Case No.

727

Application, Transcript,
Small Exhibits, Etc.

CASE 727 (Readvertisement)

PROPOSED RULES AND REGULATIONS
FOR THE_____GAS POOL,
LEA COUNTY, NEW MEXICO

WELL SPACING AND ACREAGE REQUIREMENTS FOR DRILLING TRACTS

RULE 1. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 2. Each well drilled or recompleted within the_____ Gas Pool on a standard proration unit after the effective date of this rule shall be drilled not closer than 660 feet to any boundary line of the tract nor closer than 330 feet to a quarter-quarter section line or subdivision inner boundary line. Any well drilled to and producing from the _____ Gas Pool prior to the effective date of this order at a location conforming to the spacing requirements effective at the time said well was drilled shall be considered to be located in conformance with this rule.

RULE 3. The Secretary of the Commission shall have authority to grant exception to the requirements of Rule 2 without notice and hearing where application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all operators within a 1320-foot radius of the subject well a copy of the application to the Commission, and applicant shall include with his application a list of names and addresses of all operators within such radius, together with a stipulation that proper notice has been given said operators at the addresses given. The Secretary of the Commission shall wait at least 20 days before approving any such unorthodox location, and shall approve such unorthodox location only in the absence of objection of any offset operators. In the event an operator objects to the

unorthodox location the Commission shall consider the matter only after proper notice and hearing.

RULE 4. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 5. (a) The acreage allocated to a gas well for proration purposes shall be known as the gas proration unit for that well. For the purpose of gas allocation in the_____Gas Pool, a standard proration unit shall consist of between 158 and 162 contiguous surface acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Lands Surveys, provided, however, that a gas proration unit of less than 158 acres or more than 162 acres may be formed after notice and hearing by the Commission or as outlined in Paragraph (d) of this rule. Any standard proration unit consisting of between 158 and 162 contiguous surface acres shall be considered as containing 160 acres for the purpose of computing allowables.

(b) Any proration unit containing less than 158 acres or more than 162 acres shall be a non-standard unit and its allowable shall be decreased or increased in the proportion that the standard proration unit allowable bears to the number of acres contained therein.

(c) Non-standard units shall meet the following requirements:

1. Shall contain not more than 640 acres, the overall length or width of which shall not exceed 5,280 feet; except in instances where the formation of a unit comprising four quarter sections results in a total acreage in excess of 640 acres; and in such event, the unit will be considered to be only 640 acres for proration purposes.

2. All acreage assigned a non-standard unit shall be adjacent or contiguous to the acreage on which the well on said unit is located.

3. All acreage included shall reasonably be presumed to be productive of gas.

(d) The Secretary of the Commission shall grant exceptions to Rule 5 (a) without notice and hearing where the following facts exist and the following provisions are complied with:

1. Application for non-standard unit has been filed in due form with the Secretary of the Commission.

2. Applicant has submitted satisfactory evidence that all operators of offset acreage have been furnished with a copy of the application for the unit.

3. There is no objection, in writing, to the formation of the non-standard unit received by the Secretary of the Commission from any offset operator within twenty (20) days after date of receipt of application by the Secretary of the Commission.

RULE 6. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 7. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 8. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 9. Same as Order No. R-520.

RULE 10. Same as Order No. R-520.

RULE 11. Same as Order No. R-520.

RULE 12. Same as Order No. R-520.

RULE 13. Same as Order No. R-520, except substitute applicable Gas Pool Name.

DEFINITIONS

RULE 14. A gas well in the _____Gas Pool shall mean any well within the vertical and horizontal limits of the_____Gas Pool:

(a) Producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of in excess of 45° API, or

(b) Producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of less than 45° API and a gas-oil ratio of in excess of 100,000/1.

RULE 15. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 16. Same as Order No. R-520.

RULE 17. Same as Order No. R-520, except substitute applicable Gas Pool Name.

RULE 18. Same as Order No. R-520, except substitute applicable Gas Pool Name.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

November 16, 1955

IN THE MATTER OF:

CASE NO. 727

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES

COURT REPORTERS

605 SIMMS BUILDING

TELEPHONE 3-6691

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 16, 1955

IN THE MATTER OF:

The application of the Oil Conservation Commission, upon its own motion to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico. Case 727

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the Blinebry Gas Pool situated in Lea County, New Mexico.

In considering the foregoing matter, notice is further given that the contemplated order may affect the Blinebry and/or Terry-Blinebry Oil Pools situated in Lea County, New Mexico.

BEFORE:

Honorable John F. Simms, Jr.
Mr. E. S. (Johnny) Walker
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case is Case No. 727. Does anyone have any statements or testimony they wish to present in Case 727? Mr. Malone.

MR. MALONE: Ross Malone for Gulf Oil Corporation. May it please the Commission, if there is no testimony to be presented, Gulf would like to state that it has reviewed the evidence that has become available since this matter was originally considered by the

Commission, and that that review has not caused it to change any of the opinions or recommendations which were originally made to the Commission.

The rules that were promulgated seem to us to be working satisfactorily and it is Gulf's recommendation that the temporary order 610-B be made permanent.

MR. MACEY: Anyone else have a statement? Mr. Smith.

MR. SMITH: On behalf of Stanolind Oil and Gas Company, I would like to concur in the statement made by Mr. Malone. We, too, have reviewed the tests made recently in the field and the pressure differentials appear to remain favorable to the oil withdrawals in there, which seemed to be the chief concern of the Commission at the original hearing. We think that a final order would be justified but the subject would be subject to review by the Commission even if the final order were entered.

MR. HINKLE: Clarence Hinkle representing Humble Oil and Refining Company. It is our understanding that the Commission is now engaged in making a survey of bottom hole pressures and gas-oil ratios in this area which is not complete. We feel that it would be far better to wait until all this information is available before adopting any definite order, and make this information available to the companies that are interested and give them an opportunity to go over it and see what it shows. It might be that after this survey is made, that some of the companies would want to make recommendations that they wouldn't otherwise.

For that reason, I would like to make a motion that the matter be continued on the docket until the December hearing if at that time the information will be complete and available. Mr. Dewey said we

ought to make it three months, in case the information is not going to be completed.

MR. MACEY: Three months?

MR. HINKLE: I don't know when the information is going to be available.

MR. MACEY: I am not sure. Let me ask Mr. Montgomery. Maybe he knows exactly what the status is.

MR. MONTGOMERY: We have received quite a bit of pressure data on it. The engineer at Hobbs has made certain interpretations, as I have. All we lack are the pressures on the Blinebry Gas Field. It is my personal feeling that the differential is slightly getting less and less between the Terry-Blinebry and the Blinebry, but nothing is being heard at this time. It is my personal feeling that the next six months pressure survey may show some changes. It would be my thought to take the case under advisement.

MR. MACEY: I take it from what he says, Mr. Hinkle, that most of the data is in.

MR. HINKLE: Then I will make a motion that the case be continued on the docket until the December hearing.

MR. MACEY: Does anyone else have anything further? Mr. Kellahin.

MR. KELLAHIN: Jason Kellahin for Continental Oil Company. Since the last hearing on the Blinebry gas pool, Continental has continued development in both the Blinebry Gas Pool and the Terry-Blinebry Oil Pool and has continued to study the reservoir in an effort to develop additional data to supplement that presented by Gulf Oil Corporation and Commission personnel at the last hearing. To date our efforts have failed to develop any information of suf-

ficient importance to justify its presentation at this time. Our views in regard to the reservoir, as expressed at the last hearing, remain essentially unchanged. This view is that there may be commercial oil production in the lower portion of the Blinebry zone. Data available at the present time, however, are insufficient to permit an accurate judgment of the commercial quality of these zones and this judgment should therefore be reserved for a later date. We feel that it is very important to continue to observe pressure performance in the two pools in order to be certain that there is no shrinkage of the gas cap.

It is Continental's recommendation that present rules remain in effect but, in view of the above mentioned possibilities, we would like to reserve the right to re-open the case at a later date in the event future development justifies reconsideration of the matter.

MR. MACEY: Does anyone else have a statement to be made in this case?

MR. VANN: Atlantic Refining Company. The Atlantic at this time feels that significant waste is not occuring with the present regulations in effect in the Blinebry Gas Pool and the Terry-Blinebry Oil Pool. Accordingly, it is recommended that they remain unchanged particularly in regard to the system of proration, unit spacing, and method of allocation. It is further recommended that the two pools continue to be prorated separately as in the past.

MR. MACEY: Anyone else? We will continue Case 727 until the December hearing, and we will make every effort to circulate all the information that we have on the pressure surveys just as soon as possible for those who have a maximum amount of time to

examine this pressure differential.

* * * * * *

STATE OF NEW MEXICO)
: SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings at 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.

WITNESS my hand and notarial seal this 28th day of November, 1955.

Ada Dearnley
Notary Public-Court Reporter

My Commission Expires:
June 19, 1959.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 727

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-9546
ALBUQUERQUE, NEW MEXICO

[illegible]

OIL CONSERVATION [illegible]

Santa Fe, New Mexico

[illegible], 195[illegible]

- -

IN THE MATTER OF:

Application of the Commission, upon its own motion, to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico.

Case No. 727

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BEFORE:

Honorable Edwin L. Mechem
Mr. E. S. (Johnny) Walker
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 727. Does anyone have any evidence to present in Case 727? Mr. Walker?

MR. WALKER: Don Walker with Gulf. Unless someone has some evidence to present, Gulf is probably one of the [illegible] of gas reserved in the Blinebry. We would like to study the [illegible] and ask for a continuance [illegible].

MR. [illegible]: [illegible]

[illegible]

MR. [illegible]: No, sir.

MR. [illegible]: [illegible]?

MR. [illegible]: [illegible].

[illegible]: Do [illegible] you have an objection to the motion for continuance? [illegible] the case will be continued to the [illegible] September [illegible].

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 20th day of August, 1954.

Ada Dearnley
Notary Public, Court Reporter

My Commission Expires:
June 19, 1955

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Santa Fe, New Mexico

* * * * *

TRANSCRIPT OF PROCEEDINGS

CASE NO. 727

Regular Hearing

SPECIAL
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 10, 1954

IN THE MATTER OF:

Application of the Oil Conservation Commission, upon its own motion to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico.

Case No. 727

BEFORE:
Honorable Edwin L. Mechem
Mr. E. S. (Johnny) Walker
Mr. R. R. Spurrier

TRANSCRIPT OF HEARING

MR. SPURRIER: The next case on the docket is Case 727. I would like for a moment to consider Case 727 and 728 and 729. I think Mr. Macey of the staff has some comments and recommendations in these three cases.

MR. MACEY: Mr. Spurrier, with particular reference to 727 and 728, I would like to move that the cases be continued to the July hearing in order that the rules which we are now working on to present to the Commission in Case 727 will be available for presentation in possibly a modified form in these cases in July.

Another point is that in Case 729 we selected to include the Terry-Blinebry Oil Pool in the investigation. There is no questio

but what the Terry-Blinebry Oil Pool is different but as much as the Blinebry Oil Pool. Therefore, I would like to move for a continuance of 727, 728 until the regular hearing in July.

MR. SPURRIER: Is there any one who would like to present testimony in either Case 727 or 728 at this time, particularly 727 at this moment? Is there objection to Mr. Macey's motion to continue until July? If not we will recommend to the Commission that the case be continued to the regular hearing, July 15th.

C E R T I F I C A T E

I, ADA DEARNLEY, do hereby certify that the above and foregoing transcript of proceedings before the New Mexico Oil Conservation Commission, in Mabry Hall, Santa Fe, New Mexico on June 16, 1954, is a true and correct record to the best of my knowledge, skill and ability.

Dated at Albuquerque, New Mexico, this 19th day of June, 1954.

Ada Dearnley
Notary Public

My Commission Expires:
June 19, 1955

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 727 Regular Hearing

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 15, 1954

IN THE MATTER OF:

Application of the Commission, upon its own motion, to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico.

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the Blinebry Gas Pool.

Notice is further given that the contemplated order may affect the Terry-Blinebry and Blinebry Oil Pools situated in Lea County.

Case No. 727

BEFORE:

Mr. E. S. (Johnny) Walker
Mr. R. R. Spurrier

TRANSCRIPT OF HEARING

MR. SPURRIER: The next case on the docket is Case 727.

MR. MACEY: In connection with Case 727 we would like to move that the case be continued until August 19th, the regular August hearing, pending further study by both the industry and the Commission personnel. The preliminary investigation has made that the Blinebry Gas Pool is a little bit more complex than what it was generally thought to be. It also would be advisable to have available the new rules in the three gas pools which were heard in

Case 673, more or less as a guide, before this case is heard. Therefore, I would like to move for a continuation.

MR. SPURRIER: Is there objection? Counsel suggests that someone may be ready to testify. If so we certainly agree to do so. If no testimony is to be presented we will continue the case to August 18th.

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 17th day of July, 1954.

Ada Dearnley
Notary Public, Court Reporter

My Commission Expires:
June 19, 1955

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

September [illegible], 19[illegible]

IN THE MATTER OF:

Regular Hearing

CASE NO. 12[illegible] & 12[illegible] Consolidated

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES

COURT REPORTERS

ROOMS 105, 106, 107 EL CORTEZ BUILDING

TELEPHONE 7-9546

ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 16, 1954

- -

IN THE MATTER OF:

Application of the Commission, upon its own motion, to consider an order amending, revising or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico.

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the Blinebry Gas Pool.

Notice is further given that the contemplated order may affect the Terry-Blinebry and Blinebry Oil Pools situated in Lea County.

Cases No.

727 & 728

Consolidated.

- - - -

Application of the Commission, upon its motion, for an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission and promulgating additional rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Tubb, Drinkard and Justis Gas Pools, Lea County, New Mexico.

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the following designated gas pools situated in Lea County: Drinkard Gas Pool, Justis Gas Pool, Tubb Gas Pool.

[illegible]:

Honorable Edwin L. [illegible]
Mr. J. S. (Johnny) Walker
Mr. William R. Macey

TRANSCRIPT OF HEARING

MR. MACEY: Next case on the docket is Case 727. Does anyone have any statements they would like to read into the record in regard to Case 727? Mr. Walker?

MR. WALKER: Mr. Chairman -- or Mr. Ainsworth, go ahead.

MR. AINSWORTH: Earl Ainsworth, Permian Basin Pipeline. We feel you have adopted some very good rules in the Jalmat Order in Case 673, Order No. 520, and we suggest the adoption of similar rules for the Blinebry-Tubb.

MR. MACEY: Mr. Ainsworth, I take it that your comments refer to both Cases 727 and 728, am I correct?

MR. AINSWORTH: That is right.

MR. MACEY: Anyone have a statement? Mr. Walker?

MR. WALKER: Don Walker with Gulf. Case 673, Gulf recommended a basis of 160-acre gas proration unit with the privilege of containing multiple units up to 640 acres. Cases 727, 728 we approve in principal of the rules set forth in Order 520, which, of course, concerns Case 673 and with the exception of the size of the basic unit we would recommend the adoption of the Blinebry, Rye [illegible] and Justis. We would like to make one suggestion on the [illegible] order. We feel that new wells should have an automatic exception for a certain stipulated length of time, to enable [illegible] to be [illegible] up [illegible] next [illegible]

exhibit for exception.

MR. MACEY: Do you have any exception as to time?

MR. WILSON: I would say probably 60 days.

MR. MACEY: In view of the fact your exceptions are concerning Cases 727 and 728, I think the cases should be consolidated. Is there objection to the consolidation of the two cases for the purpose of taking the record. Any further comments in the consolidation of 727 and 728.

MR. CHRISTIE: R. S. Christie. We concur in Gulf Corporation's recommendation.

MR. MACEY: Anything else? Anyone else?

MR. HOLLOWAY: I have a statement to make regarding the Justis Field.

MR. MACEY: It will be in order for you to come forward. Are you going to put some testimony in?

MR. HOLLOWAY: I am going to make a statement. It can be considered in the form of testimony, probably it should be.

MR. MACEY: I think we ought to swear you in, in view of that.

(Witness sworn.)

[illegible],

having been first duly sworn, testified as follows:

[illegible]

[illegible] the [illegible] field, [illegible] limits of which [illegible] been previously defined. At that time there were only four producing wells and on the basis of the [illegible] then available, this group recommended that the field limits be defined as comprising the southwest quarter of Section 1, the southeast quarter of Section 2, the east half of Section 11, the west half of Section 12, the west half of Section 13, the east half of Section 14 and the east half of Section 23, and the west half of Section 24, all being located in Township 25 South, Range 37 East.

It was further stated in this report that the productive section appeared to be confined to the interval from a minimum of seven feet, to a maximum of 160 feet below the Glorietta Horizon, and it was recommended that a more or less arbitrary figure of 200 feet below the Glorietta datum as being the reasonable vertical limit for the Justis Gas Zone. Long after that record was made, and the limit of the field was defined by the Oil Conservation Commission, or to be exact, on August 26, 1953, Tide-water Associated Oil Company completed deepening its Coto C Number 1 well to the Glorietta Formation. The Glorietta was encountered at 1515 feet subsea, which was the highest on structure of any well in the field. The Oil Conservation Commission on October 21, 1953, by its Order No. [illegible]-178 approved the dual completion of this well to produce gas from both the [illegible] Section at [illegible], 3150 and from the Glorietta [illegible] to 471[illegible]. Upon completion of Glorietta section producing through tubing, [illegible] ,250 MCF of gas [illegible] 24 [illegible] pressure of 1,72[illegible] pounds.

Under the existing circumstances, [illegible] of this field [illegible] only 40 [illegible] allotted to

the well, although 100 [illegible], all of which appears now to be reasonably considered productive [illegible] in this lease. We would like to request that in consideration of the additional data made avail- able through the drilling of Tidewater's [illegible] No. [illegible] well, and in keeping with the recommendations previously made with respect to the vertical limits of the pool, that the horizontal be extended east to the minus 1,650 contour, as shown on Tidewater's structural map here which we will present as an exhibit. So as to include the east half of Section 21, no further extensions appear to be necessary pending further development. That is all I have, Mr. Macey.

MR. MACEY: Any questions of the witness? If not the witness may be excused.

(Witness excused.)

MR. MACEY: You wish to offer that exhibit in evidence?

MR. HOLLOWAY: I do.

MR. MACEY: Is there objection to the introduction of this exhibit which we will mark, Tidewater, Exhibit No. 1?

(Marked Tidewater's Exhibit No. 1, for identification.)

MR. MACEY: If not the exhibit will be received. Any further statement or comment in consolidated Cases 727 and 728?

MR. [illegible]: Jason [illegible], Continental Oil Company. [illegible] confined to [illegible] the Tubb Gas Pool. [illegible] any [illegible] Gulf Oil Company [illegible] the following [illegible] lack of sufficient [illegible] rules [illegible]

[illegible] [illegible] --
we don't feel the information will be available at that time. I believe it was brought out [illegible] is surrounded by an oil rim and recent information would [illegible] to indicate that the rim goes completely around the pool. We feel the same situation possibly exists in the Tubb Pool and the situation merits study, so we would like to see the order be made temporary in nature, with a hearing to be set at a later date, and Continental would cooperate fully in a study to be made in the two pools.

We also agree with the recommendations of Gulf for a 160-acre basic unit, but do not feel that a tolerance of more than 320 acres should be allowed. No more than 320 acres be attributed to one well, and that only after notice and hearing. As a matter of fact I do not feel the Commission could grant exception if you have a basic unit of 160 acres, except after notice and hearing.

We are also strongly in favor of the 100 percent acreage factor which has been included in the other rules and would like to see that apply to these pools as well.

MR. MACEY: Mr. Stanley?

MR. STANLEY: I would like to call the Commission's attention that certain oil pools produced from the identical vertical limits of the Blinebry Gas Pool. They are, namely, the Terry-Blinebry Oil Pool and the Blinebry Oil Pool and subsequent completions, and very recently have [illegible] the same situation in the Tubb Gas Pool. In Order [illegible] the Commission has classified oil wells [illegible] pools as oil wells in the gas pool. However, [illegible] of the Blinebry Gas Pool the

Commission has granted dual completion orders where it would enable the operator to produce Blinebry oil and Blinebry gas. I mention this in order that the Commission carefully consider this problem in writing an order.

MR. MACEY: Mr. Stanley, you said that the Commission had approved dual completions. You mean to tell me we approved the completions where it was producing the Blinebry oil, say, through the tubing and Blinebry gas through the casing?

MR. STANLEY: Yes, sir.

Q Which well?

MR. STANLEY: I don't remember the well, but I think last week in the Hobbs Office we caught that fact. Maybe Mr. Porter might recall that.

MR. PORTER: No, I don't recall. Well, I remember some discussion, but I don't remember the particular well.

MR. MACEY: I would sure like to know, because I don't think we have.

MR. STANLEY: Well, I may be wrong, but I think that I could go back into the office and pick up the file and call Hobbs and take it up. I mentioned that fact to make a further investigation and operators are waiting to see what the Commission's policy will be in affecting dual completions in these pools, especially the Terry-Blinebry pool.

[illegible]: In view of the fact that [illegible] and any testimony [illegible] Blinebry on the [illegible] concerning [illegible] wells, and [illegible] is, [illegible] the Commission's [illegible]

to recommend the fact that possibly some of the existing rules should be changed, my feeling is that we should continue the case until next month with the idea in mind of getting on further testimony to substantiate the changes in rules.

The introduction of statements are fine, we welcome the introduction of statements, but you can't back up an order in the Court House with statements. The Commission 's staff has done quite a bit of work on the field, particularly on the Blinebry because we think that that is probably the most serious case. And, we will attempt to put on some testimony next month in connection with the cases, and, of course, if anyone else wants to put on any evidence that will be welcomed also.

Is there any further statements or comments in the case? If not the Cases 727 and 728 will be continued to October 20th.

STATE OF NEW MEXICO)
: ss.
COUNTY OF BERNALILLO)

I, MARIANNA MEYER, 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 seal this 2[illegible] day of [illegible], 1964.

Marianna Meyer
Court Reporter

My Commission Expires:
[illegible], 1964.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 727

TRANSCRIPT OF PROCEEDINGS

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
NOVEMBER 13, 1956

IN THE MATTER OF: Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing Rules and Regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool.	Case No. 727

BEFORE:

Mr. A. L. Porter
Mr. E. S. (Johnny) Walker

TRANSCRIPT OF PROCEEDINGS

MR. PORTER: We will take up next Case 727.

MR. GURLEY: "Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing Rules and Regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool."

I think at this time I would like to move that the case be continued until the next hearing.

MR. PORTER: Just a minute, Mr. Gurley. I believe Mr. Mankin has something on that.

MR. MANKIN: Yes, on behalf of the Commission Staff I would like to recommend that it be continued until the regular January hearing rather than the December hearing, for these two reasons: First, that there is a survey, a bottomhole pressure survey being conducted at the present time on which the report is due the 15th of this month, and therefore we need the analysis from the particular survey to analyze the problems we have at hand in the whole Blinebry situation.

Secondly, the Commission has issued a memorandum for a gas liquid survey for the Tubb formation to be conducted from November 5th to December 15, and to be reported to the Commission by December 25. We feel that that particular survey, due to the amount of oil wells now being completed and due to the amount of liquid being produced with the gas wells in the Tubb formation, is a pertinent factor and possibly it should be a subject of the hearing if possible, at the January hearing, to put on certain rules for the Tubb Pool and the Tubb and Blinebry overlying each other the problems are similar. It is my recommendation that they be heard together at the January hearing rather than the December hearing.

MR. PORTER: Do we have any objections or any comments concerning Mr. Mankin's motion for the continuation of this case until January? There being no objection, the case will be continued to the regular hearing date in January.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLC)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript 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 22nd day of November, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
Notary Public

My commission expires:

June 19, 1959.

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

November 16, 1955

IN THE MATTER OF:

CASE NO. 727

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 16, 1955

IN THE MATTER OF:

The application of the Oil Conservation Commission, upon its own motion to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission and/or promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico. Case 727

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the Blinebry Gas Pool situated in Lea County, New Mexico.

In considering the foregoing matter, notice is further given that the contemplated order may affect the Blinebry and/or Terry-Blinebry Oil Pools situated in Lea County, New Mexico.

BEFORE:

Honorable John F. Simms, Jr.
Mr. E. S. (Johnny) Walker
Mr. William B. Macey

TRANSCRIPT OF HEARING

MR. MACEY: The next case is Case No. 727. Does anyone have any statements or testimony they wish to present in Case 727? Mr. Malone.

MR. MALONE: Ross Malone for Gulf Oil Corporation. May it please the Commission, if there is no testimony to be presented, Gulf would like to state that it has reviewed the evidence that has become available since this matter was originally considered by the

Commission, and that that review has not caused it to change any of the opinions or recommendations which were originally made to the Commission.

The rules that were promulgated seem to us to be working satisfactorily and it is Gulf's recommendation that the temporary order 610-B be made permanent.

MR. MACEY: Anyone else have a statement? Mr. Smith.

MR. SMITH: On behalf of Stanolind Oil and Gas Company, I would like to concur in the statement made by Mr. Malone. We, too, have reviewed the tests made recently in the field and the pressure differentials appear to remain favorable to the oil withdrawals in there, which seemed to be the chief concern of the Commission at the original hearing. We think that a final order would be justified but the subject would be subject to review by the Commission even if the final order were entered.

MR. HINKLE: Clarence Hinkle representing Humble Oil and Refining Company. It is our understanding that the Commission is now engaged in making a survey of bottom hole pressures and gas-oil ratios in this area which is not complete. We feel that it would be far better to wait until all this information is available before adopting any definite order, and make this information available to the companies that are interested and give them an opportunity to go over it and see what it shows. It might be that after this survey is made, that some of the companies would want to make recommendations that they wouldn't otherwise.

For that reason, I would like to make a motion that the matter be continued on the docket until the December hearing if at that time the information will be complete and available. Mr. Dewey said we

ought to make it three months, in case the information is not going to be completed.

MR. MACEY: Three months?

MR. HINKLE: I don't know when the information is going to be available.

MR. MACEY: I am not sure. Let me ask Mr. Montgomery. Maybe he knows exactly what the status is.

MR. MONTGOMERY: We have received quite a bit of pressure data on it. The engineer at Hobbs has made certain interpretations, as I have. All we lack are the pressures on the Blinebry Gas Field. It is my personal feeling that the differential is slightly getting less and less between the Terry-Blinebry and the Blinebry, but nothing is being heard at this time. It is my personal feeling that the next six months pressure survey may show some changes. It would be my thought to take the case under advisement.

MR. MACEY: I take it from what he says, Mr. Hinkle, that most of the data is in.

MR. HINKLE: Then I will make a motion that the case be continued on the docket until the December hearing.

MR. MACEY: Does anyone else have anything further? Mr. Kellahin.

MR. KELLAHIN: Jason Kellahin for Continental Oil Company. Since the last hearing on the Blinebry gas pool, Continental has continued development in both the Blinebry Gas Pool and the Terry-Blinebry Oil Pool and has continued to study the reservoir in an effort to develop additional data to supplement that presented by Gulf Oil Corporation and Commission personnel at the last hearing. To date our efforts have failed to develop any information of suf-

ficient importance to justify its presentation at this time. Our views in regard to the reservoir, as expressed at the last hearing, remain essentially unchanged. This view is that there may be commercial oil production in the lower portion of the Blinebry zone. Data available at the present time, however, are insufficient to permit an accurate judgment of the commercial quality of these zones and this judgment should therefore be reserved for a later date. We feel that it is very important to continue to observe pressure performance in the two pools in order to be certain that there is no shrinkage of the gas cap.

It is Continental's recommendation that present rules remain in effect but, in view of the above mentioned possibilities, we would like to reserve the right to re-open the case at a later date in the event future development justifies reconsideration of the matter.

MR. MACEY: Does anyone else have a statement to be made in this case?

MR. VANN: Atlantic Refining Company. The Atlantic at this time feels that significant waste is not occuring with the present regulations in effect in the Blinebry Gas Pool and the Terry-Blinebry Oil Pool. Accordingly, it is recommended that they remain unchanged particularly in regard to the system of proration, unit spacing, and method of allocation. It is further recommended that the two pools continue to be prorated separately as in the past.

MR. MACEY: Anyone else? We will continue Case 727 until the December hearing, and we will make every effort to circulate all the information that we have on the pressure surveys just as soon as possible for those who have a maximum amount of time to

examine this pressure differential.

* * * * * *

STATE OF NEW MEXICO)
: SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings at 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.

WITNESS my hand and notarial seal this 28th day of November, 1955.

Ada Dearnley
Notary Public-Court Reporter

My Commission Expires:
June 19, 1959.

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. 727
Order No. R-610

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING
EXISTING RULES AND REGULATIONS OF
THE OIL CONSERVATION COMMISSION,
AND/OR PROMULGATING RULES AND
REGULATIONS RELATING TO GAS POOL
DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING
OR CONCERNING THE BLINEBRY GAS
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 June 16, 1954, and was successively continued to October 20, 1954, at which time it came on for final hearing at Hobbs, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 11th. ,day of April, 1955, the Commission, a quorum being present, having considered the record and the testimony entered at said hearing, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That under date of February 17, 1953, the Commission did issue its Order No. R-264 creating the Blinebry Gas Pool. That Order R-264, as amended by Order R-264-A, as further amended by Order R-464, did define the vertical and horizontal limits of the Blinebry Gas Pool and that by subsequent orders, the Commission extended the horizontal limits of the Blinebry Gas Pool.

(3) That under date of September 28, 1953, the Commission issued Order R-372 and under date of November 10, 1953, the Commission issued Order 372-A, which orders provided rules, definitions and procedures to be followed in prorating gas in the Blinebry Gas Pool; and by subsequent orders issued after due notice and hearing, the Commission did allocate the production of gas in said pool commencing January 1, 1954.

(4) That the producing capacity of gas wells in the Blinebry Gas Pool is in excess of the market demand for gas produced from said pool.

(5) That, in order to prevent waste, it is necessary to allocate and prorate the production of gas among the gas wells in the Blinebry Gas Pool in accordance with the provisions of this order.

(6) That the protection and proper recognition of correlative rights as such rights are defined by Section 26 (h), Chapter 168, New Mexico Session Laws of 1949, require that the production of gas be prorated in accordance with the terms and provisions of this order.

(7) That the Rules and Regulations hereinafter set forth in this order are in all respects in the interests of conservation and provide for the allocation of allowable production among the gas wells in the Blinebry Gas Pool on a reasonable basis and give appropriate recognition to correlative rights.

(8) That the production of oil from the Blinebry Oil Pool is a salvage operation and should be administered as such.

(9) That the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool should be redefined as set forth in Exhibits "A", "B" and "C", attached hereto and made a part hereof.

(10) That the vertical limits of the Blinebry Gas Pool should be defined as set out in Commission Order R-464 and as hereinafter repeated.

(11) That one gas well in the Blinebry Gas Pool will effectively and efficiently drain an area of 160 acres. Due to the complex nature of the Blinebry Gas and associated reservoirs, gas proration units in excess of 160 acres should not be permitted pending further reservoir information.

(12) That, in order to prevent waste, a "no-flare" rule should be adopted to prohibit the flaring, venting or otherwise wasting of casinghead gas or any other type of gas produced in the Blinebry Gas Pool, the Blinebry Oil Pool or the Terry-Blinebry Oil Pool.

(13) That semi-annual bottom-hole pressure surveys should be conducted in portions of the Blinebry Gas Pool and in the entire Terry-Blinebry Oil Pool to ascertain the pressure differential which exists between that portion of the common source of supply known to contain dry gas and the rim of the reservoir which is known

to contain a commercial accumulation of oil.

(14) That, in order to classify wells in the Blinebry Gas Pool and the Blinebry Oil Pool, semi-annual gas-liquid ratio tests and semi-annual determinations of the gravity of that liquid hydrocarbon produced from wells in said pools should be conducted in the Blinebry Oil Pool and the Blinebry Gas Pool.

(15) That, in the interests of conservation, the special rules hereinafter set forth governing the production of gas from the Blinebry Gas Pool and the production of oil from the Blinebry Oil Pool and the Terry-Blinebry Oil Pool should be adopted.

IT IS THEREFORE ORDERED:

(1) That the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool shall be the areas described in Exhibits "A", "B" and "C", attached hereto and made a part hereof.

(2) That the vertical limits of the Blinebry Gas Pool and the Blinebry Oil Pool shall extend from a point 75 feet above the "Blinebry Marker" to a point 300 feet below the "Blinebry Marker".

(3) That special pool rules applicable to the Blinebry Gas Pool should be, and the same hereby are promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE
BLINEBRY GAS POOL

Well Spacing and Acreage Requirements for Drilling Tracts:

RULE 1: Any well drilled a distance of one mile or more outside the boundary of the Blinebry Gas Pool shall be classified as a wildcat well. Any well drilled less than one mile outside the boundary of the Blinebry Gas Pool shall be spaced, drilled, operated and prorated in accordance with the regulations in effect in the Blinebry Gas Pool.

RULE 2: Each well drilled or recompleted within the Blinebry Gas Pool on a standard proration unit after the effective date of this rule shall be drilled not closer than 660 feet to any boundary line of the tract nor closer than 330 feet to a quarter-quarter section line or subdivision inner boundary line. Any well drilled to and producing from the Blinebry Gas Pool prior to the effective date of this order at a location conforming to the spacing requirements effective at the time said well was drilled shall be considered to be located in conformance with this rule.

RULE 3: The Director of the Commission shall have authority to grant exception to the requirements of Rule 2 without notice and hearing where application has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all operators within a 1320-foot radius of the subject well a copy of the application to the Commission. Applicant shall include with his application a list of names and addresses of all operators within such radius, together with a stipulation that proper notice has been given said operators at the addresses given. The Director of the Commission shall wait at least 20 days before approving any such unorthodox location, and shall approve such unorthodox location only in the absence of objection of any offset operator. In the event an operator objects to the unorthodox location, the Commission shall consider the matter only after proper notice and hearing.

RULE 4: The provisions of Statewide Rule 104, Paragraph (k), shall not apply to the Blinebry Gas Pool located in Lea County, New Mexico.

Gas Proration:

RULE 5: (A) That acreage allocated to a gas well for proration purposes shall be known as the gas proration unit for that well. For the purpose of gas allocation in the Blinebry Gas Pool, a standard proration unit shall consist of between 158 and 162 surface contiguous acres substantially in the form of a square which shall be a legal subdivision (quarter section) of the U. S. Public Land Survey; provided, however, that a non-standard gas proration unit may be formed after notice and hearing by the Commission, or under the provisions of Paragraph (B) of this Rule.

(B) The Director of the Commission shall have authority to establish a non-standard gas proration unit by administrative action (without notice and hearing) where application has been filed in due form and where the following facts exist and the following provisions are complied with, without exception.

1. The non-standard proration unit will consist of contiguous quarter-quarter sections and/or lots, with a common side between any two adjacent quarter-quarter sections and/or lots.

2. The non-standard proration unit will lie wholly within a single governmental quarter section.

3. The entire non-standard proration unit may be reasonably assumed to be productive of gas from the Blinebry Gas Pool.

4. The length or width of the non-standard gas proration unit will not exceed 2640 feet.

5. The applicant presents written consent in the form of waivers from:

(a) All operators owning interests in the quarter section in which the non-standard gas proration unit is to be situated, which interest is not included in the proposed non-standard gas proration unit.

(b) All operators owning interests within 1500 feet of the well to which such non-standard gas proration unit is to be dedicated.

