CASE 1817: Application of SUNRAY
THE ESTABLIC custody transfer
system to handle production from all
Butti-lessor Gallup Oil Pool wells.

Casa Mo.

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE CIL 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. 1817 Order No. R-1544

APPLICATION OF SUNRAY MID-CONTINENT OIL COMPANY FOR AN AUTOMATIC CUSTODY TRANSFER SYSTEM AND FOR PERMISSION TO PRODUCE MORE THAN 16 WELLS INTO A COMMON TANK BATTERY, IN THE BISTI-LOWER GALLUP OIL POOL, SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 e'clock a.m. on November 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, 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 total day of December, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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 is the unit operator of the Central Bisti-Lower Gallup Sand Unit within the defined limits of the Bisti-Lower Gallup Gil Pool, San Juan County, New Mexico, comprising the following-described acreage:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NAPA

Section 3: SW/4

Sections 4, 5, 6, 7, 8, and 9: All

Section 10: NW/4, N/2 SW/4

Section 15: N/2 NW/4

Section 16: All

Section 17: N/2, SE/4, N/2 SW/4 and SE/4 SW/4

Section 18: NE/4, N/2 NW/4, and N/2 SE/4

Section 20: NE/4 and NE/4 NW/4

Section 21: N/2, N/2 SE/4, and NE/4 SW/4

Case No. 1817 Order No. R-1544

TOWNSHIP 26 NURTH, RANGE 12 WEST, MAPA. Section 31: 3/2 N/2, and 3/2 Section 32: S/2 N/2, and S/2 Section 33: S/2 SW/4

- (3) That the applicant proposes to produce into a common tank battery all the Bisti-Lower Gallup oil wells presently or hereafter completed within the above-described Central Bisti-Lower Gallup Sand Unit.
- (4) That the applicant proposes to install an automatic custody transfer system to handle the Bisti-Lower Gallup Oil Poel production from all wells on said Central Bisti-Lower Gallup Sand Unit.
- (5) That the applicant proposes to measure the oil passing through the automatic custedy transfer system by means of dump-type or positive displacement meters.
- (6) That the above-described system should be se equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.
- (7) That the meters used in the automatic custody transfer system should be checked for accuracy once each month until further direction of the Secretary-Director.
- (6) That the owner of an overriding royalty interest in the Val R. Reese Lease, comprising the S/2 SW/4 of Section 32, Township 26 North, Range 12 West, has not signed the Unit agreement. Therefore, the production from said lease should be separately metered prior to commingling with other production from the Unit.
- (9) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.
- (10) That approval of the subject application will neither cause waste nor impair correlative rights provided adequate testing and storage facilities are installed.

IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to produce into a common tank battery all oil wells presently or hereafter completed in the Bisti-Lower Gallup Oil Pool on the Central Bisti-Lower Gallup Sand Unit comprising the followingdescribed acreage in San Juan County, New Mexico.

-3-Case No. 1817 Order No. R-1544

TOWNSHIP 25 NORTH, RANGE 12 WEST, MAPA

SW/4

Sections 4, 5, 6, 7, 8, and 9: All Section 10: NW/4, W/2 SW/4 Section 16: W/2 NW/4

Section 16: A11

N/2, SE/4, N/2 SW/4 and SE/4 SW/4 NE/4, N/2 NW/4, and N/2 SE/4 NE/4 and NE/4 NW/4 Section 17:

Section 18:

Section 20:

N/2, N/2 SE/4, and NE/4 SW/4 Section 21:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NAPAS Section 31: 5/2 N/2, and 5/2 Section 32: 5/2 N/2, and 5/2 Section 33: 5/2 SW/4

facilities to permit the testing of each well on said Central Bisti-Lower Gallup Sand Unit at least once each menth.

PROVIDED FURTHER, That the production from the Val R. Reese Lease, comprising the 5/2 SW/A of Section 32, Township 26 North, Range 12 West, shall be separately metered prior to commingling with other production from the Unit.

(2) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the Bisti-Lower Gallup Oil Fool production from all wells presently completed or hereafter drilled within the above-described Central Bisti-Lower Gallup Sand Unit.

PROVIDED HOWEVER, That the automatic custody transfer system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

IT IS FURTHER ORDERED:

That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That meters shall be checked for accuracy at least once each 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 Maeter Test Report."

-4-Case No. 1817 Order No. R-1544

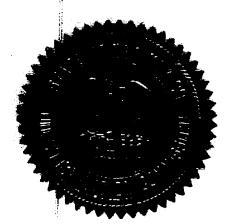
DOME at Santa Fe, New Mexico, on the day and year herein-

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JOHN BURROUGHS, Chairman

MURRAY E. MORGAN, Member

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





HF: vem Dec. 7

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. 1817
Order No. R-1544

APPLICATION OF SUNRAY MID—CONTINENT OIL COMPANY FOR AN AUTOMATIC CUSTODY TRANSFER SYSTEM AND FOR PERMISSION TO PRODUCE MORE THAN 16 WELLS INTO A COMMON TANK BATTERY, IN THE BISTI-LOWER GALLUP OIL POOL, SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE COMMISSION

BY THE COMMISSION:

This sause same on for hearing at slock a.m. on 1959, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinatter referred to as the "Commission."

NOW, on this day of , 1959, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully adviced in the premises,

This cause came on for hearing at 9 o'clock a.m. on November 24 , 1959, at Santa Fe, New Mexico, before Elvis A. Utz , Examiner duly appointed by the Oil Conservation Commission of New Mexico, hercinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this day of December , 1959, the Commission, a quorum being present, having considered the application the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz , 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 is the unit operator of the Lover Geller Sand
 Central Bisti, Unit within the defined limits of the Bisti-Lower
 Gallup Oil Pool, San Juan County, New Mexico, comprising the following-described acreage:

12/8

TOWNSHIP 25 NORTH, RANGE 12 WEST, NAPA

Section 3: SW/4

Sections 4, 5, 6, 7, 8, and 9: Section 10: NW/4, W/2 SW/4 Section 15: W/2 NW/4

Section 16:

AII N/2, SE/4, N/2 SW/4 and SE/4 SW/4 NE/4, N/2 NW/4, and N/2 SE/4 NE/4 and NE/4 NW/4 Section 17:

Section 18: Section 20:

N/2, N/2 SE/4, and NE/4 SW/4 Section 21:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NNPN Section 31: S/2 N/2, and S/2 Section 32: S/2 N/2, and S/2 Section 33: S/2 SW/4

- (3) That the applicant proposes to produce into a common tank battery all the Bisti-Lower Gallup oil wells presently or hereafter completed in the above-described Central Bisti, Unit.
- (4) That the applicant proposes to install an automatic custody transfer system to handle the Bisti-Lower Gallup Oil Pool - Lower Gallup Sank production from all wells on said Central Bisti, Unit.
- (5) That the applicant proposes to measure the oil passing through the automatic custody transfer system by means of dump-type or positive displacement meters.
- (6) That the above-described system should be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.
- (7) That the meters used in the automatic custody transfer system should be checked for accuracy once each month until further direction of the Secretary-Director.
- (8) That the owner of an overriding royalty likewood in the Val R. Reese Tease, comprising the 5/2 5 w/4 of fection 32, Journality 26 Morth, Range 1). West has not signed the Mix agreement, I bestow, the production from said lease should be siferately melered from to comminging with other production from the Unit.
 - (9) That the previous use of automatic custody transfer

Case No. 1817 Order No. R-_

equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.

