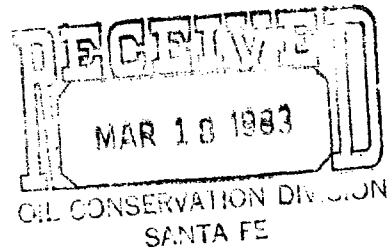


505 MARQUETTE NW SUITE 815
ALBUQUERQUE, NEW MEXICO 87102



MAR 18 1983

*Case
1666*

Hixon Development Company
Attention: Aldrich L. Kuchera
P. O. Box 2810
Farmington, New Mexico 87401

Gentlemen:

An ~~approved~~ copy of your 1983 Plan of Development for the **Central Bisti Lower Gullip unit** area, San Juan County, New Mexico is enclosed. Such plan, proposing to drill five infill wells and convert eight wells to active water injection status, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

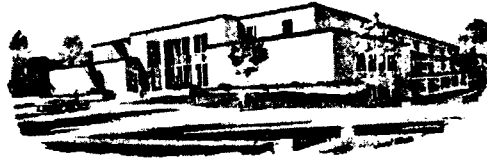
FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

cc:
NMOCD ✓
Comm. of Public Lands

State of New Mexico

#1666



JIM BACA
COMMISSIONER

Commissioner of Public Lands
January 26, 1984

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

Express Mail Delivery Use:
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Hixon Development Company
P.O. Box 2810
Farmington, New Mexico 87499

Re: 1984 Plan of Development and Operation
Central Bisti Lower Gallup Unit
San Juan County, New Mexico

ATTENTION: Mr. Aldrich L. Kuchera

Gentlemen:

The Commissioner of Public Lands has this date approved your 1984 Plan of Development and Operation for the Central Bisti Lower Gallup Unit Agreement, San Juan County, New Mexico. Such plan proposes to drill 11 infill wells and convert 8 wells to an active injection status. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

Very truly yours,

JIM BACA
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director
Oil and Gas Division
AC 505/827-5744

JB/RDG/pm
encls.
cc:

OCD-Santa Fe, New Mexico
BLM-Albuquerque, New Mexico
BLM-Roswell, New Mexico

State of New Mexico



JIM BACA
COMMISSIONER



Commissioner of Public Lands

January 12, 1983

P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

Hixon Development Company
P. O. Box 2810
Farmington, New Mexico 87401

#1666

Re: 1983 Plan of Development and Operation
Central Bisti Lower Gallup Unit
San Juan County, New Mexico

ATTENTION: Mr. Aldrich L. Kuchera

Gentlemen:

The Commissioner of Public Lands has this date approved your 1983 Plan of Development and Operation for the Central Bisti Lower Gallup Unit, San Juan County, New Mexico. Such plan calls for the drilling of the CBU Infill Wells 82, 83, 84, 85 and 86. It is also planned to increase your waterflood injection capacity by converting 8 wells to an active injection status during the latter part of 1983. Our approval is subject to like approval by the Bureau of Land Management and the New Mexico Oil Conservation Division.

Enclosed is an approved copy for your files.

Your filing fee in the amount of Three (\$3.00) Dollars has been received.

Very truly yours,

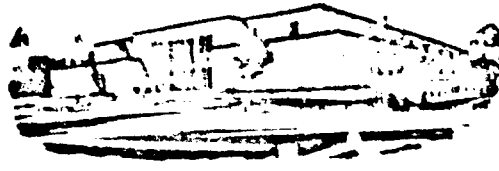
JIM BACA
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director
Oil and Gas Division
AC 505/827-5744

JB/RDG/pm
encls.

cc: OCD-Santa Fe, New Mexico
 BLM-Albuquerque, New Mexico
 Administration

State of New Mexico



Commissioner of Public Lands

December 4, 1981

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

ALEX J. ARMIJO
COMMISSIONER

Hixon Development Company
P. O. Box 2810
Farmington, New Mexico 87401

1666 (?)

Re: 1982 Plan of Development and Operation
Central Bisti Lower Gallup Unit
San Juan County, New Mexico

ATTENTION: Mr. Aldrich L. Kuchera

Gentlemen:

The Commissioner of Public Lands has this date approved your 1982 Plan of Development and Operation for the Central Bisti Lower Gallup Unit, San Juan County, New Mexico. Such plan proposes the drilling of wells 74 and 75 originally scheduled for the latter part of 1981 and also drill CBU infill wells 76, 77, 78, 79, 80 and 81. Our approval is subject to like approval by the United States Geological Survey and the New Mexico Oil Conservation Division.

Your letter dated November 18, 1981, failed to include a three (\$3.00) Dollar filing fee. Your \$3.00 filing fee has not been received.

Enclosed is one approved copy for your files.

Very truly yours,

ALEX J. ARMIJO
COMMISSIONER OF PUBLIC LANDS

BY:
RAY D. GRAHAM, Director,
Oil and Gas Division
AC 505/827-2748

AJA/RDG/pm
encls.
cc:

OCD-Santa Fe, New Mexico
USGS-Albuquerque, New Mexico

#1666

RECEIVED
APR - 8 1988
OIL CONSERVATION DIVISION
SANTA FE

MAR 31 1988

Central Bisti Unit (POD)

Hixon Development
Attn: Aldrich L. Kuchera
P.O. Box 2810
Farmington, NM 87499

Gentlemen:

One approved copy of your 1988 Plan of Development for the Central Bisti Unit area, San Juan County, New Mexico is enclosed. Such plan, proposing no further development for the Central Bisti Unit during 1988 was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Starting with the 1989 Plan of Development, please provide the following information in your annual Plan of Development.

1. A summary of operations for the past year which should include up-to-date maps showing the latest geologic interpretations, all well and participating area boundaries. Should there be no changes from one year to another, reference may be made to the most recent map submitted.
2. A list showing the status of all wells.
3. Performance curves covering the productive life of each horizon under a participating area, including injectivity curves.
4. Your plans for development within the unit area for the next year.
5. Pertinent data as to the effectiveness of the enhanced recovery project (if applicable). This information should include data on current and cumulative water injection rates, current and cumulative water, gas, and oil production and current water-oil ratios. A short discussion as to the general progress of the flood and any significant changes in any phase of the project should also be included.

All plans of development are to be filed in triplicate.

If you have any questions, please contact Gail Keller at the above address or telephone (505 761-4503).

