

Casa No.

1360

Application, Transcript,
Small Exhibits, Etc.

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 7, 1958

IN THE MATTER OF: Cases Nos. 1360, 1361, 1362 - Consolidated

TRANSCRIPT OF PROCEEDINGS

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

EXAMINER HEARING
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 7, 1958

IN THE MATTER OF:

Application of Gulf Oil Corporation for an order
suspending the cancellation of underage accrued
to eight gas wells in the Eumont, Jalmat, Tubb
and Blinebry Gas Pools, Lea County, New Mexico.
Applicant, in the above-styled cause, seeks an
order suspending the cancellation on January 1,
1958, of the underage accrued to the following
gas wells in the Eumont, Jalmat, Tubb, and
Blinebry Gas Pools:

Case 1360

Eumont Pool

Bell-Ramsay St. "C" No. 1, NW/4 SE/4
Section 34, Township 20 South, Range 37
East

Jalmat Pool

Arnott-Ramsay "E" No. 2, SW/4 SE/4 Section
16, Township 25 South, Range 37 East

Arnott-Ramsay "E" No. 5, SW/4 NW/4 Section
16, Township 25 South, Range 37 East

J. R. Holt "A" No. 2, SE/4 SW/4 Section 16,
Township 24 South, Range 37 East

Tubb Pool

Hugh No. 7, NE/4 NW/4 Section 14, Township
22 South, Range 37 East

Harry Leonard "E" No. 4, NE/4 NE/4 Section
16, Township 21 South, Range 37 East

Blinebry Pool

J. N. Carson "A" No. 4, SW/4 SE/4 Section
28, Township 21 South, Range 37 East

H. Leonard "E" No. 4, NE/4 NE/4 Section 16,
Township 21 South, Range 37 East

all in Lea County, New Mexico.

IN THE MATTER OF:

Application of the Texas Company for an order
suspending the cancellation of underage accrued
to two gas wells in the Eumont Gas Pool and Jalmat
Gas Pool, Lea County, New Mexico. Applicant, in
the above-styled cause, seeks an order suspending
the cancellation on January 1, 1958, of the under-
age accrued to the following gas wells in the
Eumont and Jalmat Gas Pools:

Case 1361

Texas Company Riddel Well No. 2, NE/4 NE/4
Section 12, Township 21 South, Range 36 East;

Texas Company State of New Mexico "B" (NCT-2)
Well No. 3, NW/4 NW/4 Section 16, Township 23
South, Range 36 East;

all in Lea County, New Mexico.

IN THE MATTER OF:

Application of Schermerhorn Oil Corporation for an
order suspending the cancellation of underage
accrued to one well in the Eumont Gas Pool, Lea
County, New Mexico. Applicant, in the above-styled
cause, seeks an order suspending the cancellation
on January 1, 1958, of the underage accrued to the
following named gas well in the Eumont Gas Pool:

Case 1362

Schermerhorn Oil Corporation Gulf-State
No. 1 Well, SE/4 SW/4 Section 31, Township
18 South, Range 37 East,

Lea County, New Mexico.

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. NUTTER: We will call up next Case 1360.

MR. COOLEY: Case 1360: Application of Gulf Oil Corporation for an order suspending the cancellation of underage accrued to eight gas wells in the Eumont, Jalmat, Tubb, and Blinebry Gas Pools, Lea County, New Mexico.

MR. KASTLER: If the Commission please, I am Bill Kastler representing Gulf Oil Corporation, and I would like to state that we at this time request that three of the wells concerned or contained in this application dated November 20, 1957, be stricken from consideration in this case. Those three wells are: No. 1, Hugh No. 7, located in the northeast quarter northwest quarter of Section 14, Township 22 South, Range 37 East, which was in balance at the end of December, 1957, therefore out of the purview of this case. No. 2, Harry Leonard "E" No. 4, Northeast northeast of Section 16, Township 21 South, Range 37 East, which was in balance at the end of November of 1957.

MR. COOLEY: Is that in the Tubb or Blinebry?

MR. KASTLER: Those two wells are both in the Tubb, and this is the portion of the Harry Leonard No. 4 in the Tubb Pool. The third well which we would like to have stricken is the J. N. Carson "A" No. 4, southwest quarter southeast quarter, Section 28, Township 21 South, Range 37 East. We want this stricken because of a relatively unsatisfactory workover. We don't believe that it is a clear enough case to present at this hearing at this time.

MR. NUTTER: Is there objection to the amendment of the application to omit these three wells from the scope of the hearing? If not, they will be omitted.

MR. KASTLER: I have as Gulf Oil Corporation's witness this afternoon Mr. John H. Hoover from Roswell, New Mexico.

(Witness sworn.)

JOHN H. HOOVER

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

DIRECT EXAMINATION

By MR. KASTLER:

Q Will you please state your name and who you are employed by, and your position?

A My name is John H. Hoover, employed by Gulf Oil Corporation, Roswell, New Mexico.

Q Mr. Hoover, have you previously testified as an expert and testified before the New Mexico Oil Conservation Commission?

A No, I haven't.

Q Where did you receive your formal education?

A I received a B. S. degree in Natural Gas Engineering from the University of Oklahoma in January of 1941.

Q Has all or substantially all of your professional experience been in the field of natural gas work?

A All of it.

Q Would you please trace your experience since graduating in

1941?

A After graduating in 1941 and spending five years in the service, I went to work for Gulf in February of 1946 in the Gas and Gasoline Department. I came to New Mexico in May of 1949 still in the Gas and Gasoline Department, and have served in that capacity ever since as Gasoline Plant Engineer, Gasoline Plant Superintendent, and present District Gas Engineer.

Q At which Gasoline Plant were you the engineer?

A At our Eunice Gasoline Plant at Eunice, New Mexico.

MR. KASTLER: Mr. Nutter, I submit that he is qualified.

MR. NUTTER: Mr. Hoover is qualified as an expert.

Q Mr. Hoover, are you familiar with all of the wells now concerned in Gulf Oil Corporations' application in Case No. 1360?

A Yes, I am.

Q Are all of those wells at present underproduced?

A All --

Q I meant to phrase it differently. Have they produced their full allowable as of the end of 1957?

A All of the wells are underproduced, with the exception of the ones which we asked to be stricken from the application. The others are underproduced.

Q Are all of those wells connected to Permian Basin Pipe Line Company?

A Yes, they are.

Q Would you please outline the reasons for bring the application

dated November 20, 1957?

A During the past several months, Permian Basin Pipe Line Company has been unable to produce the full allowable, due to the fact that the market, the development of gas had exceeded the rate at which it had been expected, and the facilities for processing the gas weren't adequate to handle the gas. Those conditions have since changed.

Q Have you prepared exhibits for introduction in this afternoon's testimony?

A Yes, I have.

Q Would you briefly describe the nature of your exhibits for this hearing? Do you have an exhibit for each well, showing a plat?

A Yes, there is an exhibit for each well, and on each well there will be an exhibit, a plat showing the location of the well. There will be a recent well test which we have elected to report on the New Mexico Oil Conservation Commission Form C-122-C, which is a one point back pressure test. It gives the pertinent information and --

Q (Interrupting) That recent test was made for the purpose of this hearing?

A It was.

Q To determine the rate of flow?

A Yes.

Q And what is the third part of each exhibit for each well?

A We have tabulated the production or underproduction, as the

case may be, for each well, and we attempt to show there how the wells got into the position they are in and we are listing the accumulated underproduction, the production by month, and the current allowable, which we have taken from the gas proration schedule; and then to correlate that, we are listing a column showing the days the well was operated for that month, which is from our own records.

(Gulf's Exhibit No. 1-A
marked for identification.)

Q Mr. Hoover, I call your attention to exhibit labeled and marked Exhibit 1-A. I believe that is entitled Bell-Ramsay St. "C" No. 1, and it is a plat. Would you please explain where the well is located.

A This well is located 1650 feet from the south line and 2310 feet from the east line of Section 34, Township 20 South, Range 37 East, Lea County, New Mexico.

It also shows the acreage assigned to this well for a 400 acre gas proration unit. It is described as the northwest quarter and the south half of Section 34. This well was completed as a single zone gas well on June 25, 1954, after a fracture treatment. On fifteen minute O.C.C. test ending 10:00 A.M. on June 25, 1954, the well flowed at a maximum rate of 6,000 MCF with a hundred pound back pressure.

(Gulf's Exhibit No. 1-B
marked for identification.)

Q Now, Mr. Hoover, I wish to call your attention to Exhibit

9

marked 1-B which shows the results of a recent test. Would you explain how the test was made and what those results are?

A This test was made to determine the producing capacity of the well into the purchasers' pipe line, and the test is made during the period November 25 to December 4, 1957. This test shows that the well is capable of producing 1,505 MCF per day into their pipe line.

(Gulf's Exhibit No. 1-C
marked for identification.)

Q I now call your attention to Exhibit marked Exhibit 1-C. Would you please, referring to this, explain what is shown and what conclusions you can make from that?

A This shows the status of the underproduction, starting with September, 1955, and going up through November of 1957. It shows the accumulated underproduction by months; the days the well was operated during that month; what the production was; and what the current allowable was. I would like to point out that as of the end of September, 1956, that this well had accumulated an underproduction of 139,301 MCF, and it will be noted that during that period, under the days operated column, that at no time was the well produced a full monthly allowable or full monthly time.

Q What happened subsequent to September, 1956?

A It will be noted that the well was shut-in in September of 1956 until in February of 1957. It will be noted that the underproduction had accumulated to a total of now 295,098 MCF.

Q Mr. Hoover, can you state the reason for that shut-in for such a long period?

A This is a unit in which Gulf and Pan American pooled their acreage. Due to a misunderstanding in the payment of royalty, the well was shut-in until this agreement was approved and was finalized. The agreement was approved by the Land Commissioner on December 10th, 1956, retroactive to November the 1st of 1955.

Q Would that account for, that retroactive approval account for an even greater underproduction than would otherwise have been evident?

A Yes, it would.

Q During the year of 1957, or the remainder of the year after the approval of the agreement, has the well shown its tendency to reduce its underproduction?

A Yes, it has. It will be noted, starting with March of 1957, from then on, that the well was produced a minimum of 29 days for the month and has averaged full production for the month, and that underproduction has been reduced from 295,098 MCF to 84,716 MCF as of the end of November.

Q Is it your opinion that if the relief applied for were granted, that this well would produce all of the underproduced allowable by the end of the next six months?

A Yes.

Q In addition to its current allowable for each of these six months?

A Yes.

(Gulf's Exhibit No. 2-A
marked for identification.)

Q Now I call your attention to the second well on our application, an Exhibit you have labeled Exhibit 2-A, a plat showing the location of Arnott-Ramsay "E" No. 2 well. Would you describe the location and the unit served by that well, please?

A This well is located 660 feet from the south line, 1980 feet from the east line of Section 16, Township 25 South, Range 37 East, Lea County, New Mexico. It also shows the acreage which is attributed to this well, being a 280-acre unit. This acreage is described -- I might mention that the acreage is outlined cross-hatched. The acreage is described as the southeast quarter, the east half of the southwest quarter, and the northwest quarter of the southwest quarter of Section 16.

Q In 25 South, 37 East?

A Yes. This well was completed February 1st, 1940, as a single zone gas well, and it is our understanding that a compressor had been set to serve this well.

(Gulf's Exhibit No. 2-B
marked for identification.)

Q I now call your attention to Exhibit 2-B. Would you please explain the results of the recent test performed on this well?

A This test was made between the dates of December 2nd and December 4th, 1957, and it was made to determine the producing capacity of this well when the line pressure was lowered by virtue

of the compressors which we are informed have been installed. It shows that the well is capable of producing 3,337 MCF per day against a pressure of approximately 92.2 pounds per square inch absolute. This pressure is approximately the gathering system pressure as planned.

(Gulf's Exhibit No. 2-C
marked for identification.)

Q I now direct your attention to Exhibit 2-C. Would you please explain what can be seen on there?

A This tabulation, like the one previously mentioned, shows the status of the underproduction, days operated, the actual production, and the current allowable. You will notice here that this well is considerably underproduced, being 272,857 MCF as of the end of November. However, I would like to point out that for the period of September, '55, through November of 1956, which is a fifteen-month period, that the underproduction increased 190,494 MCF, and it will be noted that the well was not produced a full monthly time on the average through that period. From the period December, '56, through November, '57, which you will note that the well is now being operated a full time during the month, that the underproduction has only increased 23,937 MCF for this twelve months period.

Q Mr. Hoover, at any time, as shown on this exhibit 2-C, was this well attached to a compressor?

A No, it wasn't.

Q And you believe it is now attached to a compressor, you have testified to that?

A That is my understanding.

Q Is it your opinion that this well is now capable of producing the underproduced amount, in addition to its current allowable over the next six months if this relief were granted?

A Yes, it is my opinion.

(Gulf's Exhibit No. 3-A
marked for identification.)

Q I next call your attention to Arnott-Ramsay "E" No. 5, Exhibit No. 3-A. Would you please locate the well and state the completion history?

A This well is located 560 feet from the west line, and 1980 feet from the north line of Section 16, Township 25 South, Range 37 East, Lea County, New Mexico. It also shows the acreage assigned to this well, and it is a 280-acre gas proration unit. It is described as the northwest quarter, the east half of the northeast quarter, the southeast quarter of the northeast quarter of this Section 16. The well was originally completed in the Langley-Mattix Oil Pool on February 1, 1940; recompleted as a single zone gas well on October 8, 1955. On 15 minute O.C.C. test ending 2:15 P.M. October 8, 1955, flowed at a maximum rate of 4,875 MCF, with three hundred pounds back pressure.

Q Is this well attached to a compressor at this time?

A It is my understanding that it has been.

(Gulf's Exhibit No. 3-B
marked for identification.)

Q Will you now refer to Exhibit 3-B and recount the results of a recent test?

A This test was made during the period December 2nd to December 4th, 1957, to determine the producing capacity of this well at a lower gathering system pressure, which would be accomplished by the installation of compressors. This well will produce 2,190 MCF a day with a tubing pressure of 371.2 pounds per square inch absolute.

Q That test also simulated conditions of having a compressor?

A Yes.

(Gulf's Exhibit No. 3-C
marked for identification.)

Q Now, referring to Exhibit 3-C, would you state what your findings are, and your conclusions?

A Here again we have listed the underproduction, the days operated, the production by months, and the current allowable. It will be noted that as of the end of May that this well, May of 1957, that this well had reduced its underproduction to 9,500 MCF. However, at the end of June, which is the period that we're concerned with on this balancing period, that the underproduction had increased to 25,633 MCF and the well was only operated six days. In July of '57, by operating the well 28 days, the underproduction had been reduced to 4,954 MCF, and it has increased since that time.

Q Is it your opinion that this well, if allowed to produce

its unproduced gas, would produce that as well as its current allowable over the next six months?

A Yes, it would.

(Gulf's Exhibit No. 4-A
marked for identification.)

Q I wish to direct your attention now to Exhibit 4-A, which is marked J. R. Holt "A" No. 2. It is also another well in the Jalmat Pool. Would you state the location of the well, the unit, and the history of the well?

A This well is located 660 feet from the south line and 1980 feet from the west line of Section 16, Township 24 South, Range 37 East, Lea County, New Mexico. It has 280 acres assigned to it, which is described as the southwest quarter, the west half of the southeast quarter, and the southeast quarter of the northeast quarter of this Section 16.

MR. NUTTER: I think that should be the southwest of the northeast.

A Southwest of the northeast, yes, sir. This well was originally completed in the Langley-Mattix Oil Pool on April 4, 1940; recompleted as a Langley-Mattix Oil-Jalmat Gas dual after fracture treatment on January 19, 1956; on 15 minute O.C.C. test ending 4:00 P.M. October 2, 1955, it flowed at a maximum rate of 3,970 MCF with 320 pounds back pressure.

(Gulf's Exhibit No. 4-B
marked for identification.)

Q I now direct your attention to Exhibit 4-B. Will you please

state the results of the test?

A This test was made to simulate the conditions of the lower gathering system pressure which would result from the installation of compressors, and the well was tested to atmosphere and it was made between the dates of December 2 to December 9, 1957. It shows that the well is capable of producing 2,409 MCF per day with a casing pressure of 141.9 pounds per square inch absolute.

(Gulf's Exhibit No. 4-C
marked for identification.)

Q I now direct your attention to an exhibit marked 4-C. Will you please relate what your findings are on that and what your opinion is?

A This tabulations shows that the well, the underproduction had gone up as high as 96,716 MCF, as of the end of April, 1956. As of the end of May of 1957, it had been reduced to 17,435 MCF. As of the end of June it had increased to 21,057 MCF, and it will be noted that in July of 1957 that the well was not produced at all, this being a matter of pipe line requirements or pipe line prorating. It is not the fault of the well. It further shows that the well decreased its underproduction as late as October of 1957.

Q Mr. Hoover, in this and in all other previous exhibits, can you show generally that up until the end of November of 1956 the days of production of these wells was somewhat uneven and less than the full months?

A Yes, it was.

Q And generally since that time it has been greater?

A Yes, with the exception of July of '57 which was not produced at all.

Q In your opinion would this J. R. Holt "A" well No. 2 produce the unproduced amount of gas if that were carried over into 1958?

A Yes, it would.

(Gulf's Exhibits No. 5-A, 5-B & 5-C marked for identification.)

Q I next direct you to exhibit marked 5-A, Harry Leonard "E" No. 4 well in the Blinebry Pool. Would you state the same general data in regard to this well?

A This well is located 660 feet from the north line and from the east line of Section 16, Township 21 South, Range 37 East, Lea County, New Mexico. It also shows the 160 acres which is attributed to this well, being the northeast quarter of this Section 16. The well was originally completed in the Drinkard oil pay on November 22, 1948, recompleted as a Blinebry-Tubb gas-gas dual on March 20, 1954. On 15 minute O.C.C. test ending 11:15 A.M. March 20, 1954, flowed at a maximum rate of 2,080 MCF through seven inch casing annulus with 1175 pounds back pressure.

Q Referring now to Exhibit marked 5-B, would you state what the results of a recent test have been and when that test was taken?

A This test was made with the well producing into the purchaser's pipe line between the dates of November 25th to December 5 of 1957. It shows that the well is capable of producing 785 MCF per day

against a line pressure of 588.4 pounds per square inch absolute.

Q Referring now to Exhibit marked 5-C, will you state what is disclosed on there?

A It will be noted that the underproduction went up and down depending on the days the well operated. However, getting down to the period of June, 1957, it shows that the underproduction had been reduced to 8,090 MCF per day. Then it will be noted that the underproduction increased until the end of October of 1957 when it had reached a figure of 47,767 MCF, but has been reduced in November to 44,067.

Q Do you know what caused the increase in the unproduced allowable beginning July of '57?

A It will be noted from the days operated that in July it only produced nine days; August, twelve days; September, zero; in October, ten days. This was a period in which we experienced trouble with being able to dispose of the condensate, due to Magnolia's pipe line prorating. It was shut in the entire month of September due to full storage.

Q Mr. Hoover, in your opinion would this well, the Harry Leonard "E" No. 4 in the Blinbry Pool, produce its unproduced gas if that amount were carried over into the first half of 1958?

A Yes, it would.

Q Have all of these exhibits and the parts A, B, & C of Exhibits 1, 2, 3, 4, and 5 been prepared by you or at your direction?

A Yes, they have.

MR. KASTLER: Mr. Nutter, I would request that these be admitted into evidence in this case.

MR. NUTTER: Without objection, Gulf's Exhibits 1 through 5 will be admitted in evidence.

MR. KASTLER: Parts A, B, and C.

MR. NUTTER: A, B, and C of each of those exhibits.

Q Mr. Hoover, do you believe that the granting of this application would afford protection of correlative rights?

A Yes.

Q Do you believe that granting this application would result in any waste of gas?

A In my opinion it would not result in waste.

MR. KASTLER: Those are the only questions I now have on direct examination.

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

MR. CAMPBELL: I do.

MR. NUTTER: Mr. Campbell.

MR. CAMPBELL: Jack M. Campbell, Campbell and Russell, Roswell, New Mexico, appearing on behalf of Texas Pacific Coal and Oil Company.

