

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. 2439
Order No. R-2137

APPLICATION OF SUNRAY MID-CONTINENT
OIL COMPANY FOR A 67.04-ACRE NON-
STANDARD OIL PRORATION UNIT AND AN
UNORTHODOX WELL LOCATION, SAN JUAN
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 29, 1961, at Santa Fe, New Mexico, before Daniel S. Nutter, 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 13th day of December, 1961, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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 the applicant, Sunray Mid-Continent Oil Company, proposes the establishment of a 67.04-acre non-standard oil proration unit in the Totah-Gallup Oil Pool, comprising Lots 2, 3, and 4 of Section 14, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico.

(3) That the applicant further proposes to dedicate said unit to a well to be drilled at an unorthodox location 330 feet from the North line and 2510 feet from the West line of said Section 14.

(4) That the area of the San Juan River Channel lying North of the mid-channel and adjacent to the above-described 67.04-acre non-standard oil proration unit and consisting of 7.84 acres is unleased Federal land which should be eligible for communitization with the said 67.04-acre non-standard oil proration unit at such time as it is leased.

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CASE No. 2439

Order No. R-2137

(5) That the entire 67.04-acre tract can reasonably be presumed to be productive of oil from the Totah-Gallup Oil Pool.

(6) That approval of the subject application will neither cause waste nor impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That a 67.04-acre non-standard oil proration unit in the Totah-Gallup Oil Pool comprising Lots 2, 3, and 4 of Section 14, Township 29 North, Range 14 West, NMPM, San Juan County, New Mexico, is hereby established.

PROVIDED HOWEVER, That the area of the San Juan River Channel lying North of the mid-channel and adjacent to the above-described 67.04-acre non-standard oil proration unit and consisting of 7.84 acres shall be eligible for communitization with the said 67.04-acre non-standard oil proration unit at such time as it is leased.

(2) That the applicant, Sunray Mid-Continent Oil Company, is hereby authorized to dedicate said 67.04-acre non-standard oil proration unit to a well to be drilled at an unorthodox location 330 feet from the North line and 2510 feet from the West line of said Section 14.

(3) That the allowable assigned to the above-described 67.04-acre non-standard oil proration unit shall bear the same ratio to a standard allowable in the Totah-Gallup Oil Pool as the acreage in said unit bears to 80.

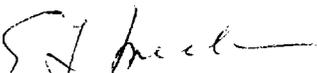
(4) That in the event it is determined by an official re-survey, or otherwise, that the acreage in said proration unit is greater or smaller than 67.04 acres, the acreage to be allocated to said unit shall correspond to the change.

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

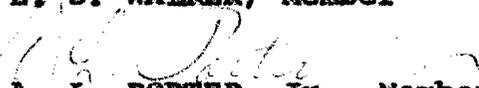
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. MECHEM, Chairman


E. S. WALKER, Member


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

esr/

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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

November 29, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Sunray Mid-Continent Oil
Company for a 67.04-acre non-standard oil
proration unit and an unorthodox well
location, San Juan County, New Mexico.
Applicant, in the above-styled cause,
seeks the establishment of 67.04-acre
non-standard oil proration unit in the
Totah-Gallup Oil Pool, comprising Lots 2,
3 and 4 of Section 14, Township 29 North,
Range 14 West, San Juan County, New Mexico,
said unit to be dedicated to a well to be
located at an unorthodox location 330 feet
from the North line and 2510 feet from the
West line of said Section 14.

CASE NO.
2439

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

EXAMINER NUTTER: We will call Case No. 2439.

MR. ERREBO: I am Burns H. Errebo with the law firm
of Modrall, Seymour, Sperling, Roehl and Harris of Albuquerque
appearing on behalf of the Applicant, Sunray Mid-Continent Oil
Company. Associated with me today is Mr. Proctor of Denver who
is a member of the Oklahoma bar who will conduct the examina-
tion. We have two witnesses.



