

El Paso Natural Gas Company

El Paso, Texas

December 22, 1955

Director
United States Geological Survey
Department of the Interior
Washington, D. C.

Oil Conservation Commission
State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Commissioner of Public Lands
State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

File

Re: Huerfano Unit ✓
San Juan County, New Mexico
10th Expanded Participating Area
Effective September 1, 1955

Gentlemen:

On September 14, 1955, El Paso Natural Gas Company was approved as Unit Operator of the Huerfano Unit.

Pursuant to the provisions of Section 10 of the Huerfano Unit Agreement approved by the Director of the United States Geological Survey on June 6, 1950, by the Commissioner of Public Lands of the State of New Mexico on September 26, 1949, and by the Oil Conservation Commission of the State of New Mexico on September 20, 1949, El Paso Natural Gas Company as Unit Operator hereby submits for your approval a selection of lands to constitute the 10th Expanded Participating Area for the Pictured Cliffs formation for the above Unit Agreement to be effective September 1, 1955.

We feel that since the approval on April 27, 1953, of the ninth enlargement of this Participating Area, the following wells have proven up the following acreage and that they should be included in the Pictured Cliffs Participating Area.

Director, U.S.G.S.
 Oil Conservation Commission
 Commissioner of Public Lands

-2-

December 22, 1955
 Re: Huerfano Unit
 10th Expansion

Well	Location	Initial Potential	Proven Acreage
(a) McAdams #2	SW/4 34-27N-10W	250 Mcf	T-27-N, R-10-W Sec. 33: SE/4 Sec. 34: SW/4 Sec. 25: Lots 3&4, S/2 NW/4
(b) Huerfano #27	NE/4 23-26N-9W	1808 Mcf	T-26-N, R-9-W
Huerfano #28	SE/4 9-26N-9W	3300 Mcf	Sec. 9: All
Huerfano #29	NW/4 9-26N-9W	264 Mcf	Sec. 15: All
Huerfano #35	NE/4 21-26N-9W	1115 Mcf	Sec. 16: All
Huerfano #36	NW/4 23-26N-9W	4938 Mcf	Sec. 21: NE/4
*Ballard #1-15	NW/4 15-26N-9W	2237 Mcf	Sec. 22: N/2
*Ballard #2-15	NE/4 15-26N-9W	2640 Mcf	Sec. 23: All
*Ballard #3-15	SE/4 15-26N-9W	2039 Mcf	
*Ballard #4-15	SW/4 15-26N-9W	565 Mcf	
*Greer #1	NE/4 16-26N-9W	1120 Mcf	
*Greer #2	SW/4 16-26N-9W	585 Mcf	
*These wells located on acreage within boundaries of Unit Agreement but not committed to the Huerfano Unit.			
(c) Pipkin #1-A	NW/4 1-25N-10W	261 Mcf	T-25-N, R-10-W
Pipkin #2-A	NE/4 1-25N-10W	1571 Mcf	Sec. 1: Lots 1,2,3,4, S/2 N/2 T-26-N, R-10-W Sec. 36: S/2
(d) Ader #1 (formerly the Huerfano #2)	SE/4 25-26N-10W	428 Mcf	T-26-N, R-10-W Sec. 25: SE/4

The wells upon which the above proposed expansion is based were completed on different dates but they were neither tied in nor produced into any pipeline system until after September 1, 1955. We therefore feel that inasmuch as we have just become the Unit Operator we should consider September 1, 1955, as the effective date of this proposed expansion rather than have to go back and make a separate expansion with each well completion date, which would require numerous detailed adjustments by both the Unit Operator and the United States Geological Survey of the present Pictured Cliffs Participating Area.

Director, U.S.G.S.
Oil Conservation Commission
Commissioner of Public Lands

-3-

December 22, 1955
Re: Huerfano Unit
10th Expansion.

We, having recently been appointed Unit Operator, do not have the necessary information available to make all the retro-active revisions to the present Participating Area except on the proposed basis. The Unit Agreement, in Section 10, provides that the effective date of any revision of a Participating Area "shall be the first of the month following the date of the first authentic knowledge or information on which such revision is predicated, unless a more appropriate effective date is specified in the schedule." We feel that this is a situation where a more appropriate effective date should be specified and that such date should be September 1, 1955.