Sincerely,

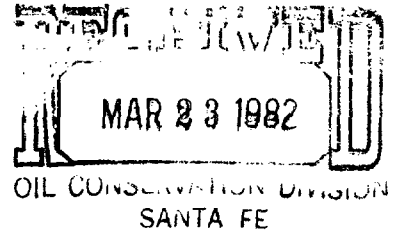
(ORIG. SCD.) DENNIS B. UMHLER

For District Manager

Enclosure
Enclosure

Comm. of Pub. Lands, Santa Fe
015:GKeller:ag:3/30/88:404IM

cc: NMOCD, Santa Fe
NM-019



MAR 22 1982

16 66

Hixon Development Company
Attention: Aldrich L. Kuchera
P. O. Box 2810
Farmington, New Mexico 87401

Gentlemen:

An approved copy of your 1982 Plan of Development for the Central Bisti Lower Gallup unit area, San Juan County, New Mexico, is enclosed. Such plan, proposing to drill eight infill wells in the northwest portion of the reservoir and convert six wells to injection wells, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) JAMES W. SHELTON

FOR Gene F. Daniel
Deputy Minerals Manager
Oil and Gas

Enclosure

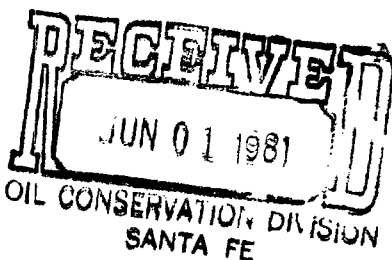
cc:
Comm of Public Lands, Santa Fe
~~NMOCD, Santa Fe~~
DS, Farmington (w/encl)

South Central Region

P. O. Box 26124

Albuquerque, New Mexico 87125

1666



100-100

Hixon Development Company
Attention: Aldrich L. Kuchera
P. O. Box 2810
Farmington, New Mexico 87401

Gentlemen:

An approved copy of your 1981 plan of development for the Central Bisti Lower Gallup unit area, San Juan County, New Mexico is enclosed. Such plan, proposing to drill two wells to satisfy water flood requirements, and to return 5 temporarily abandoned/shut in unit wells to pumping status, was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

Gene F. Daniel
Deputy Conservation Manager
Oil and Gas

Enclosure

cc:

Com. of Pub. Lands, Santa Fe

— NMOCD, Santa Fe

DS, Farmington (w/enclosure)--white tissue

State of New Mexico



Commissioner of Public Lands

ALEX J. ARMIJO
COMMISSIONER

June 29, 1981

1666
P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

Hixon Development Company
P. O. Box 2810
Farmington, New Mexico 87401

Re: 1981 Plan of Development and Operation
Central Baisti Lower Gallup Unit
San Juan County, New Mexico

ATTENTION: Mr. Aldrich L. Kuchera

Gentlemen:

The Commissioner of Public Lands has this date approved your 1981 Plan of Development and Operation for the Central Bisti Lower Gallup Unit, San Juan County, New Mexico. Such plan proposes the drilling of wells 74 and 75 in order to satisfy waterflood requirements, also you plan to return 5 temporarily abandoned/shut in Unit wells to pump. Our approval is subject to like approval by the United States Geological Survey and the New Mexico Oil Conservation Division.

Enclosed is one approved copy of the plan.

Your Three (\$3.00) Dollar filing fee has been received.

Very truly yours,

ALEX J. ARMIJO
COMMISSIONER OF PUBLIC LANDS

BY:

FLOYD O. PRANDO, Assistant Director
Oil and Gas Division
AC 505-827-2748

AJA/FOP/s
encls.

cc: OCD-Santa Fe, New Mexico
USGS-Albuquerque, New Mexico

PLAN OF DEVELOPMENT - 1981
CENTRAL BISTI LOWER GALLUP UNIT
SAN JUAN COUNTY, NEW MEXICO

RECEIVED

JUN 26 9 30 AM '81

General

The Central Bisti Lower Gallup Unit was formed July 1959 with the purpose of enacting secondary recovery operations. Sunray DX Oil Company was elected Unit operator.

STATE LAND OFFICE
SANTA FE, N. M.

On January 15, 1971, Sunray DX (Sun Oil) and its partners transferred their Unit working interest to Weldon S. Guest and I. J. Wolfson. Guest and Wolfson succeeded Sun Oil as Unit operator. Guest and Wolfson in turn transferred their interest in the Unit to Hixon Development Company April 1, 1971.

COPY

Hixon Development Company has operated the Central Bisti Lower Gallup Unit from April 1, 1971 through the present.

Current Operations

Current well status, production data and waterflood status are as follows:

Well Status

Gallup Oil Producers - 31
Inactive Oil Wells - 23
Water Injectors (active) - 3
Water Injectors (shut in) - 6

Oil, Gas Production and Water Injection

Oil and water production during the first Quarter 1981 are averaging 5746 BOPM and 26,698 BWPM.

Gas Production and Water Injection during this period are averaging 2192 MCFM and 25,050 BWPM.

Cumulative Oil, Water, Gas Produced and Water Injected

(Since Unitization and through December 1980)

Cumulative Oil Produced - 5,276,468 BO
Cumulative Water Produced - 9,350,398 BW
Cumulative Gas Produced - 15,381,605 MCF
Cumulative Water Injected - 25,733,243 BW

RECEIVED
JUN 26 9 30 AM '81
STATE LAND OFFICE
SANTA FE, N.M.

Waterflood Status

The Central Bisti Lower Gallup Unit Waterflood is a commercial secondary recovery project. During the past 8 years, temporarily abandoned wells gradually returned to pump as dictated by waterflood requirements.

Plan of Development 1981

During 1981 it is proposed to drill CBU Wells 74 and 75 in order to satisfy waterflood requirements. The two well APD's are pending. We also plan to return 5 temporarily abandoned/shut in Unif wells to pump.

Plan of Development

Approved: U. S. Geological Survey

By: _____

Title: _____

Date: _____

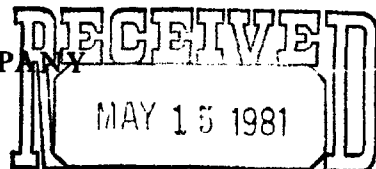
MAY 26 1981
Gene F. Daniel
Deputy Conservation Manager, O&G
South Central Region

Approved June 29, 1981
Alex J. Armijo
COMMISSIONER OF PUBLIC LANDS

HIXON DEVELOPMENT COMPANY

P. O. BOX 2810

FARMINGTON, NEW MEXICO 87401



OIL CONSERVATION DIVISION
SANTA FE

May 12, 1981

Mr. James W. Sutherland
Oil and Gas Supervisor
U. S. Geological Survey
P.O. Box 26124
Albuquerque, New Mexico 87125

1666

Subject: 1981 Plan of Development and Operation
Central Bisti Lower Gallup Unit
San Juan County, New Mexico

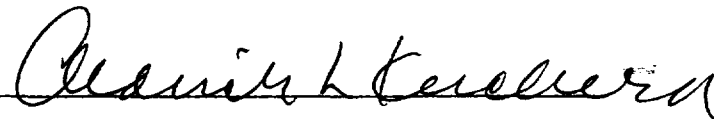
Dear Mr. Sutherland:

The Oil and Gas Supervisor of the Farmington District has informed us by letter that the Applications for Permit to Drill proposed Unit Wells 74 and 75 are being held in abeyance pending approval of the subject attached Plan of Development and Operation.

Hixon Development Company is the Central Bisti Lower Gallup Unit operator with 100% working interest. Because we have drilling rig commitments please give this matter your earliest approval.