(10) That approval of the subject application will neither cause waste nor impair correlative rights provided adequate testing and storage facilities are installed.

IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to produce into a common tank battery all oil wells presently or hereafter completed in the Bisti-Lower Gallup Oil Pool on the Hower Golley Sank Central Bisti, Unit comprising the following-described acreage in San Juan County, New Mexico.

> TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM Section 3: SW/4 Sections 4, 5, 6, 7, 8, and 9: Section 10: NW/4, W/2 SW/4 Section 15: W/2 NW/4 Section 10: Section 15: Section 16: All N/2, SE/4, N/2 SW/4 and SE/4 SW/4 NE/4, N/2 NW/4, and N/2 SE/4 NE/4 and NE/4 NW/4 N/2, N/2 SE/4, and NE/4 SW/4 Section 17: Section 18: Section 20: Section 21:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM Section 31: S/2 N/2, and S/2 Section 32: S/2 N/2, and S/2 Section 33: S/2 SW/4

PROVIDED HOWEVER, That the applicant shall install adequate facilities to permit the testing of each well on said Central Bisti four Getting Unit at least once each month.

Provided Further, I hat the production from the Val R. Reese Jease, comprising the S/2 610/4 of Lection 32, Township 26 North, Range 12 West, shall be separately metered prior to commingling with other production from the Unit,

(2) That the applicant be and the same is hereby authorized to install automatic custody transfer equipment to handle the

-4-Case No. 1817 Order No. R-

Bisti-Lower Gallup Oil Pool production from all wells presently within completed or hereafter drilled the above-described Central Bisti-Lower Gally Unit.

PROVIDED HOWEVER, That the automatic custody transfer system shall be so equipped as to prevent the undue waste of oil in the event of malfunction or flow-line break.

IT IS FURTHER ORDERED:

That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That meters shall be checked for accuracy at least once each 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."

DONE at SFNM----

BEFORE THE CIL CONSERVATION COMMISSION Santa Fe, New Mexico November 24, 1959 EXAMINER HEARING

IN THE MATTER OF:

Application of Sunray Mid-Continent Oil Company) for an automatic custody transfer system and for permission to produce more than sixteen wells into a common tank battery. Applicant, in the above-styled cause, seeks an order authorizing it to install an automatic custody transfer system to handle the production from all Bisti-Lower Gallup Oil Pool wells on its Central Bisti Unit comprising certain acreage in Townships 25 and 26 North, Range 12 West, San Juan County, New Mexico.

Case_1817

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 1817.

MR. PAYNE: Case 1817: Application of Sunray Mid-Continent Cil Company for an automatic custody transfer system and for permission to produce more than sixteen wells into a common tank battery.

MR. WHITE: If the Examiner please, Charles White of Gilbert, White and Gilbert, Santa Fe, New Mexico, appearing on behalf of the Applicant. We have one witness to be sworn at this time.

(Witness sworm.)

WILLIAM A. SAYLOR

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



(Applicant's Exhibits Nos. A through C and 1 through 4 marked for identification.)

DIRECT EXAMINATION

BY MR.WHITE:

- Q Mr. Saylor, state your full name, please.
- A William M. Saylor.
- Q By whom are you employed, Mr. Saylor?
- A Sunray Mid-Continent Oil Company.
- Q In what capacity?
- A Petroleum engineer.
- Q Have you previously testified before the New Mexico Oil Conservation Commission or before one of its Examiners?
 - A No, I haven't.
- Q Will you briefly state your educational background and your professional qualifications?

the University of Oklahoma. January of 1947 I was employed by Sunray Mid-Continent as Field Engineer, I was employed as Field Engineer for four years, was made District Engineer in Sunray Mid-Continent's Tri-State District, which included Arkansas, North Louisiana, and East Texas. 1955 I was transferred to Sunray Mid-Continent West Texas District as water flood engineer for North and West Texas and all of New Mexico.

MR. WHITE: Are his qualifications acceptable?

MR. UTZ: Yes, they are.



(By Mr. White) Are you familiar with the Central Bisti-Lower Gallup Sand Unit, San Juan County?

- À Yes, sir.
- What was the effective date of the Unit?
- Effective date January 1st, 1959. Α
- Will you briefly describe the acreage within the Unit?
- Α The Central Bisti-Lower Gallup Unit includes in Township 26 North, Range 12 West in San Juan County, portions of Sections 31, 32, 33; in Township 25 North, Range 12 West, it includes portions of Section 3, all of Sections 4, 5, 6, 7, 8, 9, portions of Sections 10, 15, all of Section 16, portions of Sections 17, 18, 20, 21. It contains 7,240 acres.

Is all this acreage detailed on what's been marked as Exhibit A?

- Yes, sir.
- Will you refer to Exhibit A and explain that, please?
- Exhibit A is a plat showing the location of the Central Bisti-Lower Gallup Sand Unit in San Juan County, New Mexico.
- Is that the thatched portion as delineated upon the plat?
- The dark thatched outline is the outline of the unitized area.
- Also within the Unit is there not the West Half of the Northwest of Section 15, and the West Half of the Southwest of Section 107



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DEARNLEY-MEIER REPORTING SERVICE, Inc.

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A Yes, sir.

Will you briefly state what Sunray Mid-Continent proposes by the subject application?

A This application of Sunray Mid-Continent to produce more than sixteen wells into the common tank battery also seeks an order authorizing it to install an automatic custody transfer system to handle all the production from the Central Bisti-Lower Gallup Sand Unit in San Juan County, New Mexico.

Q And the wells presently completed or hereafter completed?

A Yes, sir.

