

BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF: Case 1666 and Case 1706, Consolidated

TRANSCRIPT OF HEARING

DEARNLEY - MEIER & ASSOCIATES
INCORPORATED
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
3-6691 5-9546

NEW MEXICO OIL CONSERVATION COMMISSION

(Examiner hearing - Elvis A. Utz)

SANTA FE, NEW MEXICOREGISTERHEARING DATE June 24, 1959 Highway Auditorium TIME: 8 o'clock a.m.

| NAME: | REPRESENTING: | LOCATION: |
|-------------------|----------------------|--------------------|
| Victor T. Lyon | CONTINENTAL OIL CO | EDMUNDS, N.M. |
| Jason W. Kellahin | Kellahin & Fox | Santa Fe |
| Robert E Fox | " " | " " |
| JO-E R. HOWARD | TEXAS CRUDE OIL CO | MIDLAND, TEXAS |
| C. P. H. Laurent | Shell Oil Co. | Roswell N.M. |
| D. H. Kanner | El Paso Natural Gas | El Paso, Tex. |
| Frank Bray | Caulkins Oil Co. | Farmington, N.M. |
| Jack M Campbell | Campbell & Russell | Roswell NM |
| Grand E. Stry | State Engr. Off | Santa Fe |
| B. H. Harrison | Grandge Corp. | Breckenridge, Tex. |
| Wm. L. Davis | Humble | Midland |
| William R. Loar | Sunray Mid-Continent | Tulsa, Okla. |
| R H McKoy | Western Nat'l Gas | Midland Tex. |
| Calvin Reyes | " | Farmington N.M. |
| Wendell Cook | " | Midland Tex. |
| Robert E. Brooke | Sunray Mid-Continent | Tulsa, Okla. |
| W. H. Hoveler | " " " Oil Co | Tulsa, Okla. |
| Robert M. Miller | T. H. Watson Oil Co. | Hobbs NM |
| Robert H. Neel | W. H. Watson Oil Co. | Hobbs N. Mex. |

NEW MEXICO OIL CONSERVATION COMMISSION

_____, NEW MEXICO

REGISTERHEARING DATE June 24, 1959TIME: 8 a.m.

NAME:

REPRESENTING:

LOCATION:

| | | |
|--------------------------|--------------------------|--------------------------|
| <i>Goss & Kersey</i> | <i>Universal Oil Co</i> | <i>Farmington</i> |
| <i>Heshe & Kell</i> | <i>Shell Refining Co</i> | <i>Los Angeles Calif</i> |
| <i>J.H. Hoover</i> | <i>Gulf Oil Corp</i> | <i>Roswell, N.M.</i> |
| <i>EG Savage</i> | <i>Gulf</i> | <i>Roswell</i> |
| <i>Bill Foster</i> | <i>Gulf Oil Corp</i> | <i>Roswell, N.M.</i> |
| <i>H.P. Haydon</i> | <i>Harvey Oil Co</i> | <i>"</i> |
| <i>E.I. Motter</i> | <i>Cities Service</i> | <i>"</i> |
| <i>R.R. ROBISON</i> | <i>Shell Oil Co</i> | <i>Farmington</i> |

BEFORE THE
OIL CONSERVATION COMMISSION
EXAMINER HEARING
Santa Fe, New Mexico
June 24, 1959

IN THE MATTER OF: :
: :

Application of Sunray Mid-Continent Oil :
Company for approval of a unit agreement. :
Applicant, in the above-styled cause, :
seeks an order approving its Central : Case 1666
Bisti-Lower Gallup Sand Unit embracing :
approximately 7389 acres of federal, :
state, and allotted Indian lands in the :
Bisti-Lower Gallup Oil Pool, San Juan :
County, New Mexico. :

IN THE MATTER OF: :
: :

Application of Sunray Mid-Continent Oil :
Company for an order amending Order No. :
R-1414. Applicant, in the above-styled :
cause, seeks an order amending Order No. : Case 1706
R-1414 to include the following additional :
acreage: NW/4 NW/4 of Section 6, Township :
25 North, Range 12 West, and the SW/4 SW/4 :
of Section 31, Township 26 North, Range 12 :
West, San Juan County, New Mexico. :

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF PROCEEDINGS

MR. UTZ: The hearing will come to order, please.

