

production from two separate pools.  
Los County, N.M.

Casa No.

1682

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Application, Transcript,  
Small Exhibits, Etc.

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

IN THE MATTER OF:  
CASE 1682

TRANSCRIPT OF HEARING

JUNE 3, 1959

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

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
JUNE 3, 1959

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IN THE MATTER OF:

CASE 1682 Application of Continental Oil Company for  
permission to commingle the production from  
two separate pools. Applicant, in the  
above-styled cause, seeks an order authoriz-  
ing it to commingle the oil production from  
the Blinebry Oil Pool and the Tubb Gas Pool,  
from wells located in the E/2 NE/4 and the  
NE/4 SE/4 of Section 17, Township 21 South,  
Range 37 East, Lea County, New Mexico.

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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: Next case on the docket will be Case 1682.

MR. PAYNE: Case 1682. Application of Continental Oil  
Company for permission to commingle the production from two separ-  
ate pools.

MR. KELLAHIN: Jason Kellahin, Kellahin & Fox, Santa Fe,  
New Mexico, representing the applicant. We will have one witness,  
Mr. Lyon.

(Witness sworn)

VICTOR T. LYON,  
  
called as a witness, having been first duly sworn, testified as  
follows:

## DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A Victor T. Lyon.

Q By whom are you employed and in what position, Mr. Lyon?

A I am employed by Continental Oil Company as district engineer in the Eunice District, Eunice, New Mexico.

Q Have you previously testified before the Oil Conservation Commission as an expert petroleum engineer and had your qualifications accepted?

A Yes, sir, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, sir, they are.

Q Mr. Lyon, are you familiar with the application in Case 1682?

A Yes, sir.

Q And what is proposed in that application?

A This is the application of Continental Oil Company for an exception to Rule 303 in order to commingle the production from the Tubb and Blinbry Pools on our Lockhart "A" 17 lease, located in Section 17, Township 21 South, Range 37 East.

Q Now, referring to what has been marked as Exhibit No. 1, would you state what that is?

A Exhibit No. 1 is a plat showing the Lockhart "A" 17 lease and the immediate surrounding area. The lease is outlined in red

and is shown, and is composed of two tracts of land; one consisting of the E/2 of the NE/4, and the NE/4 of the SE/4 of Section 17, and the other parcel consisting of the W/2 of the SE/4 of Section 17, Township 21 South, Range 37 East.

The particular tract that we are involved here with today is the East, the E/2 of the NE/4 and the NE/4 of the SE/4, 120 acres in size, and the No. 4 Well is shown circled in red. This well is a dual completion completed in the Drinkard and Tubb Pools. The No. 3 Well, which is a Blinebry oil producer, is shown circled in green. The No. 4 Well had been dually completed and anticipated to be a Drinkard Oil Tubb Gas dual. However, the Tubb zone proved to be oil productive, and so an amended application was filed asking for approval as a Drinkard Oil Tubb Oil dual completion.

Q Now, is the oil from the lease as you describe it, that you want to commingle under this application, is that correct?

A I didn't understand your question.

Q I say, it is the oil solely from that eastern area outlined in red?

A Yes, sir.

Q Is the ownership common throughout on that lease?

A Yes, it is.

Q The royalty interest ownership and the working interest ownership?

A Yes, sir. The parcel of the west--consisting of the W/2, SW/4 is not involved in this thing at all. It has its own

storage facilities.

Q Now, referring to what has been marked as Exhibit No. 2, will you describe what that is?

A Exhibit No. 2 is a schematic diagram of the proposed installation. It shows the three wells on this lease Nos. 2, 3, and 4, and it shows 2 -- No. 2 and No. 4 producing into the Drinkard battery, No. 3 producing into the Blinebry battery, and No. 4 proposed to be connected to the Blinebry battery after being metered through a metering separator. The metering separator involved is a two-phased metering separator with a sampler so that the volume of oil and water produced can be accurately measured.

Q And then the production from each of the zones would be separately measured before commingling?

A No, they would not each be separately measured, according to our proposal. The Tubb production would be measured and then the balance of production, of course, would be Blinebry.