Very truly yours,

Hixon Development Company

by 

Aldrich L. Kuchera
Vice President

ALK:cb

Attachment

cc: Commissioner of Public Lands
State of New Mexico
P.O. Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Division
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

May 12, 1981

Page 2

cc: Oil and Gas Supervisor
U. S. Geological Survey
Drawer 600
Farmington, New Mexico 87501

Hixon Development Company
341 Milam Building
San Antonio, Texas 78205

PLAN OF DEVELOPMENT - 1981
CENTRAL BISTI LOWER GALLUP UNIT
SAN JUAN COUNTY, NEW MEXICO

General

The Central Bisti Lower Gallup Unit was formed July 1, 1959 with the purpose of enacting secondary recovery operations. Sunray DX Oil Company was elected Unit operator.

On January 15, 1971, Sunray DX (Sun Oil) and its partners transferred their Unit working interest to Weldon S. Guest and I. J. Wolfson. Guest and Wolfson succeeded Sun Oil as Unit operator. Guest and Wolfson in turn transferred their interest in the Unit to Hixon Development Company April 1, 1971.

Hixon Development Company has operated the Central Bisti Lower Gallup Unit from April 1, 1971 through the present.

Current Operations

Current well status, production data and waterflood status are as follows:

Well Status

Gallup Oil Producers - 31
Inactive Oil Wells - 23
Water Injectors (active) - 3
Water Injectors (shut in) - 6

Oil, Gas Production and Water Injection

Oil and water production during the first Quarter 1981 are averaging 5746 BOPM and 26,698 BWPM.

Gas Production and Water Injection during this period are averaging 2192 MCFM and 25,050 BWPM.

Cumulative Oil, Water, Gas Produced and Water Injected

(Since Unitization and through December 1980)

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Cumulative Water Produced - 9,350,398 BW
Cumulative Gas Produced - 15,381,605 MCF
Cumulative Water Injected - 25,733,243 BW

Waterflood Status

The Central Bisti Lower Gallup Unit Waterflood is a commercial secondary recovery project. During the past 8 years, temporarily abandoned and shut in wells have been gradually returned to pump as dictated by waterflood requirements.

Plan of Development 1981

During 1981 it is proposed to drill CBU Wells 74 and 75 in order to satisfy waterflood requirements. The two well APD's are pending. We also plan to return 5 temporarily abandoned/shut in Unit wells to pump.

Plan of Development

Approved: U. S. Geological Survey

By: _____

Title: _____

Date: _____

SUNRAY MID-CONTINENT OIL COMPANY

P. O. Box 2692
Denver 1, Colorado

1960 JUN 14 11 14

Airmail

June 13, 1960

The Commissioner of Public Lands
State Land Office
Capitol Building
Santa Fe, New Mexico

Cost # 1166

Attention: Mr. Ted Bilberry
Supervisor, Oil and Gas Division

Dear Sir:

Re: Central Bisti Lower Gallup
Sand Unit Area
San Juan County, New Mexico

In compliance with the requirement set forth in your letter of May 16, 1960 in connection with our pending application for approval of the commitment of Tract No. 10 to the Unit Agreement for the subject Unit, there is transmitted herewith Ratification and Joinder to the Unit Agreement executed by J. Felix Hickman as record owner of New Mexico State Lease B-11370-31, which ratification is executed as of March 30, 1960.

We trust that the application is now complete in all respects and can be approved to be effective as of April 1, 1960. As stated in my letter of May 10, 1960, it will be greatly appreciated if your approval of our application dated March 24, 1960 is evidenced by formal certificate of approval executed by both the Commissioner of Public Lands and the New Mexico Oil Conservation Commission, and it is requested that six (6) copies of the Certificate of Approval be transmitted to Mr. John Anderson, Supervisor, U. S. Geological Survey, at Roswell, New Mexico.

Very truly yours,

SUNRAY MID-CONTINENT OIL COMPANY

NEP:JD
cc: (per attached sheet)

Enclosure: 1

Original Signed By
Margaret E. Proctor
By
Norbert E. Proctor
Attorney for Applicant

The Commissioner of Public Lands -2-

June 13, 1960

cc: Mr. John Anderson
Regional Supervisor
United States Geological Survey
Roswell, New Mexico
Enclosures: 6

~~The New Mexico Oil Conservation Commission~~
125 Mabry Hall
Capitol Building
Santa Fe, New Mexico
Enclosure: 1

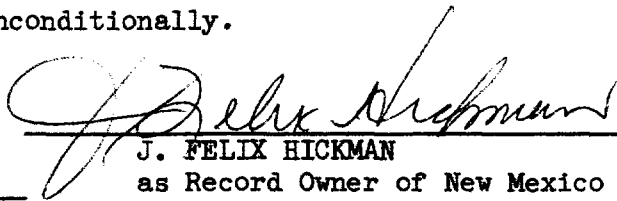
RATIFICATION AND JOINDER

Ratification and Joinder to 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, dated April 2, 1959.

For the consideration stated in the above described Unit Agreement, the undersigned, J. FELIX HICKMAN, as the record owner of Assignment No. 31, New Mexico State Lease B-11370 covering Tract 10 of the Unit Area as enlarged of the Central Bisti Lower Gallup Sand Unit, hereby ratifies, confirms and joins in the execution of said Unit Agreement which is incorporated and made a part hereof to the same extent and effect as if the undersigned had executed the original Unit Agreement.


The undersigned acknowledges receipt of a copy of said Unit Agreement and acknowledges that no representations not incorporated herein or in said Unit Agreement have been made to the undersigned and that this instrument has been signed and delivered unconditionally.

Date March 30, 1960



J. FELIX HICKMAN
as Record Owner of New Mexico
State Lease B-11370-31
Covering Tract 10

Date March 30, 1960



MERLE HICKMAN, his wife

Address 4401 Constitution, N.E.

Albuquerque, New Mexico

STATE OF New Mexico)
) SS
COUNTY OF Bernalillo)

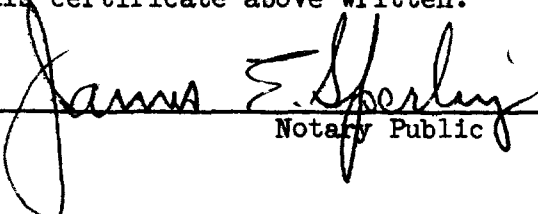
On this 30th day of March, 19 60, before me personally appeared J. Felix Hickman and Merle Hickman, his wife

to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires:

January 22, 1963



Notary Public

APPLICATION FOR APPROVAL OF
SUBSEQUENT JOINDERS AND COM-
MITMENT OF TRACT No. 10 TO
THE UNIT AGREEMENT FOR THE
CENTRAL BISTI LOWER GALLUP
SAND UNIT AREA, SAN JUAN COUNTY,
NEW MEXICO, AND FOR APPROVAL
OF REVISED EXHIBITS "A", "B"
AND "C" OF SAID UNIT AGREEMENT.

To: The Director
United States Geological Survey
Department of the Interior
Washington 25, D.C.