Q Well, now, refer to what has been marked as Exhibit No. 1 and explain that, please.

A Exhibit No. 1 is a plat of the Central Bisti Unit with flow lines from the producing wells to fourteen test station locations strategically located throughout the field.

Q Will you refer to what has been marked as Exhibit 2 and explain that?

stations shown on Exhibit 1. It is proposed to utilize the present heater treater locations as test stations where gas separation and well testing will be performed. Wellhead fluid is directed manually to either the heater treater or test separator. The test separator is equipped with a meter on for gas measurement, and a dump type liquid meter.

After measurement, the fluid returns to the inlet of



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the heater treater, an automatic sampler will be operated where needed in conjunction with the test separator to determine the B.S. and W. content of the test well fluid. The group treater is equipped with high level shutdown controls to close motor valves upstream from the test station, in the event of a malfunction downstream. The malfunction downstream could be pressure increase or a break in the flow line.

A shut-off at the motor valve will cause a pressure increase in all the group flow lines, which will in turn turn motor control valves at flowing wellhead, or actually pressure switches at pump wellhead, and thus facilitate a group shutdown. The pressure relief valve is also provided; in the event of the failure of a wellhead control, excessive pressure would be bled off at this point from any flow line.

Q Will you now refer to what has been marked as Exhibit 3 and explain that?

A Exhibit 3 is a plat of the participating unit area, showing the field gathering system, starting at each of the fourteen test stations and terminating at a central battery location in the north part of Section 5.

Q Have you made any installations to take care of any paraffin?

A This entire system with laterals and main lines will be provided with paraffin scraping equipment.

Q Will you now refer to what has been marked as Exhibit



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No. 4 and explain that?

Exhibit No. 4 is a schematic flow diagram of an L.A.C.T. Unit proposed for this Central Bisti production. Oil production from the field is directed to a 10,000 barrel welded tank. The tank is equipped with high and low level switches which activate control valves for automatic operation. The high level control will shut in the six-inch field shut-in inlet valve which in turn would result in closing in all producing wells, while the low level switch will shut the pipeline pump down. After leaving the tank, the oil passes through what is shown as a strainer. It's a six-inch pipeline strainer to take out any large foreign material.

The flow is then through, goes to the L.A.C.T. Unit itself. It passes by a cut monitor, which permits only marketable oil to pass through the meters. A high-cut signal from this monitor will open the three-way bypass valve and divert the stream through a heater treater before returning it to the tank. This signal also will stop the shipping pump.

The flow is then by a Peco flow switch, which is a low flow shutdown switch. In the event of a break of any line, this low flow switch will shut down the centrifugal transfer pump. It then flows into the aerator to remove all free air and gas. This aerator is required by the pipeline company.

It goes by a sampler, which will store and collect under pressure a small sample of the stream in a closed container at set intervals. The flow is then through a strainer to trap any



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foreign objects ahead of the meters, then by the positive displacement meter for measurement. There's two meters are provided for stand-by service. A back pressure valve is installed behind the meters to hold the pressure on the meter above the vapor pressure of the crude. Couplings are also provided for bypass upstream to proving tank. The flow is then to the pipeline pump.

Mr. Saylor, have all the royalty interests signed the Unit Agreement:

No, sir. There are three overriding royalty interests that have not signed.

Is there a likelihood that any or all of them will sign up?

There's a seven percent overriding royalty interest on eighty-acre tract, the Hickman Tract in Section 32, it's the South Half of the Southwest One-Quarter, which has refused.

How do you intend to incorporate that outstanding royalty?

That interest has refused to sign, and the production from that lease will have to be tanked separately and treated as a separate lease.

How many wells are presently producing within this Unit?

Fifty-one. A

And are all of them completed in the Lower Gallup Cil Pool?

Yes, sir.



SERVICE, REPORTING **DEARNLEY-MEIER**

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Has the Commission approved similar installations both as to design and as to type of installation?

Yes, sir.

Will you have personnel present to take care of any remedial steps and also to supervise the operation in general?

Yes, sir.

Now will you refer to Exhibit No. B and explain that. please?

Exhibit B is a letter from the Four Corners Pipe Line Company, purchaser of the crude from this Unit, in which they have accepted the installation of this L.A.C.T. Unit.

Will you explain Exhibit C, please?

Exhibit C is a latter from the Four Corners Pipe Line Company detailing their proving procedure for positive displacement meter.

In vour opinion will this installation materially reduce your maintenance and operation costs?

No, we have made no detailed study to see what maintenance cost this Unit would save. We have justified the installation of this Unit on the basis of the vapors that we will save and thus extend the economic life of this Unit.

In your opinion this will be a prevention of waste?

À Yes, sir.

Were Exhibits I through 4 and Exhibit A prepared by you or under your direction?



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A Yes, sir.

MR. WHITE: We offer Exhibits A through C and 1 through 4 at this time.

MR. UTZ: Without objections the exhibits will be entered into the record.

MR. WHITE: That's all the lostimony we have on direct.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Saylor, maybe you made a statement to this effect but if you did, I missed it. What do you have to prevent the waste of oil in case of line breakage between your wellhead and the L.A.C.T. system?

A I stated that we will have a control at the wellhead, but I didn't go into detail. The flowing wells will be equipped with two-inch intermitter; under normal flowing operation the well will be shut in three to eight times per day to facilitate the passage of paraffin scrapers down the tubing. This valve will also be equipped with a dual pilot. The dual pilot is a pressure control which will close the valve on signal from malfunction downstream, and malfunction downstream would be a flow line break or a pressure increase. The pumping wells will be equipped with emergency pressure switch to facilitate engine shutdown on signal from malfunction downstream. Of course, after any of these automatic shutdowns in the pumping well or flowing well, the installation will require manual reset and start-up.

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Do you know offhand what the spread of pressure will be between low and high on your high and low cutoff?

Our system was designed at 150 pounds, so our pressure relief valve at the test stations will have to be set at 150 pounds. Low pressure shutoff would have to be below 25 pounds, which is the pressure of the heater treater. So we will have a pressure range between 15 and 150 pounds.

All wells on this Unit will go into this L.A.C.T.system, except the Hickman eighty-acre lease?

Yes, sir.

MR. UTZ: Any other questions?

MR. PAYNE: Yes, sir.

BY MR. PAYNE:

On the wells ultimately do you plan to have them go Q into common tankage? You have fifty-two now, is that right?

> Fifty-two. Α

Do you anticipate additional wells?

No, sir. A

You have 10,000 barrel tank, is that it?

Yes, sir.