CROSS EXAMINATION

By MR. CAMPBELL:

Q Is the sole basis of your request, Mr. Hoover, the lack of market outlet for the gas from the wells you seek relief on here?

A In some of the cases it was, I believe on the last case.

Q Let's refer particularly to the wells in the Jalmat Gas Pool.

A Yes.

Q I noted that on at least one or two of those, you indicated that compressors had recently been installed?

A Yes.

Q Is that true on all three of those wells?

A That is what we are informed.

Q Then how can you be certain that the reason for the deficiency or the underproduction from those wells was due to lack of market, rather than the inability of the wells to buck the line, or are you sure of that?

A Well, I think from our tabulation -- did you have one particular one in mind? I think on the one --

Q Let's take the Arnott-Ramsay "E" well No. 2.

A All right. I believe in my testimony, during the fifteen months' period in which the well was not produced a full thirty or thirty-one days a month, that the underproduction had increased some 190,000 MCF, and that the following twelve months' period, which was the start of essentially full monthly production, the underproduction had only increased 23,000. What we're saying on this, that this high underproduction is due in part to the lack of full monthly production back during this period in September of '55 through November, '56.

Q The installation of the compressors would indicate that it may also be due in part to the inability of the well to buck the line?

A That's right, and the test that we made indicates that the well has a shut-in pressure of only 539.5 pounds per square inch absolute, and we're trying to produce into a line pressure of approximately 500 pounds.

Q Are you aware of whether there are other wells in the Jalmat Gas Pool that have accumulated underproduction under the same circumstances, inability to buck the line?

A It is my understanding that there are several.

Q Have you made any study to determine the extent of that as to how much underproduction might be involved, if underproduction based on inability to buck the line pressure were maintained and authorized after the end of 1957?

A On the outside companies?

Q Other wells.

A No, I haven't. I have only been concerned with our own.

Q With regard to that particular well that we mentioned, I believe that you used a figure commencing in September of 1955?

A Yes.

Q That was the time, wasn't it, at which you increased that size of that unit?

A Yes, that is correct.

Q And since the time the size of that unit was increased, that well has been consistently underproduced, has it not, except for a few months in the first part of 1957?

A Yes.

Q Prior to that time, the well had been rather consistently overproduced, had it not?

A I don't have the figures prior to that time.

Q Prior to that time. Are the wells that you have included in your application here, and again with particular reference to the Jalmat Gas Pool, all of the wells that Gulf has that were underproduced on June 30, 1957?

A No, no, they are not.

Q How did you happen to select these particular wells?

A We selected the wells in which we felt that they were capable of reducing their underproduction by virtue of setting the compressor, or in some cases there, that they were not produced for no reason of the fault of the well.

Q Do you feel that any of the other wells that may be underproduced are perhaps marginal wells that have not been classified as such, or have you studied it on that basis?

A Yes. You are speaking of our wells?

Q Yes.

A We have one well which has accumulated considerable underproduction, in which it is, we think, a marginal well; however, it does not fall under the classification of a marginal well, since it will produce its allowable four to five months out of the year, but that is not one of the wells in this case.

MR. CAMPBELL: I think that is all.

MR. NUTTER: Any further questions of Mr. Hoover? Mr. Cooley.

By MR. COOLEY:

Q Mr. Hoover, have all the wells that are the subject of this hearing been underproduced since the institution of prorationing on January 1, 1954, continuously underproduced?

A Yes. Well, now, since what date was that?

Q I said January 1, 1954. Your records go back only to December of '54. Prorationing was instituted January 1, 1954.

A No, sir, I don't believe that I can, you might notice there on the Harry Leonard No. 4 in the Blinbry, which shows it has an overproduction as late as July '55.

Q As late as July, '55?

A Yes.

Q All the rest of the wells have been continuously underproduced since the institution of prorationing, except the Harry Leonard "E" No. 4, since August of '55?

A I can't answer that question on all those wells.

Q At least since December of --

A (Interrupting) All these others that I have here, since December of '55 have been underproduced, with the exception of the Harry Leonard "E" No. 4 in the Blinbry.

Q Now, Mr. Hoover, are you aware of whether or not there has ever been a cancellation of underproduction in any southeast New Mexico gas pools?

A As far as I know, there has not been.

Q That's since January 1, 1954, there has been no cancellation

whatsoever?

A That's my understanding.

Q You are aware that Order 520 and the other orders affecting the other pools here call for cancellation every six months?

A Yes, sir.

Q And that those orders have been successfully suspended throughout the life of prorationing in that area?

A Yes.

Q To what do you attribute, measurably speaking, the large amount of underproduction that has accrued to all of these wells, lack of market or lack of ability to produce?

A I think that the majority of it was lack of market and facilities to process the gas.

Q Now, at least on the three of the wells in the Jalmat Pool, there must have been some concern over ability to produce against line pressures, otherwise the compressors would not have been put on the wells, would they?

A That is correct.

Q So at least for those three wells there is some question concerning their ability to produce during that period, against the line pressure?

A Yes. We're saying on the Arnott-Ramsay "E" No. 2 and 5 that they definitely need the service of a compressor.

Q What about the J. R. Holt No. 2?

A I believe it does need it, but that it is not as imperative

as on the other two, since we indicated that it was capable of producing its underproduction one month there during the normal period of, of higher than normal allowables, but I believe on the long pull that it will be benefited by the compressor service. It will be able to keep current.

Q Aside from the necessity of compressor service, the only other fact would be the inability of Permian Pipe Line Corporation to take your gas, is that correct, provide a market for your gas?

A Yes, except that on the first well that we discussed, which we ran into trouble with the approval of the communitization agreement in which it was not Permian's fault.

Q That is true.

A But part of the underproduction was their inability to market all the gas available.

Q Now what factors make you believe that there is now a market for the gas? I am assuming that all of these five wells can produce their allowables, you still can't make up this underage unless Permian can buy your gas, is that not correct?

A That is correct.

Q The situation has been continuous underproduction for a long and extended period of time up to date. You have answered with respect to each of these five wells, you feel that if the underage is carried over for another six months they can make it up?

A Yes.

Q What change has occurred in the marketing conditions that

makes you believe that Permian can now buy the gas?

A I think it is evident from all of our wells that are connected to Permian Basin that their ability to take the allowable has changed since the end of July of 1957.

Q Ability to take the allowable is one thing --

A (Interrupting) And to reduce the underproduction.

Q Since what day did you say?

A July of 1957 is the time that we noticed the particular change, and I believe that was the date in which they had worked out their agreement.

Q Taking the well, the Harry Leonard "E" No. 4, it doesn't show much improvement?

A No, sir, and that was for reasons other than the pipe lines ability to take the gas.

Q Purchaser prorationing by Magnolia?

A Yes, being able to move the condensate which has since been changed, and I believe it is reflected in the number of days that that well operated during, say, November of '57.

Q Moving on then to the other four wells, I believe they are rather similar, aren't they? They all have pretty continuous underproduction since that date?

A Yes, with the exception of this Harry Leonard "E" No. 4, is that what you are speaking of.

Q With the exception of the Harry Leonard "E" No. 4, you had pretty continuous takes on all of the wells?

A Yes, sir.

Q At least since July. During that period since July, you have failed to reduce the underage on practically every well, haven't you, the present underage is greater than it was in July? That is the case on Bell-Ramsay St. "C" No. 1, it is greater than it was in July?

A Bell-Ramsay St. "C" No. 1, yes, it is. I would like to point out one thing there. It will be noted that the current allowable for the month of November of '57 was higher than at any time since we have tabulated here, which is September, '55.

Q This is evidence that they can't even take the allowable, let alone reduce underage?

A Well, I think it is evident from our test that it will produce the average allowable.

Q No, I'm not talking about producibility, I am talking about marketability.

A Well, I think that they would have taken it in the case of those Jalmat wells if the compressors had been installed earlier, that those wells would have been able to show a marked reduction in the underproduction.

Q With the record of continuous underproduction such as you have on these three Jalmat wells which you mentioned, why was the decision to install compressors so belated? Do you have knowledge of that?

A No, I do not.

MR. COOLEY: That's all the questions I have. Thank you, Mr. Hoover.

By MR. NUTTER:

Q Mr. Hoover, referring to your Exhibit No. 1-C, I think that this well was shut in for a period of six months less sixteen days--

A Yes, sir.

Q -- at one time? Now when did you say that that unit or communitization was approved?

A It was approved by the Land Commissioner December 10th, 1936.

Q Was that the final approval that you needed for that unit?

A Yes, sir.

Q That made an official unit out of it?

A That straightened out our problem of distribution of royalty, his approval.

Q In other words, you had twenty-one days there in December, you had all of the month of January, and you had twenty days in February?

A Yes, sir.

Q After the unit was approved?

A Yes.

Q But you didn't produce the well?

A That's right.

Q So that would be two and two-thirds, two and a half months of production that wasn't produced?

A Yes, sir.

Q Or allowable that wasn't produced. Why was that not taken care of?

A That was just a period of time in there from getting the information that it had been approved to the field to open the well up.

Q Well, that amount of allowable that wasn't produced during that two and a half months after you had the unit approved is just about equal to the underproduction that you have got on the well now, isn't it?

A Yes, sir, it is roughly so.

Q If you had gone ahead and produced your well during that period after the unit was approved, you wouldn't have this amount of underage that you have accrued to the well right now?

A That is correct. If we hadn't had to shut the well in at all, the well would have been overproduced or would have been in balance by the start of this proration period, too. It's one of those things that was not the fault of the well, of its ability to produce.

Q It was just an oversight in not producing the well for two and a half months?

A Yes, sir.

Q On your Exhibit No. 2-C, I note that from December, 1956, through November, 1957, which is a period of twelve months, there have only been five days that the well was not produced. The underage has increased during that time 15,000 MCF.

A Which period was that?

Q On Exhibit 2-C.

A Yes.

Q From December of '56 to November of '57.

A Yes.

Q There were five days there that the well was not produced?

A Yes.

Q And the underage increased 15,000 during that period?

A Yes, sir.

Q Why would the underproduction increase that much with just five days shut in?

A I believe that this needs the service of the compressor.

Q Likewise from July, 1957, through November, 1957, which is a period of five months, the well was shut in one day?

A Yes, sir.

Q Being one day in November, and the underproduction increased 53,000. What would be the reason for that?

A Well, I'm not in a position --

Q Is it in need of a compressor?

A It is in need of a compressor, but there might be a variation in pipe line pressures in there that would make a difference. For example, 31 days in August it produced 27 million -- or 27,511 MCF; for 31 days in October 20,028, for the same number of days' operation. It may be that the line pressure would vary, or the way that the well was produced. I cannot say on that, but I go back to my

original testimony that a compressor to serve this well is needed.

Q Excuse me if I missed this, and you already answered the question. Did you state why on Exhibit No. 4-C your well was shut in for the entire month of July, 1957?

A I stated that as far as we knew it was pipe line requirements, prorationing.

Q The gatherer of the liquids was prorating?

A No, the gas purchaser.

Q Had the well shut in?

A Yes.

Q And on your Exhibit 5-C this period throughout the summer months of '57 when the well was shut in was due to pipe line prorationing by the purchaser of the condensate?

A Condensate, yes, sir; and in September where it produced no days, it was shut in for that entire month due to full storage, condensate storage.

Q Did you make any request to the Commission for any sort of relief or anything on that pipe line prorationing?

A Not to the Commission, to Magnolia.

Q Did you plead your case to them?

A Yes, we approached them with the idea that they were prorating production which was not proratable production; in other words, the condensate was not prorated, it was produced incidental with the prorated gas.

Q What did they tell you?

A They finally came back and said that they would, in this case in September, that they would run the condensate. As I recall, they were going to base their runs back on July runs, which they didn't run anything in July which would throw them to run nothing in September. So in October, by the time we were able to alleviate this situation, they said that they would run all the condensate from gas wells. They would not prorate that. But it was not until we had already been hurt.

Q By the time they gave you some relief, several months had gone by?

A Yes, sir.

MR. NUTTER: Anyone have any further questions of Mr. Hoover?

MR. UTZ: Yes, I have.

MR. NUTTER: Mr. Utz.

By MR. UTZ:

Q Mr. Hoover, aside from the Harry Leonard "E" well No. 4, what other wells did you have to curtail production due to Magnolia prorationing?

A That is the only one.

Q That is the only one?

A Yes.

Q How much liquid does that well make?

A On a gas-oil ratio test taken October, 1957, it made 15 barrels of condensate for 1,094 MCF of gas, or a gas-oil ratio of 72,933. Would you like the gravity on that condensate?

Q Yes.

A It has a gravity of 65.8, API gravity corrected.

Q That well would only have to produce three million per day to produce more liquids than a normal unit allowable?

A Yes, sir.

MR. UTZ: That's all.

MR. NUTTER: Any further questions of Mr. Hoover? If not, he may be excused.

(Witness excused.)

MR. NUTTER: Does anyone have anything they wish to offer in this case?

MR. MCCARTHY: Pat McCarthy with Permian Basin Pipeline Company. We had some testimony in support of the application in this case. However, the same testimony will be offered in the next two cases, so we would like to move that the direct testimony in the next two cases be heard first, and then we would like to incorporate it. I'm sure the Applicants would agree to that.

MR. CAMPBELL: I have a witness I would like to put on in this case. I would like to defer putting him on until I have heard the testimony from those in support of the application. I have no objection to them handling this in some manner where that could be worked out. I wouldn't want to put the witness on until I heard what Permian had to say.

MR. COOLEY: Texas Company and Schermerhorn are represented here?

MR. WHITE: Yes. L. C. White, appearing for The Texas Company.

MR. MOORE: Yes.

MR. COOLEY: Your testimony is going to be applicable to all three cases?

MR. MCCARTHY: Yes.

MR. COOLEY: There is no necessity of you hearing their testimony before you put on yours?

MR. MCCARTHY: The way we have it arranged, it would work better.

MR. COOLEY: Why not put on your testimony and incorporate it in the other three cases?

MR. WHITE: We have no objection as far as the Texas Company is concerned to letting the cases be consolidated.

MR. COOLEY: Is Schermerhorn agreeable to that?

MR. MOORE: J. H. Moore from Hobbs. Yes, we would agree with that.

MR. KASTLER: Gulf concurs with that motion.

MR. COOLEY: Let the record show that Cases 1360, 1361, and 1362 have been consolidated for the purposes of hearing only, and three separate cases will be written.

I understand you have no objection to The Texas testimony and Schermerhorn and Permian and yourself?

MR. NUTTER: We will proceed next with Case 1361.

MR. COOLEY: Mr. Wade, are you the only witness?

MR. WADE: Yes.

(Witness sworn.)

HERBERT N. WADE

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

DIRECT EXAMINATION

By MR. WHITE:

Q Mr. Wade, will you state your full name, please?

A Herbert N. Wade.

Q By whom are you employed and in what capacity?

A Texas Company as petroleum engineer.

Q Are you familiar with the Texas Company's operations in the Eumont and Jalmat Gas Pools?

A Yes, sir.

Q Have you had occasion to make a study of the Texas Company's State "B" (NCT-2) Well No. 3 in the Jalmat Pool?

A Yes, sir, I have.

Q Have you made a similar study of the Texas Company's Riddel Well No. 2 in the Eumont Pool?

A I have.

(Texas Company's Exhibit No. 1
marked for identification.)

Q I direct your attention to the Applicant's Exhibit No. 1. Will you state what it is and what it is designed to show?

A Exhibit No. 1 is a plat of the area in the vicinity of Texas Company's State "B" (NCT-2) lease upon which is shown the lease

outlined in yellow. The lease is comprised of the northwest quarter of Section 16, Township 23 South, Range 36 East; the well in question, Well No. 3, is located in the northwest quarter of that quarter section at Position "D". I would like to point out that the plat does not include any oil wells. This is strictly constructed to show the relative locations of gas wells in this vicinity.

Q Before proceeding, Mr. Wade, have you previously testified before the Commission?

A Yes, sir, I have.

MR. WHITE: Are Mr. Wade's qualifications acceptable?

MR. NUTTER: They are.

Q Proceed, please.

A I think that covers it.

Q That covers Exhibit No. 1?

A Covers Exhibit No. 1.

Q In the course of your studies did you make any completion data on this particular well?

A Yes, sir, I have studied the completion information. This well was completed originally as an oil well on July 25, 1943. It was plugged back to its present total depth of 3492 feet and perforated from 3305 to 3417 during remedial operations completed March 25, 1955.

Q Was it completed as a gas well?

A It was completed at this time as a gas well. The perforations were fracked and the well flowed 11,146 MCF per day on test

from the Yates Sand. This well will not enter the pipe line unassisted, and as a result was underproduced 324,578 MCF as of July 1, 1957, and was underproduced 403,854 MCF through November, 1957.

Q Do you have any data sheet showing the allowables and other history of the well?

(Texas Company's Exhibit No. 2
marked for identification.)

A Yes, sir. What has been marked as Exhibit 2 is a data sheet which was prepared to show the monthly and daily allowables in MCF for the subject well during the two-year period from January, 1956 through December of 1957. Also shown on the sheet is the result, or a summary of the result of an open flow potential test dated November 19, 1956, on file with the Commission, from which was calculated an open flow potential for the well of 2,325 MCF per day. By utilizing the information available from that test, I was able to extrapolate along the pressure volume curve and determine that if the pressure had been reduced to 400 pounds per square inch absolute, this well would have been able to produce 1400 MCF per day. In fact, one of the actual measurements, as is also indicated on the data sheet taken during the test, at one of the points on the test indicated that the well was capable of producing 661 MCF per day at 481 pounds per square inch absolute.

These test data indicate that the well, if proper facilities had been supplied, would have been able to produce its allowable.

I think that the test information, since the well has not been produced at all during this period, is still applicable, and I think the well would perform essentially as it did on that November, '56, test. It would be noted that just a reduction of approximately twenty pounds below the approximate line pressure would have allowed this well to produce its allowable on, I believe it was thirteen of the twenty-four months involved in this tabulation.

Q Do you attribute the cumulative underproduction due to the fact that there was no compressor on the pipe line?

A Yes, sir.

Q What are your recommendations to the Commission as a result of these studies, Mr. Wade?

A I recommend that this well be excluded from the cancellation provision of Orders 520 and 836, and given an opportunity to make up its underproduction during a reasonable period of time, probably not to exceed one year. We would have no objection to reviewing this well's -- or the progress on this well at the end of a six months period, if the Commission would so desire.

Q Mr. Wade, what negotiations if any have you had with the Permian Basin Pipe Line in regard to taking up this cumulative underproduction?

A We have had a constant period of negotiations with Permian Basin Pipe Line, commencing as early as January, 1956, as early as February of 19 -- or as late as February, 1957, we were informed by Permian Basin that a study was under way to determine the

feasibility of installing compressor facilities to handle production from this well, and as recently as June of 1957, through a letter to the Commission which is in the Commission's files, Permian Basin indicated that the compressor facilities were to be installed, were on order, and that the underproduction would be reduced from this well as soon as those installations were completed.

Q Has the compressor been installed as yet to your knowledge?

A It is my understanding that it is installed and in operation.

Q Does The Texas Company have any assurance that the underproduction that has been accumulated will be purchased?

(Texas Company's Exhibit No. 3
marked for identification.)

A We have a letter which has been marked as Exhibit 3, dated November 11, 1957, to the Commission, to the attention of Mr. Porter, from Mr. Rex Fowler, Manager of Gas Purchased Operations.

Q Of the Permian Basin?

A Of the Permian Basin Pipe Line Company, that I will read in part. "Permian Basin Pipeline Company is the purchaser of the gas produced from the subject well." Subject well being the State of New Mexico "B" NCT-2 Well No. 3. "Permian informs the Commission that if the subject well is capable of producing in excess of its assigned allowable after the compression facilities referred to in The Texas Company letter are installed, Permian will endeavor to accept deliveries from the subject well in excess of the assigned allowable after January 1, 1958 so that the cumulative underproduction

will be produced."

MR. WHITE: If the Commission please, we have Exhibit 3, the original letter, and assuming it will be admitted at the proper time, we would like to substitute a Verifax copy of the original.

