

Case No.

1544

Application, Transcript,  
Small Exhibits, Etc.

USE 1988 FORMS  
DO NOT USE PREVIOUS EDITIONS  
DO NOT WRITE IN THESE SPACES

**The  
FRONTIER REFINING CO.**

4040 EAST LOUISIANA AVENUE • DENVER 22, COLORADO



DENVER, COLORADO  
General Office

CHEYENNE, WYOMING  
Manufacturing

October 24, 1958

1012  
1544

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
P. O. Box 871  
Santa Fe, New Mexico

RE: Gallegos-Gallup Pool  
San Juan Co., New Mexico

Dear Sir:

We have received a copy of Skelly Oil Company's letter to you dated October 10, 1958, concerning the Gallegos-Gallup Pool.

This is to advise that we concur with the requests contained in Skelly's letter and urge that your approval for exception to Rule 502-1-A and Rule 502-1-B be granted for all of the wells in this pool.

Would you please advise us of your decision in this matter?

Yours very truly,

*E. B. Granville*  
E. B. Granville

EBG:lma

*Docket Filed  
11-3-58  
B P*

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

November 24, 1958

C  
O  
P  
Y

Mr. Everett Grantham  
Grantham, Spann & Sanchez  
P.O. Box 1031  
Albuquerque, New Mexico

Dear Mr. Grantham:

On behalf of your client, El Paso Natural Gas Products Company, we enclose two copies of Order R-1286 issued November 21, 1958, by the Oil Conservation Commission in Case 1544, which was heard on November 13th.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encls.

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

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

**CASE NO. 1544  
Order No. R-1286**

**THE APPLICATION OF THE OIL CONSERVATION  
COMMISSION UPON ITS OWN MOTION AT THE  
REQUEST OF CERTAIN OPERATORS TO DETERMINE  
WHETHER ALL WELLS IN THE GALLEGOS-GALLUP  
OIL POOL SHOULD BE GRANTED AN EXCEPTION  
TO RULE 502 I (a) OF THE COMMISSION RULES  
AND REGULATIONS.**

**ORDER OF THE COMMISSION**

**BY THE COMMISSION:**

This cause came on for hearing at 9 o'clock a.m. on November 13, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 21<sup>st</sup> day of November, 1958, the Commission, a quorum being present, having considered the application, and the evidence adduced, 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 certain operators in the Gallegos-Gallup Oil Pool have requested that all wells in said pool be granted an exception to the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations.
- (3) That a preponderance of the evidence indicates that waste of casinghead gas can be prevented by granting all wells in said pool an exception to Rule 502 I (a) by permitting operators to utilize the "slug" method of production.
- (4) That all wells presently drilled or hereafter completed in the Gallegos-Gallup Oil Pool should be granted an exception to the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations and should be allowed to produce at a daily rate not to exceed 200 per cent of the daily top unit allowable for said pool.

-2-

Case No. 1544  
Order No. B-1256

IT IS THEREFORE ORDERED:

That all wells presently drilled or hereafter completed in the Gallegos-Gallup Oil Pool are hereby granted an exception to the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations and may be produced at a daily rate not to exceed 200 per cent of the daily top unit allowable for said pool.

PROVIDED HOWEVER, That in the event casinghead gas gathering facilities are established in the Gallegos-Gallup Oil Pool, a hearing will be called to determine whether the pool exception to Rule 502 I (a) granted by this order should be continued.

PROVIDED FURTHER, That nothing contained herein shall be construed as authorizing the production of wells in said pool in excess of the monthly tolerance set forth in Rule 302 II of the Commission Rules and Regulations.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



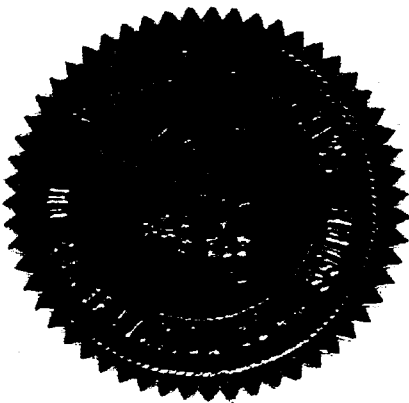
EDWIN L. MECHEM, Chairman



MURRAY E. MORGAN, Member



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



ir/

*El Paso Natural Gas Company*  
*El Paso, Texas*

November 14, 1958

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

Gentlemen:

In response to a request forwarded to me by Mr. Woodruff, please be advised that El Paso Natural Gas Company has the following wells connected to its gathering system in the Gallegos Gallup Oil Pool, San Juan, New Mexico:

Frontier Refining Company	Chartier No. 1	M	4-26N-12W
E.P.N.G. Products Company	Frontier No. 1	K	5-26N-12W
	Frontier No. 1-A	I	8-26N-12W
	Nelson No. 1	A	8-26N-12W
	Nelson No. 1-A	F	9-26N-12W
	Hickman No. 1-A	L	10-26N-12W
	Sullivan No. 1-E	I	9-26N-12W
Skelly Oil Company	Goddard, J. W. No. 2	K	1-26N-12W
	Navajo "C" No. 1	D	24-26N-12W
	Navajo "D" No. 1	D	13-26N-12W
	Navajo "H" No. 1	A	13-26N-12W

For your further information, we also have connected E.P.N.G. Products Company's Hill No. 1 in A 20-26N-12W which is producing gas from the Gallup Formation; however, it is not within the presently defined limits of the Gallegos Gallup Oil Pool.

If there is any further information that you need, please advise us.

Yours very truly,



D. H. Rainey  
Proration Department

DHR:nc



MAIN OFFICE GOC  
**SKELLY OIL COMPANY**

REC'D NOV 7 1958  
**TULSA 2, OKLAHOMA**

PRODUCTION DEPARTMENT  
C. L. BLACKSHER, VICE PRESIDENT

November 5, 1958

Re: Case No. 1544  
Gallegos Gallup Pool

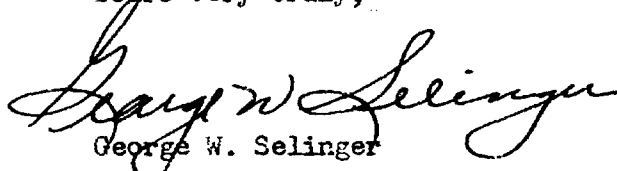
New Mexico Oil Conservation Commission  
Box 871  
Santa Fe, New Mexico

Gentlemen:

This matter is set for hearing by the Commission on November 13, 1958, and we desire that the attached letter be made a part of the record; which letter has heretofore been filed on October 10, 1958, asking for a rule 502 exception for Skelly Oil Company leases in the Gallegos Gallup Pool.

Skelly Oil Company leases in this field are G. W. Goddard, Navajo "B", "C", "D", "E", "F", "G", "H", "J", and "L".

Yours very truly,

  
George W. Selinger

GWS/db

Attach





## SKELLY OIL COMPANY

TULSA 2, OKLAHOMA

PRODUCTION DEPARTMENT  
C. L. BLACKSHER, MANAGER

October 10, 1958

Re: Gallegos Gallup Pool

Mr. A. L. Porter, Jr.  
New Mexico Oil Conservation Commission  
Box 871  
Santa Fe, New Mexico

Dear Sir:

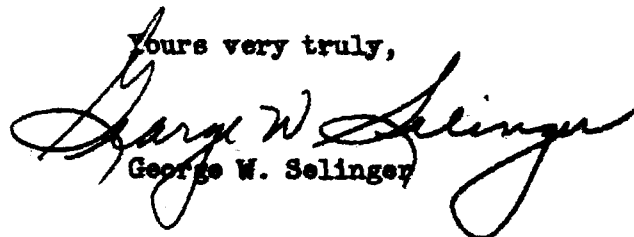
Request is herewith made for administrative approval by the Secretary of the Commission for exception to Rule 502-I-a and Rule 502-I-b so as to permit the El Paso Natural Gas Company as purchaser and Skelly Oil Company as producer of wells in this field to produce its wells on a monthly allowable schedule instead of the daily allowable schedule of a daily tolerance of 125 per cent as provided for in Rule 502-I-a of the Commission's regulations.

We have a number of gas wells in this field as well as several high gas/oil ratio wells, and such administrative approval would permit El Paso Natural Gas Company to handle gas produced from our gas wells and high gas/oil ratio wells much easier if they were produced at a high rate until the monthly allowable had been run. The records will show that of the approximately 72 wells in the field, 68% or 49 exceed the 2,000 foot limitation. Our records further indicate that there are 9 wells with ratios between 10,000 and 15,000; 2 wells with ratios between 15,000 and 25,000; 4 wells with ratios between 25,000 and 50,000; 3 wells with ratios between 50,000 and 100,000; and 5 wells with ratios over 100,000 going up to approximately 300,000 feet.