6. In lieu of the provisions of subparagraph 5 under Paragraph (B) of this rule, applicant may furnish proof of the fact that said offset operators were notified by registered mail of his intent to form such non-standard gas proration unit. The Director of the Commission may approve such application for administrative approval of a non-standard gas proration unit if, after a period of 30 days following the mailing of said notice, no operator has entered an objection to the formation of such non-standard gas proration unit.

(C) The allowable production from any non-standard gas proration unit as compared with the allowable production therefrom if such tract were a standard unit shall be in the ratio the area of such non-standard proration unit bears to a standard proration unit of 160 acres. Any gas proration unit containing between 158 and 162 acres shall be considered to contain 160 acres for the purpose of computing allowables.

RULE 6: Acreage dedicated to a gas well in the Blinebry Gas Pool shall not be simultaneously dedicated to an oil well in the Blinebry Oil Pool.

RULE 7: In the event an oil well in the Blinebry Oil Pool is reclassified as a gas well in the Blinebry Gas Pool, the operator of such well will be afforded the opportunity to form a non-standard proration unit for the well; provided, however, that until such unit is formed, such well shall be allocated a gas allowable commensurate with the acreage contained in the unit formerly dedicated to the oil well in the Blinebry Oil Pool.

RULE 8: In the event such reclassification should cause the occurrence of two gas wells producing from the Blinebry Gas Pool within a single proration unit, the sum total of the allowables allocated to the two wells shall be equivalent to that volume of gas allocated to a single proration unit; provided, however, that the operator of such wells shall have the option to determine the proportion of the assigned allowable to be produced by each individual well.

RULE 9: The dual completion of a well so as to produce gas from the Blinebry Gas Pool and oil from the Blinebry Oil Pool is hereby prohibited.

RULE 10: (a) The Commission after notice and hearing shall consider the nominations of gas purchasers from the Blinebry Gas Pool and other relevant data and shall fix the allowable production of gas from the Blinebry Gas Pool.

(b) The allowable assigned any well capable of producing its normal gas allowable shall be the same proportion of the total remaining allowable allocated to said pool, after deducting allowables of marginal wells, that the number of acres contained in the gas proration unit for that well bears to the acreage contained in all gas proration units assigned to non-marginal wells in the Blinebry Gas Pool.

RULE 11: At least 30 days prior to the beginning of each gas proration period, the Commission shall hold a hearing after due notice has been given. The Commission shall cause to be submitted by each gas purchaser "Preliminary Nominations" of the amount of gas which each in good faith actually desires to purchase within the ensuing proration period, by months, from the Blinebry Gas Pool. The Commission shall consider the "Preliminary Nominations" of purchasers, actual production and such other factors as may be deemed applicable in determining the amount of gas that may be produced without waste within the ensuing proration period. "Preliminary Nominations" shall be submitted on a form prescribed by the Commission.

RULE 12: In the event a gas purchaser's market shall have increased or decreased, purchaser may file with the Commission prior to the 10th day of the month a "Supplemental" nomination showing the amount of gas the purchaser in good faith actually desires to purchase during the ensuing proration month from the Blinebry Gas Pool. "Supplemental Nominations" shall be submitted on a form prescribed by the Commission. The Commission shall hold a public hearing between the 13th and 20th days of each month to determine the reasonable market demand for gas for the ensuing proration month and shall issue a proration schedule setting out the amount of gas which each well may produce during the ensuing proration month.

Included in the monthly proration schedule shall be:

(a) A summary of the total pool allocation for that month showing nominations and adjustments made for underage or overage applied from a previous month.

(b) A tabulation of the net allowable and production for the second preceding month, together with a cumulative overage or underage computation.

(c) A tabulation of the current and net allowables for the preceding month.

(d) A tabulation of current monthly allowables for the ensuing proration month.

(e) A tabulation of the acreage assigned each well together with a tabulation of the acreage factor assigned each well. For the purposes of allocation, a proration unit of 160 acres shall be assigned an acreage factor of 1.00; a proration unit of 80 acres a factor of 0.50, etc.

The Commission shall include in the proration schedule the gas wells in the Blinebry Gas Pool delivering to a gas transportation facility, or lease gathering system, and shall include in the proration schedule of the Blinebry Gas Pool any well which it finds is being unreasonably discriminated against through denial of access to a gas transportation facility which is reasonably capable of handling the type of gas produced by such well. The total allowable to be allocated to the pool each month shall be equal to the sum of the preliminary or supplemental nominations (whichever is applicable), together with any adjustment which the Commission deems advisable.

If, during a proration month, the acreage assigned a well is increased, the operator shall notify the Proration Manager in writing (Box 2045, Hobbs, New Mexico) of such increase. The increased allowable assigned the gas proration unit for the well shall be effective on the first day of the month following receipt of the notification by the Proration Manager.

Balancing of Production:

RULE 13: Underproduction: The dates 7:00 a.m., January 1, and 7:00 a.m., July 1, shall be known as balancing dates and the periods of time bound by these dates shall be known as gas proration periods. The amount of current gas allowable remaining unproduced at the end of each proration period shall be carried forward to and may be produced during the next succeeding proration period in addition to the normal gas allowable for such succeeding period; but whatever amount thereof is not made up within the first succeeding proration period shall be cancelled.

If it appears that such continued underproduction has resulted from inability of the well to produce its allowable, it may be classified as a marginal well and its allowable reduced to the well's ability to produce.

If at the end of a proration period a marginal well has produced more than the total allowable assigned a non-marginal unit of corresponding size, the marginal well shall be reclassified as a non-marginal well and its allowable adjusted accordingly.

If during a proration period a marginal well is reworked or recompleted in such a manner that its productive capacity is increased to the extent that it should be reclassified as a non-marginal well, the reclassification shall be effective on the first day of the proration month following the date of recompletion.

The Proration Manager may reclassify a well at any time if production data or deliverability tests reflect the need for such a reclassification.

RULE 14: Overproduction: A well which has produced a greater amount of gas than was allowed during a given proration period shall have its allowable for the first succeeding proration period reduced by the amount of such overproduction, and such overproduction shall be made up within the first succeeding proration period. If, at the end of the first succeeding proration period, the well is still overproduced, and has not been in balance since the end of the preceding proration period, then it shall be shut-in and its current monthly allowable charged against said overproduction until the well is in balance. If, at any time, a well is overproduced an amount equaling six times its current monthly allowable, it shall be shut-in until it is in balance.

The Commission may allow overproduction to be made up at a lesser rate than would be the case if the well were completely shut-in upon a showing at public hearing after due notice that complete shut-in of the well would result in material damage to the well.

Granting of Allowables

RULE 15: No gas well shall be given an allowable until Form C-104 and Form C-110 have been filed, together with a plat showing acreage attributed to said well and the locations of all wells on the lease.

RULE 16: Allowables to newly completed gas wells shall commence on the date of connection to a gas transportation facility, as determined from an affidavit furnished to the Commission (Box 2045, Hobbs, New Mexico) by the purchaser, or the date of filing of Form C-104 and Form C-110 and the plat described above, whichever date is the later.

Reporting of Production

RULE 17: The monthly gas production from each well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the gas produced.

Each purchaser or taker of gas in the Blinebry Gas Pool shall submit a report to the Commission so as to reach the Commission on or before the 20th day of the month next succeeding the month in which the gas was purchased or taken.

Such report shall be filed on either Form C-111 or Form C-114 (whichever is applicable) with the wells being listed in approximately the same order as they are listed on the proration schedule.

Forms C-111 and C-114 referred to herein shall be submitted in duplicate, the original being sent to the Commission at Box 871, Santa Fe, New Mexico, the other copy being sent to Box 2045, Hobbs, New Mexico.

Forms C-115 shall be submitted in accordance with Rule 1114 of the Commission's Rules and Regulations.

The full production of gas from each well shall be charged against the well's allowable regardless of what disposition has been made of the gas; provided, however, that gas used on the lease for consumption in lease houses, treaters, compressors, combustion engines and other similar lease equipment shall not be charged against the well's allowable. The production of intermediate or low-pressure gas derived from the staging of the well fluids need not be charged against the well's gas allowable, provided that said intermediate or low-pressure gas is utilized in accordance with the provisions of Order R-464.

RULE 18: A gas well in the Blinebry Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Gas Pool which:

(a) Produces liquid hydrocarbons possessing a gravity greater than 51° API, or,

(b) Produces liquid hydrocarbons possessing a gravity of less than 51° API, but with a producing gas-liquid ratio in excess of 32,000 cubic feet of gas per barrel of liquid hydrocarbon.

RULE 19: A well producing from within the horizontal and vertical limits of the Blinebry Gas Pool and not classified as a gas well as defined in Rule 18, shall be classified as an oil well in the Blinebry Oil Pool.

RULE 20: Any well drilled and completed in good faith prior to the effective date of this order, which well is situated within the horizontal boundaries of the Blinebry Gas Pool as herein defined but which produces gas from a depth interval exceeding the vertical limits of the Blinebry Gas Pool as herein defined, is hereby validated and shall be classified as a gas well in the Blinebry Gas Pool, provided that said well conforms to the definition of a gas well in the Blinebry Gas Pool, provided that this section of this order, and provided that the well is classified as a gas well in the Blinebry Gas Pool under the rules, regulations and orders in effect on the day immediately preceding the effective date of this order.

RULE 21: The term "gas purchaser", as used in these rules, shall mean any "taker" of gas either at the wellhead or at any point on the lease where a connection is made to facilitate the transportation or utilization of gas. It shall be the responsibility of the "taker" to submit a nomination as provided in Rules 11 and 12.

RULE 22: The Proration Manager may reclassify a well under Rules 18 or 19 if production data, gas-oil ratio tests or other evidence reflects the need for such reclassification.

For proration purposes, the effective date of such reclassification shall be the first day of the next succeeding six months gas proration period.

The Proration Manager will notify the operator of the reclassified well of such reclassification and the effective date thereof; provided, however, that operator may appeal such reclassification to the Director of the Commission in writing.

RULE 23: No gas, either dry gas or casinghead gas, shall be flared, vented or otherwise wasted in the Blinebry Gas Pool at any time after ninety (90) days dating from May 1, 1955, or ninety (90) days from the date of completion of a well in said pool, whichever is the later.

Any operator desiring to obtain an exception to the foregoing provision of this rule shall submit to the Director of the Commission an application for such exception accompanied by a sworn statement setting forth the facts and circumstances which justify such exception. The Director is hereby authorized to grant such exception when the granting of such is necessary to protect correlative rights, prevent waste, or to prevent undue hardship on the applicant. The Director shall (a) grant the exception within 15 days following receipt of the application and statement, or (b) set the application for hearing before the Commission at a regularly scheduled

monthly hearing; provided, however, that no such applicant shall incur any penalty by reason of a delay in setting the application for hearing. Public notice of the hearing of the application shall be published in the manner provided by law.

Should the Director grant an exception to the provision of Rule 23, notification of such exception shall be distributed to the Commission's regular mailing list.

RULE 24: Bottom-hole pressure tests will be conducted semi-annually during the months of May and October on all gas wells located to the north of an east-west line coinciding with the north lines of Sections 21, 22, 23 and 24, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico; such wells to be producing from within the vertical and horizontal boundaries of the Blinebry Gas Pool and classified as gas wells under the rules contained in this order. Results of such tests will be reported to the Commission on Form C-124 on or before the 25th day of June and the 25th day of November of each calendar year.

All bottom-hole pressure tests, except tests on dually completed wells producing from the Blinebry Gas Pool, will be conducted in accordance with Rule 302 of the Rules of the Commission. Shut-in period will be 48 hours, datum elevation will be 2400 feet subsea, (-2400), and base temperature will be 100 degrees Fahrenheit.

Bottom-hole pressures on dually completed wells producing gas from the Blinebry Gas Pool may be calculated from a 72-hour shut-in pressure at the well-head, provided that an accurate determination of the fluid level in the hole is made employing sonic or other methods of equivalent accuracy. The gravity of the fluid in the hole shall be that gravity determined by averaging the gravities of those fluids produced on official test in the Blinebry Gas Pool during the regular semi-annual gas-liquid ratio and gravity testing period next preceding the subject bottom-hole pressure test period. The gravity to be employed in the calculation of bottom-hole pressures during a particular testing period shall be determined by the Commission. All interested operators shall be duly notified of such determination by the Commission.

RULE 25: Gas-liquid ratio tests and determinations of the gravity of that liquid hydrocarbon recovered from wells in the Blinebry Gas Pool shall be conducted semi-annually during the months of May and October on all wells located in and producing from the Blinebry Gas Pool. Results of such tests will be reported to the Commission on Form C-116 on or before the 15th day of June and the 15th day of November of each calendar year.

RULE 26: At no time will the horizontal boundaries of the Blinebry Gas Pool conflict with or overlap the horizontal boundaries of the Terry-Blinebry Oil Pool.

RULE 27: The horizontal limits of the Blinebry Gas Pool shall be those limits set forth in Exhibit "A" attached hereto and made a part hereof.

PROVIDED FURTHER, That special pool rules applicable to the Blinebry Oil Pool be, and the same hereby are promulgated as follows:

SPECIAL RULES FOR THE BLINEBRY OIL POOL

RULE 1: No gas, either dry gas or casinghead gas, shall be flared, vented or otherwise wasted in the Blinebry Oil Pool at any time after ninety (90) days dating from May 1, 1955, or ninety (90) days from the date of completion of a well in said pool, whichever is the later.

Any operator desiring to obtain an exception to the foregoing provision of this rule shall submit to the Director of the Commission an application for such exception accompanied by a sworn statement setting forth the facts and circumstances which justify such exception. The Director is hereby authorized to grant such exception when the granting of such is necessary to protect correlative rights, prevent waste, or prevent undue hardship on the applicant.

The Director shall (a) grant the exception within 15 days following receipt of the application and statement, or (b) set the application for hearing before the Commission at a regularly scheduled monthly hearing; provided, however, that no such applicant shall incur any penalty by reason of a delay in setting the application for hearing. Public notice of the hearing of the application shall be published in the manner provided by law.

Should the Director grant an exception to the provisions of Rule 1, notification of such exception shall be distributed to the Commission's regular mailing list.

RULE 2: An oil well in the Blinebry Oil Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Oil Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of less than 51° API, or,

(b) Produces liquid hydrocarbons possessing a gravity of greater than 51° API, but with a producing gas-liquid ratio not exceeding 32,000 cubic feet of gas per barrel of liquid hydrocarbon.

RULE 3: A well producing from within the vertical and horizontal limits of the Blinebry Oil Pool, and not classified as an oil well under 2, shall be classified as a gas well in the Blinebry Gas Pool.

RULE 4: The Proration Manager may reclassify a well under Rules 2 and 3 when production data, gas-oil ratio tests or other evidence reflects the need for such reclassification.

For proration purposes, the effective date of such reclassification shall be the first day of the next succeeding six-months gas proration period.

The Proration Manager shall notify the operator of the reclassified well of such reclassification and the effective date thereof; provided, however, that the operator of a reclassified well may appeal such reclassification to the Secretary-Director of the Commission in writing.

RULE 5: The limiting gas-oil ratio for oil wells in the Blinebry Oil Pool shall be 6,000 cubic feet of gas per barrel of oil. The provision of this rule shall become effective on May 1, 1955.

RULE 6: Acreage dedicated to an oil well producing from the Blinebry Oil Pool shall not be simultaneously dedicated to a gas well producing from the Blinebry Gas Pool.

RULE 7: The dual completion of a well to produce oil from the Blinebry Oil Pool and gas from the Blinebry Gas Pool is hereby prohibited.

RULE 8: The dual completion of a well to cause said well to be classified as an oil well in the Blinebry Oil Pool and an oil well in any other oil or gas pool as designated by the Commission is hereby prohibited.

RULE 9: Gas-liquid ratio tests and determinations of the gravity of that liquid hydrocarbon recovered from wells in the Blinebry Oil Pool shall be conducted semi-annually during the months of May and October on all wells located in and producing from the Blinebry Oil Pool. Results of such tests shall be submitted to the Commission on Form C-116, on or before the 15th day of June and the 15th day of November of each calendar year.

RULE 10: In the event an oil well in the Blinebry Oil Pool shall be reclassified as a gas well in the Blinebry Gas Pool, operator of such a well shall be afforded the opportunity to form a standard or non-standard gas proration unit for such well under the rules applicable to the Blinebry Gas Pool; provided, however, that until such unit is formed, such well shall be allocated a gas allowable commensurate with the acreage contained in the proration unit formerly dedicated to the oil well in the Blinebry Oil Pool.

RULE 11: The horizontal limits of the Blinebry Oil Pool shall be those limits set forth in Exhibit "B" attached hereto and made a part hereof.

PROVIDED FURTHER, That special rules applicable to the Terry-Blinebry Oil Pool be, and the same hereby are promulgated as follows:

SPECIAL RULES FOR THE TERRY-BLINEBRY OIL POOL

RULE 1: At no time will the horizontal boundaries of the Terry-Blinebry Oil Pool conflict with or overlap the horizontal boundaries of the Blinebry Gas Pool.

RULE 2: No gas, either dry gas or casinghead gas, shall be flared, vented or otherwise wasted in the Terry-Blinebry Oil Pool at any time after ninety days (90) dating from May 1, 1955, or ninety (90) days from the date of completion of a well in the said pool, whichever is the later.

Any operator desiring to obtain an exception to the foregoing provision of this rule shall submit to the Director of the Commission an application for such exception accompanied by a sworn statement setting forth the facts and circumstances which justify such exception. The Director is hereby authorized to grant such exception when the granting of such is necessary to protect correlative rights, prevent waste, or prevent undue hardship on the applicant.

The Director shall (a) grant the exception within 15 days following receipt of the application and statement, or (b) set the application for hearing before the Commission at a regularly scheduled monthly hearing; provided, however, that no such applicant shall incur any penalty by reason of a delay in setting the application for hearing. Public notice of the hearing of the application shall be published in the manner provided by law.

Should the Director grant an exception to the provisions of Rule 2, notification of such exception shall be distributed to the Commission's regular mailing list.

RULE 3: Bottom-hole pressure tests shall be conducted semi-annually during the months of May and October on all flowing oil wells producing from within the limits of the Terry-Blinebry Oil Pool. Results of such tests shall be reported to the Commission on Form C-124 on or before the 25th day of June and the 25th day of November of each calendar year.

Bottom-hole pressure tests will be conducted in accordance with Rule 302 of the Rules of the Commission. Shut-in time will be 48 hours; datum elevation will be 2400 feet subsea (-2400), and base temperature will be 100 degrees Fahrenheit.

RULE 4: The limiting gas-oil ratio for oil wells in the Terry-Blinebry Oil Pool shall be 6,000 cubic feet of gas per barrel of oil. The provision of this rule shall become effective on May 1, 1955.

RULE 5: The dual completion of a well to cause said well to be classified as an oil well in the Terry-Blinebry Oil Pool and an oil well in any other oil or gas pool as designated by the Commission is hereby prohibited.

RULE 6: The horizontal limits of the Terry-Blinebry Oil Pool shall be those limits set forth in Exhibit "C" attached hereto and made a part hereof.

PROVIDED FURTHER, That for gas allocation purposes and assignment of allowables, the provisions of this order shall become effective on May 1, 1955, unless otherwise stated in this order.

It is recognized that many wells will be reclassified and reassigned as a result of the provisions of this order and that the time involved in the reclassification of wells may cause certain inequities; therefore, the Proration Manager is hereby directed to take such action as he deems advisable to prevent inequitable withdrawals.

PROVIDED FURTHER, That in filing Form C-101, "Notice of Intention To Drill or Recomplete", all operators shall strictly comply with the provisions of Commission Rule 104, paragraph (e).

PROVIDED FURTHER, That failure to comply with the provisions of this order or the rules contained herein shall result in the cancellation of allowable assigned to the affected well. No further allowable shall be assigned to the affected well until all rules and regulations are complied with. The Proration Manager shall notify the operator of the well and the purchaser in writing of the date of allowable cancellation and the reason therefor.

PROVIDED FURTHER, That a hearing shall be held on November 16, 1955, at which time the Commission shall hear testimony and receive evidence and shall revise the rules set forth in this order in accordance with testimony and evidence presented at said hearing, if such be necessary.

EXHIBIT "A"

Horizontal Limits of Blinebry Gas Pool

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM	
Sec. 3:	Lots 13, 14, 15 and 16, S/2
Sec. 4:	Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9:	All
Sec. 10:	All
Sec. 11:	SW/4
Sec. 14:	W/2
Sec. 15:	All
Sec. 16:	All
Sec. 21:	All
Sec. 22:	All
Sec. 23:	All
Sec. 26:	W/2 + E/2
Sec. 27:	All
Sec. 28:	All
Sec. 33:	All
Sec. 34:	All
Sec. 35:	All
Sec. 36:	All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM	
Sec. 1:	All
Sec. 2:	All
Sec. 3:	All
Sec. 4:	All
Sec. 9:	All

EXHIBIT "A" (continued)

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM (continued)	
Sec. 10:	All
Sec. 11:	All
Sec. 12:	All
Sec. 13:	All
Sec. 14:	All
Sec. 15:	All
Sec. 22:	All
Sec. 23:	All
Sec. 24:	All
Sec. 25:	All

NE/4 36 Name pro tunc R-610-A

EXHIBIT "B"

Horizontal Limits of Blinebry Oil Pool R-610-A

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM	
Sec. 3:	Lots 13, 14, 15 and 16, S/2
Sec. 4:	Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9:	All
Sec. 10:	All
Sec. 11:	SW/4
Sec. 14:	W/2
Sec. 15:	All
Sec. 16:	All
Sec. 21:	All
Sec. 22:	All
Sec. 23:	All
Sec. 26:	W/2
Sec. 27:	All
Sec. 28:	All
Sec. 33:	All
Sec. 34:	All
Sec. 35:	All
Sec. 36:	All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM	
Sec. 1:	All
Sec. 2:	All
Sec. 3:	All
Sec. 4:	All
Sec. 9:	All
Sec. 10:	All
Sec. 11:	All

EXHIBIT "B" (continued)

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM

Sec. 12:	All
Sec. 13:	All
Sec. 14:	All
Sec. 15:	All
Sec. 22:	All
Sec. 23:	All
Sec. 24:	All
Sec. 25:	All

EXHIBIT "C"

Horizontal Limits of Terry-Blinebry Oil Pool

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM

Sec. 32:	SE/4
Sec. 33:	S/2
Sec. 34:	S/2

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Sec. 1:	Lots 9, 10, 11, 12, 13, 14, 15 & 16, S/2
Sec. 2:	All
Sec. 3:	Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 12
Sec. 4:	Lots 3, 4, 5, 6, 11, 12, 13 and 14
Sec. 11:	N/2, SE/4
Sec. 12:	All
Sec. 13:	All
Sec. 14:	E/2
Sec. 24:	All
Sec. 25:	All
Sec. 26:	E/2

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

S E A L

W. B. MACEY, Member and Secretary

/ir

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 727
Order No. R-610-A

THE APPLICATION OF THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION FOR AN ORDER AMENDING, REVISING OR ABROGATING EXISTING RULES AND REGULATIONS OF THE OIL CONSERVATION COMMISSION, AND/OR PROMULGATING RULES AND REGULATIONS RELATING TO GAS POOL DELINEATION, GAS PRORATION AND OTHER RELATED MATTERS AFFECTING OR CONCERNING THE BLINEBRY GAS POOL, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool in a manner which indicates the true horizontal extent of these pools, the Commission

FINDS:

(1) That Exhibit "A", Exhibit "B" and Exhibit "C" of said order should be revised to redefine the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Exhibit "A" of Order R-610, be changed to read as follows:

EXHIBIT "A"

Horizontal limits of Blinebry Gas Pool:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM	
Sec. 3:	Lots 13, 14, 15 and 16, S/2
Sec. 4:	Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9:	All
Sec. 10:	All
Sec. 11:	SW/4
Sec. 14:	W/2

EXHIBIT "A" (continued)

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM - (continued)

Sec. 15:	All
Sec. 16:	All
Sec. 21:	All
Sec. 22:	All
Sec. 23:	All
Sec. 25:	W/2
Sec. 26:	All
Sec. 27:	All
Sec. 28:	All
Sec. 33:	All
Sec. 34:	All
Sec. 35:	All
Sec. 36:	All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM

Sec. 1:	All
Sec. 2:	All
Sec. 3:	All
Sec. 4:	All
Sec. 9:	All
Sec. 10:	All
Sec. 11:	All
Sec. 12:	All
Sec. 13:	All
Sec. 14:	All
Sec. 15:	All
Sec. 22:	All
Sec. 23:	All
Sec. 24:	All
Sec. 25:	All
Sec. 36:	NE/4

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM

Sec. 7:	W/2
Sec. 18:	W/2
Sec. 19:	All
Sec. 30:	All
Sec. 31:	All

TOWNSHIP 23 SOUTH, RANGE 38 EAST, NMPM

Sec. 6:	N/2

(2) That Exhibit "B" of Order R-610, be changed to read as follows:

EXHIBIT "B"

Horizontal Limits of Blinebry Oil Pool:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM	
Sec. 3:	Lots 13, 14, 15 and 16, S/2
Sec. 4:	Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9:	All
Sec. 10:	All
Sec. 11:	SW/4
Sec. 14:	W/2
Sec. 15:	All
Sec. 16:	All
Sec. 21:	All
Sec. 22:	All
Sec. 23:	All
Sec. 25:	W/2
Sec. 26:	All
Sec. 27:	All
Sec. 28:	All
Sec. 33:	All
Sec. 34:	All
Sec. 35:	All
Sec. 36:	All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM	
Sec. 1:	All
Sec. 2:	All
Sec. 3:	All
Sec. 4:	All
Sec. 9:	All
Sec. 10:	All
Sec. 11:	All
Sec. 12:	All
Sec. 13:	All
Sec. 14:	All
Sec. 15:	All
Sec. 22:	All
Sec. 23:	All
Sec. 24:	All
Sec. 25:	All
Sec. 36:	NE/4

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM	
Sec. 7:	W/2
Sec. 18:	W/2
Sec. 19:	All
Sec. 30:	All
Sec. 31:	All

EXHIBIT "B" (continued)

TOWNSHIP 23 SOUTH, RANGE 38 EAST, NMPM

Sec. 6: N/2

(3) That Exhibit "C" of Order R-610, be changed to read as follows:

EXHIBIT "C"

Horizontal Limits of Terry-Blinebry Oil Pool:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM

Sec. 32: SE/4
Sec. 33: S/2
Sec. 34: S/2

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM

Sec. 1: Lots 9, 10, 11, 12, 13, 14, 15 and 16, S/2
Sec. 2: All
Sec. 3: Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12
Sec. 4: Lots 3, 4, 5, 6, 11, 12, 13 and 14
Sec. 11: N/2, SE/4
Sec. 12: All
Sec. 13: All
Sec. 14: E/2
Sec. 24: All

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 27th day of May, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

S E A L

/ir

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. 727
Order No. R-610-B

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING
EXISTING RULES AND REGULATIONS OF
THE OIL CONSERVATION COMMISSION,
AND/OR PROMULGATING RULES AND
REGULATIONS RELATING TO GAS POOL
DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING
OR CONCERNING THE BLINEBRY GAS POOL,
LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define a gas well in the Blinebry Gas Pool and an oil well in the Blinebry Oil Pool in a manner which clearly states the intent of the Commission, the Commission

FINDS:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool and Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool should be re-worked to eliminate the possibility of confusion resulting from a misinterpretation of these rules as presently stated in said order.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool be stricken, and the following rule be substituted therefor:

RULE 18: A gas well in the Blinebry Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Gas Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of 51° API, or greater, or,

(b) Produces liquid hydrocarbons possessing a gravity of less than 51° API, but with a producing gas-liquid hydrocarbon ratio of 32,000 cubic feet of gas or more, per barrel of liquid hydrocarbon.

(2) That Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool be stricken, and the following rule be substituted therefor:

RULE 2: An oil well in the Blinebry Oil Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Oil Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of less than 51° API, with a producing gas-liquid hydrocarbon ratio of less than 32,000 cubic feet of gas per barrel of liquid hydrocarbon.

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 13th. day of June, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

S E A L

/ir

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 727
Order No. R-610-A

THE APPLICATION OF THE OIL CONSERVATION
COMMISSION ON ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING EXISTING
RULES AND REGULATIONS OF THE OIL CONSERVA-
TION COMMISSION, AND/OR PROMULGATING RULES
AND REGULATIONS RELATING TO GAS POOL DE-
LINEATION, GAS PRORATION AND OTHER RELATED
MATTERS AFFECTING OR CONCERNING THE BLINEBRY
GAS POOL, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool in a manner which indicates the true horizontal extent of these pools, the Commission

FINDS:

(1) That Exhibit "A", Exhibit "B" and Exhibit "C" of said order should be revised to redefine the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Exhibit "A" of Order R-610, be changed to read as follows:

EXHIBIT "A"

Horizontal limits of Blinebry Gas Pool:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM
Sec. 3: Lots 13, 14, 15 and 16, S/2
Sec. 4: Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9: All
Sec. 10: All
Sec. 11: SW/4
Sec. 14: W/2
Sec. 15: All
Sec. 16: All
Sec. 21: All

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM (continued)
Sec. 22: All
Sec. 23: All
Sec. 25: W/2
Sec. 26: All
Sec. 27: All
Sec. 28: All
Sec. 33: All
Sec. 34: All
Sec. 35: All
Sec. 36: All

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
Sec. 1: All
Sec. 2: All
Sec. 3: All
Sec. 4: All
Sec. 9: All
Sec. 10: All
Sec. 11: All
Sec. 12: All
Sec. 13: All
Sec. 14: All
Sec. 15: All
Sec. 22: All
Sec. 23: All
Sec. 24: All
Sec. 25: All
Sec. 36: NE/4

Township 22 South, Range 38 East, NMPM
Sec. 7: W/2
Sec. 18: W/2
Sec. 19: All
Sec. 30: All
Sec. 31: All

Township 23 South, Range 38 East, NMPM
Sec. 6: N/2

(2) That Exhibit "B" of Order R-610, be changed to read as follows:

EXHIBIT "B"

Horizontal Limits of Blinebry Oil Pool:

Township 21 South, Range 37 East, NMPM
Sec. 3: Lots 13, 14, 15 and 16, S/2
Sec. 4: Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9: All
Sec. 10: All
Sec. 11: SW/4
Sec. 14: W/2
Sec. 15: All
Sec. 16: All
Sec. 21: All
Sec. 22: All
Sec. 23: All
Sec. 25: W/2

Township 21 South, Range 37 East, NMPM (Continued)
Sec. 26: All
Sec. 27: All
Sec. 28: All
Sec. 33: All
Sec. 34: All
Sec. 35: All
Sec. 36: All

Township 22 South, Range 37 East, NMPM
Sec. 1: All
Sec. 2: All
Sec. 3: All
Sec. 4: All
Sec. 9: All
Sec. 10: All
Sec. 11: All
Sec. 12: All
Sec. 13: All
Sec. 14: All
Sec. 15: All
Sec. 22: All
Sec. 23: All
Sec. 24: All
Sec. 25: All
Sec. 36: NE/4

Township 22 South, Range 38 East, NMPM
Sec. 7: W/2
Sec. 18: W/2
Sec. 19: All
Sec. 30: All
Sec. 31: All

Township 23 South, Range 38 East, NMPM
Sec. 6: N/2

(3) That Exhibit "C" of Order R-610, be changed to read as follows:

EXHIBIT "C"

Horizontal Limits of Terry-Blinebry Oil Pool:

Township 20 South, Range 38 East, NMPM
Sec. 32: SE/4
Sec. 33: S/2
Sec. 34: S/2

Township 21 South, Range 37 East, NMPM
Sec. 1: Lots 9, 10, 11, 12, 13, 14, 15 and 16, S/2
Sec. 2: All
Sec. 3: Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12
Sec. 4: Lots 3, 4, 5, 6, 11, 12, 13 and 14
Sec. 11: N/2, SE/4
Sec. 12: All
Sec. 13: All
Sec. 14: E/2
Sec. 24: All

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 27th day of May, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

S E A L

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. 727
Order No. R-610-B

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING
EXISTING RULES AND REGULATIONS OF
THE OIL CONSERVATION COMMISSION,
AND/OR PROMULGATING RULES AND
REGULATIONS RELATING TO GAS POOL
DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING
OR CONCERNING THE BLINEBRY GAS POOL,
LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define a gas well in the Blinebry Gas Pool and an oil well in the Blinebry Oil Pool in a manner which clearly states the intent of the Commission, the Commission

FINDS:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool and Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool should be re-worked to eliminate the possibility of confusion resulting from a misinterpretation of these rules as presently stated in said order.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool be stricken, and the following rule be substituted therefor:

RULE 18: A gas well in the Blinebry Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Gas Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of 51° API, or greater, or,

(b) Produces liquid hydrocarbons possessing a gravity of less than 51° API, but with a producing gas-liquid hydrocarbon ratio of 32,000 cubic feet of gas or more, per barrel of liquid hydrocarbon.

(2) That Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool be stricken, and the following rule be substituted therefor:

RULE 2: An oil well in the Blinebry Oil Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Oil Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of less than 51° API, with a producing gas-liquid hydrocarbon ratio of less than 32,000 cubic feet of gas per barrel of liquid hydrocarbon.

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 13th day of June, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, CHAIRMAN

E. S. WALKER, MEMBER

W. B. MACEY, MEMBER and SECRETARY

S E A L

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BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 727
Order R-610-C

THE APPLICATION OF THE OIL CONSERVATION
COMMISSION UPON ITS OWN MOTION TO CON-
SIDER AN ORDER AMENDING, REVISING OR
ABROGATING EXISTING RULES AND REGULATIONS
OF THE OIL CONSERVATION COMMISSION, AND/OR
PROMULGATING RULES AND REGULATIONS RELATING
TO GAS POOL DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING OR CONCERNING
THE BLINEBRY GAS 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 November 16, 1955, and again on December 14, 1955 at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW on this 9th day of January, 1956, the Commission, a quorum being present, haveing considred the records and testimony adduced and being fully advised in the premises,

FINDS:

(1) That the Commission has continued jurisdiction, acquiring same at the initial hearing on June 16, 1954.

(2) That due notice of the time and place of hearing and the purpose thereof has been given as required by law.

(3) That no evidence was presented to justify revising the provisions of Order No. R-610, as amended by Orders R-610-A and R-610-B.

IT IS THEREFORE ORDERED:

That order R-610, as amended by Order R-610-A and R-610-B, which constitutes the Special Rules and Regulations for the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool, be and the same are continued in full force and effect until further order of the Commission.

That a hearing shall be held on November 13, 1956, at which time the Commission shall hear testimony and receive evidence and shall revise the rules set forth in this order in accordance with testimony and evidence received at said hearing if such be necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member & Secretary

S E A L

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 16, 1957

IN THE MATTER OF:

Case No. 727

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 16, 1957

IN THE MATTER OF:

(Readvertisement) Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing rules and regulations of the Oil Conservation Commission and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool. Case No. 727

BEFORE:

Honorable Edwin L. Mechem
Mr. A. S. Porter
Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. PORTER: The meeting will come to order please. The next case to be considered is Case 727.

MR. GURLEY: Case 727 is the application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool.

MR. PORTER: Mr. Fischer. Is there anyone else to present testimony here this morning in the Blinebry Case? No company representatives? Will you swear the witness?

(Witness sworn.)

E. J. F I S C H E R,

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

DIRECT EXAMINATION

By MR. COOLEY:

Q Will you state your name and occupation for the Commission?

