NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Pursuant to Chapter 72, Session Laws of 1935, State of New Mexico, by which Act the Gil Conservation Commission of New Mexico was created, investing said Commission with the jurisdiction and authority over all matters relating to the conservation of oil and gas in this State and of the enforcement of all provisions of said Act, motice is hereby given that a public hearing will be held at the Capitel, Santa Fe, New Mexico, on the 15th day of July, 1937, at 9:00 A.M., for the purpose of considering the following: Case No. 5.

- (a) Gas Lift for production of oil in Lea County Fields.
 - (b) Eunice-Monument Fields Division line.
 - (c) Due to the acreage variation of legal subdivisions

 (40 acres) of the Lea County oil fields, shall the

 Commission prorate according to the legal subdivision

 unit (40 acres) or according to the actual acreage in

 the unit?
 - (d) Changes in regulations as set out in Bulletin Ne.3,

 Special Rules and Regulations for the Lea County Fields.

 Any person having any interest in the subject of the said hearing shall be entitled to be heard.

Given under the seal of said Commission at Santa Fe, New Mexico, on June 19, 1937.

OIL COMSERVATION COMMISSION

	(signed) CLYDE TINGLEY
	Governor
(SFAL)	(signed) FRANK WORDEN
	Commissioner of Public Lands
	(signed) G. D. MACY
	State Geologist

NOTICE FOR PUBLICATION

STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

Pursuant to Chapter 72, Session Laws of 1935, State of New Mexico, by which Act the Cil Conservation Commission of New Mexico was created, investing said Commission with the jurisdiction and authority over all matters relating to the conservation of oil and gas in this State and of the enforcement of all provisions of said Act, notice is hereby given that a public hearing will be held at the Capitol, Santa Fe, New Mexico, on the 15th day of July, 1937, at 9:00 A.M., for the purpose of considering the following: Case No. 8.

- $\sqrt{}$ (a) Gas Lift for production of oil in Lea County Fields.
 - √ (b) Eunice-Monument Fields Division line.
 - (c) Due to the acreage variation of legal subdivisions

 (40 acres) of the Lea County oil fields, shall the

 Commission prorate according to the legal subdivision

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 the unit?
 - √(d) Changes in regulations as set out in Bulletin No.3,

 Special Rules and Regulations for the Lea County Fields.

 Any person having any interest in the subject of the said hearing shall be entitled to be heard.

Given under the seal of said Commission at Santa Fe, New Mexico, on June 19, 1937.

OIL CONSERVATION COMMISSION

By Governor

Commissioner of Public Lands

By State Geologist

The Commission also adopted the following Order No. 72:

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:

(a) GAS LIFT FOR PRODUCTION OF OIL

CASE NO. 8

IN LEA COUNTY FIELDS.
(b) EUNICE-MONUMENT FIELDS

DIVISION LINE.

(c) DUE TO THE ACREAGE VARIATION OF
LEGAL SUBDIVISIONS (40 ACRES) OF
THE LEA COUNTY OIL FIELDS, SHALL
THE COMMISSION PRORATE ACCORDING
TO THE LEGAL SUBDIVISION UNIT (40 ACRES)
OR ACCORDING TO THE ACTUAL ACREAGE IN
THE UNIT?

(d) CHANGES IN REGULATIONS AS SET OUT IN BULLETIN NO. 3, SPECIAL RULES AND REGULATIONS FOR THE LEA COUNTY FIELDS.

ORDER NO. 72

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 A.M. on the 15th day of July, 1937, in the Supreme Court Room of the State Capitol, Santa Fe, New Mexico, upon the call of the Commission in the above-designated matter.

Now, on this 26th day of July, 1937, the Commission having before it for consideration the evidence adduced at the hearing in said case, and being fully advised in the premises now therefore orders:

A. That the matter of gas lift for production of oil and gas in Lea County fields shall remain unchanged and as such matter now appears in Order No. 52, adopted by the Commission on December 30, 1936,

captioned "Special Rules and Regulations for Lea County Fields, New Mexico", appearing of record in the Minute Book of the Commission on pages 102-108, inclusive, under the subcaption "GAS LIFT", and appearing on Page 7 of Circular No. 3.