We believe that all of these factors justify your approval to permit all of the wells in the pool to produce on a monthly allowable schedule instead of the daily allowable tolerance as provided by Rule 502-I-a, and such approval is requested for an exception to Rule 502-I-b.

A copy of this letter is being sent to each of the other operators in the field.

Yours very truly,

  
George W. Selinger

CWS/db

DOCKET: REGULAR HEARING NOVEMBER 13, 1958

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

- ALLOWABLE:**
- (1) Consideration of the oil allowable for December, 1958.
  - (2) Consideration of the allowable production of gas for December, 1958, for six prorated pools in Lea County, New Mexico, and also presentation of purchasers' nominations for the six-month period beginning January 1, 1959; consideration of the allowable production of gas for seven prorated pools in San Juan and Rio Arriba Counties, New Mexico, for December, 1958.

NEW CASES

CASE 728: Application of El Paso Natural Gas Company for an order extending the vertical limits of the Justis Gas Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the vertical limits of the Justis Gas Pool in Lea County, New Mexico, to a datum 270 feet below the top of the Glorieta formation. The vertical limits of the Justis Gas Pool, as presently designated, extend from the top of the Glorieta formation to a point 200 feet below the top of said formation.

CASES 1253 & 1254:

In the matter of the hearing ordered to be held by Order No. R-1011 to permit the operators in the Kemnitz-Wolfcamp Pool in Lea County, New Mexico, to appear and show cause why the Special Rules and Regulations set forth in said order should be continued in effect beyond December 31, 1958.

CASE 1544: In the matter of the hearing called on the motion of the Oil Conservation Commission at the request of certain operators in the Gallegos-Gallup Oil Pool in San Juan County, New Mexico, to permit any operator to appear and show cause why any well or wells in the Gallegos-Gallup Oil Pool should be granted an exception to the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations.

CASE 1545: In the matter of the hearing called on the motion of the Oil Conservation Commission at the request of certain operators in the Verde-Gallup Oil Pool in San Juan County, New Mexico, to permit any operator to appear and show cause why any well or wells in the Verde-Gallup Oil Pool should be granted an exception to the daily tolerance provisions of Rule 502 I (a) of the Commission Rules and Regulations.

CASE 1499: Application of Sinclair Oil & Gas Company for a hearing de novo before the Oil Conservation Commission of New Mexico on its application for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing a 240-acre non-standard gas proration unit in the Tubb Gas Pool comprising the SW/4 and the S/2 SE/4 Section 26, Township 21 South, Range 37 East, Lea County, New Mexico, said unit

CASE 1499 continued:

to be dedicated to applicant's J. R. Cone "A" Well No. 1 located 660 feet from the South and West lines of said Section 26.

CASE 1500: Application of Sinclair Oil & Gas Company for a hearing de novo before the Oil Conservation Commission of New Mexico on its application for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order authorizing a 200-acre non-standard gas proration unit in the Blinebry Gas Pool comprising the SW/4 and SW/4 SE/4 Section 26, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to applicant's J. R. Cone "A" Well No. 2 located 1980 feet from the South line and 660 feet from the West line of said Section 26.

CASE 1546: Southeastern New Mexico nomenclature case calling for an order for the creation of new pools and extension of existing pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.

(a) Create a new gas pool for Seven Rivers production, designated as the Laguna-Seven Rivers Gas Pool, and described as:

TOWNSHIP 20 SOUTH, RANGE 35 EAST, NMPM  
Section 11: NE/4

(b) Create a new oil pool for Pennsylvanian production, designated as the North Shoe Bar-Pennsylvanian Pool, and described as:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM  
Section 15: SE/4

(c) Extend the Acme Pool to include:

TOWNSHIP 8 SOUTH, RANGE 27 EAST, NMPM  
Section 5: N/2

(d) Extend the Artesia Pool to include:

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM  
Section 23: SE/4

(e) Extend the Blinebry Gas Pool to include:

TOWNSHIP 21 SOUTH, RANGE 37 EAST, NMPM  
Section 32: SE/4

(f) Extend the Hare Pool to include:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM  
Section 4: S/2

- (g) Extend the Hume-Queen Pool to include:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM  
Section 8: S/2 NW/4

- (h) Extend the Jalmat Gas Pool to include:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM  
Section 3: SE/4  
Section 10: SE/4