A E. J. Fischer, Engineer for the Commission in Hobbs.

Q What is your educational background?

A I graduated from the University of Texas with a Bachelor of Science Degree in Petroleum Engineering.

Q What experience have you had since the time of your occupation?

A I went to work for the Gulf Oil Corporation in 1953 and have worked for the Gulf Oil Corporation until November, 1956, at which time I went to work for the Commission.

Q In your official duties with the New Mexico Commission, have you had an opportunity to study conditions in the Blinebry Pools in Lea County, New Mexico?

A I have.

Q Have bottom hole pressure tests been conducted in the Blinebry Pools of Lea County since the last hearing in this case?

A Yes, there have.

Q Will you please state to the Commission the methods used in

determining the bottom hole pressures in these separate pools?

A The bottom hole pressures in the Terry-Blinebry Oil and Blinebry Oil Pools were determined directly by use of a bottom hole pressure bomb. Bottom hole pressures in the Blinebry Gas Pool were determined by use of sonic meters to obtain the level of the liquid in the pipe and this data along with the gas and oil gravity determinations were used to calculate an apparent bottom hole pressure.

Q Will you please state to the Commission the results of these tests and how the average pool pressures compare between pools?

A First I would like to say that only one bottom hole pressure was submitted from the Blinebry Oil Pool, and that was the Western Oil Fields, Inc., Gulf Hill No. 1, a flowing well located in Unit R of Section 4-21-37; and that on June 30th, 1956, bottom hole pressure was 2273 psig at pool datum of 2400' subsea on 72 hour shut-in. The previous test submitted was for December 12, 1955, at which time the bottom hole pressure was 2213 psig at the same datum of -2400' subsea on 72 hour shut-in, a drop of 60 pounds per square inch in bottom hole pressure over that time.

Q Has a statistical compilation of the bottom hole pressures for the Terry-Blinebry, have the statistics been prepared and have they been sent out to all the operators?

A Yes, they have, and they have been sent out to the operators.

(Marked Commission's Exhibit No. 1, for identification.)

Q I hand you what has been identified as Exhibit 1 and ask you to state what that is?

A Most of the tests were run in October 1956. This is the

Terry bottom hole pressures in the Terry Blinebry.

Q Explain what is shown by Exhibit No. 1.

A The bottom hole pressures on each well were submitted by operators in well number. At the end of this report we have averaged these bottom hole pressures and made a comparison. First, comparing the total wells run in the field for the Terry-Blinebry Oil Pool, there were 48 wells run in May of 1956, and the average pressure was 1,440.8 psi. In October, 1956, 59 wells were run and the average pressure was 1,348.8, or a change of -92 pounds per square inch. We ran some on comparable wells, the same wells in May, 1956, 45 wells were run, and the average bottom hole pressure was 1,473.4. In October, 1956, the same 45 wells run, the average pressure was 1,307.3, or a drop of 166.1 pounds in bottom hole pressure.

The Blinebry Gas Pool, the Gas-Condensate Ratio Survey tabulation was submitted to the operators along with the bottom hole pressure and oil and gas gravities, and these well pressures were run by sonic means. They are listed according to operator and well number. They list the well number, the location, the date shut in, the gas gravity, oil gravity, 48-hour shut-in pressure at the surface; 72-hour shut-in pressure at the surface, and then the change in the shut-in pressures, the 48-hour sonic depth, the 72-hour sonic depth, the fluid level change, the 48-hour bottom hole pressure at the pool datum of -2400, the 72-hour bottom hole pressure at the pool datum of -2400, and the bottom hole pressure change in that time. One more column there lists the bottom hole pressure change from October, 1956 test with the May, 1956 test.

To the rear of this tabulation we have given the evaluation of

of these and the totals, and the averages comparing total wells and comparable wells. We had submitted to us 33 wells from the operators; for the comparable wells, the change in shut-in pressure at the surface averaged 19.4. From 48-hour shut-in to a 72-hour shut-in, it gained 19.4 pounds. The fluid level changed, from 48 to 72 hours it dropped 19 feet. The 48-hour bottom hole pressure and the 72 hour bottom hole pressure changed a plus 20 pounds. This average is compared with the average for May, 1956, there was a nine pound increase in the bottom hole pressure. The pool averages now, the average gas gravity came out at .6863; the average oil gravity came out 61.6 degrees API. 48-hour surface shut-in pressure averaged 1,592 pounds; 72-hour surface pressure averaged 1,635 pounds, or a change of plus 43 pounds. The 48-hour sonic depth average was minus 1919 subsea, and the 72-hour fluid sonic level was minus 1959, or a drop of minus 40 feet. The 48-hour bottom hole pressure average was 2,076 pounds. The 72-hour bottom hole pressure was 2,154 pounds, or an increase of 78 pounds.

The Pool average for May, 1956 -- We will go over those -- gas gravity was .6874. In other words, the gas gravity dropped a little bit. The oil gravity was 65.4 average. It went up. The 48-hour surface shut-in pressure was 1585. Average 72-hour surface shut-in pressure was 1602, or increase at that time of 17 pounds. The 48-hour sonic depth was minus 1555, the 72-hour fluid sonic level was minus 1595, or a drop of 40 feet. 48-hour bottom hole pressure was 2150; 72-hour bottom hole pressure was 2155, or increase of five pounds. So the change from May to October, '56, in the gas gravity was -.0011; the oil gravity decreased 3.8 degrees API. 48-hour

surface shut-in pressure, that's comparing the 48-hour shut-in pressure with May, 1956 and that of October, 1956, had increased seven pounds. The 72-hour surface shut-in pressure had an increase over the six months there of 33 pounds. Therefore, the pressure change in these two was plus 26 pounds. The average 48-hour sonic depth was, the change, rather, from May to October was minus 364 feet, and the 72-hour depth was minus 364 feet, and there was no change. The 48-hour bottom hole pressure was minus 74 pounds and the 72-hour bottom hole pressure was just one pound difference. There was a bottom hole pressure change there of 73 pounds increase.

Q Has a graphic illustration of the pressure differential between the Terry-Blinebry and the Blinebry Gas Pool been prepared?

A It has.

(Marked Commission's Exhibit 2, for identification.)

Q I hand you what has been marked as Exhibit 2 and ask you to identify and explain the significance of it.

A It is a graphic picture of the average bottom hole pressures of the Blinebry gas and the Terry-Blinebry Oil Pools. The Blinebry gas pressures are plotted from past tests in May, 1955, October, 1955, May, 1956, and the most recent test in October, 1956. The Terry-Blinebry Oil pressures are plotted from tests in May, 1956 and October, 1956.

Q Will you go over and explain the plots on the graph?

A Referring to the graph here, considering the first point on the graph in the Blinebry gas pool, the average pressure from 17 wells in May, 1955, bottom hole pressure test, was 2103 pounds per

square inch gauge.

The graph from here on denotes a change in the pressure in these same 17 wells, and is denoted by the solid line. The dashed line denotes the change in the bottom hole pressure from all the wells reported on the tests. That is all the wells in the pool submitted. The next points in the Blinebry gas for October, 1955 shows an average pressure for the comparable wells of 2174 pounds per square inch gauge, and an average pressure for the total wells of 2171 pounds per square inch gauge. It is not shown on the graph, but in the Terry Blinebry Oil Pool the October 1955 average pressures for comparable wells was 1274 pounds per square inch gauge and for the total wells, 1206 pounds per square inch gauge. The differential in pressure between pools based on total wells tested in each was 965 pounds. That was for October, 1955.

In May, 1956, the comparable wells in the Blinebry Gas -- that is the same 17 wells -- had an average pressure of 2180 psig.

The May, 1956 Terry-Blinebry oil well average pressures were 1473 psig for comparable wells, and 1440 psig for total wells, or a differential pressure between pools of 741 psi. The October, 1956 averages in the Blinebry gas was 2117 psig for comparable wells, and 2154 psig for the total.

In the Terry-Blinebry oil the comparable wells averaged 1307 psig and the total wells averaged 1348 psig. Therefore the present differential of pressure between these two pools is 805 pounds per square inch gauge.

I think that would be enough to prevent movement at this time.

Q Do you have any recommendations concerning future testing in the Blinebry Pools?

A It is my recommendation that all the wells in the Blinebry oil or the Blinebry gas pool be tested. I would like to put this on a bottom hole pressure bomb and test by key wells to be picked by the Commission.

Q Do you feel, Mr. Fischer, that the three Blinebry Pools are separate common sources of supply?

A Well, I believe from what the geologist told me, they are one source of supply, and I would like to call them one pool, and for administrative convenience, leave all the orders as they are, the only change to be made is to be called one pool, and leave everything else the same.

Q The oil wells that are now presently designated in the Blinebry and the Terry-Blinebry all would then be designated as gas wells in the Blinebry gas pool?

A Would then be designated as oil wells in the Blinebry Gas Pool.

Q Do you have any recommendation concerning the definition of a gas well?

A I recommend that no change be made in order R-610 concerning the definition of a gas well, and that it remain defined as a well producing from the vertical and horizontal limits of the Blinebry Gas Pool, with a condensate gravity of 51° API and a GOR minimum of 32,000 to 1.

Q Do you have any other recommendations?

A No.

MR. COOLEY: At this time I would like to offer Exhibits 1 and 2.

MR. PORTER: Are there any objection to the admission of these exhibits? They will be admitted. Does anyone have a question of Mr. Fischer? Mr. Malone?

MR. MALONE: Ross Malone, for the Gulf Oil, if it please the Commission.

CROSS EXAMINATION

By MR. MALONE:

Q Mr. Fischer, in preparing your study that you have presented, I am sure you had access to the testimony that was presented in the original hearing in 1954, did you not?

A I have.

Q You will recall, that at that time Gulf presented rather extensive testimony with reference to the possible administration of the three pools as they were subsequently set up?

A Yes.

Q Did you give consideration in your analysis to the pressure differentials which existed at that time, as they relate to the differentials which you now find?

A At that time I think the differentials were a little lower. The differentials have increased according to the May, 1956 test, and I still believe that the differential between the Blinebry Gas and the Blinebry Oil is enough to prevent migration of oil up structure.

Q Is there any difference in that regard with reference to the

differential you now find, as against the differential in 1954, anything in the present change that would require a change that did not exist in 1954?

A No.

Q So, essentially, the Commission is dealing with the same problem and the same set of physical facts that it was dealing with when the order was promulgated in 1954?

A I believe so.

Q Your recommendation that the three pools be consolidated into a single pool is purely a matter of administrative convenience?

A Yes.

Q I didn't exactly follow the administrative convenience which you felt would result from that. Would you mind restating that?

A I believe the only one would be to just be able to have better control over the three. Everything else will be left as is, of course, the operators have been living with the conditions long enough to be used to them. It's just a matter of calling it one pool, and then you can deal with them a little easier I believe.

Q Did you find from your study that in general, Order Number R-610 and the administration under that order had progressed satisfactorily?

A Yes.

Q There are no serious defects in the set-up that that order sets out, in your opinion?

A No.

Q That order, of course, sets up special rules for the Blinebry

Gas Pool, for the Terry-Blinebry Oil Pool and for the Blinebry Oil Pool, does it not?

A It does.

Q And delineates the three pools. It would require a re-writing of Order Number R-610 if your recommendation were followed, would it not?

A That is correct.

Q So that while the effect of it might be merely a consolidation for administrative purposes, it would necessitate a complete re-writing of Order R-610?

A Yes, it would, but it wouldn't change anything.

Q Do you feel that the benefit that would result from this administrative change would justify the change that would be incident to re-writing the order and the change in the operations of the companies under the order?

A Yes, I do.

MR. MALONE: Thank you.

MR. PORTER: Mr. Mankin?

By MR. MANKIN:

Q Mr. Fischer, did you not relate from your testimony on Exhibit 2 that the differential pressure between the Terry-Blinebry Oil Pool and the Blinebry Gas Pool had constantly increased?

A From May, 1955 to October, 1955, to May, 1956 it did increase. You mean the differential in pressure?

Q The differential in pressure between two pools?

A I am sorry, the differential in pressure between the two pools, from October 1955 tests was 965 pounds. In May, 1956 when

the tests were taken again on [illegible] the differential in pressure between the two was 741 pounds, the differential had dropped between the two pools, in October, 1956 the results of the tests taken at that time show that the differential in pressure between the total wells submitted from these two pools, the average, the differential in pressure was 805 pounds, that it increased again.

Q To what do you attribute that increase from May, 1956 to October, 1956?

A Well, I don't think that the increase is true. I think that possibly it's an error in the method of taking the bottom hole pressure of the Blinebry gas by sonic meter.

Q Is the condition to which those wells were taken the same in all three times, October of '55 and May of '56 and the October of '56, were the conditions and the same wells used?

A The same conditions were used, as far as I know.

Q Were the same wells used?

A In the comparable wells the same wells were used.

Q Was this differential on comparable wells the same condition?

A Yes, the differential between comparable wells, between the Blinebry gas and the Terry-Blinebry oil was 810 pounds, only five pounds different from the average differential from the total wells. They match up fairly close.

Q Then it's your recommendation that the sonic method would not be used, is that your recommendation?

A Yes.

Q That you would do the bottom hole pressure bomb?

A I believe you could get more accurate data that way.

Q It is possible in some cases to use the bottom hole pressure without pulling the well?

A That I know of, most of the wells or all of the wells that I know of are dually completed wells. I don't know what equipment is in the wells. I assume that most of them have garrett sleeves to block off each zone above and below the packer, or maybe a bottom hole choke. I think the average cost to shift these garrett sleeves is around $135.00, if it goes off all right.

Q It is your recommendation and you feel that bottom hole pressures where they would be used with a smaller bomb, or move the choke in such a manner that normal pressures could be taken on all wells?

A Yes.

MR. MANKIN: That is all. Thank you.

MR. PORTER: Anyone else have a question of Mr. Fischer? Mr. Nestor?

By MR. NESTOR:

Q Mr. Fischer, I would like to ask, Mr. Mankin mentioned all wells. I understood you to say "key" wells. Do you have in mind how many wells per section?

A I think in that line the Commission could draw you an isobaric map of that, and pick the key wells from that map. Then maybe after six months we would use some of the same key wells and, if possible, to get more wells zoned by a bottom hole pressure bomb

to designate other wells. [illegible]

and new key wells in order to get, in a year's time, or year and a half's time, you would have tested with the bottom hole pressure bomb all the wells in the Blinebry gas.

Q You did mention one thing there, the fact that the cost might run $135.00 if everything went all right, is there danger in running block off tools and pulling same?

A Yes, there is.

Q With the differential between these two pools as great as it is, do you think it is justified in being so precise to endanger, actually it can become pretty expensive?

A Not too expensive. If you run into trouble there you might have to run into pulling your tubing.

Q What does that do to the two zones in the well then?

A Well, you will have to kill the well.

Q Precisely. That's the point which really is dangerous. What I'm concerned about is, is what we are going to gain in more accurate measurement, and I agreed we would get a better measurement. Is it of sufficient need to justify additional risk in those wells, since the differential between the two fields, that is the oil and the gas zone, is so very great.

A I don't think the danger is as great as you make it out to be.

Q We don't know what it is?

A That is right, but I think in most cases your shifting your valve is probably all you are going to have to do. If you want to work those wells over later on you are going to have to go in and

kill the well anyhow if you want to do some work on the bottom gas or bottom hole zone.

Q That is optional. That is when it is necessary. This is something else. This is running in there with a tool, and there must be some concrete value to justify doing this. We don't just do these things of whim, of course. There is some little danger in running the tools. We have had some troubles and I am sure other operators have.

A That is right. I believe that this chart shows that these sonic meter methods, they vary too much. It is not consistent. In order to find out whether we are really having oil from the Terry-Blinebry migrating into the Blinebry gas, I think we need a better method of calculating.

Q How much differential would there have to be if the facts were known, to preclude any migration of oil from the Blinebry oil zone into the gas cap?

A I don't know.

Q Would one pound suffice?

A It might.

Q How can the Blinebry flow if the one pressure is higher than the other by one pound even?

A I think in certain cases that it might be that condition where you could flow it in there. Capillary pressure might cause that oil to rise in that sand.

Q Then what would you guess ought to be the differential?

A Well, I don't know at this time.

Q Could you give us an estimate?

A No, I couldn't.

Q Well, it would seem to me it might be a little premature to suggest the other program until we do know actually. With the 800 pound indicated differential we would agree there is probably some discrepancy with the actual truth of the pressure for the gas zone, but with that much differential I can't conceive of any combination of errors that would bring us to a situation where there would be danger of migration of oil into the cap.

A That is true. In order to get the correct sort of data on the thing, I think the bottom hole pressure bomb in the Blinebry would be the best method to determine that. We are trying to get the best method we can.

Q We agree with that, but for what benefit? If we introduce a risk there must be a benefit.

A Maybe we can call a meeting of the operators in Hobbs and possibly get a better way of getting the sonic bottom hole pressure, if that would be agreeable.

Q We just wonder, really, if you think it is necessary.

MR. NESTOR: No further questions.

MR. PORTER: Anyone else have a question?

MR. MANKIN: I have another.

By MR. MANKIN:

Q Mr. Fischer, have you noticed the gas-oil contact, any changes in the gas-oil contact over the period of the last two years between the Terry-Blinebry and the Blinebry gas?

A No, I haven't. I think the differential --

Q You think there is some shift in the gas-oil contact because of the fluid produced, and this might be gascap gas?

A I don't think--it is possible. It is very possible for that to happen.

Q You haven't observed any particular change?

A No.

Q In the gas-oil contact? A No.

MR. PORTER: Anyone else have a question?

MR. COOLEY: One question on re-direct, if the cross is finished.

MR. PORTER: Mr. Montgomery?

By MR. MONTGOMERY:

Q Getting back to your reasons for wanting to call this all one pool for administrative ease, we have had some cases just recently where the boundaries between the Terry-Blinebry Pool and the Blinebry gas pools had to be changed because a gas well was completed in the Terry-Blinebry Oil Pool.

A Yes.

Q Of course, it never was in the Terry-Blinebry Oil Pool, but the order was written and is written to the effect that no gas allowable can be granted a gas well in the Terry-Blinebry Oil Pool. Your recommendation would ease that particular difficulty which would be in the Shattuck zone?

A I believe the order should remain there be no simultaneous dedication of acreage.

Q Plus the fact that a gas well could continue to receive a gas allowable upon the date of connection, instead of waiting for

the administrative procedure to get the hearing to get the name changed from Blinebry to Terry-Blinebry gas, and when it has actually been Blinebry gas and never Terry-Blinebry?

A Yes.

Q Further, along the same lines, a gas well was completed just north of the Terry-Blinebry oil development. It is general where they had another high structure and it was above the gas-oil contact. The gas-oil was complete in the Blinebry, which is the same reservoir as the Terry-Blinebry oil and the Blinebry gas. The order again prohibits the Blinebry gas from crossing the Terry-Blinebry oil field. If we have to get up a new pool for that gas well, there is a definite possibility that a different market would exist for that pool if we created another pool, which could cause excessive drainage and not protect correlative rights, is that correct?

A Yes.

Q Regarding your key well survey, one of the reasons you wanted the key well survey was because of the oil wells that are presently going on pump, and if we are going to continue to watch these two pools, to make sure that the oil isn't migrating, we are going to have to set up something in the very near future?

A That is right.

MR. MONTGOMERY: That is all I have.

MR. PORTER: Does anyone have a question?

MR. CHRISTIE: R. S. Christie, with Amerada.

By MR. CHRISTIE:

Q I would like to know what the variation of pressures, individual pressures are in the different pools?

A The variation in pressures?

Q Where they range from. Are they pretty consistent or quite a variation?

A Well, in the Terry-Blinebry Oil Pool the bottom hole pressure ranged from a low of 717 pounds to a high of 1949 pounds. Those were the two extremes. In the Blinebry gas on a 72-hour basis I found the lowest to be 1740 pounds, and there was a high, the highest I found was 2629.

Q What is the relative difference in volumetric withdrawal between the two pools?

A I don't know, Mr. Christie.

Q What I'm trying to figure out, why that differential between two areas. It doesn't seem to be very consistent from a reservoir standpoint to have that much differential in the same pool?

A It doesn't, but I have taken what was submitted to me as correct.

Q That's the geological information, based on geological information only, isn't it, that these are all one reservoir?

A Yes.

MR. CHRISTIE: Thank you.

MR. PORTER: Anyone else have a question? Mr. Cooley, you have another question on redirect examination?

RE-DIRECT EXAMINATION

By MR. COOLEY:

Q Mr. Fischer, if the three Blinebry pools are consolidated and designated as the Blinebry gas pool, and another set of orders are written as was contemplated, will there be any change in operating

conditions whatsoever?

A No.

MR. COOLEY: That is all.

MR. PORTER: Anybody else have a question? The witness may be excused.

(Witness excused.)

MR. PORTER: Does anyone have a statement to make in this case?

MR. MALONE: Mr. Ross Malone, if it please the Commission, for Gulf Oil Corporation. Gulf is probably the largest operator in the fields which are under consideration in this field, and the pools under consideration. At the hearing held on October 20, 1954, at Hobbs, when the subject was first considered, Gulf introduced rather extensive testimony and offered recommended field rules for the Blinebry Gas Pool. At that time testimony was introduced to prove that the Blinebry formation is primarily a formation with a gas distillate reservoir from which the withdrawal of hydrocarbons would have no recovery effect on the recovery efficiency of the associated reservoirs; that is the Blinebry and the Terry-Blinebry Oil Pool. It was the recommendation of Gulf that field rules be established as if the reservoir were not associated with the others, i n order to permit the withdrawal of gas in the pool in accordance with market demand. In Gulf's opinion, this would, in no way, effect the ultimate oil recovery from the Terry-Blinebry Oil Pools, and testimony to that effect was presented in the former hearing.

Gulf further recommended that these three pools be regulated

and prorated as if they were single reservoirs. At that time it also proposed that a gas well in the Blinebry Gas Pool be defined as any well within the vertical and horizontal limits of the Blinebry Gas Pool which produced gas in liquid hydrocarbons; the liquid hydrocarbons having a gravity in excess of 45 degrees API, and be producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of less than 45 degrees API, a gas-oil ratio in excess of 100,000 to 1.

There was no opposition to the case and the testimony presented by Gulf at that time. As a result of this hearing in October, 1954, Order Number R-610 was issued by the Commission, and rules were adopted which conformed generally to the recommendations which were made at that hearing. A gas well in the Blinebry Gas Pool was defined as a well producing from within the vertical and horizontal limits of the Blinebry which: (a) produces liquid hydrocarbons, the liquid hydrocarbons possessing a gravity of 51 degrees API, or greater, or (b) producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of less than 52 degrees API and a GOR minimum of 32,000 cubic feet of gas or more per barrel of liquid hydrocarbon removed.

Guld has periodically reviewed the status of the Blinebry reservoir, and has found no substantial change during the intervening period, from the condition which existed at the time of the adoption of the present rules.

As I understood Mr. Fischer's testimony, he confirmed that fact that he found no substantial change to have occurred in the intervening period. Operations under the present order which delineate

the three pools for administrative purposes, seem to have proceeded satisfactorily. It is the feeling of Gulf that while there might be some administrative flexibility result from the recommended change, that the problems that it would pose for operators presently operating in the pool would far outweigh any benefit that might be obtained. The Commission considered this question very seriously, and came up with the rules that are now in effect. The conditions have not changed since that time, and Gulf strongly recommends that Order R-610 continue in its present form, and that the three reservoirs be administered as separate reservoirs under the present rule.

MR. PORTER: Thank you, Mr. Malone. Does anyone else have a statement? Mr. Kellahin?

MR. KELLAHIN: Jason Kellahin, representing Continental Oil Company. Continental Oil Company has reviewed the existing rules and regulations relating to gas pool delineations, gas proration and other related matters affecting and concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool, and is of the opinion that although existing rules and regulations and pool delineations are not in all respects completely satisfactory, they are probably the best that can be promulgated under the circumstances.

I would like to deviate from the prepared statement, and observe that in view of the testimony that has been presented here today, it calls for additional testing and, as pointed out by Mr. Malone, shows no substantial change in the pool conditions since the original rules were adopted, pursuant to the hearing in 1954;

that there should, at this time, in our opinion, be no further change made in the present rules until the additional studies have been completed and additional evidence presented to the Commission, to show the effect of the consolidation of the pools into one pool.

Continental Oil Company, therefore, does not desire to recommend any changes in the existing rules and regulations and pool delineations. Continental's Warren Unit Well No. 8, which was dually completed as a gas well in the Tubb and Blinebry pools pursuant to the Commission's approval, is located north of the, and outside of the horizontal limits of the Blinebry Gas Pool and Blinebry Oil Pool and the Terry-Blinebry Oil Pool and Continental Oil Company proposes to request a new pool designation and field rules for the area surrounding its said Warren Unit Well No. 8 in the immediate future.

MR. PORTER: Thank you, Mr. Kellahin.

MR. HINKLE: Clarence Hinkle, Hervey, Dow and Hinkle, Roswell, representing the Atlantic Refining Company. The Atlantic has some properties which are being operated in this area by the Continental, and Atlantic would like to concur with the statement made by the Continental Oil Company in this case.

MR. PORTER: Anyone else have a statement? Mr. Seth?

MR. SETH: On behalf of Shell Oil Company, Shell doesn't feel there is any present need for any changes in the existing rules; as indicated, and it might leave something to be desired, but they are working as well as they can be expected to work. We see no need for a change.

MR. PORTER: Anyone else have a statement?

MR. KELLEY: C. L. Kelley with Stanolind Oil and Gas. We, too, feel that the present rules are working very satisfactorily and would like to see the present rules as adopted as permanent rules rather than have a change.

MR. PORTER: Thank you, Mr. Kelley. Any further statements? The case will be taken under advisement. At this time I would like to announce that the normal unit allowable for February will be 43 barrels. We will recess until 1:30.

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 21st day of January, 1957.

Ada Dearnley
Notary Public, Court Reporter

My Commission Expires:
June 19, 1959

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 727
Order No. R-610-A

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING
EXISTING RULES AND REGULATIONS OF
THE OIL CONSERVATION COMMISSION,
AND/OR PROMULGATING RULES AND
REGULATIONS RELATING TO GAS POOL
DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING
OR CONCERNING THE BLINEBRY GAS POOL,
LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool in a manner which indicates the true horizontal extent of these pools, the Commission

FINDS:

(1) That Exhibit "A", Exhibit "B" and Exhibit "C" of said order should be revised to redefine the horizontal limits of the Blinebry Gas Pool, the Blinebry Oil Pool and the Terry-Blinebry Oil Pool.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Exhibit "A" of Order R-610, be changed to read as follows:

EXHIBIT "A"

Horizontal limits of Blinebry Gas Pool:

TOWNSHIP 21 South, RANGE 37 East, NMPM

Sec. 3:	Lots 13, 14, 15 and 16, S/2
Sec. 4:	Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9:	All
Sec. 10:	All
Sec. 11:	S½
Sec. 14:	N½

EXHIBIT "A" (continued)

TOWNSHIP 21 South, RANGE 37 EAST, NMPM (Continued)

Sec. 15:	All
Sec. 16:	All
Sec. 21:	All
Sec. 22:	All
Sec. 23:	All
Sec. 25:	W/2
Sec. 26:	All
Sec. 27:	All
Sec. 28:	All
Sec. 33:	All
Sec. 34:	All
Sec. 35:	All
Sec. 36:	All

TOWNSHIP 22 South, RANGE 37 East, NMPM

Sec. 1:	All
Sec. 2:	All
Sec. 3:	All
Sec. 4:	All
Sec. 9:	All
Sec. 10:	All
Sec. 11:	All
Sec. 12:	All
Sec. 13:	All
Sec. 14:	All
Sec. 15:	All
Sec. 22:	All
Sec. 23:	All
Sec. 24:	All
Sec. 25:	All
Sec. 36:	NE/4

TOWNSHIP 22 South, RANGE 38 East, NMPM

Sec. 7:	W/2
Sec. 18:	W/2
Sec. 19:	All
Sec. 30:	All
Sec. 31:	All

TOWNSHIP 23 South, RANGE 38 East, NMPM

Sec. 6:	N/2

(2) That Exhibit "B" of Order R-610, be changed to read as follows:

EXHIBIT "B"

Horizontal Limits of Blinebry Oil Pool:

TOWNSHIP 21 South, RANGE 37 East, NMPM

Sec. 3: Lots 13, 14, 15 and 16, S/2
Sec. 4: Lots 1, 2, 7, 8, 9, 10, 15 and 16, S/2
Sec. 9: All
Sec. 10: All
Sec. 11: SW/4
Sec. 14: W/2
Sec. 15: All
Sec. 16: All
Sec. 21: All
Sec. 22: All
Sec. 23: All
Sec. 25: W/2
Sec. 26: All
Sec. 27: All
Sec. 28: All
Sec. 33: All
Sec. 34: All
Sec. 35: All
Sec. 36: All

TOWNSHIP 22 South, RANGE 37 EAST, NMPM

Sec. 1: All
Sec. 2: All
Sec. 3: All
Sec. 4: All
Sec. 9: All
Sec. 10: All
Sec. 11: All
Sec. 12: All
Sec. 13: All
Sec. 14: All
Sec. 15: All
Sec. 22: All
Sec. 23: All
Sec. 24: All
Sec. 25: All
Sec. 36: NE/4

TOWNSHIP 22 South, RANGE 38 East, NMPM

Sec. 7: W/2
Sec. 18: W/2
Sec. 19: All
Sec. 30: All
Sec. 31: All

TOWNSHIP 23 South, RANGE 38 East, NMPM

Sec. 6: N/2

(3) That Exhibit "C" of Order R-610, be changed to read as follows:

EXHIBIT "C"

Horizontal Limits of Terry-Blinebry Oil Pool:

TOWNSHIP 20 South, RANGE 38 East, NMPM

Sec. 32: SE/4
Sec. 33: S/2
Sec. 34: S/2

TOWNSHIP 21 South, RANGE 37 East, NMPM

Sec. 1: Lots 9, 10, 11, 12, 13, 14, 15 and 16, S/2
Sec. 2: All
Sec. 3: Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12
Sec. 4: Lots 3, 4, 5, 6, 11, 12, 13 and 14
Sec. 11: N/2, SE/4
Sec. 12: All
Sec. 13: All
Sec. 14: E/2
Sec. 24: All

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 27 day of May, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

ir/

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. 727
Order No. R-610-B

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION FOR AN ORDER
AMENDING, REVISING OR ABROGATING
EXISTING RULES AND REGULATIONS OF
THE OIL CONSERVATION COMMISSION,
AND/OR PROMULGATING RULES AND
REGULATIONS RELATING TO GAS POOL
DELINEATION, GAS PRORATION AND
OTHER RELATED MATTERS AFFECTING
OR CONCERNING THE BLINEBRY GAS POOL,
LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER OF THE COMMISSION

BY THE COMMISSION:

It appearing to the Commission that Order R-610, dated April 11, 1955, does not define a gas well in the Blinebry Gas Pool and an oil well in the Blinebry Oil Pool in a manner which clearly states the intent of the Commission, the Commission

FINDS:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool and Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool should be re-worded to eliminate the possibility of confusion resulting from a misinterpretation of these rules as presently stated in said order.

IT IS THEREFORE ORDERED:

That Order R-610, as the same appears in the records of the Commission, and the original of said order, be amended in the following respects and particulars:

(1) That Rule 18 of the Special Rules and Regulations for the Blinebry Gas Pool be stricken, and the following rule be substituted therefor:

RULE 18: A gas well in the Blinebry Gas Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Gas Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of 51° API, or greater, or,

(b) Produces liquid hydrocarbons possessing a gravity of less than 51° API, but with a producing gas-liquid hydrocarbon ratio of 32,000 cubic feet of gas or more, per barrel of liquid hydrocarbon.

(2) That Rule 2 of the Special Rules and Regulations for the Blinebry Oil Pool be stricken, and the following rule be substituted therefor:

RULE 2: An oil well in the Blinebry Oil Pool shall mean a well producing from within the vertical and horizontal limits of the Blinebry Oil Pool which:

(a) Produces liquid hydrocarbons possessing a gravity of less than 51° API, with a producing gas-liquid hydrocarbon ratio of less than 32,000 cubic feet of gas per barrel of liquid hydrocarbon.

IT IS FURTHER ORDERED:

That the corrections and changes set forth in this order be entered nunc pro tunc as of April 11, 1955, the date of said Order R-610.

DONE at Santa Fe, New Mexico, on this 13th day of June, 1955.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

/ir

TUSB POOL

[illegible]	Well Unit	S.T.R.	No. Acres	Factor	Jan. Net Allow.	Jan. Prod.	Over	Under	Feb. Sched. Allow.	Feb. Net Allow.	[illegible] Sched. Allow.	[illegible] Allow.	[illegible]
[illegible]													
Baker, [illegible]	3 I	10-22-37	80	.50	4,103	22,125	18,022		11,431	-6,591	13,334		[illegible]
[illegible]orrigan, [illegible]	4 A	4-22-37	160	1.00	11,465	34,660	23,195		22,862	-333	26,668		[illegible]
Gulf Oil Corp.													
[illegible]aves	5 H	10-22-37	160	1.00	116,873	9,802		107,071	22,862	129,933	26,668		[illegible]
[illegible]gh	7 C	14-22-37	160	1.00	N.C.	N.C.			14,698	14,698	26,668	2-11-55	[illegible]
[illegible]													
[illegible]tate [illegible]	13 B	2-22-37	160	1.00	28,424	26,042		2,382	22,862	25,244	26,668		[illegible]
[illegible]tate [illegible]	20 A	2-22-37	160	1.00	N.C.	N.C.			10,615	10,615	26,668	2-16-55	[illegible]
[illegible]													
[illegible]runson [illegible]	6 E	10-22-37	160	*1.00	*5,656	*5,656			*6,000	*6,000	*6,000		[illegible]
[illegible]	8 J	11-22-37	160	1.00	15,539	34,941	19,402		22,862	3,460	26,668		[illegible]
[illegible]													
[illegible]ortman	9 [illegible]	11-22-37	320	2.00	259,012	18,160		240,852	45,724	286,576	53,336		[illegible]
[illegible]													
[illegible]lden	3 C	15-22-37	160	1.00	136,073	5,938		130,135	22,862	152,997	26,668		[illegible]
[illegible]													
[illegible]	5 N	11-22-37	160	1.00	4,014	3,850		164	22,862	23,026	26,668		[illegible]
[illegible]													
[illegible]aker [illegible]	15 L	10-22-37	160	1.00	18,066	13,474		4,592	22,862	27,454	26,668	1-14-55	[illegible]

BLINEBRI POOL

OPERATOR AND LEASE	WELL UNIT	S.T.R.	NO. ACRES	FACTOR	JAN. NET ALLOW.	JAN. PROD.	OVER	UNDER	FEB. CUM. ALLOW.	ADD. NET ALLOW.	MARCH CUM. ALLOW.	DATE FIRST WELL	REMARKS
SIFTON SERVICE OIL CO.													
Brunson C.	7 P	3-22-37	160	1.00	31,894	37,404	6,110		16,314	10,204	38,055		P.B.
[illegible] OIL CORP.													
Alden	7 N	15-22-37	160	1.00	75,208	17,491		57,717	16,314	74,031	38,055		P.B.
[illegible] OIL CORP.													
Hawes	6 A	10-22-37	160	1.00	26,297	37,373	11,076		16,314	5,258	38,055		P.B.
Hawes	7 C	14-22-37	160	1.00	N.C.	N.C.			20,486	10,486	38,055		P.B.
[illegible] OIL & REFG. CO.													
Greenwood, T. L.	11 J	9-22-37	160	1.00	N.C.	N.C.			12,918	12,918	38,055		P.B.
T. L. St. B	12 A	2-22-37	160	1.00	65,909	30,953		34,956	16,314	51,270	38,055		P.B.
T. L. St. [illegible]	14 C	2-22-37	160	1.00	52,581	34,046		18,535	16,314	34,849	38,055		P.B.
T. L. St. [illegible]	21 L	2-22-37	160	1.00	23,376	40,275	16,899		16,314	-585	38,055		P.B.
MAGNOLIA PET. CO.													
Brunson Argo	6 K	10-22-37	160	1.00	44,099	45,540	1,441		16,314	14,773	38,055		P.B.
Long, S. T.	8 J	11-22-37	160	1.00	26,695	44,930	18,235		16,314	-1,921	38,055		P.B.
[illegible] OIL CO.													
Northam	9 E	11-22-37	160	1.00	29,613	54,523	24,910		16,314	-8,596	38,055		P.B.
Northam	12 K	11-22-37	160	1.00	27,190	48,357	21,167		16,314	-4,553	38,055		P.B.
[illegible] OIL CO.													
Long	5 K	11-22-37	160	1.00	4,353	5,232	879		16,314	15,435	38,055		P.B.
[illegible] OIL CO.													
Baker B	15 I	10-22-37	160	1.00	19,592	21,443	1,851		16,314	14,463	38,055	1-14-55	P.B.
[illegible] OIL & GAS CO.													
Owen A.	2 F	3-22-37	80	.50	57,346	1,306		56,040	8,157	64,197	19,028		P.B.