The next case will be 1666.

MR. PAYNE: Case 1666. Application of Sunray Mid-Continent Oil Company for approval of a unit agreement.

MR. WHITE: If the Examiner please, Charles White,



Santa Fe, New Mexico, appearing on behalf of the Applicant; and I have associated with me Mr. Bill Loar, member of the Oklahoma Bar. At this time we would like to request that Case No. 1706 be consolidated with the instant case in order to conserve time.

MR. UTZ: Case 1706 and Case 1666 will be consolidated for purposes of testimony.

MR. LOAR: We will have two witnesses.

(Witnesses sworn.)

MR. UTZ: Are there other appearances to be made in this case?

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe, New Mexico, representing Amerada Corporation.

MR. UTZ: Any other appearances? You may proceed, Mr. Loar.

MR. LOAR: This is the application of Sunray Mid-Continent Oil Company as unit operator to approve the Central Bisti-Lower Gallup Sand Unit. As a matter of background, on May 12, 1959, a hearing was held before the Commission upon our application to inject gas, L.P.G., and water in the unit area, for the Field rules necessary to accomplish this effect; June 1st, 1959, two orders were issued authorizing us to carry on the operations. As our testimony will show, one hundred percent of the overriding royalty ownership, on the basis of surface ownership, have executed the agreements. There is one 80-acre tract which has not executed any of the agreements. It is proposed to leave the 80

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



acres out of the unit until the working interest owners execute the agreement. All of our exhibits include this tract, but we will, as we proceed with the testimony, attempt to eliminate the 80-acre tract from the presentation.

R. L. SOWLE

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

DIRECT EXAMINATION

BY MR. LOAR:

Q Mr. Sowle, will you please state your name and occupation?

A R. L. Sowle, I'm staff assistant with the Legal Department, Sunray Mid-Continent Oil Company.

Q Mr. Sowle, what is the nature of your duties?

A The nature of my duties is to contact royalty owners, overriding royalty owners, production payment owners, and working interest owners.

Q That is, the owners of interest within the unit area as proposed?

A Right, to secure their signatures to the agreements.

Q Would you please refer to Exhibit No. 1, which is the area map --

(Applicant's Exhibit No. 1
marked for identification.)

A Yes, sir.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Q -- and state briefly what this is?

A This is a map that shows the Northwest portion of the Bisti Field. It also shows in hatched lines the Central, the Bisti Central Lower Gallup Unit.

Q Now then, Mr. Sowle, for the record would you please describe the acreage which we seek to have included within the Central Bisti-Lower Gallup Sand Unit?

A In Section 31, the South Half, and the South Half of the North Half; Section 32, the South Half, the North Half, the Southeast Quarter, and the North Half of the Southwest Quarter; Section 33, the South Half, the Southwest Quarter; all in Township 26 North, Range 12 West. Also Section 3, the Southwest Quarter, Section 4, all of it; Section 5, all; Section 6, all; Section 7, all; Section 8, all; Section 9, all; Section 10, the Northwest Quarter; Section 16, all; Section 17, North Half, and the Southeast Quarter, and the East Half of the Southwest Quarter, and the Northwest Quarter of the Southwest Quarter; Section 18, the Northeast Quarter, and the North Half of the Northwest Quarter, and the North Half of the Southeast Quarter; Section 20, the Northeast Quarter, and the Northeast Northwest Quarter; Section 21, the North Half, and the North Half of the Southeast Quarter, and the Northeast Southwest Quarter; all in Township 25 North, Range 12 West, San Juan County, New Mexico.

Q Now then, Mr. Sowle, have you supervised the taking of the signatures for the Central Bisti-Lower Gallup Sand Unit?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Yes, sir.