- (i) Extend the Kennitz-Wolfcamp Pool to include:

TOWNSHIP 16 SOUTH, RANGE 34 EAST, NMPM  
Section 22: NW/4

- (j) Extend the Milnesand-San Andres Pool to include therein:

TOWNSHIP 8 SOUTH, RANGE 34 EAST, NMPM  
Section 23: NE/4

- (k) Extend the Tubb Gas Pool to include:

TOWNSHIP 22 SOUTH, RANGE 38 EAST, NMPM  
Section 31: NE/4 & NE/4 SE/4

CASE 1547: Northwestern New Mexico nomenclature case calling for an order for the extension of existing pools in Rio Arriba and San Juan Counties, New Mexico.

- (a) Extend the Aztec-Pictured Cliffs Pool to include:

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM  
Section 36: W/2

- (b) Extend the South Blanco-Pictured Cliffs Pool to include:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM  
Section 20: S/2  
Section 21: N/2

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM  
All of Sections 9, 10 and 11  
Section 14: All  
Section 15: N/2 and SE/4  
Section 16: N/2

- (c) Extend the Tapacito-Pictured Cliffs Pool to include:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM  
Section 14: W/2

- (d) Extend the West Kutz-Pictured Cliffs Pool to include:

TOWNSHIP 29 NORTH, RANGE 13 WEST, NMPM

Section 20: SE/4

Section 21: SW/4

- (e) Extend the Angels Peak-Dakota Pool to include:

TOWNSHIP 26 NORTH, RANGE 10 WEST, NMPM

Section 2: NW/4

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM

Section 35: SW/4

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM

Section 27: W/2

Section 28: E/2

- (f) Extend the North Los Pinos-Dakota Pool to include:

TOWNSHIP 32 NORTH, RANGE 7 WEST, NMPM

Section 12: SW/4

- (g) Extend the Horseshoe-Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 16 WEST, NMPM

Section 32: SE/4

Section 33: SW/4 SW/4

- (h) Extend the Otero-Gallup Oil Pool to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM

Section 32: NW/4 NE/4

- (i) Extend the Verde-Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 15 WEST, NMPM

Section 26: SW/4

Section 27: SE/4

Section 35: NW/4

CONTINUED CASES

CASE 1522: Application of Lea County Drip Company, Inc. for the revision of certain of the Commission Statewide Rules and Regulations and for the revision of certain of the Commission forms. Applicant, in the above-styled cause, seeks an order to revise Rules 311, 312, 1116 and 1117 of the Commission Rules and Regulations, to replace the present Commission Form C-117 with two forms to be designated as C-117-A and C-117-B, and to revise Commission Form C-118.

CASE 1526: Northwestern New Mexico nomenclature case calling for an order for the extension of an existing pool in San Juan County, New Mexico.

-5-

Docket No. 31-58

(h) Extend the Angels Peak-Dakota Pool to include:

TOWNSHIP 26 NORTH, RANGE 10 WEST, NMPM

Section 2: NW/4

TOWNSHIP 27 NORTH, RANGE 10 WEST, NMPM

Section 35: SW/4

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM

Section 27: W/2

Section 28: E/2

ir/

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1544

TRANSCRIPT OF HEARING

NOVEMBER 13, 1958

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

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
NOVEMBER 13, 1958

-----  
IN THE MATTER OF: :  
: :  
: :

CASE 1544 In the matter of the hearing called on the :  
motion of the Oil Conservation Commission :  
at the request of certain operators in the :  
Gallegos-Gallup Oil Pool in San Juan County: :  
New Mexico, to permit any operator to ap- :  
pear and show cause why any well or wells :  
in the Gallegos-Gallup Oil Pool should be :  
granted an exception to the daily tolerance: :  
provisions of Rule 502 I (a) of the Com- :  
mission Rules and Regulations. :  
: :  
-----

BEFORE:

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

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

MR. PORTER: Proceed next to Case 1544.

MR. PAYNE: Case 1544. In the matter of the hearing  
called on the motion of the Oil Conservation Commission at the re-  
quest of certain operators in the Gallegos-Gallup Oil Pool in San  
Juan County, New Mexico, to permit any operator to appear and show  
cause why any well or wells in the Gallegos-Gallup Oil Pool should  
be granted an exception to the daily tolerance provisions of Rule  
502 I (a) of the Commission Rules and Regulations.

