

Casa No.

860

Application, Transcript,
Small Exhibits, Etc.

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. 860
Order No. R-620

THE APPLICATION OF THE OIL
CONSERVATION COMMISSION ON
ITS OWN MOTION AMENDING AND
REVISING PROVISIONS OF ORDER
NO. R-565, RULE 6 (A) THEREOF,
OF THE SPECIAL RULES AND
REGULATIONS OF THE FULCHER
KUTZ-PICTURED CLIFFS GAS POOL,
THE AZTEC-PICTURED CLIFFS GAS
POOL, AND THE SOUTH BLANCO-
PICTURED CLIFFS GAS POOL, TO
PROVIDE FOR A PROCEDURE IN ASSIGN-
ING ALLOWABLES TO WELLS LOCATED
ON TRACTS CONTAINING LESS THAN A
STANDARD PRORATION UNIT IN ORDER
TO PREVENT THE PREMATURE ABANDON-
MENT OF WELLS, CAUSED BY ASSIGNMENT
OF LOW ALLOWABLES.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a. m. on March 16, 1955, at Santa Fe, New Mexico, before the Oil Conservation Commission, hereinafter referred to as the "Commission".

NOW, on this 20th day of April, 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 Order No. R-565 at the present time makes no provision for adjusting the allowable of those wells located on tracts containing less than a standard spacing unit, and the allowables of these wells, as calculated under the present proration formula will be below the economic producing level.
- (3) That the adoption of the revisions and amendments to Order No. R-565 as presented in hearing will provide for a procedure in the

assignment of allowable to these wells, and will prevent the premature abandonment of such wells which might result from the assignment of low allowables.

(4) That it is in the interests of orderly and efficient administrative procedure, with due regard for the prevention of waste and the protection of correlative rights, to adopt the revised and amended Rule 6 (A) as presented at the hearing in this matter.

IT IS THEREFORE ORDERED:

1. That Rule 6 (A), Paragraph 2, of the Special Rules and Regulations for Aztec-Pictured Cliffs Gas Pool, the Fulcher Kutz-Pictured Cliffs Gas Pool, and the South Blanco-Pictured Cliffs Gas Pool, as each is set forth in Order R-565, be and the same is hereby amended to read as follows:

RULE 6 (A), Paragraph 2:

"The allowable production from any non-standard gas proration unit as compared with the allowable production therefrom if such tract were a standard unit shall be in the ratio which the area of the non-standard proration unit bears to a standard proration unit of 160 acres, subject to the provisions of Rule 9 of this order. Any gas proration unit containing between 158 and 162 acres shall be considered to contain 160 acres for the purpose of computing allowables."

2. That Rule 9 of the Special Pool Rules and Regulations for the Aztec-Pictured Cliffs Gas Pool, the Fulcher Kutz-Pictured Cliffs Gas Pool and the South Blanco-Pictured Cliffs Gas Pool as each is set forth in Order R-565, be and the same is hereby revised and extended to include the following additional paragraph:

"Any well having a calculated allowable less than that of the largest allowable assigned a marginal well shall be assigned an allowable equal to the largest marginal allowable; provided that the allowable so assigned shall not be greater than the well's ability to produce. If the allowable so assigned is greater than the well's ability to produce, the well shall be limited to its ability to produce. All wells with allowables so assigned shall be classified as marginal wells."

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John F. Simms
JOHN F. SIMMS, Chairman

E. S. Walker
E. S. WALKER, Member

W. B. Macey
W. B. MACEY, Member and Secretary



BEFORE THE
Oil Conservation Commission
SANTA FE, NEW MEXICO
March 16, 1955

IN THE MATTER OF:

CASE NO. 860 - Regular Hearing

TRANSCRIPT OF PROCEEDINGS

ADA DEARNLEY AND ASSOCIATES
COURT REPORTERS
ROOMS 105, 106, 107 EL CORTEZ BUILDING
TELEPHONE 7-3546
ALBUQUERQUE, NEW MEXICO

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

IN THE MATTER OF:

The application of the Oil Conservation Commission upon its own motion for an order amending provisions of Paragraph 2 of Rule 6(A) of the Fulcher Kutz-Pictured Cliffs Gas Pool Rules; Paragraph 2 of Rule 6(A) of the Aztec-Pictured Cliffs Gas Pool Rules; and Paragraph 2 of Rule 6(A) of the South Blanco-Pictured Cliffs Gas Pool Rules; all as contained in Order R-565.