Are most of those wells top allowable wells?

I won't say most of them. This Unit at present currently is being produced by the operators at a reduced rate, voluntarily reduced rate while we were building up bottomhole pressure. We are producing this Unit now at a rate fifty percent



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of allowable.

I see. Now the allowable, of course, does give you credit for transferring from injection wells, doesn't it?

- A Yes, sir.
- The point is, do you feel you have sufficient storage?
- A The maximum rate that we believe this Unit can be operated and still hold our pressure, bottomhole pressure, is 5,000 barrels a day, so we have --
 - Q And you are connected to the Four Corners Pipe Line?
 - A Yes, sir.
 - Q You don't have any difficulty getting your oil run?
 - A No, sir, we haven't.

MR. UTZ: Any other questions? If no other questions the witness may be excused.

(Witness excused.)

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

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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 were reported by me in Stenetype, and that the same was reduced to typewritten transcript by me and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

SS

DATED this 2nd day of December, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

My Commission Expires: June 19, 1963.

> the foregoing is I do hereby cer a ce 🍌 🤆 New Mexico Oil Conservation Commission



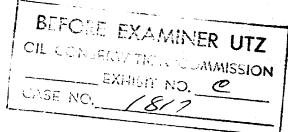
EXMBIT C



POUR GOINERS FIFE LINE SOMPLAY

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October 7, 1959



Surrey Mid-Continent Oil Company Miles Building Midland, Tomas

Attention Mr. W. H. Soyler

Contigues:

Four letter of October 1, 1959, directed to our Farmington District Seperintendent, Mr. C. M. Herrill, has been referred to this office. Our meter proving procedure is as recommended in API Code 1101 Dentative, and one of the services offered by Four Okrners on a no-charge basis is to calibrate all meters monthly, using a portable 500 gallon prover tank, and to furnish the necessary evidence of proving to the function (or the company owning the meter calibration is witnessed by the progress (or the company owning the meter facilities) and the producer is given a signed copy of the calibration data and calculations.

In our letter of July 1 to your Hr. Pyeatt it was requested that the prover section line for both meters be manifolded together as this would save time by requiring only one air purging period to prove both meters.

Yours vory cruly

For: J. K. Alfred

EXHIBIT B



FOUR CORNERS PIPE LINE COMPANY

P. G. SOX 1993
CGMPTON, CALIFORNIA
July 1, 1959

BEFORE EXAMINER UTZ
OIL CONCERNATION COMMISSION

_____EXHIBIT NO. <u>/3</u>

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Mid-Continent Pipe Line Company Box 2039 Tulsa 2, Oklahona

Attention Mr. F. E. Pycatt, Jr.

Gentlemen:

As requested in Mr. Pyeatt's letter of June 15 to our Farmington District Office, a few suggestions are noted in red on an attached copy of your Drawing S-527. By connecting the suction line for the meter prever as shown in red, the meter proving time can be reduced by having to purge the hose lines only once. On certain older A. O. Swith S-24 meters, the temperature sensing bulb is recessed and therefore subject to wax incrustation with resulting imperfect meter factors. It is imperative that the temperature sensing bulb be located directly in the fluid stream to eliminate this problem.

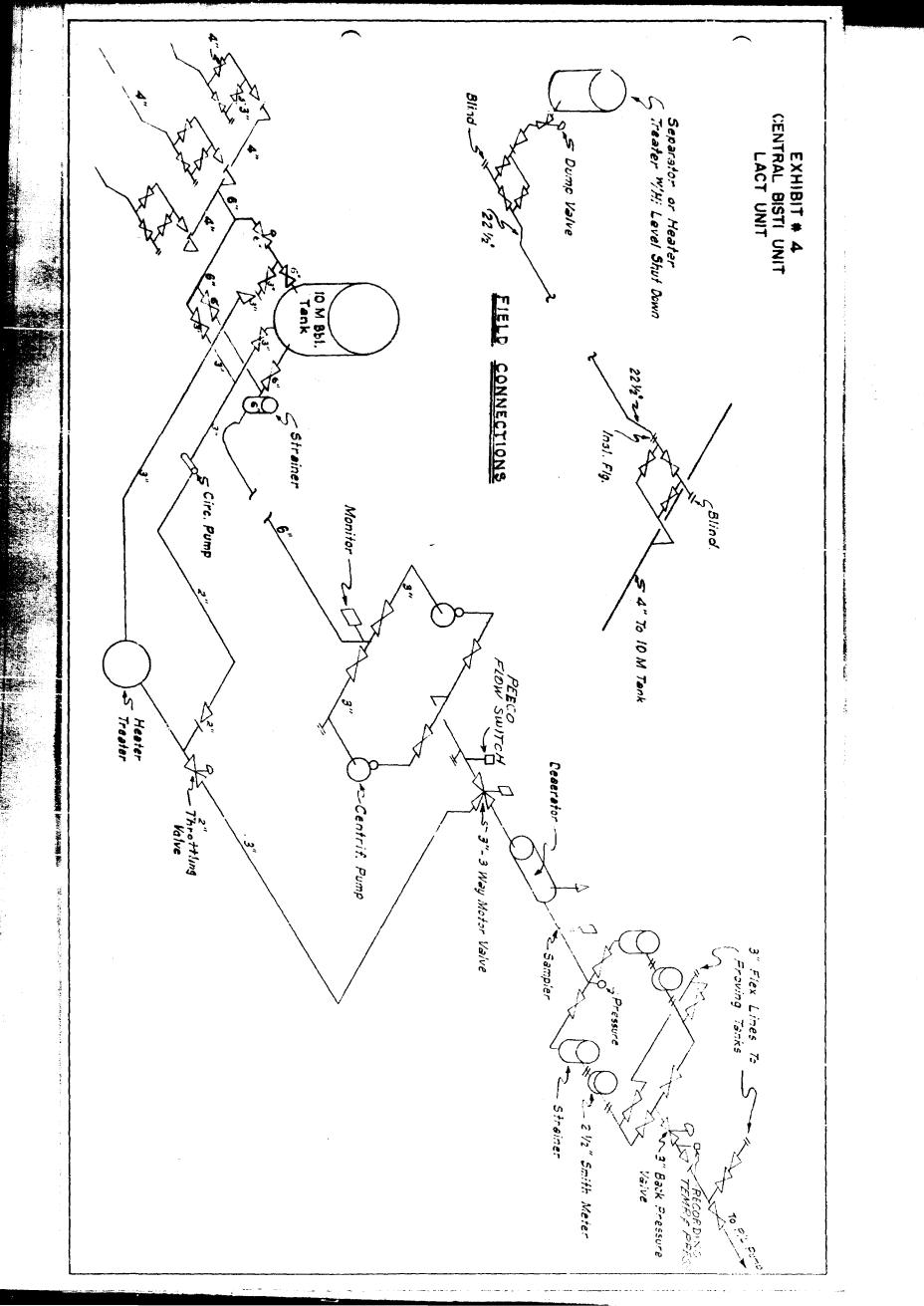
A copy of our form letter with a typical A.C.T. unit design utilizing positive displacement reters was forwarded to Mr. Marvin C. Jones on June 19. Eased on conformance with these requirements and assuming that the electrical and/or mechanical operability has been assured by the manufacturer, your proposed installation is satisfactory.