MR. NUTTER: That is acceptable. We can do that right now.

(Texas Company's Exhibit No. 4
marked for identification.)

Q Directing your attention, Mr. Wade, to Texas Company Riddel No. 2 Well, is that portrayed by Exhibit 4, and if so, will you refer to Exhibit 4 and explain it, please?

A Yes, sir. Exhibit 4 is a plat similar to the one prepared for the previous well, which indicates the Texas Company's Roy Riddel lease to be located in portions of Section 12, Township 21 South, Range 36 East, and with specific attention drawn to Well No. 2, the subject well, which is located in the northeast quarter of the northeast quarter of Section 12. The lease is outlined on the plat in yellow and again, the plat does not show any oil wells.

Q Will you give the Commission the benefit of any completion data that you may have on this well?

A Yes, sir. This well was completed June 1, 1955, as a Queen Sand gas producer from an open hole interval of 3530 to 3676 feet. It was fracked and tested at 3,421 MCF per day. During a remedial operation ending March 12, 1957, the well was again fracked, this time with 20,000 gallons of oil and one pound of sand per gallon. Prior to this operation, the well would not flow into the 425 pounds

per square inch line. Ninety days after the operation the well flowed at the rate of 321 MCF per day into this line. This well was underproduced 70,034 MCF as of July 1, 1957, and through November of 1957 was 98,433 MCF underproduced.

(Texas Company's Exhibit No. 5
marked for identification.)

Q I'll have you refer to Exhibit No. 5, and ask you to state what that is and what the purpose of the exhibit is?

A Exhibit No. 5 is a tabulation of monthly and daily allowables in MCF for the Riddel No. 2 for the two-year period from January, 1956, through December, 1957. Also shown on this sheet are the results of two open flow potential tests. The first was taken September 8, 1956, and is on file with the Commission; and it showed a calculated open flow potential of 1,275 MCF per day with one actual measurement during the test at 499 pounds per square inch absolute showing the ability of the well to produce at that pressure of 1,057 MCF per day. Thus during a period of time from, say, January, '56, to December, '57, and probably some period beyond, based on this test it would be my belief that this well, if proper facilities had been available, would have been able to produce all of its allowable.

The second open flow potential test was made by Permian Basin Pipe Line December 18, through 20th of 1957. On this test the calculated open flow potential was 1.720 MCF per day. By utilizing the extrapolation data with a pressure reduction to 450

pounds per square inch absolute. It was determined that the well could have been able to produce at that pressure 940 MCF per day. Thus from the March, 1957, date of fracking to this latest test, based on this test it would be my opinion that the well, with proper compressor facilities or with proper facilities to lower the well-head pressure, could have been able to produce its allowable.

Q Do you have any recommendations to make to the Commission, based upon the studies of this well?

A Yes, sir. I recommend that this well's underproduction not be cancelled as would be required under Order 520 and 836, in order that it can be given an opportunity to produce its underproduction; an extension of the non-cancellation provisions for a reasonable period of time, probably one year, is recommended. We would not object, again in this case, to a review of the progress on this well at the completion of a six month interval.

Q What is the basis for your recommendation that these wells be excluded from the cancellation provisions, and all other wells of The Texas Company be subject to such cancellations?

A I think that the other underproduced wells operated by The Texas Company are in their underproduced condition primarily due to a lack of market. The damage to correlative rights incurred in these wells is offset to a large degree by the fact that most of the wells on Permian's system are in the same condition, and are being treated in a similar manner. Also, these wells are for the most part producing their current allowables, and any cancelled

underproduction will be relatively small. However, the two wells in question are not producing their current allowables, even though they are capable of producing these allowables, and the underproduction to be cancelled is very large.

Q What will be the result with respect to these two wells, if the application is not granted, Mr. Wade?

A If The Texas Company's two wells are not given an opportunity to produce this underproduction, and other wells in the vicinity continue to produce assigned current allowables, it is inevitable that The Texas Company's correlative rights will be jeopardized. The allowable not produced by the company's wells, both of which are capable of producing these allowables with proper facilities, will be reflected by reduced reservoir withdrawals and uncompensated drainage will occur.

Q Mr. Wade, were Exhibits Nos. 1, 2, 3, 4, and 5 prepared by you or under your supervision?

A Yes, sir.

MR. WHITE: At this time we move the admissibility of Exhibits 1 through 5 inclusive.

MR. NUTTER: Without objection, Texas Company's Exhibits 1 through 5 will be received.

MR. WHITE: That concludes our direct examination.

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

MR. CAMPBELL: I do.

MR. NUTTER: Mr. Campbell.

CROSS EXAMINATION

By MR. CAMPBELL:

Q Mr. Wade, as I understand you the Texas Company's position is that the only basis upon which they feel that relief from the cancellation provisions is justified is in a situation where wells have been unable to produce because they have not had proper facilities to produce into the line?

A I think that that is one justification, if the operator has been diligent in trying to get those facilities.

Q You may not be able to answer this question, however, you may be, and I am going to ask you. Do you know whether the contract which The Texas Company has with the Permian Basin Pipe Line Company requires them to reduce their line pressure to receive your gas down to a certain point or not?

A I don't want to get too far into contracts, Mr. Campbell. I think our contract does have that provision. If you have any detailed questions concerning --

Q (Interrupting) No, that is all I'm going to ask you.

A Okay.

Q Am I correct that this well in the Jalmat Gas Pool of yours has not produced a cubic foot of gas for the last 19 months?

A I think that the last time it produced --

Q (Interrupting) You had a small amount of production in June, 1956, and had none since then?

A That's right. That is the last time it produced.

Q The well has been consistently underproduced --

A (Interrupting) Yes, sir.

Q -- since the inception of prorationing, is that correct?

A I'm not sure since the inception.

Q Well, since it started producing in October of 1954?

A I think probably it has.

Q Have you made any study to determine what other wells, other than The Texas Company wells in the Jalmat Gas Pool, might be suffering under the same handicap as your wells in the Jalmat Pool, with regard to being unable to buck the line pressure?

A No, sir, I haven't made any study. I assume that if they had the same extenuating circumstances we did, they would be here.

Q You don't know what percentage of the accumulated underproduction as of June 30, 1957, could reasonably be attributed to wells which were unable to buck the line pressure?

A No, sir, I don't know that.

Q Have you made any study to determine what the status of the offset gas units is; for instance, the Amerada unit, do you know whether it has accumulated underproduction?

A I can look. I have tried to determine. That well again is which one?

Q The Amerada well to the east of your unit in the Jalmat Pool. I think it is on Exhibit No. 1. It appears to be their Amerada JCT.

A JCT No. 1.

Q There are only two wells on the unit, it appears, I don't know which.

A I believe that the JCT No. 1 is underproduced, or was underproduced through November, 66,638 MCF.

Q And No. 2 is likewise underproduced, is it not?

A Yes, sir.

MR. CAMPBELL: I believe that's all.

MR. NUTTER: Any further questions of Mr. Wade?

MR. CODLEY: Yes.

MR. NUTTER: Mr. Cooley.

By MR. CODLEY:

Q Mr. Wade, I'm sure you are aware that our New Mexico Oil Conservation Commission rules and regulations define a marginal well as a well which is not capable of producing its allowable?

A Yes, sir.

Q Now, especially with reference to gas wells, speaking of producibility and deliverability of a well has very little meaning unless you know what pressure you are producing against, is that not true?

A That is true.

Q Then would you say it would be a fair assessment of the definition of a marginal well if it would not produce its allowable against the line pressures into the line in which it is connected?

A I believe also at this time we are determining that a well cannot be classified as a marginal if it produced its allowable

during any one month.

Q This one hasn't produced anything for 19 months?

A You are talking about State "B". However, the reason it was not classified as marginal is because The Texas Company and Permian Basin Pipe Line requested that the Commission not classify it as marginal because compressor facilities were to be installed to allow it to produce.

Q The Commission, I realize that, has deferred classification on this well. If you say the line pressure is not the pressure against which non-marginal may serve a well should be determined, what pressure would it be? If producibility means nothing until you say against what?

A I think that would have to be the basis for it.

Q This well has, the NCT-2 No. 3 has been unable to produce anything against the line pressure?

A Yes, sir, that's right.

Q For the last 19 months?

A That's right.

Q Wouldn't it seem to you then that that well has been in fact marginal during that period?

A It possibly by that strict determination has, but I think that there are extenuating circumstances which would remove it from that category, due to the fact that we had indications that it would not remain in that category very long.

Q Is it not also true that any well that is unable to buck

the line pressure could by the installation of a compressor then be able to produce gas into that system?

A Not necessarily.

Q Wouldn't a great majority of them?

A Probably.

Q And a great majority of the wells under which underage is going to be cancelled as of January 1, 1958?

A That could possibly be, I don't know what the circumstances are surrounding the particular wells in question.

Q Then possibly the only difference between this well and other wells in the Jalmat and Eumont Pool which have evident inability to buck the line pressures in that area, is that in this case your company or Permian Basin Pipe Line, or whoever is putting out the money for it, feels that it is economically justified to install compressors, in this case?

A Essentially that's correct, and also --

Q (Interrupting) Ideally it would be to have a compressor for every well that couldn't buck the line pressure?

A I think each one would have to stand on their own as to whether or not the correlative rights are going to be damaged without it.

Q Any well that fails to produce its allowable that could, by the installation of some facility, be able to produce that, might conceivably be considered as having its correlative rights violated?

A That's right.

Q This situation is not too different from many situations in the pool?

A Except we are bringing it out.

Q That you are prepared to install compressors is the big difference?

A Yes.

Q During the past 19 months, it has been incapable of producing its allowable or any gas?

A Into the line pressure as it existed, yes.

Q Then considering the producing characteristics of these wells, they have had the same opportunity as far as a purchaser is concerned, as far as the Commission is concerned, to produce their allowables, as any other well in these pools, is that not true? If the well just wouldn't produce it, it hasn't been denied the opportunity, it is just the inability of the well?

A We feel like that it's been denied unjustifiably the opportunity to produce its allowable.

Q By whom?

A Not by the Commission.

Q By the purchaser?

A We think that they should have, these compressor facilities should have been installed, and we feel like that we have acted as diligently as possible to see that they were installed.

Q I'm completely ignorant. Is the practice for the purchaser

to pay for and install these compressors?

A I wouldn't say it is the practice. It is in some instances.

Q In this particular instance, is Permian installing the compressor?

A Yes, sir.

Q Is the Riddel No. 2 presently producing any gas?

A Yes, sir.

Q Is it making its allowable now?

A No, sir.

Q How long has it been since it has made its allowable?

A It last made it in July.

Q Of '57?

A Yes, sir.

Q And prior to that, how long -- let's say in the last two years, how many months during the last two years did it make its allowable?

A I think May, June and July.

Q Of 1957?

A Yes, sir.

Q And not at all during 1956?

A I think not.

MR. NUTTER: At this point, Mr. Wade, I wonder, if you don't have the tabulation here with you today, I wonder if you would furnish us a tabulation of each of these wells' production by months from 1955 to date; and also the status of the well at each

one of those months. It is that status as to whether they are overproduced or underproduced, and the number of producing days that the well produced, and also if there were any months that there was an abnormally low production, we would appreciate an explanation of why that production was low during that month.

A All right, sir.

MR. COOLEY: I believe that's all. Thank you, Mr. Wade.

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

MR. WHITE: I have one more.

MR. NUTTER: Mr. White.

REDIRECT EXAMINATION

By MR. WHITE:

Q Mr. Wade, in regard to your State "B" well, had a compressor been installed 19 months ago, is it your opinion that that well would have been capable of meeting its full daily allowable?

A Oh, yes.

Q Is it your opinion that with a compressor installed, that the well can make its current allowable and make up the accumulative underproduction?

A Yes, sir.

Q Is your opinion the same as to the other subject well, the Riddel well?

A Yes, sir.

MR. WHITE: I believe that's all we have.

MR. CAMPBELL: May I ask a question arising out of that?

MR. NUTTER: Mr. Campbell.

RECROSS EXAMINATION

By MR. CAMPBELL:

Q Have you calculated, Mr. Wade, how much production you will have to get from that well next year to make up this accumulated underproduction, plus a normal unit allowable?

A I have made a calculation. Would you like to give me a normal unit allowable?

Q Do you think that probably for the year two hundred, two hundred fifty million is pretty conservative?

A If you will accept the one I have chosen.

Q What is it?

A We're talking about which well now?

Q The Jalmat well.

A I made the calculation in this way. I averaged the allowable, the daily allowable as shown on Exhibit 2 for the two-year period, and I arrived at an average allowable of 630 MCF per day. To that arbitrarily I added a five percent increase in demand, or to come up with a unit allowable of 661 MCF per day. My calculations, utilizing the information on our open flow potential test and extrapolating again on the curve, I arrived at the ability of the well to produce at 100 pounds per square inch gauge pressure of 1870 MCF per day. The underproduction, as of 12-1-57 was 403,854. The allowable for December, 1957, is 21,052. The under-

production as of 1-1-58 will be, or should be 424,906 MCF.

I have subtracted the 661 MCF per day allowable from the 1870 MCF per day capacity, and I have arrived at 1,209 MCF per day producing capacity available for reducing underage. I have divided the 1,209 MCF per day available capacity into the underproduction as of 1-1-58, and I arrived at 352 days.

Q You mean the underproduction as of June 30, 1957, don't you?

A I didn't do it on that basis. I'm trying to reduce all underproduction.

Q Were you seeking here to get relief in advance -- you are calculating that into your next year's production, is that true?

A Yes, sir.

Q Is the total production approximately, on that calculation would run in the vicinity of 650 million, wouldn't it, for the year, approximately?

A I'll accept it.

Q Do you know of any well in the Jalmat Pool that is producing that amount of gas?

A No, sir. I don't know that they aren't.

Q Are you satisfied that this well, based upon its previous production history, can do that?

A I think it can.

Q Without waste?

A Yes, sir.

Q Without abuse of anybody else's correlative rights?

A Yes, sir. I don't see how we can abuse anybody's correlative rights with this well.

MR. CAMPBELL: That's all.

MR. NUTTER: Mr. Wade, your application for both of these wells is for a one-year period of time in which to make --

A (Interrupting) Our application did not indicate an exact period of time.

MR. NUTTER: In your testimony you mentioned a year?

A Yes, sir, I did. The application did not, is what I was going to say. We are asking that this -- I think that the reasonable period of time in which to make up this underproduction will be one year, subject, of course, to review if the Commission would like to at the expiration of six months.

MR. NUTTER: Mr. Kastler here?

MR. KASTLER: Yes.

MR. NUTTER: Did you state in your case, Mr. Kastler, the length of time that you were requesting for an extension of time?

MR. KASTLER: I don't believe we did. We did, it was six months..

MR. NUTTER: Six months?

MR. KASTLER: Yes, sir.

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

(Witness excused.)

Does anyone have anything further they wish to offer in

Case 1361? If not, we will proceed to Case 1362.

MR. MCCARTHY: It is understood that our testimony will go to all three cases.

MR. MOORE: Mr. Examiner, I would like you to swear me as a witness, please.

(Witness sworn.)

J. H. MOORE

a witness, of lawful age, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

MR. NUTTER: State your name and position, please.

A My name is J. H. Moore. I work for Schermerhorn Oil Corporation. I have charge of Lea County, New Mexico.

MR. NUTTER: Speak up as much as you can, Mr. Moore.

A Okay. The application here by Schermerhorn is for one well, that being the Gulf-State No. 1 well, which is located in the southeast southwest of Section 31, Township 18 South, Range 37 East. This well is in the Eumont Field.

MR. NUTTER: Mr. Moore, let me interrupt you at this point. Have you ever testified before this Commission as an expert witness prior to this time?

A Yes, I have.

MR. NUTTER: Were your qualifications accepted?

A Yes, sir, they were.

MR. NUTTER: Your qualifications are acceptable. The witness

may proceed.

A This well was completed as a single unit or single phase gas well on an eighty acre unit. It has been assigned one-half unit allowable since completion. During the past 19 months, it has accumulated, it has an underproduction subject to cancellation of 16 million cubic feet. The well is a non-marginal well. It is capable of producing in excess of its allowable, during several months recently it has produced in excess of the allowable. During three months of the past most recent 19 month period, during three months it had no production at all. In two months it had less than one hundred thousand MCF. I would like to submit Exhibit No. 1, which is a test made on this well.

(Schermerhorn's Exhibit No. 1
marked for identification.)

This is a 168 hour test, which was made December 5th to 12th. This test was made by engineers working for Permian Basin Pipe Line Company. This test shows that at 100 pounds deliverability the flow rate, the deliverability is 584 MCF per day. On a 30-day month, the flow or the deliverability then, at 100 pounds, would be seventeen million five twenty. This well is at the present time, is capable of producing the allowable. It is not capable of making up the back allowable, unless a compressor is installed, and at the time a compressor is installed, it will make about two and a half times the present allowable; so that it should be able to make up the allowable in a short time.

I believe that that's all that I have to offer. That is the Exhibit No. 1 for this case.

MR. NUTTER: Did you have anything further?

A No.

MR. NUTTER: Does anyone have any questions of Mr. Moore?
Mr. Cooley.

CROSS EXAMINATION

By MR. COOLEY:

Q Mr. Moore, you say that the exhibit was not prepared by you or under your supervision?

A The test was made by Permian Basin engineers, and we had a production man witness the test.

Q It is true and correct to the best of your knowledge?

A That is correct.

MR. NUTTER: You are offering this as your exhibit?

A That's right.

MR. NUTTER: Without objection, Schermerhorn's Exhibit No. 1 will be received in evidence. Does anyone have any questions of Mr. Moore? Mr. Campbell.

By MR. CAMPBELL:

Q Your well is in the Eumont Gas Pool?

A Yes.

MR. CAMPBELL: Do I understand that the cases have been consolidated for the purposes of the hearing, and that the testimony will be applicable in all three cases?

MR. NUTTER: Yes.

MR. CAMPBELL: No further questions.

MR. NUTTER: Mr. Cooley.

By MR. COOLEY:

Q In your opinion, Mr. Moore, what is the cause or causes for the present underproduced underage for the subject well?

A I think the fact that for three months during the past 19 there was no production, and two months there was less than 100 MCF for the month, and that is the main reason for the underproduction in this particular well.

Q What period or what proration period was that in?

A For October, 1956, there was no production; November, '56 there was 96 MCF for the month, that was all. In December of '56 there was none. For January, '57 there was no production. For February, '57, I am sorry, that is January, '57, there was no production; for February, '57, there was 63 MCF for the month, that was total. For March the production was 11,928 MCF.

The well, during the past, let's say the four most recent months that we have here, let's say for August, September and October, the well produced approximately the allowable, just a little bit more than the allowable.

Q Well, sir, obviously the cause is not producibility of the well, or deliverability of the well, but rather attributable to some other cause?

A That is correct.

Q Do you know why there were low takes during October, November, December, of '56, and January and February of '57?

A I imagine that it was a market condition, and the Permian Basin elected not to produce the well during those times and expected to make it up at a later date. The well is not capable of making much more than the allowable, so they have not been able to make it up.

Q The deliverability of the well is against the line pressure, it does not have a compressor now?

A It does not.

Q The deliverability of the well against the line pressure is right at allowables?

A That is correct.

Q Consequently it can't make up any?

A That is correct. The Permian Basin plans to install a compressor for the wells in this area.

Q Do you have any assurance from Permian Basin or any other gas purchaser that there will be a market for this gas, this underage?

A Yes, we have had correspondence with Permian Basin Pipe Line Company, and they have indicated that they plan to install compressor facilities for wells in this general vicinity.

Q You misunderstand my question. The compressor would not increase the market. I am speaking about the market for gas which has been the problem concerning or confronting Permian Basin Pipe Line for some time. Do you have any assurance from Permian Basin

that there will be any increased market, or that the situation that occurred in October, November, December, January and February will not reoccur?

A I have had no direct indication of the future market, other than correspondence with Permian Basin Pipe Line indicating, or that they are in agreement with our asking for a non-cancellation of this back allowable. That is the only indication that I have.

MR. COOLEY: Thank you very much.