(Witnesses sworn.)

E. W. PEASE,

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

DIRECT EXAMINATIONBY MR. PROCTOR:

Q Mr. Pease, would you state your full name, by whom you are employed, and in what capacity, please?

A My name is Everett W. Pease; I am employed by Sunray Mid-Continent Oil Company in Denver, Colorado. My position is that of division exploitation geologist. My residence is 6180 Elizabeth Way in Littleton, Colorado.

Q Mr. Pease, have you previously testified at a Commissioners' Hearing?

A I have not.

Q Would you state for the record your qualifications from the standpoint of education and experience, please.

A I was graduated from the University of California at Los Angeles in 1941 with an A.B. degree in Geology. I have practiced petroleum geology during the twenty-year period since that time except for three years in which I was in the military service. My experience has been with Amerada Petroleum Corporation, with Barnsdahl Oil Company, and now with Sunray Mid-Continent Oil Company.

MR. PROCTOR: Are the witness's qualifications accept-

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able?

EXAMINER NUTTER: Yes, sir, please proceed.

(Applicant's Exhibit No. 1
marked.)

Q (by Mr. Proctor) Mr. Pease, would you refer to the exhibit marked Sunray's Exhibit 1 and state what that exhibit shows and discuss briefly the recent well drilled in the area in Sunray's acreage which is concerned in this hearing.

A This is a large map showing the Northwest portion of the Totah-Gallup Oil Field and in yellow you will see Sunray's acreage and holdings pertaining to the problem at hand. It is the leaseholder of 2555 acres.

Q That's a Federal lease?

A That is a Federal lease.

Now, on this map we have shown -- first, in Section 14 of Township 29 North, 14 West, we have shown two Pan American wells in the South half of the North half of Section 14. The Tribal No. 11 H, Tribal No. 12 H in the section to the west, which would be Section 15, we have shown our Federal I No. 6 well. This well was originally completed from the Gallup sand and fractured shale. IP was 140 barrels per day. You will see diagonally to the northeast in the Southwest Section 11 our Federal I No. 7. This well is presently being completed. You will also see, referring back to Section 14, the three lots which we proposed to put into proration units, Lots number 2, 3, and 4.

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These lots are situated in the north half of Section 14 lying north of the San Juan River. I should like to point out on this map this land grid and it includes a plot of the river controlled by the 1882 General Land Office Survey. Going further, the map also shows with a red circle at the easterly portion of Lot 3 our proposed Well I-5. This is a proposed 5,000-foot Gallup test. This well is necessary to our purposes in order to protect us against drainage from the Pan American well which is offset directly to us. I refer to Pan American's Well No. 11-H.

Q Are these wells producing their allowable, Mr. Pease, that is, Pan American?

A It's my understanding both Pan American No. 11 and 12 are producing their allowable at the present time.

(Applicant's Exhibit No. 2
marked.)

Q Would you now refer to Sunray's Exhibit 2 and state what that exhibit shows.

A This is a more detailed plat of our proposed proration unit which would include Lots 2, 3, and 4. This plat is again controlled from information obtained from the 1882 General Land Office Survey Map. It shows our lots being bounded on the north by the north section line of Section 14 and these three subject lots are bounded on the south by the surveys of the north bank of the San Juan River as shown on the 1882 survey. Our proposed proration unit contains 67.04 acres. We have also shown on the



plat circled in red our proposed location for our I No. 5 well, which would be located 330 feet from the north line of Section 14 and 2510 feet from the west line of Section 14. The well is located as shown is due to topographic reasons which will be discussed by the next witness.

Q Why is this unit non-standard?

A This unit of necessity would be non-standard due to the irregular shape of the lots as shown here.

Q That is the official Governmental subdivision?

A That is the official Governmental subdivision and the last survey of record.

Q Is this proposal which is based upon the official 1882 survey consistent with other units that have been formed in the immediate vicinity?

