22 in which Paragraph 2 was deleted, deleted the six months' waiting period for reclassification of wells. And Rule No. 23 merely eliminates a date in which gas could not be flared from the Blinebry Gas Pool Well, which was May the 1st, 1955, and does not apply in this case. Rule No. 24 proposed an annual bottom hole pressure test rather than semiannual, and that's the extent of the changes proposed. However, as I say, except for the necessity of changing the wording in some Rules to include Warren Blinebry, we have no objection to their being adopted.

Q Now, referring again to Exhibit No. 1, what would happen to the Warren Unit Blinebry No. 21 under these Rules?

A Warren Unit Blinebry No. 21 did test the Tubb and was dry in the Tubb, and it is almost dry in the Blinebry. I think it produced 16 barrels of oil per day on completion with a ratio of about 17,000 to 1. It still produces about that gas rate with 7 barrels of oil per day, so it is almost dry in the Blinebry. It could possibly be classified as a gas well in the Warren Blinebry Gas Pool, its but since it was prorated under the Terry Blinebry, we didn't feel it was important in this instance. We would have no objection to

being placed in the Warren Unit Blinebry.

Q Where would you draw the line between the Terry Blinebry and Warren Unit gas production?

A According to the isobaric map here, it probably would be drawn about the 2,000 pound pressure line.

Q Is that based on the difference in pressures?

A Between the two wells, yes.

Q 8 and 21. Why don't the lower zones in the No. 8 produce oil since they are lower than the upper intervals, than the Terry Blinebry Wells?

A I don't know. It might be that the point brought out in the Shell Taylor Glen a while ago applies here, and -- but we have no individual tests on these lower zones, so we actually don't know what they are producing. However, experience in the lower zones in the Terry Blinebry would lead us to believe that they are contributing very little to production, and the main producing zones here is the upper zone.

Q That would then indicate that where the upper zone is below structurally, it is apt to produce oil, and where it is high structurally it is apt to produce gas?

A If you will notice on the neutron curve, the Warren Unit No. 8, the upper zone of the Blinebry, this is absent through the saddle here, and is again evidenced over in these gas wells in the Blinebry Pool. It seems to indicate that where the upper zone is well developed and has a high structural position, the well is a gas well;

where it is not well developed, and is low on the structure, it produces oil. It is -- apparently it is a determining factor in the type of completion unit.

Q Now, with reference to the "BT" Well No. 8, do you have any evidence to show there is no communication between the Tubb and the Blinebry zones?

A Yes, we do have evidence that there is no communication. As a matter of fact, when the well was completed initially, we ran a back pressure test on the Tubb, and when we started and went on the Blinebry and started one on the Blinebry, it showed evidence of communication, so we prepared a packer and the same thing happened the second time, and we changed types of packer and now there is no indication whatever of communication between the two zones. If you would like, I can show you the charts on that, and coupled with the difference in gravities of the hydrocarbons, it certainly indicated that there is no communication.

Q Now, is it your recommendation that the Commission create a new pool for production from the Warren "BT" Well No. 8?

A Yes, it is.

Q And what name do you recommend for that pool?

A Warren Blinebry Gas Pool.

Q Were Exhibits 3 and 4 prepared by you or under your direction and supervision? A They were.

MR. KELLAHIN: At this time we would like to offer Exhibits 3 and 4.

MR. NUTTER: Without objection, Continental*s Exhibits 3 and 4 will be admitted in Case 1468.

MR. KELLAHIN: That*s all the questions I have.

MR. NUTTER: Any questions of Mr. Boynton? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Boynton, is the producing capacity of the Blinebry in excess of market demand?

A It, is, yes.

MR. PAYNE: Thank you. That*s all.

QUESTIONS BY MR. NUTTER:

Q Mr. Boynton, do you have any opinion as to whether the "BT" 8 No. -- "BT" Well No. 8 is producing gas from the lower perforations or not?

A I would hesitate to say that it is. I rather think that it isn't, and the production is coming from the upper zone -- I mean, if it produced anything, it probably would be oil.

Q Does that well make very much liquid?

A The gas liquid ratios are indicated at the various rates of flow on Exhibit No. 3, 42, 68, 79 and 86. That's -- each of those flow rates are well above the daily allowable.

Q The gravity of the liquids produced in this well is such that the well would be classified as a gas well under the Rules of the Blinebry Gas Pool, isn't it? A That's true, yes.

Q Mr. Boynton, you stated that as you came down structure,

it seems as though the permeability decreases. Does this apply as you come north and northeast of the main structure of the Blinebry formation?

A Yes, it does.

Q And does it also apply as you come north into the trough?