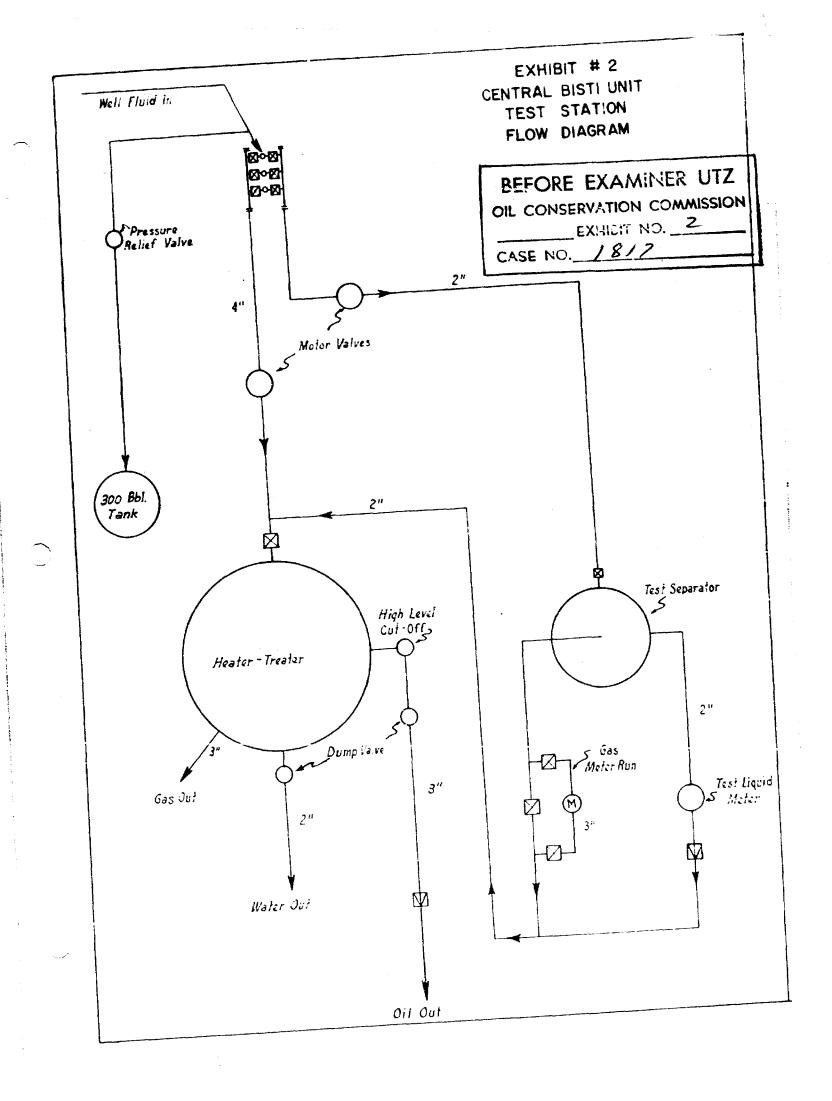
Chould additional information or any assistance be needed regarding this installation, please contact our District Superintendent, Hr. C. M. Herrill, in Famington, New Mexico.

Yours very truly,

J. K. Alfred

Attachment





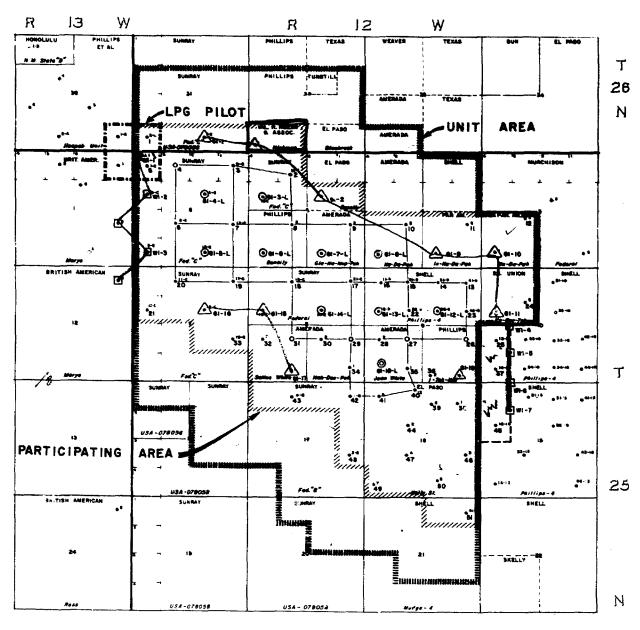


EXHIBIT A

CENTRAL BISTI LOWER GALLUP SAND UNIT San Juan County, New Mexico

LEGEND

BEFORE EXAMINER UTZ

OIL CONSERVATION COMMISSION

EXHIBIT NO. A

CASE NO. 1812

Clas 18/1 GILBERT, WHITE AND GILBERT ATTORNEYS AND COUNSELORS AT LAW BISHOP BUILDING SANTA FE, NEW MEXICO CARL H. GILBERT L. C. WHITE WILLIAM W. GILBERT 10007 LJ III 8:25 SUMNER S. KOCH EDWIN E. PIPER, JR. October 22, 1959 New Mexico Oil Conservation Commission Capitol Building Santa Fe, New Mexico Gentlemen: We are enclosing herewith original and two copies of Sunray Mid-Continent Oil Company's Application for an Order authorizing an automatic custody transfer system and for permission to produce more than 16 wells in a common tank battery in the Central Bisti Unit, San Juan County. It would be appreciated if this Application would be set for hearing and please advise us of the date. Thanking you for your usual courtesies, Ian Very truly yours, LG Enclosures Secretal Solution of the 12.5