A It is. It is also my understanding that immediately south of us, again in the north half of Section 14, Pan American has established two proration units, one for the No. 11 well and one for the No. 12 well.

Q Is it your opinion, Mr. Pease, that all of the acreage comprising the proposed unit will be productive?

A I would like to introduce Exhibit No. 3.

(Applicant's Exhibit No. 3
marked.)

A (continuing) Exhibit No. 3 is an iso potential map of the Northwest portion of the Totah field. This map was constructed

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by using the IP figures as released by the various oil companies and these values have in turn been contoured. You will note that the green area is the area in which IP values are from zero barrels to 200 barrels per day. The brown area values are from 200 to 400 barrels per day, and the pink area is from 400 to 600 barrels per day. In one case, the purple area indicates an IP in excess of 600 barrels per day. This map indicates and shows that all of our proposed proration units comprising Lots 2, 3, and 4 would be productive.

Q Were all of these exhibits, Numbers 1, 2, and 3, prepared by you or under your supervision?

A Yes, they were.

Q Do you have any further testimony to add at this time?

A No, I have not.

MR. PROCTOR: I believe that's all that we have of this witness.

EXAMINER NUTTER: Are there any other questions of Mr. Pease?

CROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Pease, the Pan American unit that has been formed directly south of your proposed unit comprises how many acres?

A Each of the two units comprises slightly in excess of 82 acres; 82 and a fraction acres.

Q And those Pan American units extend to the center of



the San Juan River channel as shown by the 1882 survey?

A That is correct.

Q Now, the acreage being claimed by Sunray extends only to the bank of the river?

A That's the southern limit of our leasehold.

Q You believe that to be so because of the fact it's Federal acreage, is that correct?

A Yes, sir.

Q This would leave a certain amount of acreage between your proposed unit and the two Pan American units which would not be dedicated to any proration unit, is that correct?

A That's true.

Q And that acreage would consist of all of the acreage in the San Juan River channel north of the mid-section of that channel and south of Lots 2, 3, and 4?

A That's correct.

Q If that land should at some later date be leased either by Sunray or by some other operator, would there be any objection to including it in your proposed unit and adding the acreage to the unit for allowable purposes at that time?

A There would be no objection that I know of.

Q Mr. Pease, do you believe that Lot 1 in this section is productive?

A As indicated on Exhibit 3, I'm sure that's correct. The southwesterly diagonal half of Lot 1 is productive. Now,

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as shown by the map, our data is rather limited. This is what I consider a conservative interpretation. It could well be that all of Lot 1 is productive. This is about as much as I can say about that. I repeat myself when I say we did draw this interpretation on a conservative basis. Subsequent to the drilling of I 5, when we drill that one, perhaps we can get a more correct interpretation.

Q Lot 1 is owned by Texaco?

A Yes, sir.

Q And also owns the 80 acres immediately north of Lot 1?

A That is Texaco land.

Q If Texaco should decide to form a proration unit in this area, they might experience some difficulty in arriving at a large enough unit to make a well economic, might they not?

A This is possible.

Q Unless they could add on to Lot 1 a portion, at least part of the acreage to the north of that lot, then they might be able to form a large enough proration unit in some way to make a well economic?

A This is possible. According to our maps, Lot 3 and 4 in Section 13, lying north of the river, are also under lease by Texaco.

Q It would also be possible to form a unit comprising, say for instance, Lot 1 of Section 14 and Lots 3 and 4 of Section 13?



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A This is possible; and again, in looking, referring to my Exhibit No. 3, the iso-potential map, we have narrowed down the productive area due to lack of data. I do not know how wide the field is at this point but certainly it will be no narrower than shown and most probably will be larger than shown.

Q Do you feel that the configuration of your proposed proration unit will deprive Texaco of their opportunity to form a proration unit for exploration in this area?

A It could.

Q Is there any other configuration that could be made of your leaseholdings in this area to form a proration unit of approximately eighty acres that you feel would be productive?

