

El Paso Natural Gas Company

El Paso, Texas 79999

RECEIVED

MAR 6 1972

CONSERVATION COMMISSION

March 2, 1972

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTY-FIFTH AND THIRTY-SIXTH
EXPANSIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION,
Effective August 1, 1971 and
September 1, 1971

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the Thirty-fifth and Thirty-sixth Expanded Participating Areas of the Dakota Formation for the referenced Unit.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for its approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for its approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Yours very truly,

Original Signed By:

JAMES R. PERMENTER

James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:lj
Enclosures

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

COPY

El Paso Natural Gas Company

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El Paso, Texas 79978 MAR 3 2 40 PM '72

STATE OF NEW MEXICO
SANTA FE, N.M.

March 2, 1972

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MAR- 8 1972

CONSERVATION COMM.

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTY-FIFTH AND THIRTY-SIXTH
EXPANSIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Thirty-fifth and Thirty-sixth Expansions of the Participating Area for the Dakota formation, to wit:

THIRTY-FIFTH EXPANSION - Effective August 1, 1971

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 10 West, N.M.P.M.</u>	
Section 4: SE/4	
Section 9: W/2 NE/4	640.00

This proposed Thirty-fifth Expansion of the Participating Area for the Dakota formation is predicated upon the knowledge and information first

obtained upon the completion in paying quantities of the Huerfano Unit #215 Well, located in the NW/4 of Section 9, Township 26 North, Range 10 West, N.M.P.M.

The Huerfano Unit #215 Well, located 1090' from the North line and 1840' from the West line of Section 9, T-26-N, R-10-W, was spudded on June 22, 1971, and completed on July 7, 1971, in the Dakota formation at a total depth of 6919'. The Dakota formation in the intervals between 6715'-6721', 6754'-6760', 6769'-6775', 6816'-6822' was treated with a sand-water fracturing process on July 6, 1971. The well was shut-in on July 7, 1971, and after being shut-in for nine (9) days, the well was tested on July 16, 1971, and following a three (3) hour blow-down period the Dakota formation gauged 1594 MCF/D through a 3/4" choke, and 1727 MCF/D by the calculated absolute open-flow method with an SIPC of 2017 psia and an SIPT of 1509 psia.

THIRTY-SIXTH EXPANSION - Effective September 1, 1971

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 10 West, N.M.P.M.</u>	
<u>Section 29: S/2</u>	320.00

This proposed Thirty-sixth Expansion of the Participating Area for the Dakota formation is predicated upon the knowledge and information first obtained upon completion in paying quantities of the Huerfano Unit #219 Well located in the SE/4 of Section 29, Township 26 North, Range 10 West, N.M.P.M.

The Huerfano Unit #219 Well, located 1650' from the South line and 1090' from the East line of Section 29, T-26-N, R-10-W, was spudded on July 8, 1971, and completed on July 22, 1971, in the Dakota formation at a total depth of 6634'. The Dakota formation in the intervals between 6438'-6449', 6476'-6494', 6546'-6558', 6570'-6576' was treated with a sand-water fracturing process on July 20, 1971. The well was shut-in on July 22, 1971, and after being shut-in for twelve (12) days, the well was tested on August 3, 1971, and following a three (3) hour blow-down period the Dakota formation gauged 2452 MCF/D through a 3/4" choke, and 2762 MCF/D by the calculated absolute open-flow method with an SIPC of 1629 psia and an SIPT of 1554 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Thirty-fifth and Thirty-sixth Expansions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Thirty-fifth and Thirty-sixth Expansions of the Dakota formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map.

EXHIBIT "D"

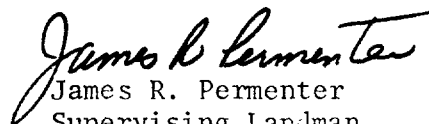
Schedule of Dakota Gas Production.

Attached to this application are Schedules XXXVII and XXXVIII showing the lands entitled to participation in the unitized substances produced from the Dakota formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Thirty-fifth and Thirty-sixth Expansions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JPR:DI:ks
Enclosures
Huerfano, 4.3

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
Post Office Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____

Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

DATE: _____

APPROVED: _____

Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey and
the Oil Conservation Commission

DATE: 3-6-72

APPROVED: _____

A. L. Porter, Jr.
Oil Conservation Commission
Subject to like approval by the
United States Geological Survey and
the Commissioner of Public Lands

DATE: March 8, 1972

The foregoing approvals are for the Thirty-fifth and Thirty-sixth Expansions of the Dakota Participating Area for the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest Owners

Amoco Production Company (3)	Bernice Jeffs
Atlantic Richfield Company (3)	Elma R. Jones
B & M Construction Corporation	Corinne Roy Kelly, Individually and as Executrix of the Estate of Frank S. Kelly, Jr., Deceased
Benson-Montin-Greer Drilling Corp.	Harold Kogan, Agent
Robert L. Breedlove	La Plata Gathering System, Inc.
Brookhaven Oil Company	O. J. Lilly
Barbara Ann McConnell Bruss	Matagorda Oil Company
CRA International, Ltd.	K. E. McAfee
Mrs. Ola E. Callahan	William H. McCartney
Cenard Oil & Gas Company	Barbara Irene McConnell
Consolidated Oil & Gas, Inc.	J. W. McConnell, Jr.
Continental Oil Company	N-M Oil & Gas Venture
Thomas G. Cornish	Lucille H. Pipkin
Thomas G. Cornish, Executor of the Estate of A. T. Hannett, Deceased	Pearl O. Pipkin
Evko Development Company	Estate of Murrell Price, Deceased
Mr. and Mrs. Forrest Gelbke	Mr. and Mrs. Reino R. Saari
Albert R. Greer	Gladys Sketch
Mrs. Charline Greer	J. C. Smith
Alfred Gross, Trustee	Sunland Refining Corporation
Peter Gross	Sunset International Petroleum Corp.
Dr. and Mrs. James R. Hamilton, Jr.	Sunshine Royalty Company
Mr. Vincent B. Hamilton	Tenneco Oil Company
Mr. G. W. Hannett	Texas Pacific Oil Company, Inc.
Mrs. Beulah Irene Hanson	
Mrs. Billie D. Hood	
Mrs. Marjorie Lundean Howlett	

HUERFANO UNIT
Working Interest Owners

Mr. and Mrs. Frank Toombs

Union Texas Petroleum
Denver, Colorado

Union Texas Petroleum
Houston, Texas

Mr. and Mrs. Bert Walters

Dr. Sherman Wengerd

El Paso Natural Gas Company

El Paso, Texas 79978

February 8, 1972

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF
THE THIRTY-FOURTH REVISION OF
THE PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

This is to advise that the captioned expansion for the Huerfano Unit was approved by the regulatory bodies on the following dates:

United States Geological Survey	-	February 3, 1972
Commissioner of Public Lands	-	January 19, 1972
Oil Conservation Commission	-	January 20, 1972

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,



Dick Isaacks
Senior Landman
Land Department
Energy Resource Development

DI:nja
Huerfano 4.3



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

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OIL CONSERVATION COM.

February 3, 1972

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. James R. Permenter

Gentlemen:

Your application of January 5, 1972, requesting approval of the thirty-fourth revision of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, I-Sec. No. 731, was approved on February 3, 1972, by the Regional Oil and Gas Supervisor, U. S. Geological Survey, effective as of June 1, 1971.

The thirty-fourth revision adds 320.00 acres described as the NW $\frac{1}{4}$ sec. 34, T. 26 N., R. 10 W., N.M.P.M., which increases the Dakota participating area from 39,594.36 acres to 39,914.36 acres. Such revision is based upon the information contributed by the completion of unit well No. 131 located in the NW $\frac{1}{4}$ sec. 34, T. 26 N., R. 10 W., N.M.P.M. Such well was completed March 19, 1971, for a calculated open flow potential of 1,499 MCFGPD from the Dakota interval 6,572 to 6,724 feet.

Copies of the approved application are being distributed to the appropriate Federal offices, and two approved copies are returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD) N. O. F.

N. O. FREDERICK
Regional Oil and Gas Supervisor

cc:

Washington (wcy appln.)
Farmington (w/cy appln.)
BLM, Santa Fe (ltr. only)
NMOCC, Santa Fe (ltr. only) ✓
Com. Pub. Lands, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 20, 1972

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. James R. Permenter

Re: 34th Revision of the Dakota
Participating Area, Huerfano
Unit, San Juan County, New
Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 34th Revision of the Dakota Formation Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

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JAN 30 1972

OIL CONSERVATION COMMISSION

January 19, 1972

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
34TH REVISION OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

ATTENTION: Mr. James R. Permenter

Gentlemen:

The Commissioner of Public Lands has this date approved the 34th Revision of the Participating Area for the Dakota Formation, for the Huerfano Unit, San Juan County, New Mexico. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing six copies of the application to the Oil Conservation Commission requesting them to forward five copies to the United States Geological Survey at Roswell, New Mexico for their consideration. After this application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Very truly yours,

RAY D. GRAHAM, Director
Oil and Gas Department

AJA/RDG/s

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79978

January 6, 1972

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JAN 11 1972

OIL CONSERVATION COMM.

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
34TH REVISION OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the 34th Revision of the Participating Area for the Dakota Formation.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for its approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for its approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Yours very truly,



James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:ks
Enclosure

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

El Paso Natural Gas Company

El Paso, Texas 79978

January 5, 1972

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U.S. GEOLOGICAL SURVEY

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
34TH REVISION OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the 34th Revision of the Participating Area for the Dakota formation, to wit:

34TH REVISION - Effective June 1, 1971

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 10 West, N.M.P.M.</u> Section 34: N/2	320.00

This proposed 34th Expansion of the Participating Area for the Dakota formation is predicated upon the knowledge and information first obtained

January 5, 1972

upon the completion in paying quantities of the Huerfano Unit #131 Well, located in the NW/4 of Section 34, Township 26 North, Range 10 West, N.M.P.M.

The Huerfano Unit #131 Well, located 800' from the North line and 990' from the West line of Section 34, T-26-N, R-10-W, was spudded on March 2, 1971, and completed on March 19, 1971, in the Dakota formation at a total depth of 6789'. The Dakota formation in the intervals between 6572'-6578', 6608'-6614', 6625'-6631', 6696'-6708', 6718'-6724' was treated with a sand-water fracturing process on March 17, 1971. The well was shut-in on May 10, 1971, and after being shut-in for nine (9) days, the well was tested on May 19, 1971, and following a three (3) hour blow-down period the Dakota formation gauged 1348 MCF/D through a 3/4" choke and 1499 MCF/D by the calculated absolute open-flow method with an SIPC of 1192 psia and an SIPT of 1264 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed 34th Revision of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the 34th Expansion of the Dakota formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map.

EXHIBIT "D"

Schedule of Dakota Gas Production.

Attached to this application is Schedule XXXVI showing the lands entitled to participation in the unitized substances produced from the Dakota formation with the percentage of participation of each lease or tract indicated thereon.


If the hereinabove selection of lands to constitute the 34th Revision of the Dakota Participating Area meets with your approval,

January 5, 1972

please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,


James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:ks
Enclosures
Huerfano, 4.3

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
Post Office Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____

Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

DATE: _____

APPROVED: _____

Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey and
the Oil Conservation Commission

DATE: 1-19-72

APPROVED: _____

Oil Conservation Commission
Subject to like approval by the
United States Geological Survey and
the Commissioner of Public Lands

DATE: January 20, 1972

HUERFANO UNIT
Working Interest Owners

Amoco Production Company (3)

Atlantic Richfield Company (3)

B & M Construction Corporation

Benson-Montin-Greer Drilling Corp.

Robert L. Breedlove

Brookhaven Oil Company

Barbara Ann McConnell Bruss

CRA International, Ltd.

Mrs. Ola E. Callahan

Cenard Oil & Gas Company

Consolidated Oil & Gas, Inc.

Continental Oil Company

Thomas G. Cornish

Thomas G. Cornish, Executor of the
Estate of A. T. Hannett, Deceased

Evko Development Company

Mr. and Mrs. Forrest Gelbke

Albert R. Greer

Mrs. Charline Greer

Alfred Gross, Trustee

Peter Gross

Dr. and Mrs. James R. Hamilton, Jr.

Mr. Vincent B. Hamilton

Mr. G. W. Hannett

Mrs. Beulah Irene Hanson

Mrs. Billie D. Hood

Mrs. Marjorie Lundean Howlett

Bernice Jeffs

Elma R. Jones

Corinne Roy Kelly, Individually
and as Executrix of the Estate of
Frank S. Kelly, Jr., Deceased

Harold Kogan, Agent

La Plata Gathering System, Inc.

O. J. Lilly

Matagorda Oil Company

K. E. McAfee

William H. McCartney

Barbara Irene McConnell

J. W. McConnell, Jr.

N-M Oil & Gas Venture

Lucille H. Pipkin

Pearl O. Pipkin

Estate of Murrell Price, Deceased

Mr. and Mrs. Reino R. Saari

Gladys Sketch

J. C. Smith

Sunland Refining Corporation

Sunset International Petroleum Corp.

Sunshine Royalty Company

Tenneco Oil Company

Texas Pacific Oil Company, Inc.