In support of this application, the applicant attaches hereto and hereby makes a part of this application the following:

- Exhibit A: A map showing the Huerfano Unit, the present Participating Area for the Pictured Cliffs formation, and the proposed 10th enlargement of the area.
- Exhibit B: A schedule of wells in the proposed 10th enlargement of the Participating Area.
- Exhibit C: A map of the Huerfano Unit showing contours on top of the Pictured Cliffs formation, and also showing where cross sections marked Exhibits E, F, G, and H were taken.
- Exhibit D: Initial pressure data of wells in the Huerfano Unit.
- Exhibit E: A cross section of the Pictured Cliffs sands in the Huerfano Unit.
- Exhibit F: A cross section of the Pictured Cliffs sands in the Huerfano Unit.
- Exhibit G: A cross section of the Pictured Cliffs sands in the Huerfano Unit.
- Exhibit H: A cross section of the Pictured Cliffs sands in the Huerfano Unit.
- Exhibit I: A map of the Huerfano Unit showing the present Pictured Cliffs pools as delineated by the Oil Conservation Commission of the State of New Mexico.
- Exhibit J: A statement by Mr. Roy Allen, Senior Geologist, San Juan Division, at Farmington, New Mexico.

Director, U.S.G.S.
Oil Conservation Commission
Commissioner of Public Lands

-4-

December 22, 1955
Re: Huerfano Unit
10th Expansion

At the present time we believe that the Pictured Cliffs sandstone underneath the Huerfano Unit is one common pool or reservoir. However, the Unit Area at this time is very much undeveloped and is presently in two separate Pictured Cliffs pools as classified by the New Mexico Oil Conservation Commission.

In the event that future development of the Huerfano Unit conclusively proves that the Pictured Cliffs sandstone underneath the Huerfano Unit is not a common reservoir, we will propose that the Participating Area be divided accordingly into separate Participating Areas.

As soon as this proposed 10th expansion of the Pictured Cliffs Participating Area is approved, we will submit immediately a new schedule of participation based upon the exact acreage and ownership in the enlarged Participating Area.

Yours very truly,

EL PASO NATURAL GAS COMPANY

By: 
R. L. Hamblin, Manager
Lease Department

RLH:ms
Encl.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

195

October 27, 1955

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas

Attention: Mr. R. L. Hamblin

Re: Huerfano Unit
San Juan County, New Mexico
Drilling Program for Balance
of Calendar Year 1955.

Gentlemen:

This is to advise that the Drilling Program for the balance of calendar year 1955 for the above-captioned unit, dated September 28, 1955, has this date been approved by the New Mexico Oil Conservation Commission, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the plan is herewith returned.

Very truly yours,

W. B. Macey
Secretary-Director

WBM:jh

cc: U. S. Geological Survey, Roswell
Commissioner of Public Lands, Santa Fe

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 6721
Roswell, New Mexico

October 19, 1955



El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas

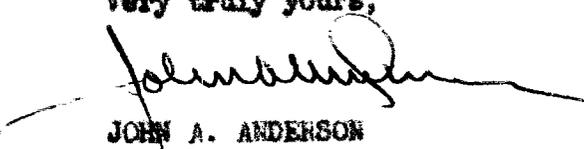
Gentlemen:

The plan of development dated September 12, 1955, for the Huerfano unit area, New Mexico, I-Sec. No. 731, has been approved on this date, subject to like approval by the appropriate State officials.

The plan provides for the drilling of five Pictured Cliffs wells during the remainder of the calendar year 1955.

One approved copy of said plan is returned herewith.

Very truly yours,


JOHN A. ANDERSON

Copy to: Cons. Div., Wash. (w/1 copy of plan)
Farmington (w/1 copy of plan)
NMOCC, Santa Fe (ltr only) ✓

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

#195

October 27, 1955

C
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Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas

file

Attention: Mr. R. L. Hamblin

Re: (Huerfano Unit)
San Juan County, New Mexico
Drilling Program for Balance
of Calendar Year 1955.

Gentlemen:

This is to advise that the Drilling Program for the balance of calendar year 1955 for the above-captioned unit, dated September 28, 1955, has this date been approved by the New Mexico Oil Conservation Commission, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the plan is herewith returned.