Q On a surface acreage basis, what percent of the normal one-eighth royalty has signed?

A 100 percent.

Q Does this include all the Indians, the Bureau of Indian Affairs at Gallup, the State of New Mexico Land Office?

A Yes, sir.

Q I believe you also have the recommendation of the Regional Office of the U. S. G. S. at Roswell?

A That is right.

Q They have forwarded the agreements to Washington for the Department of Interior to execute?

A Yes, sir.

Q Now then, on a surface acreage basis, what percentage of the working interest has signed?

A In excess of 98 percent.

Q Of the working interest ownership?

A Oh, 100 percent, I beg your pardon.

Q Do some of these tracts have overriding royalty interest on them?

A Yes, sir.

Q What percent of the overriding royalty interest owners have signed?

A In excess of 98 percent.

Q Mr. Kelly is a working interest owner under several



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

of the El Paso interests, is he not?

A That's right.

Q He has signed as a working interest owner, hasn't he?

A That is correct.

Q Through oversight, I understand that he has not signed an override?

A He has not signed a ratification signifying that he owns an override.

Q If you include this interest of Mr. Kelly's, what percentage would you have of the override?

A In excess of 99 percent.

Q Now then, when you described the unit area, you deleted the South Half of the Southwest Quarter of Section 32, Township 26 North, Range 12 West?

A Yes, sir.

Q Why did you do that?

A Because that is the tract that Val Reese and Associates own, and they have not executed either of the agreements.

Q And you deleted any reference to them in referring to your 100 percent of the working interest ownership in the overrides, did you not?

A They are not counted in any other percentage figures we have quoted.

Q Will you please refer to what has been marked as Exhibit No. 2?



(Applicant's Exhibit No. 2
marked for identification.)

A Yes, sir.

Q State what that is.

A Exhibit No. 2 is the unit operating agreement for the development and operation of the Central Bisti-Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico.

(Applicant's Exhibit No. 3
marked for identification.)

Q Now will you refer to Exhibit 3 and state what that is.

A Exhibit 3 is the unit agreement for the development and operation of the Central Bisti-Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico.

Q Are you familiar with these agreements?

A Yes, sir.

Q Will these agreements provide for the method of conducting Unit business?

A Yes.

Q Do they designate Sunray Mid-Continent Oil Company as unit operator?

A They do.

Q Do the agreements provide that the royalty interests will not carry any portion of the operating costs of the Unit?

A They provide that.

Q Now then, as to the remaining unsigned interest, will



the Committee that is obtaining signatures to these agreements continue to try to get all of this outstanding interest committed to the Unit?

A Yes, sir.

Q That is, I believe, approximately one percent of the Unit?

A Yes.

Q I believe you stated that these agreements are now in Washington, and the Department of the Interior is in the process of signing the agreements, is that correct?

A Yes, sir.

Q Is the Director being asked to approve these agreements effective June 30, 1959?

A They will be asked, yes, sir, to approve the agreements as of June the 30, 1959.

Q If at all possible, would you like to have this order effective June 30, 1959?

A If it please the Commission, we would like to have the effective date as of June 30, 1959.

MR. LOAR: I believe that's all we have of Mr. Sowle.

MR. UTZ: Are there any questions of Mr. Sowle? If not, the witness may be excused.

(Witness excused.)

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



R. E. BROOKS

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

DIRECT EXAMINATION

BY MR. LOAR:

Q Will you please state your name and occupation?

A My name is R. E. Brooks, Senior Reservoir Engineer
with Sunray Mid-Continent Oil Company, Tulsa, Oklahoma.

Q Have you testified before this Commission in that
capacity previously?

A Yes, sir.

Q Were your qualifications accepted at that time?

A Yes, sir.

MR. LOAR: If these witness's qualifications are
acceptable, we'll proceed.

MR. UTZ: They are.

