CASE [illegible]: Application of EL PASO for an exception to ORDER NO. R-333-E.

Case No.
2482

plication, Transcript,
mall Exhibits, Etc.

GOVERNOR
EDWIN L. MECHEM
CHAIRMAN

State of New Mexico
Oil Conservation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY – DIRECTOR

P. O. BOX 871
SANTA FE

February 13, 1962

Mr. Garrett Whitworth
El Paso Natural Gas Company
Box 1492
El Paso, Texas

Re: CASE NO. 2482
ORDER NO. R-2183
APPLICANT:
El Paso Natural Gas Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x
Artesia OCC
Aztec OCC x

OTHER Mr. Oliver Seth
Mr. George Verity
Mr. Charles Malone

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. 2482
Order No. R-2183

APPLICATION OF EL PASO NATURAL
GAS COMPANY FOR AN EXCEPTION TO
ORDER NO. R-333-E.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 12th day of February, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 for many causes, including unusual severity of weather, deliverability tests required by Order No. R-333-E have not been timely conducted on numerous gas wells in the San Juan Basin.

(3) That in order to protect correlative rights an administrative procedure should be established whereby all operators, for good cause shown, may obtain an exception to Order No. R-333-E to permit the extension of the terminal date for the 1961 deliverability test period from December 15, 1961, to March 1, 1962.

(4) That the calculation and assignment of allowables, based on the new deliverability tests, should be made retroactive to February 1, 1962, provided the new tests are filed by April 1, 1962.

Case No. 2462
Order No. R-2183

IT IS [redacted]:

(1) That for good cause shown, the Secretary-Director of the Commission may grant an exception to Order No. R-330-E to permit the extension of the terminal date for the 1961 deliverability test period from December 15, 1961, to March 1, 1962.

Upon an exception being granted by the Secretary-Director, the calculation and assignment of allowables, based on the new deliverability tests, shall be made retroactive to February 1, 1962, provided the new tests are filed by April 1, 1962.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

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

ir/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 529
ORDER No. R-333

THE APPLICATION OF THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION FOR AN ORDER REVISING RULE 401, RULE 402 AND RULE 1121 OF THE COMMISSION'S RULES AND REGULATIONS TO PROVIDE FOR GAS WELL TESTING PROCEDURE APPLICABLE TO GAS WELLS COMPLETED IN SAN JUAN, RIO ARRIBA AND McKINLEY COUNTIES, NEW MEXICO; AND PROVIDING FOR A FORM C-122-A TO BE USED IN REPORTING THE RESULTS OF SUCH TESTS, WITH CERTAIN EXCEPTIONS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. April 16, 1953, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 17th day of June, 1953, the Commission, a quorum being present, having considered the testimony adduced and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

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

(2) That by reason of the unusual character of the gas-producing formations in the San Juan Basin area of San Juan, Rio Arriba and McKinley Counties, New Mexico, the existing statewide rules and regulations of the Commission in the matter of gas well testing procedure are inapplicable in said San Juan Basin area, and, there is need for the promulgation of special rules governing such testing procedure in the area aforesaid for the prevention of waste and the protection of correlative rights.

(3) That it is essential in view of the necessity for special procedural rules that an appropriate form for reporting such required tests be devised and adopted.

IT IS THEREFORE ORDERED:

That the following Special Rules and Regulations governing gas well testing in the said San Juan Basin (counties of San Juan, Rio Arriba and McKinley, New Mexico)

be, and the same hereby are promulgated and adopted as an exception to the general statewide rules and regulations of this Commission relating to gas well testing procedures (Rules 401, et seq.):

GAS WELL TESTING RULES AND PROCEDURES FOR SAN JUAN BASIN AREA

SECTION A. TYPE OF GAS WELL TESTS REQUIRED:

(1) THE INITIAL POTENTIAL TESTS: An "open flow" test and a "shut-in pressure" test shall be made immediately upon completion of each gas well.

(2) ORIGINAL DELIVERABILITY, AND SHUT-IN PRESSURE TESTS:

A deliverability (flow) and a shut-in pressure test shall be made and completed on each gas well within ninety (90) days after the first delivery of gas therefrom into a pipeline, and following a minimum of twenty (20) days continuous production. Report of such tests shall be made to the Commission upon official Form C-122-A, marked "Original", within the month next after such tests are completed.

(3) ANNUAL DELIVERABILITY, AND SHUT-IN PRESSURE TESTS:

Annual deliverability tests and shut-in pressure tests are required to be made during the period from April 1 through October 31 of each year of all producing wells; provided, however, that for new wells the original deliverability and shut-in pressure tests thereof are in lieu of the annual tests for the year in which such well or wells are completed; results of these annual tests are required to be filed with the Commission on Form C-122-A, marked "Annual", within the month next after completion of such tests.

(4) SCHEDULE OF TESTS:

Within thirty (30) days after the effective date of this order and, on or before February 15th of each succeeding year thereafter, the pipeline companies receiving gas from wells to be tested shall, in cooperation with their respective operators, submit a testing schedule for the annual deliverability and shut-in pressure tests for all wells connected to their respective pipeline systems; such test schedules shall be promptly filed with the Commission for approval, and, if approved, the Commission shall furnish each operator, as identified by lists of names and addresses furnished by the respective pipe line companies, with a copy of such schedule as approved by the Commission, or a part thereof pertinent to such operator's wells, immediately, in the first instance and thereafter, on or before March 15th, of each succeeding year. In any case where Original deliverability and shut-in pressure tests for new wells are to serve as the first annual tests, then and in that event the operator shall notify the Commission in writing at least five (5) days before the commencement of the tests.

In event changes for substantial reasons are necessary in the annual test schedule, the Commission shall be notified fifteen (15) days before tests are scheduled to commence.

(5) WHO MAY WITNESS TESTS: Any Initial Potential Test, Original or Annual Deliverability, and shut-in pressure test may be witnessed by any or all of the following: a competent representative of the Commission, an offset operator, a representative of the pipe line company taking gas from an offset operator, or a representative of a pipe line company taking gas from the well under test.

Deliverability tests required hereinabove in Paragraphs (2) and (3) of this section shall determine the calculated deliverability of each gas well, which shall be reported to the Commission by converting actual deliverability against existing line pressures to the calculated deliverability at a pressure equal to fifty (50) percent of the shut-in pressure of each well in the manner hereinafter specified below. Such calculated deliverability so determined, and hereinafter so referred to, shall not be considered as the actual deliverability of any well into a gas transportation facility, but shall be used by the Commission as an index to determine the well's ability to produce at assumed line pressures, as compared to other wells in the pool under like conditions.

SECTION B. PROCEDURES FOR TESTS:

The several known gas producing formations of the San Juan Basin represent a variety of testing situations, and each is treated separately.

I. MESAVERDE FORMATION:

(1) INITIAL POTENTIAL TEST: The initial potential test in the Mesaverde Formation shall be made after a minimum shut-in time of seven (7) days. The shut-in pressure will be measured by the use of a dead-weight gauge. The open flow shall be determined by a pitot tube measurement after unrestricted flowing of the gas to the air for a period of three (3) hours; the flow nipple shall be at least eight (8) diameters long. The pitot tube shall be constructed of either one-fourth (1/4) inch or one-eight (1/8) inch pipe (nominal diameter). Standard tables (Reid's) will be provided by the Commission, on request.

This test shall be reported on regular Commission Form C-104, or U. S. G. S. Form 9-330, dependent on the land ownership status upon which the well is located.

The following data is required to be reported immediately to the Commission:

(a) The open flow in MCF per day, calculated by the use of Reid's Tables.

(b) The shut-in well head casing and tubing pressure, psig.

(c) The actual length of time well is shut-in before test.

(2) ORIGINAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS:

The procedure and method for the original deliverability and shut-in pressure tests is hereinbelow described under annual deliverability tests, etc.

(3) THE ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS:

(a) These tests shall be taken by unrestrictedly producing the well into the pipe line. The daily flowing rate shall be determined from an average of seven (7) consecutive producing days, following a minimum of twenty (20) consecutive days continuous production. All such production during the twenty (20) day conditioning period plus the seven (7) day deliverability test period shall be at working well head pressures not in excess of seventy-five (75) per cent of the previous annual seven (7) day shut-in pressure of such well if such previous annual shut-in pressure information is available; otherwise, the seven (7) day initial potential shut-in pressure of such well shall be used.

The working well head pressure (P_w) of any well under test shall be determined to be the seven (7) day average tubing pressure if the well is flowing through the casing; or the seven (7) day average casing pressure if the well is flowing through the tubing.

To obtain the shut-in pressure of a well under test the well shall be shut-in immediately after the seven (7) day deliverability test for the full period of seven (7) consecutive days. Such shut-in pressure shall be measured within the next succeeding twenty-four (24) hours following the seven (7) day shut-in period aforesaid.

All well-head pressures as well as the flowing meter pressure tests which are to be taken at the end of the seven (7) day deliverability test period, as required hereinabove shall be taken with a dead-weight gauge.

Orifice meter charts shall be used to obtain the average differential and flowing meter pressures, which pressures are to be used for calculating the average seven (7) day deliverability volume of flow by using the Basic Orifice Meter Formula $Q_h = C'\sqrt{h_w p_f}$. Orifice meter charts shall be changed, and so arranged as to reflect upon a single chart the flow data of gas from each well for the full seven day deliverability test period. Corrections shall be made for pressure base, measured flowing temperature, specific gravity and supercompressibility (superexpansibility); provided however, that if the specific gravity of gas from any well under test is not available, then and in that event an estimated specific gravity may be assumed therefor, based upon that of gas from nearby wells, the specific gravity of which has been actually determined by measurement.

The basic orifice flow factor (flow coefficient), pressure base factor, flowing temperature factor, and specific gravity factor shall be determined

by the use of the respective tables published in "Gas Measurement Committee Report No. 2" (revised, 1948) of the American Gas Association, New York 17, New York. The tables for the aforementioned factors and the method of computation of gas volumes through orifice flow meters contained in the aforesaid Report No. 2, are hereby approved.

Correction shall be made for supercompressibility (deviation from Boyle's law) for flowing meter pressures in excess of 100 psig. by the use of Simplified Supercompressibility Tables, compiled from C.N.G.A. Bulletins TS-402 and TS-461, published by John P. Squiers Company, Dallas, Texas; or California Natural Gasoline Association, Los Angeles, California, Bulletin TS-402 for flowing meter pressures from 100 to 500 psig. and bulletin TS-461, ibid., for flowing meter pressures in excess of 500 psig.

When supercompressibility (superexpansibility) correction is made for a gas containing either nitrogen, carbon dioxide or hydrogen sulfide in excess of 2 per cent. The pseudocritical pressure and temperature properties of such gas shall be corrected by the use of Table V of the above mentioned TS-402 for pressure 100-500 psig and TS-461 for pressures in excess of 500 psig.

Deliverability pressure, as used herein for Mesaverde production, is an arbitrary pressure applied to each well and used in the process of comparing the abilities of wells in this formation to produce against a back pressure equal to fifty (50) per cent, of the seven (7) day shut-in pressure of the respective individual wells, but in no case to exceed a maximum of 500 psia.

The "deliverability" of gas at the "deliverability pressure" of any well under test shall be calculated from the test data derived from the tests hereinabove required by use of the back-pressure formula:

$$Q = C \left(P_c^2 - P_w^2\right)^n$$

Using point seventy-five (.75) for the exponent "n" by the following formula:

$$D = Q \left[\frac{\left(P_c^2 - P_d^2\right)}{\left(P_c^2 - P_w^2\right)}\right]^n$$

WHERE:

D = Deliverability at the deliverability pressure, (P_d) MCF/da. (at Standard Condition of 15.025 psia and 60°F)

Q = Daily flow rate in MCF/da. at wellhead pressure (P_w)

P_c = Shut in casing (or tubing) wellhead pressure, psia.

P_d = Deliverability pressure; half of the individual well 7-day shut-in pressure, P_c, psia, not to exceed 500 psia.

P_w = Average wellhead working pressure, as determined from 7-day flow period, psia (casing pressure if flowing through the tubing, or tubing pressure if flowing through the casing).

n_{av} = Average pool slope of back pressure curve (0.75 for Mesaverde wells).