A I don't know how we'd do it. I 7, the well we are presently completing in the Southwest of the Southwest of Section 11, our proration unit is established as an east-west proration unit. Now, that doesn't leave us any other land that we could add to this unit.

Q By east-west proration unit, do you mean the South half of the Southwest quarter of Section 11?

A I do.

Q What disposition do you intend to make of the Southwest quarter of the Southeast quarter of Section 11?

A We have no plans for that at the present time. Our plans for I 7 are predicated upon permitting us to drill our first wells in a northwest to southeast line staying toward the middle



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of the pool and work our way toward the edges of the pool.

Q. Mr. Pease, has any consideration been given to the formation of units in this manner: The Southwest of the Southwest of Section 11 and 12 plus Lot 4 of 14, which would comprise some 68 acres. In other words, I'm thinking of a series of units running in a north-south direction, then a unit directly to the east of that being the Southeast quarter of the Southwest of Section 11 plus Lot 3, which would amount to some 55 acres; and then the Southwest of the Southeast of 11 in Lot 2, which would amount to some 64 acres. Has any consideration been given to the establishment of units in that direction?

A. We tried the various combinations here at one time or another and in many cases we found it advisable from an economic standpoint to keep our allowable down.

Q. Your present unit is 67 acres?

A. That is right.

Q. If you formed the unit the other way, you'd have one of 67, 65, and 64. My only concern in this line of inquiry, Mr. Pease, is the possible protection of the orderly development within these two sections by Texaco and their ownership in Sections 11 and 14. Possibly, however, that would present no problem if they could form a north-south unit of their own. Would you agree with that statement?

A. I would think they would have no problem in finding enough land available for their full proration unit.



MR. MORRIS: I believe that's all I have. Thank you.

DIRECT EXAMINATION

BY EXAMINER NUTTER:

Q Mr. Pease, would you re-state what footage location that well is placed at?

A 330 feet from the north line of Section 14 and 2510 from the west line.

MR. PROCTOR: We'll have further testimony on that location.

Q (by Mr. Nutter) Mr. Pease, you stated that your I Well 7 is now being completed?

A Yes.

Q Have you seen the logs on the well yet?

A Yes, I have.

Q Does it look like it's going to be a good well?

A It looks very similar to our I 6. In fact, there's a little bit more zone development. We have experienced extreme difficulty in fracking this well. We fracked it three times.

Q Seven?

A Yes, sir, and on one zone, and then we have gone to another zone that was of doubtful nature and have just finished fracking it.

Q You haven't recovered any load oil, no potential?

A There was several hundred barrels of load oil recovered as of yesterday. That's why I can't give you an exact figure on the well.

Q When was the I 6 completed?

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A I don't have the exact date but approximately thirty days ago.

Q It is a comparatively new well?

A Yes.

Q You stated that as far as you knew there would be no objection or difficulty on the part of communitizing the acreage in Lots 2, 3, and 4 with the acreage in the river, to the middle of the river. Has this actually been discussed in Sunray's office, whether Sunray would ever communitize to where it could be leased to combine it with your proposed unit?

A We discussed it. It's my understanding this would be rather normal procedure at such time as that strip of land is taken under lease either by Sunray --

MR. PROCTOR: I wonder -- our lease, as Mr. Pease stated, does not cover land constituting the large volume of the San Juan River north of the mid-channel. At the present time, that's under lease. The mid-stream of the San Juan River constitutes the boundaries between public domain land on the north and tribal Indian lands on the south. In reality, the San Juan River changes its course. The mid-channel has **also** changed. The question as to whether the movement of the mid-channel of that river will result in changing the ownership will depend on the map to which the river changes course. Consequently, though we have unleased acreage at the present time, there is an uncertainty as to exactly where that unleased acreage is presently. In view of the

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fact we are desirous of drilling the well, we thought the only appropriate approach was to eliminate our -- exclude the bed and bottom of the San Juan River north of the mid-channel until such time as that acreage is leased. We would have no objection to an order making provision for inclusion of land when and if it is leased by Sunray.