Very truly yours,

W. B. Macey
Secretary-Director

WBM:jh

cc: U. S. Geological Survey, Roswell
Commissioner of Public Lands, Santa Fe

El Paso Natural Gas Company

El Paso, Texas

September 12, 1955

Mr. John A. Anderson
Regional Supervisor
United States Geological Survey
Department of the Interior
Post Office Box 6721
Roswell, New Mexico

Mr. E. S. Walker
Commissioner of Public Lands of
the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Mr. W. B. Macey, Secretary
Oil Conservation Commission of
the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Re: Huerfano Unit
I Sec. No. 731
San Juan County, New Mexico
DRILLING PROGRAM FOR THE
BALANCE OF CALENDAR YEAR 1955

Gentlemen:

Stanolind Oil and Gas Company resigned as Unit Operator of the Huerfano Unit effective July 1, 1955, and by instrument dated August 12, 1955, El Paso Natural Gas Company was designated Successor Unit Operator effective September 1, 1955, subject to the approval of the United States Geological Survey, the Commissioner of Public Lands, and the Oil Conservation Commission. The Designation of Successor Unit Operator has been filed with the United States Geological Survey, the Commissioner of Public Lands, and the Oil Conservation but has not been approved as yet.

El Paso Natural Gas Company, as Successor Unit Operator, hereby presents for your approval a proposed drilling program for the balance of the calendar year 1955, consisting of five (5) wells to be drilled to the Pictured Cliffs Formation on the following locations:

- (1) NE/4, Section 5, Township 26 North, Range 9 West
- (2) SW/4, Section 9, Township 26 North, Range 9 West
- (3) NE/4, Section 9, Township 26 North, Range 9 West
- (4) SW/4, Section 23, Township 26 North, Range 9 West
- (5) SW/4, Section 10, Township 26 North, Range 10 West

El Paso Natural Gas Company, as Successor Unit Operator, intends to drill all wells to the base of the Pictured Cliffs Formation. Rotary tools will be used in drilling the pay section. Approximately 100 feet of 9-5/8" surface casing will be set and then a production string of 5-1/2" casing will be run down to the top of the Pictured Cliffs Formation. The Pictured Cliffs Formation will be treated with a sand-oil frac or an aqua frac process. Due care will be taken to protect all horizons.

All of the working interest owners have been contacted and this drilling program reflects, insofar as possible, their requests for additional drilling.

If this drilling program is acceptable, please signify your approval of this drilling program as required under Section 9 of the Unit Agreement in the space provided below, and return an approved copy to El Paso Natural Gas Company.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By R L Hamblin
R. L. Hamblin
Manager
Lease Department

RLH/BG/eb

APPROVED: _____ Date: _____
Supervisor, United States Geological Survey

Subject to like approval by the appropriate State officials.

APPROVED: _____ Date: _____
Commissioner of Public Lands

Subject to like approval by the U.S.G.S. and Oil Conservation Commission

APPROVED: W B Tracey Date: 10-27-55
Oil Conservation Commission

Subject to like approval by the U.S.G.S. and Commissioner of Public Lands.

PLAN OF DEVELOPMENT FOR THE CALENDAR YEAR 1955
PICTURED CLIFFS ZONE - HUERFANO UNIT
SAN JUAN COUNTY, NEW MEXICO

TO: THE OIL AND GAS SUPERVISOR (6)
UNITED STATES GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

COMMISSIONER OF PUBLIC LANDS (3)
STATE OF NEW MEXICO
SANTA FE, NEW MEXICO

OIL CONSERVATION COMMISSION (3)
STATE OF NEW MEXICO
SANTA FE, NEW MEXICO

file

*2 1/2 miles
one of the
probable
to be*

In compliance with Section 9 of the Huerfano Unit Agreement dated July 29, 1949, Stanolind Oil and Gas Company, as Unit Operator on behalf of itself and all other owners of oil and gas leases or of operating rights under oil and gas leases covering lands committed to the Huerfano Unit, hereby submits a Plan of Development for the Pictured Cliffs Zone of said Huerfano Unit as follows:

1. Description of Participating Area in Pictured Cliffs Zone: The present Pictured Cliffs Participating Area is comprised of the following acreage:

T-26-N, R-10-W

All of Sections 4, 5 and 6
Section 8, E/2 and NW/4
Section 9, W/2 and NE/4

T-26-N, R-11-W

Section 1, NE/4

T-27-N, R-10-W

Section 29, SW/4
All of Section 31 and 32
Section 33, SW/4

T-27-N, R-11-W

Section 36, E/2

All located in San Juan County, New Mexico and comprising approximately 4,974.23 acres.

2. Proposed Enlargement to Pictured Cliffs Participating Area:

We are currently in the process of preparing an application for approval by the appropriate regulatory bodies of certain enlargements to the

This plan was rejected by the U.S. G.S. new plan will minimum of 15 wells requested

present Pictured Cliffs Participating Area to include commercially productive wells completed subsequent to the final enlargement of the present Participating Area.