MR. NUTTER: Mr. Moore, would you furnish us a tabulation of the production each month for this Gulf State Well No. 1 of yours, from January, 1955, to date, together with the number of days per month that the well produced and the current status of the well at the end of each month; and also if there were any low months of production that are obviously out of line with the rest of the months, an explanation of why the takes were low during those months?

A I can say now there was no mechanical cause for them and -- would that be from January --

MR. NUTTER: 1955, to date.

A January, 1955. Yes, I'll furnish you that, to you.

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

(Witness excused.)

Does anyone have any testimony now that they wish to offer in Case 1360 through 1362?

MR. McCARTHY: Yes, sir.

MR. NUTTER: Mr. Moore, for the sake of the record, would you state how long your request is for an extension of time, or how long a period of time you are asking this extension to be granted for?

MR. MOORE: The time would depend on the installation of a compressor, and I understand it would be about three months for that, so I would say a year.

MR. NUTTER: A one-year extension of time. Thank you.

MR. COOLEY: Go ahead and make your appearances.

MR. McCARTHY: Pat McCarthy, Permian Basin Pipe Line Company.

MR. COOLEY: How many witnesses?

MR. McCARTHY: Just Mr. Tribble.

(Witness sworn.)

GASTON L. TRIBBLE,

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

DIRECT EXAMINATION

By MR. McCARTHY:

A Gaston L. Tribble, Omaha, Nebraska.

Q By whom are you employed?

A Northern Natural Gas Company and Permian Basin Pipe Line Company.

Q What is the relationship, if any, between these two companies?

A Northern owns approximately ninety percent of the stock of Permian.

Q How long have you been employed by these companies?

A Since September, 1950.

Q Will you please give a general statement of your educational background?

A I received a Bachelor of Science Degree in Petroleum Engineering from Texas Technological College in 1950.

Q Will you explain generally the nature of your employment for Northern Natural Gas Company and Permian Basin Pipe Line Company?

A The first two years I was employed as a well operator by Northern in the Texas Panhandle Field and the Hugoton Field. After that I was employed by Northern Natural Gas Producing Company, which is a subsidiary of Northern Natural Gas Company, for approximately one year as an oil scout in the Amarillo, Texas, District Office. From September, 1953, to September, 1956, I was employed as Production Engineer for Northern Natural Gas Company and Permian Basin Pipe Line Company in Omaha. Since that time I have been employed as Assistant Manager of Gas Purchased Operations for both companies.

Q Will you describe in a little more detail the duties and responsibilities of your present job?

A My principle duties are the administration of our gas purchase contracts; included within that is the supervision over making nominations to the several State Commissions and the allocation of gas to our various sources of supply and to the individual wells within the sources of supply. The allocations of our gas requirements are made in accordance with contract provisions and State

Rules, Regulations and Orders. In order to make these allocations, a knowledge of the over or under production status of the individual wells and the ability of each to produce is necessary.

Q Are you a member of any professional societies or organizations?

A I am a member of the American Institute of Mining, Metallurgical and Petroleum Engineers, and a member of the Independent Natural Gas Association of America, and the American Gas Association.

Q Have you ever worked on any industrial committee organized either by this Commission or any other State or Federal Commission?

A Yes, I served on an industry committee, appointed by this Commission, to standardize the testing of gas wells in the State of New Mexico. I am now serving on an industry committee, appointed by the Kansas Corporation Commission, to standardize gas well testing in the State of Kansas. I'm also serving on the Engineering Subcommittee of the Interstate Oil Compact Commission to standardize gas well testing in the various states.

MR. MCCARTHY: Are the witness's qualifications satisfactory?

MR. NUTTER: They are. You may proceed.

Q Mr. Tribble, will you give a general statement as to Permian's operations in Lea County, New Mexico?

A Permian Basin Pipe Line Company is engaged in the purchase, gathering, compression, processing, transmission and sale of natural gas. Our gas supply originates in West Texas and Southeast New Mexico. Permian commenced operations in Lea County in late December,

1953, at which time we were connected to approximately 16 wells. Most of the gas that Permian purchases in Lea County is produced from the Eumont, Jalmat, Blinebry and Tubbs Gas Pools. Permian is presently connected to approximately 338 wells, holding 388 proration units located in prorated pools in Lea County. In addition, we are connected to 15 nonprorated wells and two gasoline plants. We purchase gas in New Mexico under the terms of 37 gas purchase contracts covering in excess of 86,000 acres. The recoverable gas reserves covered by those contracts have been estimated at 1.4 trillion cubic feet. Permian's investment in Lea County, New Mexico, in processing, gathering, transmission and related facilities, is in the order of \$19,000,000. During the 12-month period ending November 30, 1957, Permian purchased approximately 60.4 billion cubic feet of gas produced in New Mexico. Permian paid the producers of that gas approximately \$6,000,000.

Q Mr. Tribble, you have stated that Permian commenced operations in Lea County in December of 1953, is that correct?

A Yes, sir.

Q At what time did the Commission order proration into effect in Lea County?

A January 1st, 1954.

Q Will you outline Permian's operation under the Commission's proration rules after January 1, 1954?

A In January, 1954, at the beginning of proration, Permian had 46 wells connected to its system. At the middle of 1955, Permian

was connected to 214 wells. During that 18-month period, Permian was almost continuously overproduced, as our requirements for gas exceeded the allowables assigned.

Q Will you continue on and give the status of wells connected to Permian's system as of June 30, 1956?

A The number of wells connected to Permian's system increased to 283 wells by the end of June, 1956. These wells carried a cumulative net underproduction of approximately 10 billion cubic feet. For this period of time the allowable granted to these wells was substantially in excess of our market requirements.

Q What was the status of the wells connected to Permian's system as of December 31, 1957?

A Permian's connections are carrying approximately 5.4 billion cubic feet of net underproduction. Of this amount, 3.3 billion cubic feet is attributable to wells which are not capable of producing such underage, leaving a balance of only 2.1 billion cubic feet that may be considered producible.

Q How much underproduction attributable to Permian's connections was subject to cancellation on December 31, 1957?

A About 3.7 billion cubic feet, which includes 736 million cubic feet of underproduction involved in these applications.

Q Mr. Tribble, to your knowledge, has this Commission ever ordered cancellation of underproduction, or required overproduced wells to be shut in?

A It is my recollection that early in the history of proration,

the Commission did cancel some underages, but shortly thereafter reinstated them, so in answer to your question, I will say that the end result has been no cancellation of underages to date, and so far as I know, no wells have been ordered shut in. My answer has excluded any reference to marginal wells. Of course, when a well is classified "marginal", whatever underage it was carrying at that time is cancelled.

Q Mr. Tribble, have you prepared a map showing Permian's pipeline, gathering and processing facilities located in Lea County, New Mexico?

A Yes, sir.

(Permian's Exhibit No. 1
marked for identification.)

Q Will you please point out on Exhibit No. 1 the location of Permian's Hobbs Gasoline Plant?

A Yes, sir. It's located in Section 6, Township 19, Range 37, and is shown on this exhibit in green.

Q Has the capacity of the Hobbs Gasoline Plant been increased recently?

A Yes, sir. It was increased from 150 million cubic feet per day to 200 million cubic feet per day of residue gas in April of 1957.

Q What was the approximate cost to Permian of increasing the capacity of the Hobbs Gasoline Plant from 150 million cubic feet per day to 200 million cubic feet per day?

A About \$1,825,000.

Q Has Permian also during the past year been in the process of installing compression facilities in its gathering system in Lea County, New Mexico?

A Yes.

Q Would you please locate those facilities on Exhibit No. 1 which are designed to serve a number of wells, including certain of those involved in these applications?

A For the sake of convenience, we have designated these facilities by blocks, using a letter of the alphabet to differentiate between them. These are shown on Exhibit No. 1 in red. The Block A compression facilities are located in Section 30, Township 21, Range 37. Block B -- the facilities in Block A consist of one unit rated at 440 horsepower. Block B compression facilities are located in Section 19, Township 23, Range 37. The facilities consist of one unit rated at 660 horsepower. Block C compression facilities are located in Section 31, Township 23, Range 37. The facilities consist of one unit rated at 660 horsepower. The Block D compression facilities are located in Section 29, Township 24, Range 37. The facilities consist of one unit rated at 440 horsepower. Block E compression facilities are located in Section 17, Township 25, Range 37. The facilities consist of one unit rated at 330 horsepower. The Block F compression facilities are located in Section 32, Township 25, Range 37. The facilities consist of one unit rated at 330 horsepower. Block G compression facilities are located

in Section 5, Township 19, Range 37. The facilities consist of two units rated at 330 horsepower each.

Q Do you know the approximate cost to Permian of the compression and related facilities which you have located on Exhibit No. 1?

A Approximately \$1,000,000.

Q You have given us the rated horsepower of these compression facilities. What were such facilities designed to do in the way of reducing line pressure?

A These facilities were designed to enable each well to produce its allowable at 100 pounds per square inch wellhead flowing pressure.

Q Will you please give the approximate date on which these new compression facilities either went into operation or will go into operation?

A Block A compressor was completed and went on the line January 2, 1958. The Block B, Block C, and Block D compressors are completed and are scheduled to go on the line today, weather permitting. Block E and F compressors are scheduled for completion January 12, 1958. The delay of these last two compressors was occasioned by the fact that the manufacturer shipped such engines with the wrong size connecting rods and they had to be replaced. Block G compression facilities have been designed and the materials have been ordered. Delivery of the materials is expected about March 1, 1958. The completion of these facilities is scheduled for April 1st.

Q Will you please tell us what preliminary studies and con-

siderations are required before a company can prudently invest in compression facilities for its gathering system?

A First, a reserve study must be made to determine the remaining recoverable gas reserves. The past pressure and production history of the well or wells is reviewed. Then it is determined if the installation of compression facilities is economically feasible by comparing the remaining recoverable reserves and the cost of the facilities.

After it has been determined that compression is feasible, well performance tests must be taken for the purpose of compressor design. These tests indicate what the suction pressure, or pipeline pressure, must be for the well or wells to produce at the allowable rate.

From this information, a compressor unit is designed. Such factors as operating suction and discharge pressures, inlet and outlet gas temperatures, single or multi-stage compressors, and so forth, are also considered.

After the design has been completed, the materials are ordered and a compressor site is leased or purchased. Right-of-way must be optioned for the changes required in the gathering system.

Upon receipt of the materials, the project is constructed. I believe it is evident that considerable time is required to complete such a project.

Q Is it your opinion that under these circumstances, Permian has proceeded with reasonable diligence in installing compression

facilities in its Lea County gathering system?

A Yes, under the circumstances, I believe it has. After having installed three wellhead compressor units in Lea County, we conducted a survey in February, 1957 of the wells connected to the south end of this system where the reservoir pressure is the lowest. It was apparent from this survey that a number of wells scattered over the southern end of our system either required compression at that time or would require compression in the near future. The first three wellhead compressors had cost approximately \$16,000 each to install. It was obvious that we must make a decision whether to install a number of wellhead compressors or locate a larger compressor to serve a number of wells or a "block" of wells. A series of performance tests were taken on all of the wells in question to determine their ability to produce against our present line pressure over an extended period of time. The smaller wells were tested to the atmosphere to determine their ability to produce at lower wellhead pressures. After consideration of the remaining recoverable reserves, comparison of costs of the small compressor units and larger compressor units, and other operating factors, the decision to install "block" type compressors was made.

It requires from 60 to 90 days to receive compressor units after they are ordered. Construction of the compressor units usually require 30 days to complete. Extensive changes in our gathering system were required to connect the groups of wells to the compressor units.

When consideration is given to the amount of work required in studying the reserves, testing the wells, designing the compressor units, redesigning the gathering system, and constructing the compressors and pipeline, I believe Permian has proceeded with reasonable diligence in installing compression facilities in its Lea County gathering system.

Q Will these compression facilities enable Permian to take the underproduction attributable to these wells of Applicants which are capable of producing such underproduction, during the time requested by the Applicants herein?

A Yes, sir.

Q How many wells connected to Permian's system, having underproduction subject to cancellation, are involved in the applications herein?

A Eight wells.

Q In your opinion, are these wells capable of producing their allowable?

A Yes, sir.

Q You have heard the testimony of the operators here today with respect to the deliverability of the wells filed on in these cases. Are you generally in agreement with such testimony concerning the deliverability of these wells?

A Yes, sir.

Q Mr. Tribble, does Permian have a market for the underproduction attributable to the eight wells in these cases?

A Yes, it does.

Q Is Permian willing and able to take the underproduction attributable to the eight wells during the period of time requested by the Applicants herein?

A Yes, sir.

Q In your opinion, should the underproduction on these eight wells be cancelled?

A No, sir.

Q Will you please give your reasons why?

A There are several reasons why I believe the underproduction attributable to these wells should not be cancelled.

First of all, since the wells are capable of producing such underage and Permian is willing and able to take it, all that is required is a little time in which to make it up. And we really are talking about a "little time" when we consider that this field has been producing gas for at least twenty years and will continue to produce for at least that much longer. So it seems to me to be inequitable to deprive these wells of their proper share of production when the rights of everyone can be secured by the Commission granting a short extension of time.

Secondly, the non-cancellation of underage will not be conducive to waste nor will it affect the correlative rights of other producers. The only rights affected by either cancellation or non-cancellation of underages in this case are the rights of the Applicants and Permian. This is an entirely different matter than

the case of shutting in wells for overproduction. In an overproduction situation, a well has withdrawn more than its proportionate share of the gas reserves in the pool, and unless restricted, will deprive another well or wells of such production. In the case of underages, however, the underproduced well has not deprived any other well in securing its fair share of the reserves. On the contrary, the underproduced well may suffer detriment merely by reason of the fact of its underproduction. If, in addition to this, the well's accrued allowable is cancelled, then it seems to me the cancellation is in the nature of a penalty. I think a well should be given every opportunity to produce its fair share of the reserves in the field and that only in extreme cases should cancellation of underproduction be ordered.

Thirdly, underage should not be cancelled solely for the purpose of enforcing the Commission's rules regarding prorating. And it seems to me that is all that would be accomplished by cancelling underages in this case. Where the parties make a good faith, diligent attempt to make up the underproduction, and a proper showing is made, as they have here, and all that is required is a little more time, I believe the Commission should not invoke the cancellation provisions of its Rules, especially where the rights of other parties are not affected. I am not saying that underages should never be cancelled. Certainly there are some situation, as, for example, in the case of marginal wells, where cancellation of underage is proper. But, generally speaking, I think

that underage should be cancelled only in those cases where the wells are incapable of producing it.

Q Do you have before you a copy of the Rules and Regulations of the New Mexico Oil Conservation Commission?

A Yes, sir.

Q Will you please read paragraph (b) of Rule I of such Rules and Regulations?

A "The Commission may grant exceptions to these rules after notice and hearing, when the granting of such exceptions will not result in waste but will protect correlative rights or prevent undue hardship."

Q Mr. Tribble, in your opinion will the granting of the Applications herein result in waste?

A No, the granting of these Applications will do nothing more than permit the wells to produce the allowables previously assigned. The Commission obviously did not think it would cause waste to produce these allowables when they were assigned. It must follow, therefore, that no waste will result from permitting these wells to produce these allowables during the next few months.

Q In your opinion will the granting of the Applications herein protect correlative rights?

A Yes, sir, it will. Correlative rights, if I may paraphrase the statutory definition, means the opportunity afforded to the owner of each property in a pool to produce his fair proportion of the gas in such pool. Full protection of correlative rights requires

that each well produce its allowables, no more - no less. It then follows that if some wells do not produce their allowables while other wells do produce their allowables or more, withdrawals have been disproportionate and correlative rights have been damaged. The Commission's rules restricting overproduction and requiring shut-in of wells do control disproportionate withdrawals and thus protect correlative rights. Cancellation of underage does not control disproportionate withdrawals. In fact, cancellation of underage fosters disproportionate withdrawals in that the underages cancelled is reallocated and may be produced in large part from wells not suffering cancellation. Therefore, in order to fully protect the rights of the parties herein, the applications should be granted.

Q In your opinion will the granting of the Applications herein prevent undue hardship?

A Yes. Unless the applications are granted, the wells involved in these applications will not be permitted to produce allowables previously assigned to them by the Commission. By being denied such production, the owners of such wells will be deprived of a substantial amount of income which they would have otherwise received. The granting of the applications will, therefore, permit the owners of these wells to receive income for gas which the Commission has previously given authority to produce.

Q Is it your recommendation that the applications herein be granted?

A Yes, sir.

MR. McCARTHY: I would like to offer in evidence Permian's Exhibit No. 1.

MR. NUTTER: Without objection the exhibit will be received in evidence.

MR. McCARTHY: That's all we have.

MR. NUTTER: Does anyone have any questions of Mr. Tribble? Mr. Campbell.

CROSS EXAMINATION

By MR. CAMPBELL:

Q Mr. Tribble, when did you construct the Hobbs Gasoline Plant?

A It was completed in about December of 1953.

Q What was its capacity at that time?

A It was 150 million cubic feet per day of residue gas.

Q Did Permian not come to the Commission in, oh, May or June of 1956 and request that the cancellation provisions be waived for that particular period?

A Yes, sir.

Q Were you present when that appearance was made?

A Yes, sir.

Q Was the Commission not then advised that you were in the process of enlarging your available facilities at Hobbs to receive additional gas?

A Yes, sir.

Q Has that just been completed?

A No, sir. I testified that the facilities went into operation in April, 1957.

Q At that time, it is my recollection that Permian advised the Commission that they should have those facilities available by the first of the year of 1957, and that they would be able to pick up the underage immediately thereafter or at that time, is that not correct?

A Yes, sir.

Q You obtained gas from other sources, don't you, other than Lea County?

A Yes, sir, we do.

Q You obtain a considerable amount of gas from West Texas, do you not?

A Yes, sir.

Q You have been increasing your purchases of West Texas gas recently, have you not?

A Yes, sir.

Q How can the Commission be assured that your purchases are going to, in the future, increase for New Mexico gas, when you have other sources to consider?

A Well, I think that it can probably be shown by the fact that we have reduced our underproduction from 10 billion cubic feet to about 5.4 billion, of which some of that is marginal underproduction.

Q Has not also some of that been gas that has been taken by

El Paso Natural Gas Company under your contract with them?

A Yes, sir.

Q Under that contract, the El Paso Natural Gas Company does not take your gas until they have taken what the allowable may be from their own connections, do they?

A I think that's correct.

Q How can you determine, until El Paso's market is established, what you are going to be able to take from your connections in Lea County in the next year?

A Well, it follows that if there is underproduction in the pool, there is overproduction, and the reason that this contract was written between the two companies was the obvious need of El Paso for additional supplies and Permian for additional market.

Q All right. Now you say that where there is underproduction there is overproduction. That is applicable only so long as you make some effort to operate these balancing procedures, is it not?

A Well, that's true any time.

Q So that if you waive the balancing provisions, as we have been doing, that situation becomes aggravated, does it not? The situation of imbalance?

A That is true.

Q Now, you stated that you had made a survey to determine the advisability and feasibility of the installation of compressor facilities in Lea County. In connection with that, you stated that these compressor facilities would serve the wells involved in these

applications, these eight wells, in addition to other wells?

A Yes, sir.

Q Did your survey reveal how many other wells will be relieved on your system by virtue of this arrangement?

A Well, there are approximately, without knowing the exact number, forty on the southern end of the system, plus probably four or five on the northernmost in Block G.

Q Do you know of any situation among those forty wells that causes their position and their rights, as you referred to them, to be any different from the rights of the eight wells involved here? Is there anything different from those other wells?

A No, sir.

Q If the people who have applied here this month are entitled to relief, do you know of any reason why all the others that may be given an access to your lines wouldn't be entitled to the same type of relief if they are underproduced?

A Well, I would like to state that if the underage carried by any well on those blocks is producible, why, we're willing and able to buy it, as far as the other wells that are connected to these compression facilities. In other words, I'm not in favor of making this application all-inclusive. I think that a showing should be made, as I so testified, and demonstrate the ability of the wells to produce the underage. If they can't produce the underage, obviously there is no need to suspend the cancellation provision.