HUERFANO UNIT
Working Interest Owners

Mr. and Mrs. Frank Toombs

Union Texas Petroleum
Denver, Colorado

Union Texas Petroleum
Houston, Texas

Mr. and Mrs. Bert Walters

Dr. Sherman Wengerd

El Paso Natural Gas Company

El Paso, Texas 79978

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September 8, 1971

195

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico,
NOTICE OF COMPLETION OF ADDI-
TIONAL WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that five (5) additional wells capable of producing untized substances in commercial quantities have been completed upon acreage committed to the Unit. These wells are as follows:

The Huerfano Unit #209 Well, located 1500' from the South line and 1840' from the East line of Section 23, T-26-N, R-9-W, was spudded on April 6, 1971, and completed on April 20, 1971, in the Dakota Formation at a total depth of 6732'. The Dakota Formation in the intervals between 6450'-6458', 6546'-6554', 6648'-6656', 6666'-6670', was treated with a sand-water fracturing process on April 19, 1971. The well was shut-in on April 21, 1971, and after being shut-in for gauge for seven (7) days, the well was tested on April 28, 1971, and following a three-hour blow down

September 8, 1971

period the Dakota Formation gauged 2053 MCF/D through a 3/4" choke and 2286 MCF/D by the absolute open-flow method, with an SIPC of 1812 psia and an SIPT of 1812 psia. The spacing unit for this well is described as the S/2 of Section 23, T-26-N, R-9-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Seventeenth Expanded Participating Area of the Dakota Formation effective October 1, 1962, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #210 Well, located 800' from the South line and 1780' from the East line of Section 35, T-27-N, R-10-W, was spudded on May 10, 1971, and completed on May 26, 1971, in the Dakota Formation at a total depth of 6964'. The Dakota Formation in the intervals between 6722'-6732', 6767'-6772', 6818'-6828', 6842'-6852', 6878'-6888', was treated with a sand-water fracturing process on May 25, 1971. The well was shut-in on May 26, 1971, and after being shut-in for gauge for eight (8) days, the well was tested on June 3, 1971, and following a three-hour blow-down period, the Dakota Formation gauged 2328 MCF/D through a 3/4" choke, and 2603 MCF/D by the calculated absolute open-flow method, with an SIPC of 1905 psia and an SIPT of 1288 psia. The spacing unit for this well is described as the E/2 of Section 35, T-27-N, R-10-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Third Expanded Participating Area of the Dakota Formation effective March 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #211 Well, located 1550' from the North line and 1550' from the West line of Section 10, T-26-N, R-10-W, was spudded on June 8, 1971, and completed on June 22, 1971, in the Dakota Formation at a total depth of 7030'. The Dakota Formation in the intervals between 6775'-6781', 6808'-6814', 6860'-6872', 6912'-6924', 6936'-6942', was treated with a sand-water fracturing process on June 21, 1971. The well was shut-in on June 22, 1971, and after being shut-in for gauge for twenty-one (21) days, the well was tested on July 13, 1971, and following a three-hour blow-down period the Dakota Formation gauged 1075 MCF/D through a 3/4" choke and 1157 MCF/D by the

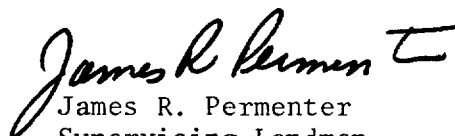
Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Four

September 8, 1971

The NE/4 of the above-described spacing unit was included in the Huerfano Unit Second Expanded Participating Area of the Dakota Formation effective January 1, 1959, and the NW/4 of the above-described spacing unit was included in the Huerfano Unit Fourth Expanded Participating Area of the Dakota Formation effective August 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

A handwritten signature in cursive script, reading "James R. Permenter", followed by a horizontal flourish.

James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:lj
Huerfano Unit - 4.3.1

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT
Working Interest Owners

Amoco Production Company (3)	Pearl O. Pipkin
Atlantic Richfield Company (3)	Sunland Refining Corp.
B & M Construction Corporation	Sunset International Petroleum Corp.
Benson-Montin-Greer Drilling Corp.	Sunshine Royalty Company
Brookhaven Oil Company	Tenneco Oil Company
Barbara Ann McConnell Bruss	Texas National Bank of Commerce (Matagorda Oil Company)
CRA International, Ltd.	Texas Pacific Oil Company, Inc. (2)
Cenard Oil & Gas Company	Union Texas Petroleum Denver, Colorado
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Houston, Texas
Continental Oil Company	Dr. Sherman Wengerd
Evko Development Company	
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Lucille H. Pipkin	



UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

July 7, 1971

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

Attention: Mr. James R. Permenter

Gentlemen:

Your application of June 18, 1971, requesting approval of the thirty-third revision of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, I-Sec. No. 731, was approved on July 8, 1971, by the Regional Oil and Gas Supervisor, U. S. Geological Survey, effective as of April 1, 1971.

The thirty-third revision adds 320 acres described as the N $\frac{1}{4}$ sec. 29, T. 26 N., R. 10 W., N.M.P.M., which increases the Dakota participating area from 39,274.36 acres to 39,594.36 acres. Such revision is based upon the information contributed by the completion of unit well No. 218 located in the NW $\frac{1}{4}$ sec. 29, T. 26 N., R. 10 W., N.M.P.M. Such well was completed March 9, 1971, for a calculated open flow potential of 4,353 MCF/GPD from the Dakota interval 6,366 to 6,522 feet.

Copies of the approved application are being distributed to the appropriate Federal offices and two approved copies are returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval.

Sincerely yours,

N. O. FREDERICK
Regional Oil and Gas Supervisor

cc:
Washington (w/cy appln)
Farmington (w/cy appln)
BLM, Santa Fe (ltr only)
NMOCC, Santa Fe (ltr only)✓
Com. Pub. Lands, Santa Fe (ltr only)

El Paso Natural Gas Company

El Paso, Texas 79999

July 6, 1971

71 JUL 8 PM 1 05

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
EIGHTH REVISION OF THE PARTICIPATING
AREA FOR THE GALLUP FORMATION

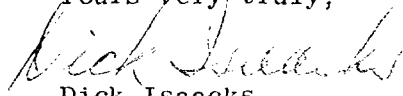
Gentlemen:

This is to advise that the captioned Revision for the Huerfano Unit, I Sec. No. 731 was approved by the Regulatory Bodies on the following dates:

1. United States Geological Survey - June 29, 1971
2. Oil Conservation Commission for - June 10, 1971
the State of New Mexico
3. Commissioner of Public Lands for - June 3, 1971
the State of New Mexico

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,



Dick Isaacks
Senior Landman
Land Department
Energy Resource Development

DI:ra

Huerfano 4.4

cc: Mrs. Pepita O. Jeffus

El Paso Natural Gas Company

El Paso, Texas 79999

July 6, 1971

71 JUL 14 AM 8 05

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico.
APPLICATION FOR APPROVAL OF THE
THIRTY-THIRD REVISION OF THE
PARTICIPATING AREA FOR THE
DAKOTA FORMATION.


Gentlemen:

This is to advise that the captioned Revision for the Huerfano Unit, I Sec. No. 731, was approved by the Regulatory Bodies on the following dates:

United States Geological Survey -	July 8, 1971
Commissioner of Public Lands -	June 22, 1971
Oil Conservation Commission -	June 23, 1971

Copies of this letter are being sent to the working interest owners of the above-described Unit.

Yours very truly,



Dick Isaacks
Senior Landman
Land Department
Energy Resource Development

DI:ra
Huerfano 4.3

Drawer 1857
Roswell, New Mexico 88201

June 29, 1971

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. Charles Higgins

Gentlemen:

Your application of June 1, 1971, requesting approval of the eighth revision of the Gallup participating area for the Huerfano unit agreement, San Juan County, New Mexico, I-Sec. No. 731, was approved on June 29, 1971, by the Regional Oil and Gas Supervisor, U. S. Geological Survey, effective as of November 1, 1970.

The eighth revision adds 320 acres described as the E $\frac{1}{2}$ sec. 17, T. 26 N., R. 9 W., N.M.P.M., which increases the Gallup participating area from 4,978.20 acres to 5,298.20 acres. Such revision is based upon the information contributed by the completion and production of unit well No. 160 located in the SE $\frac{1}{4}$ sec. 17, T. 26 N., R. 9 W., N.M.P.M. Such well was completed October 8, 1970, for a calculated open flow potential of 517 MCFPD from the Gallup interval 5,740 to 5,908 feet. However, six month production history shows an average deliverability rate of 1,110 MCFPD recovering 193,403 MCF and 1,091 barrels of condensate during 174 days which is significantly better than the rate indicated by the initial potential.

Copies of the approved application are being distributed to the appropriate Federal offices and two approved copies are returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) N. O. FREDERICK

N. O. FREDERICK
Regional Oil and Gas Supervisor

cc:
Washington (w/cy appln.)
Farmington (w/cy appln.)
BLM, Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

June 23, 1971

175
June

**El Paso Natural Gas Company
Box 1492
El Paso, Texas 79978**

Attention: Mr. James R. Permenter

**Re: Thirty-Third Revision
Dakota Participating
Area, Huerfano Unit,
San Juan County, New
Mexico**

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Thirty-Third Revision of the Participating Area, Dakota Formation for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

**A. L. PORTER, Jr.
Secretary-Director**

ALP/JEK/og

**cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe**

C
O
P
Y

June 22, 1971

JUN 23 PM 2 47

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit , I Sec. No. 731.
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
THIRTY-THIRD EXPANSION OF THE
DAKOTA PARTICIPATING AREA

ATTENTION: Mr. James R. Permenter

Gentlemen:

The Commissioner of Public Lands has this date approved the Thirty-Third Expansion of the Dakota Participating Area, for the Huerfano Unit, San Juan County, New Mexico. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing six copies of the application to the Oil Conservation Commission requesting them to forward five copies to the United States Geological Survey at Roswell, New Mexico for their consideration. After this application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Very truly yours,

RAY D. GRAHAM, Director
Oil and Gas

AJA/RDG/s

cc:

USGS-Roswell, New Mexico

OCC- Santa Fe, New Mexico (6 cys of appln)

El Paso Natural Gas Company

El Paso, Texas 79999

June 18, 1971

195

71 JUN 23 PM 1 05

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
THIRTY-THIRD EXPANSION OF THE
DAKOTA PARTICIPATING AREA

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the Thirty-third Expansion of the Participating Area for the Dakota Formation for the referenced Unit.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for its approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for its approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

El Paso's original recommendation to the working interest owners was to include all of Section 29 in the participating; however, Amoco Production Company objected to inclusion of the S/2 of Section 29


COPY

Commissioner of Public Lands
Page Two

June 18, 1971

in the participating area and it has been excluded. We have recommended to the working interest owners that a Dakota well be drilled in the S/2 of Section 29 during 1971. Upon receipt of working interest owner approval, we will submit a Revised 1971 Drilling Program for your approval.

Yours very truly,



James R. Permonter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:lj
Enclosure

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

cc: Mr. R. F. Lemon
Land Department - Farmington

El Paso Natural Gas Company

El Paso, Texas 79978

RECEIVED
JUN 22 8 50 AM '71

June 18, 1971

STATE OF NEW MEXICO
SANTA FE, N.M.

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

71 JUN 22 PM 2 43

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTY-THIRD REVISION OF THE
PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Thirty-third Revision of the Participating Area for the Dakota Formation, to wit:

Thirty-third Revision - Effective April 1, 1971

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 10 West, N.M.P.M.</u>	
Section 29: N/2	320.00

June 18, 1971

The proposed Thirty-third Revision of the Participating Area for the Dakota Formation is predicated on the knowledge and information first obtained upon completion in paying quantities of the Huerfano Unit #218 Well.

The Huerfano Unit #218 Well, located 800' from the North line and 800' from the West line of Section 29, T-26-N, R-10-W, was spudded on February 9, 1971, and completed on February 27, 1971 in the Dakota Formation at a total depth of 6551'. The Dakota Formation in the intervals between 6366'-6372', 6408'-6426', 6476'-6482', 6510'-6522' was treated with a sand-water fracturing process on February 25, 1971. The well was shut-in on February 28, 1971, and after being shut-in for gauge for nine (9) days, the well was tested on March 9, 1971, and following a three (3) hour blow-down period the Dakota Formation gauged 3587 MCF/D through a 3/4" choke, and 4353 MCF/D by the calculated absolute open-flow method, with an SIPC of 1749 psia and an SIPT of 1501 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Thirty-third Revision of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Thirty-third Revision of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Figure No. 1: Structure Map on top of Graneros Shale.
Figure No. 2: Isopach Map.

EXHIBIT "D"

Schedule of Dakota Gas Production.

Attached to this application is Schedule XXXV showing the lands entitled to participation in the unitized substances produced from the

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page 3


June 18, 1971

Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Thirty-third Revision of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,


James R. Permenter
Supervising Landman
Land Department
Energy Resource Development

JRP:DI:lj
Enclosures
Huerfano Unit, 4.3

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting
Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____

Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

DATE: _____

APPROVED: _____

Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey and
the Oil Conservation Commission

DATE: June 22, 1971

APPROVED: _____

A. L. Butler, Jr.
Oil Conservation Commission
Subject to like approval by the
United States Geological Survey and
the Commissioner of Public Lands

DATE: _____

The foregoing approvals are for the Thirty-third Revision of the Participating Area for the Dakota formation, Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest After
Hudson-Kelly payout

Mr. Robert L. Breedlove

Mrs. Ola E. Callahan

Mr. Thomas G. Cornish

Mr. Thomas G. Cornish, Executor of
the Estate of A. T. Hannett, Deceased

Mr. and Mrs. Forrest Gelbke

Dr. and Mrs. James R. Hamilton, Jr.