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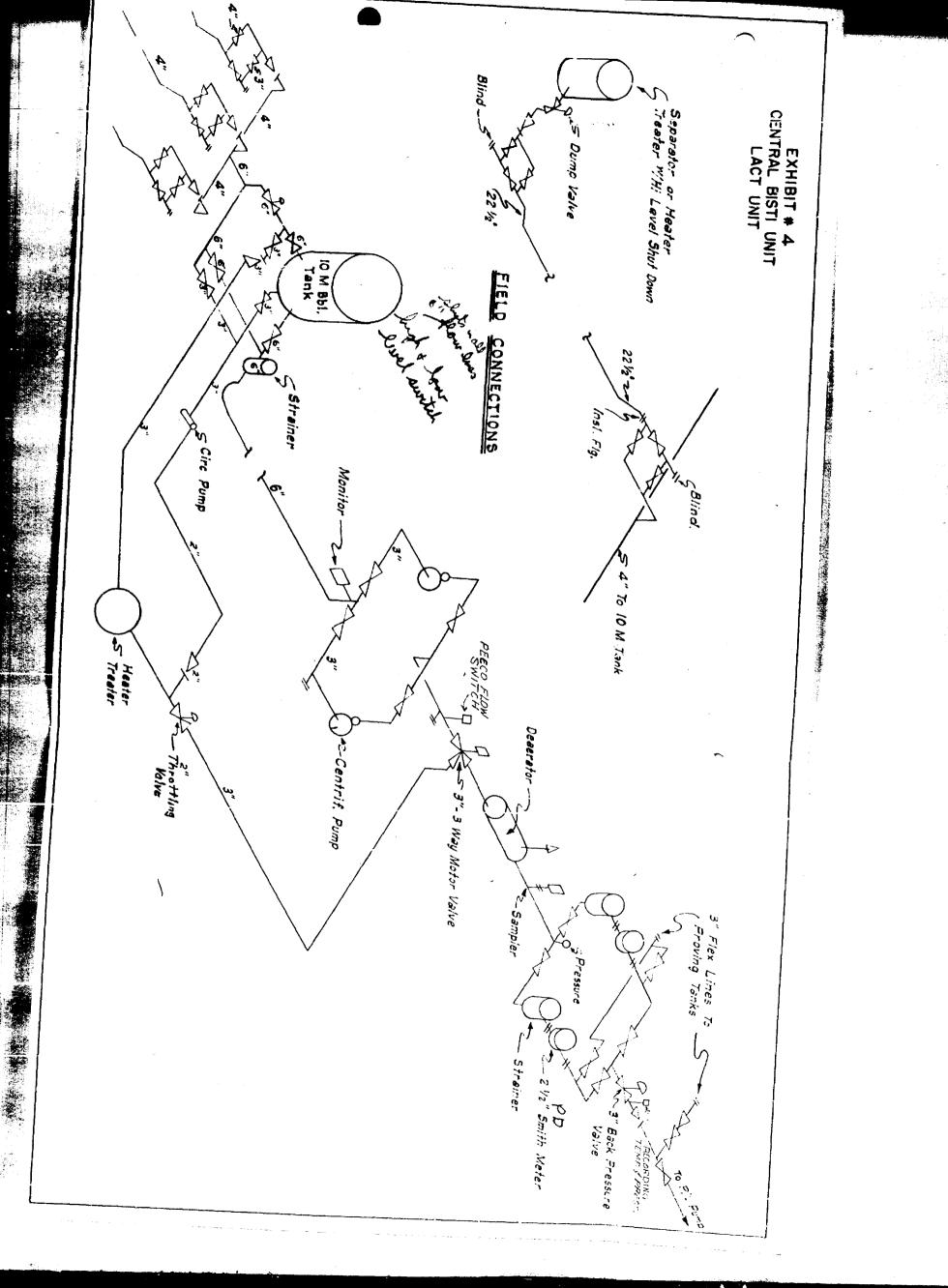


EXHIBIT C



FOUR DORNERS PIPE LINE COMPANY

HET BAST BOL AND BLVS. P. D. 802 1016 COMPTON, CALIFORNIA

October 7, 1959

BETCHE FYAMMER UTZ
V1251014
EXHIBIT NO.
CASE NO. 1817

Surcey Mid-Continent Oil Company Miles Building Marie, Series

Attention Mr. W. M. Seylor

Cuntlemen:

Your letter of October 1, 1959, directed to our Fernington Biotrict Superintendent, Mr. C. M. Herrill, has been referred to this office. Our meter proving procedure is as recommended in API Code 1101 Sentative, and one of the services offered by Four Corners on a no-charge basis is to calibrate all meters monthly, using a portable 500 gallon prover tenk, and to furnish the necessary evidence of proving to the line lineico Countesion. The meter calibration is vitnessed by the producers (or the company owning the unter facilities) and the producer is given a signed copy of the calibration data and calculations.

In our letter of July 1 to your Hr. Pyeatt it was requested that the prover suction line for both meters be manifolded together as this would save time by requiring only one air purging period to prove both meters.

Yours wary truly,

For: J. K. Alfred



FOUR CORNERS PIPE LINE COMPANY

P. S. BOX WAS COMPTON, CALIFORNIA
July 1, 1959

BEFORE ENVIANCER UTZ
OIL CONTROL SAMESION
EXPERTATION B
CASE NO. 1817

Mid-Continent Pipe Line Company Box 2039 Tulsa 2, Oklahoma

Attention Mr. F. S. Pycatt, Jr.

Gentlemen:

As requested in Mr. Pycatt's letter of June 15 to our Farmington District Office, a few auggestions are noted in red on an attached copy of your Drawing S-527. By connecting the suction line for the meter prever as shown in red, the meter proving time can be reduced by having to purge the hose lines only once. On certain older A. O. Smith S-24 meters, the temperature sensing bulb is recessed and therefore subject to wax incrustation with resulting imperfect meter factors. It is imperative that the temperature sensing bulb be located directly in the fluid stream to eliminate this problem.

A copy of our form letter with a typical A.C.T. unit design utilizing positive displacement neters was forwarded to Mr. Marvin C. Jones on June 19. Based on conformance with these requirements and assuming that the electrical and/or mechanical operability has been assured by the manufacturer, your proposed installation is satisfactory.

Should additional information or any assistance be needed regarding this installation, please contact our District Superintendent, Nr. C. M. Merrill, in Farmington, New Mexico.