Q (By Mr. Loar) Are you familiar with the Central
Bisti-Lower Gallup Sand Unit in San Juan County, New Mexico, in
the Bisti Field?

A Yes, sir.

Q Will you please refer to Exhibit No. 1, which is the
area map, and very briefly tell us the plan of operation proposed
for the Unit Area?

A Exhibit 1, which is the area map showing the outline
of the Central Bisti-Lower Gallup Sand Unit in blue hatched lines,

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



shows the injection wells which we contemplate using in the beginning of this program. The plan of operation calls for injecting L.P.G. in the fairway portion of the reservoir. As you will note, the L.P.G. injection wells are shown with circles drawn around the location. Gas will be injected along the edges, north and south edges of the area, and these wells are shown with triangles. Water will be injected along the east and west boundaries, and on this map we have shown the water injection wells for the west boundary with squares. There are six L.P.G. injection wells, five gas injection wells, and two water injection wells. In addition, the Bisti G.I. No. 1 will be used for gas injection.

Q Mr. Brooks, the Bisti G.I. injection No. 1 is located in the common corner of Townships 25 and 26 North, Ranges 12 and 13 West, is that correct?

A Yes, sir.

Q All right. Mr. Brooks, did you testify in Cases 1664 and 1665, which were heard before an Examiner of the Commission on May 12, 1959?

A Yes, sir.

Q These cases involved a request for Field Rules covering the injection of water, gas, and L.P.G., did they not?

A Yes, sir.

MR. LOAR: If it's proper at this time, we would like to ask that testimony of Mr. Brooks in these two cases be incorporated in the record. That is, in Cases 1664, 1665.



MR. UTZ: Is there objection to Mr. Brooks' testimony in these two cases mentioned as a part of this record? If not, it is so ordered.

Q (By Mr. Loar) Mr. Brooks, those two cases you explained in some detail the plan of operation, the method of injection that is proposed for the Central Bisti Unit, did you not?

A Yes, sir.

Q Referring to the portion of this hearing which relates to Case No. 1706, are the Southwest Quarter Southwest Quarter of Section 31, Township 36 North, Range 12 West, and the Northwest Quarter Northwest Quarter, Section 6, Township 25 North, Range 12 West both operated by Sunray Mid-Continent Oil Company?

A Yes, sir.

Q Does Sunray Mid-Continent have two wells completed in the Lower Gallup formation on these two tracts?

A Yes, sir.

Q Would you please identify the two wells?

A The well located in the Southwest Quarter of the Southwest Quarter of Section 31, 26 North, 12 West, is the Sunray Mid-Continent Federal C No. 2. The well located in the Northwest Quarter of the Northwest Quarter of Section 6, 25 North, 12 West, is the Sunray Mid-Continent Federal C No. 1.

Q Both of these wells on two 40-acre tracts described are a portion of the pilot L.P.G. injection project, are they not?



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

A Yes.

Q That project was discontinued as of June 1st, is that correct?

A That is correct.

Q Are these wells completed in the same common source of supply as the other wells in the Central Bisti Unit?

A Yes, sir.

Q And is this acreage, these two 40-acre tracts, are they proposed to be included in the Unit?

A Yes, sir.

Q Mr. Brooks, have you participated in the discussion of the operators and the engineers leading to unitization?

A Yes, sir.

Q Would you rather briefly review the history of these discussions?

A On November the 20th, 1957, the operators in this area generally agreed to proceed with forming a unit for the purpose of expanding the L.P.G. recovery process, and charged the Engineering Committee with preparing participation parameters for unitization formula. On August 22, 1958, the Engineering Committee completed this assignment of calculating participation parameters. On October 21, 1958, the operators agreed to a unitization formula and since that time the operators have been completing the work that is necessary to form the Unit.

Q What is the formula which the operators have agreed



to use for this Unit?

A The formula is based on three parameters, two consisting of oil in place calculated by two different methods. The formula is one-third of the oil in place as determined from the net pay thickness from micro-logs; one-third of the oil in place as determined from the area under S.P. curves; one-third of the current oil production.