Mr. Vincent B. Hamilton

Mr. G. W. Hannett

Mrs. Beulah Hanson

Mrs. Billie D. Hood

Elma R. Jones

Corinne Roy Kelly, Individually, and
Executrix of the Estate of Frank S.
Kelly, Jr., Deceased

Mr. Harold Kogan

Mr. William H. McCartney

Estate of Murrell Price, Deceased

Mr. and Mrs. Reino R. Saari

Gladys Sketch

Mr. J. C. Smith

Mr. and Mrs. Frank Toombs

Mr. and Mrs. Bert Walters

El Paso Natural Gas Company

El Paso, Texas 79999

69 JUN 15 11 47 AM '71

June 14, 1971

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
EIGHTH REVISION OF THE PARTICIPATING
AREA FOR THE GALLUP FORMATION

Gentlemen:

El Paso's request for an extension of time in which to drill intervening drilling blocks in the Chacra formation has been approved by the Regulatory Bodies on the following dates:

United States Geological Survey - June 8, 1971
Commissioner of Public Lands - June 3, 1971
Oil Conservation Commission - June 10, 1971

Yours very truly,



Dick Isaacks
Senior Landman
Land Department
Energy Resource Development

DI:lj

cc: Mr. Charles Higgins

COPY

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

June 10, 1971

195

C
O
P
Y
El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attention: Mr. Charles Higgins

Re: Eighth Revision Gallup
Participating Area,
Huerfano Unit, San Juan,
County, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Eighth Revision of the Participating Area for the Gallup formation for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

El Paso Natural Gas Company

El Paso, Texas 79999

June 1, 1971

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
EIGHTH REVISION OF THE PARTICIPATING
AREA FOR THE GALLUP FORMATION

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the Eighth Revision of the Participating Area for the Gallup Formation for the referenced Unit.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for its approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for its approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Yours very truly,

Charles Higgins
Charles Higgins
Supervising Landman
Land Department
Energy Resource Development

CH:DI:lj
Enclosure

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

cc: Mr. R. F. Lemon
Land Department Farmington

C O P Y

El Paso Natural Gas Company

El Paso, Texas 79978

June 1, 1971

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
EIGHTH REVISION OF THE PARTICIPATING
AREA FOR THE GALLUP FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Eighth Revision of the Participating Area for the Gallup Formation, to wit:

Eighth Revision - Effective November 1, 1970

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-9-W, N.M.P.M. Section 17: E/2	320.00

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Two

June 1, 1971

This proposed Eighth Expansion of the Participating Area for the Gallup Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #160 Well.

The Huerfano Unit #160 Well, located in the SE/4 of Section 17, Township 26 North, Range 9 West, N.M.P.M., was originally drilled and completed in the Dakota Formation. On September 16, 1970, the Dakota Formation was plugged and abandoned and operations were commenced to recomplete the well in the Gallup Formation. The Gallup Formation in the intervals between 5740'-5746', 5780'-5792', 5820'-5826', 5854'-5860', 5902'-5908' was treated with a sand-water fracturing process on September 17, 1970 and was shut-in for gauge on September 22, 1970. After being shut-in for sixteen (16) days the well was tested on October 8, 1970, and following a three (3) hour blow down period gauged 472 MCF/D through a 3/4" choke and 517 MCF/D by the calculated absolute open-flow method with an SIPC of 1004 psia and an SIPT of 765 psia. The well also made 8.21 barrles of 32.7° API gravity oil during the test.

In support of this application the following Exhibits are made a party hereof:

EXHIBIT "A"

Ownership map reflecting the bounderies of the Unit and the proposed Eighth Expansion of the Gallup Participating Area.

EXHIBIT "B"

Geological Report concerning the Eighth Expansion of the Gallup Formation in the Huerfano Unit.

EXHIBIT "C"

Huerfano Unit Structure Map contoured on the top of the Gallup Formation.

EXHIBIT "D"

Schedule of Gallup oil and gas production.

Attached to this application is Schedule IX. showing the lands entitled to participation in the unitized substances produced from the Gallup Formation with the percentage of participation of each lease or tract indicated thereon.

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Three

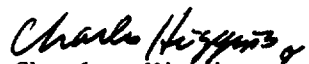
June 1, 1971

If the hereinabove selection of lands to constitute the Eighth Revision of the Gallup Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,

EL PASO NATURAL GAS COMPANY


Charles Higgins
Supervising Landman
Land Department
Energy Resource Development

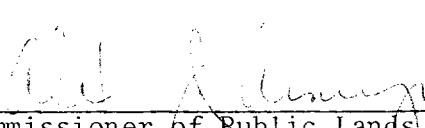
CH:DI:lj
Attachment

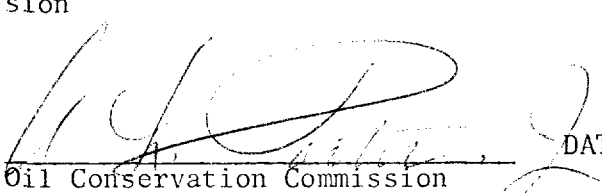
cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Four

June 1, 1971

APPROVED: _____ DATE: _____
Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commis-
sion

APPROVED:  _____ DATE: June 3, 1971
Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey
and the Oil Conservation Commis-
sion

APPROVED:  _____ DATE: June 15, 1971
Oil Conservation Commission
Subject to like approval by the
United States Geological Survey
and the Commissioner of Public
Lands

The foregoing approvals are for the Eighth Revision of the Participating Area for the Gallup Formation, effective November 1, 1970, under the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest Owners

Amoco Production Company (3)	Pearl O. Pipkin
Atlantic Richfield Company (3)	Sunland Refining Corp.
B & M Construction Corporation	Sunset International Petroleum Corp.
Benson-Montin-Greer Drilling Corp.	Sunshine Royalty Company
Brookhaven Oil Company	Tenneco Oil Company
Barbara Ann McConnell Bruss	Texas National Bank of Commerce (Matagorda Oil Company)
CRA International, Ltd.	Texas Pacific Oil Company, Inc.
Cenard Oil & Gas, Inc.	Union Texas Petroleum Denver, Colorado
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Houston, Texas
Continental Oil Company	Dr. Sherman Wengerd
Evko Development Company	
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Lucille H. Pipkin	

Drawer 1857
Roswell, New Mexico 86201

APR 19 1971
17

April 14, 1971

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

Attention: Mr. Charles Higgins

Gentlemen:

Your notice of April 8, 1971, advises that El Paso Natural Gas Company, as unit operator of the Huerfano unit area, San Juan County, New Mexico, has determined unit well No. 151-Y to be incapable of producing unitized substances in paying quantities from the Gallup formation.

Unit well No. 151-Y, in the NE1/4 sec. 35, T. 26 N., R. 10 W., was recompleted November 14, 1970, after abandoning the Dakota formation, for an initial potential of 13.4 BOPD and 87.3 MCFGPD from the Gallup formation 5,762 to 6,066 feet. Monthly production for December 1970 through February 1971 declined from 225 to 101 barrels of oil per month.

This office concurs with your determination that unit well No. 151-Y is incapable of producing unitized substances in paying quantities from the Gallup formation.

Sincerely yours,

(22)
W. O. FREDERICK
Regional Oil and Gas Supervisor

cc:
Washington (w/cy of notice)
Farmington (w/cy of notice)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)
Accounts

El Paso Natural Gas Company

El Paso, Texas 79999

April 8, 1971

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELL in the Gallup
Formation

Dear Sir:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, has determined that the following-described well is not capable of producing untaxed substances in paying quantities from the Gallup Formation:

The Huerfano Unit No. 151-Y well, located 1140' from the North line and 1800' from the West line of Section 35, T-26-N, R-10-W, San Juan County, New Mexico, was drilled to a total depth of 6854' in June of 1969. The well was fraced in the Dakota Formation on June 6, 1969, and tubing was run on June 12, 1969. The well was incapable of sustained production to the atmosphere because of water standing in the production casing, and a potential test was never completed. It was then decided to abandon

April 8, 1971

the Dakota Formation and recomplete the well in the Gallup Formation. On September 12, 1970, a cast iron cement retainer was set at 6620', and the Dakota perforations were squeezed with cement. The well was recompleted in the Gallup Formation on September 16, 1970, and the intervals between 5762'-5774', 5788'-5794', 5870'-5876', 5886'-5892', 5938'-5950', 5988'-5994', 6012'-6018', 6054'-6066' were treated with a sand-oil fracturing process on September 13, 1970 and September 14, 1970. A 24-hour production test was run on the Gallup Formation on November 14, 1970. During the test, the well had a tubing pressure of 25 psia and a casing pressure of 25 psia and produced 13.4 bbls. of oil and 87.3 MCF of gas.

If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:nja
Enclosures
Huerfano 4.4, 4.4.1

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

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

Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____ DATE: _____
Regional Oil & Gas Supervisor
United States Geological Survey

For non-commercial determination of the Huerfano Unit No. 151-Y Well,
Gallup Formation.

El Paso Natural Gas Company

El Paso, Texas 79999

March 15, 1971

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
THIRTY-FIRST AND THIRTY-SECOND
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

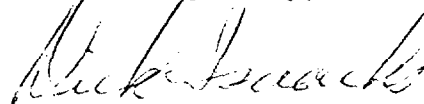
Gentlemen:

The captioned Application dated December 29, 1970, was approved by the regulatory bodies on the dates indicated below:

United States Geological Survey	-	March 9, 1971
Commissioner of Public Lands	-	December 31, 1970
Oil Conservation Commission	-	January 5, 1971

Copies of this letter are being sent to the working interest owners of the above-described unit.

Yours very truly,



Dick Isaacks
Senior Landman
Land Department

DI:nja
Huerfano 4.3

El Paso Natural Gas Company

El Paso, Texas 79999

March 12, 1971

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1971 DRILLING PROGRAM

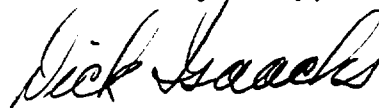
Gentlemen:

The 1971 Drilling Program dated January 20, 1971, for the referenced Unit was approved by the Regulatory Bodies on the dates indicated below:

United States Geological Survey	-	March 11, 1971
Commissioner of Public Lands	-	January 25, 1971
Oil Conservation Commission	-	January 25, 1971

Copies of this letter are being sent to the working interest owners of the above-described Unit.

Yours very truly,



Dick Isaacks
Senior Landman
Land Department

DI:ks
Huerfano 3.0

Drawer 1857
Roswell, New Mexico 88201

March 11, 1971

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1971 plan of development for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of 12 Dakota wells, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington (w/cy plan)
Farmington (w/cy plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. Pub. Lands, Santa Fe (ltr. only)

971 MAR 12 PM 1 05

Drawer 1857
Roswell, New Mexico 88201

March 9, 1971

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Gentlemen:

Your application of December 29, 1970, supplemented by the reserve-economic analysis transmitted by your letter of February 19, 1971, requesting approval of the thirty-first and thirty-second revisions of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, I-Sec. No. 731, was approved on March 9, 1971, by the Acting Oil and Gas Supervisor, U. S. Geological Survey. The thirty-first and thirty-second revisions are effective as of July 1, 1970, and August 1, 1970, respectively, pursuant to sec. 10 of the unit agreement.

The thirty-first revision adds 640 acres described as the S $\frac{1}{2}$ of secs. 26 and 27, T. 26 N., R. 9 W., N.M.P.M., which increases the Dakota participating area from 38,314.36 acres to 38,954.36 acres, and is based on the completion of unit well Nos. 204 and 206, located in the SE $\frac{1}{4}$ of secs. 27 and 26, respectively. Unit well No. 204 was completed June 18, 1970, for a calculated open flow potential of 1,862 MCFGPD from the Dakota interval 6,398 to 6,596 feet and unit well No. 206 was completed June 4, 1970, for a calculated open flow potential of 2,571 MCFGPD from the Dakota interval 6,483 to 6,712 feet.

The thirty-second revision adds 320 acres described as the S $\frac{1}{2}$ sec. 28, T. 26 N., R. 9 W., N.M.P.M., which increases the Dakota participating area to 39,274.36 acres. Such revision is based on the completion of unit well No. 205, located in the SE $\frac{1}{4}$ of sec. 28, T. 26 N., R. 9 W., N.M.P.M. This well was completed July 7, 1970, for a calculated open flow potential of 4,043 MCFGPD from the Dakota interval 6,432 to 6,666 feet.

Copies of the approved application are being distributed to the appropriate Federal offices and two approved copies are returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:

Washington (w/cy appln. & Feb. 19, 1971 supplm.)

Farmington (w/cy appln.)

NMOCC, Santa Fe (ltr. only) ✓

Com. of Pub. Lands, Santa Fe (ltr. only)

03
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51
El Paso Natural Gas Company

El Paso, Texas 79999

February 3, 1971

195
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico,
NOTICE OF COMPLETION OF ADDI-
TIONAL WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that five (5) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the Unit. These wells are as follows:

The Huerfano Unit #122 Well, located 990' from the South line and 990' from the East line of Section 10, T-26-N, R-10-W, was spudded on March 9, 1970, and completed on March 26, 1970, in the Dakota Formation at a total depth of 6967'. The Dakota Formation in the intervals between 6720'-6726', 6736'-6742', 6752'-6758', 6802'-6820', 6862'-6868' was treated with a sand-water fracturing process on March 25, 1970. The well was shut-in on March 27, 1970, and after being shut-in for gauge for eleven (11) days, the well was tested on April 7, 1970, and following a three-hour

February 3, 1971

blow-down period the Dakota Formation gauged 2297 MCF/D through a 3/4" choke and 2500 MCF/D by the absolute open-flow method, with an SIPC of 1925 psia and an SIPT of 1942 psia. The spacing unit for this well is described as the E/2 of Section 10, T-26-N, R-10-W, containing 320.00 acres.

The SE/4 of the above-described spacing unit was included in the Huerfano Unit Tenth Expanded Participating Area of the Dakota Formation effective January 1, 1961, and the NE/4 of the above-described spacing unit was included in the Huerfano Unit Seventh Expanded Participating Area of the Dakota Formation effective January 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #200 Well, located 990' from the South line and 1650' from the East line of Section 6, T-26-N, R-9-W, was spudded on April 11, 1970, and completed on May 1, 1970, in the Dakota Formation at a total depth of 7011'. The Dakota Formation in the intervals between 6762'-6774', 6792'-6798', 6854'-6879', 6940'-6946' was treated with a sand-water fracturing process on April 27, 1970. The well was shut-in on May 26, 1970, and after being shut-in for gauge for seven (7) days, the well was tested on June 2, 1970, and following a three-hour blow-down period, the Dakota Formation gauged 1281 MCF/D through a 3/4" choke, and 1339 MCF/D by the calculated absolute open-flow method, with an SIPC of 1804 psia and an SIPT of 1723 psia. The spacing unit for this well is described as the E/2 of Section 6, T-26-N, R-9-W, containing 321.89 acres.