3. Past Development History of Pictured Cliffs Zone: Thirty wells have now been drilled on unitized lands within the Huerfano Unit with the status of each as tabulated below:

Participating Area Wells

<u>Well</u>	<u>Location</u>	<u>Completion Date</u>	<u>Initial Potential</u>
Huerfano Unit #6	SW/4, Sec. 31, T-27-N, R-10-W	11-16-51	Open Flow 2830 MCFPD
Huerfano Unit #9	NW/4, Sec. 1, T-26-N, R-11-W	8-14-52	Open Flow 396 MCFPD
Huerfano Unit #10	NE/4, Sec. 6, T-26-N, R-10-W	9-9-52	Open Flow 3400 MCFPD
Huerfano Unit #11	SW/4, Sec. 6, T-26-N, R-10-W	9-22-52	Open Flow 116 MCFPD
Huerfano Unit #12	SW/4, Sec. 4, T-26-N, R-10-W	12-6-52	Open Flow 1915 MCFPD
Huerfano Unit #13	NE/4, Sec. 8, T-26-N, R-10-W	12-1-52	Open Flow 645 MCFPD
Huerfano Unit #14	SW/4, Sec. 5, T-26-N, R-10-W	9-29-52	Open Flow 971 MCFPD
Huerfano Unit #15	NE/4, Sec. 32, T-27-N, R-10-W	5-25-53	Open Flow 742 MCFPD
Huerfano Unit #16	NE/4, Sec. 36, T-27-N, R-11-W	10-17-52	Open Flow 1981 MCFPD
Huerfano Unit #17	NE/4, Sec. 31, T-27-N, R-10-W	9-30-52	Open Flow 1540 MCFPD
Huerfano Unit #18	SW/4, Sec. 32, T-27-N, R-10-W	10-25-52	Open Flow 1408 MCFPD
Huerfano Unit #19	NE/4, Sec. 5, T-26-N, R-10-W	11-3-52	Open Flow 1700 MCFPD
Huerfano Unit #21	NE/4, Sec. 9, T-26-N, R-10-W	5-11-53	Open Flow 1700 MCFPD
Huerfano Unit #22	SW/4, Sec. 33, T-27-N, R-10-W	7-2-54	Open Flow 589 MCFPD
Huerfano Unit #24	SW/4, Sec. 29, T-27-N, R-10-W	7-9-54	Open Flow 402 MCFPD
Huerfano Unit #25	SW/4, Sec. 9, T-26-N, R-10-W	6-27-53	Open Flow 201 MCFPD
Huerfano Unit #44	NE/4, Sec. 4, T-26-N, R-10-W	1-14-55	Open Flow 194 MCFPD

Wells Outside Participating Area

<u>Well</u>	<u>Location</u>	<u>Completion Date</u>	<u>Initial Potential</u>
Lucille Pipkin #1	NW/4, Sec. 1, T-25-N, R-10-W	10-30-53	Open Flow 289 MCFPD
Lucille Pipkin #2	NE/4, Sec. 1, T-25-N, R-10-W	10-30-53	Open Flow 1738 MCFPD
Earl Ader, Jr. #1 *	SW/4, Sec. 25, T-26-N, R-10-W	10-21-50	Open Flow 425 MCFPD
Huerfano Unit #23	SE/4, Sec. 19, T-26-N, R-9-W	9-11-53	Open Flow 139 MCFPD
Huerfano Unit #26	SE/4, Sec. 5, T-26-N, R-9-W	1-7-55	Dry Hole
Huerfano Unit #27	NE/4, Sec. 23, T-26-N, R-9-W	9-20-54	Open Flow 1808 MCFPD

(cont'd)

<u>Well</u>	<u>Location</u>	<u>Completion Date</u>	<u>Initial Potential</u>
Huerfano Unit #28	SE/4 Sec. 9, T-26-N, R-9-W	9-29-54	Open Flow 3300 MCFPD
Huerfano Unit #29	NW/4 Sec. 9, T-26-N, R-9-W	10-18-54	Open Flow 264 MCFPD
Huerfano Unit #31	SE/4 Sec. 8, T-26-N, R-9-W	11-30-54	Dry Hole
Huerfano Unit #32-A	SE/4 Sec. 23, T-26-N, R-9-W	1-4-55	Open Flow 3060 MCFPD
Huerfano Unit #35	NE/4 Sec. 21, T-26-N, R-9-W	12-24-54	Open Flow 1115 MCFPD
Huerfano Unit #36	NW/4 Sec. 23, T-26-N, R-9-W	12-17-54	Open Flow 4938 MCFPD
Huerfano Unit #37 **	SW/4 Sec. 1, T-25-N, R-10-W	1-5-55	Dry Hole

* Formerly Huerfano Unit #2

** Pipkin 3-A

In addition to the above wells, five wells have been completed in the Pictured Cliffs zone by owners of acreage not committed to the Huerfano Unit

4. Proposed Additional Wells: Based on information gathered from the wells drilled during 1954 and on our present interpretation of the Pictured Cliffs production trend only two locations offer drilling prospects for 1955.