Applicant, in the above-styled cause, will consider proposals to amend Paragraph 2 of Rule 6(A) of the Fulcher-Kutz-Pictured Cliffs Gas Pool Rules; Paragraph 2 of Rule 6(A) of the Aztec-Pictured Cliffs Gas Pool Rules; and Paragraph 2 of Rule 6(A) of the South Blanco-Pictured Cliffs Gas Pool Rules, as set forth in Order R-565, to provide for a procedure in assigning allowables to wells located on tracts containing less than a standard spacing unit to prevent the premature abandonment of wells caused by assignment of low allowables.

Case No. 860

BEFORE:

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

TRANSCRIPT OF HEARING

MR. MACEY: The next case on the docket is Case 860.

E L V I S A. U T Z

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

DIRECT EXAMINATION

By MR. KITTIS:

Q Will you state your name and position, please?

A Elvis A. Utz, Engineer with the Oil Conservation Commission.

Q Mr. Utz, you are familiar, I believe, with Case Number 860, which pertains to a proposed amendment of the provision of Paragraph 2 of Rule 6(A) of the separate various pool rules contained in R-565, is that correct?

A That is correct.

Q Mr. Utz, in your study of this matter, as a result of this study, you have certain recommendations to place before the Commission as to these revisions?

A Yes, I do.

Q Will you state what they are?

A In order to explain what we mean by the breaking point, I would like to take the liberty to read a little explanation of how we arrive at the breaking point.

In calculating allowables as required by Order R-565, it is necessary to find what is commonly called the "Breaking Point". This is brought about by the fact that the pool allowable is determined by the demand of gas from the pool. There are almost always some low deliverability wells which cannot produce their calculated allowable. These wells then must be assigned an allowable equal to their ability to produce or 100% deliverability. Order R-565 states that wells in Fulcher Kutz, Aztec and South Blanco shall be prorated according to a formula. This formula is 25% acreage plus 75% acreage times deliverability. Since there are certain wells in a pool which cannot produce the volume

calculated by the formula and are allowed 100% deliverability instead if the calculated allowable, it is necessary to determine the deliverability value at which 100% deliverability ends and the 25% acreage plus 75% acreage times deliverability formula takes over. This is the "Breaking Point".

This point is determined by applying a "cut and try" formula

which is:
$$\frac{F_1}{1-F_2} = BP$$

where:

$$F_1 = \frac{\text{Estimated daily non-marginal acreage allocation}}{\text{Estimated daily non-marginal acreage factors in pool.}}$$

$$F_2 = \frac{\text{Estimated daily non-marginal Ac x Del. allocation}}{\text{Estimated daily non-marginal Ac x Del. factors in pool.}}$$

When the estimated BP equals the calculated breaking point then of course the problem is solved.

However when applying the formula to wells with low acreage factors (less than 160) their calculated allowable is less than the allowable of the well at the breaking point. The allowables of these wells calculate as low as 14 Mcf/da. There are 29 wells so affected in the Fulcher Kutz Pool and two wells in the Aztec Pictured Cliffs Pool. In all probability pending non-standard unit applications, when approved, will eliminate all but 19 wells in Fulcher Kutz from this category.

To give you a little explanation of how that will effect the pool allowables, or how it has effected the pool allowables, I would like to explain by means of this chart.

Q That is marked Exhibit No. 1, Mr. Utz?

A I will mark it as Exhibit No. 1.

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

Q That was prepared by you?

A Yes, it was. Horizontally I have plotted the deliverability in MCF per day. On the right side of the graph I have plotted individual well allowables, million cubic feet per month. The blue curve represents the allowable curve for wells of various deliverabilities. The breaking point that I just attempted to explain is this point where the curve breaks. This is brought about because these wells down here can not deliver their calculated deliverability. Therefore, by the "cut and try" method, we have to calculate this point so that we will be able to assign the balance of the wells which are capable of delivering their calculated allowable, and be able to assign them their allowable on the basis of the formula.

The other curves, the black and red and green curves are pool allowables. Again the horizontal deliverability in MCF per day is applicable to those. On the left hand side of the chart, I have plotted pool allowable in million cubic feet per month. The green curve represents the allowable as it would be without the new proposed rule, which gives some advantage to the low acreage factor wells. The red curve indicates how the pool allowable would be distributed after the non-standard applications that I spoke of are allowed, which should happen about May 1st. The black curve indicates how the allowable is distributed as of now with 29 low acreage factor wells. As may be seen, it doesn't make too great a difference except a few wells in the category around 100 to 200 MCF.