Through Mr. John Anderson, Supervisor
United States Geological Survey
Roswell, New Mexico

To: The Commissioner of Public Lands
State Land Office
Capitol Building
Santa Fe, New Mexico

To: The New Mexico Oil Conservation Commission
125 Mabry Hall
Capitol Building
Santa Fe, New Mexico

Comes now SUNRAY MID-CONTINENT OIL COMPANY, a Delaware corporation of Tulsa, Oklahoma, as Unit Operator under that certain Unit Agreement for the development and operation of the Central Bisti Lower Gallup Sand Unit Area, approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959; by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959; and approved by the Acting Director of the United States Geological Survey on June 26, 1959 (No. 14-08-001-6090); and, pursuant to the provisions of Section 28 thereof providing for the subsequent joinder and commitment to the Unit Area of oil and gas interests not committed as of the effective date of said Unit Agreement, respectfully submits for the approval of the Regional Supervisor of the United States Geological Survey, Roswell, New Mexico, and the Commissioner of Public Lands of the State of New Mexico, this application for approval of subsequent joinders and commitment to the

Unit Area the following described lands situated in San Juan County, New Mexico, to wit:

South Half (S/2) of Southwest Quarter (SW/4) of Section Thirty-two (32), Township Twenty-six (26) North, Range Twelve (12) West,

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit, and are identified on Revised Exhibit "B" of the Unit Agreement as Tract No. 10.

In support of this application, there is submitted and made a part hereof the following:

1. Ratifications and Joinders executed by J. Felix Hickman, Merle Hickman, Carroll T. Payne, and the First National Bank of Albuquerque as Trustee for Jeffrey Lee Hickman, which parties comprise all of the overriding royalty interests in the lands above described, identified as Tract No. 10.
2. Subsequent Joinders and Commitment of Tract No. 10 to the Unit Agreement for the Central Bisti Lower Gallup Sand Unit Area, executed by Sunray Mid-Continent Oil Company, Phillips Petroleum Company, Amerada Petroleum Corporation, Southern Union Gas Company, Pan American Petroleum Corporation, El Paso Natural Gas Products Company and Shell Oil Company, which parties comprise all of the owners of the working interest in the lands above described, identified as Tract No. 10.
3. Subsequent Joinder and Commitment of Tract No. 10 to the Unit Operating Agreement for the Central Bisti Lower Gallup Sand Unit Area executed by Sunray Mid-Continent Oil Company, Phillips Petroleum Company, Amerada Petroleum Corporation, Southern Union Gas Company, Pan American Petroleum Corporation, El Paso Natural Gas Products Company and Shell Oil Company.

Section 11, of said Unit Agreement provides, among other things, as follows:

"If, subsequent to the effective date of this Agreement, any additional tract within the initial participating area becomes committed hereto under the provisions of Section 28 hereof, * * * , Unit Operators shall revise Exhibit "C" to show the new percentage participations of the committed tracts in the initial participating area, which revised Exhibits shall, upon its filing and approval by the Director, Commissioner and Commission, supersede

as of its effective date, the last previously effective Exhibit "C".

Accordingly, there is also submitted for approval by the Director of the United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico, and the Oil Conservation Commission of the State of New Mexico, Revised Exhibit "C", showing the percentage participation of all committed tracts in the Unit Area, including the said Tract No. 10. Similarly, there is submitted herewith for approval Revised Exhibits "A" and "B" of the Unit Agreement, which are changed only to the extent necessary to reflect the current ownership of the working interest in the said Tract No. 10.

WHEREFORE, the undersigned applicant respectfully requests that the Regional Supervisor, United States Geological Survey, at Roswell, New Mexico, and the Commissioner of Public Lands of the State of New Mexico approve, effective as of April 1, 1960, the subsequent Joinder and Commitment of the lands hereinabove described, identified as Tract No. 10 to the Unit Agreement for the development and operation of the Central Bisti Lower Gallup Sand Unit Area. Applicant further respectfully requests the approval by the Director, United States Geological Survey, the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico, of the Revised Exhibits "A", "B" and "C" of the Unit Agreement as filed herewith.

Dated this 24th day of March, 1960.

SUNRAY MID-CONTINENT OIL COMPANY

By N. E. Proctor, Jr.
N. E. Proctor, Jr.
Attorney for Applicant

RATIFICATION AND JOINDER

Ratification and joinder to 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, dated April 7, 1959.

For the consideration stated in the above described Unit Agreement, the undersigned hereby ratifies, confirms and joins in the execution of said Unit Agreement which is hereby incorporated herein and made a part hereof, to the same extent and effect as if the undersigned had executed the original of said Unit Agreement.

It is agreed that if pursuant to the Unit Agreement the Unit Area and the Participating Area are enlarged to include the W/2 SW/4 of Section 10 and the W/2 NW/4 of Section 15-T25N-R12W, San Juan County, New Mexico, the interest of the undersigned shall be thereupon and thereby committed to the enlarged unit.

The undersigned acknowledges receipt of a copy of said Unit Agreement and acknowledges that no representations not incorporated herein or in said Unit Agreement have been made to the undersigned and that this instrument has been signed and delivered unconditionally.

Date Jan. 18, 1960

OVERRIDING ROYALTY OWNERS
J. Felix Hickman
J. FELIX HICKMAN
Merle Hickman
MERLE HICKMAN
Address 4401 Constitution, N.E.
Albuquerque, N.M.

Date Jan. 18, 1960

Carroll T. Payne
CARROLL T. PAYNE
Edith H. Payne
MRS. Edith H. PAYNE
Address 1018 Idlewild Ln., S.E.
Albuquerque, N.M.

Date _____

ATTEST:

FIRST NATIONAL BANK OF ALBUQUERQUE
AS TRUSTEE FOR JEFFERY LEE HICKMAN
Address _____

Secretary

STATE OF N.M.)
COUNTY OF Bern.) SS

On this 18th day of Jan., 1960, before me personally appeared I. FELIX HICKMAN AND MERLE HICKMAN, HUSBAND AND WIFE, to me known to be the persons described in and who executed the foregoing instrument, and acknowledges that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: 7 12 61
[Signature]
Notary Public

STATE OF N.M.)
COUNTY OF Bern.) SS

On this 18th day of Jan., 1960, before me personally appeared CARROLL T. PAYNE AND Mrs. Edith Payne, HUSBAND AND WIFE, to me known to be the persons described in and who executed the foregoing instrument, and acknowledges that they executed the same as their free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: 7 12 61
[Signature]
Notary Public

STATE OF _____)
COUNTY OF _____) SS

On this day of _____, 19 , before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of FIRST NATIONAL BANK OF ALBUQUERQUE, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My commission expires: _____
Notary Public

RATIFICATION AND JOINDER

Ratification and joinder to 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, dated April 2, 1959.

For the consideration stated in the above described Unit Agreement, the undersigned hereby ratifies, confirms and joins in the execution of said Unit Agreement which is hereby incorporated herein and made a part hereof, to the same extent and effect as if the undersigned had executed the original of said Unit Agreement.

It is agreed that if pursuant to the Unit Agreement the Unit Area and the Participating Area are enlarged to include the W/2 SW/4 of Section 10 and the W/2 NW/4 of Section 15-T25N-R12W, San Juan County, New Mexico, the interest of the undersigned shall be thereupon and thereby committed to the enlarged unit.