Number	Case or Date	Company	Lease	Well	Location	Field or Pool
[illegible]		Magnolia	Long	8	11-22S-37[illegible]	Blinebry Gas - Tubb Gas
[illegible]		Samedan	Parks	2	14-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	Case 597	Magnolia	Brunson Argo	6	10-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]		Gulf	Hughes	7-T	14-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]		Amerada	E. Wood	7	22-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]		Amerada	Walden	6	15-22[illegible]	Tubb Gas - Walden Oil
[illegible]		Amerada	H. Corrigan	4	4-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]		Amerada	H. Corrigan	11	4-22[illegible]	Blinebry Gas - Brunson Oil
[illegible]		Gulf	Amanda	1	25-22[illegible]	Tubb Gas - Drinkard Gas
[illegible]	5-19-54	Gulf	Hughes	7-T	14-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]		Humble	State "S"	13	3-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]		Humble	State "S"	14	2-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]		Humble	State "S"	22	2-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]		Amerada	Walden	7	15-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]		Amerada	Baker	3	10-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]		Amerada	Wood	10	22-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	5-1-54	Pelo	Mortman	9	11-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	5-[illegible]-54	Gulf	Eaves	5	10-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	5-[illegible]-54	Gulf	Eaves	6	10-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	5-11-54	Gulf	Amanda "A"	1	25-22[illegible]	Tubb Gas - Drinkard Gas
[illegible]	5-15-54	Western	Brinkard	5	25-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	5-22-54	Humble	State "S"	20	2-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	4-26-54	Rowan	A. Walden	3	15-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	4-26-54	Rowan	Elliott "B"-1	13	15-22[illegible]	Blinebry Gas - Blinebry Oil
[illegible]	4-30-54	Stanolind	Owen "A"	2	3-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	4-30-54	Stanolind	Owen "A"	1	3-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	6-14-54	Mid-Continent	Lynch	4	1-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	6-16-54	Ohio	Yancy	1	24-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	6-29-54	Magnolia	Brunson Argo	1	9-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	7-2-54	S. A. G.	Brunson "C"	7	3-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	7-23-54	Shell	Long	5	11-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	9-13-54	A. Olson	Boyd	5	23-22[illegible]	Tubb Gas - Drinkard Oil
[illegible]	11-5-54	Rowan	Elliott "B"-4	15	15-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	11-18-54	N. Penrose	Hinton	3	12-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	11-19-54	Anderson-Prichard	Lee	1	23-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	2-18-55	Gulf	Boyd	2	23-22[illegible]	Blinebry Gas - Tubb Gas
[illegible]	2-18-55	Gulf	Boyd	3	23-22[illegible]	Blinebry Gas - Drinkard Oil
[illegible]	8-17-55	Stanolind	Owen	2	3-22[illegible]	Blinebry Gas - [illegible] Flares

Order	Case or Date	Company	Lease	Well	Location	Field or pool	
R-[illegible]46	Case 654	Ohio	Yancy	3	24-22S-37E	Blinebry Gas	80 acres
R-504	Case 741	R. Olsen			25-22S-37E	Blinebry Gas	
R-505	Case 742	R. Olsen			25-22S-37E	Blinebry Gas	
R-538	Case 759	Magnolia	Brunson Argo	1	9-22S-37E	Blinebry Oil	Tubb Gas
R-545	Case 782	Ohio	Northan	9	11-22S-37E	Blinebry Gas	320 acres
R-519	Case 747	Trinity Prod.Co.	Weatherly	1E	21-21S-37E	Tubb Gas	240 acres

BAKER "B" LEASE
SE/4 & W/2 SE/4 Sec. 13-22S-37E

Penrose Skelly:

Well No. 1 - 3 bbls.
Well No. 2 - 3 bbls.
Well No. 3 - 4 bbls.

Grinkard:

Well No. 6 - 25 bbls.
Well No. 7 - 35 bbls.
Well No. 8 - 15 bbls.
Well No. 9 - 20 bbls.
Well No. 11 - 18 bbls.

Paddock:

Well No. 4 - 12 bbls.
Well No. 5 - 30 bbls.
Well No. 10 - 15 bbls.
Well No. 12 - 25 bbls.
Well No. 13 - 14 bbls.

Brunson:

Well No. 14 - 86 bbls.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 16, 1957

IN THE MATTER OF:

Case No. 727

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE - SANTE FE
3-6691 2-2211

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 16, 1957

IN THE MATTER OF:

(Readvertisement) Application of the Oil Conservation Commission upon its own motion as provided for in Order R-810-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing rules and regulations of the Oil Conservation Commission and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool. Case No. 727

BEFORE:

Honorable Edwin L. Mechem
Mr. A. L. Porter
Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. PORTER: The meeting will come to order please. The next case to be considered is Case 727.

MR. GURLEY: Case 727 is the application of the Oil Conservation Commission upon its own motion as provided for in Order R-810-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool.

MR. [illegible]: Mr. Fischer. [illegible] to present testimony [illegible] this morning in the [illegible] [illegible] representatives? Will you [illegible] the witness?

(Witness sworn.)

E. J. F I S C H E R,

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

DIRECT EXAMINATION

By MR. COONEY:

Q Will you state your name and occupation for the Commission?

A E. J. Fischer, Engineer for the Commission in Hobbs.

Q What is your educational background?

A I graduated from the University of Texas with a Bachelor of Science Degree in Petroleum Engineering.

Q What experience have you had since the time of your occupation?

A I went to work for the Gulf Oil Corporation in 195[illegible] and have worked for the Gulf Oil Corporation until November, 195[illegible], at which time I went to work for the Commission.

Q In your official duties with the New Mexico Commission, have you had an opportunity to study conditions in the [illegible] Pools in Lea County, New Mexico?

A I have.

Q [illegible] in the [illegible] Pools of [illegible] County [illegible] in this case?

A [illegible]

Q Will you [illegible] Commission [illegible]

determining the bottom hole pressure in these separate pools?

A The bottom hole pressure in the Terry-Ellinchy Oil and Ellinchy Oil Pools were determined directly by use of a bottom hole pressure bomb. Bottom hole pressures in the Ellinchy Gas Pool were determined by use of sonic meters to obtain the level of the liquid in the pipe, and this data along with the gas and oil gravity determinations were used to calculate an apparent bottom hole pressure.

Q Will you please state to the Commission the results of these tests and how the average pool pressures compare between pools?

A First I would like to say that only one bottom hole pressure was submitted from the Ellinchy Oil Pool, and that was the Western Oil Fields, Inc., Gulf Fill No. 1, a flowing well located in Unit B of Section 4-21-37; and that on June 30th, 1956, bottom hole pressure was 2273 psig at pool datum of 2400' subsea on 72 hour shut-in. The previous test submitted was for December 12, 1955, at which time the bottom hole pressure was 2313 psig at the same datum of -2400' subsea on 72 hour shut-in, a drop of 40 pounds per square inch in bottom hole pressure over that time.

Q Has a statistical compilation of the bottom hole pressures for the Terry-Ellinchy, have the statistics been prepared and have they been sent out to all the operators?

A Yes, they have, and they have been sent out to the operators.

(The Commission's Exhibit No. 1, for identification.)

Q I hand you what has been marked as Exhibit 1 and ask you to state what that is.

A That is the tests that were run in October, 1956. This is the

Terry bottom hole pressures in the [illegible] Blinebry.

Q Explain what is shown by Exhibit No. 1.

A The bottom hole pressures on each well were submitted by operators in well number. At the end of this report we have averaged these bottom hole pressures and made a comparison. First, comparing the total wells run in the field for the Terry-Blinebry Oil Pool, there were 48 wells run in May of 1956, and the average pressure was 1,440.8 psi. In October, 195[illegible], 59 wells were run and the average pressure was 1,348.8, or a change of -92 pounds per square inch. We ran some on comparable wells, the same wells in May, 195[illegible], 45 wells were run, and the average bottom hole pressure was 1,473.4. In October, 1956, the same 45 wells run, the average pressure was 1,307.3, or a drop of 16[illegible].1 pounds in bottom hole pressure.

The Blinebry Gas Pool, the Gas-Condensate Ratio Survey tabulation was submitted to the operators along with the bottom hole pressure and oil and gas gravities, and these well pressures were run by sonic means. They are listed according to operator and well number. They list the well number, the location, the date shut in, the gas gravity, oil gravity, 48-hour shut-in pressure at the surface, 72-hour shut-in pressure at the surface, and then the change in the shut-in pressures, the 48-hour sonic depth, the 72-hour sonic depth, the fluid level change, the 48-hour bottom hole pressure at the pool datum of -[illegible]00, the 72-hour bottom hole pressure at the pool datum of -[illegible]400, and the bottom hole pressure change in [illegible]. [illegible] column [illegible] bottom hole pressure change from October, 195[illegible] [illegible] May, 195[illegible] [illegible].

[illegible] of this tabulation we have [illegible] the [illegible] of

[illegible] and the totals, and [illegible] comparable wells. We had submitted to us [illegible] wells from the operators; for the comparable wells, the change in shut-in pressure at the surface averaged 19.4. From 48-hour shut-in to a 72-hour shut-in, it gained 19.4 pounds. The fluid level changed, from 48 to 72 hours it dropped 19 feet. The 48-hour bottom hole pressure and the 72 hour bottom hole pressure changed a plus 20 pounds. This average is compared with the average for May, 1956, there was a nine pound increase in the bottom hole pressure. The pool averages now, the average gas gravity came out at .6863; the average oil gravity came out 61.6 degrees API. 48-hour surface shut-in pressure averaged 1,592 pounds; 72-hour surface pressure averaged 1,635 pounds, or a change of plus 43 pounds. The 48-hour sonic depth average was minus 1919 subsea, and the 72-hour fluid sonic level was minus 1959, or a drop of minus 40 feet. The 48-hour bottom hole pressure average was 2,076 pounds. The 72-hour bottom hole pressure was 2,154 pounds, or an increase of 79 pounds.

The Pool average for May, 1956 -- We will go over those -- gas gravity was .6874. In other words, the gas gravity dropped a little bit. The oil gravity was 65.4 average. It went up. The 48-hour surface shut-in pressure was 1595. Average 72-hour surface shut-in pressure was 1602, or increase at that time of 17 pounds. The 48-hour sonic depth was minus 1555, the 72-hour fluid sonic level was minus [illegible], or a drop of 40 feet. 48-hour bottom hole pressure was 2150; 72-hour bottom hole pressure was 21[illegible], or increase of five pounds. So the change from May to October, 1956 in the gas gravity was -.0011; the oil gravity [illegible] 3.[illegible] degrees API. 48-hour

surface shut-in pressure, that's comparing the 48-hour shut-in pressure with May, 1956 and that of October, 1956, has increased seven pounds. The 72-hour surface shut-in pressure has an increase over the six months there of 23 pounds. Therefore, the pressure change in these two was plus 26 pounds. The average 48-hour sonic depth was, the change, rather, from May to October was minus 364 feet, and the 72-hour depth was minus 364 feet, and there was no change. The 48-hour bottom hole pressure was minus 74 pounds and the 72-hour bottom hole pressure was just one pound difference. There was a bottom hole pressure change there of 73 pounds increase.

Q Has a graphic illustration of the pressure differential between the Terry-Blinebry and the Blinebry Gas Pool been prepared?

A It has.

(Marked Commission's Exhibit 2, for identification.)

Q I hand you what has been marked as Exhibit 2 and ask you to identify and explain the significance of it.

A It is a graphic picture of the average bottom hole pressures of the Blinebry gas and the Terry-Blinebry Oil Pools. The Blinebry gas pressures are plotted from past tests in May, 1955, October, 1955, May, 1956, and the most recent test in October, 1956. The Terry-Blinebry Oil pressures are plotted from tests in May, 1956 and October, 1956.

Q Will you go on and explain the plots on the graph?

A Referring to the green line, consisting of the first point on the graph in the Blinebry gas pool, the average pressure from 17 tests in May, 1955, bottom hole pressure was 2102 pounds as

square inch gauge.

The graph from here on denotes a change in the pressure in these same 17 wells, and is denoted by the solid line. The dashed line denotes the change in the bottom hole pressure from all the wells reported on the tests. That is all the wells in the pool submitted. The next points in the Blinebry gas for October, 1955 shows an average pressure for the comparable wells of 2174 pounds per square inch gauge, and an average pressure for the total wells of 2171 pounds per square inch gauge. It is not shown on the graph, but in the Terry Blinebry Oil Pool the October 1955 average pressures for comparable wells was 1274 pounds per square inch gauge and for the total wells, 1206 pounds per square inch gauge. The differential in pressure between pools based on total wells tested in each was 965 pounds. That was for October, 1955.

In May, 1956, the comparable wells in the Blinebry Gas -- that is the same 17 wells -- had an average pressure of 2130 psig.

The May, 1956 Terry-Blinebry oil well average pressures were 1473 psig for comparable wells, and 1440 psig for total wells, or a differential pressure between pools of 741 psi. The October, 1956 averages in the Blinebry gas was 2117 psig for comparable wells, and 2154 psig for the total.

In the Terry-Blinebry oil the comparable wells averaged 1307 psig and the total wells averaged 1312 psig. Therefore the present differential of pressure between these two pools is [illegible] pounds per square inch gauge.

[illegible] would be enough to present testimony at this time.

Q Do you have any recommendations concerning future testing in the Blinebry Pools?

A It is my recommendation that all the wells in the Blinebry oil or the Blinebry gas pool be tested. I would like to put this on a bottom hole pressure bomb and test key wells to be picked by the Commission.

Q Do you feel, Mr. Fischer, that the three Blinebry Pools are separate common sources of supply?

A Well, I believe from what the geologist told me, they are one source of supply, and I would like to call them one pool, and for administrative convenience, leave all the orders as they are, the only change to be made is to be called one pool, and leave everything else the same.

Q The oil wells that are now presently designated in the Blinebry and the Terry-Blinebry oil would then be designated as gas wells in the Blinebry gas pool?

A Would then be designated as oil wells in the Blinebry Gas Pool.

Q Do you have any recommendation concerning the definition of a gas well?

A I recommend that no change be made in Order R-[illegible] concerning the definition of a gas well, and [illegible] remain [illegible] well producing [illegible] limits of the Blinebry Gas Pool, with a condensate gravity of [illegible] API and a [illegible] minimum of [illegible],000 to 1.

Q Do you have any other recommendations?

A [illegible].

MR. [illegible]: At this time I would like to offer Exhibits [illegible] and 2.

MR. PORTER: Are there any objection to the admission of these exhibits? They will be admitted. Does anyone have a question of Mr. Fischer? Mr. Malone?

MR. MALONE: Ross Malone, for the Gulf Oil, if it please the Commission.

CROSS EXAMINATION

BY MR. MALONE:

Q Mr. Fischer, in preparing your study that you have presented, I am sure you had access to the testimony that was presented in the original hearing in 195[illegible], did you not?

A I have.

Q You will recall, that at that time Gulf presented rather extensive testimony with reference to the possible administration of the three pools as they were subsequently set up?

A Yes.

Q Did you give consideration in your analysis to the pressure differentials which existed at that time, as they relate to the differentials which you now find?

A [illegible] point [illegible] lower. [illegible], 195[illegible] [illegible], and [illegible] and [illegible] Oil [illegible] of oil [illegible].

Q [illegible] any [illegible] in that [illegible] to [illegible]

differential [illegible] against [illegible] in 1954, anything in the [illegible] change [illegible] which did not exist in 1954?

A No.

Q So, essentially, the Commission is dealing with the same problem and the same set of physical facts that it was dealing with when the order was promulgated in 1954?

A I believe so.

Q Your recommendation that the [illegible] pools be consolidated into a single pool is purely a matter of administrative convenience?

A Yes.

Q I didn't exactly follow the administrative convenience which you felt would result from that. Would you mind [illegible] that?

A I believe the only one would be to just be able to have better control over the three. Everything else will be left as is, of course, the operators have been living with the conditions long enough to be used to them. It's just a matter of calling it one pool, and then you can [illegible] with them a little easier I believe.

Q Did you find from your study that in general, Order Number R-610 and the administration under that order has progressed satisfactorily?

A Yes.

Q [illegible] no serious [illegible] the order [illegible] in your opinion?

A No.

[illegible], of course, [illegible]

Gas Pool, [illegible] [illegible]-Lindry Oil Pool and [illegible] [illegible]-Lindry, Oil Pool, does it not?

A [illegible] does.

Q And delineates [illegible] [illegible] pools. [illegible] would [illegible] re-writing of Order Number R-[illegible]10 if your recommendation was followed, would it not?

A That is correct.

Q So that while the effect of it might [illegible] merely a consolidation for administrative purposes, it would necessitate a complete re-writing of Order R-[illegible]10?

A Yes, it would, but it wouldn't change anything.

Q Do you feel that the benefit that would result from this administrative change would justify the change that would be incident to [illegible] re-writing the order and the change in the operations of the companies under the order?

A Yes, I do.

MR. MALONE: Thank you.

MR. PORTER: Mr. Mankin?

By MR. MANKIN:

Q Mr. Fischer, did you not [illegible] [illegible] your testimony on Exhibit [illegible] that the differential pressure between the [illegible]-Lindry Oil Pool and the [illegible]-Lindry Gas Pool has constantly increased?

A [illegible] May, [illegible] to [illegible], [illegible], to [illegible], [illegible] it did increase. [illegible] [illegible] differential in pressure?

Q [illegible] differential in pressure [illegible] [illegible] pools?

A [illegible], [illegible] differential [illegible] [illegible] the two pools, [illegible] [illegible] [illegible] [illegible] pounds. In May, [illegible] [illegible]

the tests were taken again of [illegible] two pools, the differential in pressure between the two was 7[illegible]1 pounds, the differential had dropped between the two pools. In October, 19[illegible] the results of the tests taken at that time show that the differential in pressure between the total wells submitted from these two pools, the averages, the differential in pressure was 805 pounds, that it increased again.

Q To what do you attribute that increase from May, 1956 to October, 1956?

A Well, I don't think that the increase is true. I think that possibly it's an error in the method of taking the bottom hole pressure of the Blinebry gas by sonic meter.

Q Is the condition to which those wells were taken the same in all three times, October of '55 and May of '56 and the October of '56, were the conditions and the same wells used?

A The same conditions were used, as far as I know.

Q Were the same wells used?

A In the comparable wells the same wells were used.

Q Was this differential on comparable wells the same condition?

A Yes, the differential [illegible] comparable wells, between the Blinebry gas and the [illegible] oil was 810 pounds, only five pounds different from the average differential from [illegible] total wells. They match up fairly close.

Q Then it['s] your [illegible] that the sonic method would not [illegible], [illegible]?

A Yes.

Q That you would use the bottom hole pressure bomb?

A I think you would get more accurate data that way.

Q It is possible in some cases to use the bottom hole pressure without pulling the well?

A That I know of, most of the wells or all of the wells that I know of are dually completed wells. I don't know what equipment is in the wells. I assume that most of them have garrett sleeves to block off each zone above and below the packer, or maybe a bottom hole choke. I think the average cost to shift those garrett sleeves is around $135.00, if it goes off all right.

Q It is your recommendation and you feel that bottom hole pressures where they would be used with a smaller bomb, or move the choke in such a manner that normal pressures could be taken on all wells?

A Yes.

MR. MANKIN: That is all. Thank you.

MR. PORTER: Anyone else have a question of Mr. Fischer? Mr. Nestor?

By MR. NESTOR:

Q Mr. Fischer, I would like to ask, Mr. Mankin mentioned all wells. I understood you to say "key" wells. Do you have in mind how many wells per section?

A I think in that line the Commission could use your isobaric map of [illegible], and pick the key wells from that map. Then maybe after six months we would [illegible] some of the [illegible] key wells and, if possible, to get [illegible] bottom hole pressure [illegible]

to [illegible] wells. [illegible] wells and [illegible] and new [illegible] in a [illegible] time, or [illegible] and a half's time, you would have [illegible] with the bottom hole pressure bomb all the wells in the [illegible] gas.

Q You did mention one thing there, the fact that the cost might run $135.00 if everything went all right, is there danger in running block off tools and pulling same?

A Yes, there is.

Q With the differential between these two pools as great as it is, do you think it is justified in being so precise to endanger, actually it can become pretty expensive?

A Not too expensive. If you run into trouble there you might have to run into pulling your tubing.

Q What does that do to the two zones in the well then?

A Well, you will have to kill the well.

Q Precisely. That's the point which really is dangerous. What I'm concerned about is, is what we are going to gain in more accurate measurement, and I agreed we would get a better measurement. Is it of sufficient need to justify additional risk in these wells, since the differential between the two fields, that is the oil and the gas zone, is so [illegible].

A I don't think the danger is as great as you make it out to [illegible].

Q [illegible] don't know [illegible]

A [illegible] right, but I think [illegible] you [illegible] drilling you [illegible] all you [illegible] going to [illegible]. If you want to [illegible] wells [illegible] you [illegible] going to [illegible] go in and

kill the well anyhow if you were to do some work on the bottom gas or bottom hole zone.

Q That is optional. That is when it is necessary. This is something else. This is running in there with a tool, and there must be some concrete value to justify doing this. We don't just do these things of whim, of course. There is some little danger in running the tools. We have had some troubles and I am sure other operators have.

A That is right. I believe that this chart shows that these sonic meter methods, they vary too much. It is not consistent. In order to find out whether we are really having oil from the Terry-Blinebry, migrating into the Blinebry gas, I think we need a better method of calculating.

Q How much differential would there have to be if the facts were known, to preclude any migration of oil from the Blinebry oil zone into the gas cap?

A I don't know.

Q Would one pound suffice?

A It might.

Q How can the Blinebry, flow if the one pressure is higher than the other by one pound even?

A I think in certain cases that it might be that condition where you could flow it in there. Sometimes, pressure might cause that oil to rise in that zone.

Q Then then would you guess ought to be the differential?

A Well, I don't know on this one.

Q Could you give us an opinion?

A No, I couldn't.

Q Well, it would seem to me it might be a little premature to suggest the other program until we do know actually. With the 800 pound indicated differential we would agree there is probably some discrepancy with the actual truth of the pressure for the gas zone, but with that much differential I can't conceive of any combination of errors that would bring us to a situation where there would be danger of migration of oil into the cap.

A That is true. In order to get the correct sort of data on the thing, I think the bottom hole pressure bomb in the [illegible] would be the best method to determine that. We are trying to get the best method we can.

Q We agree with that, but for what benefit? If we introduce a risk there must be a benefit.

A Maybe we can call a meeting of the operators in Hobbs and possibly get a better way of getting the sonic bottom hole pressure, if that would be agreeable.

Q We just wonder, really, if you think it is necessary.

MR. [illegible]: No further questions.

MR. PORTER: Anyone else have a question?

MR. [illegible]: I have another.

By MR. [illegible]:

Q [illegible] [illegible], have you noticed the gas-oil contact, any changes in the gas-oil contact over the period of the last two years [illegible] [illegible] [illegible]-[illegible] [illegible] [illegible]?

A No, I haven't. I think the differential --

Q You think there is some shift in the gas-oil contact because of the fluid produced, and this might be [illegible]?

A I don't think—it is possible. It is very possible for that to happen.

Q You haven't observed any particular change?

A No.

Q In the gas-oil contact? A No.

MR. PORTER: Anyone else have a question?

MR. COOLEY: One question on re-direct, if the cross is finished.

MR. PORTER: Mr. Montgomery?

BY MR. MONTGOMERY:

Q Getting back to your reasons for wanting to call this all one pool for administrative ease, we have had some cases just recently where the boundaries between the Terry-Blinebry Pool and the Blinebry gas pools had to be changed because a gas well was completed in the Terry-Blinebry Oil Pool.

A Yes.

Q Of course, it [illegible] in the Terry-Blinebry Oil Pool, but the order was written and is written to the effect that no gas allowable can be granted a gas well in the Terry-Blinebry Oil Pool. Your recommendation would [illegible] that particular difficulty which would be in the [illegible]?

A I believe the order [illegible] no simultaneous dedication of acreage.

Q [illegible] the fact that a gas well could continue to receive a gas allowable upon the date of completion, instead of waiting for

the administrative procedure to get the hearing to get the name changed from Blinebry to Terry-Blinebry gas, and when it has actually been Blinebry gas and never Terry-Blinebry?

A Yes.

Q Further, along the same lines, a gas well was completed just north of the Terry-Blinebry oil development. It is general where they had another high structure and it was above the gas-oil contact. The gas-oil was complete in the Blinebry, which is the same reservoir as the Terry-Blinebry oil and the Blinebry gas. The order again prohibits the Blinebry gas from crossing the Terry-Blinebry oil field. If we have to get up a new pool for that gas well, there is a definite possibility that a different market would exist for that pool if we created another pool, which could cause excessive drainage and not protect correlative rights, is that correct?

A Yes.

Q Regarding your key well survey, one of the reasons you wanted the key well survey was because of the oil wells that are presently going on pump, and if we are going to continue to watch these two pools, to make sure that the oil isn't migrating, we are going to have to set up something in the very near future?

A That is right.

MR. MONTGOMERY: That is all I have.

MR. PORTER: Does anyone have a question?

MR. CHRISTIE: K. S. Christie, with Amerada.

By MR. CHRISTIE:

Q I would like to know what the variation of pressures, individual pressures are in the different pools?

A The variation in pressures?

Q [illegible] consistent or [illegible] variation?

A Well, in the [illegible] Oil Pool the bottom hole pressure ranged from a low of 717 pounds to a high of 1949 pounds. Those were the two extremes. In the [illegible] gas on a 72-hour basis I found the lowest to be 1740 pounds, and there was a high, the highest I found was 2629.

Q What is the relative difference in volumetric withdrawal between the two pools?

A I don't know, Mr. Christie.

Q What I'm trying to figure out, Mr. [illegible], that differential between two areas. It doesn't seem to be very consistent from a reservoir standpoint to have that much differential in the same pool?

A It doesn't, but I have taken what was submitted to me as correct.

Q That's the geological information, based on geological information only, isn't it, that these are all one reservoir?

A Yes.

MR. CHRISTIE: Thank you.

MR. PORTER: Anyone else have a question? Mr. Cooley, you have another question on redirect examination?

RE-DIRECT EXAMINATION

BY MR. COOLEY:

Q Mr. Fischer, if the [illegible] pools are consolidated and [illegible] pool, [illegible] contemplated, [illegible] in operating

conditions whatsoever?

A No.

MR. COOLEY: That is all.

MR. PORTER: Anybody else have a question? The witness may be excused.

(Witness excused.)

MR. PORTER: Does anyone have a statement to make in this case?

MR. MALONE: Mr. Ross Malone, if it please the Commission, for Gulf Oil Corporation. Gulf is probably the largest operator in the fields which are under consideration in this field, and the pools under consideration. At the hearing held on October 20, 1954, at Hobbs, when the subject was first considered, Gulf introduced rather extensive testimony and offered recommended field rules for the Blinebry Gas Pool. At that time testimony was introduced to prove that the Blinebry formation is primarily a formation with a gas distillate reservoir from which the withdrawal of hydrocarbons would have no recovery effect on the recovery efficiency of the associated reservoirs: that is the Blinebry and the Terry-Blinebry Oil Pool. It was the recommendation of Gulf that field rules be established as if the reservoir were not associated with the others, in order to permit the withdrawal of gas in the pool in accordance with market demand. In Gulf's opinion, this would, in no way, affect the ultimate oil recovery from the [illegible] Oil Pools, and testimony to that effect was presented in the original hearing.

Gulf further recommended that [illegible] pools be regulated

and prorated as if they were single reservoirs. At that time it also proposed that a gas well in the Blinebry Gas Pool be defined as any well within the vertical and horizontal limits of the Blinebry Gas Pool which produced gas in liquid hydrocarbons; the liquid hydrocarbons having a gravity in excess of 45 degrees API, and be producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of less than 45 degrees API, a gas-oil ratio in excess of 100,000 to 1.

There was no opposition to the case and the testimony presented by Gulf at that time. As a result of this hearing in October, 1954, Order Number R-610 was issued by the Commission, and rules were adopted which conformed generally to the recommendations which were made at that hearing. A gas well in the Blinebry Gas Pool was defined as a well producing from within the vertical and horizontal limits of the Blinebry which: (a) produces liquid hydrocarbons, the liquid hydrocarbons possessing a gravity of 51 degrees API, or greater, or (b) producing gas and liquid hydrocarbons, the liquid hydrocarbons having a gravity of less than 52 degrees API and a GOR minimum of 32,000 cubic feet of gas or more per barrel of liquid hydrocarbon removed.

Gulf has periodically reviewed the status of the Blinebry reservoir, and has found no substantial change during the intervening period, from the condition which existed at the time of the adoption of the present rules.

As I understood Mr. Fischer's testimony, he confirmed that fact that he found no substantial change to have occurred in the intervening period. Operations under the present order which delineate

[illegible] pool [illegible]

the three pools [illegible] administ[illegible] [illegible] well [illegible]

satisfactorily. It is the [illegible] Gulf [illegible] from the [illegible] commend[illegible]

be some administrative flexibility [illegible] [illegible]

change, that the problems [illegible] it would not [illegible] benefit that might be

operating in the pool would far outweigh any benefit that might be

obtained. The Commission considered this question very seriously,

and came up with the rules that are now in effect. The conditions

have not changed since that time, and Gulf strongly recommends

that Order R-610 continue in its present form, and that the three

reservoirs be administered as separate reservoirs under the present

rule.

MR. PORTER: Thank you, Mr. Malone. Does anyone else have

a statement? Mr. Kellahin?

MR. KELLAHIN: Jason Kellahin, representing Continental Oil

Company. Continental Oil Company has reviewed the existing rules

and regulations relating to gas pool delineations, gas proration

and other related matters affecting and concerning the Blinebry

Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool, and is of

the opinion that although existing rules and regulations and pool

delineations are not in all respects completely satisfactory, they

are probably the best that can be promulgated under the circum-

stances.

I would like to [illegible] from the prepared statement, and

[illegible] that in view of the [illegible] [illegible] pointed out [illegible]

[illegible]

[illegible] no substantial [illegible] pool conditions [illegible] in 19[illegible]

[illegible]

that there should, at this time, in our opinion, be no further change made in the present rules until the additional studies have been completed and additional evidence presented to the Commission, to show the effect of the consolidation of the pools into one pool.

Continental Oil Company, therefore, does not desire to recommend any changes in the existing rules and regulations and pool delineations. Continental's Warren Unit Well No. 8, which was dually completed as a gas well in the Tubb and Blinebry pools pursuant to the Commission's approval, is located north of the, and outside of the horizontal limits of the Blinebry Gas Pool and Blinebry Oil Pool and the Terry-Blinebry Oil Pool and Continental Oil Company proposes to request a new pool designation and field rules for the area surrounding its said Warren Unit Well No. 8 in the immediate future.

MR. PORTER: Thank you, Mr. Kellahin.

MR. HINKLE: Clarence Hinkle, Hervey, Dow and Hinkle, Roswell, representing the Atlantic Refining Company. The Atlantic has some properties which are being operated in this area by the Continental, and Atlantic would like to concur with the statement made by the Continental Oil Company in this case.

MR. PORTER: Anyone else have a statement? Mr. Smith?

MR. SMITH: On behalf of Shell Oil Company, Shell doesn't [illegible]

MR. PORTER: [illegible]

MR. KELLEY: [illegible] Oil and Gas [illegible],

too, feel that the present rules are working very satisfactorily

and would like to see the present rules be adopted as permanent

rules rather than have a change.

MR. PORTER: Thank you, Mr. Kelley. Any further statement? [illegible]

The case will be taken under advisement. At this time I would

like to announce that the normal unit allowable for February will

be 40 barrels. We will recess until 1:30.

STATE OF NEW MEXICO)
:
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 [illegible] day of January, 1957.

[illegible signature]

Notary Public, [illegible]

My Commission Expires:
[illegible] 19, 1959

DEARNLEY · MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE · SANTE FE
3-6691 2-2211

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

PROPERTY OF NMOCC Santa Fe

IN THE MATTER OF:

CASE NO. _____

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-9546
ALBUQUERQUE, NEW MEXICO

[illegible]

[illegible]

[illegible], New Mexico

[illegible]ctober 20, 1954

- -

IN THE MATTER OF: [illegible]

Application of the Commission, upon its own motion to consider an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission, and/or promulgating additional rules and regulations relating to the pool delineation, gas proration, and other related matters affecting or concerning the Blinebry Gas Pool, Lea County, New Mexico. — Case No. 727

The order contemplated will pertain to gas pool delineation, gas proration, gas well spacing, gas well allowable, gas proration units and related matters affecting the Blinebry Gas Pool.

Notice is further given that the contemplated order may affect the Terry Blinebry and Blinebry Oil Pools situated in Lea County.

- - - - - - - - - - - - - -

Application of the Commission, upon its own motion, for an order amending, revising, or abrogating existing rules and regulations of the Oil Conservation Commission and promulgating additional rules and regulations relating to gas pool delineation, gas proration, and other related matters affecting or concerning the Tubb, [illegible] and Justis Gas Pools, Lea County, New Mexico. — Case No. 728

[illegible]

- -

ADA DEARNLEY & ASSOCIATES
STENOTYPE REPORTERS
ALBUQUERQUE, NEW MEXICO
TELEPHONE 3-6691

STATE OF NEW MEXICO

MR. McCOY: The next case on the docket is the consolidated cases, 727 and 728. In order to save time I would appreciate it if all the witnesses would stand to be sworn at this time.

(Witnesses sworn.)

MR. McCOY: Mr. Malone will you proceed, please?

MR. MALONE: May it please the Commission, Gulf Oil Corporation has caused certain studies to be made of the area involved in these consolidated cases, on the basis of which it will recommend to the Commission the retention of the Blinebry Gas Pool, the Terry-Blinebry as an oil pool, and the Blinebry Oil Pool, with certain minor modifications of the horizontal limits of those pools. We will now present testimony on the basis of which those recommendations will be made to the Commission. I will ask Mr. W. L. Goss, the first witness to take the podium and the microphone.