(b) In the event it is impossible to measure accurately the pressure of the static column of gas due to packer or bridges in the well bore, then the working wellhead pressure, P_w, shall be determined by adding the calculated pressure drop due to friction in the flowing column of gas to the actual flowing wellhead pressure. The method of determining the loss of pressure due to friction shall be specified on the test data sheet, C-122-A.

(c) Any test hereinabove provided for, except initial potential test, will be considered unacceptable if the average flow rate for the final 7 day deliverability test is 25 per cent in excess of any consecutive 7-day average of the preceding three weeks. A "deliverability test" not meeting this requirement shall be retested.

(d) The original and annual deliverability and shut-in pressure tests as required hereinabove shall be reported upon Commission Form C-122-A and filed with the Commission as provided hereinabove.

(e) All charts relative to original or annual deliverability tests shall be identified by the words "Test Chart No. 1" (2, 3, 4, etc.), and any or all charts or photostats thereof shall be made available to the Commission upon its request.

II. PICTURED CLIFFS FORMATION:

(1) INITIAL POTENTIAL TEST: Same as prescribed for Mesaverde formation; see Section B, subsection I, Mesaverde formation hereinabove. Paragraph 1.

(2) ORIGINAL DELIVERABILITY AND SHUT-IN PRESSURE TEST:

The same as provided in paragraph 3, next below.

(3) ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TEST:

In all respects the deliverability and shut-in pressure tests of wells in the Pictured Cliffs formation shall be made in conformity with the procedures set out in Section B, Subsection I, paragraph 3, (a) (b) (c) (d) (e) of the Mesaverde formation procedures, except that in paragraph (a) thereof, the back pressure formula, the exponent "n" shall have the value of point eighty-five (.85),

and the deliverability pressure (P_d) shall be one half (1/2) of the individual well pressure - P_c, psia, but not in excess of 250 psia.

III. FRUITLAND FORMATION:

(1) All initial potential, original and annual deliverability and shut-in pressure tests of gas wells producing from the Fruitland formation shall be identical in all respects to those requirements and procedures hereinabove set out and required for the Pictured Cliffs formation (Section B Subsection II, paragraphs 1-2 and 3).

IV. THE DAKOTA FORMATION: All tests of Dakota wells shall be in conformity with requirements and procedures provided hereinabove for the Mesaverde formation, except as follows:

(1) BARKER DOME - DAKOTA: (Storage Area)

(a) INITIAL POTENTIAL TEST: An average "pool slope", based upon bottom hole conditions, shall be established by the Commission after consideration of data to be provided by the operators; these data shall be based upon tests taken in conformity with the conventional back pressure method, indicated in Commission Rule 401. This "slope" shall be applied to each well in the Barker Dome-Dakota Area, arbitrarily, as if such slope were the actual performance back pressure slope of each such well, in the following manner:

This back pressure slope so established shall be plotted through a point predetermined by one stabilized flow rate at a working well head pressure not in excess of seventy-five (75)per cent of the seven (7) day shut-in pressure of such well.

The flowing volumes (Q) shall be corrected for pressure base, measured flowing temperature, specific gravity and supercompressibility, by the use of methods of calculation and tables hereinabove referred to and approved in Section B, Subsection 3, paragraph (a) Mesaverde procedures).

A seven (7) day shut-in pressure test shall be made for each well in the Barker Dome-Dakota Area, provided however, that where the shut-in period exceeds seven days such fact shall be reported to the Commission.

The values of the seven (7) day shut-in pressure (P_c) and the working well head pressure (P_w) shall be corrected to bottom hole conditions.

A schedule of tests shall be prepared by the transporter and approved by the Commission, and reports of such tests duly filed with the Commission, on form C-122, being the regular statewide form.

(b) ANNUAL POTENTIAL TEST: This test shall be made of all wells producing from the Barker Dome-Dakota storage area by obtaining seven

(7) day shut-in pressures of all Dakota wells, converting the same to bottom hole pressures (P_f), computing the squares of such bottom hole pressures, (P_f^2,) and applying the same to the original average "pool slope" to obtain an adjusted open flow. If so desired as an alternate method an adjusted open flow may be computed from the following equation:

$$O_{f_2} = O_{f_1} \left[\frac{\left(P_{f_2}\right)^2}{\left(P_{f_1}\right)^2} \right]^n$$

WHERE:

O_{f_2} = Adjusted absolute open flow.

O_{f_1} = Original absolute open flow.

P_{f_2} = New bottom hole shut-in (psia).

P_{f_1} = Old bottom hole shut-in (psia).

n = Slope of back pressure curve.

Tests of all wells in the Barker Dome-Dakota storage area shall be made during the period of April 1 through October 31 of each year and reports made to the Commission within the next succeeding month after test is made.

V. PENNSYLVANIAN FORMATION :

All tests of wells producing from the Pennsylvanian formation of the San Juan Basin Area shall be as follows:

(1) INITIAL POTENTIAL TEST: Immediately after completion of each new well an absolute open flow shall be determined by the conventional back-pressure method indicated by Rule 401 of the Commission's Rules and Regulations.

Seven day shut-in pressures will be used in all cases, and, if for any reason the shut-in period exceeds seven days, then, the actual shut-in time shall be reported.

(2) ANNUAL POTENTIAL TEST: This test shall be made of all wells producing from the Pennsylvanian formation of the San Juan Basin area, and such tests shall conform in all respects with the procedure set out next above under initial potential test or in the alternative, by obtaining a seven day shut-in pressure

of each well and converting the same to bottom hole pressure (P_f). The square of the bottom hole pressure (P_f^2) will be computed and applied to the original back pressure curve and an adjusted absolute open flow will be obtained.

If shut-in pressure time is in excess of seven (7) days, then the actual shut-in time shall be reported.

There is no objection to the use of an adjusted absolute open flow calculated from the equation as set out hereinabove under Dakota formation, Section B, Subsection IV, paragraph 1 - subparagraph b.

All tests hereunder shall be made during the period from April 1 through October 31 of each year, and reported to the Commission upon regular Form C-122 during the month succeeding the month in which the tests are made.

IT IS FURTHER ORDERED:

1. That Form C-123-A entitled "Gas Well Test Data Sheet, San Juan Basin", a copy of which is attached hereto for reference, be, and the same hereby is approved in open form subject to minor modifications as experience may indicate and without notice and hearing, and the same shall be used only for the area indicated, excepting therefrom only the Barker Dome-Dakota storage area, and the Pennsylvanian formation, all within the said San Juan Basin. This order modifies Rule 1121 of the Rules and Regulations of the Commission only to the extent of requiring reports upon Form C-122. These forms are hereby adopted for use in the San Juan Basin Area, with exceptions noted.

IT IS FURTHER ORDERED:

That other formations in the San Juan Basin Area which may in the future be found to be productive will be provided with testing programs on the basis of formation characteristics.

DONE at Santa Fe, the day and year hereinabove mentioned.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem, Chairman

E. S. Walker, Member

S E A L

R. R. Spurrier, Secretary

Hearing
1/24/62

El Paso Natural Gas Company

Case 2482

El Paso, Texas

January 3, 1962

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

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

Gentlemen:

Due to extremely cold weather which caused impassable roads and the freezing of wellhead and metering equipment, and other factors beyond the control of El Paso Natural Gas Company and other operators, it was impossible to obtain deliverability tests on certain wells in the San Juan Basin by December 15, 1961. A list of wells tied into El Paso's system for which deliverability tests were not completed by December 15, 1961 is attached.

El Paso requests that the Commission set a Hearing at the earliest possible date in order that El Paso and other operators, for good cause shown, may be granted exceptions to Sub-Section II of Order R-333-E permitting:

(1) the extension of the terminal date for the 1961 deliverability test period from December 15, 1961 to March 1, 1962, and

(2) the continued calculation and assignment of allowables to wells granted exception based on currently effective deliverability tests with retroactive adjustment of allowables to February 1, 1962 being made upon the timely filing of the new deliverability test.

Yours very truly,

Ben R. Howell

Ben R. Howell
Vice President

BRH:hmm
Attachment

Case 2482

WELL NAME	LOCATION	COMPANY	FORMATION	FIELD
Canyon Largo No. 111 (DK)	NE 1-24-1	EPNG	DK	Basin
Florance No. 10-D	NE 17-27-8	EPNG	MV	Blanco
Heaton No. 9 (MV)	NE 32-31-11	EPNG	MV	Blanco
Jicarilla No. 13-B	SE 34-25-4	EPNG	PC	S. Blanco
Jicarilla No. 12-F	SW 16-26-5	EPNG	PC	S. Blanco
Lackey No. 14-B	NE 30-28-9	EPNG	DK	Basin
Ludwick No. 10 (MV)	NE 29-30-10	EPNG	MV	Blanco
Ludwick No. 10 (PC)	NE 29-30-10	EPNG	PC	Aztec
Ludwick No. 18	NE 6-29-10	EPNG	DK	Basin
Mudge No. 6	SW 11-31-11	EPNG	MV	Blanco
Rincon No. 21	SW 16-27-6	EPNG	MV	Blanco
Rincon No. 80	NE 18-27-6	EPNG	MV	Blanco
Rincon No. 81	SW 17-27-6	EPNG	MV	Blanco
Rincon No. 99 (MV)	NE 27-27-6	EPNG	MV	Blanco
Rincon No. 150 (DK)	NE 6-26-6	EPNG	DK	Basin
Rosa No. 34	NE 36-32-6	EPNG	MV	Blanco
Russell No. 5	NE 25-28-8	EPNG	MV	Blanco
S.J.U. 27-4 No. 18	SW 4-27-4	EPNG	MV	Blanco
S.J.U. 27-5 No. 61	NE 5-27-5	EPNG	MV	Blanco
S.J.U. 28-4 No. 13	SW 20-28-4	EPNG	MV	Blanco
S.J.U. 28-6 No. 54	SW 7-27-6	EPNG	MV	Blanco
S.J.U. 28-7 No. 78	NE 19-27-7	EPNG	MV	Blanco
S.J.U. 29-5 No. 11	SW 19-29-5	EPNG	MV	Blanco
S.J.U. 29-6 No. 36	NE 15-29-6	EPNG	MV	Blanco
S.J.U. 32-9 No. 20	NE 18-31-9	EPNG	MV	Blanco
Schumacker No. 11	SW 18-30-10	EPNG	DK	Basin
Schwerdtfeger No. 12-A	SW 6-27-8	EPNG	MV	Blanco
Wilson No. 6	SW 35-30-7	EPNG	MV	Blanco
Schwerdtfeger No. 3	SW 5-27-11	Aztec O & G	PC	W. Kutz
N.C.R.A. State No. 1	NE 3-26-7	EP Products	DK	Basin
Foster No. 2	NE 17-26-7	J. Foster	PC	S. Blanco
Apache Fed. No. 10	SE 18-24-5	Gulf	DK	Basin
W No. 2-6	NE 6-26-5	Occidental	PC	S. Blanco
Jicarilla 146-10	SW 9-25-5	Pan Am.	DK	Basin
Jicarilla 146-11	SW 4-25-5	Pan Am.	DK	Basin
Jicarilla 153-13	SE 30-26-5	Pan Am.	DK	Basin
Jicarilla 155-12	SW 32-26-5	Pan Am.	DK	Basin
State G.U. J-1	NE 36-30-9	Pan Am.	MV	Blanco
Valentine G.U. No. 1	NE 32-32-10	Pan Am.	MV	Blanco
Walker No. 1	NW 3-29-12	Pioneer	DK	Basin
Marron No. 42 (DK)	SW 22-27-8	R & G	DK	Basin
Marron No. 42 (MV)	SW 22-27-8	R & G	MV	Blanco
N.M. Fed. Deep U No. 1	NE 19-29-10	Tidewater	DK	Basin

PAN AMERICAN PETROLEUM CORPORATION

[redacted]

SAN JUAN & RIO ARRIBA COUNTIES, NEW MEXICO

Wells Not Completing 1961 Deliverability Tests

	Well Name	Location
1.	El Paso System	
	Jicarilla Contract 146 No. 10	N- 9-25-5
	Jicarilla Contract 146 No. 11	K- 4-25-5
	Jicarilla Contract 155 No. 12	K-32-26-5
	Jicarilla Contract 155 No. 13	I-30-26-5
2.	Southern Union System	
	Johnson "B"	H-21-27-10
	Fred Feasel "G"	K- 2-27-10
	Fred Feasel "H"	H-33-28-10
	J. F. Day "E"	L-17-28-10
	R. P. Hargrave "H"	B- 9-27-10
	E. H. Pipkin No. 5	B-36-28-11
	Davidson "F"	M-28-28-10
	Davidson "G"	H-21-28-10
	Fred Feasel "J"	G-34-28-10
	M. N. Galt "H"	L- 1-27-10
3.	El Paso System	
	State Gas Unit "J"	A-36-30-9
4.	El Paso System	
	Jicarilla Contract 155 No. 5	D-31-26-5

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. 1378
Order No. R-333-E
Amends R-333-C & D

APPLICATION OF EL PASO NATURAL GAS COMPANY FOR AN ORDER REVISING, AMENDING OR DELETING CERTAIN PORTIONS OF ORDER R-333-C & D PERTAINING TO GAS WELL TESTING PROCEDURE APPLICABLE TO GAS WELLS COMPLETED IN SAN JUAN, RIO ARRIBA AND McKINLEY COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

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

NOW, on this 28th. day of February, 1958, the Commission, a quorum being present, having considered the evidence adduced and being fully advised in the premises,

FINDS:

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

(2) That there is need for a number of amendments to Order R-333-C & D, heretofore entered by the Commission, said order outlining the gas testing procedure of gas wells completed in San Juan, McKinley and Rio Arriba Counties, New Mexico.