B. That the matter of the division line between the Eunice-Monument fields be as follows: The southern boundary of the Monument field shall be the northern boundary of Eunice field, the division line between the two said fields shall be: an east-west line running one-quarter mile south of the north line of the following sections: Sections 23 and 24, Township 20-South, Range 36-East, N.M.P.M. and Sections 19, 20, 21 and 22, Township 20-South, Range 37-East, N.M.P.M.

C. That the unit for proration purposes in all Lea County fields shall be the legal subdivision of 40-acres more or less, or lot of 40-acres more or less, as defined and determined by the official plats of the United States Government surveys.

Nonument Field, Lea County, approved July 16, 1936, and which Order All print orders in any procession, pages 75-76, inclusive, they insofar as said paragraphs are in conflict with the unit for proration provided for herein, shall be revoked as of the effective date provided for hereinbelow.

D. That other changes in Circular No. 3 of the Commission which embraces the matters and things in Order No. 52, adopted December 30, 1936, and appearing of record in the Commission's Minute Book on pages 102-108, inclusive, captioned "SPECIAL RULES AND REGULATIONS FOR LEA COUNTY FIELDS, NEW MEXICO, under the subcaption "CENTRAL TANK BATTERIES" and appearing on page 8 of Circular No. 3, be modified insofar as central tank batteries are concerned, as follows:

*At the option of the operator a central tank battery may be used to receive the production of two to not more than five units of the same basic lease. Exceptions to be made at the discretion of the Commission. Such central tank battery shall include adequate tankage and other equipment so that the production from each well can be accurately determined at reasonable intervals.

IT IS FURTHER ORDERED that the Order herein shall become effective on the 1st day of August, 1937.

MEETING OF THE NEW MEXICO OIL CONSERVATION COMMISSION

Held in the Supreme Court rooms at the Capitol Building, Thursday, July 15, 1937, at 9 o'clock A.M.

PRESENT: Frank Worden, State Land Commissioner, Secretary;
G. D. Macy, State Geologist;
Dr. E.H.Wells, President of the School of Mines;
Carl Livingston, Attorney for the Oil Conservation Commission;
C. G. Staley;

ABSENT: Governor Tingley, Chairman;

The meeting was called to order by Mr. Worden;

Thereupon the call for the meeting was read by Mr. Macy, as follows:

"NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

Pursuant to Chapter 72, Session Laws of 1935, State of New Mexico, by which Act the Oil Conservation Commission of New Mexico was created, investing said Commission with the jurisdiction and authority over all matters relating to the conservation of oil and gas in this State and of the enforcement of all provisions of said Act, notice is hereby given that a public hearing will be held at the Capitol, Santa Fe, New Mexico, on the 15th day of July, 1937, at 9:00 A.M., for the purpose of considering the following:

Case No. 8.

- (a) Gas Lift for production of oil in Lea County Fields.
- (b) Eunice-Monument Fields Division line.
- (c) Due to the acreage variation of legal subdivious, (40 acres) of the Lea County oil fields, shall the Commission prorate according to the legal subdivision unit (40 acres) or according to the actual acreage in the unit?

(d) Changes in regulations as set out in Bulletin No. 3,

Special Rules and Regulations for the Lea County Fields.

Any person having any interest in the subject of the said hearing shall be entitled to be heard.

Given under the seal of said Commission at Banta Fe, New Mexico, on June 19, 1937.

OIL CONSERVATION COMMISSION

By: (Signed) Clyde Tingley

Governor;

By: (Signed) Frank Worden,

Commissioner of Public Lands

By: (Signed) G.D. Macy,

(SEAL)

State Geologist."

BY MR. MACY: In accordance with this call we will consider (a), Gas

Lift for production of oil in Lea County Fields, and will,

be glad to hear any testimony or any witnesses in connection with this matter and Judge Seth will interrogate

the witnesses.

Thereupon, EDGAR KRAUS was called and having been duly sworn by the Land Commissioner, testified as follows:

EXAMINATION BY MR. SETH:

- Q Stateyour name please?
- A Edgar Kraus.
- Q What is your profession?
- A I am a geologist by profession, and engineer.