The above-described spacing unit was included in the Huerfano Unit Thirteenth Expanded Participating Area of the Dakota Formation effective September 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #202 Well, located 1650' from the North line and 1650' from the West line of Section 28, T-26-N, R-10-W, was spudded on February 9, 1970, and completed on February 23, 1970, in the Dakota Formation at a total depth of 6671'. The Dakota Formation in the intervals between 6483'-6489', 6532'-6544' was treated with a sand-water fracturing process on February 22, 1970.

February 3, 1971

The well was shut-in on February 23, 1970, and after being shut-in for gauge for seven (7) days, the well was tested on March 2, 1970, and following a three-hour blow-down period the Dakota Formation gauged 2273 MCF/D through a 3/4" choke and 2454 MCF/D by the calculated absolute open-flow method, with an SIPC of 1697 psia and an SIPT of 362 psia. The spacing unit for this well is described as the W/2 of Section 28, T-26-N, R-10-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #203 Well, located 1750' from the South line and 1750' from the East line of Section 1, T-26-N, R-10-W, was spudded on March 26, 1970, and completed on April 11, 1970, in the Dakota Formation at a total depth of 7032'. The Dakota Formation in the intervals between 6754'-6762', 6844'-6852', 6864'-6872', 6920'-6928' was treated with a sand-water fracturing process on April 9, 1970. The well was shut-in on April 11, 1970, and after being shut-in for gauge for nine (9) days, the well was tested on April 20, 1970, and following a three-hour blow-down period the Dakota Formation gauged 1876 MCF/D through a 3/4" choke and 2029 MCF/D by the calculated absolute open-flow method, with an SIPC of 1920 psia and an SIPT of 1463 psia. The spacing unit for this well is described as the E/2 of Section 1, T-26-N, R-10-W, containing 319.87 acres.

The NE/4 of the above-described spacing unit was included in the Huerfano Unit Eighth Expanded Participating Area of the Dakota Formation effective February 1, 1960, and the SE/4 of the above-described spacing unit was included in the Huerfano Unit First Expanded Participating Area of the Dakota Formation effective September 1, 1958, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit Com #208 Well, located 1180' from the North line and 1000' from the West line of Section 32, T-26-N, R-9-W, was spudded on June 29, 1970, and completed on July 12, 1970, in the Dakota Formation at a

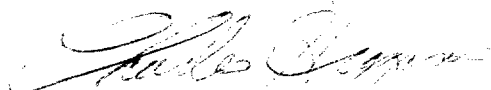
February 3, 1971

total depth of 6778'. The Dakota Formation in the intervals between 6488'-6494', 6512'-6518', 6568'-6574', 6588'-6600', 6668'-6674', 6704'-6710' was treated with a sand-water fracturing process on July 11, 1970. The well was shut-in on July 12, 1970, and after being shut-in for gauge for twelve (12) days, the well was tested on July 24, 1970, and following a three-hour blow-down period the Dakota Formation gauged 3416 MCF/D through a 3/4" choke and 4032 MCF/D by the calculated absolute open-flow method, with an SIPC of 1935 psia and an SIPT of 1446 psia. The spacing unit for this well is described as the W/2 of Section 32, T-26-N, R-9-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Nineteenth Expanded Participating Area of the Dakota Formation effective December 1, 1962, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:nja
Huerfano 4.3.1

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)	Lucille H. Pipkin
B & M Construction Corporation	Pearl O. Pipkin
Benson-Montin-Greer Drilling Corp.	Sunland Refining Corp.
Brookhaven Oil Company	Sunset International Petroleum Corp.
Barbara Ann McConnell Bruss	Sunshine Royalty Company
CRA International, Ltd.	Tenneco Oil Company
Cenard Oil & Gas Company	Texas National Bank of Commerce (Matagorda Oil Co.)
Consolidated Oil & Gas, Inc.	Texas Pacific Oil Co., Inc. (2)
Continental Oil Company	Union Texas Petroleum Denver, Colorado
Evko Development Company	Union Texas Petroleum Houston, Texas
Mr. Albert R. Greer	Dr. Sherman Wengerd
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Pan American Petroleum Corporation (3)	

971 JAN 26 AM 8 13

January 25, 1971

195

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79909

Re: Huerfano Unit
San Juan County, New Mexico
1971 DRILLING PROGRAM

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your 1971 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, proposing the drilling of twelve (12) Dakota wells. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed herewith.

Please remit a Three (\$3.00) Dollar filing fee.

Sincerely yours,

GORDON G. MARCUM, II, Director
Oil and Gas Department

AJA/GGM/s

encl. 1

cc: USGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico ✓

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 25, 1971

195

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1971 Drilling Program
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the calendar year 1971 providing for the drilling of twelve Dakota wells in the Huerfano Unit area, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

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

United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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El Paso Natural Gas Company

El Paso, Texas 79999

January 20, 1971

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1971 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering the captioned Unit on January 8, 1970, for the calendar year 1970, consisting of ten (10) Dakota wells. Wells Nos. 122, 200, 201, 202, 203 and 208 were drilled within the existing Dakota Participating Area and caused no expansion of the Participating Area. Well No. 207 occasioned the Thirtieth Dakota Expansion effective March 1, 1970. Wells Nos. 204, 205 and 206 occasioned the Thirty-first and Thirty-second Dakota Expansion effective July 1, 1970 and August 1, 1970.

During 1970 the No. 151-Y and No. 160 wells were plugged and abandoned in the Dakota Formation and were recompleted in the Gallup Formation. A determination has been made that neither well is capable of producing in paying quantities from the Gallup Formation, and a notice to this effect will be sent to the United States Geological Survey in the near future. The No. 199 well which was drilled during 1969 was determined in 1970 to be incapable of producing in paying quantities after evaluation of production tests.

January 20, 1971

At of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the Unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	49
Pictured Cliffs, Non-Commercial	2
Pictured Cliffs, Plugged and Abandoned	33
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Gallup, Non-Commercial	2
Dakota, Commercial	84
Dakota, Non-Commercial	3
Dakota, Plugged and Abandoned	7
	<hr/> 195

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year 1971 providing for the drilling of the following-described Dakota wells:

<u>Well No.</u>	<u>Spacing Unit</u>
Com No. 91	W/2 Sec. 30, T-27-N, R-10-W
Com No. 118	E/2 Sec. 30, T-27-N, R-10-W
131	N/2 Sec. 34, T-26-N, R-10-W
209	S/2 Sec. 23, T-26-N, R-9-W
210	E/2 Sec. 35, T-27-N, R-10-W
211	W/2 Sec. 10, T-26-N, R-10-W
212	W/2 Sec. 20, T-26-N, R-10-W
213	E/2 Sec. 36, T-27-N, R-10-W
214	S/2 Sec. 34, T-26-N, R-10-W
215	W/2 Sec. 9, T-26-N, R-10-W
217	N/2 Sec. 29, T-27-N, R-10-W
218	N/2 Sec. 29, T-26-N, R-10-W

The Huerfano Com No. 91 and Com No. 118 wells will be situated on spacing units in which approximately 50% of the acreage is not committed to the Unit and if the owner of the non-committed acreage, who is presently in bankruptcy, is unable to join in the drilling, the wells will not be drilled.

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

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Three

January 20, 1971

El Paso Natural Gas Company intends to drill these wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 200' and a full string of production casing will be run to the base of the Dakota Formation and will be cemented in place in three stages. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. The entire hole will be mud drilled and mud will be used in setting the production string of casing when said casing is run. Due care will be taken to protect all horizons.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

If this Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the spaces provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



T. W. Bittick

Director

Lands and Administration

Energy Resource Development

TWB:DI:nja
Enclosures
Huerfano 3.0

APPROVED: _____

Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission

DATE: _____

APPROVED: _____

Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey and
the Oil Conservation Commission

DATE: _____

APPROVED: _____

Oil Conservation Commission
Subject to like approval by the
United States Geological Survey and
the Commissioner of Public Lands

DATE: January 25, 1971

The foregoing approvals are for the 1971 Drilling Program for the Huerfano Unit,
Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT

Working Interest Owners

Atlantic Richfield Company (3)

B & M Construction Corporation

Benson-Montin-Greer Drilling Corp.

Brookhaven Oil Company

Barbara Ann McConnell Bruss

CRA International, Ltd.

Cenard Oil & Gas Company

Consolidated Oil & Gas, Inc.

Continental Oil Company

Evko Development Company

Mr. Albert R. Greer

Mrs. Charline Greer

Alfred Gross, Trustee

Peter Gross

Bernice Jeffs

La Plata Gathering System, Inc.

Mr. O. J. Lilly

Mrs. Marjorie Lundean

Mr. K. E. McAfee

Barbara Irene McConnell

Mr. J. W. McConnell, Jr.

N-M Oil & Gas Venture

Oil & Gas Property Management, Inc.

Pan American Petroleum Corporation (3)

Lucille H. Pipkin

Pearl O. Pipkin

Sunland Refining Corp.

Sunset International Petroleum Corp.

Sunshine Royalty Company

Tenneco Oil Company

Texas National Bank of Commerce
(Matagorda Oil Company)

Texas Pacific Oil Company, Inc.

Union Texas Petroleum
Denver, Colorado

Union Texas Petroleum
Houston, Texas

Dr. Sherman Wengerd



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

71 JAN 22 AM 8 20
January 19, 1971

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Gentlemen:

Your application dated December 29 states that El Paso Natural Gas Company, as operator of the Huerfano unit area, has determined that unit wells No. 204, 205 and 206, located in secs. 27, 28 and 26, respectively, T. 26 N., R. 9 W., N.M.P.M., are capable of producing unitized substances in paying quantities from the Dakota formation. The information contributed by the completion of said wells is the basis upon which the lands proposed for inclusion in the Dakota formation participating area by the thirty-first and thirty-second revisions, were selected.

The following information for each of the above wells is needed to supplement the information contained in your application:

1. An estimate of the recoverable reserves from the Dakota formation.
2. The reserve data from which reservoir calculations were made; including gas gravity, pay thickness, porosity, water saturation, bottomhole pressures and temperatures, drainage area, abandonment pressure, and monthly gas, condensate, and water production.
3. The economics involved; including well costs, monthly operating expense, and estimated life of well.

Upon receipt of the above requested information, your application will be given prompt consideration.

Sincerely yours,

N. O. FREDERICK
Regional Oil and Gas Supervisor

cc:
Washington
Farmington
Com. of Pub. Lands, Santa Fe
NMOCC, Santa Fe

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 5, 1971

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El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Re: Thirty-First and Thirty-
Second - Revisions of the
Dakota Participating Area,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Thirty-First and Thirty-Second Expanded Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

December 31, 1970

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

70 DEC 31 1110 US

Re: Huerfano Unit
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
THIRTY-FIRST AND THIRTY-SECOND
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

ATTENTION: Mr. Charles Higgins

Gentlemen:

The Commissioner of Public Lands has this date approved the Thirty-First and Thirty-Second Expanded Participating Areas, Dakota Formation, for the Huerfano Unit, San Juan County, New Mexico. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing six copies of the application to the Oil Conservation Commission requesting them to forward five copies to the United States Geological Survey at Roswell, New Mexico for their consideration. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Sincerely yours,

GORDON G. MARCUM, II, Director
Oil and Gas Department

AJA/GGM/s

cc: USGS-Roswell, New Mexico (ltr. only)
OCC-Santa Fe (6 copies of Application)

El Paso Natural Gas Company

El Paso, Texas 79999

December 29, 1970

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
THIRTY-FIRST AND THIRTY-SECOND
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the Thirty-first and Thirty-second Expanded Participating Areas of the Dakota Formation for the referenced Unit.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for its approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for its approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:nja
Enclosures
Huerfano 4.3

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
P. O. Box 2038
Santa Fe, New Mexico 87501

El Paso Natural Gas Company

El Paso, Texas 79999

December 29, 1970

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTY-FIRST AND THIRTY-SECOND
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Thirty-first and Thirty-second Revisions of the Participating Area for the Dakota Formation, to wit:

Thirty-first Revision - Effective July 1, 1970

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 9 West, N.M.P.M.</u>	
Section 26: S/2	320.00
Section 27: S/2	320.00
	<u>640.00</u>

December 29, 1970

Thirty-second Revision - Effective August 1, 1970

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 9 West, N.M.P.M.</u>	
Section 28: S/2	320.00

The proposed Thirty-first Revision of the Participating Area for the Dakota Formation is predicated on the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #204 and #206 Wells.

The Huerfano Unit #204 Well, located 1850' from the South line and 1850' from the East line of Section 27, T-26-N, R-9-W, was spudded on May 20, 1970, and completed on June 5, 1970 in the Dakota Formation at a total depth of 6740'. The Dakota Formation in the intervals between 6398'-6410', 6436'-6442', 6490'-6502', 6512'-6518', 6566'-6574', 6588'-6596' was treated with a sand-water fracturing process on June 4, 1970. The well was shut-in on June 6, 1970, and after being shut-in for gauge for twelve (12) days, the well was tested on June 18, 1970, and following a three (3) hour blow-down period the Dakota Formation gauged 1756 MCF/D through a 3/4" choke and 1862 MCF/D by the calculated absolute open-flow method, with an SIPC of 2097 psia and an SIPT of 1538 psia.