Accordingly, the Unit Operator proposes to drill the following two Pictured Cliffs locations during 1955:

NE/4 Section 9, T-26-N, R-9-W

NE/4 Section 26, T-26-N, R-9-W

This drilling program has been approved by a sufficient concurrence of the working interest owners in the unit in accordance with Section 5 of the Unit Operating Agreement.

5. Well Casing Program: The well casing program will generally follow the program currently used in the Pictured Cliffs wells in San Juan County, including such surface casing and other casing as may be required by the Supervisor, the Commissioner and the Commission, or as set forth in the approvals of the applicable U.S.G.S. and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through or partially through the producing zone.

6. Offset Obligations: The Unit Operator on behalf of the owners of working, royalty and other interests in the Huerfano Unit will take appropriate and

adequate measures to prevent drainage from lands subject to the Huerfano Unit Agreement by wells on lands not subject to said Agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 15 of the Huerfano Unit Agreement.

7. Further Development: The Plan of Development herein outlined for the Pictured Cliffs Zone shall constitute the future drilling obligations of the Unit Operator pursuant to the provisions of the Huerfano Unit Agreement for the Pictured Cliffs Zone for the period ending December 31, 1955. Prior to expiration of this Plan of Development another plan of development shall be submitted to the above named addressees for further development of the unit.

8. Effective Date: The Plan of Development herein outlined shall be effective January 1, 1955.

9. Modifications: It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling and other contingencies such as availability of well casing; and for these reasons this Plan of Development may be modified from time to time with the approval of the Supervisor, the Commissioner and the Commission to meet changing conditions.

Submitted this twenty-ninth day of March, 1955.

Stanolind Oil and Gas Company
Unit Operator

By: _____
Attorney-in-fact

cc: All Working Interest Owners
in the Huerfano Unit Area

Approved

Date _____

Regional Oil and Gas Supervisor
United States Geological Survey

Approved

Date _____

Commissioner of Public Lands
State of New Mexico

Approved

Date _____

Secretary Director
New Mexico Oil Conservation
Commission

El Paso Natural Gas Company

El Paso, Texas
September 28, 1955

Director
United States Geological Survey
Department of the Interior
Washington, D. C.

Commissioner of Public Lands
of the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Oil Conservation Commission
of the State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

file

Re: Huerfano Unit Area, San Juan County,
New Mexico, I Sec. No. 731
Approval of Designation of Successor
Unit Operator

Gentlemen:

This is to advise that the Designation of Successor Unit Operator dated August 19, 1955, covering the above Unit Area, whereby El Paso Natural Gas Company was designated as successor Unit Operator, was approved by the proper Federal and State authorities as follows:

1. Acting Director of the United States Geological Survey:
Approved September 14, 1955.
2. Commissioner of Public Lands of the State of New Mexico:
Approved August 22, 1955.
3. Oil Conservation Commission of the State of New Mexico:
Approved August 22, 1955.

Copies of this letter are being sent to the Working Interest Owners shown on the attached sheet.

Very truly yours,

T. W. Bittick

T. W. Bittick
Area Landman
Lease Department

C

August 22, 1955

file

O

Turner, White, Atwood,
McLane and Francis
17th Floor, Mercantile Bank Building
Dallas 1, Texas

P

Attention: Mr. William G. Webb

Re: (Huerfano Unit Agreement)
San Juan County, New Mexico
Designation of Unit Operator

Y

Gentlemen:

This is to advise that the designation of El Paso Natural Gas Company as unit operator of the subject unit area has this date been approved by the Commissioner of Public Lands of the State of New Mexico and by the New Mexico Oil Conservation Commission, subject to like approval by the Director of the United States Geological Survey.

As per your telephone request, eight approved copies of the designation are being forwarded by this office to the Regional Supervisor of the Geological Survey for his action.