A I would just have to say I guess it does because we have no core data there and, of course, I can't read permeability off of a radio active log. But apparently the same situation has occurred here as has occurred on the main structure.

Q Mr. Boynton, how long did you say you flowed Wells Nos. 20, 17 and 14 on that communication test?

A For approximately two weeks.

Q And you had no pressure drop in No. 18?

A None.

Q Do you think that if the formation is as impermeable as would be indicated by that, that a test of forty-eight hours would be sufficient to have a pressure build-up?

A We have numerous build-up tests in the Blinebry, and actually, I don*t know how long it would take to build the well up to its top allowable.

Q Would forty-eight hours usually show a considerable build-up of pressure?

A It will show the main build-up, but the well wil keep building up after that gradually for an indefinite period.

Q They made quite -- some progress in reaching their ultimate

pressure in forty-eight hours? A Yes, sir.

Q What is the present status of Well No. 10 up in the northwest of the northeast of Section 28?

A That's a Drinkard Well.

Q Does Continental have any immediate plans as far as the Blinebry or Tubb formation is concerned for that well?

A We have approval to dual the well in the Blinebry Tubb formation.

Q And you expect that it will be productive in those formations in those new pools? A Yes.

MR. NUTTER: Does anyone have any further questions of Mr. Boynton?

QUESTIONS BY MR. NUTTER:

Q Mr. Boynton, I didn*t get this written down, when you testified as to what the vertical limits of the Warren Blinebry Pool should be, in your opinion. Would you read those again, please?

A I would like to include that lower set of perforations as shown on the cross-section, and include all the intervals to the top of the Tubb formation. The present limits of the Blinebry Gas Pool are defined as extending from a point 75 feet above the Blinebry marker, to a point 300 feet below the Blinebry marker.

Q Would the uppermost part of the vertical limits as defined be suitable for the Warren Blinebry Pool?

A They would, yes.

Q And would you repeat the lower limits, then?

A Approximately 100 feet below the lower limits -- present lower limits of the Blinebry.

Q In other words, the lower limits would extend to a point 400 feet -- A That's right.

Q -- below the Blinebry marker? A That's right.

Q These vertical limits will not extend into the limits for any other pool, if they are so extended, will they?

A If they are described as the top of the Tubb formation, they will not; if that limit is put on them, yes. That is only because, again, we were looking for oil. Actually, I don't think that lower zone is contributing any production at all to the well, but since it is open we would like to request --

Q Well now, where is the top of the Tubb formation, Mr. Boynton, with relation to the Tubb marker?

A It is 100 feet above the Tubb marker.

Q The Tubb formation, then, commences at a point 100 feet above the Tubb marker, -- A Right.

Q -- which is the same as the vertical limits for the Tubb Pool?

A Yes. I assume that is so, as I understand it. Actually no formation is involved there. It is merely producing intervals, porous producing intervals in the Yeso formation. The formations, as such, there are none.

Q So if the limits of the Warren Blinebry Pool were defined as from a point 75 feet above the Blinebry marker to a point 100

feet above the Tubb marker, that would give you continuous designation of that vertical interval in either one of those two pools, but it would not overlap, would it?

A That's right. It would not. Here is our situation. Since this was a wildcat, of course, we had no pool limitations. If you would choose to disregard this bottom set of perforations here, we would just as soon have the present limits of the Blinebry.

Q You don't expect that these perforations are productive of gas?

A I don't think they are productive of anything. We were unable to treat this particular set of perforations and had to pull a packer up here and treat this altogether.

Q Is the perforated interval from 6055 to 6120 open at the present time? A They are.

Q And that has been treated?

A That has been treated.

Q Mr. Boynton, what was the reason that you weren't able to treat that lower set of perforations?

A Communication with the upper. I think we ran to it about 65,000 pounds, something like that, and then we moved it up the hole and treated it as a lower pressure up there.

Q And that one perforated interval is the only set, however, that would fall in this extra hundred feet that you are proposing, --

A That's true.

Q -- adding to the vertical limits?

A Yes.

MR. PAYNE: Did you set out the proposed vertical limit in your application, Mr. Boynton?

A No, we did not.

Q (By Mr. Nutter) Now, let's see. That last set of perforations is from what interval to what?

A 6160 to 6210.

MR. NUTTER: Does anyone else have any further questions of Mr. Boynton? If not, he may be excused.

(Witness excused)

MR. NUTTER: Anyone else have anything further they wish to offer in Case 1468? We will take the case under advisement and take the next Case, 1469.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, J. 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 Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 14th day of July, 1958, 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 Examiner hearing of Case No. 1468, heard by me on 6-11, 1958.

....., Examiner
New Mexico Oil Conservation Commission