(Applicant's Exhibit No. 4
marked for identification.)

Q Now then, will you refer to Exhibit No. 4 which is an isopac based on micro-log pay for the Lower Gallup zone 1 or bench 1, and state briefly how that isopac was prepared.

A This is the isopacous map based on the net pay determinations from micro-logs. The Central Bisti Unit is shown in hatched lines and is the same as that shown on Exhibit 1. The net pays were determined by a Committee composed of logging experts and the isopacous maps were constructed in the Engineering Committee as a part of their assignment from these net pay determinations.

(Applicant's Exhibit No. 5
marked for identification.)

Q Exhibit No. 5 is an isopac of micro-log pay for bench No. 2. Was that prepared in the same way and in the same manner?

A Yes, sir.

(Applicant's Exhibit No. 6
marked for identification.)



Q Exhibit No. 6 is an isopac of the micro-log pay for bench No. 3 of the Lower Gallup zone. Was that prepared in the same method and the same manner?

A Yes, sir.

Q Mr. Brooks, was the same criteria in determining the micro-log pay, and you might say the same ground rules, preparing the isopacs used for all tracts?

A Yes, sir.

(Applicant's Exhibit No. 7
marked for identification.)

Q Will you now refer to Exhibit No. 7, which is an isopac based on S.P. for the Lower Gallup bench No. 1 and state how that was prepared?

A Exhibit No. 7 is an isopac map constructed on net pay thickness determinations from the S.P. curve of the electrolog. Again these net pays were determined by a logging sub-committee composed of people who are very familiar with this type of work. It was constructed by the Engineering Committee.

(Applicant's Exhibit No. 8
marked for identification.)

Q Exhibit 8 is an isopac of the S.P. pay for the Lower Gallup bench No. 2. Was this prepared in the same method and manner?

A Yes, sir.

(Applicant's Exhibit No. 9
marked for identification.)

Q Exhibit No. 9 is an isopac of the S.P. for the Lower



Gallup bench No. 3. Was this prepared in the same method and manner?

A Yes, sir.

Q Again, Mr. Brooks, was the same yardstick applied to all tracts in preparing these isopacs?

A Yes, sir.

(Applicant's Exhibit No. 10
marked for identification.)

Q Now then, will you please refer to Exhibit No. 10, which is a tabulation of the participation parameters of the Unit Area, and discuss it?

A Exhibit No. 10 is a tabulation of the calculations of participation for the Central Bisti-Lower Gallup Sand Unit.

Q In order to make this easy to follow, Mr. Brooks, would you take Tract No. 1, which is the largest tract in the Unit presently operated by Sunray Mid-Continent, and take us through the calculations? That is about three-fourths of the way down this tabulation, is it not?

A Yes, sir. Exhibit No. 1 is known as the Sunray Mid-Continent Federal C Lease. The first column --

MR. UTZ: You mean Tract No. 1, don't you?

Q (By Mr. Loar) You mean Tract No. 1 rather than Exhibit No. 1?

A Excuse me, I'm sorry. It contains 17,977 --

Q Better back up there a decimal point.

A 17,977,000 barrels of oil as determined from the

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

micro-log isopacous maps, using the acre feet from those maps and other parameters such as porosity and water saturation. The percentage as shown there under the next column is the micro-log oil in place, fraction of the total oil in place is .4726540.

Q This means that approximately 47 percent of the micro-log oil in place is attributed to this Federal C Tract, does it not?

A That is correct.

Q Would you proceed with the S.P.?

A The determination of oil in place from the S.P. data, using the isopacous maps, indicates that this lease had 23,588,000 barrels of oil in place, with a fraction of the total oil in place in the unit of .3790303, or 37.9 percent. The current oil production parameter is based on three months period of the production from the wells in the Central Bisti Unit.

Q What three --

A This period was July, August, and September.

Q For what year, Mr. Brooks?