WBM

Very truly yours,

W. B. MACEY,
Secretary-Director

WBM: DSN/ir

cc: Commissioner of Public Lands
U. S. Geological Survey

August 22, 1955

Turner, White, Atwood, Melane and Francis
Attorneys and Counselors At Law
17th Floor Mercantile Bank Building
Dallas 1, Texas

Re: Huerfano Unit Agreement
Designation of El Paso
Natural Gas Company as
Successor Unit Operator

Gentlemen:

We have today approved El Paso Natural Gas Company as
Successor Unit Operator for Huerfano Unit Area.

We are returning eight copies of said designation to
the Oil Conservation Commission for their transmittal to the
United States Geological Survey.

Very truly yours,

E. S. WALKER
Commissioner of Public Lands

cc: OCC-Santa Fe
U.S.G.S.-Roswell

MR:m

C
O
P
Y

TURNER, WHITE, ATWOOD, McLANE AND FRANCIS

ATTORNEYS AND COUNSELORS AT LAW

J. GLENN TURNER
W. D. WHITE
FELIX ATWOOD
ALFRED E. McLANE
EDWARD L. FRANCIS
JAMES B. FRANCIS
JULIAN M. MEER
TREVOR REES-JONES
HARRY S. WELCH
THOS. R. HARTNETT III
H. L. HITCHINS, JR.
WILLIAM L. McINERNEY
WILLIAM G. WEBB
LEWIS CHANDLER
SNOWDEN M. LEFTWICH, JR.
WILLIAM C. HERNDON, JR.
THOMAS B. McELROY

17TH FLOOR MERCANTILE BANK BUILDING

DALLAS 1, TEXAS

August 17, 1955

Mr. W. B. Macey
Secretary and Director
New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

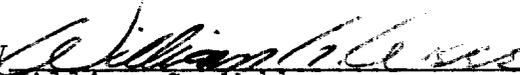
Dear Bill:

In accordance with our conversation of this afternoon, I am pleased to enclose herewith ten copies of form of Designation of Successor Unit Operator under the Huerfano Unit Agreement. As we discussed, if you will kindly approve the same in the space provided on the approval page and secure the like approval of Johnny Walker, returning eight such approved copies to us for further processing, I will greatly appreciate the courtesy. As we discussed, we want to make every effort to have this Designation finally approved by all governmental bodies prior to September 1, 1955, and, therefore, your expeditious attention thereto will be greatly appreciated.

With best wishes, we are

Yours very truly,

TURNER, WHITE, ATWOOD, McLANE
and FRANCIS

By 
William G. Webb

WGW:mch
cc: Mr. Roland L. Hamblin
Mr. R. N. Richey
Mr. John A. Anderson

Enclosures

RECEIVED
STATE LAND OFF

AUG 21 9 25 AM '55

SANTA FE N.M.

DESIGNATION OF SUCCESSOR UNIT OPERATOR

UNIT AGREEMENT FOR THE DEVELOPMENT
AND OPERATION OF THE HUERFANO UNIT AREA
COUNTY OF SAN JUAN, STATE OF NEW MEXICO
I-SEC. NUMBER 731

THIS INDENTURE, made and entered into as of the 21st
day of August, 1955, by and between EL PASO NATURAL GAS COMPANY,
a Delaware corporation, whose address is Post Office Box 1492,
El Paso, Texas, (hereinafter referred to as "El Paso"), NEW
MEXICO WESTERN OIL AND GAS COMPANY, a Delaware corporation,
whose address is 1501 Mercantile Bank Building, Dallas, Texas,
(hereinafter referred to as "New Mexico Western"), and PACIFIC
NORTHWEST PIPELINE CORPORATION, a Delaware corporation, whose
address is 911 M & M Building, Houston, Texas, (hereinafter
referred to as "Pacific Northwest"),

W I T N E S S E T H:

WHEREAS, under the provisions of the Act of February 25,
1920, 41 Stat. 437; 30 U. S. C. Secs. 181 et seq., as amended by
the Act of August 8, 1946, 60 Stat. 950, the Secretary of the
United States Department of the Interior, by his duly authorized
representative, on June 6, 1950, approved the Unit Agreement for
the Development and Operation of the Huerfano Unit, whereunder
Slick-Moorman Oil Company was designated as Unit Operator; and

WHEREAS, Slick-Moorman Oil Company has heretofore
resigned as Unit Operator under said Unit Agreement and Stanolind
Oil and Gas Company has heretofore qualified as Unit Operator
under said Unit Agreement; and

