

CASE NO. 59

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. 59

Order No. 589

The Petition of the operators of the South Eunice Field, by D. D. Bodie, Chairman, for a removal of the gas-oil ratio limit now applied to the South Eunice Field, Lea County, New Mexico, and to amend the existing gas-oil ratio order applicable thereto.

Pursuant to notice by the Commission, duly made and published setting February 12, 1945 at ten o'clock a.m., for hearing in the above entitled matter, said hearing was convened on said day, at said hour, in the Coronado Room of the La Fonda, Santa Fe, New Mexico, the Commission sitting as follows:

HON. JOHN J. DEMPSEY, Governor
HON. JOHN E. MILES, Member
HON. CARL B. LIVINGSTON, Chief Clerk & Legal Adviser.

R E G I S T E R

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Ray McGlothlin	Petroleum Products Mfg. Co.	Frewitt, N. M.
Roy O. Yarbrough	Oil Conservation Commission	Hobbs, N. M.
G. H. Gray	Repollo Oil Company	Midland, Texas
W. E. Scott	Buffalo Oil Company	Artesia, N. M.
H. R. Markley	Phillips Petroleum Company	Odessa, Texas
H. C. Webb	Phillips Petroleum Company	Odessa, Texas
H. K. McKinnon	Shell Oil Company	Midland, Texas
R. U. Fitting, Jr.	Consultant	Midland, Texas
B. W. Jarboe	Me-Tex	Hobbs, N. M.
Ralph L. Gray	Stanolind Oil Company	Hobbs, N. M.
Foster Morrell	U. S. G. S.	Roswell, N. M.
O. F. Hedrick	T. P. Coal & Oil	Midland, Texas
C. G. Campbell	T. P. Coal & Oil	Midland, Texas
W. K. Davis	El Paso Natural Gas Co.	Jal, N. Mex.
C. C. Cragin	El Paso Natural Gas Co.	El Paso, Texas
D. D. Bodie	C. S. Oil Company	Hobbs, N. M.
Glenn Staley	Lea County Operators	Hobbs, N. M.
James M. Murray Sr.	Me-Tex	Hobbs, N. M.

"NOTICE OF PUBLICATION
STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby gives notice of the following hearing to be held at Santa Fe, New Mexico, at 10 A.M., February 12, 1945:

CASE NO. 59. In the matter of the hearing called by the Oil Conservation Commission of the State of New Mexico for the purpose of considering:

The Petition of the operators of the South Eunice field, by D. D. Bodie, Chairman, for a removal of the gas-oil ratio limit now applied to the South Eunice Field, Lea County, New Mexico, and to amend the existing gas-oil ratio order applicable thereto.

Given under the seal of said Commission at Santa Fe, New Mexico
on

OIL CONSERVATION COMMISSION

S E A L"

P R O C E E D I N G S

BY MR. A. K. MONTGOMERY: Mr. Bodie and also numerous other operators and parties interested in this petition. I would again like to ask if there has been any formal objections filed to this application?

MR. CARL LIVINGSTON: None have reached the Commission's office so far - barring late mail.

MR. MONTGOMERY: I don't know whether I would be out of order at this time in asking the Commission is it proper to have anyone present if they have formal objections, or otherwise to make it known at this time so we will know how extensive this hearing can be.

GOVERNOR DEMPSEY: The Commission should know something about the case and reason for the request.

MR. MONTGOMERY: In the first place I am here as a substitute. The Attorney for the Operators couldn't be here, I am not very familiar with the operation. This field south Eunice - approval was made, I might say - heavy production and development from about 1935, held up pretty good for a number of years. Of late, and particularly during the past two years, it has been termed a declining pool - that is in the production of oil. At the hearing in April 1943 this pool was placed in sub-section 2-A of Order No. 545, which fixed the gas-oil ratio at 6,000 Cu. Ft. of gas to each one barrel of oil which could be produced. The result has been that since, a good many of the wells producing far in excess of 6,000 Cu. Ft. of gas to a barrel of oil have been penalized. The actual well production of oil has been greatly curtailed - I think our evidence will show the average wells in the field produce approximately 15 barrels of oil per day at this time, because of the penalty provisions of the gas-oil ratio approximately there are 80 producing wells in the field at this time - some of the wells have been shut in for the reason it was uneconomical to operate them. This gas has a very small gasoline content, I think our evidence will show it runs about 3/10 of a gallon to each 100 Cu. Ft. of gas. The result has