(3) That the following amendments should be adopted, in the interests of conservation.

IT IS THEREFORE ORDERED:

(1) That the gas well testing period of April 1 through October 31 as established by Order No. R-333-C & D be and the same is hereby amended to read "February 1 through December 15."

(2) That Sub-Sections II and III of Section A of Order R-333-C & D be and the same are hereby amended to read as follows:

II. ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS:

Annual Deliverability and Shut-In Pressure Tests of all producing gas wells are required to be made during the period from February 1 through December 15 of each year.

All wells making connection to a gas transportation facility between October 31 and December 31 of any calendar year shall be tested during the following annual testing period. All wells making connection to a gas transportation facility between January 1 and February 1 of any calendar year shall be tested during the testing period of that year.

An Initial Deliverability Test accomplished in accordance with Section B, Sub-paragraph 1, Paragraph (A), Subparagraph 1, may be used as an annual test when the initial connection to a gas transportation facility is made between February 1 and October 31 of the test year.

All Annual Deliverability and Shut-in Pressure Tests required by this order shall be filed with the Commission and with the gas transportation facility to which the well is connected within thirty (30) days after the end of the month during which the test is completed; provided however, that all tests completed during the period from December 1 through December 15 shall be reported not later than January 10 of the following year. Failure to file the required tests within the time prescribed above will subject the delinquent wells to cancellation of allowable.

III. SCHEDULE OF TESTS:

(A) ANNUAL DELIVERABILITY TESTS

At least thirty days (30) days prior to the beginning of the test period each gas transportation facility shall to the Commission's Aztec Office (1000 Rio Brazos Road) submit a complete list of wells connected to its system, said wells to be grouped according to the pools in which they are located. All undesignated wells shall be listed separately.

At least 30 days prior to the beginning of the test period the gas transportation facilities receiving gas from wells to be tested shall, in cooperation with respective operators, submit to the Commission's Aztec office a testing schedule for the Annual Deliverability and Shut-in Pressure Tests for all wells connected to their respective pipeline systems which are to be tested during the succeeding two months. Five copies of the schedule shall be furnished to the Commission and one copy shall be furnished to each operator concerned. A similar schedule shall be submitted at least 30 days prior to the beginning of each two-month testing interval. Such schedule shall indicate the pool, operator, lease, well number and location of each well. The gas transportation facility making the schedule of tests shall be notified immediately by any operator unable to take such tests as scheduled.

When an Initial Deliverability Test accomplished in accordance with Section B, Sub-section 1, Paragraph (A), Sub-paragraph 1 is to be used as an annual test for wells connected to a gas transportation facility

during the period between February 1, and October 31, then the operator shall notify the Commission in writing during the fourteen day conditioning period for said test,

In the event a well is not tested in accordance with the test schedule, the well shall be re-scheduled for testing, and the Commission shall be notified of such fact in writing during the fourteen day conditioning period for said test.

(3) That the sixth sub-paragraph of Paragraph (B) of Sub-Section I of Section B of Order No. R-333-C & D be and the same is hereby amended to read as follows:

Orifice meter charts shall be changed and so arranged as to reflect upon a single chart the flow data for the gas from each well for the full seven-day deliverability test period; except that no tests shall be voided if satisfactory explanation is made as to the necessity for using test volumes through two chart periods. Corrections shall be made for pressure base, measured flowing temperature, specific gravity, and supercompressibility, provided however, that if the specific gravity of the gas from any well under test is not available, then and in that event an estimated specific gravity may be assumed therefor, based upon that of gas from nearby wells, the specific gravity of which has been actually determined by measurement.

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

S E A L

ir/r

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:

CASES NO. 882) Consolidated
941)
Order No. R-333-C and D
(Supersedes R-333-B)

THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER REVISING, AMENDING OR DELETING CERTAIN PORTIONS OF ORDER R-333-B PERTAINING TO GAS WELL TESTING PROCEDURE APPLICABLE TO GAS WELLS COMPLETED IN SAN JUAN, RIO ARRIBA AND McKINLEY COUNTIES, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause having come on for hearing at 9 o'clock a. m. on August 17, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 13th., day of October, 1955, the Commission, a quorum being present, having considered the records and testimony adduced and being fully advised in the premises,

FINDS:

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

(2) That there is need for a number of additions to and revisions of Order R-333-B, heretofore entered by the Commission, said order outlining a gas testing procedure of gas wells completed in San Juan, McKinley and Rio Arriba Counties, New Mexico.

(3) That the following rules and regulations should be adopted, and that said rules and regulations are in the interests of conservation.

IT IS THEREFORE ORDERED:

That the following Special Rules and Regulations governing gas well testing in the San Juan Basin (Counties of San Juan, Rio Arriba and McKinley, New Mexico,)

superseding the rules and regulations contained in Order No. R-333-B, be and the same hereby are promulgated and adopted as an exception to the general statewide rules and regulations of this Commission relating to gas well testing procedures, Rules (401 et seq.):

GAS WELL TESTING RULES AND PROCEDURES FOR SAN JUAN BASIN AREA

SECTION A. TYPE OF GAS WELL TESTS REQUIRED:

I. THE INITIAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS FOR NEWLY COMPLETED GAS WELLS.

(A) Immediately upon completion of each gas well in San Juan Basin, a shut-in pressure test of at least 7-days duration shall be made.

(B) Within 45 days after a well is connected to a gas transportation facility the well shall be tested in accordance with Section B, Subsection I, Paragraph (A) of this order, and the results of the test reported to the Commission. An operator may request an extension of time in which to accomplish this test provided such request is made in writing to the Commission's Aztec Office before the expiration of the 45 day period following connection of the well to a gas transportation facility. Such request for extension must be for substantial reason and approved by the Commission, or its duly authorized representative. Said extension shall not be for more than fifteen days.

(C) Any tests accomplished for information purposes prior to pipeline connection shall not be recognized as an official test for the establishment of allowables.

II. ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS:

Annual deliverability and shut in pressure tests of all producing gas wells are required to be made during the period from April 1 through October 31 of each year.

All wells connected to a pipeline system between November 1 and December 31, of any calendar year shall be tested during the following annual testing period. All wells connected to a pipeline system between January 1 and April 1 of any calendar year shall be tested during the testing period of that calendar year.

An Initial Deliverability Test accomplished in accordance with Section B, Subsection I, Paragraph (A), Subparagraph 1, may be used as an annual test when the test is taken on wells connected to a transportation facility during the regular annual testing season from April 1, to October 31.

III. SCHEDULE OF TESTS

(A) ANNUAL DELIVERABILITY TESTS

On or before February 15 of each year, the pipeline companies receiving gas from wells to be tested shall, in cooperation with respective operators, submit a

testing schedule for the annual deliverability and shut-in pressure tests for all wells connected to their respective pipeline systems as of February 1 of the year for which the schedule is applicable; such test schedules shall be filed promptly with the Commission for approval, and if approved, the Commission shall furnish each operator, as identified by lists of names and addresses furnished by the respective pipeline companies, with a copy of such schedule as approved by the Commission, or a part thereof pertinent to such operator's wells, on or before March 15, of each year.

Such schedules shall be filed with the Commission for each Gas Pool as designated by the New Mexico Oil Conservation Commission listing under the heading of each pool the operator, lease, well number and location of each well. Should the pipeline company elect to file schedules by areas then the above listed information shall be listed under the heading of each area in the order listed above.

All wells connected to a pipeline system during the period of February 1 to October 31, both inclusive, of any year shall be scheduled for testing during the testing period for that particular year. Then and in that event the pipeline in cooperation with the operator shall notify the Commission in writing at least (10) ten days before the Commencement of the conditioning period for any tests.

Provided however, that when an Initial Deliverability Test accomplished in accordance with Section B, Subsection I, Paragraph (A), Subparagraph 1 is to be used as an annual test for wells connected to a gas transportation facility during the period between April 1 and October 31, then the operator shall notify the Commission in writing at any time during the fourteen day conditioning period.

In event changes for substantial reasons are necessary in the annual test schedule, the Commission shall be notified (10) ten days before tests are scheduled to commence.

(B) DELIVERABILITY RETESTS.

An operator may retest the deliverability of a well at any time for substantial reason by the notification to the Commission (10) ten days before the retest is scheduled to commence. Such notification shall consist of scheduling the well as required for the annual deliverability test in subsection III, Paragraph A, above. Such retest shall be subject to the approval of the Commission, and conducted in conformance with Section B, Subsection I, Paragraph (B) of this order. The Commission may require the retesting of any well at its discretion by the notification of the operator to schedule such retest.

The requirements for Initial and Annual Deliverability Tests and the notification and scheduling of such tests which apply to newly completed wells shall also apply to reworked or recompleted wells.

IV. WHO MAY WITNESS TESTS:

Any initial or annual deliverability and shut-in pressure test may be witnessed by any or all of the following: an agent of the Commission, an offset operator, a representative of the pipeline company taking gas from an offset operator, or a representative of a pipeline company taking gas from the well under test.

Deliverability tests required hereinabove in Subsection I and II of this section shall determine the calculated deliverability of each gas well, which shall be reported to the Commission by converting actual deliverability against existing line pressures to the calculated deliverability at a pressure equal to fifty (50) percent of the shut-in pressure of each well in the manner hereinafter specified below. Such calculated deliverability so determined, and hereinafter so referred to, shall not be considered as the actual deliverability of any well into a gas transportation facility, but shall be used by the Commission as an index to determine the well's ability to produce at assumed static wellhead working pressures, as compared to other wells in the pool under like conditions.

SECTION B. PROCEDURE FOR TESTS:

The several known gas producing formations of the San Juan Basin represent a variety of testing situations, and each is treated separately.

I. MESAVERDE FORMATION:

(A) INITIAL DELIVERABILITY AND SHUT-IN PRESSURE TEST.

1. Within (45) forty-five days after a newly completed well is connected to a gas transportation facility the operator shall accomplish a deliverability and shut-in pressure test in conformance with Section B, sub-section I, paragraph (B) of this order.

2. In the event that testing a newly completed well in accordance with paragraph 1 above, is impractical, the operator may accomplish a deliverability and shut-in pressure test in the following manner:

   a. A seven or eight day production chart may be used as a basis for determining the wells deliverability providing the chart so used is preceded by at least (14) fourteen days continuous production. The well shall produce unrestricted through either the casing or tubing, but not both, into a pipeline during these periods.

   b. A shut-in pressure of at least seven days duration shall be taken. This shall be the shut-in test required in Section A, subsection I, Paragraph (A).

   c. The average daily static meter pressure shall be determined in accordance with Section B, subsection I, Paragraph (B). This pressure shall be used as P_t in calculating P_w for the Deliverability Calculation.

d. The daily average rate of flow shall be determined in accordance with Section B, Subsection I, Paragraph (B), of this order.

e. The static wellhead working pressure (P_w) shall be determined in accordance with Section B, subsection I, paragraph (B), of this order.

f. The deliverability of the well shall be determined by using the data determined in paragraphs a through f, above, in the deliverability formula in accordance with Section B, subsection I, paragraph (B), of this order.

g. The data and calculations for the above paragraphs a through f shall be reported to the Commission upon the blue colored Form C-122-A and filed in triplicate with the Commission within the forty-five day period after connection of the well. Form C-122-A shall be signed by the operator or an agent designated by the operator.