WHEREAS, under date of June 6, 1955, Stanolind Oil
and Gas Company submitted its resignation as Unit Operator under
said Unit Agreement, to be effective as of July 1, 1955; and

WHEREAS, Stanolind Oil and Gas Company is currently continuing to act as Unit Operator under said Unit Agreement pending the designation of a successor Unit Operator; and

WHEREAS, El Paso desires to assume all of the rights, duties and obligations of Unit Operator under said Unit Agreement, effective upon the approval hereof by the Director of the United States Geological Survey; and

WHEREAS, the undersigned, New Mexico Western, is the owner of 48.9% of the total unitized working interests in said Unit Area and is the owner of 60.8% of the total unitized working interests lying within the presently defined Pictured Cliffs Participating Area under said Unit Agreement, and the undersigned, New Mexico Western, desires to designate, approve and accept the said El Paso as successor Unit Operator to Stanolind Oil and Gas Company; and

WHEREAS, Pacific Northwest is the owner of 32.4% of the total unitized working interests in said Unit Area and is the owner of 26.3% of the total unitized working interests lying within the presently defined Pictured Cliffs Participating Area under said Unit Agreement, and the said Pacific Northwest desires to designate, approve and accept El Paso as successor Unit Operator to Stanolind Oil and Gas Company;

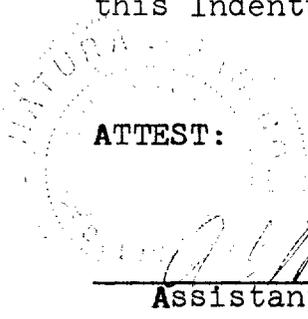
NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter set forth, El Paso Natural Gas Company hereby covenants and agrees to fulfill the duties and assume the obligations of Unit Operator under and pursuant to all of the terms and provisions of the Huerfano Unit Agreement, and New Mexico Western and Pacific Northwest covenant and agree that, effective upon approval of this indenture by the Director of the Geological Survey, El Paso shall be granted the exclusive right and privilege of exercising any and all rights

and privileges as Unit Operator pursuant to the terms and conditions of said Unit Agreement, reference to which Agreement is here made for all pertinent purposes, and the same is incorporated herein by reference and made a part hereof as fully and effectively as though said Unit Agreement was expressly set forth in this instrument.

This Indenture may be executed in any number of counterparts with the same force and effect as if all parties had executed the same document, and shall be binding upon all those parties who execute such a counterpart with the same force and effect as if all such parties had signed the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Indenture as of the day and year first hereinabove set forth.

ATTEST:


A. M. Martch
Assistant Secretary

EL PASO NATURAL GAS COMPANY

By *C. P. Perkins*
Vice President

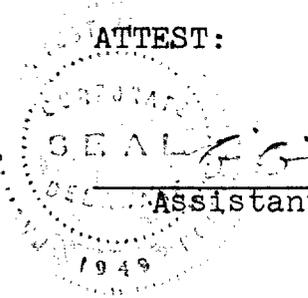
ATTEST:


H. S. Vestal
Assistant Secretary

NEW MEXICO WESTERN OIL AND GAS COMPANY

By *J. Glenn Sumner*
President

ATTEST:


G. M. G. [Signature]
Assistant Secretary

PACIFIC NORTHWEST PIPELINE CORPORATION

By *J. M. Clark* *J. E. [Signature]*
Vice President

STATE OF TEXAS |

COUNTY OF EL PASO |

On this 15th day of August, 1955, before me appeared G. L. PERKINS, to me personally known, who, being by me duly sworn, did say that he is the Vice President of EL PASO NATURAL GAS COMPANY, a Delaware corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said G. L. PERKINS acknowledged said instrument to be the free act and deed of said corporation.

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

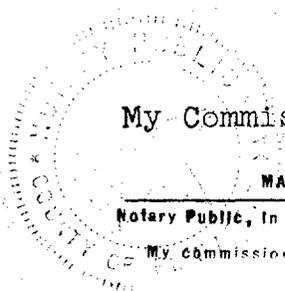
Martha B. Ivey
Notary Public in and for
El Paso County, Texas

My Commission Expires:

MARTHA B. IVEY,

Notary Public, In and for El Paso County, Texas

My commission expires June 3, 1957



STATE OF TEXAS |

COUNTY OF DALLAS |

On this 12th day of August, 1955, before me appeared D. Glenn Turner, to me personally known, who, being by me duly sworn, did say that he is the President of NEW MEXICO WESTERN OIL AND GAS COMPANY, a Delaware corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said D. Glenn Turner acknowledged said instrument to be the free act and deed of said corporation.