BY MR. SETH: Is there any question of Mr. Kraus' qualifications? I think he has qualified before this Commission on several occasions.

BY MR. WORDEN: I know of none.

- Q You have been employed in connection with the Lea county fields for several years, haven't you?
- A Yes, sir. Approximately ten.
- Q Eight or ten years?
- A Yes, sir.

- Q Mou are familiar with the conditions, the geological and engineering points of effect in that field?
- A Yes, sir.
- Q By what company are you employed?
- A The Atlantic Refining company.
- Q Was there a meeting of the Lea county operators yesterday afternoon?
- A There was.
- Q Did they make any recommendation with respect to the gas lift for production of oil in the Lea county fields?
- A Yes, sir. They made a recommendation that the present regulation remain unchanged. The present regulation in Circular No. 3 of the Oil Conservation Commission reads as follows: "Gas lift shall be used in regular production practice only after application to and approval by the Commission."
- Q In your opinion is that a proper regulation for the Lea county fields?
- A I beli ve it is.
 - BY MR. SETH: I believe that is all we want to put on from this witness in connection with that particular paragraph of the call.
 - BY MR. MACY: Has anyone else any question to ask the witness in connection with this matter?
 - BY MR. SETH: Then if there is no objection we will proceed to subdivision (b), Eunice-Monument Fields Division line.
- Q Was there any recommendation made, Mr. Kraus, at the meeting yester-day with respect to the division line with respect to the Eunice-Monument fields?
- A Yes, sir there was.
- Q What line did they recommend?
- A If I may consult my map. (Witness produces map) The line recommended as being the southern boundary of the Monument field and therefore the northern boundary of the Eunice field, may be described as follows: An east-west line running 1/4 of a mile south of the north line of the following sections: Sec. 23 and 24 township 20-36; Section 19, 20, 21 and 22, Township 20-37.
- Q That is an east and west line 1/4 mile south of thenorth line of those sections you have referred to?
- A Yes, sir.
- Q In your opinion is that a proper line for the division between those fields under conditions as they are known now?
- A I believe it is.

- Q What are your reasons for that conclusion, Mr. Kraus?
- Geologically there appears to be a flattening or saddle between the Monument field and the Eunice field proper. That flattening or saddle is approximately a mile and a half in a north and south direction. A line drawn, therefore, anywhere within that distance and in that position might be considered a boundary line between the two pools from a geological viewpoint. The line chosen happens to come very close to paralleling the closing boundary of structural contours around the Monument field. Geologically, therefore, the line chosen has good reason to be considered a boundary. From an engineering standpoint it appears that bottom pool pressures in the Monument area are different from those in the Eunice area, both in an average way and in a detailed way, near this flattening or saddle. It is therefore logical to create a boundary in this general area. From a viewpoint of equities between land owners, lease owners and royalty owners, since the Monument pool is prorated number a different system than the Eunice pool, it is desirable to create a line that would not result in inequities of drainage. The present line was chosen because it so happens that offset tracts on each side of the line are owned by the same companies and royalty holders under the tracts are identical, so that no drainage complication can result.

BY MR. SETH: Some bottom hole pressure maps were to be furnished by Mr. Ransame. Have you those ready, Mr. Ransome?

BY MR. RANSOME: I will try to give them to you within a week.

BY MR. SETH: Then if there is no objection, bottom hole pressure maps covering the north and south area of this line will be submitted by Mr. Ransome.

Right now I want to offer in evidence formally the records of the Commission and of the State Land Office in connection with the bottom hole pressure and other matters that Mr. Kraus has referred to. I think the Commission has the right to take notice of its records, but we formally put it in the hearing.

- Q Have you anything further along this line, Mr. Kraus?
- A I think not. I think I have covered all the reasons.

BY MR. SETH: That is all we want to put on, on that division line.

- Q (By Mr. Livingston) Mr. Kraus, the saddle of which you speak between the Monument and Eunice fields, does that appear to you as a sort of isthmus connecting the two fields and merely an arbitrary division line, or are the two fields in your opinion distinct and separate?
- A I prefer to word it by saying that there are two pools within a producing field. In other words, there is a separation between the two fields due to, if you want to call it so, an isthmus. I would say a dense lime connection where the production is evidently small. Pressures are different on both sides, showing that there is no easy communication between the two pools. I would not say it was an arbitrary thing, the saddle itself.