MR. GRANTHAM: If the Commission please, I am Everett  
Grantham of the firm of Grantham, Spann & Sanchez, Albuquerque,



appearing here for El Paso Natural Gas Products Company. We have some testimony we would like to submit. Mr. John Woodward, attorney for El Paso, is present and associated with me.

MR. PORTER: Any other appearances in this particular case, make it known at the present time.

MR. WOODRUFF: Norman Woodruff, representing El Paso Natural Gas Company.

MR. KELLAHIN: Jason Kellahin, representing Gulf Oil Corporation.

MR. GRANVILLE: E. B. Granville, representing Frontier Refining Company. I have a statement to make.

MR. WHITE: Charles White, of Gilbert, White & Gilbert, Santa Fe, New Mexico, appearing on behalf of Pan American, and I would like to make a statement.

MR. GRANTHAM: I would like to have Mr. Walsh sworn.  
(Witness sworn)

EWELL N. WALSH,  
called as a witness, having been first duly sworn on oath, testified as follows:

DIRECT EXAMINATION

BY MR. GRANTHAM:

Q Will you state your name, please?

A Ewell, E-w-e-l-l N. Walsh.

Q What is your profession?

A Petroleum engineer.

4  
Q By whom are you employed?

A El Paso Natural Gas Products Company as division petroleum engineer at Farmington, New Mexico.

Q Have you previously qualified in hearings before the Commission, Mr. Walsh?

A I have.

Q Mr. Walsh, in connection with this Case 1544 concerning exceptions to the tolerance provisions of Rule 502 I (a), are you familiar with the operations of the Products Company in the Gallegos-Gallup Oil Pool, San Juan County, New Mexico?

A I am.

Q On the board, Mr. Walsh, I wish you would identify the plat which appears there.

A On this map, outlined in blue, are the Pool limits of the Gallegos-Gallup Pool, as has been set forth by the Conservation Commission. This Pool covers lands in Township 27 North, Range 13 East, through Township 27 North, 12 West, Township 26 North, Range 12 West, and Township 26 North, Range 11 West.

Q Does the plat show all of the wells within that Pool?

A Yes, sir.

Q How many wells are presently being produced by the El Paso Natural Gas Products Company within the Gallegos-Gallup Pool?

A We have thirty-five wells.

Q Are you familiar with the history of the production of -- specifically of the Products Company wells and generally of the other

wells located within that Pool?

A Yes, I am.

Q In the Gallegos-Gallup Pool, are some of the Products Company wells tied into the gas gathering system?

A At the present time there are six wells that are tied into the El Paso Natural Gas gathering system.

Q And how many wells are not tied in?

A Twenty-nine.

Q I wish you would just proceed, Mr. Walsh, to outline the history of the production of those wells, both before and since the operation of Rule 502 I (a) as applied to the Gallegos-Gallup Pool.

A The wells that are tied into the gas gathering system at the present time, the present system, are extremely high gas-oil ratio wells and have flowing pressures which are -- in which they are able to meet the contract pressure set forth by the gas company. The remainder of the twenty-nine wells are essentially, or do have essentially low flowing pressures with a gas-oil ratio bearing from slightly below 2,000 to 1 to as high as 40 to 50,000 to 1. Before the daily tolerance Rule was put in effect in the north-western part of the state, many of these wells in this Field were able to produce their allowable within a short period of time, within a few days, you might say. Their being able to produce them this way, they were producing essentially low volumes of gas; at the time the daily tolerance Rule was put into effect, the wells were choked back in order to bring them under the daily tolerance. This caused

the wells to have a rapid decline in oil production and a rapid increase in gas production, bringing the GOR up to a fairly high level. For example, in May of 1958, we had twenty-six wells on production. The average daily production allotted to those twenty-six wells, that is, taking the total allowable for the twenty-six dividing by the number was fifty-six barrels a day. In October, 1958, due to the wells being corrected on production according to their gas-oil ratio, this allowable was 27,000 -- pardon me -- the average daily allowable was 30 barrels. In May of '58, the average production for the wells was 37 barrels. In October it was 12.7 barrels, which is a considerable decline over a short period of time of oil production even though some of the wells had higher allowables. During this time the gas-oil ratio was also increased, and so the wells have been penalized heavily due to these high GOR's. Insofar as this daily tolerance Rule, we request that the wells within the Pool be allowed to produce without the restriction of the daily tolerance rate, Rule 502, Section 1, Sub-section (a). We believe that we will be able to produce this oil in essentially slugs and there will be less gas being vented to the atmosphere. In the case of the wells that are already tied into the gas system, this exception would ease in scheduling the production of those wells while we are working with the El Paso Natural Gas Company on their take. We had one case in which we took a well that had a high GOR and made mechanical installation on this well for the removal of paraffin. We installed a free piston and intermeter. This piston was set