A 1958. This Lease during that time produced 157,707 barrels of oil, which gave a percentage of 44.9 for the fraction of the current oil production. Using the formula which is shown in the lower left-hand corner, applying the parameters just read, the lease has a participation of 43.4 percent, approximately.

Q Now that is giving equal weight to the micro-log oil in place, the S.P. oil in place, and the current oil production



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

for the current three months period, is that right?

A Yes, sir.

Q Was the same yardstick used throughout in determining each of these participation parameters?

A Yes, sir.

Q Do you believe that the participation is fair and equitable as to all tracts?

A Yes, sir.

Q I believe you are familiar with the Val R. Reese Tract, which is the South Half of the Southwest Quarter of Section 32, Township 26 North, Range 12 West, are you not?

A Yes, sir.

Q Since Val R. Reese and Associates have not signed the agreements, it is proposed to leave that 80-acre tract out of the Unit, is it not?

A Yes, sir.

Q This will in effect leave a window in the Unit?

A That's correct.

Q Will this window interfere with Unit operations?

A No, sir. We might add that we would prefer to see that particular tract in the Unit, but we can efficiently and effectively operate the Unit without it.

Q Will you be able to protect correlative rights and prevent drainage from the Unit to that Tract?

A We feel that we will.



DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO

Q How will you prevent drainage?

A We will observe the well for increases in production or any effects whatsoever from Unit operations at this time, the wells which offset it, which will be producers, to see just how we are coming along at each stage of the project. In the event that we do notice that this well is receiving a so-called kick, we will first try to control any increases or migrations of fluid by controlling the injection in the immediate vicinity and the production in that vicinity. If this doesn't work and it's absolutely necessary, we will drill wells to protect ourselves.

Q Will the proposed plan of secondary recovery harm the Val R. Reese and Associates Tract?

A No, sir.

Q In your opinion is it necessary to have a Unit in order to conduct the secondary recovery operation proposed here?

A Absolutely.

Q Will this Unit and the method of secondary recovery recover additional oil which would otherwise not be recovered?

A Yes, sir.

Q Will the value of the additional oil recovered exceed the cost of the secondary recovery operation?

A Yes, sir.

Q Are you now recommending to the New Mexico Oil Conservation Commission the approval of the Unit?

A Yes, sir.



MR. LOAR: At this time I would like to move the admission of Exhibits 1 through 10.

MR. UTZ: Without objection, Exhibits 1 through 10 will be accepted into the record.

MR. LOAR: That's all the questions we have of the witness.

MR. UTZ: Are there questions of Mr. Brooks? Mr. Payne.

CROSS EXAMINATION

BY MR. PAYNE:

Q Does the unit agreement provide for expansion and contraction?

A Yes, sir.

Q So that in the event that Val R. Reese and Associates decide to come into this Unit at a later date, the unit agreement does provide for that?

A Yes, sir.

MR. PAYNE: Thank you. That's all.

MR. UTZ: Other questions? Mr. Nutter.

BY MR. NUTTER:

Q Mr. Brooks, under micro-log separation we have 38,000,000 barrels of oil in place, and under self potential we have 62,000,000 barrels of oil in this area. How many barrels of oil are in place?

A Mr. Nutter, if we had known we probably would have



used one number. We feel that it is probably in between. If I were using a number, I would add those two numbers up and divide it by two.

Q That would be as good a figure --

A Let me say this, that was the feeling of the Engineering Committee. I would rather leave it that way. It is exceptionally difficult to say which is the most accurate. They are both accepted methods in the industry, and we feel that if you are using the number that would probably be the best you could use for conservative number, I would use the micro-log; if you wanted to go the other way, use the S.P.

Q You feel that an average of the two would probably be as good a guess, estimate, as possible under the circumstances?

A Yes, sir. We are using micro-log in all of our calculations.

Q I note in this Exhibit No. 10 that you have not included the Val R. Reese property in this calculation --

MR. LOAR: Included or excluded?

Q (By Mr. Nutter) It has not been included?