been that no gas company has found it profitable to purchase gas from this field, there are no gas gathering field, there are no gas gathering lines in the South Eunice pool. Recently the demand for rubber and the experiments which have been made have shown that synthetic rubber can be manufactured by using this channel black. The defense plant corporation has (I am not certain of late) stated it will build a plant. I am almost certain that is a fact. Other operators in the field today are willing to build the gathering lines or purchase the gas from these wells. As it is, all gas being produced in the wells today, in order to save this low volume of oil is being dissipated, there is no market for it. The purpose of this application is to amend that order No. 545 by removing the South Eunice Pool from Section 2-A of the order which puts this gas-oil ratio on it and places it in the sub-section 2-B of that order which entirely removes the gas-oil ratio provisions, if and when there is constructed in the field gathering lines and facilities to purchase the gas now being produced in the wells.

GOVERNOR DEMPSEY: Mr. Montgomery I have a telegram which I received from Washington - "UNDERSTAND NEW MEXICO CONSERVATION COMMISSION IS CONSIDERING MAKING AVAILABLE ADDITIONAL QUANTITIES OF RESIDUE GAS FROM SOUTH EUNICE FIELD FOR USE IN CHANNEL CARBON BLACK PRODUCTION. CHEMICALS BUREAU, WAR PRODUCTION BOARDS, URGES YOUR FAVORABLE ACTION IN THIS MATTER IN ORDER TO RELIEVE A VERY SERIOUS SHORTAGE OF CHANNEL BLACK NEEDED IN THE MANUFACTURE OF MILITARY TIRES.

W. F. TWOMBLEY WFB CHEMICALS."

(After being duly sworn, Mr. D. D. Bodie testified as follows:)

MR. MONTGOMERY: Please state your name.

MR. BODIE: D. D. Bodie.

MR. MONTGOMERY: What is your connection with the South Eunice Pool?

MR. BODIE: Chairman of South Eunice Operators Committee.

MR. MONTGOMERY: Petitioner in the hearing before this Commission?

MR. BODIE: Yes sir.

MR. MONTGOMERY: Relate to the Commission the history and reasons for filing this petition.

MR. BODIE: When Order No. 543 was issued in 1943, the South Eunice Operators at that time made no objections to the 6,000 Cu. Ft. ratio for two reasons: (1) Because we had no market for any gas at that particular time, and to increase the ratio or produce excessive ratios

would have created an under surface waste. (2) The average gas-oil ratio since then, and recently when the new gas-oil ratio survey for Lee County developed, the ratios in the South Eunice pool have increased considerably. The ratio set by the Commission, it has also developed there is a demand for channel carbon black in the manufacture of synthetic rubber. The WPB is looking for additional markets for channel carbon black. So the Operators' meeting held in Ft. Worth of all operators in the pool at that meeting I was elected Chairman, and requested to file a petition with the Commission to lift the present gas-oil ratio limit. The reason for that is because the producing companies could not put in plants, and gathering lines to take care of the gas unless the limits were raised. I understand they wanted about 30 or 40 million cubic feet per day. The present ratio executed legally only between 6 and 10 million. Therefore, to furnish this gas and give the operators a chance to produce oil, we have asked the Commission to include the South Eunice with the other non-ratio fields.

GOVERNOR DEMPSEY: You are requesting this on the basis that the gas will be used for this specific purpose, in the event the plant is not constructed, do you still want it?

MR. BODIE: No sir, we are requesting it be removed if and when the market develops and lines have been installed for servicing the field.

GOVERNOR DEMPSEY: The policy of the Commission has been, in these plants we have permitted the sale of gas for the duration plus six months, that is the regulation - that is as far as we would go under any circumstances at this time as to the date it may be set.

MR. BODIE: I am not so sure the plants could come in.

GOVERNOR DEMPSEY: Have had no trouble about the other plants.