The undersigned acknowledges receipt of a copy of said Unit Agreement and acknowledges that no representations not incorporated herein or in said Unit Agreement have been made to the undersigned and that this instrument has been signed and delivered unconditionally.

Date February 3, 1960

ATTEST:

[Signature]
Secretary asst. Cashier

Date _____

Date _____

ATTEST:

Secretary

OVERRIDING ROYALTY OWNERS
Renneth A. Krumm, Trust Officer
FIRST NATIONAL BANK OF ALBUQUERQUE
AS TRUSTEE FOR JEFFREY LEE HICKMAN
Address _____

Address _____

Address _____

STATE OF _____)
COUNTY OF _____) SS

On this _____ day of _____, 19____, before me personally appeared _____

to me known to be the person described in and who executed the foregoing instrument, and acknowledges that he executed the same as _____ free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: _____

Notary Public

STATE OF _____)
COUNTY OF _____) SS

On this _____ day of _____, 19____, before me personally appeared _____

to me known to be the person described in and who executed the foregoing instrument, and acknowledges that he executed the same as _____ free act and deed.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate above written.

My commission expires: _____

Notary Public

STATE OF New Mexico)
COUNTY OF Bernalillo) SS

On this 3rd day of February, 1960, before me appeared Rennett A. Kuban, to me personally known, who, being by me duly sworn, did say that he is Treasurer of The First National Bank of Albuquerque, a corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said Rennett A. Kuban acknowledged said instrument to be the free act and deed of said corporation.

My commission expires: _____

Dora L. Warner
Notary Public

SUBSEQUENT JOINDER AND COMMITMENT
BY SUNRAY MID-CONTINENT OIL COMPANY,
ET AL. OF TRACT NO. 10 TO THE UNIT
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "Unit Agreement for the Development and Operation of the Central Bisti Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico" has been executed by various persons, firms, and corporations, some styled "Working Interest Owners" and other styled "Royalty Interest Owners" and "Overriding Royalty Owners", which affects lands, mineral leases and mineral, royalty and overriding royalty and other similar interests in the Unit Area as delineated in said agreement and exhibits attached thereto; and

WHEREAS, reference is made for all purposes to said Unit Agreement dated April 2, 1959 and approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959, by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959 and approved by the Acting Director of the United States Geological Survey on June 26, 1959, designated No. 14-08-001-6090; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Agreement desire to commit to the Unit Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in Revised Exhibit "B" of the Unit Agreement and to ratify and become bound by said agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Agreement the undersigned do hereby commit to the Unit Agreement all of the undersigned's right, title and interest in and to the lands described as the $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 32, T. 26 N., R. 12 W., San Juan County, New Mexico,

which lands are identified as Tract No. 10 on Revised Exhibit "B" of the Unit Agreement, and do hereby adopt, ratify and confirm said Unit Agreement all of the terms and provisions which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby unitize the rights and interests of the undersigned in and to the lands within the Unit Area as originally delineated in said agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in said agreement, subject to all of the terms and provisions thereof.

The undersigned further hereby consent to the joinder by all Overriding Royalty Owners and other owners of interest, if any, in said Tract No. 10.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

Murva Renfrow
Assistant Secretary

By R. E. Jones ^{NEB}
Vice President _{Bill}

Date of Signature:


March 16, 1960

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

Leola Tolow
Secretary

By L. E. Johnson
Vice President 

Date of Signature:

March 8, 1960

Dartmouth, Okla
Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF Oklahoma)
COUNTY OF Washington) SS.

On this 8 day of March, 1960, before me appeared L. E. FITZGERALD, to me personally known, who, being by me duly sworn, did say that he is VICE PRESIDENT of Phillips Petroleum Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said VICE PRESIDENT acknowledged said instrument to be the free act and deed of said corporation.

Lance J. McCallan
Notary Public

My commission expires:
Oct. 19, 1962

STATE OF Oklahoma)
COUNTY OF Tulsa) SS.

On this 16th day of March, 1960, before me appeared R. E. Fass, to me personally known, who, being by me duly sworn, did say that he is Vice President of Sunray Mid-Continent Oil Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said R. E. Fass acknowledged said instrument to be the free act and deed of said corporation.

Ronna Jean Meyer
Notary Public

My commission expires:
October 21, 1961.

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My commission expires: _____ Notary Public

SUBSEQUENT JOINDER AND COMMITMENT
BY SUNRAY MID-CONTINENT OIL COMPANY,
ET AL. OF TRACT NO. 10 TO THE UNIT
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "Unit Agreement for the Development and Operation of the Central Bisti Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico" has been executed by various persons, firms, and corporations, some styled "Working Interest Owners" and other styled "Royalty Interest Owners" and "Overriding Royalty Owners", which affects lands, mineral leases and mineral, royalty and overriding royalty and other similar interests in the Unit Area as delineated in said agreement and exhibits attached thereto; and

WHEREAS, reference is made for all purposes to said Unit Agreement dated April 2, 1959 and approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959, by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959 and approved by the Acting Director of the United States Geological Survey on June 26, 1959, designated No. 14-08-001-6090; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Agreement desire to commit to the Unit Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in Revised Exhibit "B" of the Unit Agreement and to ratify and become bound by said agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Agreement the undersigned do hereby commit to the Unit Agreement all of the undersigned's right, title and interest in and to the lands described as the $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 32, T. 26 N., R. 12 W., San Juan County, New Mexico,

which lands are identified as Tract No. 10 on Revised Exhibit "B" of the Unit Agreement, and do hereby adopt, ratify and confirm said Unit Agreement all of the terms and provisions which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby unitize the rights and interests of the undersigned in and to the lands within the Unit Area as originally delineated in said agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in said agreement, subject to all of the terms and provisions thereof.

The undersigned further hereby consent to the joinder by all Overriding Royalty Owners and other owners of interest, if any, in said Tract No. 10.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

| |
|----------------|
| APWD. A. P. C. |
| MAID |
| REMOVED |
| FILED |
| INDEXED |
| SEARCHED |
| SERIALIZED |
| FILED |

Handwritten initials and signatures are present over the stamp.

AMERADA PETROLEUM CORPORATION

By *E. H. McCollough*
Vice President **E. H. McCOLLOUGH**

ATTEST:

L. F. Meister
Assistant Secretary **L. F. MEISTER**

Date of Signature:

March 8, 1960.

AMERADA PETROLEUM CORPORATION

Address

SOUTHERN UNION GAS COMPANY

By _____
Vice President

ATTEST:

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

By _____
Vice President

ATTEST:

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF OKLAHOMA)
COUNTY OF TULSA) SS.

On this 8th day of March, 1960, before me appeared E. E. McCOLLONGH, to me personally known, who, being by me duly sworn, did say that he is President of AMERADA PETROLEUM CORPORATION, a Kilbourne corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said E. E. McCOLLONGH acknowledged said instrument to be the free act and deed of said corporation.