- Q For all practical purposes the two pools are separate pools?
- A Yes, sir.

BY MR. MACY: Anyone else wish to question the witness?

BY MR. SETH: If the Commission please, I would like to take up subdivision (d), the last one, while the witness is on the stand.

- Q Mr. Krause, did the meeting of the operators yesterday afternoon make any recommendations for changes in the regulations set out in Bulletin No. 3 of the Special Rules and Regulations applicable to the Lea county fields?
- A Yes, sir they did.
- Q Will you please state their recommendation, or recommendations?
- A They unanimously recommended to change the provision for central tank batteries cited on page 8 of Special Rules and Regulations, Circular No. 3, so that the first paragraph of that, under that caption, would read as follows:

"At the option of the operator a central tank battery may be used to receive the production of two to not more than five units of the same basic lease. Exceptions to be made at the discretion of the Commission. Such central tank battery shall include adequate tankage and other equipment so that the production from each well can be accurately determined at reasonable intervals."

- Q Mr. Kraus, in your opinion would this regulation as changed make provision for reasonably accurate measurement of the oil production from each unit?
- A I believe it would.
- Q It leave the matter open to the Commission to allow more than five units to be produced into one battery, does it not?
- A I assume on application the Commission can make exceptions.
- Q But you think even with slightly more than five it would be possible to determine accurately the production from each unit?
- A Yes, sir, I do.
- Q Now was there any further recommendation for changes in the regulations in Circular 3?
- A There was a recommendation made to change the methodof reporting gasoline production, but I believe the special committee that was appointed to look into the matter found it inadvisable to do so and recommended no change be made in the present regulation.
- Q That was in connection with the requirement for operators to make monthly reports of operations, was it not?
- A It was on form 104A I believe.
- And the meeting of operators appointed a special committee which as you stated, recommended no change be made in the present regulation?
- A That is right.

BY MR. SETH: That is all I wish to put on in connection with subdivision (d) of the call.

BY MR. MACY: Anyone else wish to question the witness?

BY MR. LIVINGSTON: This question is extremely vital to the State and other royalty holders in this; within a basic lease of the State there may be institutional land owned by several institutions and the State is merely the trustee of the institution and under the terms of the Enabling Act all money or things of value derived from one tract or legal subdivision must be credited to that institution and no other and along that line I would like to interrogate the witness briefly, with the Court's leave.

- Q (By Mr. Livingston) Mr. Kraus, with the tank batteries that have been recommended of which you spoke just now, what are the means by which the production from the various tracts can be kept separate insofar as accounts are concerned, in view of the statement I just made to the court?
- We will start with the premise of course that in Lea county there will be one well, in most instances, on a unit, one of the legal subdivisions you mention. Production from that unit therefore will be the production from that well and the regulation provides that adequate tankage be provided so production from that well can be guaged accurately at reasonable intervals. At any time the operator wishes, any time the Commission wishes or any time any interested person wishes that well can be guaged to determine at what rate it is flowing. Knowing the rate at reasonable intervals, you can determine what the production is at any time.
- Q Is that system in your opinion, reasonably accurate whereby the owners, the royalty owners of the various legal subdivisions, would receive their just and definite royalty from the production upon their tract?
- A I would say it was reasonably accurate, yes, sir.

BY MR. LIVINGSTON: That is all.

BY MR. SETH: If your Honor please, that is all we have with this witness. Somebody may want to put on a witness as to those three points we have already covered. I think we had better dispose of those before we take up the fourth.

BY MR. WORDEN: Any of you gentlemen wish to place a witness on the stand to go further into these questions that we have before us at this time?

Hearing none, I assume that as far as we have done, it is agreeable to you people.

Thereupon B. A. BOWERS was called and having been duly sworn by the Land Commissioner, testified as follows:

EXAMINATION BY MR. SETH:

Q State your name please?