(B) THE ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS.

These tests shall be taken by unrestrictedly producing the well into the pipeline through either the casing or tubing, but not both. The daily flowing rate shall be determined from an average of seven (7) consecutive producing days, following a minimum conditioning period of fourteen (14) consecutive days production. The first seven (7) days of said conditioning period shall have not more than one (1) interruption, which interruption shall be no longer than 36 hours continuous duration. The eighth to fourteenth days, inclusive, of said conditioning period shall have no interruptions whatsoever. All such production during the fourteen (14) day conditioning period plus the seven (7) day deliverability test period shall be a static wellhead working pressures not in excess of seventy-five (75) per cent of the previous annual seven (7) day shut-in pressure of such well if such previous annual shut-in pressure information is available; otherwise, the seven (7) day initial deliverability shut-in pressure of such well shall be used.

In the event that existing line pressure does not permit a drawdown as specified above, with the well producing unrestrictedly into the pipeline, the operator shall request an exception to this requirement on the Form C-122-A. The request shall state the reasons for the necessity for the exception.

The static wellhead working pressure (P_w) of any well under test shall be the calculated seven (7) day average static tubing pressure if the well is flowing through the casing; or the calculated seven (7) day average static casing pressure if the well is flowing through the tubing. The static wellhead working pressure (P_w) shall be calculated by applying the tables and procedures as set out in New Mexico Oil Conservation Commission manual entitled "Method of Calculating Pressure Loss Due to Friction in Gas Well Flow Strings". This manual is more specifically known as release 4-G-9-FLT-NW, a copy of which is attached hereto and made a part hereof.

To obtain the shut-in pressure of a well under test the well shall be shut-in immediately after the seven (7) day deliverability test for the full period of seven (7) consecutive days. Such shut-in pressure shall be measured within the next succeeding twenty-four (24) hours following the seven (7) day shut-in period aforesaid. The seven (7) day shut-in pressure shall be measured on the string through which the well flowed during the conditioning and seven (7) day flow period.

All wellhead pressures as well as the flowing meter pressure tests which are to be taken during the seven (7) day deliverability test period, as required hereinabove, shall be taken with a dead-weight gauge. The dead-weight readings taken shall be recorded on the flow chart in psia. The time and point on chart flowing pressure curve at which these readings are taken shall be indicated with an arrow.

Orifice meter charts shall be changed, and so arranged as to reflect upon a single chart the flow data for the gas from each well for the full seven day deliverability test period. Corrections shall be made for pressure base, measured flowing temperature, specific gravity and supercompressibility (superexpansibility), provided however, that if the specific gravity of gas from any well under test is not available, then and in that event an estimated specific gravity may be assumed therefor, based upon that of gas from nearby wells, the specific gravity of which has been actually determined by measurement.

The seven (7) day average flowing meter pressure shall be calculated by taking the average of all consecutive 2-hour flowing meter pressure readings as recorded on the seven (7) day flow period chart (test chart #3). The pressure so calculated shall be used in calculating the wellhead working pressure, determining supercompressibility factors and calculating flow volumes.

The seven (7) day flow period volume shall be calculated from the integrated readings as determined from the flow period orifice meter chart, (Chart #3). The volume so calculated shall be divided by the number of testing days on the chart to determine the average daily flow period rate of flow. The flow chart shall have legibly recorded a minimum of seven (7) days and a maximum of eight (8) flowing days to be acceptable for test purposes. The volume used in this calculation shall be corrected to New Mexico Oil Conservation Commission standard conditions.

The average flowing meter pressure for the seven (7) day or eight (8) day flow period and the corrected integrated volume shall be determined by the purchasing company that integrates the flow charts and furnished to the operator or testing agency when such operator or testing agency requests such information.

The daily average integrated flow period rate of flow shall be corrected for meter error by the multiplication by a correction factor determined by dividing

the square root of the chart flowing meter pressure psia into the square root of the dead-weight flowing meter pressure psia,

The daily volume of flow as determined from the flow period chart (Test Chart #3) integrator readings shall be calculated by applying the Basic Orifice meter formula.

$$Q = C' \sqrt{h_w \; p_f}$$

Where:

Q = Metered volume of flow MCFD @ 15.025, 60°F. and .60 specific gravity.

C' = The 24 hour basic orifice meter flow factor as taken from New Mexico Oil Conservation Commission release "4G-12-BPT State" and corrected for flowing temperature, gravity and supercompressibility.

h_w = Daily average differential meter pressure from flow period chart.

P_f = Daily average flowing meter pressure from flow period chart.

The basic orifice meter flow factors, flowing temperature factor and specific gravity factor shall be determined from New Mexico Oil Conservation Commission release No. "4G-12-BPT-State". The four tables in said release are based on "gas measurement committee report No. 2" (Revised 1948) of the American Gas Association, New York 17, New York. A copy of said New Mexico Oil Conservation Commission release is attached hereto and made a part hereof.

The daily flow period average corrected flowing meter pressure, psig, shall be used to determine the supercompressibility factor. Correction shall be made for supercompressibility (deviation from Boyle's law) for flowing meter pressures in excess of 100 psig by the use of Simplified Supercompressibility Tables, compiled from C. N. G. A. Bulletins TS-402 and TS-461, published by John P. Squier Company, Dallas, Texas. These tables have been reproduced by specific permission from John P. Squier Company a copy of which is attached hereto and made a part hereof.

When supercompressibility (superexpansibility) correction is made for a gas containing either nitrogen or carbon dioxide in excess of 2 per cent, the supercompressibility factors of such gas shall be determined by the use of Table V of the above mentioned TS-402 for pressure 100-500 psig or Table II, TS-461 for pressures in excess of 500 psig.

The use of tables for calculating rates of flow from integrator readings, which do not specifically conform to New Mexico Oil Conservation Commission release "4-G-12-BPT-State", may be approved for determining the daily flow period rates of flow upon a showing that such tables are appropriate and necessary.

Deliverability pressure, as used herein for Mesaverde production, is a defined pressure applied to each well and used in the process of comparing the abilities of wells in this formation to produce at static wellhead working pressures equal to fifty (50) per cent, of the seven (7) day shut-in pressure of the respective individual wells.

The deliverability of gas at the "deliverability pressure" of any well under test shall be calculated from the test data derived from the tests hereinabove required by use of the following deliverability formula:

$$D = Q \left[\frac{\left(P^2_c - P^2_d \right)}{\left(P^2_c - P^2_w \right)} \right]^n$$

WHERE:

D = Deliverability at the deliverability pressure, (P_d) MCF/da, (at Standard Condition of 15.025 psia and 60 °F).

Q = Daily flow rate in MCF/da, at wellhead pressure (P_w)

P_c = 7-day shut-in casing (or tubing) wellhead pressure, psia.

P_d = Deliverability pressure; half of the individual well 7-day shut-in pressure, P_c, psia.

P_w = Average static wellhead working pressure, as determined from 7-day flow period, psia and calculated from New Mexico Oil Conservation Commission Pressure Loss Due to Friction Tables. (Casing pressure if flowing through the tubing, or tubing pressure if flowing through the casing).

n = Average pool slope of back pressure curve (.75) for Mesaverde wells).

Any test hereinabove provided for will be considered unacceptable if the average flow rate for the final 7 day deliverability test is 25 per cent in excess of any consecutive 7-day average of the preceding two weeks. "A deliverability test" not meeting this requirement shall be retested.

The annual deliverability and shut-in pressure tests as required hereinabove shall be reported upon Commission Form C-122-A and filed in triplicate, with the Commission within the month next after completion of such tests. Form C-122-A shall be signed by the operator or agent designated as the operator.

All charts relative to annual deliverability tests shall be identified by the words "Test Chart No. 1" (2, 3, 4, etc.), and any or all charts or photostats thereof shall be made available to the Commission upon its request.

II. PICTURED CLIFFS FORMATION:

(A) INITIAL DELIVERABILITY AND SHUT-IN PRESSURE TEST:

Same as prescribed for Mesaverde formation; see Section B, subsection I, Paragraph (A).

(B) ANNUAL DELIVERABILITY AND SHUT-IN PRESSURE TESTS:

In all respects the deliverability and shut-in pressure tests of wells in the Pictured Cliffs formation shall be made in conformity with the procedures set out in Section B, Subsection I, paragraph (B) of the Mesaverde formation procedures, except that in the back pressure formula, the exponent "n" shall have the value of point eighty-five (.85).

III. FRUITLAND FORMATION:

(A) All initial and annual deliverability and shut-in pressure tests of gas wells producing from the Fruitland formation shall be identical in all respects to those requirements and procedures hereinabove set out and required for the Pictured Cliffs formation in Section B, Subsection II, paragraphs (A) and (B).

IV. THE DAKOTA FORMATION:

All tests of Dakota wells shall be in conformity with requirements and procedures provided hereinabove for the Mesaverde formation, except as follows:

(A) BARKER DOME - DAKOTA: (Storage Area)

1. INITIAL OPEN FLOW POTENTIAL TEST:

An average "pool slope", based upon bottom-hole conditions, shall be established by the Commission after consideration of data to be provided by the

operators; these data shall be based upon tests taken in conformity with the conventional back pressure method, indicated in Commission Rule 401. This "slope" shall be applied to each well in the Barker-Dome Dakota Area, as if such slope were the actual performance back pressure slope of each such well, in the following manner:

This back pressure slope so established shall be plotted through a point predetermined by one stabilized flow rate at a static wellhead working pressure not in excess of seventy-five (75) per cent of the seven (7) day shut-in pressure of such well.

The flowing rates (Q) shall be corrected for pressure base, measured flowing temperature, specific gravity and supercompressibility, by the use of methods of calculation and tables hereinabove referred to and approved in Section B, Subsection I, paragraph (B), of the Mesaverde procedures.

A seven (7) day shut-in pressure test shall be made for each well in the Barker Dome-Dakota Area, provided however, that where the shut-in period exceeds seven days such fact shall be reported to the Commission.

The values of the seven (7) day shut-in pressure (P_c) and the working wellhead pressure (P_w) shall be corrected to bottom hole conditions.

A schedule of tests shall be prepared by the transporter and approved by the Commission, and reports of such tests shall be signed by the operator or his designated agent and duly filed with the Commission, on Form C-122, the regular statewide form.

2. ANNUAL OPEN FLOW POTENTIAL TEST:

This test shall be made of all wells producing from the Barker Dome-Dakota Storage Area by obtaining seven (7) day shut-in pressures of all Dakota wells, converting the same to bottom hole pressures (P_f) computing the squares of such bottom hole pressures, (P_f^2) and applying the same to the original average "pool slope" to obtain an adjusted open flow. If so desired as an alternate method an adjusted open flow may be computed from the following equation:

$$O_{f_2} = O_{f_1} \left[\frac{\left(P_{f_2}\right)^2}{\left(P_{f_1}\right)^2} \right]^n$$

WHERE:

O_{f_2} = Adjusted absolute open flow,

O_{f_2} = Original absolute open flow,

P_{f_2} = New bottom hole shut-in (psia.)

P_{f_2} = Old bottom hole shut-in (psia.)

n = Slope of back pressure curve.

Tests of all wells in the Barker Dome-Dakota storage area shall be made during the period of April 1 through October 31 of each year and reports made to the Commission within the next succeeding month after test is made.

V. PENNSYLVANIAN FORMATION:

All tests of wells producing from the Pennsylvanian formation of the San Juan Basin Area shall be as follows:

(A) INITIAL OPEN FLOW POTENTIAL TEST:

Immediately after completion of each new well an absolute open flow shall be determined by the conventional back-pressure method indicated by Rule 401 of the Commission's Rules and Regulations.