The Huerfano Unit #206 Well, located 1850' from the South line and 1750' from the East line of Section 26, T-26-N, R-9-W, was spudded on May 2, 1970, and completed on May 20, 1970 in the Dakota Formation at a total depth of 6781'. The Dakota Formation in the intervals between 6483'-6489', 6499'-6505', 6526'-6532', 6582'-6594', 6610'-6616', 6660'-6666', 6683'-6689', 6700'-6712' was treated with a sand-water fracturing process on May 17, 1970. The well was shut-in on May 21, 1970, and after being shut-in for gauge for fifteen (15) days, the well was tested on June 4, 1970, and following a three (3) hour blow-down period the Dakota Formation gauged 2372 MCF/D through a 3/4" choke and 2571 MCF/D by the calculated absolute open-flow method, with an SIPC of 2034 psia and an SIPT of 1908 psia.

December 29, 1970

The proposed Thirty-second Revision of the Participating Area for the Dakota Formation is predicated on the knowledge and information first obtained upon completion in paying quantities of the Huerfano Unit #205 Well.

The Huerfano Unit #205 Well, located 1850' from the South line and 1850' from the East line of Section 28, T-26-N, R-9-W, was spudded on June 5, 1970, and completed on June 23, 1970 in the Dakota Formation at a total depth of 6764'. The Dakota Formation in the intervals between 6432'-6440', 6470'-6474', 6522'-6530', 6540'-6548', 6614'-6622', 6658'-6666' was treated with a sand-water fracturing process on June 21, 1970. The well was shut-in on June 24, 1970, and after being shut-in for gauge for thirteen (13) days, the well was tested on July 7, 1970, and following a three (3) hour blow-down period the Dakota Formation gauged 3455 MCF/D through a 3/4" choke, and 4043 MCF/D by the calculated absolute open-flow method, with an SIPC of 1952 psia and an SIPT of 1971 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Thirty-first and Thirty-second Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Thirty-first and Thirty-second Revisions of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Figure No. 1: Structure Map on top of Graneros Shale.
Figure No. 2: Isopach Map.

EXHIBIT "D"

Schedule of Dakota Gas Production.

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page 4

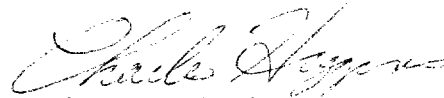
December 29, 1970

Attached to this application are Schedules XXXIII and XXXIV showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Thirty-first and Thirty-second Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:lj
Enclosures
Huerfano, 4.3

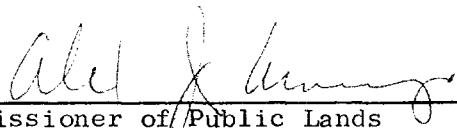
cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting
Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____

Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Commission


DATE: _____

APPROVED: _____


Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey and
the Oil Conservation Commission

DATE: November 31, 1970

APPROVED: _____


Oil Conservation Commission
Subject to like approval by the
United States Geological Survey and
the Commissioner of Public Lands

DATE: _____

The foregoing approvals are for the Thirty-first and Thirty-second Revisions of the Participating Area for the Dakota formation, Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)
B & M Construction Corporation
Benson-Montin-Greer Drilling Corp.
Brookhaven Oil Company
Barbara Ann McConnell Bruss
CRA International, Ltd.
Cenard Oil & Gas Company
Consolidated Oil & Gas, Inc.
Continental Oil Company
Evko Development Company
Mr. Albert R. Greer
Mrs. Charline Greer
Alfred Gross, Trustee
Peter Gross
Bernice Jeffs
La Plata Gathering System, Inc.
Mr. O. J. Lilly
Mrs. Marjorie Lundean
Mr. K. E. McAfee
Barbara Irene McConnell
Mr. J. W. McConnell, Jr.
N-M Oil & Gas Venture
Oil & Gas Property Management, Inc.
Pan American Petroleum Corporation (3)
Lucille H. Pipkin

Pearl O. Pipkin
Sunland Refining Corp.
Sunset International Petroleum Corp.
Sunshine Royalty Company
Tenneco Oil Company
Texas National Bank of Commerce
(Matagorda Oil Company)
Texas Pacific Oil Company, Inc.
Union Texas Petroleum
Denver, Colorado
Union Texas Petroleum
Houston, Texas
Dr. Sherman Wengerd

El Paso Natural Gas Company

El Paso, Texas 79999

August 31, 1970

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDI-
TIONAL WELL, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one (1) additional well capable of producing unitized substances in commercial quantities has been completed upon acreage committed to the Unit. This well is as follows:

The Huerfano Unit #201 Well, located 1650' from the South line and 990' from the East line of Section 9, T-26-N, R-10-W, was spudded on February 23, 1970, and completed on March 9, 1970, in the Dakota Formation at a total depth of 6900'. The Dakota Formation in the intervals between 6727'-6733', 6763'-6769', 6779'-6785', 6824'-6836' was treated with a sand-water fracturing process on March 8, 1970. The well was shut-in on March 10, 1970, and after being shut-in for gauge for seven (7) days, the well was tested on March 17, 1970, and following a three (3) hour blow-down period the Dakota Formation gauged 1412 MCF/D through a 3/4" choke, and 1485 MCF/D by the

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page Two

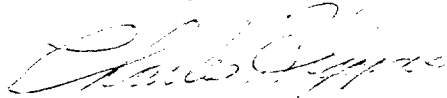
August 31, 1970

calculated absolute open-flow method, with an SIPC
of 1947 psia and an SIPT of 1342 psia.

The acreage upon which this well is located was included in the
Huerfano Unit Seventh Expanded Participating Area of the Dakota
Formation, effective January 1, 1960, and the completion of this
well does not warrant any further expansion of the Dakota
Participating Area.

Copies of this letter are being sent to the working interest owners
as shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Huerfano 4.3.1

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)
B & M Construction Corporation
Benson-Montin-Greer Drilling Corp.
Brookhaven Oil Company
Barbara Ann McConnell Bruss
CRA International, Ltd.
Cenard Oil & Gas Company
Consolidated Oil & Gas, Inc.
Continental Oil Company
Evko Development Company
Mr. Albert R. Greer
Mrs. Charline Greer
Alfred Gross, Trustee
Peter Gross
Bernice Jeffs
La Plata Gathering System, Inc.
Mr. O. J. Lilly
Mrs. Marjorie Lundean
Mr. K. E. McAfee
Barbara Irene McConnell
Mr. J. W. McConnell, Jr.
N-M Oil & Gas Venture
Oil & Gas Property Management, Inc.
Pan American Petroleum Corporation (3)
Lucille H. Pipkin

Pearl O. Pipkin
Sunland Refining Corp.
Sunset International Petroleum Corp.
Sunshine Royalty Company
Tenneco Oil Company
Texas National Bank of Commerce (Matagorda
Oil Company)
Texas Pacific Oil Company, Inc.
Union Texas Petroleum
Denver, Colorado
Union Texas Petroleum
Houston, Texas
Dr. Sherman Wengerd

HUDSON-KELLY PAYOUT
Working Interest Owners

Mr. Robert L. Breedlove

Mrs. Ola E. Callahan

Thomas G. Cornish, Executor of the
Estate of A. T. Hannett, Deceased

Mr. and Mrs. Forrest Gelbke

Dr. and Mrs. James R. Hamilton, Jr.

Mr. Vincent B. Hamilton

Mr. G. W. Hannett

Mrs. Beulah Hanson

Mrs. Billie D. Hood

Elma R. Jones

Corinne Roy Kelly, Individually
and Executrix of the Estate of
Frank S. Kelly, Jr., Deceased

Mr. Harold Kogan

Mr. William H. McCartney

Estate of Murrell Price, Deceased

Mr. and Mrs. Reino R. Saari

Gladys Sketch

Mr. J. C. Smith

Mr. and Mrs. Frank Toombs

Mr. and Mrs. Bert Walters

El Paso Natural Gas Company

El Paso, Texas 79999

June 24, 1970

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1970

192

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTIETH REVISION OF THE PARTICI-
PATING AREA FOR THE DAKOTA FORMATION

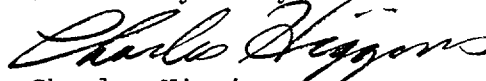
Gentlemen:

The Thirtieth Expanded Participating Area of the Dakota Formation for the referenced Unit was approved by the Regulatory Bodies on the dates indicated:

United States Geological Survey	June 22, 1970
Commissioner of Public Lands	June 4, 1970
Oil Conservation Commission	June 8, 1970

Copies of this letter are being sent to the working interest owners of the above described Unit.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Huerfano, 4.3

cc: Mrs. Pepita O. Jeffus
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

June 22, 1970

El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79999

MAIN OFFICE 010

Attention: Mr. Charles Higgins

'70 JUN 23 PM 1 36

Gentlemen:

The thirtieth revision of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, I-Sec. No. 731, was approved on June 22, 1970, by the Acting Oil and Gas Supervisor, U. S. Geological Survey, effective as of March 1, 1970.

By the thirtieth revision, the Dakota participating area is enlarged from 38,154.36 acres to 38,314.36 acres, based on the completion of unit well No. 207. Unit well No. 207, located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 26 N., R. 10 W., was completed on February 16, 1970, for a calculated open flow potential of 3,454 MCF gas per day in the Dakota interval from 6,434 feet to 6,546 feet.

Copies of the approved application are being distributed to the appropriate Federal offices and two approved copies are returned herewith. You are requested to furnish all interested parties with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:

Washington (w/cy appln)
Farmington (w/cy appln)
NMOCC, Santa Fe (ltr only)
Com. Pub. Lands, Santa Fe (ltr only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

June 8, 1970

175

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Re: Thirtieth Revision Dakota
Participating Area, Huerfano
Unit, San Juan County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Thirtieth Revision of the Dakota formation Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/esr

cc: United States Geological Survey
Roswell, New Mexico

Commissioner of Public Lands
Santa Fe, New Mexico

C
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Y

MAIL ROOM

'70 JUN 4 PM 2 11

June 4, 1970

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
APPLICATION FOR APPROVAL OF
THE THIRTIETH REVISION OF THE
PARTICIPATING AREA FOR THE
DAKOTA FORMATION

ATTENTION: Mr. Charles Higgins

Gentlemen:

The Commissioner of Public Lands has this date approved the Thirtieth revision of the Participating area for the Dakota Formation, Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing six copies of this revision to the Oil Conservation Commission requesting them to forward at least five copies to the United States Geological Survey at Roswell, New Mexico for their consideration.

Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TE/ML/s

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico

C
O
P
Y

El Paso Natural Gas Company

El Paso, Texas 79999

June 1, 1970

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1970

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


Re: Huerfano Unit, 1 Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF THE
THIRTIETH REVISION OF THE PAR-
TICIPATING AREA FOR THE DAKOTA
FORMATION, Effective March 1, 1970

Gentlemen:

We are enclosing for your approval eight (8) copies of an Application for Approval of the Thirtieth Expanded Participating Area of the Dakota formation for the referenced Unit.

If this Application meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After this Application has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After this Application has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Yours very truly,


Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Enclosures

cc: Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

COPY

El Paso Natural Gas Company

El Paso, Texas 79999

June 1, 1970

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

RECEIVED
JUN 2 10 47 AM '70
SANTA FE, N.M.

17-4-100-000

'70 JUN 4 PM 2 12

Re: Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico,
APPLICATION FOR APPROVAL OF
THE THIRTIETH REVISION OF THE
PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Thirtieth Revision of the Participating Area for the Dakota formation, to wit:

Thirtieth Revision - Effective March 1, 1970

<u>Description of Lands</u>	<u>Acreage</u>
<u>Township 26 North, Range 10 West, N.M.P.M.</u>	
Section 20: SE/4	160.00

June 1, 1970

This proposed Thirtieth Expansion of the Participating Area for the Dakota formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #207 Well, located in the SE/4 of Section 20, Township 26 North, Range 10 West, N.M.P.M.

The Huerfano Unit #207 Well, located 990' from the South line and 990' from the East line of Section 20, T-26-N, R-10-W, was spudded on January 23, 1970, and completed on February 8, 1970, in the Dakota formation at a total depth of 6636'. The Dakota formation in the intervals between 6434'-6442', 6475'-6491', 6538'-6546' was treated with a sand-water fracturing process on February 7, 1970. The well was shut-in on February 9, 1970, and after being shut-in for gauge for seven (7) days, the well was tested on February 16, 1970, and, following a three (3) hour blow-down period the Dakota formation gauged 3052 MCF/D through a 3/4" choke and 3454 MCF/D by the calculated absolute open-flow method with an SIPC of 1711 psia and an SIPT of 1644 psia.

In support of this application the following Exhibits are made part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Thirtieth Revision of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Thirtieth Expansion of the Dakota formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map.

EXHIBIT "D"

Schedule of Dakota Gas Production.

RECEIVED
JUN 2 10 47 AM '70
SANTA FE, N.M.

Regional Oil & Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page 3

June 1, 1970

Attached to this application is Schedule XXXII showing the lands entitled to participation in the unitized substances produced from the Dakota formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Thirtieth Revision of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Enclosures
Huerfano, 4.3

RECEIVED
JUN 2 10 47 AM '70
SANTA FE, N.M.

APPROVED: _____ DATE: _____
Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the
appropriate State officials.

APPROVED: Alfred J. Almagro DATE: June 4, 1970
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

APPROVED: A. H. Carter DATE: June 8, 1970
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

The foregoing approvals are for the Thirtieth Revision of the Participating Area for the Dakota formation, Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)
B & M Construction Corporation
Benson-Montin-Greer Drilling Corp.
Brookhaven Oil Company
Barbara Ann McConnell Bruss
CRA International, Ltd.
Cenard Oil & Gas Company
Consolidated Oil & Gas, Inc.
Continental Oil Company
Evko Development Company
Mr. Albert R. Greer
Mrs. Charline Greer
Alfred Gross, Trustee
Peter Gross
Bernice Jeffs
La Plata Gathering System, Inc.
Mr. O. J. Lilly
Mrs. Marjorie Lundean
Mr. K. E. McAfee
Barbara Irene McConnell
Mr. J. W. McConnell, Jr.
N-M Oil & Gas Venture
Oil & Gas Property Management, Inc.
Pan American Petroleum Corporation (3)
Lucille H. Pipkin

Pearl O. Pipkin
Sunland Refining Corp.
Sunset International Petroleum Corp.
Sunshine Royalty Company
Tenneco Oil Company
Texas National Bank of Commerce (Matagorda
Oil Company)
Texas Pacific Oil Company, Inc.
Union Texas Petroleum
Denver, Colorado
Union Texas Petroleum
Houston, Texas
Dr. Sherman Wengerd

JUN 2 10 47 AM '70
SANTA FE, N.M.