Q Now, what type of meters would you use in there, Mr. Lyon?

A We propose to use a two-phase metering separator which is a separator with a one-barrel dump meter internally built into it.

Q Now, can you tell us anything about the fluid characteristics from these two reservoirs?

A Well, I can tell you some about the Blinebry, and a little about the Tubb. The Blinebry is sweet crude, 36 degree gravity, and the Tubb, we feel that we don't have a truly representative sample of the crude yet because of the fact that when it became

apparent that the well would be an oil well, the fluid produced from it may have been somewhat contaminated by the Drinkard crude which was used to frac the well. But we believe that it -- it appears to be sweet and in the range of around 40 degree gravity.

Q Now, the Tubb zone in the Lockhart "A" 17 No. 4 has been completed, has it not?

A Yes, sir.

Q Has a B. C. order been entered approving that completion as yet?

A No, sir. It has been filed and is presently pending. It was received by the Commission on the 6th day of May, and I understand the order is being held up awaiting a favorable report from the Hobbs office.

Q Now, is your tank battery adequate to handle the production which you anticipate from the various zones involved here?

A Yes, sir. We have two 210-barrel tanks, and the No. 3 Well producing from the Blinbry has an allowable of 5 barrels a day. The No. 4 Well, that is, the Tubb portion of it, tested at 15 barrels of oil, and no water per day. Consequently, we have about twenty days' storage on the lease.

Q Now, in your opinion, is the commingling of the fluids from the two zones an economical measure?

A Yes, sir.

Q Is it in the interest of the conservation and the protection against waste?



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A Yes, sir. We felt that commingling the crude from these two wells will prevent considerable loss of oil by weathering, due to the fact that it takes such a long time to fill a tank from the Blinebry crude or from the Tubb.

Q What has been the production from the Blinebry separately?

A About five barrels a day.

Q And the oil has been run into the tanks until a sufficient amount has accumulated to run, is that the situation?

A That is correct.

Q And if more oil is available, will that reduce the time which the oil would be exposed to weathering?

A Yes, sir. The weathering time would be reduced by about 75 percent.

Q Were Exhibits 1 and 2 prepared by you or under your direction and supervision?

A Yes, sir.

MR. KELLAHIN: At this time we would like to offer in evidence Exhibits 1 and 2.

MR. NUTTER: Without objection, Continental's Exhibits 1 and 2 will be received.

MR. KELLAHIN: That's all we have.

MR. NUTTER: Any questions of the witness?

MR. PAYNE: Yes, sir.

MR. NUTTER: Mr. Payne.

#### CROSS EXAMINATION

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

BY MR. PAYNE:

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Q Mr. Lyon, as I understand it, your application is just to commingle the Tubb and Blinebry production on a portion of this lease, is that correct?

A Yes, sir.

Q Just the E/2 of the NE/4 and the NE/4 of the SE/4?

A That is correct.

Q Now, you propose to meter only the Tubb, is that correct, and then subtract that from the total to determine the Blinebry production?

A Yes, sir.

Q By that method, any shrinkage that takes place will be charged against the Blinebry, wouldn't it?

A I believe that is true.

Q Would your company be willing to separately meter both formations?

A Yes, sir.

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

QUESTIONS BY MR. NUTTER:

Q Mr. Lyon, what is the purpose of the heater treater there in the system?

A That is to separate or to facilitate the separation of oil and water from the Blinebry formation.

Q Is there any necessity to run the Tubb production through a heater treater?

A Not at the present time, but we feel that probably down the road it will be necessary to do so.

Q But you are metering the production prior to the time it goes through the heater treater on the Tubb leg of this connection, is that correct?

A Yes, sir. Of course, these connections have not been made. Initially it may be connected downstream from the treater.

Q There is no necessity at the present time for treating the Tubb production, though?

A We found no indication of water to date, but, of course, our production history is extremely limited.

Q Now, if you install meters on both systems, what will you do? You will put a similar separator on the Blinebry leg of the installation, a similar type of separator that you have indicated here for the Tubb leg?

A We would either do that or install an external dump meter downstream from the separator.