Seven day shut-in pressures will be used in all cases, and, if for any reason the shut-in period exceeds seven days, then, the actual shut-in time shall be reported.

(B) ANNUAL OPEN FLOW POTENTIAL TEST:

This test shall be made of all wells producing from the Pennsylvanian formation of the San Juan Basin Area, and such tests shall conform in all respects with the procedure set out next above under initial open flow potential test or in the alternative, by obtaining a seven day shut-in pressure of each well and converting the same to bottom hole pressure (P_f). The square of the bottom hole pressure (P_f^2) will be computed and applied to the original back pressure curve and an adjusted absolute open flow will be obtained.

If shut-in pressure time is in excess of seven (7) days, then the actual shut-in time shall be reported.

There is no objection to the use of an adjusted absolute open flow calculated from the equation as set out hereinabove under Dakota formation, Section B, Sub-section IV, paragraph (A) - subparagraph 2.

All tests hereunder shall be made during the period from April 1 through October 31 of each year, and reported to the Commission upon regular Form C-122 during the month succeeding the month in which the tests are made.

SECTION C. INFORMATION TEST FOR ALL FORMATIONS.

I. TYPE OF TEST:

(A) A pitot potential test may be taken on newly completed wells before their connection to a gas transportation facility. This test shall not be a required official test but may be taken for information purposes at the option of the operator. When taken, this test shall be made and reported as prescribed in paragraph (B) following.

(B) PITOT POTENTIAL TEST:

The pitot potential test shall be made after a minimum shut-in time of seven (7) days. The shut-in pressure shall be measured by the use of a dead-weight gauge. The rate of flow shall be determined by a pitot tube measurement after unrestricted flowing of gas to the air for a period of three (3) hours; the flow nipple shall be at least eight (8) diameters long. The pitot tube shall be constructed of one-eight (1/8) inch pipe (nominal diameter). Standard tables (Reids) will be provided by the Commission on request.

Any well completed with two-inch nominal size tubing (1.995 inside diameter) or larger shall be tested through the tubing. Any well completed with tubing smaller than two-inch nominal shall be tested through the casing.

(C) REPORTING OF TEST.

When the pitot potential test is taken the results shall be calculated as prescribed in the Commission's Manual of Tables and Procedure and reported to the Commission on Form C-122-B.

IT IS FURTHER ORDERED:

(1) That Form C-122-A entitled "Gas Well Test Data Sheet, San Juan Basin", a copy of which is attached hereto and made a part hereof, be, and the same hereby is approved in open form subject to minor modifications as experience may indicate and the same shall be used only for the area heretofore indicated, excepting therefrom only the Barker Dome-Dakota storage area, and the Pennsylvanian formation, all within the said San Juan Basin.

(2) That this order shall modify Rule 1121 of the Rules and Regulations of the Commission only to the extent of requiring reports upon Form C-122, a copy of which is attached hereto and made a part hereof. Such Form C-122 is hereby approved in open form subject to minor changes and additions as experience may indicate necessary.

(3) All forms heretofore mentioned, are hereby adopted for the use in the San Juan Basin Area.

(4) All testing agencies whether individuals, companies, pipeline companies or operators shall maintain a log of all tests accomplished by them. This log shall show the operator, lease, well number, section unit letter, section, township, range and pool as defined by New Mexico Oil Conservation Commission, for each well tested. The log shall further show the date the flow period pressures (psia.) and shut-in pressures are measured and the values thereof. A copy of this log shall be made available to the Commission or a Commission representative at any time during any testing season. A copy of this log shall be filed with supervisor of District III, Box 697, Aztec, New Mexico, by the 10th of December following each testing season. A log form setting out the date required shall be furnished by the New Mexico Oil Conservation Commission to all testers, a copy of this form is attached hereto and made a part hereof.

IT IS FURTHER ORDERED:

That other formations in the San Juan Basin Area which may in the future be found to be productive will be provided with testing programs on the basis of formation characteristics.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JOHN F. SIMMS, Chairman

E. S. WALKER, Member

W. B. MACEY, Member and Secretary

S E A L

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No. 3-62

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 24, 1962

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, as alternate examiner:

CASE 2478: Application of Texaco Inc. for a triple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to complete its C. H. Weir "B" Well No. 5, located in Unit G of Section 11, Township 20 South, Range 37 East, Lea County, New Mexico, as a triple completion (conventional) in the Skaggs-Drinkard and Skaggs-Glorieta Pools and in an undesignated Blinebry gas pool, with the production of oil from the Drinkard zone to be through a combination string of 2 1/16-inch and 1 1/4 -inch tubing, the production of oil from the Glorieta zone to be through a parallel string of 2 1/16-inch tubing and the production of gas from the Blinebry zone to be through the casing-tubing annulus. Applicant further proposes, as an alternative manner of completion in the event the Blinebry gas cannot efficiently be produced through the casing-tubing annulus, to produce gas from the Blinebry zone through a string of 1-inch tubing.

CASE 2479: Application of Shell Oil Company for a 160-acre non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 160-acre non-standard gas proration unit in the Tubb Gas Pool, comprising Lots 13 and 14 of Section 3, and Lots 9 and 16 of Section 4, Township 21 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the Livingston Well No. 11, located 3300 feet from the South line and 660 feet from the West line of said Section 3.

CASE 2314 (Reopened)

Application of Shell Oil Company for an exception to the gas-oil ratio provisions of Rule 26(A), Order No. R-1670, Lea County, New Mexico. The Oil Conservation Commission, on its own motion, will reopen Case No. 2314 in which the applicant seeks an exception to the gas-oil ratio provisions of Rule 26(A), Order No. R-1670, to permit its State Well No. 1-A, located 380 feet from the North line and 380 feet

from the West line of Section 26, Township 24 South, Range 36 East, Lea County, New Mexico, to remain classified a gas well in the Jalmat Gas Pool, with a gas-oil ratio below 100,000 to 1.

CASE 2480: Application of Shell Oil Company for temporary 80-acre proration units, Henshaw-Wolfcamp Pool, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a temporary order establishing 80-acre oil proration units for the Henshaw-Wolfcamp Pool, Eddy County, New Mexico. Applicant further seeks the establishment of special rules for said pool including a provision assigning the 80-acre proportional factor of 4.00 for allowable purposes.

CASE 2481: Application of El Paso Natural Gas Company for an exception to Order No. R-1670. Applicant, in the above-styled cause, seeks an exception to Rule 14(a) of the General Rules and Regulations for the Prorated Gas Pools of Northwestern New Mexico, Order No. R-1670, to permit the extension from February 1, 1962, to August 1, 1962, of the period during which underproduction of certain wells in the Basin-Dakota Gas Pool, San Juan County, New Mexico, may be produced.

CASE 2482: Application of El Paso Natural Gas Company for an exception to Order No. R-333-E. Applicant, in the above-styled cause, seeks the establishment of an administrative procedure whereby all operators, for good cause shown, may obtain an exception to Order No. R-333-E to permit the extension of the terminal date for the 1961 deliverability test period from December 15, 1961, to March 1, 1962, and the continued calculation and assignment of allowables to wells so excepted on the basis of currently effective deliverability tests with retroactive adjustment of allowables to February 1, 1962, being made upon the timely filing of the new deliverability test.

CASE 2483: Application of Aztec Oil & Gas Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute the Aztec Totah Pressure Maintenance Project in Sections 18, 19, 20, 29, 30 and 34, Township 29 North, Range 13 West, San Juan County, New Mexico, in the Totah-Gallup Oil Pool with water injection initially to be through seven wells located in said project area, and requests adoption of special rules to govern the operation of said project.

CASE 2484: Application of Tenneco Oil Company for a pressure maintenance project in the Totah-Gallup Oil Pool, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks permission to institute a pressure maintenance project in the Totah-Gallup Oil Pool by the injection of water into the Gallup formation on its Glenn H. Callow Lease in Sections 27, 28 and 33, Township 29 North, Range 13 West, San Juan County, New Mexico. Applicant further proposes the promulgation of special rules and regulations to govern the operation of said project.

CASE 2485: Application of Union Oil Company of California for approval of the Red Tank Unit Agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Red Tank Unit Agreement embracing 3,680 acres, more or less, of Federal lands in Sections 14, 15, 22, 23, 26, 27 and 28, Township 22 South, Range 32 East, Lea County, New Mexico.

CASE 2486: Application of Union Oil Company of California for permission to take interference tests and transfer allowables, Anderson Ranch-Wolfcamp Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to take interference tests and to transfer allowables between eight wells in the Anderson Ranch-Wolfcamp Pool located in Sections 28 and 33, Township 15 South, Range 32 East, Lea County, New Mexico.

iqg/

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 24, 1962

EXAMINER HEARING

IN THE MATTER OF:

Application of El Paso Natural Gas Company for an exception to Order No. R-333-E. Applicant, in the above-styled cause, seeks the establishment of an administrative procedure whereby all operators, for good cause shown, may obtain an exception to Order No. R-333-E to permit the extension of the terminal date for the 1961 deliverability test period from December 15, 1961, to March 1, 1962, and the continued calculation and assignment of allowables to wells so excepted on the basis of currently effective deliverability tests with retroactive adjustment of allowables to February 1, 1962, being made upon the timely filing of the new deliverability test.

CASE 2482

BEFORE:

ELVIS UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 2482.

MR. MORRIS: Application of El Paso Natural Gas Company for an exception to Order No. R-333-E.

MR. WHITWORTH: Garrett Whitworth and Oliver Seth for El Paso Natural Gas Company, and I am also appearing for Southern Union Production Company. I have one witness, Mr. Hickson, who has already been sworn.

MR. UTZ: Are there any other Appearances?

MR. VERITY: George L. Verity appearing for Delhi Taylor Oil Corporation.

MR. UTZ: Are there any other Appearances?

MR. MALONE: Charles F. Malone of the firm of Atwood & Malone, Roswell, for Pan-American Petroleum Corporation.

MR. UTZ: Are there any other Appearances?

GERALD HICKSON,

recalled as a witness herein, having been previously sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITWORTH:

A For the record in this case, Mr. Hickson, would you please state your full name and by whom you are employed and in what capacity?

A Gerald Hickson, Proration Engineer, El Paso Natural Gas Company.

Q You have previously been qualified as an expert before this Commission, haven't you, Mr. Hickson?

A Yes, sir.

Q And those qualifications have been made a matter of record?

A They have.

MR. WHITWORTH: We ask that the witness's qualifications be accepted.

MR. UTZ: They are.

Q (By Mr. Whitworth) Mr. Hickson, what is the nature of El Paso's Application in Case 2482?

A Well, El Paso Natural Gas is requesting the Commission to grant it exceptions to Sub-section 2 of Order No. R-333-E to permit the extension of terminal date for the 1961 deliverability test period from December 15, 1961 to March 1, 1962 with the figure of those tests to be timely figured in accordance with the Rules set out at this time and also retroactive consignments of allowables to February 1, 1962.

Q You are familiar with Order No. R-333-E, are you not?

A Yes, sir.

Q And what pertinent portions of that order is applicable here?

A A portion we are asking exception to pertains to the time set out for taking deliverability tests in San Juan Basin, which is February 1 through December 15, and we are asking that to be extended.

Q Do you have an Exhibit showing the wells that are involved in this case?

A Yes, sir, we have an Exhibit showing El Paso Natural Gas Company's 29 wells which are delinquent under 1961 deliverability tests.

(Exhibit 1 marked for identification.)

Q And is that El Paso's Exhibit No. 1?

A Yes, sir.

Q Would you explain how this Exhibit works for the Examiner?

A We have listed the wells locations, pool and formations and some numbers that are opposite the wells which correspond to reasons why there was a failure to complete deliverability tests during 1961. Those reasons being 1 to 10.

Q And the reasons pertaining to each particular well are listed opposite that well on the first page of your exhibit, is that right? A Yes, sir, they are.

Q I notice on some of the wells there is more than one number, what does that indicate?

A Each number represents a rescheduling test, for example, Rosa 34, B36-32-6 was scheduled for tests five times.

Q Mr. Hickson, would you state the reasons, generally, why these wells were not tested during the required period of time?