MR. BODIE: It would not only be necessary to install the plant, but also have gathering lines, which would add considerably to the expense. Could get the carbon black plant, but don't know if we could get the lines installed in time. In my opinion, however, that would cover the gas that will actually be used for making carbon black, because I don't think there would be a demand for it after that time.

MR. MONTGOMERY: In other words, you want to produce this only so long as there is a market?

MR. BODIE: Yes sir. Might be at the end of that period would be another market for commercial use.

GOVERNOR DEMPSEY: That is why the Commission limits the period - we think there will be a market for commercial use. That is why we have not made contracts longer.

MR. BODIE: I presume that would be satisfactory.

MR. MONTGOMERY: Any further statements?

MR. BODIE: Nothing further to state in regard to the application.
(After being duly sworn, Mr. W. E. Scott testified as follows:)

MR. MONTGOMERY: Please state your name.

MR. SCOTT: W. E. Scott.

MR. MONTGOMERY: Where do you live?

MR. SCOTT: Artesia, New Mexico.

MR. MONTGOMERY: Do you have any official position or connection with any operators in the South Eunice Field?

MR. SCOTT: Not at the present time.

MR. MONTGOMERY: Have you had in the past?

MR. SCOTT: For approximately six years I was geologist for Cities Service Oil Company.

MR. MONTGOMERY: Are you familiar with the geological formations in the South Eunice Field.

MR. SCOTT: Yes sir.

MR. MONTGOMERY: When did that field first come into oil production, do you know?

MR. SCOTT: The first well was drilled in 1929 I believe.

MR. MONTGOMERY: How many wells in the field today - producing wells?

MR. SCOTT: Approximately 90 wells in the field now, some of those wells are shut in.

MR. MONTGOMERY: Do you know the average daily production in the wells in the area?

MR. SCOTT: At the present time the average production is approximately 15 barrels.

MR. MONTGOMERY: Are the wells capable of producing more?

MR. SCOTT: Yes sir.

MR. MONTGOMERY: Why aren't they producing more?

MR. SCOTT: Limit gas-oil ratio at the present time.

MR. MONTGOMERY: Is there any gathering system or market for the gas produced for these wells at the present time.

MR. SCOTT: No sir.

MR. MONTGOMERY: Do you know the gasoline content of the gas?

MR. SCOTT: Off-hand I don't recall that figure.

MR. MONTGOMERY: Approximately 3/10 gallon per 1,000 Cu. Ft.?

MR. SCOTT: Yes sir.

MR. MONTGOMERY: Can gasoline economically produce gas with that volume of gasoline content?

MR. SCOTT: That being the only revenue from the gas, I believe not.

MR. MONTGOMERY: In this field is it known as a gas drive or water drive that maintains your pressure?

MR. SCOTT: As a matter of fact it is combination field, the field does have a definite gas cap, also has an effective water drive from the west and south west.

MR. MONTGOMERY: Do you know whether or not there is a gas-oil ratio limitation on the adjoining field?

MR. SCOTT: On the adjoining fields I believe they are, but this field is located in the trend which runs along the west edge of the central basin platform. Extends from Winkler County Texas into Lea County New Mexico. Other fields, Jal, Cooper, Eaves and Lynn fields are similar to this field. Jal, Cooper and Lynn do not have limited gas-oil ratio.

MR. MONTGOMERY: In your opinion, if the gas-oil ratio limitation is removed as applied for in this petition, will it result in any unavoidable underground waste?

MR. SCOTT: My opinion, there would be no sub-surface waste because as the field has grown older your gas cap has naturally expanded and resulted in the channel of your gas and actually probably has left some oil back in the formation. The only way to recover that oil is to produce your gas with your oil.

MR. MONTGOMERY: Have you any information as to base the probable amount of gas in the Eunice field if the market is made available - the normal daily output at this time?

MR. SCOTT: About 70 million I believe.

MR. MONTGOMERY: What about the reserves. Do you have any opinion or estimate as to the reserves?

MR. SCOTT: I don't have any figure at the present time on the estimated reserves of the field, probably some Operators here who do have those figures.

MR. MONTGOMERY: Approximately what is the bottom hole pressure throughout the field of these wells?

MR. SCOTT: Approximately 1,000 pounds at the present time, estimated round figures average.