M. GENE CAMPBELL, NOTARY PUBLIC
TULSA, OKLAHOMA
MY COMMISSION EXPIRES: NOVEMBER 6, 1963

M. Gene Campbell
Notary Public
M. GENE CAMPBELL

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My commission expires:

Notary Public

SUBSEQUENT JOINDER AND COMMITMENT
BY SUNRAY MID-CONTINENT OIL COMPANY,
ET AL. OF TRACT NO. 10 TO THE UNIT
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "Unit Agreement for the Development and Operation of the Central Bisti Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico" has been executed by various persons, firms, and corporations, some styled "Working Interest Owners" and other styled "Royalty Interest Owners" and "Overriding Royalty Owners", which affects lands, mineral leases and mineral, royalty and overriding royalty and other similar interests in the Unit Area as delineated in said agreement and exhibits attached thereto; and

WHEREAS, reference is made for all purposes to said Unit Agreement dated April 2, 1959 and approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959, by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959 and approved by the Acting Director of the United States Geological Survey on June 26, 1959, designated No. 14-08-001-6090; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Agreement desire to commit to the Unit Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in Revised Exhibit "B" of the Unit Agreement and to ratify and become bound by said agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Agreement the undersigned do hereby commit to the Unit Agreement all of the undersigned's right, title and interest in and to the lands described as the $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 32, T. 26 N., R. 12 W., San Juan County, New Mexico.

which lands are identified as Tract No. 10 on Revised Exhibit "B" of the Unit Agreement, and do hereby adopt, ratify and confirm said Unit Agreement all of the terms and provisions which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby unitize the rights and interests of the undersigned in and to the lands within the Unit Area as originally delineated in said agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in said agreement, subject to all of the terms and provisions thereof.

The undersigned further hereby consent to the joinder by all Overriding Royalty Owners and other owners of interest, if any, in said Tract No. 10.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

APPROVED
H. H. [Signature]

PAN AMERICAN PETROLEUM CORPORATION

By [Signature]
Attorney-in-Fact

ATTEST:

[Signature]
Assistant Secretary

Date of Signature:

MAR 4 1960

PAN AMERICAN PETROLEUM CORPORATION
P. O. BOX 1410
FORT WORTH, TEXAS

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure;

By _____
Attorney-in-Fact

Address

STATE OF TEXAS)
COUNTY OF TARRANT) SS.

On this 1st day of March, 1960, before me appeared C. F. BEDFORD, to me personally known, who, being by me duly sworn, did say that he is Attorney-in-Fact of PAN AMERICAN PETROLEUM CORPORATION, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said C. F. BEDFORD acknowledged said instrument to be the free act and deed of said corporation.

Pauline A. Kay
Notary Public
in and for Tarrant County, Texas
PAULINE A. KAY

My commission expires:

June 1, 1961

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

SUBSEQUENT JOINDER AND COMMITMENT
BY SUNRAY MID-CONTINENT OIL COMPANY,
ET AL. OF TRACT NO. 10 TO THE UNIT
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "Unit Agreement for the Development and Operation of the Central Bisti Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico" has been executed by various persons, firms, and corporations, some styled "Working Interest Owners" and other styled "Royalty Interest Owners" and "Overriding Royalty Owners", which affects lands, mineral leases and mineral, royalty and overriding royalty and other similar interests in the Unit Area as delineated in said agreement and exhibits attached thereto; and

WHEREAS, reference is made for all purposes to said Unit Agreement dated April 2, 1959 and approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959, by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959 and approved by the Acting Director of the United States Geological Survey on June 26, 1959, designated No. 14-08-001-6090; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Agreement desire to commit to the Unit Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in Revised Exhibit "B" of the Unit Agreement and to ratify and become bound by said agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Agreement the undersigned do hereby commit to the Unit Agreement all of the undersigned's right, title and interest in and to the lands described as the $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 32, T. 26 N., R. 12 W., San Juan County, New Mexico.

which lands are identified as Tract No. 10 on Revised Exhibit "B" of the Unit Agreement, and do hereby adopt, ratify and confirm said Unit Agreement all of the terms and provisions which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby unitize the rights and interests of the undersigned in and to the lands within the Unit Area as originally delineated in said agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in said agreement, subject to all of the terms and provisions thereof.

The undersigned further hereby consent to the joinder by all Overriding Royalty Owners and other owners of interest, if any, in said Tract No. 10.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By C. M. Wedderburn
Vice President

Emma Bookout
Assistant Secretary

Date of Signature:

Address

| APPROVED | |
|----------|--------------------|
| Legal | <i>[Signature]</i> |
| Eng. | |
| Expl. | |
| Gen. | <i>[Signature]</i> |
| Geo. | <i>[Signature]</i> |

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

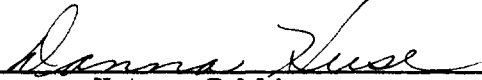
Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF Texas)
) SS.
COUNTY OF Dallas)

On this 4th day of March, 1960, before me appeared A. M. Wiederkehr, to me personally known, who, being by me duly sworn, did say that he is Vice President of Southern Union Gas Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said A. M. Wiederkehr acknowledged said instrument to be the free act and deed of said corporation.



Notary Public

My commission expires:
June 1, 1961

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

SUBSEQUENT JOINDER AND COMMITMENT
BY SUNRAY MID-CONTINENT OIL COMPANY,
ET AL. OF TRACT NO. 10 TO THE UNIT
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "Unit Agreement for the Development and Operation of the Central Bisti Lower Gallup Sand Unit Area, County of San Juan, State of New Mexico" has been executed by various persons, firms, and corporations, some styled "Working Interest Owners" and other styled "Royalty Interest Owners" and "Overriding Royalty Owners", which affects lands, mineral leases and mineral, royalty and overriding royalty and other similar interests in the Unit Area as delineated in said agreement and exhibits attached thereto; and

WHEREAS, reference is made for all purposes to said Unit Agreement dated April 2, 1959 and approved by the Commissioner of Public Lands of the State of New Mexico on June 18, 1959, by the Acting Assistant Area Director, Gallup Area Office, Bureau of Indian Affairs on June 22, 1959 and approved by the Acting Director of the United States Geological Survey on June 26, 1959, designated No. 14-08-001-6090; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Agreement desire to commit to the Unit Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in Revised Exhibit "B" of the Unit Agreement and to ratify and become bound by said agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Agreement the undersigned do hereby commit to the Unit Agreement all of the undersigned's right, title and interest in and to the lands described as the $S\frac{1}{2}$ $SW\frac{1}{4}$ Sec. 32, T. 26 N., R. 12 W., San Juan County, New Mexico.

which lands are identified as Tract No. 10 on Revised Exhibit "B" of the Unit Agreement, and do hereby adopt, ratify and confirm said Unit Agreement all of the terms and provisions which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby unitize the rights and interests of the undersigned in and to the lands within the Unit Area as originally delineated in said agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in said agreement, subject to all of the terms and provisions thereof.

The undersigned further hereby consent to the joinder by all Overriding Royalty Owners and other owners of interest, if any, in said Tract No. 10.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By Roland L. Hamblin JHB
Attorney-in-Fact

March 3, 1960

LAND DEPT.
EL PASO NATURAL GAS PRODUCTS COMPANY
P. O. BOX 1101
EL PASO, TEXAS

Address

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF TEXAS }
COUNTY OF EL PASO }

The foregoing instrument was acknowledged before me this 3rd day of March, 1960, by ROLAND L. HAMBLIN, Attorney-in-Fact of El Paso Natural Gas Products Company, a Texas corporation, on behalf of said corporation.