A We went through our list of wells to determine the reasons why the wells weren't tested, and we came up with ten major factors. One freezing conditions, location freezing, line freezing, line blow-outs, main line blow-outs, and impassable roads was caused in the latter part of the year by severe weather conditions and retests required by the Commission. Some of the tests we received back from the Commission in the latter part of December and we did not have time to reschedule them. Location equipment failure, such as separator sticking or intermedier problems and just a poor test which is not representative of the well's capability. Failure to turn well on

at appropriate time, and failure to turn well off at appropriate time, which are two others that is an ever present error that wells also have in the field due to the large number of wells that we test. Approximately 5,000 wells that are tested in the San Juan Basin and it is an ever present problem just to notifying the switcher and especially when a re-test is scheduled for the next week after a test fails and also wells loading up with fluids and failure to obtain shut in pressures.

Q Do you have a particular well, not owned by El Paso, that is included in El Paso's request?

A Yes, sir, we have one well, which belongs to Mrs. Louise Locke. She lives in Durango, Colorado, she owns one well, Locke-Taylor driller on No. 1. This well was not tested on its first scheduling, and was not rescheduled for a test. Her husband died during the year and she was not aware of the testing procedure for deliverability tests. It is a hardship case really because this is, the source of income from this well is probably one of her few incomes, but the largest portion of it.

Q Do you have any suggestion or recommendation to the Commission to afford other operators an opportunity to relief similar to that being requested by El Paso at this time?

A Yes, sir, I requested to the Commission to leave this record open or leave the case open until the first of February, all the appearances to be made in this case.

Q And what is the position of El Paso Natural Gas Company

with respect to administrative approval?

A The Commission can handle this case by administrative procedure we have no objection to --

Q If relief is granted as requested by El Paso in this case, is it your opinion that these deliverability tests could be completed by March 1, 1962?

A Yes, sir I think -- I'd say that as I think most of them will, it is hard to say that we can get them all tested, some of them have been tested, some are on test at the present time. If we lose a well at this time, well it would be pretty hard to get in one more chance to schedule it and get it in during February.

Q What has El Paso done with respect with to notification of other operators who have wells tied to our system?

A We have called the other operators which are connected to our system and notified all of them of this hearing and explained to them what we had proposed, what we were proposing here.

Q Isn't it true that our notification pertained only to those operators who had wells that hadn't been tested --

A That is correct.

Q -- that needed the relief?

A Yes.

Q Do you have anything additional that you would like to add to your testimony?

A No, sir.

Q Was El Paso's Exhibit prepared by you, Mr. Hickson?

A Yes, sir.

MR. WHITWORTH: We ask that El Paso's Exhibit 1 be admitted.

MR. UTZ: Without objection El Paso's Exhibit No. 1 will be admitted into the record.

(Whereupon El Paso's Exhibit No. 1 admitted in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hickson, if the case is left open for requests for this exception until say the first part of February, do you see any need for approval procedure?

A I don't think we need to.

MR. UTZ: Are there any other questions?

CROSS EXAMINATION

BY MR. VERITY:

Q Mr. Hickson, I didn't understand for sure with regard to your Exhibit. I didn't have a copy of it, the ten wells that you mentioned are El Paso wells or do they belong to various operators in the Pool?

A We have 29 wells on this Exhibit and all 29 are operated by El Paso Natural Gas Company. The ten that you are referring to are the ten major reasons which we have indicated which caused the delay.

Q Now, in addition to your 29 wells, there are other wells

similarly situated and connected to your pipe line?

A That is correct.

Q And it is also true, isn't it, that there are wells similarly situated that have not been able to be tested on to Southern Union's pipe line?

A That is my understanding.

Q Now, I believe one of the prime difficulties and problems in regard to completing these tests has been the severity of the weather in particular?

A Yes, sir, in the latter part of the year.

Q And by that you mean you have not been able to get in to the location and have enough time after the schedule time, and it has failed?

A That is right.

Q Isn't this condition likely to occur through the month of February?

A Well, we have tested a number of wells that we failed to gettests on in November and December, we have got tests in January and February, just re-testing, trying to put them back on a line, the problem could still exist.

Q In other words, if we just extend the matter to the end of February, aren't we likely to have a repetition of the same problem that we have now with regard to some of these wells?

A With regard to some of them, yes, I think if you set it upf for March 1st, you may have a few left and if you set it up until April 1st, you will have maybe a number less than that. That could go

on all year, I think.

Q Wouldn't it be wise, at this juncture, that we recommend that this period be extended through March to get out of the severity of weather, and cut down the likelihood of a number of wells that are still not going to have a proper test if we just move it up until the end of February?

A Well, I had discussed this with our field people and they felt they could get the biggest portion or all of them in by the first of March. I have no objection to carrying it on until the first of April.

Q Well, this would be provided no freeze-up and the well had connections in line? A That is right.

Q So, the most innocent people might be the ones that would be caught by the March first deadline and there wouldn't be anything that El Paso could do or Southern Union could do to prevent freeze-up and inclement weather from preventing these things. I am not real sure that I understand your recommendations, do you feel that the Commission should enter a general exception for the wells in San Juan and Rio Arriba Counties, Gas Wells, giving them exception to Order R-333-E so that any well that had been unable to obtain proper deliverability tests could file it under this exception?

A Well, sir, I think there has to be some reason for the delay in getting these tests in, I think there has to be a good cause for obtaining this general exception. If we just grant everybody the right to retest their wells then next year we might have

a larger number than we have this year, if that was the case.

Q Well, isn't it the other alternative setting each and every well down for a separate hearing?

A We have 29 on our Exhibit.

MR. VERITY: That is all.

MR. UTZ: Mr. Verity, are you representing Southern Union Production?

MR. VERITY: No, sir, Delhi Taylor.

MR. UTZ: You have three wells?

MR. VERITY: We have three wells. Do you want those locations?

MR. UTZ: No, sir, I have the locations of the wells here. Do you know whether or not these wells are on test at this time or not?

MR. VERITY: They are not on test at this time. We have been advised by Southern Union that they would schedule them for tests as soon as authorized to do so and so far as we know, we might very well be able to complete the tests by March 1, but it is entirely possible that in the absence of having someone camp immediately under each well with a blow torch, that we might very well have a repetition of the same thing at the end of February. This is the reason that Delhi Taylor felt it would be economical instead of being March 1, would be April 1, it would give us a month of weather which we can hope will not be as severe as the last month has.

MR. UTZ: To you know whether or not Delhi has previously scheduled these wells for tests?

MR. VERITY: Yes, sir, they have.

MR. UTZ: The tests were broken because of some of these ten reasons?

MR. VERITY: I think that is correct.

CROSS EXAMINATION

BY MR. MORRIS:

Q Referring to Exhibit No. 1, and your ten points for failure to complete deliverability tests, some of these reasons are going to be reasons that might occur at the present time not necessarily due to inclement weather, is that correct?

A That is correct.

Q Now, if the Commission is going to consider granting an exception to its Rules, it might be advisable to limit the exceptions to cases where the weather that was experienced in the San Juan Basin, was extremely severe and not to just all reasons that might be suggested for not having the tests run, for instance, referring to your reason No. 9, failure to obtain shut in pressure, would that be in any way due to the severity of the weather?

A Well, I think it could be. Now, in this case, I am not exactly sure, I know that was the only reason that we were given. The failure to obtain the shut in could be due to impassable roads, but in some cases that might be the first test that was scheduled. It might have been caused, like I say, from failure to get the shut in

pressure, maybe reschedule it again and then weather conditions existed.

Q It comes to my mind that this is a situation somewhat annulgus to granting a request for back allowable, dealing daily with oil wells we sometimes grant back allowables due to under precedented or unusual circumstances, but we don't just grant back allowables across the board to everybody that asks for it, for maybe some reasons that could have been avoided. If the Commission is going to have any standards to go by in granting an extension of time for this deliverability test, it occurs to me that perhaps we should limit or combine your ten reasons here into one reason, that being the severity of the weather. How does that seem to you, Mr. Hickson?

A You mean just if we had weather conditions which prevented the completion of a test, that would be the reason and no other reason would be accepted?

Q Something along that line, in other words, the operator under some administrative procedure that the Commission might establish would show first that he had a deliverability test scheduled for a period of severe weather. No. 2 that the severity of the weather prevented the completion of the institution or the completion of the deliverability test in order to avail himself of any relief, otherwise we might as well open the door and say for whatever reason the deliverability test was not taken, we are just going to give a blanket exception.

MR. VERITY: I wonder if I might answer the question?

MR. MORRIS: I'm just opening the matter for discussion, or if you care to answer it, otherwise, but it seems to me if we are going to set administrative procedure whereby operators other than El Paso are going to avail themselves of it, we are going to need to set up some standard.

MR. VERITY: Well, possibly I should have tried to broaden it any broader than those in attendance of this hearing. I thought that something might be gained by it. But I believe that your suggestion that it can be curtailed strictly to severe weather conditions does not give proper cognizance to the fact that we have an area with 5,000 wells that must be scheduled and tested by two pipe lines and the complications of the mechanics and the administration of this make it so that it is inherentin the system that we have a deliverability test in order to arrive at allowables, that there are going to be an amount of people that are caught without a test at the end of the year. That is going to be through any fault of theirs, and irrestrictive of how careful El Paso and Southern Union may be, this is still going to occur. It seems to me that there should be some way that these people would have relief.

MR. MORRIS: This would be a re-occurring problem and would happen every year, would it not?

MR. VERITY: Well, maybe we should leave it up for each order, for I was not referring to an order or suggesting that you promulgate an order at this time that would operate in the future,

but only one that would take care of the situation that we know to exist at this time and not past March 1.

Q (By Mr. Morris) Mr. Hickson, Order No. R-333-E, provides for a testing schedule to be established at the beginning of the test period and to be supervised by the purchaser of the gas, and according to the Order, the operator is to work in cooperation with the purchaser and they are to get together and fix a test schedule taking these deliverability tests and then submit to the Commission that schedule. Now, do you have a copy of the schedule that was submitted to the Commission for the current test period?

A Not with me, I am sure we could get it.

Q Could that either be supplied -- do you know whether that schedule was furnished to the Commission?

A Yes, I think a complete list of the schedule for 1961 was.

Q Then, the Commission, if it has it in its files, can take an administrative notice of that test schedule. And when, for any reason, a test is not satisfactory and a retest has to be scheduled, is that information submitted to the Commission?

A A retest has to be -- you mean a re-schedule?

Q Yes.

A Well, when it is re-scheduled, we send out a new schedule and if the operator notifies the purchasers and tells us that the test was broken, we don't know until they notify us, until after the first scheduling.

Q What I am trying to determine is whether the Commission can look at its records, as to any particular well, and tell whether that well was scheduled during a period of bad weather?

A Yes, sir, you have a copy of every well that was scheduled.

MR. UTZ: How do we know what the weather was?

A I have that with me from the first of October to date.

Q (By Mr. Morris) Of the weather?

A Of the actual temperature.

MR. MORRIS: I don't believe I have any further questions. I would like to make a brief statement after El Paso's case is completed.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hickson, could you say whether or not all these 29 wells that you have requested exception for here, were scheduled for testing during November and December and January?

A November, December and January? Q Yes.

A Yes, sir, I would say that all these wells were tested during -- I mean were set and scheduled for.

Q The tests failed during that period?

A Let me check here for a minute. I will take that back, I want to withdraw that statement, if I may, because we did have seven cases where the wells were tested earlier in the year and the Commission requested a retest and the request was not received in our office until in December, so all the wells don't qualify.

MR. ARNOLD: Actually we notified El Paso that it wouldn't be necessary to ask exception on those seven wells, but we had to go ahead and get them included. On those wells I think they would automatically get an extension.

MR. UTZ: Are there any other questions of the witness?

MR. WHITWORTH: I have some redirect when cross is through.

MR. UTZ: You may proceed.

REDIRECT EXAMINATION

BY MR. WHITWORTH:

Q In submitting this application, it is El Paso's intention that good cause should be shown in order to get an extension for taking deliverability tests, is that true?

A That is correct, we are asking for exception to an order.

Q Do you consider that the ten reasons that you have given here are good causes?

A Yes, sir, I feel like these ten reasons are valid reasons.

Q Do you recognize that a re-occurring cause can nevertheless be a good cause also --

A That is correct.

Q -- even though it happened several different times?

A Yes, sir.