Q It was my understanding that you had made that determination as to these forty wells. You said they weren't any different from the wells that had been testified to?

A There are some wells behind the compression facilities that do not require compression at this time.

Q Do you know how much actual underproduction of gas would be involved if all of the Permian wells that you are talking about got access to a low pressure system? How much underage as of June 30, 1957, would be involved in that?

A In these block compressions?

Q Involved in the wells that would obtain relief by virtue of the compressor, that were underproduced as of June 30, 1957?

A I wouldn't, I only know about the ones that have been applied for here and have so shown the ability to produce the underage.

Q You stated that you, in connection with your work, negotiate or arrange for contracts of purchase for Permian, is that correct?

A No, sir, I do not.

Q You made some --

A (Interrupting) I administer the gas purchase contracts. I do not write them.

Q You are familiar with the general terms and provisions of the gas purchase contracts?

A Yes, sir.

Q Do the Permian Basin contracts contain a provision that at such time as the line pressure is at such a stage that it is unable

to receive gas from your well connections, that you will reduce that pressure to receive the gas?

A We are obligated to reduce the line pressure if its economical to do so.

Q And that is the contractual provision?

A Yes, sir, it is.

MR. CAMPBELL: I think that's all.

MR. NUTTER: Anyone have any further questions? Mr. Cooley.

By MR. COOLEY:

Q I think Mr. Campbell is getting at the same thing I'm interested in, but I didn't understand your answer. Are the eight wells in which we are involved in the three cases presently at hand the only wells that you have knowledge of that are capable of producing cancellable underage that will receive any benefit from the compressor facilities that you have or are installing?

A There are probably other wells that can produce the underage.

Q Are you aware of any others?

A I could probably give you some of them.

Q I wonder what justification there is for granting relief to one group of wells which seemingly are in the same position as the ones here involved, and not granting the same relief to those wells which would receive benefit from this?

A I believe that I stated in my testimony that the parties concerned should come to the Commission and show they were diligent in their operations in trying to produce this underproduction.

Q What do you mean by that, diligent in their operations in trying to produce it?

A Well, in other words, if their well becomes incapable of producing the underproduction, that no attempt is made to do anything about it.

Q What can they do about it?

A Well, they have recourse, for instance, they might stimulate their well, or if they have so stimulated the well, they could have recourse to the gas purchase contracts, in the case of Permian, at least, to lower the line pressure to enable the wells to produce.

Q That is what I am coming to. An operator has a well, as you say, which reaches the point where it cannot produce its allowable against the line pressure of the gas purchaser. Is not, in your opinion, this well a marginal well under the rules and regulations of this Commission?

A At that time, yes, sir.

Q When the wells will not buck this pressure, and from the time that they have had the inability to produce against the line pressure until the time compressor facilities are installed, they are in fact marginal wells?

A Or until remedial work or stimulation of the wells.

Q Some of these wells even that we are involved with here today show zero production?

A Yes, sir.

Q For very recent periods? Do you have any assurance that

these situations will not reoccur?

A Yes, sir. These wells --

Q (Interrupting) I'm assuming that the zero production is a lack of market on the part of Permian, is that correct?

A To which wells do you refer, all of them?

Q Well, no. Other than those zero productions caused by shut down or inability to produce or purchaser prorationing by Magnolia?

A Yes. Well, those, I don't believe that we failed to take recently, but part of the underproduction attributable to these wells was accumulated during a period when we didn't have a market for the gas.

Q You do have a market now?

A Yes, sir.

Q What conditions have contributed to this new market?

A Primarily our agreement with El Paso.

Q That is no fixed amount, though, is it?

A No, sir.

Q Just whatever El Paso might need in excess of the allowables assigned to the wells to which they are connected?

A I believe the agreement was designed to attempt to keep the pools in balance between the two.

Q It wouldn't require El Paso to underproduce any of its connections?

A No, sir.

Q It is just whatever El Paso's requirements are in excess of the allowables assigned to El Paso's connections?

A Yes, sir.

Q You say you are familiar with the gas prorationing rules of this Commission in the State of New Mexico. What impact does it have on overproduced wells when the cancellation provisions for underage are suspended?

A Of the underage, and not the limitations of overproduction?

Q Yes. In other words, when you suspend only the cancellation of underage, what is the impact on the overproduced wells?

A Well, they will accumulate overproduction to the point they will be shut-in.

Q And they will in fact show an overproduction in excess of what they would if the cancellation were carried out, would they not?

A That is correct. I am assuming when we are talking about underproduction we are talking about producible underproduction, as opposed to non-producible?

Q I am talking about cancellation, or underage which is cancellable under the rules and regulations, which they have had the six months proration period to make it up and failed to do so, and is thus cancellable.

A Then I would say your statement is true.

Q The effect, then, is to take, to aggravate the overproduced status of any overproduced well in the pool?

A Yes.

Q Do you not feel that this is some -- you say there is no violation of correlative rights if this application is granted. Don't you feel that this might have some impact or cause some hardship on the overproduced operator?

A I do not believe that the granting of these applications in itself will create any hardship. I believe I'll just qualify that a little further. I think that has been demonstrated in the history of prorationing in Lea County, due to the fact that an out-of-balanced condition existed; I think a much better course in the case of out-of-balanced conditions is for the various purchasers in the field to get together and exchange or sell gas to bring it back into balance.

Q Now market for gas has very little bearing upon a well which won't buck the line pressure. There could be an unlimited market, and if these wells won't buck the line pressure, they are still going to be underproduced?

A Yes, sir, that is definitely true.

Q That is the situation with which we are primarily concerned here. Do you feel that the installation of these compressor facilities will alleviate the condition?

A That is correct. In the case of the wells that are subject to these applications, we feel that these wells will be able to produce this underproduction.

Q Mr. Tribble, let's take a hypothetical situation where you mentioned that an operator lets his well fall into a marginal state,

that state being inability to produce its allowable?

A Yes.

Q And we will assume that the cause for this inability to produce the allowable is that the well needs a workover?

A Yes.

Q If he neglects to work over this well, and the well remains marginal for a period of, say, six months or a year or two years and then decides to re-enter the well and work it, to re-enter the well and obtain a successful workover and can now produce in excess of the allowable, do you feel that this operator should be entitled to produce the underage that had accrued during this period in which his well was unable to produce the allowable?

A Well, it is a matter of time, is what you are really getting at; the time that the well was marginal, opposed to the time that you are going to give him, if any, to make up this underproduction.

Q Let's say that cancellation is upon us. He recompleted his well, or worked it over --

A Yes.

Q -- December the 26th. Cancellation is January 1st. He doesn't have enough time now to produce this accrued underage, and it is cancellable on January 1st.

A Yes.

Q Do you feel that it is a penalty upon him, or that his correlative rights have been violated if that underage is cancelled according to the rules and regulations?

A Of course, you have to judge these on the individual merits of each case, but the correlative rights that we are trying to protect continue for the life of a field, the remaining life of a field, certainly. For instance, let's say that the well got in such shape that it couldn't produce this underproduction, if granted an extension for six months, and they needed a year, say, two years.

Q I'm asking you, do you think that he is entitled to an extension at all, any extension?

A Yes, sir.

Q Now why?

A Well, I believe that he should be given a chance to produce his allowable that is assigned to his well.

Q Now, Mr. Tribble, we have used the term "correlative rights" throughout this, especially throughout your testimony. The term "correlative rights" and the assurance which this Commission gives of the protection of correlative rights, is that the assurance is not that each operator will recover the oil and gas in place under his tract, but that he will be given the opportunity --

A Yes.

Q -- to recover the oil and gas under his tract?

A Yes, sir.

Q Who has denied this hypothetical operator the opportunity to produce his oil and gas, except himself?

A Well, it's just a matter of definition of opportunity, as I see it.

Q That's the whole case. Do you think that six months period is giving the man the opportunity, or a year?

A If he, through his own fault, allows his well to fall below allowables and consequently cannot produce the allowable, he has the opportunity to produce it; all he has to do is re-enter his well and work it over and produce it. I certainly think it depends on the circumstances to which this underage was accumulated. As I say, I don't believe that all of the underproduction that is being carried should be granted a further extension.

Q Now these wells seem to me to be in a very similar situation. They are unable, or have been unable to produce the allowable?

A Yes, sir.

Q Now, the culpability or the blame may rest in various places?

A Yes, sir.

Q I do not propose to determine where, but as far as this Commission is concerned, he has had an opportunity to produce his own gas, and if through his own fault, that is one thing; if it is through someone else's fault, maybe they are responsible?

A Yes.

MR. COOLEY: That's all the questions I have.

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

By MR. NUTTER:

Q Mr. Tribble, are all of the underproduced wells to which Permian Basin Pipe Line is connected located behind a compressor

facility?

A No, sir.

Q They are not?

A No, sir.

Q What percentage of the underproduced wells are or will be under compression facilities? I had better first ask you, are these compressor Blocks A through G the entire compression facilities that you contemplate for your system?

A No, sir, we are studying the problem continuously, and as I say, it's a matter of economics and it is a matter of one well might warrant a wellhead unit by itself; it might not in conjunction with two or three additional wells, that would warrant a block-type compressor.

Q In the future you may install more blocks than A through G?

A Yes.

Q And also some individual well compressors?

A Yes, that is a possibility.

Q What percentage of the total unproduced wells, when you install these, will have the benefit of compression facilities?

A Well, we're carrying a net underproduction on our system of 5.4 billion cubic feet. Now this 2.1 billion of it, as I have indicated, is producible; in other words, the wells are capable of producing this. 2.1 billion cubic feet of underproduction. They are non-marginal wells. That does not include the underproduction that we're talking about in these applications. In other words, we are cumulatively underproduced 5.4 billion cubic feet.

Q Not all of your wells are underproduced, are they?

A No, sir.

Q What was your producible underage January the 1st, 1956?

A I don't know about that. I'm afraid I couldn't give you that, January 1st, 1956.

Q How far back do you have the producible underage?

A Well, what we considered to be producible would be a varying quantity of gas, depending on the wells that we would consider to be marginal in our opinion, not necessarily marginal as carried on the Commission schedules.

Q Do you have the producible underage as of January 1st, 1957?

A Of '57, I'm afraid I don't have that. All I have is the total net status for those months. I don't have it spread out as between producible and non-producible. As of January 1st, 1956, we were carrying approximately eight and a half billion cubic feet of net underproduction.

Q Eight and a half billion on 1-1-56, right?

A Yes, sir. 1-1-57 we were carrying 9.4 billion of net underproduction.

Q How about 1-1-58? What would your status be?

A Well, that was the one I gave you. I believe that was 5.4, I believe. This is our cumulative net underproduction.

Q Of that 2.1 is considered producible?

A Yes, sir.

Q Now, looking into the future, what do you expect your net

underage will be July the 1st, 1958?

A July the 1st, 1958, we feel that by July the 1st, 1958, that we will be in as good a position as we are at this time, and that the only underage that we will be carrying will not be subject to cancellation, producible underage.

Q How about a year from now? The first of '59 what do you expect the status to be?

A We expect our takes to increase in the future from Lea County.

Q And once you have established a point of balance at which there is no allowable subject to cancellation, you don't anticipate that that condition would recur?

A No, sir. We felt that our position all along was temporary and that our agreement with El Paso was so written as to be a temporary arrangement. We certainly do not expect to remain underproduced for the life of the field.

Q Now, are all eight of these wells which are the subject of these hearings today located behind the compressor facilities?

A No, sir.

Q Which ones of them are?

A The Gulf Arnott-Ramsay "E" 2, "E" 5, Holt "A" 2, the Texas Company's State "B" 3, and the Schermerhorn Gulf-State, compression would be installed. It would be easier to name the exceptions, which are fewer in number.

Q Mr. Tribble, you went into a rather detailed explanation of how long it takes to analyze the need for and the desirability

of a compression facility, and then the installation of same; do you think that Permian initiated these studies and the construction of these things as soon as it was possible to do so?

A Yes, sir, I think that Permian did. You probably are aware of the fact that during the period of time prior to this study that we initiated, we were in an underproduced situation. When you are carrying -- or in other words, the allowables being assigned are in excess of your market requirements, that most of the wells on your system are not given an opportunity to demonstrate their ability to produce, as for instance, our requirements from those wells may be only four, five, or six million a month. The allowable may be ten million, so that it's possible for the decline, or the well's ability to produce into our pipe line would decline under these periods of low takes without you finding out about it unless you were conducting tests.

Q And so it took a period of relatively high market demand before you could determine that you even needed the compression facilities?

A No, sir. After a period of time, and there has been an abrupt change in the ability of a well to produce over a period of time, you are bound to have requirements for that well that will at least partially demonstrate its ability; and in fact, what actually happened was that we had started installing wellhead units and the big decision was made as to whether to continue this in each instance or study the feasibility of block-type compression, which, of course,

requires a study of gathering lines that may have several wells connected to it, and some of which of course would not require compression at the present time.

Q Mr. Tribble, you are acquainted with the amount of underage that each of the subject wells has accrued. What period of time do you think would be necessary for this underage to be made up?

A I'm substantially in agreement with the testimony put on by the operators. It is my opinion that the Gulf wells, all of them will be capable of producing their underproduction plus the current allowable assignment in six months. I also think the Schermerhorn Gulf-State will be able to do this, also. I think that The Texas Company State "B" 3 will be able to make up a substantial portion of it in six months, but not all of it.

Q Not all of it?

A And that the Riddel 2 will not be able to make up all of it in six months.

Q You think it would be able to make it in a year?

A Well, in this instance, we are now in the process of studying the feasibility of compression on Riddel No. 2. I believe that certainly if we install a wellhead compressor, the Riddel 2 could make it up in probably six to eight months after the installation is completed.

MR. NUTTER: Thank you. Anyone have any further questions?
Mr. Utz.

By MR. UTZ:

Q Mr. Tribble, are there any marginal wells behind the compressors that you have testified to here today?

A Yes, sir, there is.

Q Do you anticipate that any of those marginal wells will become non-marginal because of the lower line pressure?

A Yes, sir.

Q Those wells, those marginal wells, as long as the line pressures were high didn't produce as much gas as they could have produced? In other words, they produced something less than the allowable, did they not?

A Yes, sir, that's correct.

Q What would be your position if some of the owners of the marginal wells come back in and wanted allowables reinstated and an opportunity to produce that allowable?

A Well, I don't know --

Q We're talking about approximately the same thing, aren't we? The only difference is that the marginal well didn't carry a statute; these non-marginal wells we are talking about did?

A I don't know whether I would favor the reinstatement of cancellations or not. I think it would certainly depend on the circumstances involved as shown here. In other words, it would just have to be decided on its individual merits of the case.

Q It is entirely foreseeable that we could be flooded with applications such as this here today, could we not?

A I think that's true, I do. I certainly want to indicate, however, that I wouldn't want a blanket continuance on the basis, I think they should be heard individually and based on their own merits.

Q If such did happen and we granted it, then in effect what we would be doing would be retroactively classifying the well?

A In the case of a well that had been classified marginal previously?

Q Yes.

A Yes, sir.

MR. UTZ: That's all I have.

MR. NUTTER: Any further questions? If not, the witness may be excused.

(Witness excused.)

Does anyone have anything further?

MR. CAMPBELL: I have a witness I would like to put on for a little bit of testimony.

MR. NUTTER: Proceed.

MR. CAMPBELL: Mr. Jack M. Campbell, representing Texas Pacific Coal and Oil Company.

(Witness sworn.)

W. F. MARTIN,

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

DIRECT EXAMINATION

By MR. CAMPBELL:

Q Will you state your name, please?

A W. F. Martin.

Q By whom are you employed and in what capacity?

A Texas Pacific Coal and Oil Company, chief accountant.

Q Have you testified previously before this Commission in connection with matters involving gas prorationing?

A That's right.

Q Mr. Martin, have you made a study of the status of various wells in the Jalmat Gas Pool in Lea County, New Mexico, relative to their condition of balance or imbalance?

A Yes, sir.

Q Have you recently made a study in connection with the wells that are involved in the two applications pending before this Commission that refer to wells in the Jalmat Gas Pool?

A Yes, I have.

Q Have you made studies particularly of the three wells in the Jalmat Gas Pool for which Gulf Oil Corporation seeks relief from this Commission?

A Yes, I have. I expanded that to include all of the Gulf wells connected to Permian and El Paso.

Q In the Jalmat Gas Pool?

A In the Jalmat Pool since the beginning of prorationing.

Q There has been testimony here, Mr. Martin, that the justifi-

cation, at least partially, for the request on the part of Gulf as to their three wells in the Jalmat Gas Pool is because the market was not available to them during the period of time when the underage was accumulated. Would you refer to the notations that you have made in connection with the study that you referred to, and explain to the Examiner what your reaction is as to that position by Gulf?

A Well, I grouped all of the Gulf wells connected to Permian Basin Pipe Line under one heading, and eliminating out of there the Ramsay "B" State well, that is 812 million underproduced since it has been building up an underproduction since the inception of prorationing, eliminating that well, it shows that at the end of 1954, the Gulf wells, 13 wells connected to Permian Basin Pipe Line Company had an overproduction of 343,763 MCF, as of December 31, 1955.

The same group of wells had an underproduction of 478,892 MCF December 31, 1956. This underproduction totaled 702,226 MCF as of June 30, 1957, the balancing period that we considered. At the end of this year this underproduction of 702,226 MCF had been reduced to 48,488; in other words, had been reduced from slightly over 700,000 MCF to 48,000 MCF. During that time, two of these wells, one of them being the Leonard State No. 3, a three-unit well, 480 acres assigned to it as of December 31, 1956, was underproduced 70,936 MCF. That condition changed in the six-months period from 70,000 underproduction to an overproduction of 113,813 MCF, or an

overproduction during the six months of approximately 184 million.

Q Is that well a well from which Permian Basin Pipe Line is purchasing gas?

A That's right. They are purchasing gas and have since the inception. Another well, W. A. Ramsay State No. 1 well, four-unit well, 640 acres assigned to it, as of December 31, 1956, was overproduced only 4,958 MCF. The ensuing six-month period to June 30, 1957, that overproduction was increased to 137,783 MCF, or an increase in overproduction of 132,000 MCF. These two wells collectively had an overproduction during the six-months period of December 31, 1956, to June 30, 1957, of 317,574 MCF. Now, the applicants' three wells that they're asking that the underage not be cancelled had at that time an underproduction of 214,859 MCF collectively; one well having 219,821; one 4,954; the third, 17,084 -- that is all MCF.

Q What conclusion does that lead you to, with regard to the market, availability of market for gas from those Gulf wells in the Jalmat Gas Pool during that period of time?

A It's hard for me to understand, when two wells can be overproduced 70 million cubic feet more than this relief that these operators are asking for. In other words, the market was there, apparently. It had to be a good market there, when you could take two wells and overproduce them 300 million cubic feet. This is overproduction over the allowable assigned during that six months. It looks like just the way the wells were produced. It looks like

the 300 million overproduction, had it been applied to this underproduction Gulf would not have been in trouble. In fact, using the four wells that are connected to El Paso, the status of Gulf as of June 30, 1957, in the Jalmat Pool resulted in a net overproduction of 125,580 MCF. In other words, the Gulf connections were overproduced in total in the Jalmat field as of June 30th. So it's hard for me to see how that there could be any market element in this thing, lack of market.

Q There has also been testimony here that perhaps another basis or reason for the request is that there has been a difficulty in some of the wells bucking the line pressures. Have you made any studies in the Jalmat Gas Pool with regard to the wells that might have accumulated underage as a result of that situation?

A Yes, I have. I made a study and it shows that as a result of that study, that as of June 30, 1957, 130.55 units in the Jalmat Field had an underproduced status. This is non-marginal wells, of course. And a total of 7,655,120 MCF. That status was reduced as of October 31, 1957, down to 6,448,646 MCF. I might state that I worked it out by months, and this reduction of the underproduction during the four-month period from June 30 to October 31 resulted by the abnormally low allowable that was granted in the month of July, when the per unit allowable was slightly in excess of 8 million per unit. That low allowable in the month of July gave most every well in the field a chance to reduce its underproduced status. I have it all by wells, and it just goes right down. It looks like

a Christmas tree. All down the month of July every well gained; the wells the rest of the time, most of them have continually underproduced. But one thing that's apparent here, that this underproduction is certainly not limited to Permian's connections. A tremendous amount of it is El Paso connections, and it is practically every operator in the field is deeply involved. It is not limited to the three applicants today.