Witness my hand and official seal.

My Commission Expires:

MARY T. SAXON

Mary T. Saxon
Notary Public in and for El Paso County, State of Texas

SUBSEQUENT JOINDER AND COMMITMENT BY
SUNRAY MID-CONTINENT OIL COMPANY, ET AL.
OF TRACT NO. 10 TO THE UNIT OPERATING
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "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," has been executed by various persons, firms and corporations, referred to collectively in said agreement as "Working Interest Owners", which agreement provides for the operation and development of said unit, including (but not limited to) the secondary recovery operations in the Unit Area as delineated in the Unit Agreement and the exhibits attached thereto which are referred to and made a part of said Unit Operating Agreement; and

WHEREAS, reference is made for all purposes to said Unit Operating Agreement dated the 2d day of April, 1959 executed by the undersigned; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Operating Agreement desire to commit to the Unit Operating Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in revised Exhibit "B" of the Unit Agreement, and to ratify and become bound by said Unit Operating Agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Operating Agreement, the undersigned do hereby commit to the Unit Operating Agreement all of the undersigned's right, title and interest in and to the lands described as the South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$), Section Thirty-Two (32), Township Twenty-Six (26) North, Range Twelve (12) West, San Juan County, New Mexico, which lands are identified as Tract No. 10 on

Revised Exhibit "B" of the Unit Agreement and do hereby adopt, ratify and confirm said Unit Operating Agreement, all of the terms and provisions of which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby commit all of the rights and interests of the undersigned in and to the lands of the Unit Area as originally delineated in said Unit Agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in the Unit Operating Agreement, subject to all of the terms and provisions of the said Unit Operating Agreement.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

NEB

ATTEST:

Maura Paulson
Assistant Secretary

By R. E. Jones
Vice President *mso*
RMF

Date of Signature:

March 16, 1960

Address

PHILLIPS PETROLEUM COMPANY

APPROVED
Prod. Dept.

ATTEST:

Lee H. Stone
Secretary

By L. J. [Signature]
Vice President

Date of Signature:

March 8, 1960

Porterville Okla
Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF Oklahoma)
COUNTY OF Washington) SS.

On this 8 day of March, 1960, before me appeared L. E. FITZJARRALD, to me personally known, who, being by me duly sworn, did say that he is VICE PRESIDENT of Phillips Petroleum Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said VICE PRESIDENT acknowledged said instrument to be the free act and deed of said corporation.

Russell J. McLellan
Notary Public

My commission expires:
Oct. 19, 1962

STATE OF Oklahoma)
COUNTY OF Tulsa) SS.

On this 16th day of March, 1960, before me appeared R. E. Foss, to me personally known, who, being by me duly sworn, did say that he is Vice President of Summit Mid-Continent Oil Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said R. E. Foss acknowledged said instrument to be the free act and deed of said corporation.

Lonna Jean Meager
Notary Public

My commission expires:
October 21, 1961.

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My commission expires:

Notary Public

SUBSEQUENT JOINDER AND COMMITMENT BY
SUNRAY MID-CONTINENT OIL COMPANY, ET AL.
OF TRACT NO. 10 TO THE UNIT OPERATING
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "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," has been executed by various persons, firms and corporations, referred to collectively in said agreement as "Working Interest Owners", which agreement provides for the operation and development of said unit, including (but not limited to) the secondary recovery operations in the Unit Area as delineated in the Unit Agreement and the exhibits attached thereto which are referred to and made a part of said Unit Operating Agreement; and

WHEREAS, reference is made for all purposes to said Unit Operating Agreement dated the 2d day of April, 1959 executed by the undersigned; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Operating Agreement desire to commit to the Unit Operating Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in revised Exhibit "B" of the Unit Agreement, and to ratify and become bound by said Unit Operating Agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Operating Agreement, the undersigned do hereby commit to the Unit Operating Agreement all of the undersigned's right, title and interest in and to the lands described as the South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$), Section Thirty-Two (32), Township Twenty-Six (26) North, Range Twelve (12) West, San Juan County, New Mexico, which lands are identified as Tract No. 10 on

Revised Exhibit "B" of the Unit Agreement and do hereby adopt, ratify and confirm said Unit Operating Agreement, all of the terms and provisions of which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby commit all of the rights and interests of the undersigned in and to the lands of the Unit Area as originally delineated in said Unit Agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in the Unit Operating Agreement, subject to all of the terms and provisions of the said Unit Operating Agreement.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

| | |
|-------|------------|
| PAY | RMB |
| DATE | 3/8/60 |
| TIME | 11:00 AM |
| ROOM | 203 |
| BY | McCollough |
| OTHER | |
| CLASS | 44 |

AMERADA PETROLEUM CORPORATION

By E. H. McCollough
Vice President E. H. McCOLLOUGH

ATTEST:

L. F. Meister
Secretary L. F. MEISTER

Date of Signature:
March 8, 1960.

AMERADA PETROLEUM CORPORATION
BOX 2040
TULSA 2, OKLAHOMA
Address

SOUTHERN UNION GAS COMPANY

By _____
Vice President

ATTEST:

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

By _____
Vice President

ATTEST:

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF OKLAHOMA)
COUNTY OF TULSA) SS.

On this 8th day of March, 1960, before me appeared E. H. McCOLLOUGH, to me personally known, who, being by me duly sworn, did say that he is President of AMERADA PETROLEUM CORPORATION, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said E. H. McCOLLOUGH acknowledged said instrument to be the free act and deed of said corporation.

M. GENE CAMPBELL, NOTARY PUBLIC
TULSA, OKLAHOMA

MY COMMISSION EXPIRES: NOVEMBER 6, 1963

M. Gene Campbell
M. GENE CAMPBELL Notary Public

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My commission expires:

Notary Public

SUBSEQUENT JOINDER AND COMMITMENT BY
SUNRAY MID-CONTINENT OIL COMPANY, ET AL.
OF TRACT NO. 10 TO THE UNIT OPERATING
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "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," has been executed by various persons, firms and corporations, referred to collectively in said agreement as "Working Interest Owners", which agreement provides for the operation and development of said unit, including (but not limited to) the secondary recovery operations in the Unit Area as delineated in the Unit Agreement and the exhibits attached thereto which are referred to and made a part of said Unit Operating Agreement; and

WHEREAS, reference is made for all purposes to said Unit Operating Agreement dated the 2d day of April, 1959 executed by the undersigned; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Operating Agreement desire to commit to the Unit Operating Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in revised Exhibit "B" of the Unit Agreement, and to ratify and become bound by said Unit Operating Agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Operating Agreement, the undersigned do hereby commit to the Unit Operating Agreement all of the undersigned's right, title and interest in and to the lands described as the South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$), Section Thirty-Two (32), Township Twenty-Six (26) North, Range Twelve (12) West, San Juan County, New Mexico, which lands are identified as Tract No. 10 on

Revised Exhibit "B" of the Unit Agreement and do hereby adopt, ratify and confirm said Unit Operating Agreement, all of the terms and provisions of which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby commit all of the rights and interests of the undersigned in and to the lands of the Unit Area as originally delineated in said Unit Agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in the Unit Operating Agreement, subject to all of the terms and provisions of the said Unit Operating Agreement.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

APPROVED
[Handwritten initials]

PAN AMERICAN PETROLEUM CORPORATION

By *[Handwritten Signature]*
Attorney-in-Fact

ATTEST:

[Handwritten Signature]
Assistant Secretary

Date of Signature:

MAR 4 1960

~~PAN AMERICAN PETROLEUM CORPORATION~~

~~P. O. BOX 1410
FORT WORTH, TEXAS~~

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By _____
Attorney-in-Fact

Address

STATE OF TEXAS)
COUNTY OF TARRANT) SS.