W. L. GOSS

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

DIRECT EXAMINATION

By Mr. MALONE:

Q Will you state your name to the Commission?

A W. L. Goss.

Q Where do you live?

A Roswell, New Mexico.

Q By whom are you employed?

A Gulf Oil Corporation, Fort Worth Production Division.

Q You have testified before the Commission on previous occasions, have you not?

PROCEEDINGS

MR. NUTTER: The next case on the docket is the consolidated cases, 727 and 728. In order to save time I would appreciate it if all the witnesses would stand to be sworn at this time.

(Witnesses sworn.)

MR. NUTTER: Mr. Malone will you proceed, please?

MR. MALONE: May it please the Commission, Gulf Oil Corporation has caused certain studies to be made of the area involved in these consolidated cases, on the basis of which it will recommend to the Commission the retention of the Blinebry Gas Pool, the Terry-Blinebry as an oil pool, and the Blinebry Oil Pool, with certain minor modifications of the horizontal limits of those pools. We will now present testimony on the basis of which those recommendations will be made to the Commission. I will ask Mr. W. L. Ross, the first witness to take the podium and the microphone.

W. L. R O S S

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

DIRECT EXAMINATION

By MR. MALONE:

Q. Will you state your name to the Commission?

A. W. L. Ross.

Q. Where do you live?

A. Hobbs, New Mexico.

Q. By whom are you employed?

A. Gulf Oil Corporation, Permian Basin Production Division.

Q. You have testified before the Commission on previous occasions, have you not?

A I have.

Q And, have had a change of position since your last testimony?

A That is correct.

Q What is your present position with Gulf, Mr. Ross?

A I am an Assistant Zone Exploration Manager of Zone 8, which comprises the eastern half of New Mexico, and twelve adjacent counties in Texas.

Q How long have you been employed by Gulf Oil Corporation, Mr. Ross?

A Oh, slightly over 26 years.

Q What part of that time has been spent in New Mexico?

A Sixteen years.

Q You have been familiar with the development of the oil and gas pools in southeastern New Mexico during that period of time?

A Yes, sir.

MR. MACEY: Are the witness's qualifications satisfactory to the Commission?

MR. MACEY: Yes, they are.

Q Have you made a study of the geological conditions in the area of the Eltsbry Gas Pool with to the subject of this hearing?

A I have.

Q What was the purpose of that study, Mr. Ross?

A The primary purpose was an attempt to analyze the possible interconnection that might exist in the several pools now designated as the Eltsbry Pools.

Q Have you prepared a exhibit or exhibits for these present pools to the Eltsbry?

A Yes, sir.

Q Will you refer to that Exhibit [illegible] Exhibit 1 and explain it to the Commission, please?

(Marked Gulf Oil Corporation's Exhibit No. 1, for identification.)

A Exhibit 1 is merely a [illegible] showing the [illegible] which are shown [illegible] Blinebry Gas [illegible], the [illegible] Pools, the Blinebry Oil [illegible], and the Terry-Blinebry Oil Pool.

Q [illegible] you [illegible] the delineation of these pools on the exhibit?

A The pool boundaries are indicated in representative colors as indicated by the legend. The green [illegible] is the Terry-Blinebry Pool; the yellow boundary is the [illegible] Gas Pool; the red boundary is the Blinebry Gas Pool; and the brown represents the Blinebry Oil Pool. In addition, we have a trace of the cross section that will be introduced as a subsequent exhibit, showing its course through the Blinebry area.

Q When, if you know, was the discovery well in the Blinebry Gas Pool drilled, Mr. [illegible]?

A I believe the Blinebry [illegible] distillate [illegible] was early in '45, was the first well completed in that pool.

Q When, if you know, was the discovery well in the Terry-Blinebry Oil Pool completed?

A [illegible] in [illegible].

Q [illegible] pool?

A [illegible].

Q [illegible]

in the pools in owned by Gulf, or in [illegible]

A Approximately 20 to 25 per cent.

Q You referred to a trace which is a portion through Exhibit 1, of a cross section, will you refer now to Exhibit 2 which is the cross section?

(Marked Gulf Oil Corporation's Exhibit No. 2, for identification.)

A Exhibit 2 is merely a north-south cross section through the Blinebry pools from the northern extremity in the Terry-Blinebry pool through the major gas pool and terminates at the southern extremity with a Blinebry oil well. It merely shows the correlation of diagnostic marker horizons through the area and shows the relation of the Blinebry zone to upper and lower markers. Also, on the exhibit are shown the present vertical limits of the Blinebry zone as defined by the Commission Order 860.

Q What are the present defined vertical limits of that pool as defined by that Order, [illegible]

A The limits are referred to horizon here, which on this cross section is indicated as top Blinebry, which corresponds to the Blinebry marker in the order and the zone, the vertical limits refer to this area or 75 feet above this marker to 300 feet below it. The section [illegible]

[illegible] to the Blinebry pay.

Q In that up 100 feet the producing section, whether production of oil or gas is encountered?

A Generally so. The major gas distillate production through the Blinebry Gas Pool and the oil production in the Terry-Blinebry Oil Pool are found within that limit.

Q Before proceeding from Exhibit 2, Mr. Dees, would you state how the Blinebry marker is identified by the Order of the Commission?

A The Order refers to a specific point in a specific well. The Humble State well No. 20, located in Section ? of 22 South, 37 East, is the key well and the Blinebry marker is referred to at a specific depth. I believe it is 5,947 feet. In order that you might have an exact point for your further reference to that horizon that specific well and location is used. That horizon here is the identical one as referred to in the order.

Q I understand you to say that the wells at the north and south extremity of the cross section were both oil wells and the remaining wells gas wells, is that correct?

A That is not entirely correct. The northern most well is the Gulf No. 31, Harry Leonard, which is a Blinebry well. The remaining two, three, four, and five, are gas wells with the exception of four, which is a [illegible] well. [illegible]

Q Will you point out each of the six wells on Exhibit 1 [illegible]

A The northernmost well is the Gulf No. 3, Leonard, a Blinebry producer in the Terry-Blinebry pool. Number 2 is the Gulf No. 4, Turner, a newly completed Blinebry producer in section 22, 21-S, 37-E. Well number 3 is Gulf No. 6, Owen, a dual producer in section 26, 21-S, 37-E, Blinebry gas. Number 4 is the Gulf No. 4, Hughes, located in section 14, 22-S, 37-E. Number 5 is the Gulf No. 5, Vivian, in section 30, 22-S, 38-E, Blinebry gas well, and number 6 is the Gulf No. 1, [illegible], section 6, [illegible], 37-E, a Blinebry oil well.

Q Does the information from which Exhibit 2 was prepared and the study which you have made of the geological conditions indicate that the producing zone is continuous through these five wells on the cross section?

A The zone can be correlated entirely through the field, yes; particularly this uppermost unit.

Q What is your opinion as to whether or not all of these wells are producing from a common reservoir?

A There seems to be little question that the wells in the Blinebry gas pool and the Terry-Blinebry oil pool are a common source of supply.

Q Will you now refer to Exhibit 3 and state what is portrayed by this exhibit?

(Thereupon, [illegible] Exhibit No. 3, [illegible] identification.)

A Exhibit 3 is a [illegible] structure [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

certain other [illegible] of these [illegible]. The area occupied by the dashed [illegible] line is the assumed productive limit of the Blinebry pay.

Q Will you outline that area as shown on the exhibit?

A It is this area which has the shading from both the green and the pink in this exhibit. This represents our interpretation of the productive limits of this Blinebry pay and it, in effect, represents a porosity pinch-out. The data from which this was obtained comes from nearly every type of information, from electric logs, from sample logs, from core data, and from drill stem test data, and from production records.

Q Mr. [illegible], are this exhibit and the other exhibit from which you were testifying prepared by you or under your personal direction.

A It was.

Q Will you continue.

A While we say this is an assumed productive limit, it is still substantiated by considerable fact. There are a number of wells around the periphery here where we have evidence that the porosity in this uppermost zone was pinching out from core data, from well performance or from other drill stem tests and production [illegible] [illegible] indication of [illegible] [illegible] [illegible] [illegible] [illegible], in general, it [illegible] [illegible] [illegible] [illegible] [illegible].

You referred to the manner in which the western boundary of the assumed productive area are delineated. What about the eastern boundary?

A We generally have more control along the eastern side. The control wells are closer spaced on more comprehensive data. Along the southwest margin we have relatively little control and that is the weakest part of this assumed limit.

Q What is the reason for that?

A There have been few wells drilled out here from which data was available.

Q You refer to the loss of porosity is there anything further that you care to testify to in that connection?

A In the Terry-Blinebry oil field we have some supporting data from oil-water relationships. Several of the wells here are making water, or have some water, which gives us a further check on this limit. From these data it appears that there is an oil-water contact approaching minus 2,470 sub-sea, which is very close to this assumed porosity limit here which gives a double check more or less as to the productive limits of this pool.

Q Now I understand then that the delineation on Exhibit 3 of the north boundary of the Terry-Blinebry oil pool is on the basis of the oil-water contact point?

A Not entirely, but it substantially is.

Q Will you refer now to the [illegible] portion of the exhibit [illegible]

[illegible]

[illegible] region which contains oil,

the boundary, the separation line, the [illegible] line which you probably can't see, is the approximate gas-oil contact which was determined from data available in wells on both sides of that line. It separates, then, the fluids in this common reservoir with the oil being down dip at the lower structural position and the major portion of the reservoir containing the gas and gas distillate.

Q Is there any oil production in the pink shaded area which you have designated as the [illegible] section?

A Yes, the area shaded in pink [illegible] is not defined as the Blinebry Oil Pool. These wells are bottomed through a considerable area here and represent erratic [illegible] producers. In nearly every instance they were drilled to a deeper objective and failing to find commercial production were plugged back and were salvage operations. In general they appear to be producing from possibly lower in the section. It could be interpreted as possibly a separate reservoir, but from the performance of these wells it appears that they are not closely related to the main Blinebry pay. In the original preparation of data for the gas pools in 1951 the Humble Oil and Refining Company compiled data with respect to the Blinebry pools. It was the result of their findings [illegible] the original definition of the Blinebry Gas Pool and the Blinebry Oil Pool [illegible]. In this report they pointed out that, at that time in 1951, [illegible] erratic oil producers [illegible] [illegible] [illegible] [illegible] further that [illegible] information

should indicate that they were, it [illegible] reasonable that the production of gas [illegible] separate pools would not be detrimental to the recoveries of oil from the Blinebry oil wells. With the additional information we now have from the performance of the Blinebry pool it bears out the conclusions that Humble proposed or drew at that time, which rather pointedly assures us that there seems to be a little relationship between Blinebry oil wells and the Blinebry gas [illegible] reser- voir.

Q. Based on information that was available at the time of that original Humble study and the reservoir performance since that date, Mr. [illegible], what is your opinion as to whether or not that the Blinebry gas pool is a producing gas cap of the Blinebry oil pool?

A. It would be my opinion that, although the entire zone is called a common reservoir, that in all probability the uppermost permeable or porous unit from which this gas is produced is not a gas cap of the Blinebry oil wells, but definitely appears to have that relationship with the Terry-Blinebry oil pool.

Q. Do I understand from Exhibit 3 that the areas of gas production are generally shown in pink and the areas of oil production other than the marginal Blinebry wells, are shown in green?

A. [illegible] correct.

Q. [illegible]

[illegible]

[illegible] ary between

[illegible]

[illegible] Blinebry [illegible], [illegible] you [illegible] that [illegible] line [illegible] drawn on the basis of the [illegible] well [illegible] points.

A [illegible] this line [illegible].

Q [illegible] you refer [illegible] Exhibit [illegible] the boundaries of these pools [illegible] the Commission [illegible] how the two compare.

A The Terry-Blinebry pool [illegible] shown in [illegible] here, and the Blinebry oil [illegible] outlined in [illegible]. It [illegible] to overlap [illegible] presently defined, [illegible] in those two pools. [illegible] the pools [illegible] fairly [illegible] of [illegible] contact, it would seem [illegible] to change or modify the present limits so that they would not [illegible] the same reservoir. Possibly there should [illegible] between the two in order that future [illegible] in the intervening area, depending on the outcome of [illegible] pools could be adjusted accordingly. [illegible] recommendation that the [illegible] limit of the [illegible] would not overlap the present defined limits of the [illegible]-Blinebry oil field.

Q Is there [illegible] with reference to your study or the exhibit [illegible]

A [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Q [illegible]

[illegible]

being produced with [illegible]

production?

A I would think it would be possible.

MR. [illegible]: That is all.

MR. [illegible]: Anyone else have a question of the witness?

MR. [illegible]: May it please the Commission, we're not sure whether we want to ask this witness any question or not, and we will not be sure until we have an opportunity to examine the exhibits. For that reason we would like to reserve the privilege of cross examination until perhaps afternoon to give us an opportunity to look at them during the noon hour. We may not have any cross examination, but we just simply don't know at this time.

MR. [illegible]: Mr. [illegible] will be available.

MR. [illegible]: Immediately after noon you would have the right of cross examination of Mr. [illegible] if you so desire.

MR. [illegible]: Thank you.

MR. [illegible]: Anyone else have a question of the witness now [illegible] Mr. [illegible], I [illegible] understood your testimony [illegible] the distinct [illegible]

[illegible]

[illegible]

[illegible]

Blinebry is a separate reservoir is not [illegible] to the evidence [illegible] reservoir, [illegible] put it [illegible].

[illegible]: In other words, you are virtually positive that this is a common reservoir, the oil and the gas zone on the north [illegible] is a common reservoir, but there is a possibility that the old oil pool is a distinct reservoir?

A That is true.

[illegible]: If there [illegible] common reservoir, why not [illegible], why retain the Terry-Blinebry name, why not call it the oil wells in the Blinebry [illegible] pool [illegible] the other old Blinebry pool?

A If it would not affect the production as presently allotted in the Terry-Blinebry pool I do not believe there would be any objection to that.

MR. [illegible]Y: We could provide for that in the pool rules with some system of allocation. I was thinking of the possibility of having two pools which [illegible] they [illegible] and they are, therefore, one pool and we probably ought to name them as such.

A In the studies [illegible] by the committee of which I [illegible] chairman, the [illegible] Committee, [illegible] our recommendation [illegible] pool, but [illegible].

[illegible]

In [illegible].

[illegible]

MR. [illegible]: You think they are getting the job done?

A Yes, I think it more than inclusive. It wouldn't have needed to have extended as deep in the section as they are presently prescribed.

MR. [illegible]: You also testified, did you not, that it was an arbitrary 75 feet above the Blinebry marker?

A That is true. I think that was a conciliatory gesture because some of the wells that had been producing had perforated a little above the marker and to make them legal they put that in. Actually, there seems to be little doubt that there is any production up there because it comes from a sandy sequence that has very little porosity or permeability, so that it did no harm to put it up there. Whereas, actually, the permeable and productive zone is approximately from the marker and beneath it.

MR. MACEY: One other question, Mr. Ross, in connection with what I call the old Blinebry Oil Pool, based on the information that you have right now, do you think that there is any possibility of the withdrawal from the Blinebry Gas Pool damaging the old Blinebry Oil Pool reservoir?

A No, I don't. Our next witness will point some very conclusive data with respect to that particular phase.

MR. [illegible]: All right. Any other questions of the witness? If not, the witness may be excused.

(Witness excused)

[illegible] evidence [illegible]

[illegible]

[illegible] introduction of

[illegible] will be received in evidence

MR. [illegible]: [illegible] witness will be Mr. John [illegible]oss.

[illegible]

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

DIRECT EXAMINATION

By MR. [illegible]:

Q Your name is John [illegible]oss?

A Yes.

Q Where do you live?

A Fort Worth, Texas.

Q By whom employed?

A Gulf Oil Corporation.

Q In what capacity?

A I am a reservoir engineer, in charge of the reservoir engineering activities of the Fort Worth Production Division of the Gulf Oil Corporation.

Q You have been employed by Gulf for how long?

A Approximately seven years.

Q You have testified before this Commission on previous occasions?

A I have.

MR. [illegible]: Are the witness's qualifications satisfactory to the Commission?

MR. [illegible]: They are.

Q Have you, in preparation for this hearing, Mr. [illegible]oss, [illegible] the adjacent pools [illegible] the Commission?

A I have.

Q [illegible] will you state generally the history

of these several pools?

A I will sir. I would like prior to that to make one statement off the record.

(Discussion off the Record.)

A First I would like to review with you very briefly a little bit of the history of the three reservoirs that are in question, the Blinebry Gas Reservoir, the Terry-Blinebry Oil Reservoir and the Blinebry Oil Reservoir. As of September 1, 1954, twenty-one billion, eight hundred million cubic feet of gas and three hundred fifty-five thousand barrels of distillate had been produced from the gas wells in the Blinebry Gas Pool. The distillate production that is associated with this oil at the surface has a gravity that varies considerably, but generally speaking, has a gravity of about 65 degrees API. During the past 20 months Commission records reflect that the weighted average gas-distillate ratio equaled 91,467 cubic feet per barrel. That is the ratio of distillate to gas. The October, 1954, proration schedule shows that there are 63 wells in the Blinebry Gas Pool, the greater percentage of which were completed during the year 1954. If I remember correctly there were 29 wells as of January 1, 1954, so the pool, the number of wells has increased from 29 to 63 during this year. During 1954, through October, 1954, the average 160 acre gas well allowable has been [illegible] per day. The Blinebry Oil Pool was discovered, [illegible] 1954. During the month of August, 1954, [illegible] wells in the Blinebry [illegible] only [illegible] barrels of oil per well per day. All wells [illegible] and [illegible]

gas-oil ratio for the month of August, 1954, was 9,750:1 cubic feet per barrel. The Blinebry Oil Pool as of September 1, 1954, had produced 306,047 barrels of oil and a total of 1[illegible] wells had been productive, making an average cumulative production per well of slightly in excess of 20,000 barrels. Here is a field that has been productive since 1945 and the average per well cumulative has been approximately 500 barrels per acre. All wells are marginal, the average current production being approximately 7½ barrels a day. None of these wells were originally projected to the Blinebry formation as oil producers. In general, all were drilled to a deeper depth and, when the lower horizons were found to barren, they were plugged back to oil shows in the Blinebry pay. In general again all production is obtained from the lower portion of the Blinebry formation or below the gas-oil contact. I want to stress now that all wells in the Blinebry Oil Pool are marginal, salvage operations. I further wish to stress that the Blinebry oil pay, as such, could not have been developed by the operators and it not been for the possibly deeper horizons for which the operators projected those particular wells. They are salvage operations.

The first production from the [illegible]-Blinebry Oil Pool was obtained in March, 1952, and [illegible] report shows that [illegible],277 barrels of oil had been produced as of [illegible]ber 1, 1954. [illegible] is an oil pool within [illegible] reservoir that was [illegible] in March, 1952, [illegible] produced were all [illegible] the Blinebry Oil Pool [illegible] discovered in 1945, [illegible] relative [illegible] wells were pro- [illegible] Blinebry Oil Pool [illegible] the average per well per day [illegible] 40 barrels.

the weighted average gas-oil ratio for the month of August as taken from the Committee reports averaged [illegible] cubic feet per barrel. Our records reflect that as of October [illegible], 1954, there were 22 producing wells in this pool. Due to the fact that the rim oil found in the Terry-Blinebry Pool is now indicated to be considerably larger than first anticipated all the information available has been thoroughly reviewed to determine what effect the withdrawal of gas from the Blinebry Gas Pool would have on ultimate oil recoveries from this rim area.

Q Have you made a study, Mr. Ross, as to the relative values of the oil and gas reserves that exist in this reservoir?

A I have.

Q Will you state your conclusions in that regard.

A According to Mr. Ross's Exhibit No. 2, the shaded area in pink represents the Blinebry, the possible Blinebry gas pay. The shaded area in green represents the Terry-Blinebry oil pay. The Blinebry oil pay is not shown on that exhibit because we consider that to be negligible marginal salvage oil. Inside the porosity limits on Mr. Ross's Exhibit No. 2 there are 30,700 acres, of which 27,200 are estimated to be productive of gas and distillate from the Blinebry gas field; 3,200 are estimated to be productive of oil from the Terry-Blinebry oil field. Six hundred acres are estimated to be productive of oil from the Blinebry oil pool. Therefore, approximately nine times as much of the total acreage would be productive of gas and distillate as would be productive of oil itself or 90 per cent of the total acreage will be gas acreage. However, [illegible] acre of oil has a greater value than [illegible] acre of gas [illegible] a fair estimate

of whether you have primarily a gas reservoir or an oil reservoir. For that reason we determined recoverable reserves for the three pools in question. To these recoverable reserves we have assigned current day prices and have determined the total value and the ratio of the values between said reservoirs. As a result of that investigation we found that with respect to total revenue as of the first of October, 1954, 81 per cent of the money to be gained from the producing of these formations will be from the Blinebry gas and distillate field; 18 per cent will be from the Terry-Blinebry oil pool; one per cent will be from the Blinebry oil pool. This comparison of revenue establishes the fact that the Blinebry formation is primarily a gas reservoir, both regarding acreage and regarding revenue. However, it has always been Gulf's policy to conserve associated gas if the production of same will be detrimental to the associated oil ultimate recovery, regardless of the relative value between the associated gas and the oil. Since the geological evidence previously submitted definitely indicates that the Blinebry gas is in association with the oil around the rim of this structure the effect of withdrawing this gas cap on ultimate oil recovery has been investigated.

Q What would be the normal result of such a withdrawal, Mr. [illegible]?

A If oil is found in a reservoir, and we will talk now about an average reservoir, if oil is found in a reservoir having a gas cap and the pressure of the gas cap is reduced faster because of withdrawal rates than the pressure in the oil pay, expansion will occur and [illegible] the oil will migrate into the gas cap area. If this occurs only a very small portion of the oil that does migrate into

the gas cap area will be productive. This results in reduced recovery efficiency for the oil reservoir. In addition, gas caps may add reservoir energy and actually increase ultimate oil recovery if the gas cap is effective as the driving mechanism to aid the solution gas drive mechanism within the oil portion of the reservoir itself.

Q Have you prepared an exhibit showing comparable bottom hole pressures in the Blinebry formation?

(Marked Gulf Oil Corporation's Exhibit No. 4, for identification.)

A Yes, Exhibit No. 4 is a map showing the current delineation or the current boundaries of each of the respective fields, in red representing Blinebry gas, brown representing Blinebry oil, green representing Terry-Blinebry. On this map are posted the latest bottom hole pressure information available from these three reservoirs. The figures shown in green represent Terry-Blinebry bottom hole pressures. The figures in red represent according to the field limits, represent Blinebry gas pool bottom hole pressures. The figures in brown represent Blinebry oil bottom hole pressures. These pressures were all taken during the months, I am speaking now of all pressures, were taken in general during the months of September and October, 19[illegible]. They were taken at a datum of minus [illegible] feet sub-sea. They were all taken after approximately the same amount of shut-in time. Therefore, from a [illegible] shut-in time, data viewpoint, these pressures, relatively speaking, can be compared. It is very [illegible] to note that on this exhibit the arithmetic average of the [illegible] wells from which pressure measurements were taken in the Terry-Blinebry [illegible], the arithmetic average

pressure was 1,512 pounds per square inch. The arithmetic average of five of the seven oil gas bottom hole pressures was 2,291 pounds per square inch.

Q Will you indicate the location of the wells to which you just referred, please?

A The five wells in the Blinebry gas field are more or less scattered and we feel are scattered representatively throughout the field. Therefore, there is a pressure in the gas of 2,291 pounds per square inch, a pressure in the oil column of 1,512 pounds per square inch, or a delta P or a pressure differential of [illegible] pounds. This pressure differential exists according to Mr. Ross's statement in a common reservoir. Now, with such a pressure differential within the reservoir it would not be possible for the oil in the oil rim to expand into the high pressure area, or the gas area. Therefore, with the pressure differential in favor of the oil column there can be no expansion of oil, no waste of oil from the rim into the gas cap. Therefore, withdrawals from the gas cap to date have not permitted a pressure situation such that oil can migrate into the cap and be lost. This very definitely indicates poor communication between the oil rim and the gas area. If the communication between these areas were good with this oil field being a relatively new field with relatively little withdrawals from the gas field, hydrocarbons would have redistributed themselves throughout the area and pressure would have been maintained in the oil area. The reason the pressure differential has occurred, theoretical calculations show that the withdrawals per acre foot from the [illegible] Blinebry oil pool have been greater than the withdrawals per acre foot within the gas reservoir.

because of the greater withdrawals per acre foot, poor communication between, there is less pressure in the Terry-Blinebry oil. Now, by the same token, since such poor communication is indicated between zones, gas cap hasn't been very effective in either ultimate oil recovery here. Since it hasn't been in the past, we don't feel it will be in the future. Therefore, we think that the withdrawal of gas and distillate from the Blinebry gas field will not affect in any way the ultimate oil recovery from the Terry-Blinebry oil pool, and we see no reason then why they should be produced as a common reservoir, since evidently they are behaving as separate reservoirs. That is the basis of our recommendation that we maintain everything as is, with a few minor changes.

Q Have you made a study, Mr. Ross, of the pressure performance of the Blinebry formation during the period from '46 to '54?

A Yes. Before I go into that I would like to point out another thing on this particular exhibit, if I may?

Q Go right ahead.

A This exhibit has, in green, the bottom hole pressures of the Terry-Blinebry pool, the average of which is equal to 1,199 pounds. Therefore, there is a pressure differential between the Blinebry oil pressure of 1,199 and the Blinebry gas pressure of 2,201, there is a pressure differential there of approximately a thousand pounds. Now generally speaking, this oil in this area underlies the gas cap and, if the gas cap were very effective, certainly there wouldn't be a 1,000 pound differential across the GOC. Furthermore, had the gas cap over the Blinebry oil been effective, or [illegible]

[illegible] the pressure performance, or the current pressure information, indicates that the Blinebry gas cap in the Blinebry gas field hasn't [illegible] effective with respect to ultimate oil recovery in the Blinebry oil field. I want to point out one more thing on this exhibit. We have on this exhibit a Blinebry oil well pressure of [illegible] pounds, offset by a Blinebry gas-well pressure of 2,341 pounds. I want to point out something else. This additional performance history verifies the conclusion reached by [illegible] in 1951, when at that time they said it was their opinion that the gas cap would not affect the ultimate oil recovery from the Terry-Blinebry oil pool. Additional performance still verifies the original assumption upon which the rules were based for this particular area.

Q Will you proceed then with your study of the pressure performance of the formation?

(Marked Gulf Oil Corporation's Exhibit No. 5, for identification.)

A Exhibit No. 5 is another exhibit showing pressure information. Exhibit No. 5 shows the pressure performance within the Blinebry formation from the years 1950 through 1954. In other words, this is the history of the pressure performance, whereas this was the current status of the pressures within the reservoir.

Q Will you take the pointer and follow the curves because they are not visible to the audience?

A Again, [illegible]

triangles, represents bottom hole pressures. The first pressure shown was the pressure taken on Gulf's [illegible] No. 5 soon after that well was completed in the year [illegible]. That pressure was 2230 pounds per square inch. The next point on the bottom hole pressure curve for the Blinebry gas field represents bottom hole pressure measurements on seven wells, the same pressures that were shown on the previous exhibit and the arithmetic average of those pressures is 2201 pounds. This red line then has declined in pressure 179 pounds. So this exhibit says that the bottom hole pressure in the Blinebry gas formation has dropped 179 pounds. In order to know whether or not any of that information is representative we have examined all surface pressures taken on gas wells. The reason we did that, we have so many more pressures to work with because normally that is the pressures that we have taken in the past on gas wells. For example, the last point on the lower red curve includes 53 surface pressures. Naturally it would be much more representative of the reservoir as a whole than the point of seven pressures. You will note that the two red lines have essentially the same slope. You will note that the indicated surface shut-in pressure has declined approximately the same rate as has this bottom hole pressure. That indicates to us then that the upper line, or the bottom hole pressure line, which we want to relate to the bottom hole pressures in the other fields, is a fairly representative curve. Theoretical calculations for this approximate [illegible] pound shut-in pressure converting that surface pressure to a datum of about [illegible] feet, puts that point almost exactly upon this line, calculations [illegible] [illegible]

the upper curve is representative of the gas reservoir. As I stated, the bottom hole pressure, the gas reservoir has declined 179 pounds per square inch. By the same token, the bottom hole pressure in the Terry-Blinebry oil pool, and those pressures, generally speaking, represent all of the wells that were completed at that particular time, the bottom hole pressure in the Terry-Blinebry oil pool has declined 755 pounds per square inch. Therefore, while the bottom hole pressure in the gas pool has remained essentially level the bottom hole pressure in the Terry-Blinebry oil pool has declined, relatively speaking, very rapidly. It has declined very rapidly considering that there is a gas cap that could perhaps be effective.

Q That decline has occurred over what period of time in the Terry-Blinebry oil pool?

A Over a period of two years.

Q Go ahead.

A From this you draw the same conclusions that you could draw from this other curve, a pressure differential exists, the gas cap is not effective, withdrawals of gas from the gas cap will not hurt the recovery of the oil from the associated oil rim. Again the same comparison exists between the red and the brown, the brown being the values [illegible] Blinebry oil well pressures. I want to explain [illegible] bottom hole pressure, [illegible] All pressures, except the last pressure [illegible] 2200 feet, with [illegible] [illegible] [illegible]

Again you have a pressure differential between these two reservoirs which is approximately 1,000 pounds. The fact that the available pressure data indicates that this relatively large gas cap is having no effect on the associated oil would be very difficult to explain if core analysis were not available. However, we do have core analyses that reflect, relatively speaking, very low permeabilities throughout the Blinebry formation. Furthermore, the core analyses show that the permeabilities and porosities decrease as the edge or the rim of this reservoir is approached.

Q Have you made a study of available information on the porosity and permeability?

A Yes.

Q Which exhibit is devoted to that study?

A Exhibits 6, 7 and 8.

(Marked Gulf Oil Corporation's Exhibits 6, 7 and 8 for identification)

Q Will you state what Exhibit 6 shows?

A It is a core graph of the Blinebry formation from the Gulf Oil Corporation Hugh Well No. 4, located in Section 14, Township 22-S, Range 37-E. That is shown by the yellow circle on Exhibit No. 4. This particular well is located, generally speaking, in the center and in the, what we might call, the fat portion of the gas reservoir. We feel that this particular core is fairly well representative of the [illegible]. If you will recall on the [illegible] cross section, [illegible] top structure [illegible] in the center of the cross section. [illegible] core graph gives the results of permeability and porosity [illegible] at every foot throughout [illegible] feet of the Blinebry

section. The well was cored from the [illegible] marker Mr. Ross referred to in his previous testimony. It was cored from that marker to the base, or to the top of the [illegible] sand, section. As a matter of fact, this particular well was cored from the top of the Gloriatta through the Vivian section of the Drinkard, a continuous core. The porosity measurements on this core graph are shown in blue. Can they be seen from the audience, the blue line? The permeability measurements are shown in yellow. The scales for the permeability goes from zero to 100 millidarcies. The porosity scale goes from zero to 40 per cent. The yellow line, or the yellow curve, represents permeability in millidarcies. The blue curve represents porosity in per cent. In addition, superimposed upon this core graph is a Schlumberger log, the same log that was used by Mr. Ross on his cross section. Zone 1, which Mr. Ross stated was the major zone or the prime zone, or the zone containing the best porosity within the Blinebry in this well exists from 5452 to 5557 feet, that was the only zone that during drill stem test throughout this whole interval, that was the only zone, or Zone 1, that tested any fluid on drill stem test. It produced gas to the surface in 12 minutes and I do not recall the drill stem test, but it was gas productive. Below that zone or from 5557 throughout the Blinebry section the [illegible] oil. [illegible]

rock that is, relatively speaking, an average porosity. Perhaps you might say that is a good porosity, [illegible] per cent. The permeability, the weighted average permeability for the section, however, was only 2.75 millidarcies. That I consider to be a relatively tight rock, low permeability. With respect to what we can compare that with, that same well cored to Vivian section was made a Drinkard oil well, the average permeability for the Vivian zone, the average permeability for the net pay was 25 millidarcies as compared to the .75 millidarcy average for the gas pay. So it is, generally speaking, a tight reservoir. Zone 2 on the core graph had 54 feet gross section, 43 feet having permeabilities greater than zero. The average porosity for Zone 2 was 10.33 per cent, the average permeability was 3.02 millidarcies. That low permeability probably accounts for the marginal status of the Blinebry oil wells, most of which have produced oil from this lower zone. The rock is tight. The porosities are fairly good porosities, but it is, the permeabilities are relatively low. Also between these zones of the Blinebry there are very definite zones where there is no permeability at all and where the porosity is very, very small. These particular zones, we feel, could act as vertical barriers so that gas above one zone with respect to oil below would not actually be in communication because of the poor communication, [illegible] although that par- ticular section is still [illegible] [illegible] [illegible] [illegible]

Exhibit No. 7 is a core graph of [illegible], [illegible] Stevens No. 2 Blinebry. The plotting of this core graph is identical with the plotting of this core graph, with the exception that this core graph has a gamma ray neutron rather than a Schlumberger. This particular well is located in Section 24, 21-S, 37-E. I would like to point out the location of that particular well with respect to Mr. Ross's porosity limits, located slightly to the west of the assumed porosity limit. This well is located near the edge of the field. As Mr. Ross pointed out the porosity limit near this location occurs. After perforating and treating the Blinebry section from 5675 to 5750 with 10,000 gallons of acid, this well tested 32.1 MCF of gas against 20 pounds back pressure. Therefore, it was treated very heavily, produced essentially no gas in commercial quantities. That potential in itself would verify Mr. Ross's porosity limit. However, the core graph also verifies that porosity limit. Examination of the core graph from 5652 to 5766 were still in that same major zone of the Blinebry that Mr. Ross referred to. The completion was attempted in this same major zone 1, shows 115 feet of gross pay of which [illegible] feet had permeabilities greater than zero. The porosity averages only 4 per cent, and you will remember that we had porosity in excess of 12 per cent. Therefore, porosity does decrease as the limits of the reservoir are approached. The weighted average permeability for the net pay equals only .74 millidarcies. That explains the very low potential for this well. You will also note that these permeabilities in all these core graphs, you never have streaks of large permeabilities like you have in Vivian up to 100 millidarcies, 200 millidarcies. The main [illegible]

foot zones of high permeabilities. This low porosity and permeability correlation verifies the assumed porosity limit as designated by Mr. [illegible] and explains the poor potential obtained on this well. As a matter of fact I don't know, I don't believe that we have completed this well. I think we have temporarily abandoned the gas zone. Bearing in mind that the average permeability of zone 1 Pugh No. 4, was 2.5 millidarcies, a definite increase in porosity and permeability occurs as the limits of the reservoir are approached.