MR. MONTGOMERY: In your opinion, will there be sufficient gas pressure in the field to recover the oil reserve now expected to be in the field?

MR. SCOTT: Yes, I believe there is.

MR. MONTGOMERY: That is all we have to ask - is there any other questions anyone would like to ask?

GOVERNOR DEMPSEY: No questions.

MR. MONTGOMERY: I believe that covers the situation, unless someone has some testimony to offer.

MR. C. C. CRAGIN - El Paso Natural Gas Company

I have no objections but do have a statement.

MR. MONTGOMERY: We would appreciate any statement.

(After being duly sworn, Mr. Cragin testified as follows)

MR. CRAGIN: I understood from Mr. Bodie's testimony the ratio was set at 6,000 to 1 until they had a market for this gas. I think this is as it should be - we are in a position - we would like to buy that gas and take it into our pipe line. We have considerable use for this and it makes us able to offer what we believe a very high price for the flare gas. We are in a position to say we would like to take 30 million a day or more from that field. I cannot make it anymore definite than that for the reason it becomes a question of economics - an agreement between the operators and us.

GOVERNOR DEMPSEY: Before the State?

MR. CRAGIN: The present compensation, ultimate recovery and the dollars and cents to the operators and the result in taxes of the state does not to my notion have the same interest, is the reason I left the State out, I think the State should come first. We expect to identify this as industrial development, interest of the war effort and the carbon black situation. We are in a position to make use of all necessary compression stations, pipe lines, gasoline plants - also ideal capacity.

Labor perils have got to be met anyway, whether or not we get this gas whereby we can within a few days supply carbon black with 25 million feet of flare gas. In the short case of a few months, based on our delivery of pipe lines, will take 40 million feet a day which is now going to waste in flares, and give to the carbon black people

for a period of five years. Six months beyond the duration is generous toward the carbon black people. We have been in touch with them and they say they cannot and will not make a deal unless they can get carbon black for five or six years.

GOVERNOR DEMPSEY: The Commission has not made any approval date, just the expiration as the duration plus six months.

MR. CRAGIN: All I know is what the carbon black people told us. Under a five year contract. If it is going to take a five year contract, we are prepared to go five years on flare gas, which would otherwise go to waste. The only reason we ask the Commission to go beyond the duration and six months, we are prepared to do it, subject, of course, to the approval of the Commission. I might add one thing more - The amount of gas we take from this field, the amount of gas we take from the flare is all we can get into a pipe line. The amount we take from the field is an agreement between us and the operators. The less the investment, the longer the life of the field, and our costs go down. It is a question of trade between us and them as to how much we take - subject, of course, to the Commission.

GOVERNOR DEMPSEY: The Commission recognizes natural gas is one of the most important things in the development of the State.

MR. CRAGIN: We will certainly be on your side on that.

GOVERNOR DEMPSEY: That is another reason why we have made the rule, the duration plus six months.

MR. CRAGIN: Outside the war effort, we are bound to be, and should be opposed to the use of natural gas in formation. If you can get it from a flare we think that is our interest, State's interest and National interest.

GOVERNOR DEMPSEY: Of course the state, as you have suggested, wants to conserve, but we are in the war, that is the reason the Commission is considering the matter at this time.

MR. CRAGIN: That is the reason we are preparing to give them 40 million feet a day.

GOVERNOR MILES: This 25 million feet you talk about coming outside this field - you are talking about waste?

MR. CRAGIN: Yes sir, it is going to waste.

GOVERNOR MILES: Flare gas suitable for manufacture of carbon black?

MR. CRAGIN: Yes sir - adjoining field the same stuff.

GOVERNOR MILES: You have that now?

MR. CRAGIN: 15 million now and 25 million being burned in the air.

We don't want to limit the amount we say we take out of this field, doesn't make any difference to us. We can afford to pay blank dollars for so much gas.

GOVERNOR MILES: After the gas is available now to supply the carbon black plant without raising this ratio, why should the Commission raise it at all?

MR. CRAGIN: Because of the production of oil and our ability to take it.