so as to stop at a depth of approximately 3,000 foot. This depth is not low enough to allow that piston to get down into the fluid level. In the flowing three months of production, we noted on this well that the GOR was cut essentially by two-thirds, the gas production was cut by almost two-thirds, and our oil production increased by about a third. As far as trying to install now such installation on every well we have in the Field, we feel that the cost would be too high to warrant doing that now due to the production history and the way the Field has acted in the past. The Gallegos-Gallup engineering committee which was formed to make a study of this Field has a subcommittee working as far as possible to determine the most economical and feasible way to produce this Field to assure maximum return to the operators and to have the highest possible recovery factor.

If this request is granted, it will allow the venting of less gas and will help conserve reservoir energy, and also will give time for more information to the subcommittee for the use in their study. The El Paso Natural Gas Products Company requests that if this exception is granted, that the exception be in effect only until proper facilities can be constructed to gather the casing head gas. At that time a review will be made to determine if there is a need for continuance of the exception. Also the El Paso Natural Gas Products Company requests that if this exception is granted, that it will apply to all wells within the Pool limits as set forth by the Commission and all wells within one mile of the Pool limits.

Q Is it your idea, Mr. Walsh, that if these wells should be produced on an exception to this Rule by the so-called slug method, would it be necessary to work out a staggered plan of production, that is, so that all wells will not be produced within any short period of time during the month?

A Essentially since this Field is not tied into an oil gathering system, I don't believe that there should be a set schedule. It would be up to each operator's viewpoint as far as doing so, when to produce wells.

Q Are all of the Product Company's wells within this Pool capable of making the allowable --

A No, sir, not all of them.

Q -- under any method of production?

A No, sir, not all of them.

Q From your knowledge and information, how many do you think could make their allowable by the so-called slug method of production, and how many might be questionable?

A Based on my study of it, I would say out of the twenty-nine wells that are not tied into the system now, fourteen of them should -- will or should -- be able to produce their allowable in short periods of time or producing slugs, and fifteen will be questionable and will not be determined until we can try the method of them.

Q Mr. Walsh, I gain actually from your testimony that one of the main reasons for the request which is made to the Com-

mission is to gain some experience which will be beneficial to the --  
all of the operators in possibly proposing Field Rules for the opera-  
tion of that Pool?

A Yes, sir, that's right.

MR. GRANTHAM: That's all.

MR. PORTER: Mr. Nutter.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Walsh, this slug method of production that you are  
talking about, what is the time interval of producing these slugs?

A You are relating to the one well, Mr. Nutter, or what  
I believe we would do on all of them?

Q No, sir. I mean on this slug method, I believe that you  
intend to show those wells.

A They will be shut in for a period of time and then al-  
lowed to produce their oil and then shut in to prevent venting of  
gas that might follow the oil. As far as time, that can only be  
determined by experimenting with each individual well.

Q Do you think this will probably be a matter of hours,  
within a day or days, within a week, or a matter of shutting them  
in for several weeks and then open them up, a month or a day or  
two? I realize there is going to be a variation on the wells, but  
what is the idea on it?

A There is a possibility that we may find that it will  
just take a few hours a day in order to allow enough oil to collect

by slugs, and it might take maybe two or three days. As far as shutting in a week or three weeks, just -- I don't believe that you could come up on the right side of it by doing that. You would be shut in too much of your producing time.

Q I see. I was just wondering what the approximate length of time would be.

A Well, it's hard to determine without actually experimenting with each well.

Q Well now, you mentioned that on one well you would install an intermeter with this free piston. In a lot of instances, is not an intermeter installed in the well head and there is no necessity for expenditure of money on some other equipment? Is it put on not only in relationship with the piston?

A Yes. Yes, it is.

Q What is the cost of that intermeter?

A Your complete cost, I would say, would run you approximately three, four hundred dollars.

Q Do you think these wells have a glorious enough future that they will pay out a three or four hundred dollar --

A Going back to your scheduling, I wouldn't doubt there is going to be some of the wells that can be put on an intermeter and be allowed to produce under this slug method, but there might be some in which the intermeter might be there, like I say, two or three days, and on cases like that, you can have the pumper go on and turn it on rather than have a piece of equipment tied up.