A It is included.

Q Which tract is that?

A It's Tract 10.

Q I see. So if you go ahead and work out your participation without the Val R. Reese property, this is going to be recalculated, changing the figures very insignificantly probably



to the individual tracts?

A That is correct, yes, sir.

MR. NUTTER: I believe that's all. Thank you.

BY MR. UTZ:

Q Would you explain to me, Mr. Brooks--maybe you did, but I missed it if you did -- how you arrived at the 43 percent for the Tract No. 1 for your formula fraction?

A Actually the way that it would be or could be arrived at would be by adding the column under micro-log oil in place fraction plus the S.P. oil in place fraction plus the current oil production fraction, and dividing those numbers by three.

Q So actually this formula is divided by three?

A That's correct.

MR. UTZ: Any other questions of Mr. Brooks?

REDIRECT EXAMINATION

BY MR. LOAR:

Q In order to clarify that, I assume that the Examiner was referring to the formula at the bottom of Exhibit 10?

A That's what I understood.

Q You could either add the three factors and divide by three or you could take one-third of each of the factors and total them, could you not?

A Yes, sir. Its common denominator.

MR. UTZ: Other questions? If not, the witness will be excused.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



(Witness excused.)

MR. UTZ: Are there other statements to be made in these cases?

MR. KELLAHIN: If the Commission please, Jason Kellahin. Amerada Petroleum Corporation is the owner of approximately 18 percent of the proposed Unit and is in favor of and in support of the application.

MR. UTZ: Any other statements? If not, the case will be taken under advisement.

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



C E R T I F I C A T E

STATE OF NEW MEXICO)
)
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing was reported by me in Stenotype and that the same was reduced to typewritten transcript by me and contains a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

DATED this 29th day of June, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

 NOTARY PUBLIC

My Commission Expires:

June 29, 1960.

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Examiner hearing of Case No. 1666 & 1706
 heard by me on June 24, 19 59.

Charles R. Dearnley Examiner
 New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

PHONE CH 3-6691

ALBUQUERQUE, NEW MEXICO



STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, Ada Searnley Notary Public

in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 5th day of July, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Ada Searnley
NOTARY PUBLIC

My Commission Expires:

June 19, 1963.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1666

TRANSCRIPT OF HEARING

MAY 12, 1959

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE NEW MEXICO
Phone CHapel 3-6691

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
MAY 12, 1959

IN THE MATTER OF: :

CASE 1666 Application of Sunray Mid-Continent Oil Com- :
pany for approval of a unit agreement. Ap- :
plicant, in the above-styled cause, seeks an :
order approving its Central Bisti-Lower Gal- :
lup Sand Unit embracing approximately 7389 :
acres of federal, state, and allotted Indian :
lands in the Bisti-Lower Gallup Oil Pool, San- :
Juan County, New Mexico. :

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: Are you making a motion at this present
time, Mr. Loar, for continuance of the unit agreement case?

MR. LOAR: Yes, sir.

MR. NUTTER: Mr. Payne, would you read the style of
Case 1666?

MR. PAYNE: Case 1666. Application of Sunray Mid-
Continent Oil Company for approval of a unit agreement.

MR. NUTTER: You want to make your formal motion
for continuance, please, Mr. Loar?

MR. WHITE: If the Commission please, Sunray Mid-
Continent Oil Company at this time requests that Case No. 1666 be

continued until the last Examiner hearing in June.

MR. PORTER: Mr. Nutter, excuse me just a minute.

The hearing will be held on June 24.

MR. WHITE: That will be satisfactory.

MR. NUTTER: If there is no objection to the continuance of Case 1666, it will be continued to June 24, 1959, or the last Examiner hearing in that week, that month.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, J. A. Trujillo, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this, the 8th day of May, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
NOTARY PUBLIC

My Commission Expires:

October 5, 1960

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1666 heard by me on 5-12, 1959.

[Signature], Examiner
New Mexico Oil Conservation Commission