Q Downstream from the separator. What type of a sampler is this deal, Mr. Lyon?

A Well, it is a sampler which can be set to take samples at just about any desired interval at almost any desired amount, which in other words, it has quite a variety of settings so that you can take a large sample or a small sample, but it extracts from the stream a sample of the fluid passing through the line.

Q Now, by means of this sampler, would you know how much oil

and water is coming from the Tubb into that heater treater?

A Yes, sir. The heater treater -- excuse me -- the separator, the metering chamber in the separator would, of course, meter all of the liquid and the sampler would determine the amount of water, and by ... multiplying by the percent oil, you could arrive very easily at the amount of oil produced.

MR. NUTTER: Any further questions? Mr. Kellahin.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Lyon, in response to a question by Mr. Payne, you stated that if there were any shrinkage under the proposed system, it would be charged against the Blinebry production. In the event there were shrinkage, would there be any danger of it exceeding the allowable or having any other effect on account of shrinkage?

A No, I can see no effect. There certainly would be less shrinkage of the entire fluid than there is of the Blinebry now.

Q And the Blinebry production, as I understand your testimony, is quite low?

A Yes, sir, it is.

MR. KELLAHIN: That's all.

MR. NUTTER: RE-CROSS EXAMINATION

BY MR. NUTTER:

Q Is the ownership of the Blinebry and the Tubb formations identical?

A Yes, sir.

Q Mr. Lyon, there is no diversion of ownership for depth here?

A No, sir.

QUESTIONS BY MR. PORTER:

Q You say five barrels a day, Mr. Lyon?

A Yes, sir.

MR. NUTTER: If there are no further questions of Mr. Lyon, he may be excused.

(Witness excused)

MR. NUTTER: Does anyone have anything further they wish to offer in Case 1682? Take the case under advisement and take next Case 1687.

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 16<sup>th</sup> day of June, 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. 1682, heard by me on 6-3, 1959.  
[Signature], Examiner  
 New Mexico Oil Conservation Commission

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 6-3-59

CASE NO. 1682

HEARING DATE 9 a.m. 6-3-59  
DSN @ SF

My recommendations for an order in the above numbered case(s) are as follows:

Enter an Order authorizing the commingling of Tubb production and Blinebry production on Continental's Lockhart A-17 lease comprising the E/2 NE/4 and NE/4 SE/4 of Section 17, Township 21 South, Range 37 East. Specify that applicant shall meter the production from each zone separately prior to commingling. Also, that in the event either formation makes water, that the production shall be passed through a heater treater prior to metering.

Staff Member

OIL CONSERVATION COMMISSION  
P. O. BOX 871  
SANTA FE, NEW MEXICO

July 17, 1959

Mr. Jason Kellahin  
Box 1713  
Santa Fe, New Mexico

Dear Mr. Kellahin:

On behalf of your client, Continental Oil Company,  
we enclose two copies of Order No. R-1440 issued by  
the Oil Conservation Commission on July 15, 1959.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ALP/ir

Enclosures

C  
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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. 1682  
Order No. R-1440

APPLICATION OF CONTINENTAL OIL  
COMPANY FOR PERMISSION TO COM-  
MINGLE THE PRODUCTION FROM TWO  
SEPARATE POOLS IN LEA COUNTY,  
NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 o'clock a.m. on June 3, 1959, 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 15<sup>th</sup> day of July, 1959, 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, Continental Oil Company, is the co-owner and operator of the Lockhart A-17 Lease comprising, among other lands, the E/2 NE/4 and the NE/4 SE/4 of Section 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That the applicant proposes to commingle in a common tank battery the oil produced from the Blinbry Oil Pool with the oil produced from the Tubb Gas Pool from all wells located on the above-described acreage.

(4) That approval of the subject application will neither cause waste nor impair correlative rights provided the oil production from each of said pools is separately metered prior to commingling.