Q Do you propose in asking for this exception from Rule 502 I (a) that any restriction whatsoever be placed on the daily production?

A No. Just as I stated here, that we ask for an exception to the Rule without exception unless the Commission sees fit that they should put exception.

Q Do you think that an exception to the Rule with exceptions in the range of, say, 200 percent of the daily allowable would be liveable with, bearable.

A Yes, I do. You mean, in other words, raise from 125 percent to your 200 percent?

Q Yes.

A Yes, sir.

Q You could live with that?

A Yes. That essentially would give you, for the wells, a fifteen-day production period instead of the normal thirty.

Q Mr. Walsh, you didn't mean to imply, I hope, that these GOR's in this Pool went up because the Rule 502 I (a) went into effect last spring?

A Well, actually, well maybe not on account, but we had to choke those wells.

Q This was probably at the time of the life of these wells that the GOR was going up, --

A Possibly could

Q -- and the allowable for the wells did increase about

that time, and the wells were permitted to produce more oil --

A Yes.

Q -- than they had previously?

A I couldn't say that is actually what caused it, but it might have been it happened at the same time.

Q It might have contributed to it, but possibly there were other reasons, too, is that correct?

A That's true.

Q Do you have any idea or anticipate--these wells were not of sufficient pressure to meet this contract that is necessary for the wells to go into a high pressure line -- do you have any idea when those wells will be connected to the gathering facilities?

A I believe Mr. Woodruff is going to make a statement on that.

Q You would be willing for this daily tolerance exception to be effective only until such time as the casing head gas facilities were available for low pressure wells?

A Yes, sir, and then to have a review at that time to determine if it should be a continuance or some other change.

MR. NUTTER: I believe that's all.

MR. PORTER: Anyone else have a question? Mr. Cooley.

QUESTIONS BY MR. COOLEY:

Q Mr. Walsh, what is the reservoir mechanism in the Gallegos-Gallup Oil Pool?

A Solution gas, essentially.

Q Is it your experience that a solution gas reservoir is very sensitive or is not very sensitive?

A Well, my experience in this reservoir here, I would say it was sensitive.

Q Would you explain that answer, please? What do you mean by sensitive?

A Just based on the information from this Field, we are producing these wells essentially at low rate of oil volume. In doing so, the gas is evidently breaking out of the solution and traveling through the well bore faster than the oil is moving, getting a high gas production and getting a high GOR. Under this method that we recommend, which will allow the accumulation of oil at the well bore, that oil will be produced as a slug with essentially small volume of gas, and then that well will be shut in to prevent the gas behind it from coming out.

Q Is it your opinion, then, that such a production method will result in a greater ultimate recovery of oil from the Pool?

A Possibly under primary method, yes.

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

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

MR. GRANTHAM: I would like to ask one question.

REDIRECT EXAMINATION

BY MR. GRANTHAM:

Q This proposed method of production, what is your opinion about the conservation of reservoir energy by going from the present

method to the one you propose?

A Well, no doubt if we can hold that gas in the reservoir rather than venting it to the atmosphere and trying to hold our bottom hole pressure up, it would actually be a conservation of reservoir energy.

MR. GRANTHAM: That's all.

MR. PORTER: Mr. Grantham, did you desire to enter this map?

MR. GRANTHAM: If the Commission please, I would like to offer in evidence as El Paso Natural Gas Company's Exhibit 1 the plat identified by this witness.

MR. PORTER: Without objection, the Exhibit will be admitted. Any further questions of the witness?

MR. NUTTER: Yes, sir.

#### RECROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Walsh, when we were talking about that 200 percent daily tolerance, didn't you say you had fifteen days?

A Well, 100 percent daily tolerance, 100 percent production is figured, say, on a thirty-day month, or thirty-days, right?

Q Yes.

A You can double that and you can produce your well in fifteen.

Q I think what I meant when I was talking about 200 percent was that you could produce two days' allowable in one day, and

then possibly have a blank the next day when you couldn't produce and two days' allowable the third day. That would be a 200 percent daily tolerance, I believe?

A Yes. No, you will produce fifteen days at 200 percent, won't we?

Q Counsel advised me that that is what 200 percent means. You can produce a thirty-day allowable in fifteen days. That would be a situation under which you could abide, is that correct?