Exhibit No. 8 is a core graph of the Blinebry formation from Gulf Oil Corporation's Harry Leonard-A, number 37 Blinebry, located in Section 2, T-21-S, R-37-E. This well is a producer from the Terry-Blinebry oil pool. It produces from the green area. It is shown by this yellow circle on Exhibit No. [illegible] So we have cores both in the gas - we have cores in the good portion of the gas field and on the edge of the gas field and in the oil field. We feel that we have representative core data on this reservoir. We have not shown as exhibits all the core data we have. We have shown that core data which we have for wells, complete core data and core data that we feel is representative of all conditions. Other core data we have verifies what we are telling the Commission today. Exhibit No. [illegible] has the [illegible] of [illegible] the core [illegible] [illegible] interval of this well [illegible] from [illegible] feet [illegible] and [illegible] [illegible] [illegible]

of the reservoir. [illegible] porosities and [illegible]. The net average permeability is 1.2 millidarcies. This well on completion required 12,000 gallons of acid and was potential for 63 barrels of oil per day. The core data in summary shows that the Glinebry formation throughout is relatively tight and, as the rim of the reservoir is approached, permeabilities and porosities decrease. Such low permeability evidently has prohibited the pressure equalization between the associated gas and oil, and the results from the core data indicate that the gas cap will have little effect as a driving mechanism upon the associated oil reservoirs. In addition, the core data showed definite zones within the Glinebry formation which are not connected, so that any oil found in the lower portion of the section will not be affected by the upper gas cap. The core data substantiates the assumptions arrived at from the pressure investigation and explains the reason for the pressure differentials that now exist within this reservoir. Because the Glinebry section, with respect to total value or total reserves, is primarily a gas distillate reservoir, and because the withdrawal of hydrocarbons from the gas cap will probably have no effect on the efficiency of the associated oil reservoirs, it is the recommendation of the Gulf Oil Corporation that field rules be established for the Glinebry gas pool [illegible] reservoir [illegible] associated with the others. [illegible] withdrawal of [illegible] from this pool [illegible] [illegible] [illegible] [illegible] then asif [illegible]

Q You have heard Mr. [illegible]'s recommendation with reference to the northern horizontal limit of the Blinebry Gas Pool. Do you concur in that recommendation, or not?

A Yes, I concur with that recommendation.

Q You have referred to recommended field rules and you are familiar, are you not, with the rules which Gulf are presenting to the Commission at this hearing.

A Yes, I am.

Q Those rules differ primarily in two respects from the field rules heretofore established by the Commission, do they not?

A These field rules differ in two sections with respect to the field rules as a result of the order R-520.

Q The first respect in which they differ is the size of the proration unit, is it not?

A That is true.

Q Will you state the recommended proration unit which Gulf is suggesting?

A Gulf is recommending that the standard proration unit for the Blinebry Gas Pool be, or shall consist of 160 acres, or that 160 acres be the basic gas proration unit.

Q Provision is made in the rules for exceptions for larger units, is it not?

A That is true, [illegible] for larger units.

Q Do you have any [illegible] with reference to the [illegible] to 160 acre basic proration unit?

A [illegible]

for the shallow gas pools in the county, [illegible] [illegible]

mended 160 acre units for these particular reservoirs, we would

certainly recommend no larger than that for this reservoir, being

considerably tighter than the shallow gas pools.

Q With the lack of porosity and permeability you consider

the smaller unit to be more desirable in this instance?

A I think one well would drain 160 acres, I don't have any

doubts about that.

Q Are there, in your opinion, any portions of the [illegible]

Gas Pool in which a well might drain in excess of 160 acres?

A There are, yes.

Q Provisions are made for exceptions in such cases?

A Yes.

Q Rule 14 which is included in the proposed rules relates

to the definition of a gas well, does it not, Mr. Ross?

A Yes, it does.

Q What is the definition of a gas well which Gulf is recom-

mending?

A The gas well in the [illegible] Gas Pool shall mean any well

within the vertical and horizontal limits of the [illegible] Gas Pool

producing gas and liquid hydrocarbons, the liquid hydrocarbons

having a gravity of in excess of 45 degrees API or producing gas

[illegible] liquid hydrocarbons, the liquid hydrocarbons having a gravity

of less than 45 degrees API and a gas-oil ratio in excess of

100,000:1.

Q On what basis was that recommendation arrived at?

A Well [illegible] with respect to the [illegible] Gas Field

[illegible]

that salvage oil can be obtained from the lower Blinebry section and perhaps there are wells already within the reservoir, perhaps there will be wells completed within the vertical limits of the Blinebry reservoir that will produce black crude oil. The gravity of the distillate in the Blinebry gas field varies considerably. We have tried then to define a gas well using a gravity so that if a well produces oil, black oil, having a gravity less than 45 degrees API, that well would be an oil well because it is essentially an oil well. From that point on in gravity, if a well is producing associated fluids having gravities in excess of 45 degrees API from the vertical limits, we feel it should be produced and prorated as a gas well.

Q Is there any particular sanctity to that 45 degree recommendation?

A No. From a fluid analysis in the Terry-Blinebry field we find that the gravity of the Blinebry oil --

Q (Interrupting) Could you speak a little louder?

A We found that the gravity of the Terry-Blinebry oil was 39.9 degrees API. Our records show that the Blinebry oil in general has a gravity of approximately 40 degrees API. Our records also reflect that the Blinebry gas distillate has a gravity of approximately 60 degrees API. Therefore, we just arbitrarily picked 45 degrees API as a limit between the two. It has no basis other than we feel that it is an equitable change. It is as unfair to one operator as it is to another.

Q Any other further testimony that you are prepared to give in connection with this subject, Mr. [illegible]?

A No, sir.

MR. [illegible]: I would like to correct one important statement which I think you made in referring to the Humble report. You referred to the possibility at that time of the Ilfrabry Gas Pool being a gas cap for the Terry-Ilfrabry Oil Pool.

A I am sorry.

Q You mean to refer to the Ilfrabry Oil Pool.

A Yes, there are so many Ilfrabry oil and gases it is easy to get confused.

Q Were the exhibits prepared by you, or pared under your direction?

A They were.

Q Have you examined the ones prepared under your direction?

A Yes.

MR. [illegible]: We offer Gulf's Exhibits 4,5,6,7, and 8.

MR. [illegible]: Any objection to the Exhibits being received in evidence? If not, they will be received.

MR. [illegible]: That concludes the direct examination of the witness.

MR. MACEY: We will adjourn until 1 o'clock.

[illegible]
[illegible], [illegible] 2[illegible], 19[illegible]

MR. [illegible]: The hearing will come to order, please. Are there any questions of [illegible], the last witness for Gulf Oil Corporation. Mr. [illegible], I want to talk to you about something. Did you have some questions, Mr. [illegible]?

MR. [illegible]: Go ahead.

CROSS EXAMINATION

By MR. MACEY:

MR. MACEY: Do I understand you correctly when you say that you think there ought to be a buffer zone between the so-called Terry-Blinebry Oil Pool and the Blinebry Gas Pool in this area here?

A Not a buffer zone.

MR. MACEY: A blank area is what I really mean?

A No, sir. I think there shouldn't be an overlapping of horizontal limit there. I think when the field is completely developed the 160 acre gas well unit will be offset with three to four offsetting oil wells at approximately the gas-oil contact.

MR. MACEY: That is what I was concerned about.

A In other words, if you brought down the Blinebry gas limits [illegible] there would be a buffer [illegible] will [illegible] and the buffer zone itself [illegible].

[illegible] of the fact [illegible] that [illegible] area.

[illegible]

A That is a possibility.

MR. [illegible]: You indicate oil acreage or a gas well?

A That is a possibility.

MR. [illegible]: That is all I have.

A If that existed though, you see, that would be the operator's choice of stepping up near the oil pool and drilling his oil well. If he didn't want to do that, that is his business. I mean he would have that privilege if he thought that the oil was there and he wanted to drill it, that would be fine, but that would cut down his gas unit.

MR. [illegible]: In other words, an adjacent well on the unit that proved to be an oil well would reduce the size of his proration unit?

A That is right.

MR. [illegible]: Mr. Dippel do you have a question?

MR. [illegible]: Mr. [illegible] will have some questions.

MR. [illegible]: [illegible] representing Continental Oil Company.

By MR. [illegible]:

Q Mr. [illegible], as I understood your testimony it was to the effect that as you [illegible] the structure [illegible] possibility [illegible]?

A [illegible]

Q [illegible]

A That is [illegible].

Q [illegible]

indicated an oil saturation zone which will not be produced, if I understand your testimony correctly, due to the low permeability, is that right?

A I wouldn't say entirely due to low permeability, no, sir. It would be a combination perhaps of oil storage and permeability.

Q You do have an oil saturation zone indicated?

A That is true.

Q Is it unreasonable then, do you think, to assume that due to an increase in permeability or porosity, as you have testified, and the fact that oil saturation is present in the lower Gallup, there may be an oil producing zone on the crest of the structure below the gas?

A Yes, that is very possible.

Q You think that is quite possible?

A Yes.

Q Could it, in your opinion, be increased by fracture methods or other --

A Could what be increased?

Q Sir?

A Could what be increased?

Q Could the possibility of oil production be improved?

A [illegible] oil production?

Q Yes.

A That is a question [illegible] depend [illegible] porosity, [illegible]

[illegible] porosi [illegible]

Q You would not [illegible], that situation?

A I would neither discount it nor would I admit it. Experimentation would be required before you could give that answer.

Q Did I understand in your opinion there is a permeability barrier between the gas zone of the [illegible] and the lower oil saturated zone?

A The core graphs show zones of no permeability and zones of decreasing porosity and the pressure performance verifies that the vertical communication is poor between the two zones.

Q Can you trace that zone completely across the [illegible]?

A Yes, I think that it is fairly distinguishable on the logs and it is also evidenced on the cores that are available, and the pressure performance of the two reservoirs over the area [illegible] it out also.

Q Do you have any recommendations to make to the Commission as to the method of handling as a proration matter oil wells which are completed in the center part of the pool, in the event there are such wells?

A Yes, I think that those oil wells should be prorated according to the same rules that have been in existence for the [illegible] oil wells [illegible] the field rules that we have recommended, [illegible] gas, gas-oil ratio limit to be increased from 2,000:1 to 10,000.

Q [illegible]

A [illegible] oil [illegible]

Q Yes. Could you give it to us in a sub-sea datum?

A A gas-oil contact between the Blinebry oil and the Blinebry gas?

Q Yes.

A In the Blinebry Oil Pool?

Q What I am referring to, Mr. Ross, is this period of saturation which we were just discussing.

A All right. No, I could not. We were not able to establish that.

Q You have it for the Terry-Blinebry and the Blinebry?

A Yes.

Q Could you give us that in the sub-sea datum?

A That is at minus - may I look at the exhibit? Do you know the exact contact, I believe it is 2200.

Q Does this zone 1 that you have referred to in your testimony include within it both oil and gas zones as fixed by that sub-sea datum?

A Yes.

Q Do you have any reason for not restricting the gas limits of the gas zone to the gas-oil ratio, to the gas-oil contact?

A Would you ask that again?

Q Do you have any reason for not restricting the limits which you have defined as gas productive to the area above the gas-oil contact? The vertical limits I am referring to.

A The vertical limits?

Q [illegible]

A [illegible]

Q I am referring to the top of the productive formation down to the first barren zone, in effect.

A In other words, the vertical limits would be from a sub-sea depth to a sub-sea depth, equal to the gas-oil contact.

Q Something to that effect, yes. Do you have any reason for not restricting your zones to that area?

A That would then be designating reservoirs by a contact, which we, in general, just do not recommend.

Q In the case before us here, Mr. Ross, I believe, according to your testimony, it would not necessarily be a contact. I have misled you in that respect. It would be the dense zone which interlies between the two?

A No, sir, that dense zone you see goes, or the dense zone carries gas and then, as your formation in this dense zone dips down structure, it then carries oil.

Q Within the same zone?

A The permeable, porous zone as it dips down structure goes from gas to oil.

Q This dense zone you refer to is not productive?

A Probably not productive, with zero permeabilities.

Q Mr. Ross, one other question. Have you included anything in your proposed order which would require periodic bottom hole pressure tests as a means of control if and when there is further oil development in this?

A No, sir, not in those proposed field rules, [illegible]. I do not object to that whatsoever. As a matter of fact, I would recommend that.

MR. [illegible]: Thank you very much.

MR. MACEY: Any further question of the witness?

By MR. STANLEY:

Q With reference to the bottom hole pressure data, Mr. Ross, aren't there 54 wells that are dualled in the Blinebry Gas Pool, and only four wells are individual wells producing from that zone?

A I am not sure of those numbers, Mr. Stanley.

Q I think you will find that is approximately correct and, therefore, with a large majority of the wells being dualled, you would not be able to obtain this bottom hole pressure data accurately, is that right?

A That depends on the dual equipment installed, with which I am not familiar. There is nothing to preclude the bottom hole pressure measurements if the well is a dualled well, if the proper equipment is installed.

MR. MACEY: Any other question? Mr. Montgomery.

By MR. MONTGOMERY:

Q I wish you would explain to the commission - your testimony recommended that we leave the pool rules and assume they are separate reservoirs and produce them as such, although we know that the development at this time does not approach the gas-oil contact. I wonder if you would explain to us what we might expect down the road as development continues and they approach the gas-oil contact?

A As development approaches this contact, if the operators drill and find, along that contact they will have wells that [illegible] oil column exposed in their wells. Depending on their depth [illegible] of their completion [illegible] they will [illegible] gas or oil, and initially they [illegible]

future. Depending on what an operator gets by this development, he either will get an oil well or gas well by his drilling. It will either produce oil with the gravity of less than 45 API and ratio of less than 100,000:1 and have an oil well, or produce over to 100,000:1 and have an oil well.

Q Could we expect that this might cause oil to possibly migrate up structure?

A Not as long as there is a pressure differential between the two in favor of the gas reservoir.

Q But it is possible that down the road, as more gas wells are drilled near this contact, it is possible that we will not continue to have the pressure differential that we had today?

A My opinion there is that the Terry-Blinebry development has been so rapid, probably will continue at a fairly rapid pace, that withdrawals per acre foot to date have been more than from the Blinebry gas field. My opinion is that the withdrawals per acre foot in the Terry-Blinebry oil field will continue to be higher than in the Blinebry gas field. We have no pressure equalization to date. I would expect the pressures in the Terry-Blinebry oil pool to continue to decline according to the last pressure trend. I also expect the pressure in the Blinebry field, I expect that pressure performance in the Blinebry gas field will not decline radically.

[illegible] Thank you.

[illegible]

took the gas-oil ratio test? You might have a gas well one month and an oil well the next month.

A Are you speaking about gas-oil ratios with respect to gas wells or oil wells?

MR. MACEY: I am talking about the establishment of whether a well is a gas well or an oil well by the use of a gas-oil ratio limit.

A I see.

MR. MACEY: One month you may complete a well near the contact and you may have a well that is a gas well. If the line pressure drops and you get more oil coming into the bore hole, you may have an oil well the next month. Then you have got a question of withdrawals, or how much oil you are going to allow there. What are you going to do about that?

A I could foresee having an oil well originally, going to a gas well. It is very difficult for me to see having a gas well go into an oil well. The characteristic KG/KO are such that that would be most uncommon. With depletion your KG/KO characteristics become such that your ability for oil flow decreases with respect to your ability for gas flow. I can't see, right at this moment, any opportunity of a well initially producing gas and at a later date producing oil. I can see an oil well, completed as such, at a later date becoming a gas well. [illegible] in the area of the [illegible] pool already, but I can't see the possibility [illegible] that you question [illegible].

MR. [illegible]: Do I understand you correctly that you don't recommend any changes in the [illegible] of any of the existing [illegible]?

A [illegible], sir. If I remember correctly, the [illegible] Oil Corpora-tion, when these rules were originally recommended, the Gulf Oil Corporation approved them. If I remember, when they were revised last spring, I forget the exact time, we had no objection and we have no objection now to the current vertical delineation within the pools.

MR. MACEY: Don't you recognize the fact that you have got the same vertical limits in the Blinebry Oil Pools, in the old Blinebry Oil Pools I call it, as the Blinebry Gas Pool?

A Yes.

MR. MACEY: What would you do with regard to allowing an operator to dually complete a well in those two zones?

A That is a problem.

MR. MACEY: We have already got the problem is the reason I brought it up.

A Yes. The reason we recognize those vertical limits as being all right is that you have also got the problem of many wells that have been perforated throughout the interval. Now then, if you go in and set your vertical limits at this time so that you include only 100 feet of the Blinebry, you are going to cause all the operators to go and, I think, work over [illegible] wells. As I said, the question is a problem. It is just which is the worst of two evils as far as I am concerned.

MR. MACEY: Let me ask you this. I think we both recognize the same problems?

A Yes.

MR. MACEY: Do you think it is advisable for this Commis-sion to [illegible]

upper [illegible]? [illegible]?

A [illegible], sir, I do not.

[illegible]: Any other [illegible] of the witness? If not, the witness may be excused.

[illegible]: May I ask one question here?

By [illegible]:

Q For all practical purposes, the purposes of [illegible] interval will accomplish [illegible] purpose as [illegible] [illegible]?

A That is true.

[illegible]: That is all.

(Witness excused)

[illegible]: Are there any questions of [illegible]?

[illegible]: [illegible], sir, we have none.

[illegible]: [illegible] have any question of [illegible]. In that event, [illegible] is excused. Do you have a statement you want to make, [illegible], or prefer to wait until the end?

[illegible]: [illegible] will hold our statement until the conclusion of the evidence, if [illegible] please.

[illegible]

[illegible] will [illegible] [illegible]

[illegible]

[illegible]

[illegible] will [illegible]

[illegible]

[illegible]

[illegible]

DIRECT EXAMINATION

By MR. YOST:

Q State your name, please.

A Randall Montgomery.

Q By whom are you employed, Mr. Montgomery?

A The New Mexico Oil Conservation Commission.

Q In what capacity?

A Geologist.

Q You have testified before the commission before?

A Yes, I have.

Q Have you had occasion to make a study of the area of the Blinebry Gas Pool?

A Yes, sir.

Q Would you relate, in general, of what that study has consisted?

A I have constructed a structure contour map on the Blinebry marker in the Blinebry, covering the Townships 22-south, 21-south, Range 37-East. I have also constructed four cross sections throughout the area and have examined numerous drill stem tests and electric logs and sample logs in the area.

Q In connection with your studies have you prepared certain exhibits [illegible]

A Yes, I [illegible]

Q [illegible]

[illegible]

A [illegible]

[illegible]

Q Would you please explain Exhibit No. 1?

A Exhibit 1 is a structure contour map on top of the Blinebry marker and is on the contour interval of 20 feet. The heavy red line in the northern portion of the map is the outline of the Terry-Blinebry Oil Pool. The heavy red outline on the eastern edge of the map is the outline of the Blinebry, old Blinebry Oil Pool. The small red line indicates the line of cross sections of Exhibit 2, 3, 4 and 5, and are represented on the map. The wells that are colored red represent oil that is being produced from the Blinebry formation, which is in the Terry-Blinebry area and the old Blinebry Oil Pool. Those circles that are colored with an orange color are the wells that are completed as gas distillate wells in the Blinebry formation.

Q Do you have anything further regarding Exhibit 1?

A I would like to point out the relative flatness of this structure. The contour interval, as I pointed out earlier, is 20 feet, but the over-all relief is only some 520 feet throughout the entire area. I would also like to point out the concentration of the oil wells in this area --

Q What area is that?

A The northern part of the area of the Terry Blinebry area. And also, the relative lack of Blinebry gas wells which border this [illegible]. I would also like to point out that some of these wells in this area have tested oil of less than 45 degree gravity, API. We also have at least two wells in [illegible] oil wells.

Q Will you proceed to the cross sections which are

Exhibits 2, 3, [illegible]

A These cross sections, Exhibits [illegible], these cross sections illustrate the [illegible] of the structure and the interval of completion that the different operators have used. I would like to point out on Exhibit 2 that the two wells in the easterly direction are Farm-Kimbrey oil wells, and then as we go east and up structure these wells [illegible], this horizon becomes a gas-bearing horizon. The same thing is portrayed in Exhibit --

Q (Interrupting) Exhibit 2 is a west to east cross section?

A Yes.

Q Would you please point it out on Exhibit 1.

A That cross section runs from the Western Oil Fields, Hill's No. 1, eastward into the Gulf Leonard 36-A. I would also like to point out on this Exhibit, Exhibit No. 2, drill stem tests and other completion data. The drill stem test almost invariably in this area [illegible] very little information. They are very poor. In fact, in some areas the operators have discontinued even drill stem testing because it is a waste of money. [illegible] little or no information.

Going to Exhibit No. 3, it is [illegible] cross section, going into the [illegible] [illegible]

April of 1954 we have extremes from 2,227 pounds to 1,107, a difference of some 1,100 pounds in the bottom hole pressure in the Terry-Blinebry Pool. The arithmetical average for these eight wells in October, 1953, was 1,724 and in April of 1954, 1,578, or a decrease of 146 pounds. Cross sections, Exhibits 4 and 5, portray the general lithology of the area in correlation and manner of completion.

Q What is Exhibit 4?

A Exhibit 4 is the west-east cross section and is shown by this red line here going from Texas Company Henderson well eastward into Shell Starky No. 2

Exhibit No. 5 is a north-south cross section starting with the Texas Company East Lake No. 1, and going southward into the Samedan, pardon me, Sinclair Boyd No. 4.

I would also like to go back to Exhibit No. 3 with reference to the bottom hole pressures. This information indicates that permeability is relatively low. There is quite a variation in pressures in these areas.

Q Where did you get that information on Exhibit 3?

A That information was secured from the Oil and Gas Engineering Committee.

Q Mr. Montgomery, have you come to any conclusions as a result of your study?

A Yes, I have. [illegible] cross sections and structure map [illegible]

[illegible]

unit to [illegible], [illegible] Blinebry oil section has a gas-oil contact [illegible] minus 2,200. The water-oil contact is found at minus 2,3[illegible]. In the Continental Lockhart-[illegible] 25, in Section 12, 21-S, 36-E, which is in the boundaries of the Terry-Blinebry pool. [illegible] Fields No. 1 Hill, has minus 2,[illegible]. It is a dry gas reservoir with an oil rim. When oil is found in such a reservoir, if pressure in the gas [illegible] lowered faster than in the oil, the oil will migrate up structure and essentially all of the oil will be lost. In this particular reservoir, due to the low permeability, which is substantiated by the bottom hole pressures in the Terry-Blinebry pool, and also by the drill stem test and, in its present stage of development, pressure in the oil pool is being lowered faster than that in the gas pool, indicating that oil probably is not migrating up structure. Since the Terry-Blinebry Oil Pool may become considerably larger and gas completions become more numerous near the gas-oil contact, I recommend that a semi-annual bottom hole pressure survey be made of all the Blinebry gas wells within one mile of the Terry-Blinebry Oil Pool, and that all Terry-Blinebry oil wells be included in that survey. If and when the pressure on the gas wells becomes lower than that of the oil wells, I further recommend that the Commission follow one or a combination of the following methods of preventing waste:

(1) Limit gas production [illegible] reservoir [illegible] oil.

(2) [illegible]

[illegible]

(3) [illegible]

the oil wells to void one quarter of the amount of reservoir space that will be allowed a gas well on 160 acre unit.

Also, I further recommend that a gas well be defined, in order that wells completed near or in the gas-oil contact can be classified, in order to prevent drainage and waste. This problem will become more pressing as development continues in the direction of the gas-oil contact. One example is a well that is not in the Terry-Blinebry pool, but actually was completed as an oil well in the same stratigraphic unit. Its initial potential flow was 110 barrels of oil a day, gravity of 41 degrees, no water on 2046 choke. The gas volume was 643 MCF, the GOR 5,845. This well is presently classified as a gas well, but was classified as an oil well from August, 1953, until December, 1953, at that time it was reclassified as a gas well. It is produced on the average of some 57 barrels of oil per day and half a million cubic feet of gas, that is an approximate figure, the gas. The closer figure would be 475 MCF per day. This is to be compared with the Terry-Blinebry oil well which is producing from the same horizon. In the Terry-Blinebry oil Pool the allowable is 52 barrels a day, with gas-oil ratio of 2,000:1. For the month of October this particular well, the operator requested 70 barrels a day allowable which we are presently carrying in the schedule as a condensate. It is distillate produced with the gas. I am not just exactly sure on Gulf's recommendation of 100,000:1. [illegible] I haven't had an opportunity to know what the [illegible] circumstances would be from that, [illegible] gravity of the oil and [illegible] particular [illegible] I will also further recommend that Gulf's recommendation

as far as administrative purposes is concerned, [illegible] have the Blinebry and the Terry-Blinebry Oil Pools over-lapping [illegible] other.

MR. YOST: I believe that is all.

MR. MACEY: Any questions of the witness?

MR. STANLEY: I have no question, but I wish to clarify the record if and when, or should, the Commission require bottom hole pressure data in the Blinebry Gas Pool. There are [illegible] gas wells in the Blinebry Gas Pool, and of that number, 53 are dually completed, and dually completed in such a manner that the Blinebry gas zone and the Drinkard oil zone, or whatever the case may be, is separated by production type packer or retained in the absence of a side door choke to permit the blanking off of the bottom zone and taking the bottom hole pressure of the upper zone. Therefore, this would entail that the operator unseat the packer, run a production type packer with a cross-over tool, or perhaps a side door choke to facilitate the taking of bottom hole pressures.

MR. MACEY: Mr. Stanley, are you sure that all those wells can't have pressures taken on them?

MR. STANLEY: I didn't say all of them. I said many are completed in that manner.

[illegible]

[illegible] That may be so, [illegible] prior to [illegible].

MR. [illegible]: Any question of the witness? Mr. Malone.

<u>CROSS EXAMINATION</u>

By MR. MALONE:

Q I would like to ask the witness one question. Mr. Montgomery, in your opinion would it be feasible to take surface pressures and convert them to bottom hole pressures for the purpose of the problem that you refer to.

A In gas wells?

Q Yes.

A In many cases, Mr. Malone, the surface pressures do not reflect the bottom hole pressure. The conditions vary. Oftentimes the wells are logged up. I am not sure whether that is the situation in this area or not. I feel sure this is the situation that will happen as development continues toward that contact.

Q It would be your view then that it would not be possible to effectively make that conversion taking into consideration the gravity of the distillate, and so forth, to arrive at any basis to be used in lieu of bottom hole pressure?

A I do not qualify as an engineer, but it is my opinion, Mr. Malone, that would not be satisfactory.

MR. MALONE: [illegible]

MR. [illegible]: Any other question of the witness? If not, the witness may be excused.

(Witness excused.)

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

DIRECT EXAMINATION

By Mr. [illegible]:

Q State your name, please.

A S. J. Stanley.

Q What is your occupation Mr. Stanley?

A I am an engineer for the Oil Commission.

Q You have testified before the Commission before, Mr. Stanley?

A Yes, I have.

Q Have you had occasion to make a study of the Blinebry Gas Pool area?

A Yes, I have.

Q Could you relate, in general, what that study consists of?

A I have studied bottom hole pressure data, well completion practices, throughout the Blinebry gas zone, the Terry-Blinebry oil pool, the Blinebry oil pool; gas-oil ratio data and other engineering data related to the pool.

Q In connection with your study have you prepared what has been marked Commission Exhibits 6 to 25 inclusive, with the exception of Exhibit No. [illegible]?

(Marked for identification Commission's Exhibits No. 6 to 25, [illegible] inclusive.)

A Yes, I have.

Q In the information [illegible] true and correct to the best of your knowledge [illegible]?

A Yes, [illegible].

Q Before you [illegible], [illegible] have a [illegible] what [illegible]?

A Yes, I intend to shorten my testimony considerably in view of the fact that we fundamentally agree with the Gulf Oil Corporation. I would like to bring out those points in which we do not agree.

Q Directing your attention to Exhibits 6 and 7, would you please explain those exhibits?

A Yes. Exhibit No. 6 and 7 are actually a duplication of Mr. [illegible]'s testimony in the presentation of his particular exhibits. I would like to point out a very important factor in what is marked as Exhibit No. 6, and relate a little further the condition that exists in the Blinebry pool. On this particular exhibit, marked number 6, you will note that we have many circles throughout the Blinebry gas pool, outlined in black coloration, and these circles indicate the wells that are located in the Drinkard oil pool which directly underlies the Blinebry gas pool. However, there is one more gas pool between the Blinebry gas pool and the Drinkard pool and that is the Tubb pool. There is another reservoir which underlies the Blinebry gas pool, that is the [illegible]. Therefore, the development of the Blinebry gas pool does not exactly necessitate the drilling of new wells, but the fact that many of these oil wells now as they are, depleted, [illegible] they are [illegible] of commercial value, [illegible]

[illegible]

which I differ from the Gulf Oil Corporation, on the matter of the establishment of gas proration units. I believe that in the Blinebry gas pool the standard proration unit should be 160 acres or a fraction thereof, and not to exceed 160 acres in multiples of greater than 160 acres.

Q I will hand you what has been marked Commission's Exhibit 8 and ask you what that is?

A Exhibit No. 8 is a pamphlet written by Mr. S. R. Dean and Mr. F. H. Poettmann, of the Phillips Petroleum Corporation Research Division in Bartlesville, Oklahoma, and the report is numbered 102-01-54R, and I might add that I have received permission from the Phillips Oil Corporation to use this particular pamphlet in my testimony.

Q Would you please refer to the portion of the pamphlet that you want to bring to the Commission's attention?

A This pamphlet consisted of certain theoretical studies pertaining to retrograde condensation. However, I am not a theorist, and it does contain considerable practical information which in evidence agrees with Muskat with the Gulf Oil Corporation, and that is the reason that I am using this pamphlet is the fact that it does contain some very basic data pertaining to condensate reservoir.

Q Would you please read the portions you wish to bring to the Commission?

A Figure 1 is entitled "The Characterization of a Low-Gas Content Reservoir". First, that it have a GOR greater than 10,000; second, that the tank oil gravity is above 50 degrees API; third, that the tank oil color is straw in color; four, that th

composition is rich in methane; fifth, that the molecular weight of the heptanes plus fraction be between 150 and 170; and six that the phase state of the reservoir fluid is at the retrograde dew-point pressure or above.

Q Mr. Stanley, do you agree that those are substantially the characteristics of the reservoir described?

A Yes, I believe that generally that is accepted by the industry. I would like to state further that in this particular pamphlet and subsequent pamphlets written by the Condensate Research, there is an important fact that distinguishes a condensate reservoir, which we can refer to as a light oil reservoir, and the one that produces heavy oil is a mark oil and that is referred to as just an oil reservoir. In the first place, they produce with two different types of mechanism. That is, produced by thermal dynamic principles, that is the condensate reservoir is produced by the reduction of temperature in pressure and the oil reservoir itself is produced by dynamic principles, whereby the actual fluids or liquids occur into a reservoir, move into the well bore. The reason that I brought up this point, it is not clear to us that the entire Blinebry pool is a condensate reservoir. In some wells it may not be a condensate reservoir and in others it may not. Usually whenever you speak of a condensate reservoir you speak of one that is entirely a gas reservoir, whenever you run bottom hole pressures into that particular reservoir you will note that you have a gas column. From the surface to the bottom. However, that may not be true in all condensate reservoirs, but certainly in all the processes, for generally, let us say, in the majority of the processes that we have taken on the Blinebry

gas pool, we have encountered gradients which are of a character of an oil gradient. In this connection, I would like to present a sample from what I consider, and I believe the industry considers, a true condensate reservoir, and that is the Skelly Oil Company Dow B, No. 21, located in the Wilcox pool in the Majamar area in Eddy County, and producing from Pennsylvania production. The reason I would like to present the sample is that it does describe that in the Phillips pamphlet a sample from condensate reservoir should have a tank oil gravity of 48 API and the liquid should be either colorless or straw color. I would rather describe this sample than to present it as evidence. It is pretty dangerous and for the -

Q (Interrupting) Just describe it for the record.

Q The liquid encountered is colorless and has a heavy, or has a high gravity in the neighborhood of 70 degrees API. The reason that I say it is dangerous, when we were transporting this sample from Majamar it blew up in the car and we had to return to get another one.

Q Directing your attention to Exhibits 9, 10 and 11, will you please explain those Exhibits?

A Exhibits 9, 10 and 11 relate to certain wells which describe the completion zones of those wells that are actually distributed throughout the Wilcox pool. The first well that I would like to go ahead and describe, which does not appear on this particular exhibit, but does appear on Mr. Montgomery's exhibit, is the Texaco Oil Works, Incorporated, Gulf Oil No. 1, located in Section 6, Township 21-South, Range 27-East.

The reason that I would like to describe this particular well is because I made a point to observe the entire completion progress of this well from the time that it reached total depth, a drill stem test prior to reaching total depth, and I am familiar with the completion of that particular well. This well was completed on June 8, 1954. The elevation was 3431; total depth, 5974 with 5½ inch oil string set at 5970.

In drilling this well, the operator drill stem tested in what was referred to by Mr. Boss and Mr. Montgomery as the main Blinebry gas zone, from 5652 to 5818, and recovered 280,000 cubic feet of gas per day, with some undetermined amounts of distillate. The operator then proceeded to drill to total depth and set his pipe as close to the bottom as possible, and then selectively perforated the oil string.

The operator had chosen to perforate the oil string in two different zones. The first zone from 5652 to 5818, and from 5854 to 5881, and included in that zone from 5928 to 5958. Those two perforation intervals I will indicate as Zone No. 2.

The operator proceeded to set a Baker packer retainer between these two zones at 5850. He acidized the upper zone which is marked Zone No. 1, with 3,000 gallons and the well produced, prior to cleaning up, 1,300,000 cubic feet per day at 680 pounds back pressure, and an undetermined amount of condensate. He proceeded with Zone No. 2, swabbed [illegible] day. The casing pressure above the packer on the uppermost zone was 1150 pounds. Since there might have been a bit of fluid above that packer in the upper zone, I would estimate that perhaps the pressure would have exceeded

1850 pounds and that there existed a differential of that total amount of pressure across the packer.

The operator then proceeded to acidize with 5,000 gallons of acid and produced 1.8 barrels per hour of oil, with an estimated 300 feet of fluid level in the hole while swabbing, and at no time did the casing pressure vary in Zone No. 1 from 1850 pounds observed. Therefore, in that particular well there was complete vertical separation between the main Blinebry gas zone and the underlying oil zone.

I would like, at this particular time, to show the position of the Western Oil Fields well which is located in Section 4, Township 21-South, Range 37-East, at the same time, subsequent gravity tests were conducted during the operation of the well and there existed some 15 degrees gravity difference between the so-called condensate above and the oil below. In proceeding to an exhibit here marked Exhibit No. 12, this well appearing on this particular exhibit, I would like to go ahead and describe a Stanolind Oil and Gas Company well, marked the T. E. Owen B-4, located in Section 34, Township 21-South, Range 37-East. This particular well structurally is located near the center of the pool and I would like to show its structural position with respect to Mr. Montgomery's contour map.

You will note that it is approximately in the center of the pool, that it is only a mile straight north or slightly north, northeast from the highest point of the pool, and, for all practical purposes, we may state that this well is actually situated structurally favorable to the Blinebry Gas Pool, and is very high

on top of the structure. This particular well encountered the top of the Blinebry marker at approximately 5668. I don't know whether this exhibit is visible from the back of the room, but Stanolind Oil and Gas Company did perforate this particular well in various stages from the top of the Blinebry, very close to the top of the Tubb. I could, for the sake of the record, read the perforating intervals, but I don't think that is necessary, since I will introduce the exhibit in order to save time.

However, the operator has chosen to set packer at 5768, at approximately this position, to determine the gas-oil contact. He acidized below with 3,000 gallons and 7,000 gallons above the packer. He tested above the packer for nine hours, recovered 27 barrels of oil and 48 degrees gravity API, and 2,033,000 cubic feet of gas per day.