Q Does Texas Pacific have wells that would come in this category if they were able to enforce their contract provisions and get compressors put on the line?

A We certainly do. We have ten units in that category. We are no different than any other operator, Continental, Western Natural, El Paso Natural themselves, R. Olsen, Skelly, practically every operator represented here, that they would all unquestionably be able to reduce the underproduction had compressor facilities been available.

We had a well of ours put on the low pressure system, the compressor installed recently; and that well, had it been possible to have done that early in the year, we would not have underage cancelled, but we are going to lose about a hundred million cubic feet of gas, due to the fact that the compressor was not installed a couple of months ago. We are in no different shape or position than anybody else.

Q Approximately what percentage of the accumulated underage as of June 30, 1957, would you say was generally in that category?

Do you have any estimate on that?

A Well, at least I have done this. I have pulled out of here twenty-two and a half units that I have worked the history on, in fact, the beginning of proration. Twenty-two and a half units have an underproduction of 3,874,226 MCF as of October 31, 1957. That twenty-two units represents sixty percent of the underproduction in the Jalmat Pool. I have worked those back as to their status since the end of '54, '55, '56, June 30, '57, and October, '57. It is representative of eleven operators, this twenty-two units. It shows that at the end of '54 there was an underproduction on this group of wells of 390,000 MCF. At the end of '55 it had grown to 1,060,000 MCF; end of '56 it had grown to 3,333,000 MCF. June 30, '57, increased to 3,874,000 MCF, and in the following four months gone up to 4,500,000 MCF.

Q Are those wells which generally had low pressure, Mr. Martin?

A Yes. Where I did not have the pressure data on all of them, most of them we have it. It is quite obvious that a number of the wells, in fact most of them, have good deliverability but low wellhead pressure. Here is a well that is 165,000 MCF underproduced that has a wellhead pressure of only 286 pounds. Of course, it will not produce it.

Q Is that generally true of the rest of the wells?

A That is generally true of the wells. It is strictly a matter of the basic underproduction in the field as a result of not being able to buck high line pressures.

Q Do you believe that if the applications here are granted, that it will aggravate the situation in the Jalmat Gas Pool with regard to the status of the pool and the wells within the pool, insofar as their being in balance is concerned?

A Yes, I certainly do. I have carried this a step further to show by operators how this redistribution will come about. In other words, at the October 31st, as I previously stated, we had 6,448,000 MCF of underproduction subject to cancellation as of January 1, 1958.

I have spread that back on the basis of the ownership of the non-marginal units in the pool to determine the amount of the allowable that would be redistributed to each operator. It is quite apparent that one of the applicants, for instance, Gulf, by this redistribution will receive a credit on the redistribution of 475,557 MCF, whereas they're talking about not cancelling 241,849. They are going to receive a credit of more than double that figure.

Q That's assuming that all of the underage is cancelled, according to rule?

A Assuming that the rules are allowed to work according to the regulations.

Q Mr. Martin, have you, in connection with your studies here, also made an individual well study on each of these eight wells, month by month, and their cumulative and monthly status of overproduction and underproduction?

A Yes, I have.

Q Are those figures available to the Examiner if he wishes to have them?

A Yes, they are available since the beginning of prorationing.

Q That includes the wells not only in the Jalmat, but in the other pools that are involved in this?

A Everything on the application.

MR. NUTTER: I think we would like to have it.

A It shows the allowable and the production and the over and under status at the end of each month.

MR. NUTTER: We would like to receive it.

MR. CAMPBELL: I think that is all the questions I have.

MR. NUTTER: Does anyone have a question of Mr. Martin?

Mr. McCarthy.

CROSS EXAMINATION

By MR. McCARTHY:

Q You have stated, Mr. Martin, that Gulf, an underproducer, would be credited with so much production if this underage was cancelled and respread, is that correct?

A That is correct.

Q What happens to this respreading of underage if the total runs from the pool do not increase?

A Well, I think I can probably answer that this way. As long as the underproduction is allowed to remain in the schedule, it has the tendency to pull down the net allowable granted the field. For instance, the purchasers, quoting round figures, but the purchasers

in the Jalmat Field nominated for the month of January ten million MCF -- ten billion cubic feet of gas makes it sound better. I like to have billions, it sounds better. They nominated ten billion cubic feet of gas for the month of January, but due to the imbalance condition of this field, the allowables that were finally granted for the month of January was slightly over seventy billion cubic feet. In other words, it is in there as a backlog, it is constantly working to pull down the nomination by the purchaser. If we could get it out of there and keep the field, let the thing operate on the six months basis like the regulations say, you would not have the months in, like I previously stated, in the month of July we had an allowable of eight million. Anyone knows that is rather fantastic. That is what happens with all this juggling around as a result of the underproduction being allowed to stay in the schedules.

Q It's true, though, isn't it, that if the runs from the pool do not increase, that the respreading of cancelled underage doesn't benefit anyway, does it?

A Well, a pretty good example of that is this last six months of 1957. A number of the wells were overproduced in the Jalmat Pool. As a result they were shut-in. Overproduced wells in the Jalmat in the year 1957 have been shut-in. You can bring them back in balance. They can only be brought back in balance by allowables and you only get allowable by the purchasers' nomination and their purchases, but the purchaser came into the field and tried to take the gas, but so many of the wells were shut-in, they couldn't; so

what happened, the allowables that they had requested and the allowables that were assigned, you come along and the production is so low the allowable is automatically cancelled two months later, where it has a tendency to deflate the field and fix it where the gas company will not be able to take, If this condition is allowed to continue, Permian is going to be in the position of wanting gas because it can come up with a negative allowable. So you are going to be asking for gas and unless the rules are enforced, you won't have enough allowable, can't get it.

Q What you are saying is that the only wells that might benefit then are those that would be shut-in or real close to each other?

A Re-distribution is made to every well, regardless of the status. In other words, every non-marginal well, the best well in the field from a deliverability status and par gets equal redistribution of allowable.

Q You are assuming that the runs will increase from the field?

A By redistributing, you are giving all the wells a right to produce more gas that they did not have. In other words, when the six and one half billion is redistributed, there is six and a half billion more gas in the field that the purchaser, you and El Paso can buy.

Q What happens to that if it isn't run two months later?

A It is automatically cancelled.

MR. CAMPBELL: We are willing to accept the rosy market picture you painted there, for the purpose of this testimony.

MR. MARTIN: Does anyone else have a question of Mr. Martin?
Mr. White.

By MR. WHITE:

Q Mr. Martin, in regard to the twenty-two and a half units that you said, I believe, was underproduced in the Jalmat, how many of those units are capable of producing their cumulative underage plus their current allowable?

A Well, sir, my personal opinion, this twenty-two units, these wells which includes Texas Company wells, this 400 million, now I don't believe it's at all possible for hardly any of these wells to produce the back allowable and produce the current allowable. In other words, when you build up a figure, here is one well, for instance, that is one of these wells is four hundred million --

Q (Interrupting) Let's talk about The Texas Company well. Have you made a calculation on that?

A Your well is going to be approximately 400 million underproduced at the end of 1957. That is the status. It is going to receive, under normal operations, an allowable of 250 million for the year 1958. That is, you can go back through the allowable for the year 1956, it was 245 million per unit, and it is based on the purchaser's nominations, preliminary nominations for the first six months of '58 being substantially higher than they were even in '56; it is certainly realistic to feel that a unit will receive an allowable of at least 250 million per unit. Your 250 million plus the 400 million underproduction is going to make you, if you

clean it up, produce 650 million cubic feet of gas from a single unit. I don't believe you can find, since proration, that any single unit in the Jalmat Field has produced 650 million cubic feet in twelve months. I have got it back to the very beginning. I don't believe you can find one single unit that has ever produced that much gas. You are saying that a well that we know has a low line pressure, that is why it wouldn't produce, low wellhead pressure; we are saying that well, by installation of compressor, is going to produce more than the best well in the field has produced since proration. It sounds fantastic.

Q Do you have any definite statistics to show it is incapable?

A No, sir, we have not made that statement. I am merely saying that these wells show low casinghead or wellhead pressure. I think that is their trouble. You have testified, you people and the Permian Company come up and put up the same testimony, that if the compressor had been installed on our wells -- we have a well right here --

Q (Interrupting) Let's talk about The Texas Company.

A Okay.

Q If it is given the opportunity, you are not here to testify that it is incapable of producing?

A No, sir, I am not testifying that. Why not let the regulation --

Q (Interrupting) Or that it wouldn't produce it?

A I am saying it is going to get up and move about, because

it would have to produce more than any well has ever produced.

Q Let's say for the purpose of your argument it is capable of producing half of the 650 million.

A Yes.

Q Is that any reason why it should be given the opportunity to produce that much, if it is capable?

A I think it should be given the opportunity under one condition, that if you want to extend the same opportunity to the rest of these units, to the 130 units underproduced in the field. If you want to disregard the regulations as now written and do away with cancellation of underage, then I say it has that right, but Texas Company well by itself, plus a handful of Gulf wells, certainly do not have that right unto themselves.

Q Now, referring back to your twenty-two and a half units, you said in your opinion there were a very few units capable of making up their cumulative underage and their current allowable?

A Of this twenty-two and a half, I give you the figures down here, and The Texas Company is some considerably larger.

Q Approximately how many would you say, out of the twenty-two and a half?

A Well, that is strictly a matter of the installation of compressors, maybe half of them. I don't believe anyone could make that statement. It's a matter of installation of compressors and I have seen compressors installed on some wells and they looked pretty good for a month or two, and that is the end of it. They

drop down. It is not by any criterion a cinch that you install a compressor, that the purchaser is going to keep the compressor running and producing that well every day.

Q Assume that you are correct as to there being a very few units of the twenty-two and a half capable of making this amount of production, we can further assume that there could be very few applicants asking for the opportunity, is that not correct?

A As to whether they are entitled to it or not, I think every applicant is going to come right up here, and if you people's request is granted, and make the same application.

Q They would be here today, would they not?

A No, they will be here next time, I assure you. I know one company that will be here. We don't want to be here, we don't feel that way about it.

MR. NUTTER: Any further questions of Mr. Martin?

By MR. NUTTER:

Q Mr. Martin, how many wells did you say are underproduced in the Jalmat Gas Pool?

A As of June 30th, there are 130.55 units, and that has been reduced as of October 31st down to 84.84 units. The reason, I previously explained the reason that was reduced from 130 to 84, was primarily the low allowable in July, which let all the wells pick up a billion cubic feet of underproduction. They were bucking just an eight million allowable, so a well that would be normally producing against a unit allowable of 15 million, all those wells

came in and had the allowable charged to them of eight million; of course, if they could produce 15 million they had this seven million credit to apply against their underproduction. That's another case where, due to this underage stage in the pool and creating these wide fluctuations in the allowables that we have come up, it brings about these things. I could take one step further, there is a number of wells in the pool today that are classified as non-marginal for one reason; that is because during the month of July, and June had a comparable allowable, they had such a low allowable that most any well was able to make that allowable, and under the present regulations could not be classified as marginal. In other words, that one month sticking up there in July made any well in the last six months of the year that could make eight million cubic feet any month of the last six months not subject to being made marginal.

MR. NUTTER: Any further questions? If not, the witness may be excused.

(Witness excused.)

MR. NUTTER: Anything further?

MR. CAMPBELL: I have a short statement.

MR. NUTTER: Go ahead. Proceed.

MR. CAMPBELL: I'm sure that the Examiner is aware of the position of Texas Pacific Coal and Oil Company in these matters. It is this, that it is essential that the Commission strictly enforce the balancing provisions at the end of this year, as of the June

30, 1957, well status. We have stated before and wish to repeat that unless these rules are enforced, then prorationing becomes meaningless so far as we are concerned, not only meaningless but a burdensome operation, not only upon the Commission but on all the operators in the field and the purchasing companies likewise.

We feel that the operators here involved and the others, including the Texas Pacific Coal and Oil Company, who have wells that cannot produce into the low pressure system -- the high pressure system their full allowable, have an ample opportunity under their contracts with the purchasing companies to enforce their rights if they see fit to do it. I think that while the contracts with purchasing companies may have taken a beating under prorationing, certainly that provision is one that is a valuable one to anybody who has a gas sale contract.

To grant the application here, it seems to me is going to open up once again the whole arena of the requests to waive various portions of the rules. Once you waive one portion, there are going to be requests to waive other portions of the balancing provisions of the prorationing system. We believe if the prorationing system is worth anything, it ought to be enforced, and certainly three years or three and a half years is ample time. It seems to me that the benefit of the doubt has been given to anybody to obtain a proper outlet for their gas, and that the Commission is in the position of having to at this time make a firm decision as to whether they are going to enforce the rules, or whether they are going to forget them.

As far as we are concerned, we think it is time to enforce them.

MR. NUTTER: Anyone else have a statement to make?

MR. WHITWORTH: Mr. Whitworth with El Paso Natural Gas Company. I have a short statement on behalf of El Paso Natural Gas Company.

El Paso Natural Gas Company believes that the rules of the New Mexico Oil Conservation Commission should be enforced and exceptions granted only when justified by clear and convincing proof. Continued granting of exceptions tends to nullify and lessen the effect of any rule, and past experience has demonstrated that failure to apply the rules as written creates inequities and loses the opportunity to market gas from the unbalanced pool.

El Paso urges the Commission to grant an exception to the rule requiring cancellation of underproduction only when an applicant, by clear and convincing evidence establishes that:

1. The underproduction of the well or wells involved accumulated because of conditions beyond the control of both the operator and the taker of gas.
2. Any well involved is considered reasonably able to make its allowable plus the amount of its uncanceled underproduction within the next balancing period.

MR. NUTTER: May we have a copy of your statement, Mr. Whitworth? Anyone else have a statement?

MR. NESTOR: E. W. Nestor for Shell Oil Company. Shell most strenuously urges the Commission to deny the applications in

Cases 1360, 1361, and 1362. It is our feeling that the underages that have occurred in the wells here in question have been largely due to the failure of either the operator, the transmission company, or both to make necessary adjustments to permit the production of gas at allowable rates. We feel that neither the applicants in any of the three cases nor the Permian Basin Pipe Line have made any case that any waste will exist if the applications are denied. As to correlative rights, we feel that certainly the opportunity which the statutes demand must be given to an operator to produce his equitable share has been given to each operator, and that only through failure of the operators and the transmission company to take advantage of their allowable has prevented them from producing their fair share.

We feel further that unless these cases, unless these applications are denied, that not only will the correlative rights of the other operators in the pool be in danger, but that the entire proration system which has evolved over the last several years will be in danger.

Shell again urges that these applications be denied.

MR. NUTTER: Mr. Kastler.

MR. KASTLER: On behalf of Gulf I wish to state that the statutes provide for the prevention of waste and the protection of correlative rights. It is my opinion that the granting of the application will be entirely consistent with these principles. As our testimony has shown, the underproduction of the wells was due

to factors beyond the control of the operator and royalty owners. The cancellation of the underproduced allowables without affording every opportunity to the operators and owners to produce their equitable share would impair correlative rights, while the granting would not result in waste. As our testimony shows, none of the wells covered in this application is incapable of producing the gas, if given a reasonable opportunity.

I respectfully submit that the applications be granted.

MR. CAMPBELL: I am supposed to make a very brief comment on behalf of Leonard Oil Company in connection with one of the Gulf cases. The Commission will recall that -- Mr. Kastler, of course, may reply if he wishes, I forgot it. The Examiner will probably recall that several years ago when Gulf requested a 280 acre unit for the well, which I believe is the No. 2 well in the Jalmat Pool there, the application was opposed by Leonard Oil Company. They requested that Gulf be required to establish two 160 acre proration units in the south half of Section 16, I believe it was. The Commission saw fit to grant the full 280 acre unit on the basis that the rules as set up by the Oil Commission provided for such an arrangement.

The Leonard Oil Company feels that if those rules are proper in this respect, they ought to be enforced in this respect, and they feel that the application of Gulf for the suspension of the cancellation of underage as to that particular unit should be denied.

MR. NUTTER: Mr. White.

MR. WHITE: If the Examiner please, a brief statement on behalf of Texas Company. Much has been said about the waiving of the Commission's rules. I believe the Commission's rules from the outset are still construed to be very liberal, and they specifically provide for exceptions to the rules. We are not asking the Commission to waive any of its rules, but to again grant an exception to one of the existing rules, as it has done in the past.

If the Commission would recall, I think at least as I interpret Rule 836, which granted an exception to Rule 520, was based on the fact that there was lack of facilities. I think The Texas Company case is somewhat different than some of the others. I think we have extenuating circumstances. Our wells have been regarded as non-marginal wells. The Commission has assigned them a certain allowable, and it's only recently that the facilities have been installed which would permit us to gain the benefit of the allowables that have been given to the wells.

All that we ask for is the opportunity to produce our portion and fair share from our wells. Much has been said about the contractual rights. I suppose the inference is that if the operator is diligent and the purchaser is failing to live up to his contract, well, we have the courtroom door open to us. I think any operator would be hesitant in as a last resort to go into the courthouse against his own purchaser.

Secondly, you would be merely inviting litigation on behalf of your royalty interest. I think the proper place to get relief,

as has been the custom in the past, is before this Commission.
Thank you.

MR. NUTTER: Any further statements?

MR. McCARTHY: I would like to say that with respect to Permian's position, we feel that the Commission should not enforce its rule in this case just to be enforcing its rule. It seems to us that that is the only thing it will accomplish, that the correlative rights of the other producers aren't being affected by denying the application; the correlative rights of the applicants will be affected,

As far as the opportunity that the statute talks about, we feel that is the opportunity over the life of the field, and when you consider it in that light as six months' extension of these rules, it appears to be a very reasonable time, so we would urge that the application be granted.

MR. NUTTER: Any further statements?

MR. COOLEY: If no further statements, the Commission has received a telegram from Skelly Oil Company. "Re: Examiner Cases 1360, 1361, 1362 on gas balancing. For the record, we favor such balancing period as provided by present rules as a matter of principle and practical necessity. We take this position despite some of our wells that would benefit by holding balancing of underage in abeyance. If however any exceptions are granted it should be applied to all wells in the entire respective fields." Signed, George W. Selinger.

MR. NUTTER: Anything further in Cases 1360, 1361, and 1362? If not, we will take the cases under advisement and recess the hearing until 9:00 o'clock in the morning at the Commission offices.

(Recess.)

* * * * *

C E R T I F I C A T E

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

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 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 6th day of February, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Dearnley
NOTARY PUBLIC

My commission expires:
June 19, 1959.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1360, 1361, 1362 heard by me on 1-7-1958.

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

1360
EX 3
3

November 11, 1957

New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico


Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Reference is made to a letter dated October 29, 1957 addressed to the Commission from The Texas Company in which The Texas Company requests that the cumulative underproduction assigned State of New Mexico "B" NCF-2 Well No. 3 be continued, at least through the first half of 1958, in order that The Texas Company may have an opportunity to produce its fair share of the reserves underlying the acreage attributable to said well.

Permian Basin Pipeline Company is the purchaser of the gas produced from the subject well. Permian informs the Commission that if the subject well is capable of producing in excess of its assigned allowable after the compression facilities referred to in The Texas Company letter are installed, Permian will endeavor to accept deliveries from the subject well in excess of the assigned allowable after January 1, 1958 so that the cumulative underproduction will be produced. Permian believes that the Commission should in the proper exercise of its discretion grant the request of The Texas Company contained in its said letter of October 29, 1957 in order to allow The Texas Company an opportunity to produce the gas allowable assigned to the subject well. Therefore, Permian urges the Commission to grant the relief requested by The Texas Company in its letter of October 29, 1957.

Yours very truly,


Rex D. Fowler
Manager, Gas Purchased Operations

RDF/JCO:tvd

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

January 21, 1958

Mr. William Kestler
Gulf Oil Corporation
Box 669
Roswell, New Mexico

Dear Sir:

We enclose a copy of Order R-1111 issued January 20, 1958, by the Oil Conservation Commission in Case 1360, which was heard on January 7th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encl.