A Yes, sir, it would.

MR. NOTTER: All right, thank you. That's all.

MR. PORTER: Any further questions of this witness?  
You may be excused.

(Witness excused)

MR. PORTER: Anyone else have testimony to present in this case? Any statement?

MR. WHITE: If the Commission please, Pan American is one of the operators within the Gallegos-Gallup Oil Pool, and we concur with Mr. Walsh' testimony both as to the condition of the Pool and the problems that confront the operator. We also feel that reservoir pressure would be better maintained by the granting of the exception. We urge that it be made on a poolwide basis.

MR. WOODRUFF: Norman Woodruff, representing El Paso Natural Gas Company. El Paso Natural Gas Company is presently connected to eleven wells in the Gallegos-Gallup Pool, which are producing into our high pressure system. These wells are operated and

controlled by the producers. As to these eleven wells, it would be advantageous as a purchaser to have greater tolerance than we presently have because the space in our system is somewhat dependent on the market demand for gas which is sporadic. Now, for that reason, I think for those particular eleven wells the 200 percent tolerance might be somewhat undesirable. Greater tolerance, or this high gas-oil ratio of gas wells probably would have no adverse effect and would give greater ease in taking the gas. El Paso is planning on gathering the casing head gas from the other wells in this Pool. We presently have submitted to the Federal Power Commission in Docket 15696 a request for this. The time of hearing has not yet been set. However, we have requested that this particular matter be heard separately and more rapidly than would normally be heard under the full case. We concur in applicant's request that the suggested exception be reviewed at the time the facilities are available for taking all of the gas so that it can be determined at that time that exception will not cause the venting of gas because of production in excess at that time. Otherwise, we concur in the application of the El Paso Natural Gas Products Company.

MR. KELLAHIN: Jason Kellahin of Kellahin & Fox, Santa Fe, representing Gulf Oil Corporation. Gulf Oil Corporation is the operator of ten wells in the Gallegos-Gallup Oil Pool, and concurs in the application. We feel that the testimony which has been presented here shows the necessity of such an exception as a means of conserving the reservoir energy for the greatest ultimate recovery

of oil, and we note also that the call of this case tends to be to appear and show cause why any well or wells should be granted this exception. We feel the testimony that has been presented shows that it is a poolwide completion and the exception simply applies to all the wells in the Pool.

MR. GRANVILLE: E. B. Granville, Denver, Colorado, representing the Frontier Refining Company. We support the request of El Paso Natural Gas Products Company in this matter. In our opinion, all wells in the Gallegos-Gallup Oil Pool should be exempt from the daily tolerance provision of the Commission's Rule 502 I (a) to permit the wells to be produced on a more practical basis, and to conserve reservoir energy. We request that our eight wells in the Gallegos-Gallup Oil Pool be exempt from Rule 502 I (a). We have one well connected to the El Paso Natural Gas Products Company's high pressure gas gathering line, and the 200 percent tolerance mentioned would not benefit us very much on this well.

MR. PORTER: Off the record.

(Discussion off the record)

MR. PORTER: Back on the record.

MR. COOLEY: Mr. Woodruff, concerning these eleven wells which are connected to El Paso's high pressure system and which you requested additional tolerance on, could you submit a list of these wells, the operators thereof, and the locations to the Commission at your earliest convenience?

MR. WOODRUFF: We can and we will do so.

MR. COOLEY: Thank you, sir.

MR. PORTER: Anyone else have a statement to make in the case, anything further to offer?

MR. GRANTHAM: If the Commission please, I might point out one additional thought that has occurred to us, and that is, there is a slight difference in the situation with the wells that are tied into the gathering system, and the wells that are not tied in under the present method of production. I believe the testimony has shown, and I think it is true, that on the wells that are tied in, there is a waste of reservoir energy under the present method of production, whereas to the wells that are not tied in, you are wasting a commodity when it is vented into the atmosphere, and also wasting reservoir energy.

MR. WOODRUFF: I believe in writing any exception to wells connected to a high pressure system, that we should include within that exception any future wells which may be drilled that are capable of producing into a high pressure system.

MR. PORTER: Anyone else anything further to offer in the case? Take the case under advisement.



C E R T I F I C A T E

STATE OF NEW MEXICO )  
: ss  
COUNTY OF BERNALILLO )

I, J.A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 19<sup>th</sup> day of November 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo  
Notary Public

My Commission Expires:  
October 5, 1960.