Q El Paso, in effect, in this Application, has made an application for each well that is involved, isn't that true?

A Yes, sir.

Q And consolidated those wells into one Application?

A That is correct.

Q I notice you failed to mention in your reasons of good causes, high demand and failure to obtain shut in pressures was mentioned as possibly not being a good cause, would high demand have any connection with that?

A Yes, sir, that would. During the period of high demand, it is possible that some of these wells were unable to shut in at an appropriate time to take a shut in pressure and that was the case on two of our wells where we use that as a reason. We had a high demand during the middle of December and the wells could not be shut in.

Q And it is your position and El Paso's position, that there are many good causes other than inclement weather conditions?

A That is correct, and I am not -- these ten reasons that we have listed are ten reasons that we found to be prevalent in our wells and we are not saying that these are the only ten valid reasons for granting an exception.

Q In consolidating these wells in one application, El Paso has done that in the interest of conserving time, is that true?

A That is correct.

Q El Paso would not have an objection to taking each of these wells individually and showing a good cause why the deliverability tests should be extended?

A No, sir, if the Commission wishes.

Q And reiterating what you previously stated, the reasons

that you have stated concerning the extension of time as to each well, is considered a good cause by El Paso?

A That is correct.

MR. WHITWORTH: That is all I have.

RECROSS EXAMINATION

BY MR. ARNOLD:

Q On March 31, that you are speaking of, are you thinking of that as a figure filing date or as a testing date?

A You mean, you are referring to March --

Q March 1.

A That would be the completion of the test.

Q And you would have some period longer than that to file the test?

A Yes, sir, some period that is provided for twenty-five days on a normal '61 deliverability, although it probably could be cut to say 15 days, if it would help the Commission in getting the retroactive allowable calculated.

Q I was thinking maybe the best way to write the order might be to make the filing date April 1 and not specify the testing period and that way we could give the operators a little bit longer to conduct tests as Mr. Verity was suggesting.

A Are you asking what my opinion was on that? I don't think we'd have any objection to making the filing of the test on April 1st, it would just be an extension of 15 days to the Commission and would yet give the operator an additional month.

MR. UTZ: Do you think the operator would have any objection to June first?

A No, I think --

Q (By Mr. Arnold) Well, as he said the way the Order is now written, as it appears, you would normally have till April first to submit the test. Actually we can't do anything with these until we get them anyway and there is very little difference on one in March and one in April. It is actually when we get it, that it is critical.

MR. MORRIS: I have another question of the witness.

MR. UTZ: Mr. Morris.

RECROSS EXAMINATION

BY MR. MORRIS:

Q During the summer months of the year, are there many deliverability tests run, percentage wise?

A I would say that there is a percent run in the summer, I can't give you the exact percent.

Q Is the demand high enough during the summer months for gas, that all gas wells are subject to deliverability tests, to have those tests run upon them in the summer if diligent effort were applied that way?

A I don't think that would be possible. We start during our high demand period as soon as possible for the year's test, and we don't finish rescheduling all the wells the first time until some time in August or September.

Q So it would be impossible for the Commission to revise its period for taking deliverability tests and limit that period to the favorable months of the year?

A I think that would put quite a burden on the --

Q Just thinking out loud.

MR. MORRIS: No further questions.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hickson, the 29 wells which you requested here, consists of all of the delinquent tests that you have?

A That El Paso Natural Gas Company operates, that is correct.

Q So, therefore, you are contending that all of the tests that you didn't give are for the different reasons?

A Yes, sir.

Q El Paso didn't "goof"?

A Well, I wouldn't say we didn't "goof", but I will say we tried to correct it with re-scheduling.

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements?

MR. WHITWORTH: Did I offer El Paso's Exhibit 1?

MR. UTZ: I don't believe you did. Without exception, El Paso's Exhibit 1 will be entered into the record.

(Whereupon El Paso's Exhibit No. 1 admitted in evidence.)

MR. SETH: We would like to call a witness for Southern Union Production Company.

MR. UTZ: You may proceed, Mr. Seth.

MR. SETH: We have one witness.

MR. MORRIS: Will you stand and raise your right hand, please? (Witness complies.) Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

MR. MUENWINK: I do.

called as a witness herein, having been first duly sworn on cath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. SETH:

Q Would you state your name, please?

A My name is Len. Muenwink

Q Will you spell your name?

A M-U-E-N-W-I-N-K

Q By whom are you employed?

A Southern Union Production Company.

Q Does your Company have certain wells that operate for which deliverability tests were not submitted?

A Yes, Southern Union Production Company has five wells

which tests were not submitted before the deadline.

Q Would you describe each one briefly and the reason why the tests were not run?

A On two particular wells, one is the Basin Dakota well.

Q Give us the description of the well or the name or Federal Unit?

A No. 1 is located in Section 20, Township 31 North, Range 21 West.

MR. UTZ: Are all these wells Southern Union wells?

A Yes, Southern Union Production Company wells.

MR. UTZ: You may go ahead.

A It is located in the Basin Dakota field. It was put on test in early December and the production equipment froze up and the well froze up and the well could not be re-scheduled. However, it is on test now. Another well is the ~~Lobo~~ No. 1, located in Section 14, Township 25 North, Range 3 West in Rio Arriba in the Tapacita, Pictured Cliff Pool. That test was broken December 13, 1961. Due to freezing in the production equipment, the well could not be re-scheduled in time. It is also now in test. Then, we also have a -- this is more than an oddball well. I will go through this one. This one didn't have to do with weather but I will explain the situation on it. Jicarilla Federal No. 1, formerly Williams Petroleum Company, Federal Jicarilla No. 1, located in Section 11, Township 23 North, Range 4 West, Rio Arriba. Ballard PicturedCliff Pool, Williams Petroleum Company was formerly shut in

by the State by the previous operator's failure to file production reports for 1960 and '61. Then the new Production Company's operator filed the change of operating production reports upon the release of this well by the Commission and the test will be filed. Another well is the Southern Union Production Company Per Cent 1, a well located Section 86, 29 North, Range 10 West in San Juan County and Aztec Pictured Cliff Pool.

Q The well was scheduled for test by pipeline however Southern Union did not get test result, Southern Union was listed as operator and never did quite get together on the scheduling until it was too late. The other one is the Jicarilla, Southern Union 1, located in Section 11, Township 33 North, in Range 4 West. Also in Rio Arriba and Ballard Pictured Cliffs. The test was scheduled on that well, also, once again. We did not get the test results on the well at the time of the scheduling and we did not get the well scheduling in time for the deadline.

MR. UTZ: Do you have a copy of that list?

A I have a copy. It is a scribbled on copy. I can get a copy.

MR. UTZ: Give us one later.

Q (By Mr. Seth) Are there any other wells, or does that constitute the five?

A That constitutes the total Southern Union Production has delinquent tests on.

Q Is there anything further you want to mention about the

wells?

A No, I don't believe so.

CROSS EXAMINATION

BY MR. UTZ:

Q I have listed three wells which are delinquent to Southern Union. I wonder if you would give me the lease name, other than you listed there?

A The Jicarilla 1 is located in Section 11, 23 North, 4 West, Rio Arriba County, Ballard Pictured Cliff. The other well, Mr. Utz, is probably listed under Williams Petroleum Company, that is the well which we took over as operator recently. Williams Petroleum Company, Jicarilla Federal No. 1.

Q Williams Petroleum is the operator?

A We are now the operator. We took over the operation from Williams Petroleum Company and it is located in Section 11, Township 23 North, Range 4 West, Rio Arriba County, Ballard Field.

Q What was the lease name?

A Jicarilla Federal No. 1.

Q What unit was it in?

A I don't have the unit location on here, Mr. Utz.

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused.)

MR. MALONE: Pan American has one witness and one Exhibit.

MR. UTZ: You may proceed.

MR. MALONE: Pan American concurs, in the Application of El Paso, as being our understanding that the Application is not for a blanket extension without good cause but instead for an extension as to any well owned by any operator where good cause is shown. We wish to present evidence at this time concerning the approximate four per cent of the wells which are operated by Pan American in the San Juan Basin on which deliverability tests were not completed. Pan American is operating 335 wells, 16 of which were not tested in accordance with the rules or about four per cent.

MR. MORRIS: Will you stand and raise your right hand, please? (Witness complies.) Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

MR. EATON: I do.

GEORGE W. EATON

called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MALONE:

Q Would you please state your name and occupation?

A George W. Eaton, Senior Petroleum Engineer for Pan American Petroleum Corporation, Farmington, New Mexico.

Q Have you heretofore testified before this Commission on Petroleum Engineering matters?

A Yes, sir, I have.

A Exhibit No. 1 identifies the 16 wells which did not have deliverability tests completed by the deadline date for 1961 December tests. You will notice that Exhibit No. 1 is further subdivided into four different groups. The reason for that is this, that wells falling into those individual groups are in the same, more or less the same general classification, for reasons why deliverability tests were not found timely. Also shown on Exhibit 1 is the location of the wells involved. The first 14 wells are in the Basin-Dakota Pool. The well under group 3 is in the Blanco Mesa Verde Pool and the well in group 4 is in the south Blanco Pictured Cliff Pool.

Q And is each of these four classes of wells identified by the name of the purchaser who purchases gas?

A Yes, sir, that's correct.

Q Am I correct in my previous statement to the Commission that Pan American operates 335 wells subject to the deliverability testing rules and that the 16 listed on Exhibit 1 are the only ones which the tests were not timely filed?

A Yes, sir, that is true.

Q And that would be approximately four percent of the wells operated by your Company?

A Yes, sir, that is approximately four percent of the wells operated by Pan American which required a deliverability test.

Q Yes, now, then going back to the Exhibit again and taking Class No. 1 under Paragraph No. 1, would you state briefly,

the cause for the lack of filing of the completed tests?

A Yes, sir, those four wells in Group 1 are Basin-Dakota Pool wells which were completed during the year 1961. They were not connected to the El Paso system until late in the year, but they were connected early enough so that a deliverability test was required. They were first scheduled for deliverability tests during the month of November. Three of those four wells has since been re-scheduled five times and one has been re-scheduled three times. The tests have all failed due to the freezing malfunction of equipment, that is so said with the weather condition during November and December. Now, all four of them also are on tests now and the last test should be completed on February 8, 1962.

Q Barring further inclement weather?

A Yes.

Q What about paragraph No. 2, containing ten wells?

A The ten wells in Group 2 are Basin-Dakota Pool wells connected to the Southern Union Gas system. All of these ten wells, incidentially, are located in the Angel's Peak area of the Basin-Dakota Pool. Now, these ten wells do not have tests completed on them for the simple reason that they were never scheduled for tests. About September 1, 1961 our people who are responsible for keeping up with deliverability testing programs, made a check and noticed that there were 34 wells connected to the Southern Union system that did not have tests scheduled or run at that time. This matter was called to the attention of the purchaser and he

did the best he could, I am sure, but he was able to run testing and scheduled tests and run tests on only 11 Basin-Dakota Pool wells and 13 Fultcher KUTZ Pictured Cliff Pool wells leaving these ten wells which were neither scheduled nor run during the 1961 deliverability testing period. You will recall that the Fultcher KUTZ Pictured Cliff Pool and the old Angel Peak area of the Basin-Dakota are in the same geographic area, so all wells are in the same general area of the San Juan Basin. I mentioned previously the end of the test period caught these ten wells before they could be arranged for scheduling by the purchasing Company, Now, as in the case of the Group 1 wells, all ten of these wells are now on test and the last one is due to end its shut period on February 5, 1962.

Q Is that February 5 or 10?

A This particular group here should finish on the 5th.

Q 5th. Now, you have testified that on or about the first of September of last year, Pan American did call to the attention of Southern Union that these tests had not been made on 34 wells and that, therefore, tests were completed on 24 of the 34 and these ten wells would remain after September 1. Did Pan American make any further effort to see that Southern Union initiated scheduling of tests on the remaining ten wells?

A Yes, sir they did that approximately in two week intervals, thereafter, Pan American called the matter to the attention of the Purchasing Company.

Q Is it not true that the Rule involved in this hearing states that test scheduling will be initiated by the purchaser?

A Yes, but naturally the schedule of the test has to be in cooperation with the operator, but the operator simply can't initiate the schedule on his own. It would create chaos if Pan American decided they wanted to test all wells in the month of August, the purchasers.