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Case No. 1682  
Order No. R-1440

IT IS THEREFORE ORDERED:

That the applicant, Continental Oil Company, be and the same is hereby authorized to commingle the oil produced from the Blinebry Oil Pool with the oil produced from the Tubb Gas Pool from all wells presently completed or hereafter drilled on the E/2 NE/4 and the NE/4 SE/4 of Section 17, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER, That in the event either formation makes water, the production shall be passed through suitable treating facilities prior to metering.

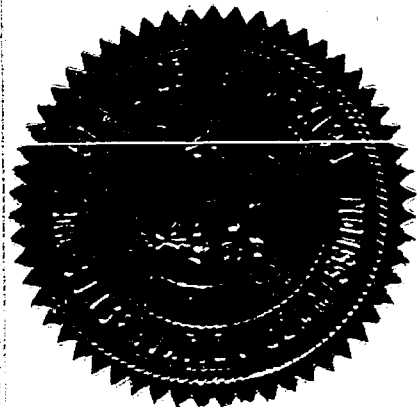
PROVIDED FURTHER, That the production from each pool shall be separately metered by dump-type or positive displacement meters prior to commingling.

PROVIDED FURTHER, That all meters shall be operated and maintained in such a manner as to ensure an accurate measurement of production at all times.

PROVIDED FURTHER, That meters shall be checked for accuracy at intervals not to exceed one month until further direction by the Secretary-Director. Meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

PROVIDED FURTHER, That the applicant shall install adequate facilities to permit the testing of all wells located on the E/2 NE/4 and the NE/4 SE/4 of said Section 17 at least once each month to determine the individual production from each zone of each well.

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



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STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*John Burroughs*  
JOHN BURROUGHS, Chairman

*M. E. Morgan*  
MURRAY E. MORGAN, Member

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

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE  
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF  
CONTINENTAL OIL COMPANY FOR EXCEPTION  
TO RULE NO. 303 IN ORDER TO PRODUCE INTO  
COMMON STORAGE THE OIL PRODUCED FROM THE  
TUBB AND BLINEBRY FORMATIONS UNDER ITS  
LOCKHART A-17 LEASE LOCATED IN SECTION 17,  
T-21S, R-37E, NMPL, LEA COUNTY, NEW MEXICO.

A P P L I C A T I O N

Comes now Continental Oil Company, a Delaware Corporation, hereinafter referred to as Applicant, and petitions the Commission for an exception to Rule No. 303 of the Statewide Rules and Regulations for authority to commingle in common storage production from the Tubb and Blinebry pools on its Lockhart A-17 Lease located in Section 17, T-21S, R-37E, NMPL, Lea County, New Mexico, and in support thereof would show:

1. That applicant is co-owner and operator of the Lockhart A-17 Lease containing, among other lands, the E/2 of the NE/4 and the NE/4 of the SE/4 of Section 17, T-21S, R-37E, NMPL, Lea County, New Mexico.

2. That applicant plugged back and completed on August 30, 1955, its Lockhart A-17 No. 3 well as an oil well in the Blinebry formation at a location 1980 feet from the north line and 660 feet from the east line of said Section 17.

3. That applicant, under the provisions of Order No. DC 723, dually completed its Lockhart A-17 No. 4 well, located 660 feet from the north and east lines of said Section 17, as a Drinkard-Tubb producer. Contrary to expectations the Tubb formation proved to be oil productive. An application for authority to complete the well as a Drinkard oil - Tubb oil dual producer has been submitted.

4. That applicant proposes to commingle the oil produced on the lease from the Tubb and Blinebry formations in common storage.

5. That production from the Tubb pool will be accurately measured separately before entering common storage and that it will be possible to report accurately the amount of oil, water and gas produced by each formation.

6. That the commingling of fluid from said wells as proposed is mechanically and economically feasible and is in the interest of conservation of oil and protection of correlative rights.

Wherefore, applicant prays that this application be set for hearing before the Commission's duly appointed examiner, that appropriate notice be given, and that upon hearing, the Oil Conservation Commission enter its order authorizing applicant to commingle production from the said pools in accordance with the foregoing application.