Q Mr. Utz, do you have a recommendation to make for a revision of Paragraph 2?

A Yes, I do have.

Q Will you mark that Exhibit 2, if it is not so marked?

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

A I haven't had the opportunity of distributing that. I wonder if I should read it?

Q I believe you should read it. Would you do so, please?

A "Proposed Amendment to Rule 6 -- Order R-565. Any well having a calculated allowable less than that of the largest allowable assigned a marginal well shall be assigned an allowable equal to the largest marginal allowable; provided that the allowable so assigned shall not be greater than the wells ability to produce. If the allowable so assigned is greater than the wells ability to produce the well shall be limited to its ability to produce. All wells with allowables so assigned shall be classified as marginal wells."

Q Do you have any comment on that proposed amendment, Mr. Utz?

A I have a recommendation to make. The addition of this paragraph to Rule 6 of Order R-565 will, in my opinion, help to prevent the premature abandonment of small deliverability wells which were drilled on small tracts. Most of these wells were drilled in good faith before 160-acre spacing was in effect and are therefore due some special consideration. I therefore recommend that Rule 6 of Order R-565 be amended by the substitution of this paragraph.

Q For Paragraph 2?

A That is right.

MR. MACEY: Anyone have any questions of the witness?

(Witness excused.)


MR. KITTS: We would like to offer in evidence, Exhibits 1 and 2.

MR. MACEY: Without objection the Exhibits will be received. Anyone have anything further in this case? If not the case will be taken under advisement.

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

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 17th day of March, 1955.


Notary Public, Court Reporter

My Commission Expires:
June 19, 1955

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

CASE 860
ORDER R-565--RULE 9 6

1. In calculating allowables as required by Order R-565 it is necessary to find what is commonly called the "Breaking Point". This is brought about by the fact that the pool allowable is determined by the demand of gas from the pool. There are almost always some low deliverability wells which cannot produce their calculated allowable. These wells then must be assigned an allowable equal to their ability to produce or 100% deliverability. Order R-565 states that wells in Fulcher Kutz, Aztec and South Blanco shall be prorated according to a formula. This formula is 25% acreage plus 75% acreage times deliverability. Since there are certain wells in a pool which cannot produce the volume calculated by the formula and are allowed 100% deliverability instead of the calculated allowable, it is necessary to determine the deliverability value at which 100% deliverability ends and the 25% acreage plus 75% acreage times deliverability formula takes over. This is the "Breaking Point".

This point is determined by applying a "cut and try" formula which is:

$$\frac{F_1}{1-F_2} = BP$$

where:

$$F_1 = \frac{\text{Estimated daily non-marginal acreage allocation}}{\text{Estimated daily non-marginal acreage factors in pool.}}$$

$$F_2 = \frac{\text{Estimated daily non-marginal Ac x Del. allocation}}{\text{Estimated daily non-marginal Ac x Del. factors in pool.}}$$

When the estimated BP equals the calculated breaking point then of course the problem is solved.

However when applying the formula to wells with low acreage factors (less than 160) their calculated allowable is less than the allowable of the well at the

breaking point. The allowables of these wells calculate as low as 14 Mcf/da. There are 29 wells so affected in the Fulcher Kutz Pool and two wells in the Latec Pictured Cliffs Pool. In all probability pending non-standard unit applications, when approved, will eliminate all but 19 wells in Fulcher Kutz from this category.

The addition of this paragraph to Rule ⁶ of Order R-565 will in my opinion help to prevent the premature abandonment of small deliverability wells which were drill^{ed} on small tracts. Most of these wells were drilled in good faith before 160-acre spacing was in effect and are therefore due some special consideration. I therefore recommend that Rule ⁶ of Order R-565 be amended by the addition of this paragraph.

6
PROPOSED AMENDMENT TO RULE 9-----ORDER R-565

Any well having a calculated allowable less than that of the largest allowable assigned a marginal well shall be assigned an allowable equal to the largest marginal allowable; provided that the allowable so assigned shall not be greater than the wells ability to produce. If the allowable so assigned is greater than the wells ability to produce the well shall be limited to its ability to produce. All wells with allowables so assigned shall be classified as marginal wells.

Comm. Exhibit No. 2

Case No. 860