C
O
P
Y

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

January 21, 1958

Mr. Jack Campbell
Campbell & Russell
Box 721
Roswell, New Mexico

Dear Mr. Campbell:

On behalf of your client, Texas Pacific Coal & Oil Company, we enclose a copy of Orders R-1111, R-1112 and R-1113 issued January 20, 1958, by the Oil Conservation Commission in Cases 1360, 1361 and 1362, respectively, which were heard on January 7th at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

C
O
P
Y

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. 1360
Order No. R-1111

APPLICATION OF GULF OIL CORPORATION
FOR AN ORDER SUSPENDING THE CANCELLATION
OF UNDERAGE ACCRUED TO CERTAIN GAS WELLS
IN THE EUMONT, JALMAT, TUNG, AND BLINDERY
GAS POOLS IN LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 7, 1958, at Santa Fe, New Mexico, before Daniel S. Hutter, Examiner duly appointed by the New Mexico Oil Conservation Commission, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

Now, on this 20th day of January, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner, Daniel S. Hutter, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Gulf Oil Corporation, seeks by its application in the subject case to suspend the cancellation of underproduction accrued to the following described gas wells in Lea County, New Mexico as of July 1, 1957.

Eumont Gas Pool

Bell-Ramsay St. "C" No. 1, NW/4 SE/4 Section 34,
Township 26 South, Range 37 East

Jalmat Gas Pool

Arnott-Ramsay "E" No. 2, SW/4 SE/4 Section 16,
Township 25 South, Range 37 East

Arnott-Ramsay "E" No. 5, SW/4 NW/4 Section 16,
Township 25 South, Range 37 East

J. R. Holt "A" No. 2, SE/4 SW/4 Section 16,
Township 24 South, Range 37 East

-2-

Case No. 1300
Order No. R-1111

Tubb Gas Pool

Hugh No. 7, NE/4 NW/4 Section 14, Township 22
South, Range 37 East

Harry Leonard "E" No. 4, NE/4 NE/4 Section 16,
Township 21 South, Range 37 East

Blinsbury Gas Pool

J. N. Carson "A" No. 4, SW/4 SE/4 Section 28,
Township 21 South, Range 37 East

H. Leonard "E" No. 4, NE/4 NE/4 Section 16,
Township 21 South, Range 37 East.

(3) That the said Hugh No. 7 Well and Harry Leonard "E" No. 4 Well, in the Tubb Gas Pool, and the J. N. Carson "A" No. 4 Well, in the Blinsbury Gas Pool, were in balance as of January 1, 1958, and that the applicant has consequently requested that said wells be deleted from the subject application.

(4) That the Commission by Order No. R-836, dated July 9, 1956, suspended the cancellation of underproduction in all pre-rated gas pools in Southeastern New Mexico from July 1, 1956, until July 1, 1957, and that all operators in said pools have had the additional opportunity to produce the underage which had accrued as of July 1, 1957, during the six-month probation period between July 1, 1957, and January 1, 1958.

(5) That the applicant has failed to show justification for any further suspension of the cancellation of underproduction.

IT IS THEREFORE ORDERED:

That the application of Gulf Oil Corporation for the suspension of the cancellation of that portion of the underproduction accrued to the following described wells in the Exmont, Jalmat, and Blinsbury Gas Pools which was subject to cancellation January 1, 1958, be and the same is hereby denied.

Exmont Gas Pool

Bell-Ramsay St. "C" No. 1, NW/4 SE/4 Section 34,
Township 20 South, Range 37 East

Jalmat Gas Pool

Arnott-Ramsay "E" No. 2, SW/4 SE/4 Section 16,
Township 25 South, Range 37 East

Arnott-Ramsay "E" No. 5, SW/4 NW/4 Section 16,
Township 25 South, Range 37 East

J. R. Holt "A" No. 2, SE/4 SW/4 Section 16,
Township 24 South, Range 37 East

-3-
Case No. 1380
Order No. R-1111

Blindery Gas Pool

H. Leonard "E" No. 4, NE/4 NE/4 Section 18,
Township 21 South, Range 37 East

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

[Signature]

HOWIE L. HUGHES, Chairman

[Signature]

MURRAY E. HUGHES, Member

[Signature]

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

12/

CLASS OF SERVICE
This is a fast message unless indicated otherwise by the proper symbol.

WESTERN UNION TELEGRAM

W. P. MARSHALL, President

SYMBOLS
DL=Day Letter
NL=Night Letter
IT=International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. *1958 JAN 6* STANDARD TIME at point of destination.

LA184 KC176

1958

JAN 6

(45) 000

TO TULSA OKLA 6 47 PM

PM 4:01

1958 JAN 6 PM 3 50

A L PORTER

ON CONSERVATION COMMISSION STATE CAPITOL SANTA FE

RECEIVED

RE EXAMINER CASES 1360-1-2 ON GAS BALANCING FOR THE
RECORD WE FAVOR SUCH BALANCING AS PROVIDED BY PRESENT
RULES AS A MATTER OF PRINCIPLE AND PRACTICAL NECESSITY
WE TAKE THIS POSITION DESPITE SOME OF OUR WELLS THAT
WOULD BENEFIT BY HOLDING BALANCING OF UNDERAGE IN I
EVIDENCE IF HOWEVER ANY EXCEPTIONS ARE GRANTED IT SHOULD
BE APPLIED TO ALL WELLS IN THE ENTIRE RESPECTIVE FIELDS

GEORGE W SELINGER SKELLY OIL CO

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

*Care file 1360
1361
1362*



PETROLEUM AND ITS PRODUCTS

GULF OIL CORPORATION

P. O. DRAWER 1290 FORT WORTH 1, TEXAS

M. M. BAYER
VICE-PRESIDENT

November 20, 1957

MAIN OFFICE 000
RECEIVED NOV 22 PM 1:13
FORT WORTH
PRODUCTION DIVISION
Ex hq 1-7-58

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Application of Gulf Oil Corporation for Temporary Exceptions to the Provisions of Rule 9 of Orders R-520 and R-586 and Rule 13 of Order R-610 as Amended, Pertaining to Cancellation of Unproduced Gas Allowables in the Eumont, Jalmat, Tubb and Blinbry Gas Pools, Lea County, New Mexico

Gentlemen:

Gulf Oil Corporation herewith makes application for temporary exceptions to the provisions of Rule 9 of Orders R-520 and R-586 as amended and to Rule 13 of Order R-610 as amended, for a period of six months from January 1, 1958, insofar as said rules require cancellation of unproduced allowables accumulated prior to July 1, 1957. The following facts are offered in support of this application:

- (1) Many Gulf Oil Corporation gas wells which are producing from the defined limits of the above named gas pools are connected to the transmission system of Permian Basin Pipe Line Company.
- (2) During the past several months, Permian Basin Pipe Line Company has been unable to produce the full allowable assigned to the gas wells to which it is connected for the reasons that development of acreage under contract to that company proceeded at a rate in excess of that which had been anticipated and that Permian's facilities for processing gas have not been adequate to handle the volume allowed. These factors resulted in an accumulation of gas allowable subject to cancellation January 1, 1958.
- (3) Permian Basin Pipe Line Company, by contract arrangement with another major gas purchaser together with the expansion of processing facilities, is now capable of taking in excess of current allowables and will be able to make up the accumulated underproduction in the near future.

November 20, 1957

- (4) Applicant is asking that the requested exceptions to the applicable rules referred to above apply to the following Gulf Oil Corporation owned and operated gas wells:

Eumont Pool

Bell-Ramsay St. "C" No. 1, NW/4 of SE/4 of Section 34, T-20-S, R-37-E.

Jalmat Pool

Arnett-Ramsay "E" No. 2, SW/4 of SE/4 of Section 16, T-25-S, R-37-E.

Arnett-Ramsay "E" No. 5, SW/4 of NW/4 of Section 16, T-25-S, R-37-E.

J. R. Holt "A" No. 2, SE/4 of SW/4 of Section 16, T-24-S, R-37-E.

Tubb Pool

✓ Hugh No. 7, NE/4 of NW/4 of Section 14, T-22-S, R-37-E.

✓ Harry Leonard "E" No. 4, NE/4 of NE/4 of Section 16, T-21-S, R-37-E.

Blinbry Pool

✓ J. N. Carson "A" No. 4, SW/4 of SE/4 of Section 28, T-21-S, R-37-E.

H. Leonard "E" No. 4, NE/4 of NE/4 of Section 16, T-21-S, R-37-E.

- (5) Unless the Commission grants the applicant's requests, Gulf Oil Corporation will be deprived of its proportionate share of the reserves underlying the Eumont, Jalmat, Tubb and Blinbry Pools.
- (6) The granting of the requested exceptions to the above referenced rules will not result in waste but will protect correlative rights.

Respectfully submitted,

GULF OIL CORPORATION

By: H. B. Gu

Vice-President

omit in balance

omit in balance

omit in balance

Oil Conservation Commission

- 3 -

November 20, 1957

cc: Oil Conservation Commission
State of New Mexico
P. O. Box 2045
Hobbs, New Mexico

Permian Basin Pipe Line Company
2223 Dodge Street
Omaha 1, Nebraska

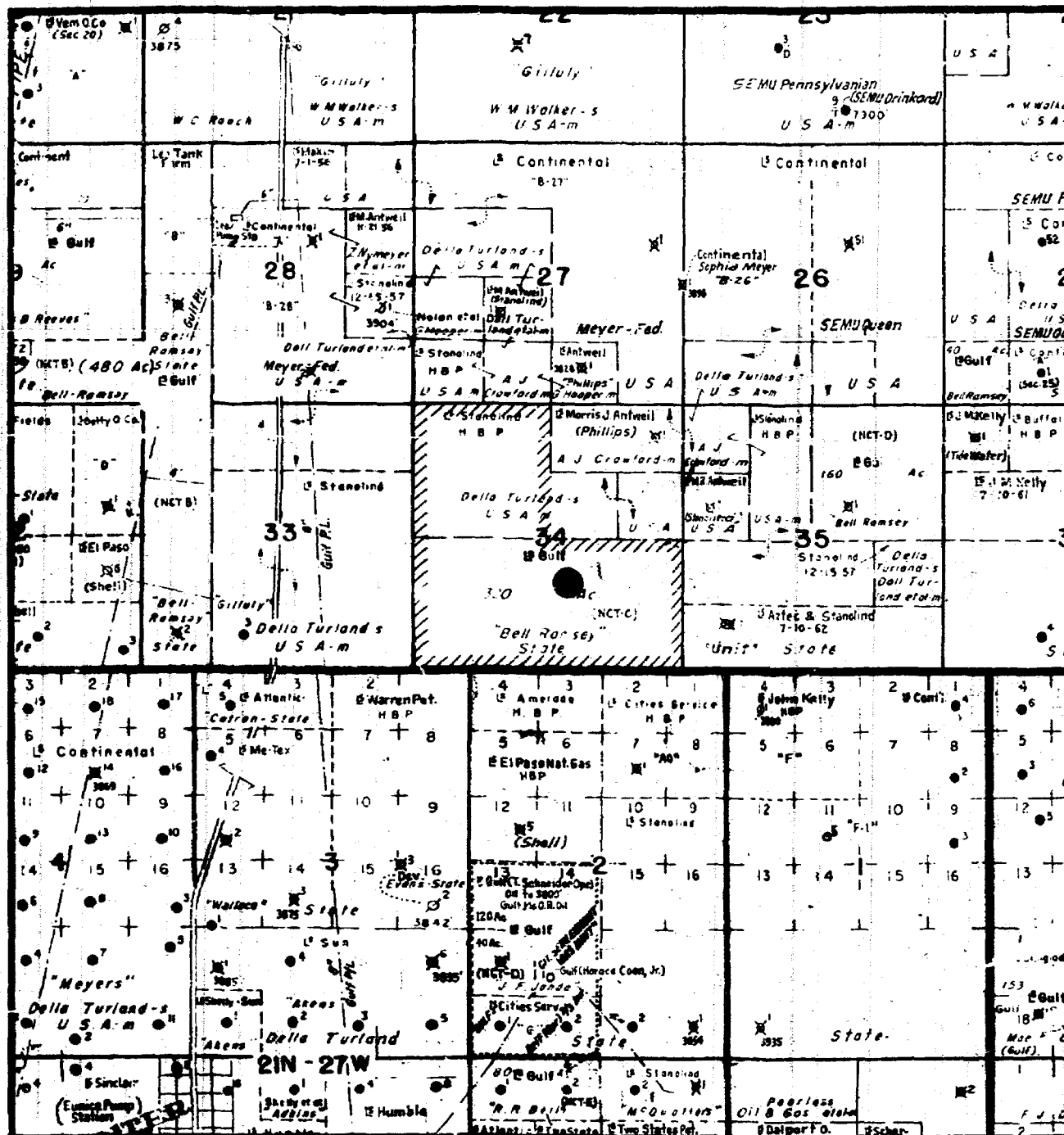
R-37-E

T
20
S

T
20
S

T
21
S

T
21
S



BELL RAMSAY "C" NO. 1

EUMONT POOL, LEA COUNTY, NEW MEXICO

GULF OIL CORPORATION

JANUARY 7, 1958

CASE NO. 1360
EXHIBIT NO. 1-A

Case No. 1363
Exhibit 1-B
Form C-122-C
4-1-54

FLOW DATA

FLOW CALCULATIONS

SHUT-IN DATA

FRICION CALCULATIONS(if necessary)

SUMMARY

$$Q = \text{_____ MCF/Da.}$$

$P_w =$ _____ psia

$P_1 =$ _____ psia

$$D = \text{MCF/Da.}$$

DELIVERABILITY CALCULATIONS

Log Q = _____

Log D =

Antilog = ■ D

REMARKS

INSTRUCTIONS

This form is to be used for reporting deliverability tests in the designated Dry Gas Pools of Lea County as ordered by New Mexico Oil Conservation Commission Directive dated March 15, 1954, which directive was provided for by Orders R-365-A through R-376-A. For details regarding this test please refer to the above mentioned Directive.

NOMENCLATURE

- Q = Actual flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P_d = Deliverability pressure; 80 % of 72 hour individual wellhead shut-in pressure (P_c). psia
- P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing). psia
- D = Deliverability at Deliverability pressure (P_d) MCF/da. @ 15.025 psia and 60° F.
- P_f = Static meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

DELIVERABILITY FORMULA

$$D = Q \left[\frac{.36}{\left[1 - \frac{P_w}{P_c} \right] \left[1 + \frac{P_w}{P_c} \right]} \right]^n$$

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

PRODUCTION BY MONTHS - BELL RAMSAY "C" WELL NO. 1
SUMMIT POOL, LEA COUNTY, NEW MEXICO

Case No. 1360

Exhibit I-C

<u>MONTH-YEAR</u>	<u>UNDERPRODUCTION MCF</u>	<u>DAYS OPERATED</u>	<u>PRODUCTION MCF</u>	<u>CURRENT ALLOWABLE-MCF</u>
Sept. 55	52,129	2	5,023	39,914
Oct. 55	69,452	6	12,147	29,470
Nov. 55	75,180	19	40,313	46,041
Dec. 55	99,134	16	33,232	57,185
Jan. 56	102,667	17	38,040	41,583
Feb. 56	82,793	22	38,805	18,921
Mar. 56	90,090	14	34,007	41,304
Apr. 56	109,004	10	23,615	42,609
May 56	102,091	15	37,731	30,738
June 56	89,842	17	35,733	23,484
July 56	100,871	9	13,619	24,648
Aug. 56	105,030	18	37,793	41,952
Sept. 56	139,301	8	10,711	44,982
Oct. 56	172,106	0	0	32,805
Nov. 56	206,924	0	0	34,818
Dec. 56	243,626	0	0	36,702
Jan. 57	276,420	0	0	32,794
Feb. 57	295,098	8	7,229	25,907
Mar. 57	246,106	31	68,925	29,933
Apr. 57	220,706	29	57,339	31,939
May 57	177,183	31	61,329	17,806
June 57	122,424	30	53,069	17,297
July 57	79,967	30	53,967	11,510
Aug. 57	89,880	29	43,993	53,906
Sept. 57	69,091	30	50,230	29,441
Oct. 57	64,580	31	49,545	45,034
Nov. 57	84,716	30	44,093	64,229

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

CASE NO: 1360
EXHIBIT NO: 2-B

Form C-122-C
4-1-54

Pool Jalmat Formation Yates-Seven Rivers County Lea
Initial Annual Special X Date of test 12-2: 12-4-57
Company Gulf Oil Corporation Lease Arnett-Ramsay "E" Well No. 2
Unit 9 Sec. 16 Twp. 25N Rge. 37E Purchaser Permian Basin PL Co.
Casing 7 Wt. 20 I.D. 6.456 Set at 2894 Perf. To
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3050 Perf. To
Gas Pay: From 2850 To 3153 L. 3050 x G. .650 = GL 1983 Bar. Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	time	Date	time							
12-2-57	AM	12-3-57	AM	27.25			4" x 2.50	13.2		60
	PM		PM							

FLOW CALCULATIONS

Static Pressure P_f	Differ- ential h_w	Meter Extension $\sqrt{P_f h_w}$	24-Hour Coeff- icient	Gravity Factor F_g	Temp. Factor F_t	Compress- ability F_{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
				.9608	1.000		3,337

SHUT-IN DATA

FLOW DATA

Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P_c) psia		W.H. Working Pressure (P_w) and (P_t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
12-3-57	AM	12-4-57	AM	23.5	539.5	539.2	92.2	456.2
	PM		PM					

FRICTION CALCULATIONS (if necessary)

SUMMARY

P_c = _____ psia
 Q = _____ MCF/Da.
 P_w = _____ psia
 P_d = _____ psia
 D = _____ MCF/Da.

DELIVERABILITY CALCULATIONS

$$P_w \quad P_c \quad P_w + P_c$$

$$1 - \frac{P_w}{P_c} \quad 1 + \frac{P_w}{P_c} \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M$$

$$.36 + M \quad \text{Log} \quad \quad \times (n) \quad = \quad +$$

COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N. M.
AGENT and TITLE D.C. Sears, Gas Tester
WITNESSED Joe Horton
COMPANY Permian Basin Pipeline Company

Log Q = _____
Log D = _____
Antilog = _____ = D

REMARKS

Well made approximately 1.5 bbls. fluid, mostly water. Tubing has perforated anchor on bottom.

INSTRUCTIONS

This form is to be used for reporting deliverability tests in the designated Dry Gas Pools of Lea County as ordered by New Mexico Oil Conservation Commission Directive dated March 15, 1954, which directive was provided for by orders R-365-A through R-376-A. For details regarding this test please refer to the above mentioned Directive.