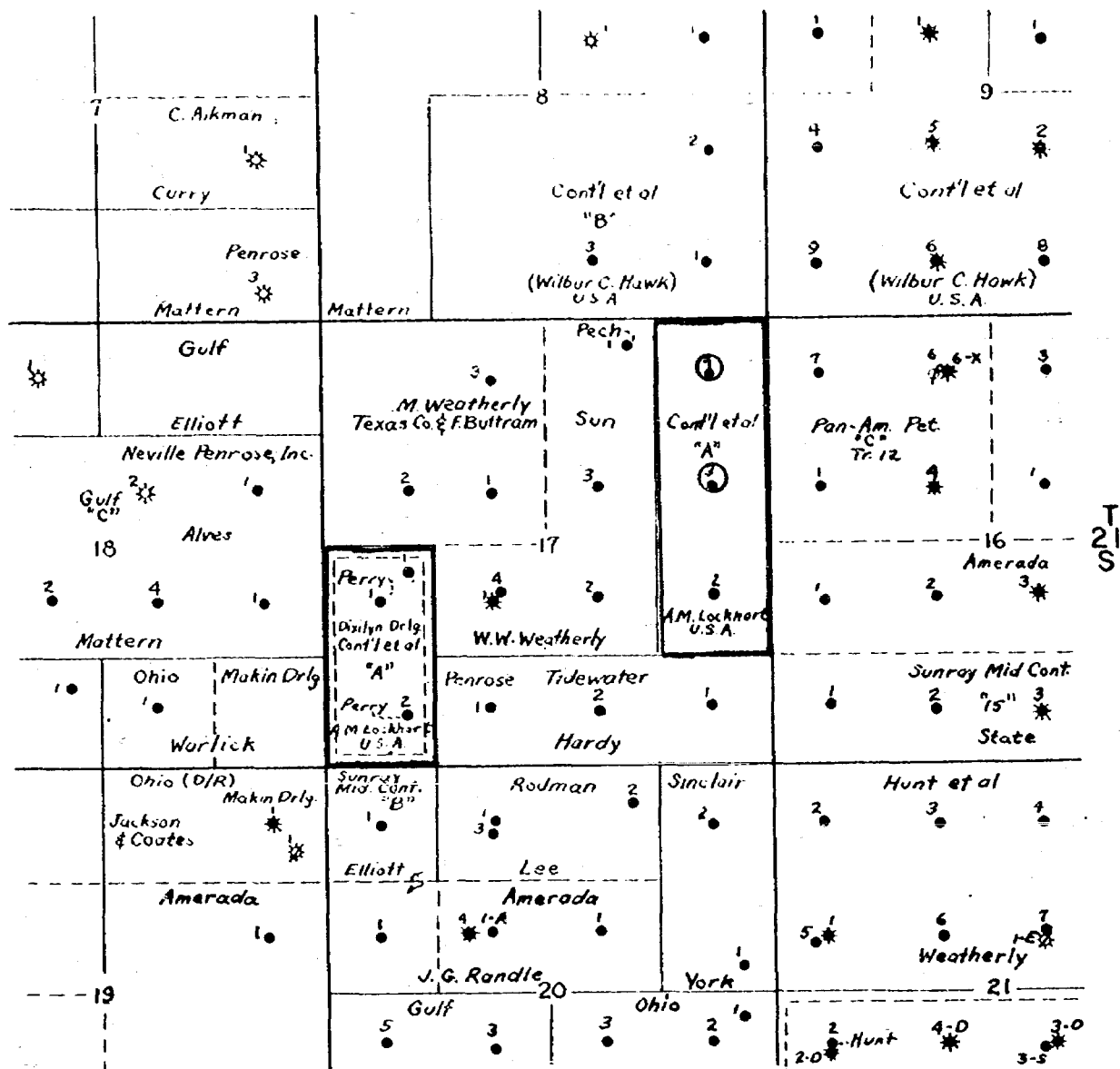
Yours very truly,

CONTINENTAL OIL COMPANY



R. L. ADAMS  
Division Superintendent  
of Production  
New Mexico Division

R 37E



LOCATION AND OWNERSHIP PLAT

CONTINENTAL OIL COMPANY

LOCKHART A-17 LEASE AREA

Lockhart A-17 Lease

Scale 1" = 2000'

DOCKET: EXAMINER HEARING JUNE 3, 1959

OIL CONSERVATION COMMISSION, 9 a.m., MABRY HALL, STATE CAPITOL, SANTA FE

The following cases will be heard before Daniel S. Nutter, Examiner,  
or A. L. Porter, Jr., Secretary-Director.