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

Ellen Donihoo
Notary Public in and for
Dallas County, Texas
ELLEN DONIHOO

My Commission Expires:

June 1, 1957



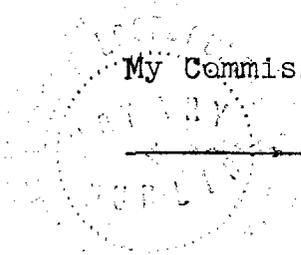
STATE OF ^{Harris County} TEXAS
COUNTY OF ^{Bernalillo} HARRIS

On this 16 day of August, 1955, before me appeared J. M. Clark, to me personally known, who, being by me duly sworn, did say that he is the Vice President of PACIFIC NORTHWEST PIPELINE CORPORATION, a Delaware corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said J. M. Clark acknowledged said instrument to be the free act and deed of said corporation.

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

James L. Hoffmann
Notary Public in and for
Harris County, Texas
Bernalillo County, N.M.

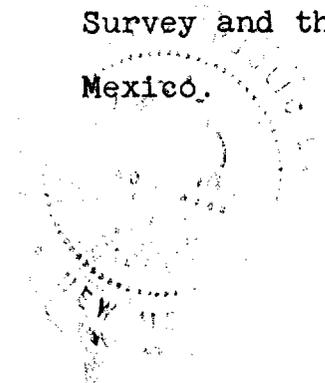
My Commission Expires:
12, 1959



Approved this _____ day of August, 1955, subject to like approval by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico.

Director of the United States
Geological Survey

Approved this 22nd day of August, 1955, subject to like approval by the Director of the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico.


Eschwalter

Commissioner of Public Lands
of the State of New Mexico

Approved this 22nd day of August, 1955, subject to like approval by the Director of the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

NEW MEXICO OIL CONSERVATION COMMISSION

By W B. Macey

Secretary-Director

DECLARATION OF APPROVAL BY COMMISSIONER
OF PUBLIC LANDS, STATE OF NEW MEXICO, OF
UNIT AGREEMENT FOR THE DEVELOPMENT AND
OPERATION OF THE HUERFANO UNIT AREA,
SAN JUAN COUNTY, STATE OF NEW MEXICO.

There having been presented to the undersigned, Commissioner of Public Lands of the State of New Mexico, for examination and agreement for the development and operation of the Huerfano Unit Area, San Juan County, New Mexico, bearing date of July 29, 1949, in which the Slick-Moorman Oil Company, a partnership, is designated as Operator, and which has been executed by various parties owning and holding oil and gas leases embracing lands within the unit area, and upon examination of said agreement, the Commissioner finds:

(a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said field;

(b) That under the operations proposed, the State will receive its fair share of the recoverable oil or gas in place under its lands in the area affected;

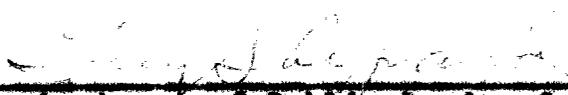
(c) That the agreement is in other respects for the best interests of the State;

(d) That the agreement provides for the unit operation of the field, for the allocation of production, and the sharing of proceeds from a part of the area covered by the agreement on an acreage basis as specified in the agreement.

NOW, THEREFORE, by virtue of the authority conferred upon me by Chapter 88 of the New Mexico Session Laws of 1943, approved April 14, 1943, I, the undersigned, Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the unit agreement above referred to for the

development and operation of the Huerfano Unit Area, San Juan County, New Mexico, subject to all of the provisions of the aforesaid act.

Executed this the 20th day of September, 1949.



Commissioner of Public Lands of the
State of New Mexico

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of the Interior, under the act approved February 25, 1920, 41 Stat. 437, 30 U. S. C. Secs. 181, et seq., as amended by the act of August 8, 1946, 60 Stat. 950, and delegated to the Director of the Geological Survey pursuant to Departmental Order No. 2365 of October 8, 1947, 43 C.F.R. sec. 4.611, 12 F.R. 6784, I do hereby:

A. Approve the attached Unit Agreement for the Development and Operation of the Huerfano Unit Area, County of San Juan, State of New Mexico.

B. Certify and determine that the unit plan of development and operation contemplated in the attached Agreement is necessary and advisable in the public interest and is for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said Agreement are hereby established, altered, changed or revoked to conform with the terms and conditions of this Agreement.

Dated: JUN 6 1950

Thomas B. Adair
Acting Director, United States Geological Survey