On this 4th day of March, 1960, before me appeared C. F. BEDFORD, to me personally known, who, being by me duly sworn, did say that he is Attorney-in-Fact of PAN AMERICAN PETROLEUM CORPORATION, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said C. F. BEDFORD acknowledged said instrument to be the free act and deed of said corporation.

Pauline A. Kay
Notary Public

in and for Tarrant County, Texas

PAULINE A. KAY

My commission expires:

June 1, 1961

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

Revised Exhibit "B" of the Unit Agreement and do hereby adopt, ratify and confirm said Unit Operating Agreement, all of the terms and provisions of which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby commit all of the rights and interests of the undersigned in and to the lands of the Unit Area as originally delineated in said Unit Agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in the Unit Operating Agreement, subject to all of the terms and provisions of the said Unit Operating Agreement.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By *C. M. Wiedersheim*
Vice President

Emma Baslow
Assistant Secretary

Date of Signature:

Address

| | |
|----------|--------------|
| APPROVED | |
| Legal | <i>WJF</i> |
| Engr. | |
| Explr. | |
| Land | <i>J. H.</i> |
| Geol. | <i>W</i> |

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signature:

By _____
Attorney-in-Fact

Address

STATE OF Texas)
) SS.
COUNTY OF Dallas)

On this 4th day of March, 19 60, before me appeared A. M. Wiederkehr, to me personally known, who, being by me duly sworn, did say that he is Vice President of Southern Union Gas Company, a Delaware corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said A. M. Wiederkehr acknowledged said instrument to be the free act and deed of said corporation.

Dennis Kuse
Notary Public

My commission expires:
June 1, 1961

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
) SS.
COUNTY OF _____)

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

SUBSEQUENT JOINDER AND COMMITMENT BY
SUNRAY MID-CONTINENT OIL COMPANY, ET AL.
OF TRACT NO. 10 TO THE UNIT OPERATING
AGREEMENT FOR THE CENTRAL BISTI LOWER
GALLUP SAND UNIT AREA, AS ENLARGED,
SAN JUAN COUNTY, NEW MEXICO.

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, heretofore an agreement entitled "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," has been executed by various persons, firms and corporations, referred to collectively in said agreement as "Working Interest Owners", which agreement provides for the operation and development of said unit, including (but not limited to) the secondary recovery operations in the Unit Area as delineated in the Unit Agreement and the exhibits attached thereto which are referred to and made a part of said Unit Operating Agreement; and

WHEREAS, reference is made for all purposes to said Unit Operating Agreement dated the 2d day of April, 1959 executed by the undersigned; and

WHEREAS, the undersigned, Sunray Mid-Continent Oil Company, Amerada Petroleum Corporation, El Paso Natural Gas Products Company, Pan American Petroleum Corporation, Phillips Petroleum Company, Southern Union Gas Company and Shell Oil Company are the Working Interest Owners under New Mexico Oil and Gas Lease No. B-11370 covering the following described lands situated in San Juan County, New Mexico, to-wit:

South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$)
Section Thirty-Two (32), Township Twenty-Six
(26) North, Range Twelve (12) West

which lands are situated within the Unit Area of the Central Bisti Lower Gallup Sand Unit Area and are identified on revised Exhibit "B" of the Unit Agreement as Tract No. 10; and

WHEREAS, the undersigned as Working Interest Owners within the meaning of said Unit Operating Agreement desire to commit to the Unit Operating Agreement by subsequent joinder (pursuant to Section 28 of said Unit Agreement) all of the undersigned's interest in and to the lands above described and referred to as Tract No. 10 in revised Exhibit "B" of the Unit Agreement, and to ratify and become bound by said Unit Operating Agreement.

NOW, THEREFORE, for the consideration and purposes stated in said Unit Operating Agreement, the undersigned do hereby commit to the Unit Operating Agreement all of the undersigned's right, title and interest in and to the lands described as the South Half ($S\frac{1}{2}$) of Southwest Quarter ($SW\frac{1}{4}$), Section Thirty-Two (32), Township Twenty-Six (26) North, Range Twelve (12) West, San Juan County, New Mexico, which lands are identified as Tract No. 10 on

Revised Exhibit "B" of the Unit Agreement and do hereby adopt, ratify and confirm said Unit Operating Agreement, all of the terms and provisions of which are hereby incorporated herein by reference. Without limitation upon the foregoing, the undersigned do hereby commit all of the rights and interests of the undersigned in and to the lands of the Unit Area as originally delineated in said Unit Agreement, and as enlarged, and the exhibits made a part thereof in the same manner and to the same extent as provided in the Unit Operating Agreement, subject to all of the terms and provisions of the said Unit Operating Agreement.

This instrument may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument and as if all of the parties to the aggregate counterparts had signed the same instrument.

WORKING INTEREST OWNERS

SUNRAY MID-CONTINENT OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

PHILLIPS PETROLEUM COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

AMERADA PETROLEUM CORPORATION

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SOUTHERN UNION GAS COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

SHELL OIL COMPANY

ATTEST:

By _____
Vice President

Secretary

Date of Signature:

Address

WORKING INTEREST OWNERS

PAN AMERICAN PETROLEUM CORPORATION

ATTEST:

By _____
Attorney-in-Fact

Assistant Secretary

Date of Signature:

Address

EL PASO NATURAL GAS PRODUCTS COMPANY

Date of Signaure:

By Roland L. Humble JHB
Attorney-in-Fact

March 3, 1960

LAND DEPT.
EL PASO NATURAL GAS PRODUCTS COMPANY
P. O. BOX 1181
EL PASO, TEXAS

Address

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF _____)
COUNTY OF _____) SS.

On this _____ day of _____, 19____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is _____ of _____, a _____ corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors and said _____ acknowledged said instrument to be the free act and deed of said corporation.

Notary Public

My commission expires:

STATE OF TEXAS }
COUNTY OF EL PASO }

The foregoing instrument was acknowledged before me this 3rd day of March, 1960, by ROLAND L. HAMBLIN, Attorney-in-Fact of El Paso Natural Gas Products Company, a Texas corporation, on behalf of said corporation.

Witness my hand and official seal.

My Commission Expires:

MARY T. SAXON

Mary T. Saxon
Notary Public in and for El Paso County, State of Texas