- CASE 1661: (Readvertisement) (Continued Case)  
Application of Pan American Petroleum Corporation for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its W. H. Turner No. 1 located in the SE/4 SE/4 of Section 29, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Eumont producing interval adjacent to the Eumont Pool and the production of oil from the Drinkard Pool. Applicant proposes to utilize a retrievable-type packer in said well.
- CASE 1682: Application of Continental Oil Company for permission to commingle the production from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the oil production from the Blinebry Oil Pool and the Tubb Gas Pool, from wells located in the E/2 NE/4 and the NE/4 SE/4 of Section 17, Township 21 South, Range 37 East, Lea County, New Mexico.
- CASE 1687: Application of Continental Oil Company for a gas-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its Britt B-15 Well No. 9, located in the NW/4 SE/4 of Section 15, Township 20 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Tubb formation and the production of oil from the Drinkard formation through parallel strings of tubing.
- CASE 1683: Application of Gulf Oil Corporation for a non-standard gas proration unit and for an order force pooling the interests therein. Applicant, in the above-styled cause, seeks the establishment of a 477-acre non-standard gas proration unit in the Eumont Gas Pool consisting of the N/2 and the SE/4 of Section 19, Township 19 South, Range 37 East, Lea County, New Mexico, to be dedicated to applicant's B. V. Culp "A" Well No. 3, located 1980 feet from the North and West lines of said Section 19. Applicant further seeks an order force pooling the interests of those in said non-standard gas proration unit who have gas rights within the vertical limits of the Eumont Gas Pool.
- CASE 1684: Application of Honolulu Oil Corporation for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox gas well location in an undesignated Yates gas pool for its State Well No. 1-B, located 1830 feet from the South line and 2130 feet from the East line of Section 13, Township 11 South, Range 27 East, Chaves County, New Mexico.
- CASE 1685: Application of El Paso Natural Gas Company for permission to conduct maximum pressure build-up tests and for non-cancellation and/or transfer of allowables for test wells. Applicant, in the above-styled cause, seeks an order authorizing it to conduct maximum pressure build-up tests on nineteen (19) gas wells in the Blanco Mesaverde, Aztec-Pictured Cliffs, Ballard-Pictured Cliffs, Fulcher Kutz-Pictured Cliffs and South Blanco-Pictured Cliffs Pools in San Juan and Rio

Arriba Counties, New Mexico. Applicant further requests the non-cancellation of allowables accruing to test wells during the test period and for authorization to transfer said allowables to other wells on the same basic lease, and for such other relief as is necessary to properly conduct said tests including establishment of an administrative procedure for approval of substitute tests.

CASE 1686:

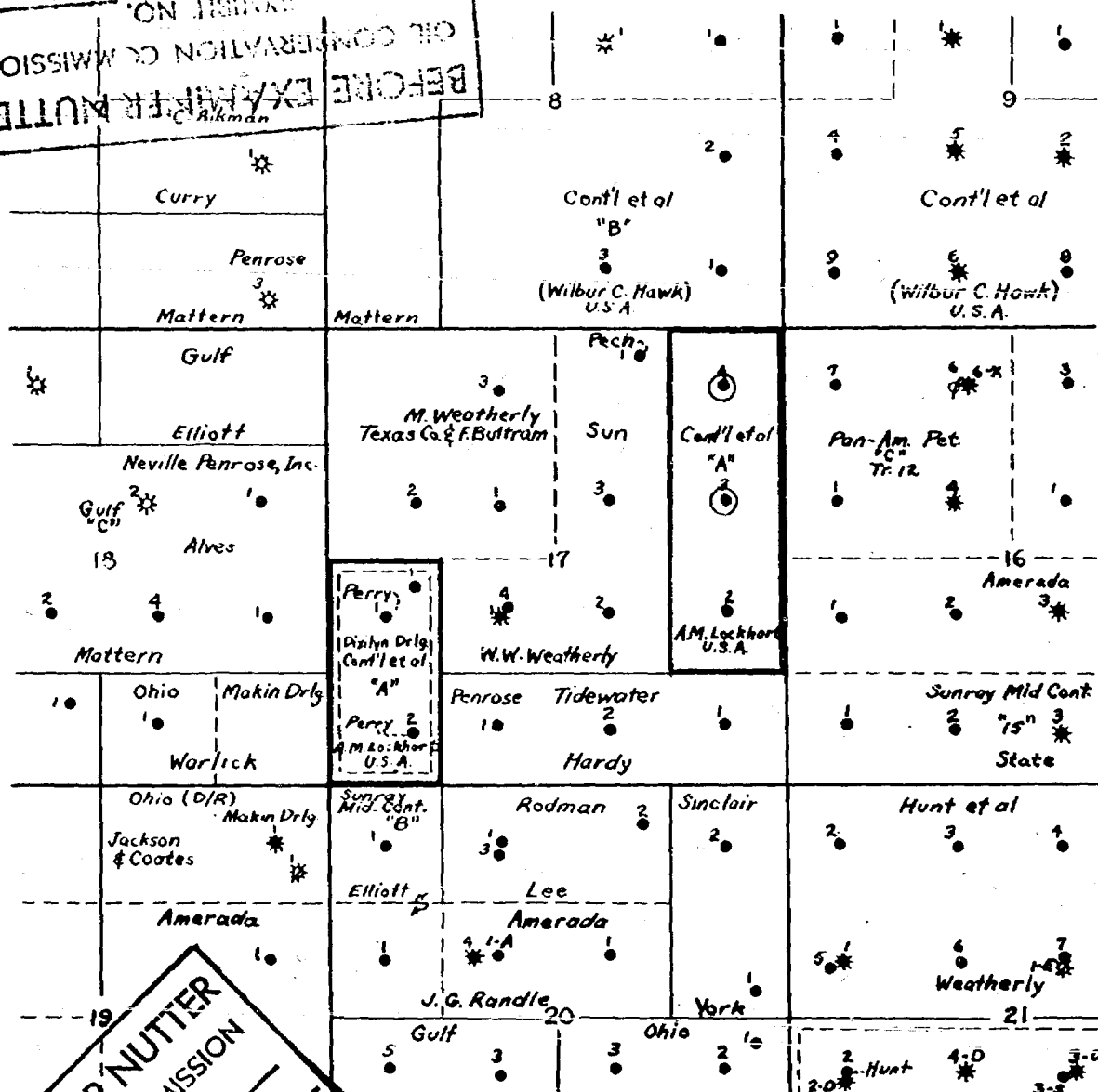
Application of Skelly Oil Company for the establishment of a new gas pool for Atoka production, and for the adoption of Special Rules and Regulations in connection therewith. Applicant, in the above-styled cause, seeks the establishment of a new pool for Atoka production comprising the E/2 of Section 11 and the W/2 of Section 12, Township 16 South, Range 33 East, Lea County, New Mexico, and the Establishment of Special Rules and Regulations therefor including 640-acre spacing for said pool.

CASE 1688:

Application of Anderson-Prichard Oil Corporation for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its State "A-28" Well No. 1, located in the SE/4 NE/4 Section 28, Township 26 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce gas from the Yates formation in the Rhodes Storage Area, Jalmat Gas Pool, through the casing-tubing annulus, and to produce oil from the Seven Rivers formation through tubing.