GOVERNOR DEMPSEY: What if we don't want you to take it? We are most interested in New Mexico now. Unless we keep that foremost in our mind we will be in the position Texas and California are in now, the Commission's obligation is to conserve for New Mexico so far as we can. Personally I am not so anxious to increase the ratio here if it is just to send over to Arizona and Texas, would like to help the states out but we have to protect our own State.

GOVERNOR MILES: Could that 25 million be used for any other purpose?

MR. CRAGIN: It would take an investment to make it useable for any purpose. It is now at a pressure that can be used for production of carbon black.

MR. MONTGOMERY: I might state in closing, just a glance at the map will disclose about 3/4 of these wells are located on state land. At the present time the State is getting no revenue from the sale of this gas. If a pipeline Company is permitted to go in there and gather this gas being wasted, and as the market is developed the State will naturally begin deriving some revenue from it.

GOVERNOR DEMPSEY: You might say there is a present waste that could be eliminated, providing a gathering system could be put in. Not sufficient at the present time to justify putting in of a gathering system.

MR. MONTGOMERY: Not sufficient at the present time unless the gas-oil ratio can be greatly increased or entirely removed.

MR. JAMES MURRAY SR. Isn't it true that the WPE is starting out looking for channel black made from three hundred million feet?

MR. CRAGIN: I understand four hundred million.

MR. MURRAY: Is it true they still need 150 to 200 million?

MR. CRAGIN: I am not familiar with that.

MR. MURRAY: We wondered why you have not offered this before the subject came up.

MR. CRAGIN: Mr. Twombly called us by telephone about three weeks ago, I understood he need carbon black, but the first official knowledge I had that they wanted gas in this area. We told him we would have to engineer this thing and call him back in two weeks, and told him just what we have testified here.

MR. MURRAY: Isn't it true this gas has to be treated? You stated you had this flare gas and it would go into the line without any expense.

MR. CRAGIN: I did not say that.

MR. MURRAY: Just the high pressure gas back to low pressure?

MR. CRAGIN: Governor Miles asked me could that other gas be used for other purposes - I said yes it could be used with a large expense of HP. This South Eunice field has gas that will go into our line without any investment.

MR. MURRAY: Has to be treated and raised?

MR. CRAGIN: We have compressor stations ready today to take it.

MR. MURRAY: I was wondering why you didn't treat this at the present time.

MR. CRAGIN: Don't treat it because just 70 pounds of gas and unless it is to some agent cannot do it for that purpose

MR. MURRAY: You just stated you had compressors to treat this South Eunice gas.

MR. CRAGIN: Yes sir.

MR. MURRAY: Won't handle your flare gas?

MR. CRAGIN: No - thirty miles away and eight miles from this field.

MR. MURRAY: You expect to take it to this plant?

MR. CRAGIN: I expect to take it to the Eunice plant.

MR. MURRAY: That is the Phillips?

MR. CRAGIN: Our plant that takes Phillips gas. Just got through putting in a new 4,000 HP engine.

GOVERNOR DEMPSEY: Anybody else wish to be heard in this matter? - -

The Commission will take the matter under advisement and make a ruling a little later.

MR. MONTGOMERY: I have one matter - the Stanolind Oil and Gas Company drilled a well sometime ago in the West Eunice field of Lea County, completed it January 15, 1945, but a blow out occurred resulting in - - I think the Commission has a letter from Mr. Seth dated February 2, would like to have the matter taken up with the Commission. The letter is as follows:

"February 2, 1945.

Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

The Stanolind Oil and Gas Company's State "P" No. 1 in the West Eunice Field, Lea County, New Mexico, was completed January 15, 1945, for a flowing potential of 351 Barrels of oil in seventeen hours. As you are aware, a blowout occurred in connection with the drilling of this well, and it ran wild for some time.

Up to January 28th last, a total of 18,020 barrels had been picked up from earthen storage, while a total of 14,212 barrels has been run to the Texas-New Mexico pipe line. It is anticipated that approximately 40,000 barrels of oil will be salvaged from the blowout and wild flow.

As the method of handling this over-production, we request the Commission's permission to shut in the well until the overage is made up at the current top allowable, which is now 45 barrels per day. For this reason, we request that no allowable be assigned to this well, or if one is assigned on the proration schedule, it be so marked as to indicate that the well is shut in until the overage is made up.