EXAMINER NUTTER: Thank you. Are there any further questions of Mr. Pease?

He may be excused.

(Witness excused.)

MR. PROCTOR: We will call Mr. Ramsey.

E. H. RAMSEY,

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

DIRECT EXAMINATION

BY MR. PROCTOR:

Q Would you state your full name, residence, by whom you are employed, and in what capacity, Mr. Ramsey?

A Earl H. Ramsey. I reside in Farmington at 305 Sunset Avenue. I am employed by Sunray Mid-Continent Oil Company as district production manager in Farmington, New Mexico.

Q You are a petroleum engineer, is that right?

A That is correct.

Q Have you previously testified at a Commission hearing?

A No, sir.



Q Briefly state your qualifications from the standpoint of education and experience.

A Yes, sir. I received a degree from the Colorado School of Mines in June, 1950, as geological engineer and was employed following that by Ohio Petroleum Company as a land surveyor. Following that, I went to work for Sunray as a junior petroleum engineer and since that date have held different job titles progressing from junior engineer to district engineer in the South Texas Division located in Corpus Christi. In 1959 I was transferred to Farmington as district production manager.

Q Mr. Ramsey, are you familiar with the exhibits that have been introduced in the proposed oil proration unit application?

A Yes, sir.

Q Would you state in which of the three lots, Lots 2, 3, and 4, comprising the unit should a well be located to most effectively drain the proposed proration unit?

A The logical location for a well in these three lots would be center lot or Lot 3 as the best location to drain the proration unit. This is true because a well located in Lot 4 would bunch the locations together around the existing Federal I 6 and Federal I 7, and we would, in effect, have 40-acre spacing. Since the field has been developed on a temporary eighty-acre spacing, we wish to continue that and a well located in Lot 3 would essentially be spaced on eighty acres.

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(Applicant's Exhibit No. 4
marked.)

Q I refer you to an exhibit marked Sunray Exhibit 4 and ask you to explain that exhibit, please.

A Exhibit 4 is a survey plat of Lot No. 3 which was prepared by James T. Leese, a registered land surveyor, at the request of Sunray Mid-Continent. The purpose of this exhibit is to reflect the surface, topographic condition in Lot 3 and to show why the particular location was chosen. I would like to point out that the river channel differs from that shown on the 1882 survey, as this Exhibit 4 location of the San Juan River shows the present location. The only spot in Lot 3 which is suitable for a drilling location, based on prohibitive road and location construction costs, is that indicated on the east side at a point 330 feet from the north line and 2510 feet from the west line. At any other point in Lot 3, we would experience extensive construction costs which would influence the economics of drilling the well in this location. The point located in the northeast corner of Lot 3, which is not shown to be a canyon or slope, is inaccessible because of another canyon which lies to the west, and it would require considerable expense to reach that location.

Q Mr. Ramsey, the location is above the location of the river?

A Yes, sir. This location is approximately 250 feet above

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the river as shown on the map.

MR. PROCTOR: I believe that's all we have of this witness.

EXAMINER NUTTER: Are there any questions of Mr. Ramsey?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Ramsey, where will the tank battery for this well be?

A It will be one that is existing in Section 15, which was constructed for our New Mexico Federal I No. 6.

Q I 7 also produces into that battery?

A It will when it is completed.

Q The casing head that would be made for this well would also be used for the I 6 and 7?

A That's true, yes, sir.

EXAMINER NUTTER: Are there any further questions of Mr. Ramsey?

He may be excused.

(Witness excused.)

MR. PROCTOR: That's all we have.

EXAMINER NUTTER: Do you wish to offer these exhibits?

MR. PROCTOR: Yes, one through four into evidence.

EXAMINER NUTTER: Sunray's Exhibits 1 through 4 will be entered into evidence.

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