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. 1682

R 37E



LOCATION AND OWNERSHIP PLAT  
CONTINENTAL OIL COMPANY  
LOCKHART A-17 LEASE AREA

Lockhart A-17 Lease

Scale: 1" = 2000'

Lockhart A-17 No. 3 (Blincbry) ○

Lockhart A-17 No. 4 (Tubb) ○

Exhibit No. 1



SCHEMATIC DIAGRAM OF FLOW LINES FROM WELLS TO  
TANK BATTERIES ON LOCKHART A-17 LEASE  
R-37-E

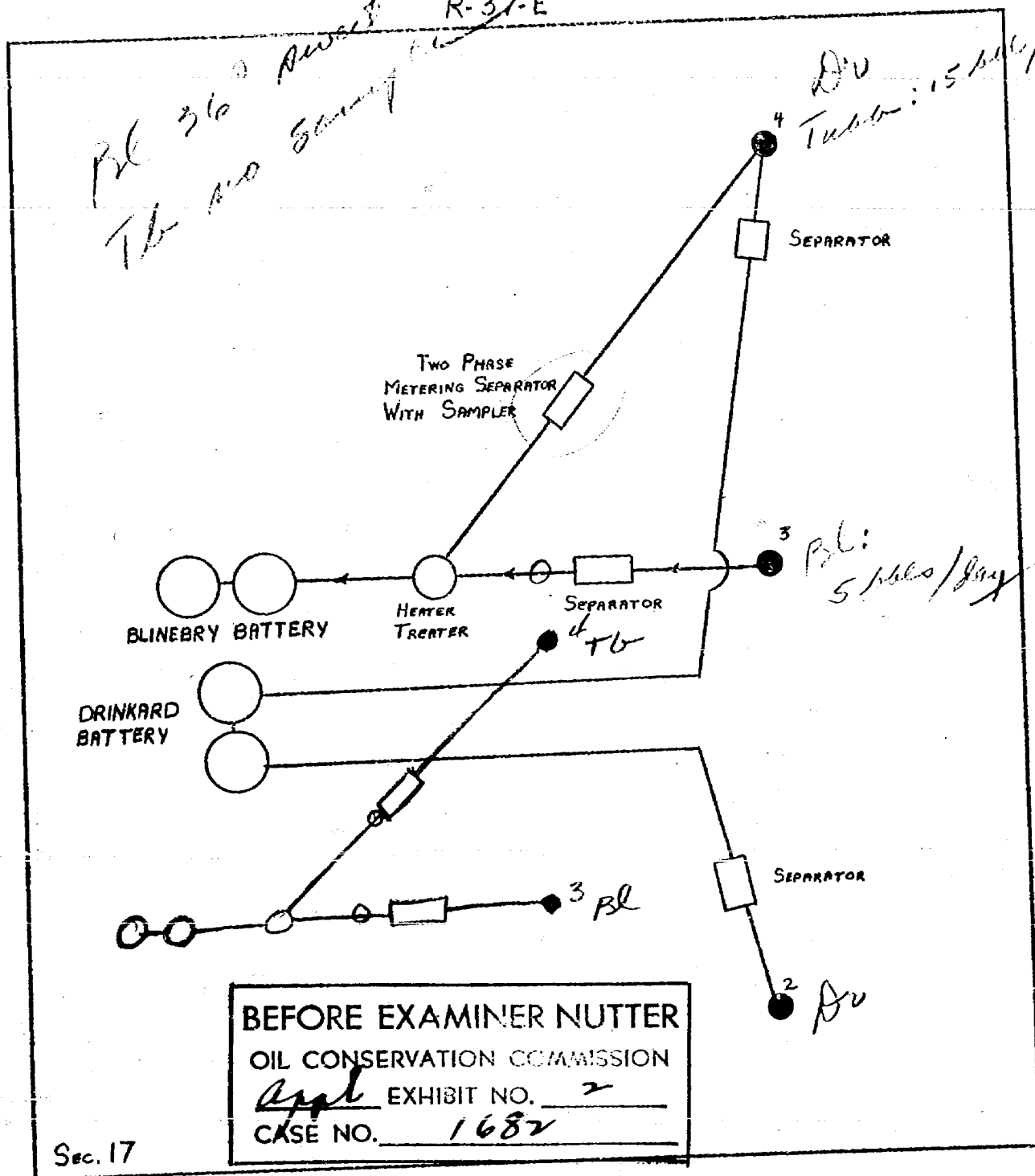


EXHIBIT No. 2