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- A B. A. Bowers.
- Q Are you an operator in the Lea county oil field?
- A I am the representative of an operator in the Lea county field.
- Q How long have you been familiar with the oil operations in Lea county?
- A In Lea county since 1929.
- Q You have been actively engaged in producing and selling oil during that time?
- A Yes, sir.
- Q Were you present at the meeting of the Lea county operators yesterday?
- A I was.
- Q Did they have any recommendation to make with respect to the allocation to units in Lea county where there are governmental lots slightly more or less than 40 acres?
- A Yes.
- Q What was that recommendation?
- A The Lea county operators voted unanimously that a unit for proration purposes be a regular subdivision or lot of 40 acres more or less, as defined by government survey.
- Q In other words their recommendation was that the slight variation below or above 40 acres on a legal subdivision be entirely disregarded?
- A That is correct.
- Q You have had a lot of experience down there; what is your view as to this recommendation as to its being fair to the operators and royalty owners and all persons interested?
- A I believe it is a perfectly equitable plan, perfectly fair.
- Q You believe it is a fair method of handling the situation?
- A I do.
- Q (By Mr. Macy) That is the present method, is it not?
- A That is the present method, with this exception. Due to the difference in the setup in the Monument pool that has not been the practice. They have taken the exact number of acres.
- Q This would apply to all?

A This would apply to Leg county. It is made for Lea county.

Q It is satisfactory to all the operators?

A Yes, it was recommended by all the operators present.

BY MR. MACY: Anyone wish to question the witness?

BY MR. WORDEN: You are a registered engineer and surveyor according to the laws of the state?

A Yesh authorized by the State of New Mexico, as such.

BY MR. SETH: You are familiar with the practice of making public land surveys?

- A Yes, sir.
- Q The variation is due to measurements by meridian and by lines to each north and west line in the township?
- A That is correct.
- Q (By Mr. Livingston) Mr. Bowers, if the United States surveys, which are ordinarily taken as official, are not adopted as a standard, then some other survey or surveys would have to be adopted and would not that raise a question as to whose survey was right?
- A That is right and I will add to that, that not only would that be the case but there might be considerable discrepancy and probably would be considerable discrepancy, a difference in small amounts in each undividual survey made of the same tract of ground. By spending a large amount of money and making a very careful survey of each tract the percentage could be cut down to a very small amount but in the accepted method as used there would be a percentage of error between each individual survey—the results of each individual's work as the work was done so that then you might have to go into court and see whoch one of those surveys is right.
- Q Then in your opinion to adopt some other system or systems of survey would be conducive of great controversy?
- A That is correct.

BY MR. SETH: That is all we desire to put on.

BY MR. MACY: Gentlemen, if there is anyone else who wants to put on witnesses regarding any of these matters we shall be glad to have them now, otherwise we have covered every subject in here.

BY MR. WORDEN: Gentlemen, I wish to thank all of you for this wonderful attendance and for helping us work out these problems. Perhaps they are just as much your problems as they are ours but we are not as familiar with them, speaking from the Land Commissioner's standpoint,—we are not as familiar with the workings and rulings of the petroleum industry as you are but I assure you that at all times the Land Commissioner wants to work with you and will welcome you back, one and all, to any future hearings

we may have.

There being no further business to come before this hearing, we will now adjourn.

STATE OF NEW MEXICO)
SS
COUNTY OF SANTA FE)

I, M.C.Safford, hereby certify that the above and foregoing eight and a fraction pages of typewritten matter constitute a true correct and complete transcript of the shorthand notes taken by me at the meeting of the Oil Conservation Commission held in the Supreme court rooms at the State Capitol Bldg., on Thursday, July 15, 1937.

M. C. Safford

NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL COMBERVATION COMMISSION

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- (b) Eunice-Monument Fields Division line.
- (c) Due to the acreage variation of legal subdivisions —

 (40 acres) of the lea County oil fields, shall the

 Commission prorate according to the legal subdivision

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 the unit?
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 Special Rules and Regulations for the Lea County Fields.

 Any person having any interest in the subject of the said hearing shall be entitled to be heard.

Given under the seal of said Commission at Santa Fe, New Mexico, on June 19, 1937.

OIL CONSERVATION COMMISSION

By (signed) CLYDE TIMGLEY
Governor

(SEAL)

By (signed) FRAME YORDEN Commissioner of Public Lands

By State Geologist