Yours very truly,

J. K. Alfred

Attachment



to a many season services and water services and

EXHIBIT B

FOUR CORNERS PIPE LINE COMPANY

HOP EAST BEL AND SLVO. P. G. BOX 1002 PTON, CALIFORNIA

July 1, 1959

BEFORE EXAMINER UTZ CIL CONLETTE COMMISSION EXHIBIT NO._ CASE NO.

Mid-Continent Pipe Line Company liox 2039 Tulsa 2, Oklchoma

Accention Mr. F. E. Pycatt, Jr.

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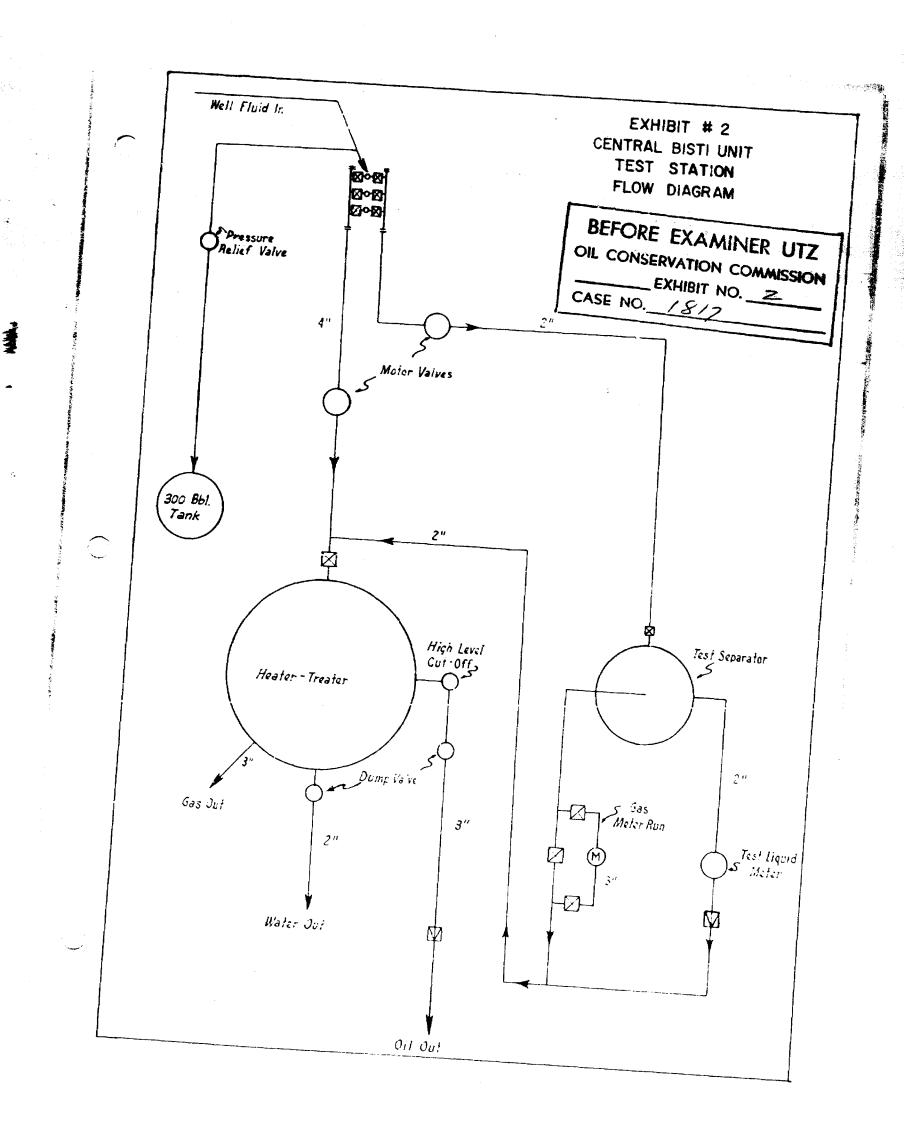
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Should additional information or any assistance be needed regarding this installation, please contact our District Superintendent, ihr. C. M. Merrill, in Familiation,

Yours very truly,

J. K. Alfred

Attachment



THE RESERVE OF THE PERSON OF T

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. 1275 Order No. R-1029

IN THE MATTER OF THE APPLICATION OF SHELL OIL COMPANY FOR PERMISSION TO INSTALL CENTRALIZED PRODUCTION TEST FACILITIES AND AUTOMATIC CUSTODY TRANSFER EQUIPMENT IN THE CARSON UNIT AREA AND ON SEVEN SEPARATE LEASES IN THE BISTI-LOWER GALLUP OIL POOL, 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 July 17, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 7th day of August, 1957, the Commission, a quorum being present, having considered the application and the evidence adduced, and being fully advised in the premises,

FINDS:

- (1) That due notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Shell Oil Company, is the unit operator of the Carson Unit Area. Further that the applicant is the operator of the following described oil and gas leases:

PHILLIPS NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 4: Lots 1, 2 and S/2 NE/4

Section 9: N/2

Section 10: SW/4 and E/2

Section 15: All

Section 22: N/2 and SE/4

Section 27: W/2

MUDGE NO. 1 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 26: W/2
Section 27: S/2
Section 34: All

MUDGE NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 4: SW/4
Section 9: W/2
Section 16: All

MUDGE NO. 4 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM

Section 21: All Section 28: All Section 33: All Section 34: All

ANDERSON LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM

Section 9: SE/4
Section 15: NW/4

MOHR ASSIGNMENT LEASE

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM Section 22: NW/4

MIMS LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM Section 3: Lots 1, 2, 3 and 4, S/2 N/2, and SE/4

All in San Juan County, New Mexico.

- (3) That the applicant proposes to install centralized production test facilities in the Carson Unit Area and on each of the above described leases whereby production from the individual wells will be tested periodically and the oil measured by means of positive displacement meters.
- (4) That the applicant also proposes to install automatic custody transfer equipment in the Carson Unit Area and on each of the above described leases whereby

-3-CASE NO. 1275 Order No. R-1029

the oil production will be automatically tested for temperature, gravity, basic sediment and water, treated if necessary, and then measured by means of positive displacement meters as it passes into the pipeline.