We would like to discuss this matter with the Commission at the meeting now published to be held on February 12th next.

Copies of this letter are being sent to Governor Dempsey and Land Commissioner Miles.

Very truly yours,

/s/ J. O. Seth

JOS:CB

cc - Honorable John J. Dempsey
Governor, State of New Mexico
Santa Fe, New Mexico

Honorable John E. Miles
Commissioner of Public Lands
Santa Fe, New Mexico"

GOVERNOR DEMPSEY: Stanolind well State?

MR. MONTGOMERY: Yes sir - They trapped the well that was going wild by throwing up a dike. Estimated salvage 40,000 barrels, during that time it fell to the other operators to make 40 barrels over night and continue to make 45 barrels a day.

We want to keep our lease effective and use up 45 barrels a day. This oil might not be considered as illegal oil.

GOVERNOR DEMPSEY: I don't see any objection.

On this case No. 59, I don't see any objection or difference as to the distribution of raising the amount of gas to these wells.

MR. CRAGIN: One other statement - the 30 million of this gas you say is available for carbon black as a 5 or 6 year lease, if we if we don't use it now, it isn't going to do anybody any good.

GOVERNOR DEMPSEY: We are discussing it, it must be in the South Eunice field. are you objecting or approving that?

MR. CRAGIN: If we do not get the gas we have no interest in it one way or another. If we get the gas we want the ratio raised.

GOVERNOR DEMPSEY: Then no difference as to who gets it -

MR. CRAGIN: No, except as to the price to what is paid for it.

GOVERNOR DEMPSEY: I want to make it clear you are in favor of raising this ratio in this field.

MR. CRAGIN: Yes, I think it ought to be raised, have no other reason than interest to the State. If you will limit the total of withdrawal over a period of years the State will get more revenue. We are prepared to offer the same price for 5 years and adjustment every two years.

GOVERNOR DEMPSEY: We are not making the terms too long.

MR. CRAGIN: You say 5 years is all we could reasonably ask for.

MR. BODIE: I believe you stated in your opening statement you had or would offer South Eunice operators a market for 25 or 30 million?

MR. CRAGIN: Depending upon exactly what price you want us to pay for it.

MR. BODIE: Do I understand if you took that 25 or 30 million from the South Eunice, would release of this low pressure gas be replaced with high pressure gas?

MR. CRAGIN: Release 30 million to the carbon black plant.

MR. BODIE: Could not get that without purchasing it from us?

MR. CRAGIN: No.

MR. BODIE: Thank you.

GOVERNOR MILES: I lost track of the meaning of one statement. The less the amount of gas the higher the price you can afford to pay --

MR. CRAGIN: Yes sir - The more we take the higher investment and shorter the life of the field, therefore our costs are higher due to the higher depreciation. If the well reduces to 30 million against 40 million over a period of 5 years, you will get just as much money. Suppose we took 4 million a day and it cost us one million dollars: interest, depreciation, etc., on that one million dollars would be one thousand dollars a year. Then with 40 million a day the life of the field would be 10 years, two hundred thousand a year our cost for 40 million. Investment of six hundred thousand dollars - interest, depreciation and taxes would be, instead of two hundred thousand dollars, one hundred thousand dollars, the

life of the field would be increased 25%. Would reduce the depreciation 25%, would reduce interest and taxes 40%. If we pay the operators eighty thousand dollars a year more, the State would get that much more taxes from it - is that clear?

GOVERNOR MILES: Based on your statement, I think I understand.

GOVERNOR DEMPSEY: If that is all, we will close the hearings.

C E R T I F I C A T E

I, Vastie Fowler, Reporter for the Oil Conservation Commission, hereby certify that I took down the statements made at the hearing held before the Commission on February 12, 1945, in the Matter of the Petition of the Operators of the South Eunice Field, by D. D. Bodie, Chairman, for a removal of the gas-oil ratio limit now applied to the South Eunice Field, Lea County, New Mexico, and to amend the existing gas-oil ratio order applicable thereto, Case No. 52, and that the above transcript constitutes, to the best of my knowledge and belief, a true and correct copy of all the oral statements and exhibits presented before the Commission.

Vastie Fowler
Reporter