El Paso Natural Gas Company

El Paso, Texas 79999

February 26, 1970

70 MAR 2 4 32

Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: 1970 DRILLING PROGRAM,
Huerfano Unit, Sec. No. 731,
San Juan County, New Mexico


Gentlemen:

The 1970 Drilling Program for the referenced Unit was approved
by the Regulatory Bodies on the dates indicated:

United States Geological Survey	February 18, 1970
Commissioner of Public Lands	January 15, 1970
Oil Conservation Commission	January 21, 1970

Copies of this letter are being sent to the working interest
owners of the above described Unit.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Huerfano, 3.0



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

February 18, 1970

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1970 plan of development for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of ten Dakota wells, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

~~ICRIS. SEP. BILLY J. SHOGER~~

BILLY J. SHOGER
Acting Oil and Gas Supervisor

cc:

Washington (w/cy plan)
Farmington (w/cy plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. Pub. Lands, Santa Fe (ltr. only)

El Paso Natural Gas Company

El Paso, Texas 79969

February 3, 1970

RECEIVED
FEB 13 1970

FEB 13 1970

193

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELL, Pictured Cliffs Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one additional well capable of producing unitized substances in commercial quantities from the Pictured Cliffs Formation has been completed upon acreage committed to the Unit. This well is as follows:

The Huerfano Unit #14-Y Well, located 1850' from the South line and 790' from the West line of Section 5, Township 26 North, Range 10 West, San Juan County, New Mexico, was spudded on December 14, 1969, and completed on December 19, 1969, in the Pictured Cliffs Formation at a total depth of 2280'. The Pictured Cliffs Formation in the intervals between 2172' - 2180', 2190' - 2198' was treated with a sand-water fracturing process on December 19, 1969. The well was shut-in on December 26, 1969, and after being shut-in for gauge for twelve (12) days, the well was tested on January 7, 1970, and following a three (3) hour blow-down period the Pictured Cliffs Formation gauged 1124 MCF/D through a 3/4" choke, and 1405 MCF/D by the calculated absolute

Regional Oil and Gas Supervisor
Commissioner of Public Lands
Oil Conservation Commission
Page 2

February 3, 1970

open-flow method with an SIPC of 233 psia. The spacing unit upon which this well is located is described as the SW/4 of Section 5, Township 26 North, Range 10 West, containing 160.00 acres. The Huerfano Unit #14 Well which is located 990' from the South line and 990' from the West line of Section 5, T-26-N, R-10-W was plugged and abandoned October 4, 1967..

This spacing unit was included in the Huerfano Unit Second Expanded Participating Area of the Pictured Cliffs Formation, effective October 1, 1952, and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

Charles Higgins
Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Huerfano 4.1.1

HUDSON-KELLY PAYOUT
Working Interest Owners

Mr. Robert L. Breedlove

Mrs. Ola E. Callahan

Thomas G. Cornish, Executor of the
Estate of A. T. Hannett, Deceased

Mr. and Mrs. Forrest Gelbke

Dr. and Mrs. James R. Hamilton, Jr.

Mr. Vincent B. Hamilton

Mr. G. W. Hannett

Mrs. Beulah Hanson

Mrs. Billie D. Hood

Elma R. Jones

Corinne Roy Kelly, Individually
and Executrix of the Estate of
Frank S. Kelly, Jr., Deceased

Mr. Harold Kogan

Mr. William H. McCartney

Estate of Murrell Price, Deceased

Mr. and Mrs. Reino R. Saari

Gladys Sketch

Mr. J. C. Smith

Mr. and Mrs. Frank Toombs

Mr. and Mrs. Bert Walters

HUERFANO UNIT
Working Interest Owners

D = Dakota Participating Area
G = Gallup Participating Area
PC = Pictured Cliffs Participating Area

Atlantic Richfield Company (3) (D, G)

B & M Construction Corporation (D)

Benson-Montin-Greer Drilling Corp. (D)

Brookhaven Oil Company

Barbara Ann McConnell Bruss (D, PC)

CRA International, Ltd. (D)

Cenard Oil & Gas Company (D)

Consolidated Oil & Gas, Inc. (D)

Continental Oil Company (D, G)

Evko Development Company

Mr. Albert R. Greer (D)

Mrs. Charline Greer (D)

Alfred Gross, Trustee (D)

Peter Gross (D)

Bernice Jeffs

La Plata Gathering System, Inc. (D)

Mr. O. J. Lilly (D, PC)

Mrs. Marjorie Lundean

Mr. K. E. McAfee (D)

Barbara Irene McConnell (D, PC)

Mr. J. W. McConnell, Jr. (D, PC)

N-M Oil & Gas Venture (D)

Oil & Gas Property Management, Inc.

Pan American Petroleum Corporation (3) (D, G)

Lucille H. Pipkin

Pearl O. Pipkin

Sunland Refining Corp. (D)

Sunset International Petroleum Corp.
(D, G, PC)

Sunshine Royalty Company

Tenneco Oil Company (D, G)

Texas National Bank of Commerce (Matagorda
Oil Company)

Texas Pacific Oil Company, Inc. (2) (D)

Union Texas Petroleum (D)
Denver, Colorado

Union Texas Petroleum (D)
Houston, Texas

Dr. Sherman Wengerd (D)

SEE ATTACHED SHEET WHICH SHOWS
WORKING INTEREST OWNERS AFTER
PAYOUT OF THE HUDSON-KELLY
PAYOUT ACCOUNT.

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)	Pearl O. Pipkin
B & M Construction Corporation	Sunland Refining Corp.
Benson-Montin-Greer Drilling Corp.	Sunset International Petroleum Corp.
Brookhaven Oil Company	Sunshine Royalty Company
Barbara Ann McConnell Bruss	Tenneco Oil Company
CRA International, Ltd.	Texas National Bank of Commerce (Matagorda Oil Company)
Cenard Oil & Gas Company	Texas Pacific Oil Company, Inc.
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Denver, Colorado
Continental Oil Company	Union Texas Petroleum Houston, Texas
Evko Development Company	Dr. Sherman Wengerd
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Pan American Petroleum Corporation (3)	
Lucille H. Pipkin	

Drawer 1857
Roswell, New Mexico 88201

MAIN OFFICE 0000

70 FEB 3 AM 17

February 2, 1970

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Gentlemen:

Your letter of January 23, 1970, advises that as unit operator of the Euerfano unit, San Juan County, New Mexico, you have determined that unit well No. 199 in the NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 25 N., R. 9 W., San Juan County, New Mexico, lease Santa Fe 079231, is not capable of producing unitized substances in paying quantities from the Dakota formation.

Well No. 199 was completed on October 2, 1969, for an initial absolute open flow potential of 1,212 MCF of gas per day from Dakota perforations in the interval from 6,517 to 6,614 feet.

This office concurs with your determination that the well is not capable of producing unitized substances in paying quantities under existing conditions. Two copies of your letter are returned herewith.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

cc:
Washington (w/cy notice)
Farmington (w/cy notice)
Com. of Pub. Lands, Santa Fe (ltr. only)
NMOCC, Santa Fe (ltr. only)
Accounts

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

El Paso Natural Gas Company

El Paso, Texas 79999

January 23, 1970

RECEIVED
JAN 26 1970

JAN 26 1970

195

Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELL in the Dakota
Formation

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Dakota Formation:

The Huerfano Unit No. 199 Well, located 1750' from the South line and 990' from the West line of Section 17, Township 25 North, Range 9 West, San Juan County, New Mexico, was spudded on September 2, 1969, and completed on September 19, 1969, at a total depth of 6684'. The Dakota Formation in the intervals between 6517'-6529', 6537'-6549', 6608'-6614', was treated with a sand-oil fracturing process on September 15, 1969. The well was shut-in on September 20, 1969, and after being shut-in for twelve (12) days, the Dakota Formation was tested on October 2, 1969, and after a three hour blow-down period, the well gauged 1203 MCF/D through a 3/4" choke and 1212 MCF/D by the calculated absolute open flow method with an SIPC of 839 psia and an SIPT of 1901 psia.

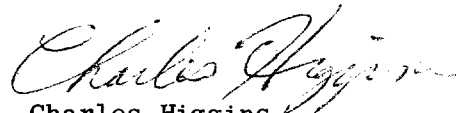
If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Regional Oil and Gas Supervisor
Page Two

January 23, 1970

Copies of this letter are being sent to the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:ec
Enclosures

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

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

Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____
Regional Oil and Gas Supervisor
United States Geological Survey

DATE: _____

For non-commercial determination of the Huerfano Unit No. 199 Well,
Dakota Formation.

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)	Pearl O. Pipkin
B & M Construction Corporation	Sunland Refining Corp.
Benson-Montin-Greer Drilling Corp.	Sunset International Petroleum Corp.
Brookhaven Oil Company	Sunshine Royalty Company
Barbara Ann McConnell Bruss	Tenneco Oil Company
CRA International, Ltd.	Texas National Bank of Commerce (Matagorda Oil Company)
Cenard Oil & Gas Company	Texas Pacific Oil Company, Inc.
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Denver, Colorado
Continental Oil Company	Union Texas Petroleum Houston, Texas
Evko Development Company	Dr. Sherman Wengerd
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Pan American Petroleum Corporation (3)	
Lucille H. Pipkin	

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 21, 1970

195

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1970 Drilling Program
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the Calendar Year 1970 providing for the drilling of ten Dakota wells in the Huerfano Unit Area, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og
Enclosure

cc: United States Geological Survey
Roswell, New Mexico

Commissioner of Public Lands
Santa Fe, New Mexico

C
O
P
Y

JAN 19 1970

January 15, 1970

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County,
New Mexico
1970 DRILLING PROGRAM

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your 1970 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, proposing the drilling of ten (10) Dakota wells. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed herewith.

Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TB/ML/s
encl.

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79999

January 8, 1970

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1970 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering the captioned Unit on January 6, 1969, for the calendar year 1969, consisting of twenty (20) Dakota wells. On November 28, 1969, El Paso Natural Gas Company filed a Supplemental Drilling Program for 1969 calling for the drilling of one (1) Pictured Cliffs well. All twenty-one (21) of the proposed wells were timely drilled during 1969. The Pictured Cliffs well and each of the Dakota wells except the #199 Well located in the W/2 Sec. 17, T-25-N, R-9-W, were drilled in existing participating areas and did not cause an expansion of the participating areas. El Paso is presently observing production from the #199 Well to determine if the well is capable of producing in paying quantities, thereby causing an expansion of the Dakota Participating Area. The #151-Y Dakota Well located in the W/2 Sec. 35, T-25-N, R-10-W, is not capable of sustaining gas production to the atmosphere and unless the water production depletes in the near future, consideration will be given to plugging and abandoning the well.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the Unit or on acreage pooled and communitized with committed acreage is as follows:

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page 2

January 8, 1970

Pictured Cliffs, Commercial	49
Pictured Cliffs, Noncommercial	2
Pictured Cliffs, Plugged and Abandoned	33
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	75
Dakota, Noncommercial	2
Dakota, Plugged and Abandoned	5
Dakota (#151-Y and #199 Wells)	2
	<u>183</u>

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1970 providing for the drilling of the following described Dakota wells:

<u>Huerfano Unit Well No.</u>	<u>Location</u>
122	E/2 Sec. 10, T-26-N, R-10-W
200	E/2 Sec. 6, T-26-N, R-9-W
201	E/2 Sec. 9, T-26-N, R-10-W
202	W/2 Sec. 28, T-26-N, R-10-W
203	E/2 Sec. 1, T-26-N, R-10-W
204	S/2 Sec. 27, T-26-N, R-9-W
205	S/2 Sec. 28, T-26-N, R-9-W
206	S/2 Sec. 26, T-26-N, R-9-W
207	E/2 Sec. 20, T-26-N, R-10-W
208	W/2 Sec. 32, T-26-N, R-9-W

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

El Paso Natural Gas Company intends to drill these wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 200' and a full string of production casing will be run to the base of the Dakota Formation and will be cemented in place in three stages. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. The entire hole will be mud drilled and mud will be used in setting the production string of casing when said casing is run. Due care will be taken to protect all horizons.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page 3

January 8, 1970

unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



T. W. Bittick
Manager
Land Department

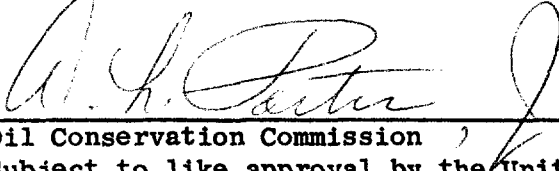
TWB:DI:sf
Enclosures
Huerfano, 3.0

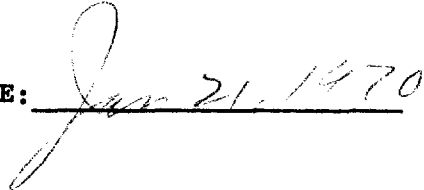
APPROVED: _____
Regional Oil and Gas Supervisor
United States Geological Survey
Subject to like approval by the appropriate
State officials.

DATE: _____

APPROVED: _____
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

DATE: _____

APPROVED:  _____
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

DATE:  _____

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1970.