Q No purchaser would be able to take that amount of production, would they?

A No, sir.

Q So, that as a practical matter, the operator, who in this case was Pan American, is at least to an extent at the beck and call of the purchaser in complying with this rule?

A Yes, sir, that is tru.

Q Is it the feeling of Pan American that it should not be penalized by adding allowable cancelled for the failure of it's purchaser to comply with the rule?

A. That is Pan American's position, yes, sir, that the operator should not be penalized by having allowable cancelled when the effect of having allowables cancelled was due to the inability of the purchaser to schedule a test. At each time that Pan American contacted the purchaser regarding the delinquent tests in this Angel Peak area, Pan American was always given the reply that they were doing the best they could to line up in getting schedules due to the low demand that they had in their system. That it was just

impossible for them to schedule any great number of tests that would be flowed for three continuous weeks at any one given time and before they could get around to it, there were many periods before they could take new tests. The end of the testing period laid on these ten tests.

Q Would you go now to Paragraph 3 and describe that well?

A Yes, sir. The well in Group 3 is Blanco Mesa Verde Pool. It is connected to the El Paso Natural Gas System. Now, this State Gas Unit J which is the well in question, actually did have a 1961 deliverability test fouled. This test was conducted early in the year of 1961. The well was subsequently worked over with a resulting substantial increase in deliverability as based on the initial test filed immediately after it was worked over. The well was not reconnected to the El Paso system after the workover until October 17, 1961 and was scheduled for deliverability test commencing November 23, 1961 in sufficient time to have it completed. Unfortunately, the clock stopped on the meter during the flow test period, in other words, the well had gone through a conditioning period, and during this flow period, the test was almost completed when the clock stopped on the meter and the clock may have stopped due to the cold weather. In any way, the clock stopped.

Q Is that well now on test as the others are?

A Yes, sir, it is now on test and that test should be completed February 10, 1962.

Q Paragraph 4?

A The well in Group 4 is a South Blanco Pictured Cliff Pool well connected to the El Paso system. It is a very weak well as evidenced by the reason that it's initial 1961 deliverability test failed. It was scheduled for tests commencing April 30, 1961 but no gas was produced during the flow test period so it was then re-scheduled to commence November 9, 1961 and the flow chard on that test got lost in the mail somewhere. It is now on test and should complete its shut in period time.

Q January 25?

A January 25.

Q Is there anything further to be said in connection with the Exhibit?

A No, sir, I don't believe so.

Q All right. It is your testimony here that all of the wells shown on the Exhibits are now on tests, is that correct?

A Yes, sir, that is true.

Q And that the completion date, barring further freeze up of equipment or other weather problems would be about February 10, is that correct?

A Yes, sir.

Q Do you have anything further to add to your testimony or -- let me ask one more question. Would the correlative rights of Pan American be in any way affective by adherence of the Commission to rules so that allowables were cancelled?

A Yes, sir, these wells are all in pools in the San Juan

Basin and if they are not assigned allowables along with every other well then there would be some question of violation of correlative rights.

Q Do you have anything further to add?

A No, sir, I don't believe so.

MR. UTZ: Do you wish to offer your Exhibits?

MR. WHITWORTH: We do, please, sir.

MR. UTZ: The Exhibits will be accepted into the record.

(Whereupon, Southern Union Production's Exhibits admitted into the record.)

CROSS EXAMINATION

BY MR. UTZ:

Q In regard to your ten wells under Item 2, had you contacted Southern Union earlier in the year, do you think there would have been a good possibility of having these wells tested?

A I really don't know the answer to that question, Mr. Utz but I really kind of doubt it for this reason, during the summer months their demand is extremely low and a number of those wells and others like them in this Angel Peak area that we have are connected to the Southern Union system and only produce a few hours a month, not even a full day. They just produce a few hours a month, so I don't know. It could have been possible that some of the tests could have been run during the summer months but not very many. I might say this, one requirement that Pan American puts on

these purchasers that may be a little unusual, is that we require them to produce every well every month, so if it weren't for that requirement then a chance that some of these wells that only produce a few hours a month wouldn't be produced at all.

Q Suppose if we change our clock, it wouldn't stop?

A I am not a clock maker, I don't know why the clock stopped.

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any other statements?

MR. MORRIS: Yes, sir. If the Examiner please, perhaps I am alone in my thinking but I find the situation we are speaking of today analogous to the situation we found in Southeast New Mexico last year, where back oil allowable was authorized because severe weather prevented the running of allowables. Now, in this situation, back allowable was authorized by a showing in writing by the various operators affected and without the necessity of each operator coming into a hearing and explaining his particular situation. Now, in this hearing, El Paso is not, as I understand it, requesting that the Commission establish an administrative procedure which would be applicable to all wells, but it would seem to me that El Paso has stated that they would not propose such a procedure. It seems to me that any order entered in this case should provide for all wells affected in this circum-

stance regardless of who the purchaser is and regardless of who the operator is. It would be my recommendation that serious consideration be given to the establishment of an administrative procedure whereby all cperators could avail themselves without the necessity of coming to the hearing. Some of the operators have only one or two wells that are involved and they should be entitled to an exception without the necessity of coming to the hearing to get it. I would suggest that the Commission establish an administrative procedure and allow an exception to the filing of the deliverability tests until some date to be determined, some later date, for good cause shown including severe weather, including a widows unfamiliarity with the Commission's requirement, including the stoppage of a clock or a well that might have caught fire or some chart that was lost in the mail, whatever would appear to the Commission to be good cause would be some undefinable standard, but something that would be suitable to the situation that we find ourselves in in the Northwestern part of the state.

MR. UTZ: Are there any other statements?

MR. MORRIS: Mr. Examiner, I have two letters which have been directed to my attention concerning wells for which extensions of the filing of the deliverability tests are requested. I would like to make these two letters part of the record in this case and in the event an administrative procedure is established, the letters would probably be considered for request for relief. One letter is from Geolectric Inc., Aztec, New Mexico to Mr. Arnold.

It reads as follows: Request is hereby made for extension of filing, 1961, New Mexico, deliverability tests on the Kingwood Oil Company's in No. 1 in Section 13, Township 27 North, Range 10 West. This well was originally scheduled at its regular time conditioning period, November 22 to December 6, through December 6, December 14 shut in, December 14, December 22. On December the 11th, this well caught fire and that reason it was unable to be tested. Signed Kingwood Oil Company.

I have another letter from Thomas F. Fugan with reference to this cause. Pioneer Production Corporation wishes to join El Paso Natural Gas in requesting an exception to Order R-333-E that the terminal date for the 1961 deliverability be extended to March, 1962. Pioneer Production Corporation has one well on which the 1961 deliverability test is delinquent, Walker No. 1 is located in the Northwest quarter Section 3, Township 29 North, Range 12 West, San Juan County. The 1961 deliverability test was first scheduled in the area 37D, their period to end 12/13/61, but the well froze off due to severe weather conditions. The well was rescheduled and the test completed in the area 41D, their period to end 1/14/62. The test will be filed 1/26/62.

I ask that these two letters be made a part of the record.

MR. UTZ: Without objection that will be made a part of the record.

(Whereupon, letters entered into evidence.)

Are there any other statements? The case will be taken under advisement.

(Whereupon this hearing was concluded at 4:00 o'clock P.M.)

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, KATHERINE PETERSON, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill, and ability.

Katherine Peterson
COURT REPORTER

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2482, heard by me on Jan. 24, 1962.

, Examiner
New Mexico Oil Conservation Commission

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Pan Am. EXHIBIT NO. 1
CASE NO. 2482

PAN AMERICAN PETROLEUM CORPORATION

[redacted]

SAN JUAN & RIO ARRIBA COUNTIES, NEW MEXICO

335 total

Wells Not Completing 1961 Deliverability Tests

	Well Name		Location	
1.	**El Paso System**			
	Jicarilla Contract 146 No. 10	PM	**N- 9-25-5**	Com. late in 1961
	Jicarilla Contract 146 No. 11	"	**K- 4-25-5**	sc. doc.
	Jicarilla Contract 155 No. 12	"	**K-32-26-5**	Feb 8. last test.
	Jicarilla Contract 155 No. 13	"	**I-30-26-5**	
2.	**Southern Union System**			
	Johnson "B"		**H-21-27-10**	Angels Peak area
	Fred Feasel "G"	"	**K- 2-27-10**	Sept. discov.
	Fred Feasel "H"	"	**H-33-28-10**	no sched. or
	J. F. Day "E"	"	**L-17-28-10**	test.
	R. P. Hargrave "H"	"	**B- 9-27-10**	last off test.
	E. H. Pipkin No. 5	"	**B-36-28-11**	Jan. 5, 62
	Davidson "F"	"	**M-28-28-10**	
	Davidson "G"	"	H-21-28-10	
	Fred Feasel "J"	"	G-34-28-10	
	M. N. Galt "H"	"	**L- 1-27-10**	
3.	El Paso **System**			
	State Gas Unit "J"	MV	A-30-30-9	W.O. 11-23-61 5 each tapped
4.	El Paso **System**			
	Jicarilla Contract 155 No. 5	S.B.	D-31-26-5	S.4-30-61 - Sq. SIP 1-25-62

16

[illegible] 2-10-62

EL PASO NATURAL GAS COMPANY

Well Name and Number	Location	Pool and Formation	See Page 2.
Florance 10-D	B 17-27-8	Blanco MV	6, 1
Heaton 8 (MV)	B 30-31-11	Blanco MV	2, 7, 6
Howell 1 C	B 1-29-8	Blanco MV	5, 9, 7
Rincon 21	L 16-27-6	Blanco MV	6, 1
Rincon 80	B 18-27-6	Blanco MV	5, 4
Rincon 81	K 17-27-6	Blanco MV	6, 4
Rincon 99 (MV)	A 27-27-6	Blanco MV	6, 1
Rosa 34	B 36-32-6	Blanco MV	3, 6, 7, 7, 3
Russell 5	G 25-28-8	Blanco MV	6, 8
SJU 27-5 #61	G 5-27-5	Blanco MV	1, 1
SJU 28-4 #13	N 20-28-4	Blanco MV	6, 4
SJU 28-7 #51	B 24-28-7	Blanco MV	6, 1
SJU 28-7 #82 (MV)	A 4-27-7	Blanco MV	6, 1
SJU 30-5 #30	L 21-30-5	Blanco MV	6, 7, 3
SJU 32-8 #17	M 23-31-8	Blanco MV	6, 4
SJU 32-9 #30	H 36-32-10	Blanco MV	6, 4
SJU 32-9 #50	A 25-32-10	Blanco MV	6, 4
Wilson 6	N 35-30-7	Blanco MV	8, 7
SJU 28-6 #54	N 7-27-6	Blanco MV	7, 1
SJU 30-5 #33	A 20-30-5	Blanco MV	7, 3
Hardie Cdl	G 19-29-7	Blanco MV	
Jicarilla 13-B	P 34-25-4	South Blanco PC	6, 4
Jicarilla 12-F	K 16-26-5	South Blanco PC	Broke Test in Dec.
Jicarilla 13-F	E 16-26-5	South Blanco PC	1
SJU 28-6 #92 (PC)	G 2-27-6	South Blanco PC	Tubing leak
Jicarilla 8-B	G 28-25-4	South Blanco PC	1
Heaton 8 (PC)	B 30-31-11	Aztec PC	2, 7, 7
Ludwick 18	B 6-29-10	Basin DK	5, 5, 6
Schumacker 11	K 18-30-10	Basin DK	6, 10

EPNG Exhibit No. 1
Case 2482

REASONS FOR FAILURE TO COMPLETE DELIVERABILITY TESTS DURING 1961

1. Freezing conditions.
2. Line blowouts.
3. Impassable roads.
4. Retest required by NMOCC.
5. Location equipment failure.
6. Poor test.
7. Failed to turn well on at appropriate time.
8. Failed to turn well off at appropriate time. Due to high demand
9. Failure to obtain shut-in pressures.
10. Well loaded up with fluids.
11. Widow unfamiliar with procedures.
12. Clock stopped
13. Well caught fire
14. Chart lost in mail
15. Switcher got drunk. (if cold enough)

EPNG Exhibit No. 1
Case 2482