- (5) That the applicant seeks permission to produce more than eight wells into the above described central production test facilities and the automatic custody transfer stations.
- (6) That the applicant proposes to commingle production from the participating area of the Carson Unit Area with production from wells outside the participating area of said unit, and to determine the individual well production by means of periodic production tests.
- (7) That positive displacement meters provide an accurate and reliable means for measuring oil and that their use should be permitted.
- (8) That previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil and that the use of such equipment should be permitted.
- (9) That the production of more than eight wells into a central production test station and into an automatic custody transfer system should be permitted provided that each well in each of the several systems can be periodically tested, and provided that each of the positive displacement flow meters is periodically checked for accuracy.
- (10) That each of the several systems should be so equipped as to prevent the undue waste of oil or gas in the event of malfunction or line break.
- (11) That the applicant should not be permitted to commingle oil production from the participating area of the Carson Unit with oil production from outside the participating area, until the latter production has been measured in tanks or metered constantly by means of positive displacement meters.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, be and the same is hereby authorized to install central production test facilities and automatic custody transfer equipment on each of the following described leases and unit areas utilizing positive displacement meters for the measurement of oil from all wells in the Bisti-Lower Gallup Oil Pool and all extentions thereto, located on each of the said leases and unit areas:

PHILLIPS NO. 2 LEASE

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM Section 4: Lots 1, 2 and S/2 NE/4

CASE NO. 1275 Order No. R-1029

PHILLIPS NO. 2 LEASE (continued) TOWNS TIP 25 NORTH, RANGE 12 WEST, NMPM SW/4 and E/2 Section 9: Section 10: N/2 and SE/4 All Section 15: Section 22: w12 MUDGE NO. 1 LEASE TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM Section 27: Section 26: 5/2 Section 27: MUDGE NO. 2 LEASE TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM Section 34: Section 4: Section 9: MUDGE NO. 4 LEASE All TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM Section 16: Section 21: A11 Section 28: A11Section 33: All ANDERSON LEASE TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM Section 34: MOHR ASSIGNMENT LEASE Section 9: TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM Section 15: TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM Section 3. Lote 1 2 3 and 4 C/2 N/2 and C MIMS LEASE Section 22: NURITI, RANGE 12 WEST, NMPM Lote 1, 2, 3 and 4, S/2 N/2, and SE/4

Section 3:

-5-CASE NO. 1275 Order No. R-1029

CARSON UNIT AREA

TOWNSHIP 25 NORTH, RANGE 11 WEST, NMPM All of Sections 5 to 8, inclusive; 17 to 20, inclusive; and 29 to 32, inclusive;

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM All Section 1; All Section 2; All Sections 11 through 14, inclusive; All Sections 23 through 26, inclusive; All Section 35; All Section 36:

All in San Juan County, New Mexico.

PROVIDED, HOWEVER, That each well connected to each of the above-described systems shall be individually tested at least once a month.

PROVIDED, FURTHER, That each of the positive displacement flow meters shall be calibrated at intervals to be prescribed by the Commission and a report of said calibrations filed with the Commission.

PROVIDED, FURTHER, That each of the above-described systems shall be so equipped as to prevent the undue waste of oil or gas in the event of malfunction or line break.

PROVIDED FURTHER, that the production from any well in the Carson Unit Area which has not been admitted to the participating area within ninety days after the date of its completion shall have its oil measured in tanks or metered constantly by means of positive displacement meters prior to being commingled with oil production from the participating area of the Carson Unit Area. The Secretary-Director of the Commission shall have the authority to extend the foregoing ninety-day limitation in order to prevent undue hardship.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

SEAL

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF SURRAY MID-CONTINENT OIL COMPANY FOR AN ORDER AUTHORIZING AN AUTOMATIC CUSTORN TRANSFER SYSTEM AND FOR PERMISSION TO PRODUCE MORE THAN 16 WELLS IN A COMMON TANK BATTERY IN THE CENTRAL BISTI UNIT, BISTI FIELD, SAN JUAN COUNTY, NEW MEXICO.

CASE No. 18/1

APPLICATION

TO: THE HONORABLE OIL CONSERVATION COMMISSION

Comes now Sunray Mid-Continent Oil Company and respectfully alleges and states as follows:

1. That it is the unit operator of the Central Bisti Unit within the defined limits of the Bisti-Lower Gallup Oil Pool, San Juan County, New Mexico, comprising the following acreage:

and the second s	
TOWNSHIP 25 NORTH,	ANGE 12 WEST, NMPM
Section 3:	SW/4·
Sections 4 and 5:	All.
Section 6:	All
Sections 7,8, and 9	:All
Section 10:	NW/4, W/2 SW/4 W/2 NW/4
Section 15:	₩/2 NW/4
Section 16:	All
Section 17:	N/2, SE/4, N/2 SW/4, and SE/4 SW/4 NE/4, N/2 NW/4, and N/2 SE/4
Section 18:	NE/4, $N/2$ $W/4$, and $N/2$ $SE/4$
Section 20:	NE/4 and NE/4 NM/4
Section 21:	N/2, N/2 SE/4, and NE/4 SW/4
TOWNSHIP 26 NORTH,	RANGE 12 WEST, NMPM
Section 31:	S/2 N/2, and S/2
Section 32:	$S/2$, and $S/2 N/2$ (\setminus)
Section 33:	N/2, N/2 SE/4, and NE/4 SW/4 RANGE 12 WEST, NMPM S/2 N/2, and S/2 S/2, and S/2 N/2(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

- 2. That in the development of the above described Unit 52 producing wells have been drilled and are presently producing oil from the Lower Gallup formation; that all of said wells now completed and those that may thereafter completed in said Unit can be efficiently produced into a common tank battery.
 - 3. That Applicant proposes to install a lease automatic custody

GILBERT, WHITE AND GILBERT ATTORNEYS AT LAW SANTA FE, NEW MEXICO

trensfer system for the production from the Lower-Gallup Oil Pool wells on said Unit which will result in the more effective and efficient handling of the oil produced therefrom.

WHEREFORE, Applicant prays that this matter be set for hearing before an Examiner; that notice be given as required by law and that upon the evidence adduced Applicant be granted the relief sought herein.

SURRAY MID-CONTINENT OIL COMPANY HI WILLIAM R. LOAR

BY GILBERT, WHITE AND GILBERT

icant's Attorneys, P. O. Box 787

Santa Fe, New Mexico

OIL CONSERVATION COMMISSION SANIA FE, NEW MEXICO

	Date
CASE	/8/7 Hearing Date //-24-19
	My recommendations for an order in the above numbered cases are as follows:
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2.	Meter the Hall R. Reese + ans Kickeman
	Meter the Hall R. Reese olland Nucleman 80 acre leuse separetity Consists g 5/2 5 W/4 sec. 32 - 26 N-12 W.
	5/2 5 W/4 sec. 32-26/0-12
3,	allow either P.D. or Divorp meters. Mouthan 16 wells, (52 wells)
4.	Mouthan 16 wells, (52 wells)
5	Quitain in the Central Bisti