NOMENCLATURE

- Q = Actual flow at end of flow period at W. E. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P_d = Deliverability pressure; 80 % of 72 hour individual wellhead shut-in pressure (P_c). psia
- P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing). psia
- D = Deliverability at Deliverability pressure (P_d) MCF/da. @ 15.025 psia and 60° F.
- P_f = Static meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

DELIVERABILITY FORMULA

$$D = Q \left[\frac{.36}{\left[1 - \frac{P_w}{P_c} \right] \left[1 + \frac{P_w}{P_c} \right]} \right]^n$$

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

PRODUCTION BY MONTHS - ARNOTT-RAMSAY "F" WELL NO. 2
JALMAT POOL, LEA COUNTY, NEW MEXICO

Case No. 1360
Exhibit Y-C

<u>MONTH-YEAR</u>	<u>UNDERPRODUCTION MCF</u>	<u>DAYS OPERATED</u>	<u>PRODUCTION MCF</u>	<u>CURRENT ALLOWABLE-MCF</u>
Sept. 55	58,426	0	0	46,953
Oct. 55	82,906	3	10,921	35,401
Nov. 55	86,267	16	35,176	38,537
Dec. 55	100,732	8	7,157	29,622
Jan. 56	124,805	9	17,091	33,164
Feb. 56	138,786	29	18,847	32,828
Mar. 56	160,698	18	16,887	38,799
Apr. 56	219,949	0	0	59,251
May 56	214,283	25	30,290	24,544
June 56	193,456	27	43,200	22,453
July 56	195,457	30	30,881	32,882
Aug. 56	221,245	0	0	25,788
Sept. 56	238,607	19	27,841	45,203
Oct. 56	243,642	29	33,319	38,354
Nov. 56	248,920	24	25,983	31,261
Dec. 56	257,719	31	36,533	45,332
Jan. 57	247,846	31	35,778	25,905
Feb. 57	271,078	25	27,434	50,666
Mar. 57	262,134	31	32,502	23,558
Apr. 57	250,896	29	32,327	21,089
May 57	237,915	31	36,598	23,617
June 57	232,202	30	26,143	14,502
July 57	219,821	31	27,327	14,946
Aug. 57	231,215	31	27,511	38,905
Sept. 57	243,732	30	23,147	35,664
Oct. 57	253,201	31	20,822	30,291
Nov. 57	272,857	29	16,771	36,427

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

Case No. 1360

Exhibit 3-13

Form C-122-C

4-1-54

Pool Jalmat Formation Yates-Seven Rivers County Lea
Initial Annual Special x Date of test 12-2, 12-4-57
Company Gulf Oil Corporation Lease Arnott-Ramsay 11E2 Well No. 5
Unit E Sec. 16 Twp. 25S Rge. 37E Purchaser Permian Basin Pipeline Co.
Casing 5.5 Wt. 15.5 I.D. 4.990 Set at 3169 Perf. 2990 To 3150
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3155 Perf. To
Gas Pay: From 2990 To 3150 L 3155 x G .655 = GL 2067 Bar. Press. 13.2
Producing Thru: Casing Tubing x Type Well Single
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started	Taken	Duration	Type	Line	Orifice	Static	Differ-	Flow
Date	time	Hours	Taps	Size	Size	Press.	ential	Temp.
12-22-57	AM				4" x 2.00			60
	PM	12-3-57			O.W.T.	15.5#		
		27.50						

FLOW CALCULATIONS

Static Pressure P _f	Differential h _w	Meter Extension √P _f h _w	24-Hour Coeff- icient	Gravity Factor F _g	Temp. Factor F _t	Compress- ability F _{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
				.9571	1.000		2,190

SHUT-IN DATA

Shut-in	Press. Taken	Duration	Wellhead Pressure (P _c) psia	W.H. Working Pressure (P _w) and (P _t) psia
Date	Time	Hours	Tubing	Casing
12-3-57	AM		562.4	562.4
	PM	12-4-57		
		23.0		

FLOW DATA

FRICTION CALCULATIONS(if necessary)

SUMMARY

P_c = _____ psia
Q = _____ MCF/Da.

DELIVERABILITY CALCULATIONS

$$P_w \quad P_c \quad P_w + P_c$$

$$1 - \frac{P_w}{P_c} \quad 1 + \frac{P_w}{P_c} \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M$$

$$.36 + M \quad \text{Log} \quad x(n) \quad = \quad +$$

P_w = _____ psia
P_d = _____ psia
D = _____ MCF/Da.

COMPANY Gulf Oil Corporation
ADDRESS Box 2167, Hobbs, N.M.
AGENT and TITLE D. C. Sears, Gas Tester
WITNESSED Joe Horton
COMPANY Permian Basin Pipeline Co.

Log Q = _____
Log D = _____
Antilog = _____ = D

REMARKS

Well made approximately 1.5 bbls oil and water - tubing has perforated anchor on bottom.

INSTRUCTIONS

This form is to be used for reporting deliverability tests in the designated Dry Gas Pools of Lea County as ordered by New Mexico Oil Conservation Commission Directive dated March 15, 1954, which directive was provided for by Orders R-365-A through R-376-A. For details regarding this test please refer to the above mentioned Directive.

NOMENCLATURE

- Q = Actual flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater, psia
- P_d = Deliverability pressure; 80 % of 72 hour individual wellhead shut-in pressure (P_c). psia
- P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing). psia
- D = Deliverability at Deliverability pressure (P_d) MCF/da. @ 15.025 psia and 60° F.
- P_f = Static meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

DELIVERABILITY FORMULA

$$D = Q \left[\frac{.36}{1 - \frac{P_w}{P_c}} \left(1 + \frac{P_w}{P_c} \right) \right]^n$$

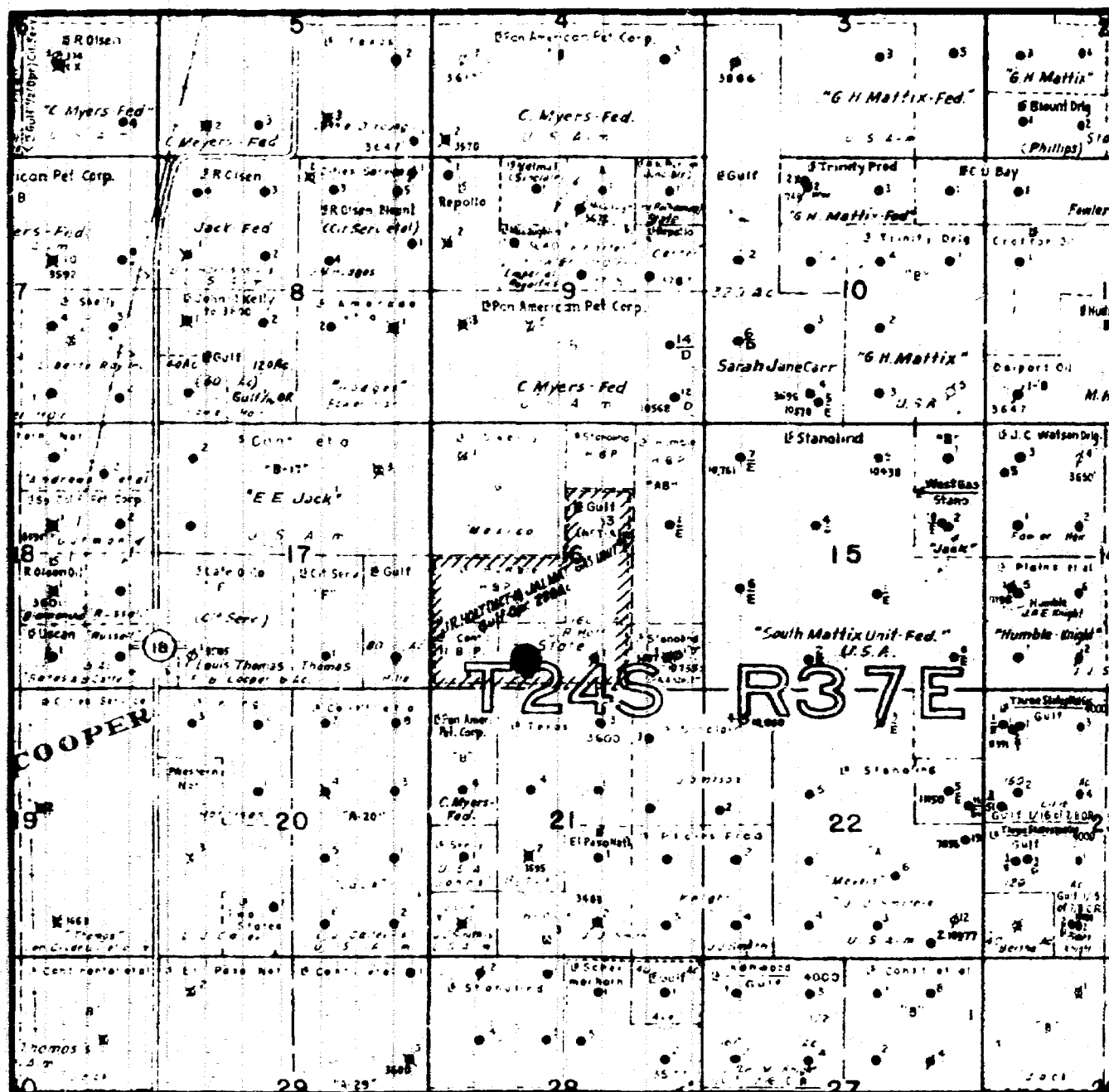
Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

PRODUCTION BY MONTHS - ARMSTRONG-RANSAY "B" WELL NO. 5
JALMAT POOL, LEA COUNTY, NEW MEXICO

Case No. 1360

Exhibit 3 C

<u>MONTH-YEAR</u>	<u>UNDERPRODUCTION MCF</u>	<u>DAYS OPERATED</u>	<u>PRODUCTION MCF</u>	<u>CURRENT ALLOWABLE-MCF</u>
May 56	7,918	0	0	7,918
June 56	14,574	12	15,797	22,453
July 56	44,428	3	3,028	32,382
Aug. 56	55,518	12	14,698	25,788
Sept. 56	66,617	27	34,104	45,203
Oct. 56	69,731	29	35,240	38,354
Nov. 56	72,269	24	28,723	31,261
Dec. 56	69,291	31	48,310	45,332
Jan. 57	47,421	31	47,775	25,905
Feb. 57	62,592	25	35,495	50,666
Mar. 57	40,503	31	45,647	23,558
Apr. 57	25,759	29	35,833	21,089
May 57	9,500	29	39,876	23,617
June 57	25,633	6	4,297	14,502
July 57	4,954	28	35,625	14,946
Aug. 57	27,531	26	16,328	38,905
Sept. 57	45,860	30	17,335	35,664
Oct. 57	61,470	31	14,681	30,291
Nov. 57	84,106	27	13,791	36,427



J. R. HOLT "A" NO. 2

JALMAT POOL, LEA COUNTY, NEW MEXICO

GULF OIL CORPORATION

JANUARY 7, 1958

CASE NO. 1360
EXHIBIT NO. 4-A

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

Case No. 1360
 Exhibit 4-13
 Form C-122-C
 4-1-54

Pool Jalmat Formation Yates Seven-Rivers County Lea
 Initial _____ Annual _____ Special X Date of test 12-2, 12-9-57
 Company Gulf Oil Corporation Lease J. R. Holt #13 Well No. 2
 Unit N Sec. 16 Twp. 24S Rge. 37E Purchaser Permian Basin Pipeline Co.
 Casing 6 Wt. 16 I.D. 5.50 Set at 3390 Perf. 2650 To 2945
 Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 3523 Perf. _____ To _____
 Gas Pay: From 2650 To 2945 L 2650 x G .650 = GL 1723 Bar.Press. 13.2
 Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
 Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	time	Date	time							
12-2-57	AM	12-6-57	AM	96.0			4"x2.50" O.W.T.	7.54		60
	PM		PM							

FLOW CALCULATIONS

Static Pressure P _f	Differ- ential h _w	Meter Extension $\sqrt{P_f h_w}$	24-Hour Coeff- icient	Gravity Factor F _g	Temp. Factor F _t	Compress- ability F _{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
				.9608	1.000		2,409

SHUT-IN DATA

Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P _c) psia		W.H. Working Pressure (P _w) and (P _t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
12-6-57	AM	12-9-57	AM	72.0		723.6		141.9
	PM		PM					

FRICTION CALCULATIONS (if necessary)

SUMMARY

P_c = _____ psia
 Q = _____ MCF/Da.
 P_w = _____ psia
 P_d = _____ psia
 D = _____ MCF/Da.

DELIVERABILITY CALCULATIONS

$$P_w \quad P_c \quad P_w + P_c$$

$$1 - \frac{P_w}{P_c} \quad 1 + \frac{P_w}{P_c} \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M$$

$$.36 + M \quad \text{Log} \quad \times (n) \quad = \quad +$$

COMPANY Gulf Oil Corporation
 ADDRESS Box 2167, Hobbs, N.M.
 AGENT and TITLE D. C. Sears, Gas Tester
 WITNESSED Joe Horton
 COMPANY Permian Basin Pipeline Co.

Log Q = _____
 Log D = _____
 Antilog = _____ = D

REMARKS

Well made 9½ bbls oil first 24 hours and 2 bbls oil last 24 hrs of flow period.

INSTRUCTIONS

This form is to be used for reporting deliverability tests in the designated Dry Gas Pools of Lea County as ordered by New Mexico Oil Conservation Commission Directive dated March 15, 1954, which directive was provided for by Orders R-365-A through R-376-A. For details regarding this test please refer to the above mentioned Directive.

NOMENCLATURE

Q = Actual flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_d = Deliverability pressure; 80 % of 72 hour individual wellhead shut-in pressure (P_c). psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing). psia

D = Deliverability at Deliverability pressure (P_d) MCF/da. @ 15.025 psia and 60° F.

P_f = Static meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

DELIVERABILITY FORMULA

$$D = Q \left[\frac{.36}{\left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right)} \right]^n$$

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

PRODUCTION BY MONTHS - J. R. HOLT "A" WELL NO. 2
JAINAT POOL, LEA COUNTY, NEW MEXICO

Case No. 1360
Exhibit 4-C

<u>MONTH-YEAR</u>	<u>UNDERPRODUCTION MCF</u>	<u>DAYS OPERATED</u>	<u>PRODUCTION MCF</u>	<u>CURRENT ALLOWABLE-MCF</u>
Dec. 55	19,112	0	0	19,112
Jan. 56	38,107	6	14,169	33,164
Feb. 56	70,935	0	0	32,828
Mar. 56	63,940	25	45,754	38,799
Apr. 56	96,716	15	26,515	59,251
May 56	69,619	27	51,641	24,544
June 56	55,239	23	36,833	22,453
July 56	63,025	15	25,096	32,882
Aug. 56	45,856	25	42,957	25,778
Sept. 56	84,553	5	6,506	45,203
Oct. 56	77,844	31	45,063	38,354
Nov. 56	71,104	28	38,001	31,261
Dec. 56	72,861	31	43,575	45,332
Jan. 57	58,379	31	40,387	25,905
Feb. 57	75,538	25	33,507	50,666
Mar. 57	56,047	31	43,049	23,558
Apr. 57	37,612	29	39,524	21,089
May 57	17,435	31	43,794	23,617
June 57	21,057	30	16,808	14,502
July 57	36,003	0	0	14,946
Aug. 57	33,299	31	41,609	38,905
Sept. 57	33,197	30	35,766	35,664
Oct. 57	32,030	31	31,458	30,291
Nov. 57	42,934	30	25,523	36,427

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

Case No. 1360
Exhibit 5-B
Form C-122-C
4-1-54

Pool Blinbry Formation Blinbry County Lea
Initial Annual Special x Date of test 11-25 to 12-5-57
Company Gulf Oil Corporation Lease Leonard #2 Well No. 4
Unit 1 Sec. 16 Twp. 21S Rge. 37E Purchaser Permian Basin Pipeline Co.
Casing 7 Wt. 23 I.D. 6.366 Set at 6645 Perf. 5660 To 5720
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 6312 Perf. 5660 To 5720
Gas Pay: From 5585 To 5720 L 5660 x G .695 = GL 5660 Bar.Press. 13.2
Producing Thru: Casing x Tubing Type Well G.G. Dual
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	time	Date	time							
11-26-57	AM	12-5-57	AM	217.75		4	1.50	588.4	4.7	78
	PM		PM							

FLOW CALCULATIONS

Static Pressure P_f	Differ- ential h_w	Meter Extension $\sqrt{P_f h_w}$	24-Hour Coeff- icient	Gravity Factor F_g	Temp. Factor F_t	Compress- ability F_{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
601.6	4.7	53.18	15.26	.9292	.9831	1.059	785

SHUT-IN DATA

Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P_c) psia		W.H. Working Pressure (P_w) and (P_t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
11-25-57	AM	11-26-57	AM	24	1448.4			643.7
	PM		PM					

FLOW DATA

FRICTION CALCULATIONS(if necessary)

SUMMARY

P_c = _____ psia
 Q = _____ MCF/Da.
 P_w = _____ psia
 P_d = _____ psia
 D = _____ MCF/Da.

DELIVERABILITY CALCULATIONS

$$P_w \quad P_c \quad P_w + P_c$$

$$1 - \frac{P_w}{P_c} \quad 1 + \frac{P_w}{P_c} \quad \left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right) = M$$

$$.36 + M \quad \text{Log} \quad x(n) \quad = \quad +$$

COMPANY Gulf Oil Corporation ADDRESS Box 2167, Hobbs, N.M.
AGENT and TITLE W. L. Smith, Gas Tester
WITNESSED Joe Horton
COMPANY Permian Basin Pipeline Co. Antilog = _____ = D

REMARKS

Line pressure fluctuated from 677 to 577#. Unable to get accurate well head stabilization.

INSTRUCTIONS

This form is to be used for reporting deliverability tests in the designated Dry Gas Pools of Lea County as ordered by New Mexico Oil Conservation Commission Directive dated March 15, 1954, which directive was provided for by Orders R-365-A through R-376-A. For details regarding this test please refer to the above mentioned Directive.

NOMENCLATURE

- Q = Actual flow at end of flow period at W. E. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P_d = Deliverability pressure; 80 % of 72 hour individual wellhead shut-in pressure (P_c). psia
- P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing). psia
- D = Deliverability at Deliverability pressure (P_d) MCF/da. @ 15.025 psia and 60° F.
- P_f = Static meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercriticality factor.
- n = Slope of back pressure curve.

DELIVERABILITY FORMULA

$$D = Q \left[\frac{.36}{\left(1 - \frac{P_w}{P_c}\right) \left(1 + \frac{P_w}{P_c}\right)} \right]^n$$

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

PRODUCTION BY MONTHS - HARRY LEONARD "E" WELL NO. 4
BLINERY POOL, LEA COUNTY, NEW MEXICO

Case No. 1360
Exhibit 5-C

<u>MONTH-YEAR</u>	<u>UNDERPRODUCTION MCF</u>	<u>DAYS OPERATED</u>	<u>PRODUCTION MCF</u>	<u>CURRENT ALLOWABLE-MCF</u>
Dec. 54				
Jan. 55	2,951 (Ex)	26	35,900	52,029
Feb. 55	2,339	27	28,455	33,745
Mar. 55	4,415 (Ex)	24	23,068	16,314
Apr. 55	6,619	27	27,021	38,055
May 55	3,491	29	27,522	24,394
June 55	6,601 (Ex)	23	19,149	9,357
July 55	17,860 (Ex)	29	26,493	15,234
Aug. 55	9,277 (Ex)	2	2,478	11,061
Sept. 55	5,039	0	0	18,316
Oct. 55	22,888	4	3,416	17,265
Nov. 55	40,266	4	1,928	19,266
Dec. 55	34,345	24	28,072	22,191
Jan. 56	32,986	26	26,690	25,331
Feb. 56	34,640	31	32,603	34,257
Mar. 56	38,372	29	28,653	31,539
Apr. 56	43,755	29	26,881	33,110
May 56	40,549	27	28,660	25,454
June 56	39,709	21	19,700	18,860
July 56	36,325	29	28,823	25,439
Aug. 56	31,439	25	23,252	18,366
Sept. 56	27,117	20	22,162	17,840
Oct. 56	10,569	28	15,683	23,414
Nov. 56	19,857	14	15,213	13,497
Dec. 56	5,631	25	25,949	11,711
Jan. 57	1,612	20	20,363	16,344
Feb. 57	12,585	16	16,898	27,871
Mar. 57	5,521	25	25,430	18,366
Apr. 57	23,269	0	0	17,748
May 57	38,287	4	3,413	18,431
June 57	35,264	11	10,305	7,282
July 57	8,090	26	26,246	2,788
Aug. 57	10,456	9	8,755	11,121
Sept. 57	22,077	12	10,118	21,739
Oct. 57	40,343	0	0	18,266
Nov. 57	47,767	10	8,404	15,828
	44,067	27	22,823	19,123

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. Box 871
Santa Fe, New Mexico

Date November 22, 1957

Gulf Oil Corporation
P.O. Drawer 1290
Fort Worth 1, Texas

ATTENTION: Don Walker

Gentlemen:

Your application for non-cancellation of underproduction

dated November 20, 1957 has been received, and has been tentatively
scheduled for hearing before an Examiner on
January 7, 1958.

A copy of the docket will be forwarded to you as soon as the matter is
advertised.

Very truly yours,


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

ga