They reset the packer at 5661, moving up the hole to try to determine the gas-oil contact and tested below the packer. Stanolind recovered 32 barrels of oil per day, 39 degrees API and 1,388 MCF per day. They turned right around and tested above the packer at 5661 for 12 hours, recovered 7½ barrels of oil per day, 47 degree oil in 12 hours, with 1,723 MCF per day. They tested five more hours as the well cleaned up, recovered one barrel of oil at 47 degree API gravity and 1,378 MCF per day.

The reason that I related this well to the Commission, I would like to know that we have in some instances some stable oil production between the main Blinebry gas pay, that is the Western Oil Wells there is insignificant vertical communication in that there is a difference in gravity of the various oils encountered and gas pressures with depth.

There is one more particular well that I would like to refer to and this is, I think, our problem child, the Rowan Oil Company Blinebry, the Federal 3 Elliott, B-13, No. 1-E. We decided after last month's hearing to test this well, that one of the Commission's representatives test the particular well in order to determine if there was vertical communication between the main gas zone and the lower oil zone. What we had done in this particular well is had the tubing and the casing shut in at approximately the same time, and, after 24 hours build up, we ran a bottom hole pressure inside the tubing at the sub-sea datum of minus 2400 approximately, which is the datum for the pool, and we found that the pressure in the tubing was 800 pounds. We found that by using a continuous time recording instrument, we found that the casing was 1,720 pounds. We proceeded to open up the well below the packer by opening up the tubing valve to test this well. I do not have the amount of oil that it made, but if I remember correctly it made approximately [illegible] barrels of oil per day, but its production through the tubing had no reflection, or no pressure drop on the continuous pressure time recorder on the casing, indicating again that there was no vertical communication between the upper Blinebry gas zone and the so-called Blinebry oil zone or the Terry-Blinebry oil zone whatever you call it.

I would like at this particular time to show the Commission various samples that I had obtained in the Blinebry gas pool, to show the difference in their physical characteristics and the difference in the [illegible] gravities, to show that the field is very complex, that in some places we may have a con-

densate reservoir, that in other places we may have an oil reservoir.

Q First, did you obtain these samples yourself?

A Yes, I did. I obtained every sample. I would at this particular time, since we were talking about the [illegible] Oil Company, I would like to present the samples that were obtained above the packer and below the packer. For all practical purposes the coloration is the same, I think that you may define the sample that was obtained from the tubing below the packer as slightly different in color, if you observe them very closely. However, they do look alike. The main difference between this particular sample that was obtained above the packer in the Blinebry gas zone is the fact that it has a gravity of 52 degrees, but below the packer the particular gravity was 41 degrees. I might add that neither sample exactly conforms to the description as presented in this particular pamphlet written by the Phillips Oil Corporation, nor to samples described by [illegible] in his study of condensate reservoirs.

In this particular sample which is also obtained from the Blinebry Gas Pool, that particular well is Sinclair Oil and Gas Company Sarkis No. 1. It has a gravity of 76 degrees API, is straw colored, and probably would fit the description of condensate fluid. I might add that that particular well and a study of its depletion and gas-oil ratio, that the well [illegible] flown on a very steady gas-oil ratio from one month to the other. That will be shown on subsequent testimony.

The reason that I have brought out these particular samples after an extensive search, is the fact that I would like to show the difference in the gravity of crude obtained from

three wells on the cross section that is relatively flat. One is the Stanolind Ava Owens which we described, and proceeding east-ward to the Gulf Corporation Mark Owen No. 6, then the Ohio Oil Company Mark Owen No. 2.

These three wells are about the same on structure and yet they have entirely different characteristics whenever you test a sample. For instance, in the Stanolind Oil and Gas Company well, we had caught one sample from the Blinebry gas zone, which is the sample and which I lost part of it, here the second sample is a recombined sample of the Stanolind Oil and Gas Company, and re-combined with their Ava Owen B-2, which is a Tubb gas well and actually produces a colorless fluid, but whenever you combine the Blinebry gas sample with the colorless fluid obtained from the Tubb gas you do obtain a slight difference in coloration which is handled by Mr. Macey at this particular time. However, it has a higher gravity than this particular well, being recombined and having a gravity of [illegible] degrees API.

As we go eastward, the Gulf Oil Corporation Mark Owen No. 6, has even a higher gravity than the Stanolind well, having 52.2 degrees, and still further eastward the Ohio Oil Company Mark Owen No. 2, having a gravity of [illegible] degrees. In that same area we have something in between the Ohio and Stanolind well that is Humble Oil and Refining [illegible] No. 11, in section 2, 22, 37, having a gravity of [illegible] degrees. The Gulf Oil Corporation Vivian No. [illegible], in [illegible], 22, 37, having a gravity of [illegible] degrees. We have various other samples throughout the oil pool of almost any type of coloration or gravity that one desires.

Therefore, I do believe that in this particular study the gravity sometimes is not an indication of the wells' characteristics, but the completion program is. In fact, careful observation on one well, the Walter Famoriss Well in Section 21, after the well had been shut in for some considerable period of time, we caught samples when it was first opened up and obtained gravity samples of 70 degrees API. The liquid was straw colored and two hours later the gravity had decreased to 44 API with a bi-coloration. It also has been observed throughout the pool that actually the gravity does vary considerably and the oil color does vary considerably, depending upon the manner in which the well is flowing.

Q Would you please explain Exhibits 13 and 14?

MR. MACEY: Would this be a good time for a break?

(Recess)

MR. MACEY: Proceed, Mr. Yost.

A I would like to make a statement here to clarify my position. It has come to my attention that some people have misunderstood a statement that I made previously in my testimony, to the effect that the Terry-Blinebry oil pool and the Blinebry gas pool are different reservoirs. On the contrary, I believe that they are one and the same reservoir.

Q Mr. Stanley, will you please explain Exhibits 13 to 21 inclusive?

A Although Exhibit 13 is not marked it is a gas condensate ration map of the Blinebry gas pool. Ordinarily, in the Phillips' pamphlet and Muskat's pamphlet, and all the literature I have read on condensate reservoirs, the usual observation is that the gas

condensate reservoir is fairly uniform throughout the pool, and it behaves in time with certain characteristics which are related from one to another within the pool.

However, this map was drawn and taken from C-1158 on the various wells in the Blinebry gas pool to production activity the amount of gas they produced in August, 1954, and the amount of distillate they produced during the same interval, and there is no rhyme or reason for this particular map as far as correlating gas condensate ratios. We may run from one very low value of 2,225 to one in a gas pool, to perhaps a maximum value of 180,000 to one. Rather than try to decipher this map, I have drawn a comparable exhibit in colors, where the yellow colors are less than 25,000 to one, and red colors are 25 to 50,000 to one, the purple 50,000 to 75,000 to one, the green 75,000 to 100,000 to one, and the blue in excess of 100,000 to one.

Q What exhibit are you referring to now?

A I am referring to Exhibit No. 14. We will note that even in the central part of the pool, if you will compare this particular point of the southwest quarter of the southeast quarter of Section 34, Township 22-South, Range 37-East, that we have a very low value of a gas-oil ratio, being less than 25,000 to one, and yet this is flanked to the west by gas-oil ratio between 75 and 100,000 to one. That is 75,000 to 100,000 to one, and to the east we have a value that is in excess of 100,000 to one. These conditions of varying gas-oil ratios are an indication of structure, and vary throughout the field, and also vary from one particular month to another.

With reference to this exhibit, I believe that the manner in which the wells were completed in the Blinebry gas pool and the underlying various oil lenses greatly affects the gas-oil ratio.

To continue with the study of gas-oil ratios, and I would--or gas condensate rations, I would like to include Exhibits No. 15 to No. 21, which is actually a gas condensate ration study of the various wells that have been chosen. Actually in the true condensate reservoir, the gas condensate ratio should not vary from one month to another and should follow some characteristic, as this particular ratio in Exhibit No. 16, on the Olsen-Boyd No. 2, from the period September, 1953, through June of 1954.

I do have another exhibit here, Exhibit No. 20, the Sinclair Oil and Gas Company Sarbkis No. 1, which does not vary in the type of distillate that is produced, having a very high straw colored distillate, and from September of 1953 to August of 1954, the gas condensate ratio remained fairly constant, even though the gas production and, of course, its related condensate, varied with it, too. However, this is not true of all the particular exhibits and we have a wide variation of gas condensate ratios. Part of that variation also depends on the manner in which the gas well is flowed.

Also on these particular exhibits we can't tell the number of hours that the well flowed during that month or the number of days that it flowed and the number of hours that it flowed each day, in order to bring about a detailed analysis and correlate, sometimes, the explanation for a high gas condensate ratio or one of a low value. However, I do think that in mentioning the varia-

tions in the gas condensate ratio, will explain my case that we do not in all cases have a true gas condensate ratio.

MR MACEY: What was the last word you used?

A I mean true gas condensate reservoir.

Q I direct your attention to Exhibit 22.

A Exhibit 22 shows in colors the various shut-in pressures in the Blinebry gas pool, various bottom hole pressures.

Q Are you referring now to Exhibit 1?

A I am referring to Exhibit No. 6 actually.

Q Six?

A We have referred to this particular exhibit before in the opening part of the testimony.

Q I want to get the record right.

A I am referring now to Exhibit No. 6. In this particular exhibit, we have also attempted to draw a contour map of bottom hole pressures and shut-in pressures. Usually you can't correlate shut-in pressures of true gas holes, whereby you do not have any fluid, but under the circumstances where you have taken shut-in pressures at the surface of the Blinebry gas pool, you will note that there is a wide variation of shut-in pressures at the surface due to the fluid built up in the tubing. Also, we have attempted in this particular survey to take some bottom hole pressures of the Blinebry gas pool as compared to surface pressures. We have also conducted and taken pressures in the Terry-Blinebry oil pool.

I would briefly like to use Exhibit No. 6 and show the different bottom hole pressures versus the surface pressures. For instance, on the Olsen Oil Company, Bangrado No. 1, in Section 13,

Township 22-South, Range 37-East, the surface pressure is 1,750 pounds, and the bottom hole pressure is 2,209 pounds, or a variation of approximately 490 pounds.

This condition is noted throughout the field and there is a pressure differential at the surface of 1,722 pounds with an oil column creating a bottom hole pressure of 2,185 pounds. We havevarious parts of the pressures, depending on whether they are taken at the surface or whether they are taken down hole. The pressures noted in red on this particular exhibit actually reflect the bottom hole pressures, and the holes recorded in green are actually surface pressures. Now, these pressures on this particular exhibit that are recorded in red are pressures within the defined limits of the Terry-Blinebry oil pool.

Now, I might note that there is a greater variation in pressures from one well to another. For instance, on one particular well in the Terry-Blinebry oil pool we have a pressure of 986 pounds and its north off-set has a pressure of 2,113 pounds.

In order to shorten my testimony, I might add that Gulf brought out this particular point that the reservoir has the characteristics of having very low permeability values, low porosity values, and actually it takes a well longer than 72 hours for it to build up to the maximum pressure. I believe that if all these wells were shut in for long periods of time in the Terry-Blinebry pool, from the correlation that we have made across this pool showing that it is the same reservoir, that these bottom hole pressures in the Terry-Blinebry oil pool would equal all those in this area in the Blinebry gas pool. However, that may not be true

in the Blinebry oil pool and I am not aware that it is true in some of the underlying oil pools, underlying the Blinebry gas pool. I do believe that there is a differential that exists, especially whenever you consider cases as we did in Exhibits No. 11 and 12, and some of the cases as exhibited in Stanolind Oil and Gas, Eva Owen B-4, and others throughout the particular field.

In studying bottom hole pressure build-ups, I might mention this particular exhibit, Exhibit 22, which is part of the bottom hole pressure that we have taken, and Shell Oil Company had contributed some information on one of their wells in the Terry-Blinebry oil pool, on this particular exhibit the order naturally reflects the bottom hole pressure from zero to 1000 pounds of 2000 pounds, and, of course, the horizontal scale is the time and hours that the well is shut in. We notice that after 66 hour shut-in, obtaining the pressure of 1972, that the well was continuously building up. I believe that if it were allowed to be shut in for a longer period of time, it would eventually reach the field pool pressure.

I might read into the record that after [illegible] hours the well had a pressure of [illegible] pounds; after [illegible] hours, [illegible] pounds; after 66 hours, 1972 pounds and still [illegible]. In studying bottom hole pressure curves we note that whenever a well takes such a long period of time to build up and never has reached the [illegible] pressure, we can [illegible] we have a condition of low permeability.

Q [illegible] Exhibit 23, would you please explain that [illegible].

A Exhibit No. 23 actually explains the various values that were compiled by Muskat in the Research Department of the Gulf Oil Corporation, and, in some instances, by the Phillips Oil Corporation, that it is typical of a gas condensate reservoir that whenever you lower the pressure -- and in this particular exhibit the pressures on the horizontal scale, from zero to 4400, and on the vertical scale, it does give you the gas condensate ratio and 10,000 cubic feet per barrell -- that actually whenever you decrease the pressure in any gas condensate reservoir you ordinarily get an increase in the gas condensate ratio. Until, as in all the cases, that you reach a final state of completion in a gas pool, then you do get a drop in your gas condensate ratio.

However, this is not true with the Blinebry gas pool. Since 1947 from the date of discovery, as depicted in Exhibit No. 24, the gas condensate ratio has actually declined. Perhaps the reason it has declined, and further declined in 1952 to 1953, is that whenever you observe the completion practices of many gas wells in the Blinebry gas pool there is some attempt, and in many cases a very important attempt, to recover as much dark, or recover a greater volume of dark oil as is possible by selectively acidizing and perforating. Perhaps at a future time this curve will probably approximate this curve with time, but it has not done so since 1947.

I might also add that the red value is the dry gas production from 1947 and the blue value is the condensate production that is reported by the Commission, that is reported to the Commission. However, in this particular curve, sometimes in the

may the rules have been written for the field, and I realize it is almost impossible to differentiate in this particular pool the dark oil from the light oil, I believe all the condensate that is reported here may be sometimes in the form of a dark oil. However, I do believe it is unimportant.

In the conclusion of these two particular exhibits, I would like to go ahead and present my last and final exhibit, marked Exhibit No. 25. This exhibit is more or less an economic exhibit, and shows a 1953 production data based on 9½ cent Blinebry condensate was 117,311 barrels and based on $2.75 a barrel, which may be a little low but still is a relative figure, we have a value of $322,605, a little over $322,000.00 In the Terry-Blinebry the value was $391,921.00. The Blinebry oil $117,290.00. Actually expressed in percentage and combining the two oil reservoirs -- however, this does not mean that they are connected to the Blinebry gas pool in the case of the Terry-Blinebry oil -- actually the gas comprised 41.6 per cent of the total revenue of the field; the Blinebry condensate 22.6 per cent; and the oil is 35.8 per cent.

I have attempted to take the August, 1954, figures to approximate if there was a relative ratio between August, 1954, production data and its net worth to the 1953 yearly production data. The percentages are similar. For instance, in 1953 we had a value of 41.6 per cent for the Blinebry gas. In August of 1954, using the same units, we had a value of 41.4 per cent, or a difference of only 0.2 per cent. Perhaps where the greatest difference is, is the decline in oils which could be affected by Blinebry oil pool itself and its rapid completion, or perhaps that

we have a reclassification which we do have, whereby an operator chooses to call it condensate rather than a dark oil. Nevertheless, the variation there is the Blinebry condensate of 22.6 per cent in 1953, is not much different from the August 1954 value of 25.1 per cent. Neither do we have a great variation in the value of the oils. During the entire year of 1953, as we said, 35.8 per cent, during the month of August, 33.4 per cent. That little difference could mean a difference in classification.

Q Your production information was secured from Commission records?

A Yes, they were secured from the Commission records.

Q Mr. Stanley, would you please summarize and give the Commission any recommendations that you might care to make?

A First of all, I believe that the Blinebry gas pool is a very complex reservoir, that it may be a gas reservoir. It certainly has a connected oil rim; and the Terry-Blinebry oil pool, I believe that it has an underlying oil pool in various lenses. I do believe that the underlying oil pool cannot be recovered by drilling another well. By that I mean that I do not believe that it is economical to drill a separate well to the underlying oil pool, but I do believe that the dark oils that are produced in the Blinebry gas pool are very important, and I believe that those oils will never be recovered on very wide spacing. The only recommendation that I have to make at this particular time on the Blinebry gas pool is that the wells be drilled, completed, and prorated on a 160-acre spacing to recover the greater maximum amount of dark oils possible.

MR. YOST: At this time we would like to offer in evidence Commission Exhibits 1 to 25 inclusive.

MR. MACEY: Any objection to the introduction of these exhibits in evidence? If not, they will be received in evidence.

MR. YOST: That is all.

MR. MACEY: Any question of the witness? Mr. Smith.

CROSS EXAMINATION

By MR. SMITH:

Q As I recall the summation of your testimony, you testified that in your opinion there is an underlying surface of oil underneath the Blinebry gas cap?

A Yes.

Q As I recall the rules, they provide at present for 75 feet above the Blinebry marker and 300 feet below. In some instances, this oil that you talk about being below the Blinebry will lie below that definition, is that correct?

A That is correct. We have, in some instances, tried to determine, especially to the west side of the pool, the water-oil contact, but I do not think that that has been fairly established. Our figure is minus 2465. However, we do feel, and I do feel rather, that there is that underlying oil that you have mentioned within those limits.

Q As I interpret your testimony further, it is uneconomical to drill wells to get to the oil, it would naturally follow there, for it would appear to me, and I would like your opinion on the matter, that a perforation at a point below 300 feet below the Blinebry marker would be called for in some instances?

A That is correct. I think if you will study further, at one time, and I believe it was in May of [illegible], of this particular year, the Commission had defined the vertical limits of the Blinebry gas pool as being just merely the Blinebry formation, and several operators have chosen to perforate below those limits. I definitely belive that the operator should not go through the expense of plugging back. I think that it would assure greater oil recovery from those depths and also that a new well drilled to that depth horizon will definitely not pay out.

Q In your opinion then, the requirement to plug back to a point 200 feet below the Blinebry marker would probably result in the loss of condensate or oil as the case may be, which would probably never be recovered?

A I believe that if the wells were completed in good faith prior to that order R-[illegible], which defines the limit, I do not feel it is economically feasible to be forced to plug back.

MR. SMITH: Thank you.

MR. MACEY: Anyone else? If not, the witness may be excused.

(Witness excused.)

MR. MACEY: Do you have anything further, Mr. [illegible]?

MR. [illegible]: We have nothing further.

MR. MACEY: Mr. [illegible], do you have a witness, or do you wish to withdraw your [illegible] testimony?

MR. [illegible]: [illegible]

to make a statement at the [illegible].

MR. MACEY: Is there anyone else who has any [illegible]

testimony in the Blinebry gas case? Anyone wish to make a statement in connection with the case? Mr. Smith.

MR. SMITH: May it please the Commission, our chief concern in this case is the fact that we have some five out of six wells that have been perforated at a point below 300 feet from the Blinebry marker. We would like to ask the Commission to give consideration to Mr. Stanley's testimony and write the rules in such a manner as to permit the continued operation of these wells without the requirement of additional work-overs or squeezed back, or eliminating the possibility of recovering the additional dark oil that Mr. Starley testified about from the point below that. I would like to suggest that the Commission could restrict the exception contained in the order to make sure that the well does not encounter any of the production from the Tubbs. As long as we stay above the Tubbs, I think that the best interest of conservation for the ultimate recover will be best served.

MR. MACEY: Anyone else?

MR. MALONE: Ross Malone, for Gulf Oil Corporation. Gulf has presented to the Commission the results of its studies in the Blinebry area, and summarized rules based on the previous field rules of the Commission. We noted with interest and with a considerable amount of, I won't say relief, but satisfaction, that in general the Commission's staff's agreed with the conclusions that we had reached, and the only significant difference insofar as the recommendations were concerned was with reference to the size of the proration unit. We, therefore, recommend to the Commission the adoption of rules generally conforming to those sub-

mitted by Gulf.

MR. HINKLE: Clarence Hinkle, representing Humble Oil and Refining Company. The Humble would like to go on record as recommending to the Commission the adoption of substantially the same field rules as heretofore adopted in the Jalmat and the Eumont pools for the Blinebry, Tubb, Byers-Queen, Justis, gas pools, including the 640 acre proration unit and the limiting factor in connection with the gas-oil ratio.

MR. MACEY: Mr. Dippel.

MR. DIPPEL: We feel that the testimony certainly indicates that the Blinebry pool presents a very complex problem, both as to development and as to regulation. It is our opinion that there is a real possibility that commercial oil production will be found below the barrier underlying the upper zone of permeability. We feel that both Gulf and the Commission's staff are to be commended for the work that they have done and the evidence they have presented.

Frankly, we had hoped to be prepared to present some evidence, but we had not gotten as much information together as we felt we should have before we undertook to present evidence, and that is the reason we elected not to do so. We feel, however, that all of the essential data has not been obtained, and it is, therefore, our recommendation that rules be adopted on the basis of the testimony and evidence that has been offered here today, but that they be on a temporary basis only, and for a period not to exceed six months. We should like to recommend that those rules, if they are to be for a period longer than for six months, would contain a provision requiring the taking of bottom hole pressures

at intervals not to exceed six months, and that a definite time be fixed. If it is not [illegible] period, we would like to recommend that the rules be limited to a certain temporary period of time, and that we come back at that time and undertake to present the results of further studies. We will assure the Commission that Continental Oil Company will continue studies and, if they are temporary, that we will have some evidence to present at that time. Thank you.

MR. [illegible]: Thank you, Mr. Dippel. Anyone else have a statement in this case?

MR. COUCH: Terrell Couch, for the Ohio Oil Company. The Ohio feels that the rules that were adopted for the [illegible] Pools and the Arron Pool, in order 520, although we don't purport to advocate each and every provision of them, we feel that the rules are generally workable, and that they would be applicable and workable on this gas pool involved in this case.

We do think that certain changes have been indicated and are indicated and will be indicated in the future, as we operate under rules similar to that. In that connection, one change we would recommend would be the provision that the no-flare section of those rules not apply to a newly completed or a newly dually completed well until an opportunity has been granted [illegible] to arrange for a connection and [illegible].

One other thing we might add in connection with staff's proposal, the procedure outlined there for obtaining [illegible] units and [illegible] [illegible], [illegible] and requirements are [illegible] than those in the rules [illegible]

at intervals not to exceed six months, and that a definite time be fixed. If it is six months or a different period, we would like to recommend that the rules be limited to a certain temporary period of time, and that we come back at that time and undertake to present the results of further studies. We will assure the Commission that Continental Oil Company will continue studies and, if they are temporary, that we will have some evidence to present at that time. Thank you.

MR. MACEY: Thank you, Mr. Dippel. Anyone else have a statement in this case?

MR. COUCH: Ferrell Couch, for the Ohio Oil Company. The Ohio feels that the rules that were adopted for the Eumont-Jalmat Pools and the Arrow Pool, in order 520, although we don't purport to advocate each and every provision of them, we feel that the rules are generally workable, and that they would be applicable and workable on this gas pool involved in this case.

We do think that certain changes have been indicated and are indicated and will be indicated in the future, as we operate under rules similar to that. In that connection, one change we would recommend would be the provision that the no-flare section of those rules not apply to a newly completed or a newly dually completed well until an opportunity has been granted [illegible] to arrange for a connection and making [illegible].

One other thing we might add in connection with Gulf's proposal, the procedure outlined there for obtaining [illegible] units and their [illegible] they have presented, we think these [illegible] and requirements are more workable than those in the rules adopted

in Order 520. We would go along with that. However, we do think that the size of the non-standard proration unit, along with Humble, we think that should be 640 acres.

MR. MACEY: Mr. Smith.

MR. SMITH: I would like to supplement the statement I formerly made by saying that we would suggest the adoption of the proposed rules by Gulf by the Commission with, of course, the suggested change or exception that I made first.

MR. DIPPEL: I forgot to state that Continental would recommend that proration units be restricted to 160 acres.

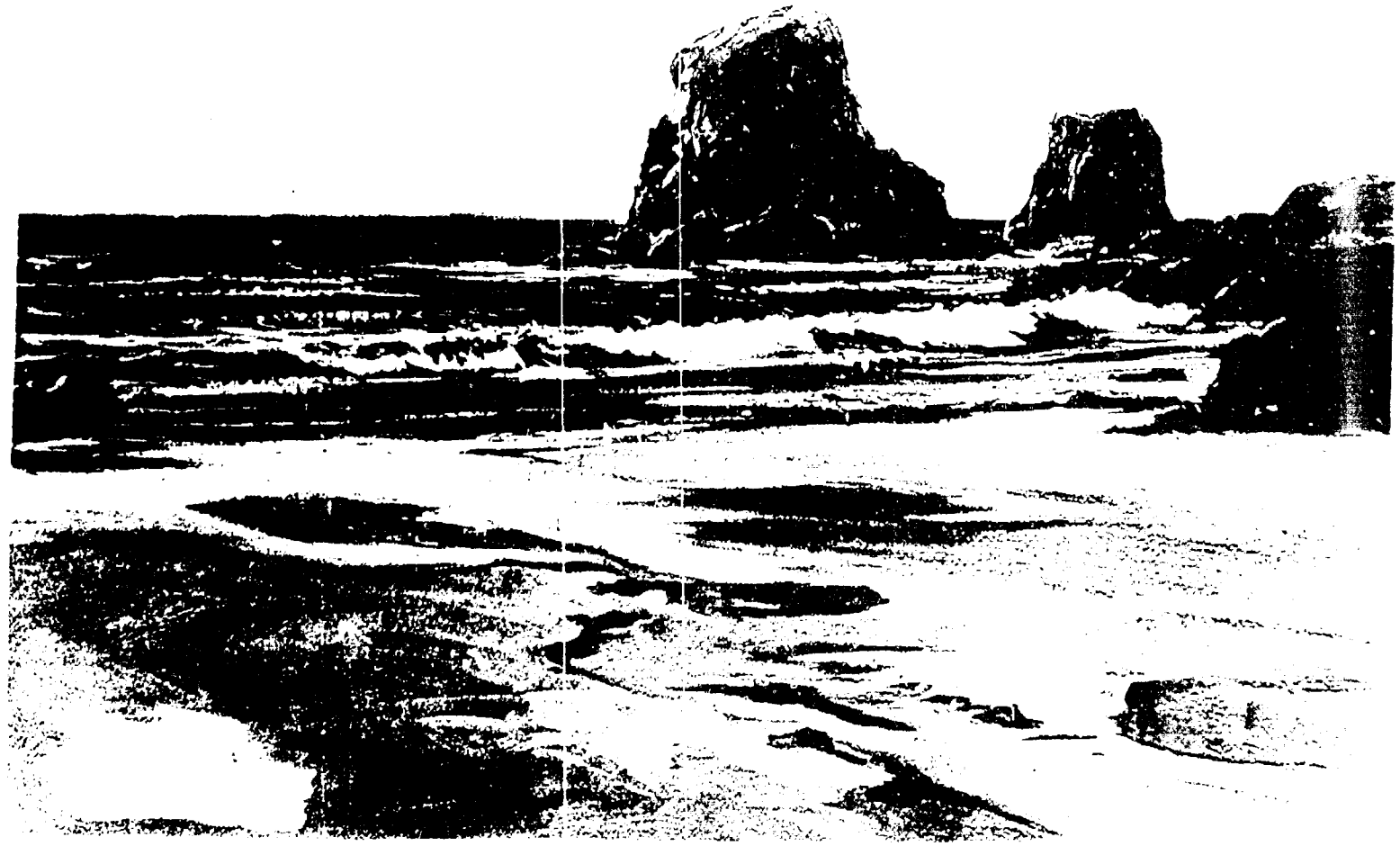
MR. MACEY: Mr. Montgomery.

MR. MONTGOMERY: I would like to ask Mr. Smith - he said down to the top of the Tubb. Were you referring to the Tubb markers defined by the Commission or to the Tubb Gas Pool as defined by the Commission?

MR. SMITH: I think probably the best answer to that is the first statement that I made, that is to avoid the obtaining of production from what is known to be Tubb pay. I don't know precisely what the marker is chosen by the Commission. I assume it is the point 300 feet below the top of the Blinebry. Is that what you have in mind?

MR. MONTGOMERY: I was referring to defining the Tubb marker and the vertical limits of the Tubb pool [illegible] 300 feet above that marker. I wanted to know if you wanted to include the Blinebry [illegible] the Tubb [illegible]?

MR. SMITH: No, we do not. [illegible] the Tubb [illegible].



In this world
Of drama and fear

May you have in life
what you shall most dare .....

To Pierrick
From Sophie Martin
8/6/84

MR. MACEY: Anyone else?

MR. [illegible]: I would like to [illegible] statement. I would like to restrict my recommendations on the rules just to Case 727, the Blinebry pool. That is the one, the adoption of the rules proposed by Gulf.

MR. MACEY: Anyone else. Does anyone have anything else in the consolidated cases 727 and 728.

MR. BUSHNELL: H. D. Bushnell, Shell Oil Company. We would like to go on record as concurring with the recommendations of Gulf except that we do recommend 160 acre gas proration unit in the Blinebry gas pool as recommended by the Commission.

MR. MALONE: May it please the Commission, may I make clear for Gulf the fact that our recommendations with reference to the proposed rules submitted by Gulf is that they likewise be promulgated for the Tubb Gas Pool.

MR. COUCH: I may supplement my statement on the Ohio. I had directed my remarks to the Blinebry. In view of the fact evidence has been presented on that pool and those involved in the case and not the Tubb, based on the information available to us, substantially the same recommendations would apply to the Tubb Gas Pool, and we find ourselves in somewhat the same situation as Stanolind with reference to completions in the Tubb zone. That is, we have one well that has perforations below the vertical limits of the Tubb Gas Pool. We would like to see any pool rules adopted for the Tubb to redefine the vertical limits, so that such a well would be in compliance.

MR. [illegible]: [illegible]

[illegible] gas cap?

MR. [illegible]: That would be the [illegible].

MR. MACEY: Anyone else?

MR. YOST: Mr. Macey, as far as the Commission's staff is concerned, the testimony is directed merely to the Blinebry, not to the Tubb.

MR. MACEY: Do you have anything further on any of the other cases?

MR. [illegible]: I might make a statement here. We have, but not completely, studied the Tubb pool. The staff feels that it is entirely different from the Blinebry pool. We do not have the complications of fluid and, therefore, if one does study the Tubb pool we may find that the rules may be entirely different and much simpler than the Blinebry gas pool. Therefore, as Mr. Yost mentioned, we don't want our testimony in the Blinebry pool applied to the Tubb.

MR. CAMPBELL: Jack Campbell. I would like to ask a question. I assume there is not going to be any evidence offered in Case 726. The Tubbs, Justis and [illegible] gas pools, even though this has been consolidated, this testimony and evidence all applies to Blinebry only.

MR. MACEY: That is right.

MR. [illegible]: [illegible] I assume then that the order now [illegible] the [illegible], [illegible] gas pool will simply remain [illegible] evidence [illegible] change it, [illegible] the status [illegible]. The reason I inquire, I have some matters pending affecting the Tubb pool [illegible]

the Blinebry Pool, by way of a dual completion which I have been holding up in anticipation of some possible change in the order.

MR. MACEY: Mr. Campbell, I think you were very aware of the fact that we have been trying to get evidence in all of the cases for several months now. The only recourse that I can see is for this Commission, as far as I feel about it, to write an order and let it stick for a temporary period on all of these pools and give the companies an opportunity to thoroughly study all of the pools. If we can change them, we will change them, but we don't have any evidence to base any order on, I will guarantee you that, outside of the Blinebry; don't misunderstand me.

MR. CAMPBELL: I don't mean to imply that I would object to the Commission entering an order in the Tubb, Byers-Queen Pools along the same lines that they have entered in the other areas. All I was inquiring for was to see whether I should continue to stand by and wait for that or go ahead and proceed under the present order.

MR. MACEY: I want to ask Mr. Stanley a question before we go any further. I am not sure -- What are we going to do about any proration unit that we have approved greater than [illegible] in the Blinebry? What would be your recommendation, if we [illegible] it to [illegible]

MR. STANLEY: I would like to have an opportunity to study that particular unit and then I would probably be able to answer the question.

MR. MACEY: I [illegible] the Commission will proceed

enter orders more or less clarifying the existing orders where we feel -- in other words, regardless of whether we have the evidence or not. We will try to do what we think is right. If we are wrong and somebody doesn't like it, they can ask for a rehearing and then they can produce the evidence. We have tried very hard to get the evidence and we haven't gotten it. So I think the only thing we can do is to go ahead and do what we think is right. Does anyone have anything further in these two consolidated cases?

MR. WALKER: Yes, I would like to ask Mr. Campbell or anyone else who would care to answer, the question if we go along in the order that Mr. Macey has outlined, is that going to affect the operations, the present operations, to any great extent?

MR. CAMPBELL: I don't know exactly what Mr. Macey was referring to, unless it was to make the orders in the pools other than the Blanco, with the modifications perhaps that have been suggested, but on the other three pools, I assume he had in mind something along the same lines that was done in the other gas pools that have previously been designated and new rules were adopted. I don't know. I haven't heard anyone who objected to the same type of rules in the other pools to make them more or less uniform throughout the area around there. There may be some who feel that way, but they have certainly had an opportunity now, it seems to me, to come in and offer evidence if that is the case.

MR. [illegible]: Anyone else? If not, we will take the case under advisement. Let's take a short recess.

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public and Court Reporter within 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 Conversation Commission, at Hobbs, 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 22nd day of November, 1954.

Ada Dearnley
NOTARY PUBLIC and COURT REPORTER

My Commission expires:

June 19, 1955.

Name	Representing	
A. T. [illegible]	Gulf	Midland
J. G. Coates	"	Houston
Bill Sates	Texas Co	Midland
W. [illegible]	" "	Houston
Vernon Mansin	" "	[illegible]
[illegible] White	" "	Santa Fe, NM
N. F. [illegible]	" "	Midland
J. A. Schaffer	" "	Midland
Paul [illegible]	" "	Monument, N.M.
[illegible]	O.C.C.	[illegible]
[illegible]	The Seaboard Oil Co	[illegible], N. Mex.
[illegible]	Gulf Oil Corp	Hobbs, N.M.
G. A. Plummer	Lone Star Prod Co	[illegible]
E. D. Anderson	" " " "	" "
[illegible]	Phillips "66"	Amarillo Tex.
[illegible]	Phillips 66	Amarillo Tex.
[illegible]	[illegible] Oil Corp.	[illegible]
W. [illegible]		[illegible]
[illegible]	Sun Oil Co	[illegible]
[illegible]	Sun Oil Co	[illegible]
[illegible]	Ohio Oil Co.	[illegible]
[illegible]	" "	"
[illegible]	Hughes Tool Co.	"
[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]
[illegible]		
[illegible]		[illegible]
[illegible]	[illegible]	[illegible]

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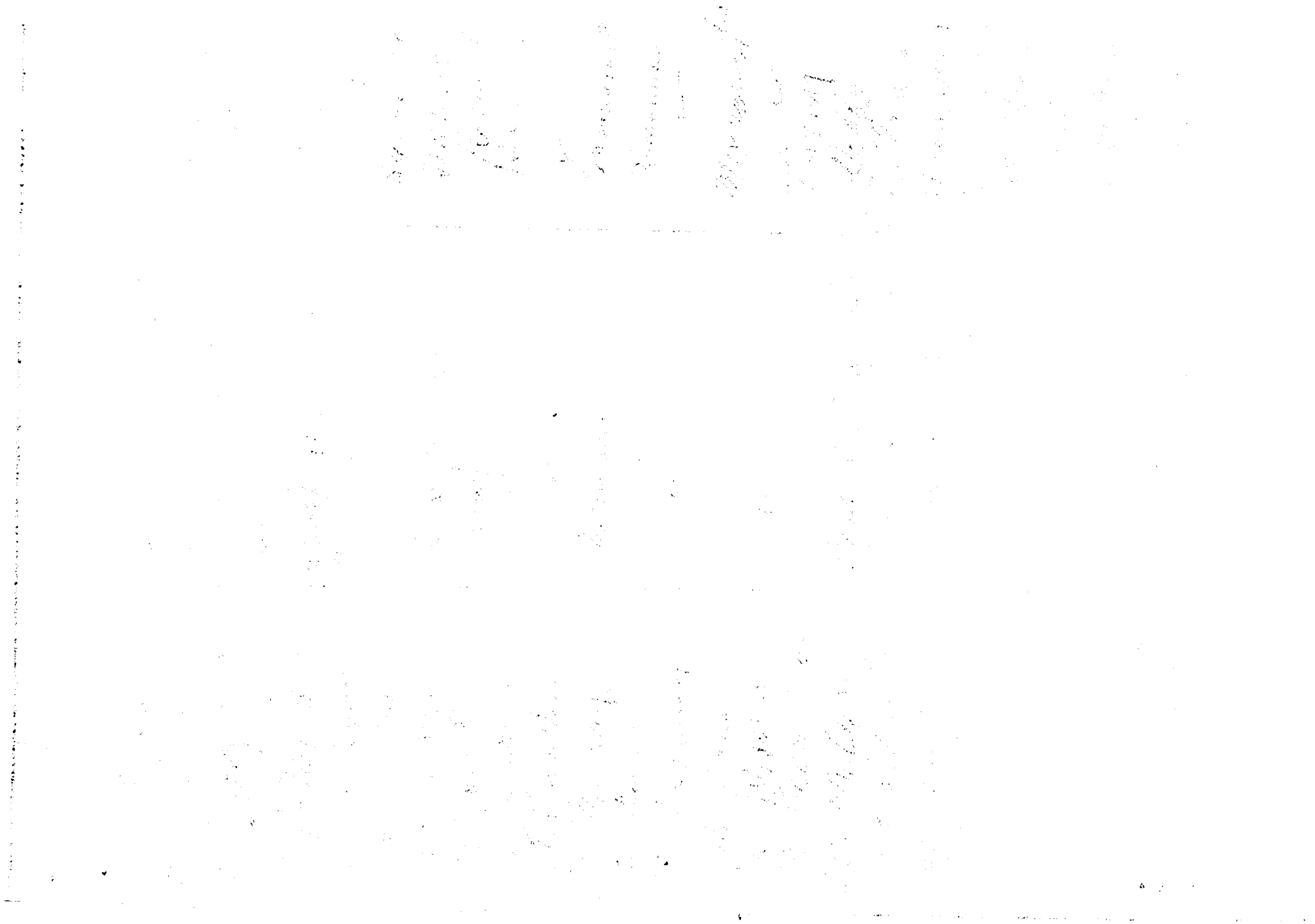
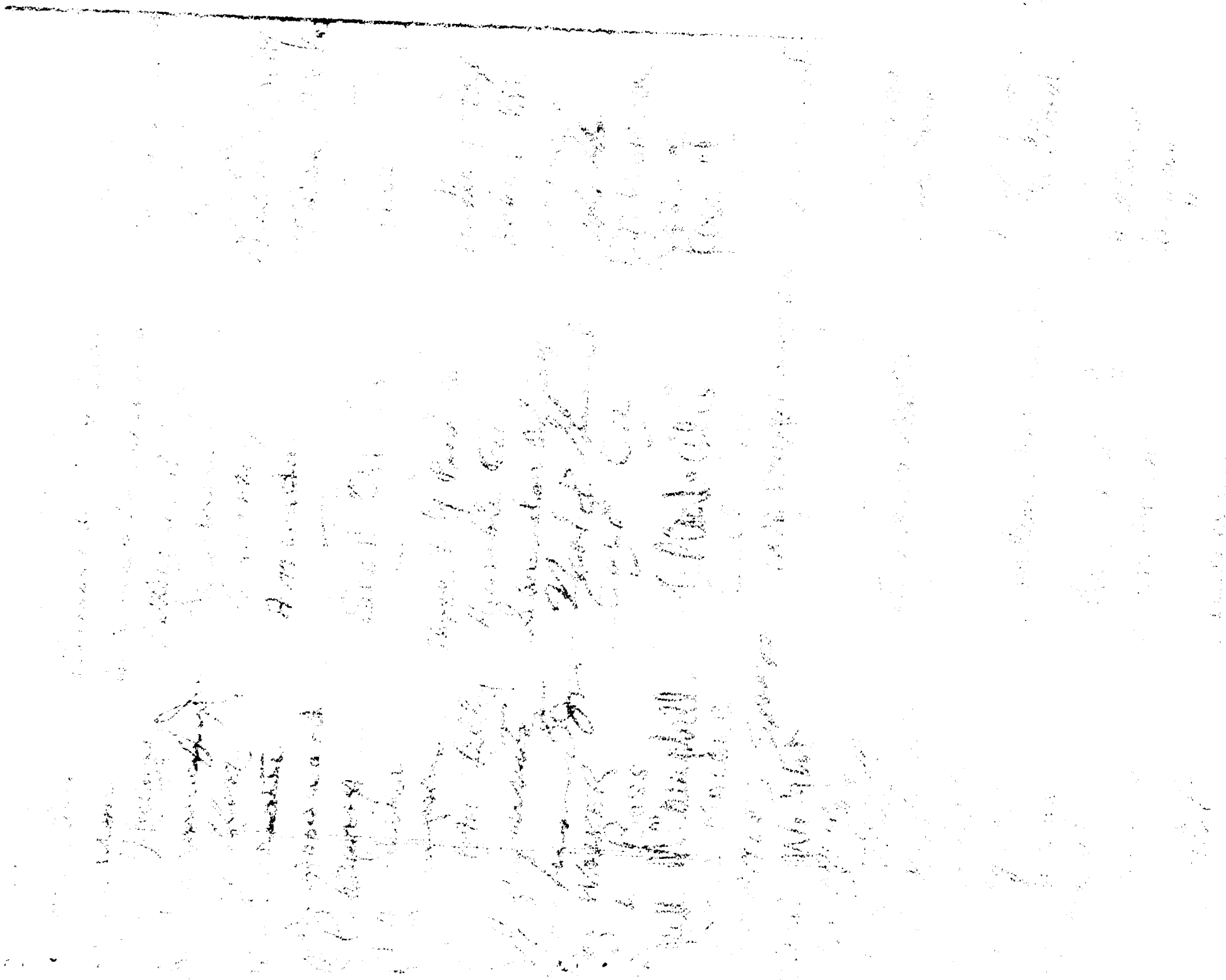
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]



[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible] Waddell	[illegible]	
[illegible]	[illegible] Oil Corp	[illegible]
[illegible] Hedrick Jr	[illegible] Oil Co.	Midland
B. C. Corbin [illegible]	Shell Oil Co	Hobbs
[illegible] Patter[illegible]	OCC	Hobbs
[illegible]	OCC	Hobbs
M. L. Hayes	Phillips	Midland
[illegible] Robert		Hobbs
[illegible]	T.P. C & O	Hobbs
Earl Amonett	Permian Basin Pl	Amarillo [illegible]
[illegible]	Continental Oil Co	Midland, Tex.
[illegible]	Continental Oil Co	Hobbs
[illegible]	Continental Oil Co	Hobbs
[illegible]	Stanolind Oil Gas	F. A. Worth
Gerald C Proctor	Shell Oil Co.	Hobbs
Vincent Foster	Anderson - Prichard	Hobbs
[illegible]	"	"
R C Lanmen	Cont. Oil Co.	Hobbs
[illegible]	Cont. Oil Co.	Hobbs
[illegible]	"	"
[illegible]	"	"
[illegible]	Humble O & R.	"
[illegible]	The Atlantic Refining Co	Denver City, Texas
[illegible]	Fullerton O. & G. Corp.	Hobbs
[illegible]	Fullerton Oil & Gas Corp	Hobbs
	"	Roswell



Charles R. Farmer		Self
B. A. Schubert		Inty
Sgt. W. Nabauntz	Shell Oil Co.	Hobbs
Pete Marshall	Schermerhorn	Hobbs

BLINEBRY GAS POOL CONT'D

NO. ACRES	OPERATOR	WELL LOCATION	OCTOBER 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE	MAY 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	TOKLAN OIL CORP.									
160	Williamson # 2	C 23-21-37					7-11-55	?	109829	
	WESTERN OIL FIELDS, INC.									
160	Drinkard # 4	H 25-22-37								
160	Gulf Hill # 1	R 4-21-37					7-14-55		5955	
							7-15-55		18070	

Monterey Oil Company

430 STATLER BUILDING | 900 WILSHIRE BOULEVARD | LOS ANGELES 17, CALIFORNIA

March 21, 1957

Mr. W. B. Macey
Secretary - Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Enclosed please find the exhibits of Gulf Oil Corporation in Cases 727 and 728.

Together with the transcripts received from Dearnley-Meier and Associates, our knowledge of the Terry-Blinebry Area has been made adequate for our present problem.

We appreciate your cooperation in sending us these exhibits for duplication.

Very truly yours,

MONTEREY OIL COMPANY

By _____
Sutford-Park
Chief Petroleum Engineer

SP:vr

Enc.

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

New Mexico
OIL CONSERVATION COMMISSION

P. O. Box 871
Santa Fe, New Mexico

November 10, 1954

Mr. Macey:

The following exhibits are included among those you are today taking to Hobbs for use of Shell Oil Company:

CASES 728 and 727 (Consolidated):

Oil Conservation Commission
Exhibits 1 - 7, incl. (Ex. 8 is not in the file) and
Exhibits 9 - 25, incl.

Gulf Oil Corporation
Exhibits 1 - 8, incl.

N. R.

DOMESTIC SERVICE

Check the class of service desired; otherwise this message will be sent as a full rate telegram

FULL RATE TELEGRAM	
DAY LETTER	
NIGHT LETTER	

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WESTERN UNION

W. P. MARSHALL, PRESIDENT

1206 10-51

INTERNATIONAL SERVICE

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FULL RATE	
LETTER TELEGRAM	
SHIP RADIOGRAM	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED
			OIL CONSERVATION COMMISSION	

Send the following message, subject to the terms on back hereof, which are hereby agreed to

AUGUST 6 1954

MR GEORGE W SELINGER
LEGAL DEPARTMENT
SKELLY OIL COMPANY
TULSA OKLAHOMA

REURTEL CASES MENTIONED WILL DEFINITELY BE HEARD AUGUST 18

HEARING

W B MACEY
N M OIL CONSERVATION COMMISSION

Form 502 2-38

STANOLIND OIL AND GAS COMPANY

OIL AND GAS BUILDING

FORT WORTH, TEXAS

May 10, 1955

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

Attention: Miss Nancy Royal

Gentlemen:

Please furnish us three additional copies of Orders No. R-586 in Case 728 and R-610 in Case 727.

Yours very truly,

R. G. HILTZ

RGH:cp

BLINEBRY GAS POOL

NO. ACRES	OPERATOR	WELL LOCATION	TEST DATE	OCTOBER 1955 CONDENSATE GRAVITY	GAS-COND. RATIO	BOTTOM-HOLE PRESSURE	TEST DATE	MAY 1955 CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	AMERADA PET. CORP.									
80	A.B.Baker #3	I 10-22-37	10-3-55	65.2	85431		5-31-55	67.4	52080	
160	State "D" #4	I 16-21-37	10-16-55	63.8	127073		5-27-55	63.8	52414	
160	E.W.Walden # 7	N 15-22-37	10-21-55	53.6	101800		5-29-55	55.7	129088	
160	E. Wood # 10	H 22-22-37	10-8-55	64.0	166269		5-31-55	62.2	142652	
	ANDERSON-PRICHARD OIL CORP.									
80	Lee # 1	I 23-22-37								
	AZTEC OIL & GAS CO.									
160	Dauron # 2 40 acre Unit Now	A 10-21-37	10-15-55		61967		5-8-55	62.5	42066	
	CITIES SERVICE OIL CO.									
160	Brunson "C" # 7	P 3-22-37	10-20-55	72.1	45100		7-8-55	71.2	53407	
80	State "S" # 1	E 15-21-37	11-13-55	68.1	42600		7-8-55	65.8	1180000	
	CONTINENTAL OIL CO.									
160	Hawk B-9 # 1	F 9-21-37								
160	Hawk B-9 # 2	J 9-21-37								
160	Hawk B-9 # 6	N 9-21-37								
	Lockhart A-17 # 3	H 17-21-37								
160	Lockhart A-27 # 5	A 27-21-37								
	Lockhart A-27 # 7	D 27-21-37								
160	Lockhart B-11 # 8	O 11-21-37								
160	Lockhart B-35 # 2	B 35-21-37								
160	State "10" # 2	E 10-21-37								
	FAMARISS PETROLEUM CORP.									
120	Hill # 1	J 4-21-37								
	GULF OIL CORP.									
160	Andrews # 2	G 32-22-38	No Connection							
120	Amanda # 1	J 25-22-37	10-11-55	50.8	44610		6-1-55	50.0	41633	
160	J.N.Carson # 4	O 28-21-37	10-11-55	63.8	336850		5-18-55	Missing	64492	
160	Eaves # 6	A 10-22-37	10-10-55	67.3	41422		5-19-55	71.0	49436	

BLINEBRY GAS POOL CONT'D

NO. ACRES	OPERATOR	WELL LOCATION	OCTOBER 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE	MAY 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	GULF OIL CORP. CONT'D									
160	Eubanks # 4	H 22-21-37	10-24-55	57.5	37485		5-19-55	53.4	33906	
160	Gutman # 2	C 19-22-38	10-11-55	63.7	36383		6-1-55	59.6	51123	
160	Hugh # 7	C 14-22-37	10-11-55	56.1	40511		5-19-55	57.5	49477	
160	Eunice King # 9	G 28-21-37	10-11-55	55.4	36704		5-19-55	60.3	37566	
160	Leonard St. "E" # 4	A 16-21-37	10-10-55	72.5	73142		5-12-55	67.0	74782	
160	W.T.McCormack # 10	H 32-21-37		Dry	Marginal-Low Pressure			Dry		
160	Mark Owen # 6	O 34-21-37	10-10-55	68.9	61860		5-18-55	50.0	73510	
160	Vivian # 5	D 30-22-38	10-31-55	65.5	60649		5-18-55	65.0	73809	
	HUMBLE OIL & REFG. CO.									
160	Ferrel # 2	I 22-22-37	11-8-55	64.4	380379		7-21-55	63.0	115561	
160	J.L.Greenwood # 11	I 9-22-37	11-1-55	68.0	94034		4-14-55	72.6	33484	
160	Hardison # 4	B 34-21-37	11-2-55	60.7	43582		4-14-55	60.2	109972	
160	Hardison "B" # 8	I 27-21-37	11-3-55	73.3	32152		4-14-55	70.0	34729	
160	New Mex. St."S"# 12	A 2-22-37	11-5-55	58.3	41607		4-11-55	61.1	33278	
160	New Mex. St."S"# 14	C 2-22-37	11-9-55	87.8	55688		4-15-55	69.6	63679	
160	New Mexico St."S"# 21	L 2-22-37	11-4-55	78.0	80280		4-20-55	69.2	65491	
160	New Mex.St. "S"# 23	P 2-22-37	11-8-55	78.7	39414		7-25-55	71.1	47971	
160	Penrose # 1	B 13-22-37	11-2-55	71.0	136259		4-14-55	68.7	138039	
	MARKHAM, CONE & REDFERN									
160	Eubanks # 1	M 14-21-37					7-6-55	70.0	47247	
	MAGNOLIA PETROLEUM CO.									
160	Brunson Argo # 6	E 10-22-37	10-20-55	70.4	93847		5-10-55	71.3	87222	
160	E.O.Carson # 8	F 33-21-37	10-20-55	65.7	96520		5-12-55	62.8	56108	
160	H.Corrigan # 7	P 33-21-37	10-12-55	Dry	Inf		5-12-55	66.5	Inf.	
160	S.E.Long # 8	J 11-22-37	10-20-55	65.7	40041		5-19-55	70.0	50007	
160	Marshall Unit # 3	D 34-21-37	10-20-55	71.0	134098		5-12-55	74.2	58243	
40	Williamson # 1	A 23-21-37	10-20-55	62.6	60400		5-19-55	66.5	67667	
	MORAN, E. F. INC.									
160	Owen # 2	D 14-21-37	11-9-55	69.5	24334		5-24-55	69.2	80355	
			11-16-55	69.5	34558 Corrected Copy					

BLINEBRY GAS POOL CONT'D

NO. ACRES	OPERATOR	WELL LOCATION	OCTOBER 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE	MAY 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	OHIO OIL COMPANY									
160	Edith Butler "A" # 1	L 18-22-38	11-7-55	55.1	170100		6-6-55	Dry	Inf.	
160	Walter Lynch # 4	D 1-22-37	11-8-55	69.7	43238		6-10-55	69.2	43162	
160	Marshall "B" # 4	L 27-21-37	11-7-55	69.1	53977		6-6-55	68.0	73187	
80	Muncy # 3	N 24-22-37	11-9-55	72.6	52594		6-10-55	69.0	54440	
160	Owen # 2	M 35-21-37	11-7-55	67.9	53240		6-6-55	68.0	47232	
160	Warlick "C" # 2	O 15-21-37	11-8-55	57.4	22322		6-10-55	58.0	33243	
160	Lou Wortham # 9	E 11-22-37	11-9-55	70.8	49859		6-6-55	67.0	55120	
160	Lou Wortham # 12	H 11-22-37	11-9-55	70.4	51395		6-10-55	66.4	58559	
	R. OLSEN OIL CO.									
160	Boyd # 2	H 23-22-37	3 day Ave.	69.0	78400		5-5-55	70.0	85200	
80	S.E.Cone # 1	J 26-21-37	3 day Ave.	70.1	56200		5-5-55	70.5	52800	
160	Danglade # 1	L 13-22-37	3 day Ave.	65.5	53200		5-5-55	67.7	45400	
160	Drinkard # 1	C 25-22-37	3 day Ave.	70.2	66100		5-5-55	69.7	65100	
160	Owen # 1	M 25-21-37								
160	Sims # 1	F 25-22-37	3 day Ave.	68.1	88400		5-5-55	67.7	90300	
	NEVILLE G. PENROSE, INC.									
160	Hinton # 3	N 12-22-37					7-19-55		112500	
	PHILLIPS PET. CO.									
80	Sims # 1	L 24-22-37	10-31-55		54200		5-23-55		45938	
160	Sims # 4	D 24-22-37	10-28-55		34600		5-19-55		30222	
	ROWAN OIL CO.									
160	Elliott Fed.B-13 #1	E 13-22-37								
80	" #4	A 15-22-37								
160	Walden "C" # 3	C 15-22-37								
	SAMEDAN OIL CORP.									
160	Parks # 2	M 14-22-37	Abandoned-Dropped from Schedule				5-13-55	41.0	14100	
160	Parks "A" # 5	O 14-22-37	11-5-55	63.7	58017		5-13-55	65.0	46973	
	SHELL OIL CO.									
160	Argo # 3	K 15-21-37					5-11-55		212765	

BLINEBRY GAS POOL CONT'D

NO. ACRES	OPERATOR	WELL LOCATION	OCTOBER 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE	MAY 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	SHELL OIL CO. CONT'D									
160	Argo "A" # 5	F 22-21-37					5-13-55		89973	
160	Livingston # 8	N 3-21-37					5-12-55		49352	
160	Livingston # 9	V 3-21-37					5-16-55		38924	
160	Long # 5	N 11-22-37					5-21-55		88030	
160	Sarkeys # 2	K 23-21-37					5-10-55		90652	
80	State "15" # 2	H 15-21-37					5-12-55		94088	
160	Turner # 5	I 22-21-37					5-11-55		83210	
160	Turner # 13	N 22-21-37					5-12-55		324322	
	SINCLAIR OIL & GAS CO.									
120	Roy Barton # 2	B 23-21-37	10-31-55	69.1 Dry	dry Inf.		No Connection			
160	Boyd # 4	F 23-22-37	10-31-55	69.8	103000		6-14-55	69.6	138108	
120	State "367" # 3	K 36-21-37	10-31-55	69.2	74520		No Connection			
160	Sarkeys "A"	J 23-21-37	10-31-55	69.5	127000		6-16-55	69.5	124833	
	SKELLY OIL CO.									
240	Baker "B" # 15	J 10-22-37	10-31-55	72.0	61300		5-28-55	72.0	73050	
	STANOLIND OIL & GAS CO.									
80	Eva Owen "A" # 2	F 3-22-37	11-7-55	59.0	34785		5-27-55	54.0	25553	
160	Eva Owen "B" # 4	N 34-21-37	11-5-55	55.0	28841		5-27-55	54.0	47138	
160	Southland Roy."A" # 5	Q 4-21-37	11-11-55	55.0	25355		5-20-55	57.5	15292	
160	Southland Roy."A" # 6	H 9-21-37	11-8-55	61.0	47680		5-25-55	58.0	38384	
160	State "C" Tr.12 # 4	F 16-21-37	11-5-55	61.0	67038		5-21-55	61.0	69414	
160	State "C" Tr.13 # 5	E 36-21-37	11-7-55	64.0	48084		5-27-55	64.5	34852	
	SUNRAY MID-CONTINENT OIL CO.									
160	Walter Lynch # 4	L 1-22-37					4-12-55	Missing	37300	
160	State Land 15 # 3	O 16-21-37					4-12-55	48.9	22320	
	THE TEXAS CO.									
160	Blinebry NCT-1 Fed.# 1	O 19-22-38	10-2-55	66.2	57534		4-20-55	65.0	57808	
	TIDE WATER ASSOC. OIL CO.									
160	Sarkeys # 3	C 26-21-37	10-31-55	65.1	19251		7-7-55	?	53482	
160	State "S" # 2	C 15-21-37	10-30-55	54.8	32636		7-8-55	?	33807	

BLINEBRY GAS POOL CONT'D

NO. ACRES	OPERATOR	WELL LOCATION	OCTOBER 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE	MAY 1955 TEST DATE	CONDENSATE GRAVITY	GAS COND. RATIO	BOTTOM-HOLE PRESSURE
	TOKLAN OIL CORP.									
160	Williamson # 2	C 23-21-37					7-11-55	?	109829	
	WESTERN OIL FIELDS, INC.									
160	Drinkard # 4	H 25-22-37					7-14-55		5955	
160	Gulf Hill # 1	R 4-21-37					7-15-55		18070	

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

(36)

W. P. MARSHALL, PRESIDENT

FX-1201

SYMBOLS
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NL=Night Letter
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VLT=Int'l Victory Ltr.

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W B MACEY, NEW MEXICO OIL CONSERVATION COMMISSION=

MABRY HALL SANTA FE NMEX=

PLEASE ADVISE IF GAS CASES 727, 728 AND 729 WILL BE DEFINITELY HEARD ON AUGUST 18, 1954=

GEORGE W SELINGER SKELLY OIL CO=

727 728 729 18 1954=

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. 727
Order No. R-610-D

APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION AS PROVIDED FOR IN ORDER R-610-C, TO HEAR TESTIMONY AND RECEIVE EVIDENCE REGARDING THE AMENDING, REVISING, OR ABROGATING EXISTING RULES AND REGULATIONS OF THE OIL CONSERVATION COMMISSION AND/OR PROMULGATING RULES AND REGULATIONS RELATING TO GAS POOL DELINEATION, GAS PRORATION, AND OTHER RELATED MATTERS AFFECTING OR CONCERNING THE BLINEBRY GAS POOL, BLINEBRY OIL POOL, AND TERRY-BLINEBRY OIL POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 16, 1957, at Santa Fe, New Mexico, before the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission."

NOW, on this 26th day of February, 1957, the Commission, a quorum being present, having considered the application and the evidence adduced and being fully advised in the premises,

FINDS:

(1) That the Commission has continued jurisdiction in this case, acquiring same at the initial hearing on June 16, 1954.

(2) That due notice of the time and place of hearing and the purpose thereof has been given as required by law.

(3) That no evidence was presented to justify revising the provisions of Order No. R-610, as amended by Orders R-610-A, R-610-B, and R-610-C.

IT IS THEREFORE ORDERED:

That Order R-610, as amended by Order R-610-A, R-610-B, and R-610-C, which constitutes the Special Rules and Regulations for the Blinebry Gas Pool, the Blinebry Oil Pool, and the Terry-

Blinebry Oil Pool, be and the same hereby are continued in full force and effect until further order of the Commission.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

ir/

No. 37-56

DOCKET: REGULAR HEARING NOVEMBER 13, 1956

Oil Conservation Commission 9:00 a.m., Mabry Hall, State Capitol, Santa Fe

ALLOWABLE: (1) Consideration of the oil allowable for December, 1956.

(2) Consideration of the allowable production of gas from designated pools in Lea County, New Mexico, for December, 1956, and also presentation of purchasers' nominations for the 6-month period beginning January 1, 1957; also consideration of the gas allowable for December, 1956, for the prorated pools in San Juan and Rio Arriba Counties, New Mexico.

NEW CASES

CASE 727: (Readvertisement) Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing Rules and Regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool.

CASE 861: (Readvertisement) Application of El Paso Natural Gas Company for an order amending the well spacing and drilling unit provisions of Commission Order R-639 and establishment of gas proration units and allocation of gas production in the Crosby-Devonian Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order amending the Special Rules and Regulations for the Crosby-Devonian Gas Pool as set forth in Order R-639 insofar as well spacing and drilling unit provisions and the wells to be excepted thereto. Applicant further seeks to establish standard gas proration units consisting of not less than 632 acres nor more than 648 acres and further seeks to establish the allocation of gas production in the proportion that the acreage assigned to each well multiplied by its well-head pressure after 72 hours shut-in bears to the sum of said product for all wells and proration units in the Crosby-Devonian Gas Pool or in accordance with such other method for allocating production as the Commission shall deem necessary and proper.

CASE 1102: (Rehearing) Application of the Ohio Oil Company for rehearing in Case 1102, Order R-892 which established pool rules for the Dean Permo-Pennsylvanian and Dean-Devonian Pools, Lea County, New Mexico. Applicant, in the above-styled cause, seeks reconsideration by the Commission of the spacing and allowable provisions for the Dean Permo-Pennsylvanian Pool with particular attention to the allowable for existing wells on 40-acre tracts. Applicant contends that such wells should retain the normal 40-acre allowable rather than one-half of the normal 80-acre allowable as established by Order R-892.

CASE 1172: Application of Magnolia Petroleum Company for an order granting exception to paragraph 2 of the Special Rules and Regulations of the Dean Permo-Pennsylvanian Pool as set forth in Order R-892 and further for an extension of the horizontal limits of the Dean Permo-Pennsylvanian Pool. Applicant, in the above-styled cause, seeks an order granting the establishment of an 80-acre non-standard proration unit comprising the NE/4 SE/4 of Section 27, and the NW/4 SW/4 of Section 26, Township 15 South, Range 36 East, NMPM, Lea County, New Mexico; said acreage to be dedicated to its Cone No. 1 Well, located in the NW/4 SW/4 of said Section 26 and further applicant requests the extension of the horizontal limits of the Dean Permo-Pennsylvanian Pool to include the SE/4 of said Section 27.

CASE 1173: Application of Skelly Oil Company for an order granting approval of its proposed Sombero Unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order granting approval of its proposed Sombero Unit containing 640 acres comprising the E/2 of Section 11 and the W/2 of Section 12, Township 16 South, Range 33 East, Lea County, New Mexico. The unit consists entirely of State of New Mexico lands.

CASE 1174: Application of the Oil Conservation Commission upon its own motion for an order granting exception to Rule 502 I (a) of the Commission Statewide Rules and Regulations for all wells in the Caprock-Queen Pool, Chaves and Lea Counties, New Mexico. Applicant, in the above-styled cause, seeks an order granting exception to Rule 502 I (a) in permitting production greater than 125% of the daily allowable for all wells in the Caprock-Queen Pool.

CASE 1175: Southeastern New Mexico nomenclature case calling for the creation of new pools and the extension of and deletion of certain areas from existing pools in Lea and Eddy Counties, New Mexico:

(a) Create a new pool for Pennsylvanian production, designated as the Anderson-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 17 SOUTH, RANGE 30 EAST
Section 18: NW/4

(b) Create a new pool for Pennsylvanian production, designated as the Duffield-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 16 SOUTH, RANGE 27 EAST
Section 21: SW/4

(c) Create a new pool for Devonian production, designated as the Four Lakes-Devonian Pool, and described as:

TOWNSHIP 12 SOUTH, RANGE 34 EAST
Section 1: NW/4
Section 2: NE/4

(d) Create a new pool for Wolfcamp production, designated as the Four Lakes-Wolfcamp Pool, and described as:

TOWNSHIP 12 SOUTH, RANGE 34 EAST
Section 1: NW/4
Section 2: NE/4

(e) Create a new pool for Pennsylvanian production, designated as the Fren-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 17 SOUTH, RANGE 31 EAST
Section 15: SW/4
Section 21: E/2
Section 22: NW/4

(f) Create a new pool for Seven Rivers production, designated as the High Lonesome-Seven Rivers Pool, and described as:

TOWNSHIP 16 SOUTH, RANGE 29 EAST
Section 15: NW/4

(g) Create a new pool for Pennsylvanian production, designated as the Ranger Lake-Pennsylvanian Pool, and described as:

TOWNSHIP 12 SOUTH, RANGE 34 EAST
Section 23: SE/4

(h) Create a new pool for Yates production, designated as the Saladar-Yates Pool, and described as:

TOWNSHIP 20 SOUTH, RANGE 28 EAST
Section 33: SW/4

(i) Create a new pool for Delaware production, designated as the Wye-Delaware Pool and described as:

TOWNSHIP 22 SOUTH, RANGE 27 EAST
Section 29: NW/4

(j) Extension of the Aid Pool to include therein:

TOWNSHIP 17 SOUTH, RANGE 28 EAST
Section 19: E/2

(k) Extension of the Atoka Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 26 EAST
Section 10: E/2 and E/2 W/2
Section 11: S/2
Section 13: W/2 W/2
Section 21: NE/4
Section 22: NE/4

(l) Extension of the Dean Permo-Pennsylvanian Pool to include therein:

TOWNSHIP 15 SOUTH, RANGE 36 EAST
Section 23: S/2 SE/4

(m) Extension of the Dos Hermanos Yates-Seven Rivers Pool to include therein:

TOWNSHIP 20 SOUTH, RANGE 30 EAST
Section 32: E/2 NE/4

(n) Extension of the North Gladiola-Devonian Pool to include therein:

TOWNSHIP 12 SOUTH, RANGE 38 EAST
Section 5: W/2

(o) Extension of the High-Lonesome Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 29 EAST
Section 21: E/2 and SW/4
Section 28: All

(p) Extension of the Hobbs Pool to include therein:

TOWNSHIP 18 SOUTH, RANGE 37 EAST
Section 26: E/2 NE/4

(q) Extension of the Roberts Pool to include therein:

TOWNSHIP 17 SOUTH, RANGE 33 EAST
Section 8: NE/4

(r) Extension of the Townsend-Wolfcamp Pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 35 EAST
Section 1: Lots 9, 10, 15 & 16
Section 8: NE/4 SW/4

(s) Extension of the Jalmat Gas Pool to include therein:

TOWNSHIP 22 SOUTH, RANGE 35 EAST
Section 11: SE/4

(t) Deletion from the Terry-Blinebry Oil Pool the following:

TOWNSHIP 21 SOUTH, RANGE 37 EAST
Section 3: Lots 6, 10, 11 & 12

(u) Extension of the Blinebry Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST
Section 3: Lots 6, 10, 11 & 12

(v) Extension of the Blinebry Oil Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 37 EAST
Section 3: Lots 6, 10, 11 & 12

CASE 1176: Northwestern New Mexico nomenclature case calling for the extension of existing pools in San Juan and Rio Arriba Counties, New Mexico:

(a) Extension of the Ballard-Pictured Cliffs Pool to include therein:

TOWNSHIP 26 NORTH, RANGE 7 WEST
Section 30: SW/4

(b) Extension of the Aztec-Pictured Cliffs Pool to include therein:

TOWNSHIP 29 NORTH, RANGE 10 WEST
Section 2: W/2

(c) Extension of the Otero-Pictured Cliffs Pool to include therein:

TOWNSHIP 24 NORTH, RANGE 6 WEST
Section 36: S/2

(d) Extension of the Tapicito-Pictured Cliffs Pool to include therein:

TOWNSHIP 26 NORTH, RANGE 3 WEST
Section 33: E/2

TOWNSHIP 26 NORTH, RANGE 4 WEST
Section 3: S/2
Section 4: S/2
Section 10: N/2

(e) Extension of the West Kutz-Pictured Cliffs Pool to include therein:

TOWNSHIP 27 NORTH, RANGE 11 WEST
Section 10: NE/4

(f) Extension of the Bisti Lower Gallup Oil Pool to include therein:

TOWNSHIP 25 NORTH, RANGE 12 WEST
Section 7: SE/4

ir/

BEFORE THE

Oil Conservation Commission

SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 727

TRANSCRIPT OF PROCEEDINGS

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
NOVEMBER 13, 1956

IN THE MATTER OF:

Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing Rules and Regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool.

Case No. 727

BEFORE:

Mr. A. L. Porter
Mr. E. S. (Johnny) Walker

TRANSCRIPT OF PROCEEDINGS

MR. PORTER: We will take up next Case 727.

MR. GURLEY: "Application of the Oil Conservation Commission upon its own motion as provided for in Order R-610-C, to hear testimony and receive evidence regarding the amending, revising or abrogating existing Rules and Regulations of the Oil Conservation Commission, and/or promulgating rules and regulations relating to gas pool delineation, gas proration and other related matters affecting or concerning the Blinebry Gas Pool, Blinebry Oil Pool and Terry-Blinebry Oil Pool."

I think at this time I would like to move that the case be continued until the next hearing.

MR. PORTER: Just a minute, Mr. Gurley. I believe Mr. Mankin has something on that.

MR. MANKIN: Yes, on behalf of the Commission Staff I would like to recommend that it be continued until the regular January hearing rather than the December hearing, for these two reasons: First, that there is a survey, a bottomhole pressure survey being conducted at the present time on which the report is due the 15th of this month, and therefore we need the analysis from the particular survey to analyze the problems we have at hand in the whole Blinebry situation.

Secondly, the Commission has issued a memorandum for a gas liquid survey for the Tubb formation to be conducted from November 5th to December 15, and to be reported to the Commission by December 25. We feel that that particular survey, due to the amount of oil wells now being completed and due to the amount of liquid being produced with the gas wells in the Tubb formation, is a pertinent factor and possibly it should be a subject of the hearing if possible, at the January hearing, to put on certain rules for the Tubb Pool and the Tubb and Blinebry overlying each other the problems are similar. It is my recommendation that they be heard together at the January hearing rather than the December hearing.

MR. PORTER: Do we have any objections or any comments concerning Mr. Mankin's motion for the continuation of this case until January? There being no objection, the case will be continued to the regular hearing date in January.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript 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 22nd day of November, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
Notary Public

My commission expires:

June 19, 1959.