HUERFANO UNIT
Working Interest Owners
Page 1

Atlantic Richfield Company (3)
B & M Construction Corporation
Benson-Montin-Greer Drilling Corp.
Brookhaven Oil Company
Barbara Ann McConnell Bruss
CRA International, Ltd.
Cenard Oil & Gas Company
Consolidated Oil & Gas, Inc.
Continental Oil Company
Evko Development Company
Mr. Albert R. Greer
Mrs. Charline Greer
Alfred Gross, Trustee
Peter Gross
Bernice Jeffs
La Plata Gathering System, Inc.
Mr. O. J. Lilly
Mrs. Marjorie Lundean
Mr. K. E. McAfee
Barbara Irene McConnell
Mr. J. W. McConnell, Jr.
N-M Oil & Gas Venture
Oil & Gas Property Management, Inc.
Pan American Petroleum Corporation (3)

Lucille H. Pipkin
Pearl O. Pipkin
Sunland Refining Corp.
Sunset International Petroleum Corp.
Sunshine Royalty Company
Tenneco Oil Company
Texas National Bank of Commerce
(Matagorda Oil Company)
Texas Pacific Oil Company, Inc. (2)
Union Texas Petroleum
Denver, Colorado
Union Texas Petroleum
Houston, Texas
Dr. Sherman Wengerd

DEC 12 1969

195

December 11, 1969

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico
1969 Supplemental Drilling
Program

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your 1969 Supplemental Drilling Program for the Huerfano Unit, San Juan County, New Mexico, proposing to include, in addition to the twenty (20) wells originally scheduled, a Pictured Cliffs well in the SW/4 of Section 5, Township 26 North, Range 10 West. Also Unit Operator will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and Working Interest owners. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed herewith.

Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TB/ML/s
encls.

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico

C
O
P
Y



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

P. O. BOX 2088 - SANTA FE

87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

December 5, 1969

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

Attention: Mr. T. W. Bittick

Re: 1969 Supplemental Drilling Program
Huerfano Unit, San Juan County,
New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1969 Supplemental Drilling Program dated November 28, 1969, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the Supplemental program is returned herewith.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. L. Porter, Jr.", written over a horizontal line.

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands
Santa Fe, New Mexico

United States Geological Survey
Roswell, New Mexico



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

DEC 11 1969

IN REPLY REFER TO:

December 10, 1969

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your Supplemental Plan of Development for 1969, dated November 28, 1969, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of one Pictured Cliffs well, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

LONG SIGNED JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington (w/cy plan)
Farmington (w/cy plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)

El Paso Natural Gas Company

El Paso, Texas 79999

November 28, 1969

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1969 SUPPLEMENTAL DRILLING PROGRAM

Gentlemen:

By letter dated January 6, 1969, El Paso Natural Gas Company, as Unit Operator, filed a Plan of Development for the calendar year 1969. This Plan of Development stated that twenty (20) Dakota wells would be drilled. Based upon the recommendation of a majority of the working interest owners in the Unit, El Paso Natural Gas Company desires to amend the 1969 Plan of Development for the Huerfano Unit to include, in addition to the twenty (20) wells originally scheduled, a Pictured Cliffs well in the SW/4 of Section 5, T-26-N, R-10-W. This well will be drilled within the boundaries of the existing Pictured Cliffs Participating Area and will replace the Huerfano #14 Well that was plugged and abandoned in 1967.

In addition to the wells mentioned above, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in


Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page 2

November 28, 1969

the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,


T. W. Bittick
Manager
Land Department

TWB:DI:sf

APPROVED: _____ DATE: _____
Regional Oil & Gas Supervisor
United States Geological Survey
Subject to like approval by the appropriate State
Regulatory Bodies.

APPROVED: _____ DATE: _____
Commissioner of Public Lands
Subject to like approval by the United States
Geological Survey and the Oil Conservation Commission.

APPROVED: R. G. Porter, Jr. _____ DATE: _____
Oil Conservation Commission
Subject to like approval by the United States
Geological Survey and the Commissioner of
Public Lands.

The foregoing approvals are for the Huerfano Unit Supplemental Drilling Program for
the calendar year 1969.

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)	Pearl O. Pipkin
B & M Construction Corporation	Sunland Refining Corp.
Benson-Montin-Greer Drilling Corp.	Sunset International Petroleum Corp.
Brookhaven Oil Company	Sunshine Royalty Company
Barbara Ann McConnell Bruss	Tenneco Oil Company
CRA International, Ltd.	Texas National Bank of Commerce (Matagorda Oil Company)
Cenard Oil & Gas Company	Texas Pacific Oil Company, Inc.
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Denver, Colorado
Continental Oil Company	Union Texas Petroleum Houston, Texas
Evko Development Company	Dr. Sherman Wengerd
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Pan American Petroleum Corporation (3)	
Lucille H. Pipkin	

El Paso Natural Gas Company

El Paso, Texas 79999

October 29, 1969

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that seven (7) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the Unit. These wells are as follows:

The Huerfano Unit #183 Well, located 1100' from the South line and 1500' from the East line of Section 7, T-26-N, R-9-W, was spudded on June 27, 1969, and completed on July 13, 1969, in the Dakota Formation at a total depth of 6831'. The Dakota Formation in the intervals between 6632'-6642', 6655'-6660', 6714'-6722', 6734'-6742', 6797'-6807' was treated with a sand-water fracturing process on July 11, 1969. The well was shut-in on July 13, 1969, and after being shut-in for gauge for twelve (12) days, the well was tested on July 25, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 4589 MCF/D through a 3/4" choke, and 5785 MCF/D by the calculated absolute open-flow method, with an SIPC of 1887 psia and an SIPT of 1899 psia. The spacing unit for this well is described as the S/2 of Section 7, T-26-N, R-9-W, containing 324.16 acres.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Two

October 29, 1969

The above-described spacing unit was included in the Huerfano Unit Initial Expanded Participating Area of the Dakota Formation effective June 27, 1958, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #186 Well, located 1600' from the North line and 1810' from the West line of Section 31, T-27-N, R-9-W, was spudded on July 13, 1969, and completed on July 29, 1969, in the Dakota Formation at a total depth of 6905'. The Dakota Formation in the intervals between 6608'-6618', 6699'-6704', 6714'-6724', 6759'-6764', 6784'-6794' was treated with a sand-water fracturing process on July 28, 1969. The well was shut-in on July 31, 1969, and after being shut-in for gauge for fourteen (14) days, the well was tested on August 14, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 2476 MCF/D through a 3/4" choke, and 2698 MCF/D by the calculated absolute open-flow method, with an SIPC of 1994 psia and an SIPT of 1844 psia. The spacing unit for this well is described as the W/2 of Section 31, T-27-N, R-9-W, containing 324.80 acres.

The above-described spacing unit was included in the Huerfano Unit Fourteenth Expanded Participating Area of the Dakota Formation effective October 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #188 Well, located 800' from the South line and 900' from the West line of Section 6, T-25-N, R-9-W, was spudded on September 20, 1969, and completed on October 6, 1969, in the Dakota Formation at a total depth of 7025'. The Dakota Formation in the intervals between 6868'-6874', 6884'-6896', 6906'-6912' was treated with a sand-water fracturing process on October 5, 1969. The well was shut-in on October 7, 1969, and after being shut-in for gauge for eight (8) days, the well was tested on October 15, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 5542 MCF/D through a 3/4" choke, and 7377 MCF/D by the calculated absolute open-flow method, with an SIPC of 1950 psia and an SIPT of 1912 psia. The spacing unit for this well is described as the W/2 of Section 6, T-25-N, R-9-W, containing 325.48 acres.

The NW/4 of the above-described spacing unit was included in the Huerfano Unit Nineteenth Expanded Participating Area of the Dakota Formation effective December 1, 1962, and the SW/4 of the above-described spacing unit was included in the Huerfano Unit Twenty-third Expanded Participating Area of the Dakota Formation effective December 1, 1964, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Three

October 29, 1969

The Huerfano Unit #191 Well, located 1840' from the North line and 1090' from the West line of Section 21, T-26-N, R-9-W, was spudded on June 13, 1969, and completed on June 27, 1969, in the Dakota Formation at a total depth of 6677'. The Dakota Formation in the intervals between 6430'-6440', 6461'-6466', 6519'-6530', 6583'-6593', 6644'-6649' was treated with a sand-water fracturing process on June 26, 1969. The well was shut-in on June 28, 1969, and after being shut-in for gauge for twelve (12) days, the well was tested on July 10, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 3250 MCF/D through a 3/4" choke, and 3692 MCF/D by the calculated absolute open-flow method, with an SIPC of 1982 psia and an SIPT of 1811 psia. The spacing unit for this well is described as the N/2 of Section 21, T-26-N, R-9-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Fifteenth Expanded Participating Area of the Dakota Formation effective December 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #196 Well, located 800' from the South line and 1150' from the East line of Section 21, T-26-N, R-10-W, was spudded on February 25, 1969, and completed on May 14, 1969, in the Dakota Formation at a total depth of 6738'. The Dakota Formation in the intervals between 6542'-6548', 6579'-6591', 6606'-6612' was treated with a sand-water fracturing process on May 13, 1969. The well was shut-in on May 15, 1969, and after being shut-in for gauge for seven (7) days, the well was tested on May 22, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 5884 MCF/D through a 3/4" choke, and 8517 MCF/D by the calculated absolute open-flow method, with an SIPC of 1707 psia and an SIPT of 1163 psia. The spacing unit for this well is described as the E/2 of Section 21, T-26-N, R-10-W, containing 320.00 acres.

The NE/4 of the above-described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the SE/4 of the above-described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

October 29, 1969

The Huerfano Unit #197 Well, located 1800' from the South line and 800' from the East line of Section 28, T-26-N, R-10-W, was spudded on May 8, 1969, and completed on May 28, 1969, in the Dakota Formation at a total depth of 6732'. The Dakota Formation in the intervals between 6543'-6549', 6584'-6590', 6612'-6618', 6666'-6672' was treated with a sand-water fracturing process on May 26, 1969. The well was shut-in on May 29, 1969, and after being shut-in for gauge for seven (7) days, the well was tested on June 5, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 4586 MCF/D through a 3/4" choke, and 6052 MCF/D by the calculated absolute open-flow method, with an SIPC of 1644 psia and an SIPT of 1649 psia. The spacing unit for this well is described as the E/2 of Section 28, T-26-N, R-10-W, containing 320.00 acres.

The above-described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #198 Well, located 1800' from the South line and 1550' from the East line of Section 27, T-26-N, R-10-W, was spudded on April 22, 1969, and completed on May 6, 1969, in the Dakota Formation at a total depth of 6766'. The Dakota Formation in the intervals between 6620'-6624', 6652'-6660', 6670'-6678', 6716'-6720' was treated with a sand-water fracturing process on May 5, 1969. The well was shut-in on May 7, 1969, and after being shut-in for gauge for nine (9) days, the well was tested on May 16, 1969, and following a three (3) hour blow-down period, the Dakota Formation gauged 2808 MCF/D through a 3/4" choke, and 3129 MCF/D by the calculated absolute open-flow method, with an SIPC of 1707 psia and an SIPT of 1520 psia. The spacing unit for this well is described as the E/2 of Section 27, T-26-N, R-10-W, containing 320.00 acres.

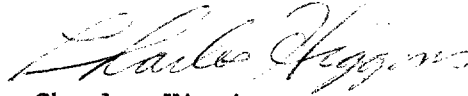
The above-described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Five

October 29, 1969

Copies of this letter are being sent to the working interest owners
as shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:nja
Huerfano 4.3.1

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil and Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT
Working Interest Owners

Atlantic Richfield Company (3)	Pearl O. Pipkin
B & M Construction Corporation	Sunland Refining Corp.
Benson-Montin-Greer Drilling Corp.	Sunset International Petroleum Corp.
Brookhaven Oil Company	Sunshine Royalty Company
Barbara Ann McConnell Bruss	Tenneco Oil Company
CRA International, Ltd.	Texas National Bank of Commerce (Matagorda Oil Company)
Cenard Oil & Gas Company	Texas Pacific Oil Company, Inc.
Consolidated Oil & Gas, Inc.	Union Texas Petroleum Denver, Colorado
Continental Oil Company	Union Texas Petroleum Houston, Texas
Evko Development Company	Dr. Sherman Wengerd
Mr. Albert R. Greer	
Mrs. Charline Greer	
Alfred Gross, Trustee	
Peter Gross	
Bernice Jeffs	
La Plata Gathering System, Inc.	
Mr. O. J. Lilly	
Mrs. Marjorie Lundean	
Mr. K. E. McAfee	
Barbara Irene McConnell	
Mr. J. W. McConnell, Jr.	
N-M Oil & Gas Venture	
Oil & Gas Property Management, Inc.	
Pan American Petroleum Corporation (3)	
Lucille H. Pipkin	

El Paso Natural Gas Company

El Paso, Texas

May 29, 1969

1969

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that eleven (11) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the Unit. These wells are as follows:

- ✓ The Huerfano Unit #54 Well, located 1840' from the North line and 1100' from the West line of Section 27, T-26-N, R-9-W, was spudded on January 15, 1969, and completed on February 2, 1969, in the Dakota Formation at a total depth of 6713'. The Dakota Formation in the intervals between 6413'-6423', 6452'-6458', 6509'-6515', 6521'-6527', 6591'-6595', 6602'-6606', 6629'-6635', was treated with a sand-water fracturing process on January 28, 1969. The well was shut-in on February 3, 1969, and after being shut-in for gauge for seventeen (17) days, the well was tested on February 20, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 3152 MCF/D through a 3/4" choke, and 3618 MCF/D by the calculated absolute open-flow method with an SIPC of 1963 psia and an SIPT of 1963 psia. The spacing unit for this well is described as the N/2 of Section 27, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Twenty-Eighth Expanded Participating Area of the Dakota Formation effective September 1, 1968,

and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #119 Well, located 1650' from the North line and 990' from the West line of Section 15, T-26-N, R-10-W, was spudded on February 17, 1969, and completed on March 19, 1969, in the Dakota Formation at a total depth of 6895'. The Dakota Formation in the intervals between 6727'-6732', 6743'-6748', 6784'-6804', 6842'-6847', was treated with a sand-water fracturing process on March 18, 1969. The well was shut-in on March 20, 1969, and after being shut-in for gauge for seven (7) days, the well was tested on March 27, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 2991 MCF/D through a 3/4" choke, and 3435 MCF/D by the calculated absolute open-flow method with an SIPC of 1785 psia and an SIPT of 1459 psia. The spacing unit for this well is described as the W/2 of Section 15, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #184 Well, located 800' from the South line and 1000' from the East line of Section 11, T-26-N, R-10-W, was spudded on February 11, 1969, and completed on March 3, 1969, in the Dakota Formation at a total depth of 6895'. The Dakota Formation in the intervals between 6774'-6786', 6796'-6802', 6835'-6847', was treated with a sand-water fracturing process on March 2, 1969. The well was shut-in on March 4, 1969, and after being shut-in for gauge for eight (8) days, the well was tested on March 12, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 2682 MCF/D through a 3/4" choke, and 2944 MCF/D by the calculated absolute open-flow method with an SIPC of 1971 psia and an SIPT of 1961 psia. The spacing unit for this well is described as the E/2 of Section 11, T-26-N, R-10-W, containing 320.00 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Fifth Expanded Participating Area of the Dakota Formation effective October 1, 1959, and the SE/4 of the above described spacing unit was included in the Huerfano Unit Tenth Expanded Participating Area of the Dakota Formation effective January 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #185 Well, located 800' from the South line and 1740' from the East line of Section 12, T-26-N, R-10-W, was spudded on January 25, 1969, and completed on February 15, 1969, in the Dakota Formation at a total depth of 6851'. The Dakota Formation in the intervals between 6648'-6652', 6664'-6668', 6722'-6736', 6746'-6760', 6786'-6796', was treated with a sand-water fracturing process on

February 13, 1969. The well was shut-in on February 16, 1969, and after being shut-in for gauge for ten (10) days, the well was tested on February 26, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 3308 MCF/D through a 3/4" choke, and 3711 MCF/D by the calculated absolute open-flow method with an SIPC of 1968 psia and an SIPT of 1963 psia. The spacing unit for this well is described as the E/2 of Section 12, T-26-N, R-10-W, containing 320.00 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit First Expanded Participating Area of the Dakota Formation effective September 1, 1958, and the SE/4 of the above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #187 Well, located 850' from the North line and 1550' from the East line of Section 6, T-25-N, R-9-W, was spudded on March 6, 1969, and completed on March 21, 1969, in the Dakota Formation at a total depth of 6819'. The Dakota Formation in the intervals between 6594'-6602', 6658'-6666', 6681'-6689', was treated with a sand-water fracturing process on March 20, 1969. The well was shut-in on March 22, 1969, and after being shut-in for gauge for seventeen (17) days, the well was tested on April 8, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 5513 MCF/D through a 3/4" choke, and 7351 MCF/D by the calculated absolute open-flow method with an SIPC of 1867 psia and an SIPT of 1141 psia. The spacing unit for this well is described as the E/2 of Section 6, T-25-N, R-9-W, containing 320.48 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Nineteenth Expanded Participating Area of the Dakota Formation effective December 1, 1962, and the SE/4 of the above described spacing unit was included in the Huerfano Unit Twenty-Third Expanded Participating Area of the Dakota Formation effective December 1, 1964, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #189 Well, located 1600' from the South line and 855' from the West line of Section 7, T-25-N, R-9-W, was spudded on April 5, 1969, and completed on April 21, 1969, in the Dakota Formation at a total depth of 6878'. The Dakota Formation in the intervals between 6712'-6720', 6730'-6738', 6750'-6760', was treated with a sand-water fracturing process on April 20, 1969. The well was shut-in on April 22, 1969, and after being shut-in for gauge for fourteen (14) days, the well was tested on May 6, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 3532 MCF/D through a 3/4" choke, and 3947 MCF/D by the calculated absolute open-flow method with an SIPC of 1947 psia and an SIPT of 1598 psia. The spacing unit for this well is described as the S/2 of Section 7, T-25-N, R-9-W, containing 322.33 acres.

The above described spacing unit was included in the Huerfano Unit Twenty-Third Expanded Participating Area of the Dakota Formation effective December 1, 1964,

and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #190 Well, located 1025' from the North line and 1840' from the East line of Section 1, T-25-N, R-10-W, was spudded on March 22, 1969, and completed on April 4, 1969, in the Dakota Formation at a total depth of 6840'. The Dakota Formation in the intervals between 6642'-6647', 6698'-6708', 6721'-6731', was treated with a sand-water fracturing process on April 3, 1969. The well was shut-in on April 5, 1969, and after being shut-in for gauge for ten (10) days, the well was tested on April 15, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 5381 MCF/D through a 3/4" choke, and 6982 MCF/D by the calculated absolute open-flow method with an SIPC of 1916 psia and an SIPT of 1914 psia. The spacing unit for this well is described as the E/2 of Section 1, T-25-N, R-10-W, containing 319.91 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Seventeenth Expanded Participating Area of the Dakota Formation effective October 1, 1962, and the SE/4 of the above described spacing unit was included in the Huerfano Unit Twenty-Third Expanded Participating Area of the Dakota Formation effective December 1, 1964, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #192 Well, located 800' from the South line and 800' from the East line of Section 22, T-26-N, R-9-W, was spudded on February 20, 1969, and completed on March 5, 1969, in the Dakota Formation at a total depth of 6683'. The Dakota Formation in the intervals between 6390'-6400', 6429'-6434', 6482'-6490', 6552'-6560', 6598'-6606', was treated with a sand-water fracturing process on March 4, 1969. The well was shut-in on March 6, 1969, and after being shut-in for gauge for fourteen (14) days, the well was tested on March 20, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 3943 MCF/D through a 3/4" choke, and 4435 MCF/D by the calculated absolute open-flow method with an SIPC of 2033 psia and an SIPT of 2048 psia. The spacing unit for this well is described as the S/2 of Section 22, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Twentieth Expanded Participating Area of the Dakota Formation effective January 1, 1963, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #193 Well, located 1790' from the South line and 1650' from the East line of Section 29, T-26-N, R-9-W, was spudded on February 3, 1969, and completed on February 19, 1969, in the Dakota Formation at a total depth of 6790'. The Dakota Formation in the intervals between 6506'-6514', 6592'-6595', 6602'-6606', 6610'-6616', 6689'-6693', 6730'-6736', was treated with a sand-water fracturing process on February 18, 1969. The well was shut-in on February 20, 1969, and after being shut-in for gauge for eight (8) days, the well was tested

on February 28, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 3329 MCF/D through a 3/4" choke, and 4069 MCF/D by the calculated absolute open-flow method with an SIPC of 1944 psia and an SIPT of 1229 psia. The spacing unit for this well is described as the E/2 of Section 29, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Eighteenth Expanded Participating Area of the Dakota Formation effective November 1, 1962, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #194 Well, located 1600' from the North line and 1650' from the West line of Section 16, T-26-N, R-10-W, was spudded on February 19, 1969, and completed on April 4, 1969, in the Dakota Formation at a total depth of 6815'. The Dakota Formation in the intervals between 6650'-6656', 6689'-6699', 6709'-6714', 6747'-6752', was treated with a sand-water fracturing process on April 3, 1969. The well was shut-in on April 5, 1969, and after being shut-in for gauge for twenty-five (25) days, the well was tested on April 30, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 2789 MCF/D through a 3/4" choke, and 3202 MCF/D by the calculated absolute open-flow method with an SIPC of 1689 psia and an SIPT of 1669 psia. The spacing unit for this well is described as the W/2 of Section 16, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Third Expanded Participating Area of the Dakota Formation effective March 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #195 Well, located 1050' from the North line and 1800' from the West line of Section 21, T-26-N, R-10-W, was spudded on February 21, 1969, and completed on April 30, 1969, in the Dakota Formation at a total depth of 6705'. The Dakota Formation in the intervals between 6484'-6490', 6522'-6530', 6541'-6551', was treated with a sand-water fracturing process on April 29, 1969. The well was shut-in on May 1, 1969, and after being shut-in for gauge for seven (7) days, the well was tested on May 8, 1969, and following a three (3) hour blow-down period the Dakota Formation gauged 4822 MCF/D through a 3/4" choke, and 6293 MCF/D by the calculated absolute open-flow method with an SIPC of 1701 psia and an SIPT of 934 psia. The spacing unit for this well is described as the W/2 of Section 21, T-26-N, R-10-W, containing 320.00 acres.

The NW/4 of the above described spacing unit was included in the Huerfano Unit Third Expanded Participating Area of the Dakota Formation effective March 1, 1959, and the SW/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

A handwritten signature in cursive script, reading "Charles Higgins".

Charles Higgins
Supervising Landman
Land Department

CH:DI:ec

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil and Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT

Working Interest Owners

Atlantic Richfield Company (3)
B & M Construction Corporation
Benson-Montin-Greer Drilling Corp.
Brookhaven Oil Company
Barbara Ann McConnell Bruss
CRA International, Ltd.
Cenard Oil & Gas Company
Consolidated Oil & Gas, Inc.
Continental Oil Company
Evko Development Company
Mr. Albert R. Greer
Mrs. Charline Greer
Alfred Gross, Trustee
Peter Gross
Bernice Jeffs
La Plata Gathering System, Inc.
Mr. O. J. Lilly
Mrs. Marjorie Lundean
Mr. K. E. McAfee
Barbara Irene McConnell
Mr. J. W. McConnell, Jr.
N-M Oil & Gas Venture
Oil & Gas Property Management, Inc.
Pan American Petroleum Corporation (3)
Lucille H. Pipkin

Pearl O. Pipkin
Sunland Refining Corp.
Sunset International Petroleum Corp.
Sunshine Royalty Company
Tenneco Oil Company
Texas National Bank of Commerce
Texas Pacific Oil Company, Inc.
Union Texas Petroleum
Denver, Colorado
Union Texas Petroleum
Houston, Texas
Dr. Sherman Wengerd

El Paso Natural Gas Company

El Paso, Texas 79999

March 11, 1969

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175

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: 1969 DRILLING PROGRAM
Huerfano Unit, Sec. No. 731
San Juan County, New Mexico

Gentlemen:

The 1969 Drilling Program for the referenced Unit was approved by the Regulatory Bodies on the dates indicated:

United States Geological Survey	March 7, 1969
Commissioner of Public Lands	January 8, 1969
Oil Conservation Commission	January 23, 1969

Copies of this letter are being sent to the working interest owners of the above described Unit.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:sf
Huerfano Unit 3.0



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

1
17
MAR 10 1969

March 7, 1969

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1969 Plan of Development for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of twenty Dakota formation wells has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. SENT TO EL PASO ANDERSON)

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington (w/cy plan)
Farmington (w/cy plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

January 23, 1969

175

**El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999**

Attention: Mr. T. W. Bittick

**Re: 1969 Drilling Program
Huerfano Unit, San Juan
County, New Mexico**

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the calendar year 1969 for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

**A. L. PORTER, Jr.
Secretary-Director**

ALP/JEK/og

**cc: Commissioner of Public Lands - Santa Fe
United States Geological Survey - Roswell**

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MAILED
JAN 13 AM 8 22

January 8, 1969

**El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999**

**Re: Huerfano Unit
San Juan County, New Mexico
1969 Drilling Program**

ATTENTION: Mr. T. W. Bittick

Gentlemen:

Your 1969 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, proposing the drilling of twenty (20) Dakota Wells as well as any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary, has been approved on this date subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed.

Very truly yours,

**ALEX J. ARMIJO
COMMISSIONER OF PUBLIC LANDS**

**BY:
Ted Bilberry, Director
Oil and Gas Department**

**AJA/TE/ML/s
encl.**

**cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico**

C
O
P
Y

El Paso Natural Gas Company

El Paso, Texas 79999

January 6, 1969

JAN 8 1969

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1969 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering the captioned unit on January 5, 1968, for the calendar year 1968, consisting of ten (10) Dakota wells. On March 25, 1968, El Paso Natural Gas Company filed a Supplemental Drilling Program for 1968 calling for the drilling of one (1) additional Dakota well. On July 12, 1968, El Paso Natural Gas Company filed a Supplemental Drilling Program for 1968 calling for the drilling of two (2) additional Dakota wells. All thirteen (13) of the proposed wells were timely drilled during 1968. The completion of the Huerfano #181 and #182 Wells caused the 28th Expansion of the Dakota Participating Area. The completion of the Huerfano #153 Well caused the 29th Expansion of the Dakota Participating Area. All other Dakota wells were drilled within the existing Dakota Participating Area and caused no expansion. In addition to the thirteen (13) Dakota wells, El Paso Natural Gas Company, as Unit Operator, drilled the Huerfano #10Y Well in the Pictured Cliffs Participating Area to replace the Huerfano #10 Well that was abandoned for mechanical reasons in 1967.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	48
Pictured Cliffs, Noncommercial	2
Pictured Cliffs, Plugged and Abandoned	33
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	57
Dakota, Noncommercial	2
Dakota, Plugged and Abandoned	5
	<u>162</u>

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1969 providing for the drilling of the following described Dakota wells:

<u>Huerfano Unit Well No.</u>	<u>Location</u>
183	SE/4 Sec. 7, T-26-N, R-9-W
184	SE/4 Sec. 11, T-26-N, R-10-W
185	SE/4 Sec. 12, T-26-N, R-10-W
187	NE/4 Sec. 6, T-25-N, R-9-W
188	SW/4 Sec. 6, T-25-N, R-9-W
189	SW/4 Sec. 7, T-25-N, R-9-W
190	NE/4 Sec. 1, T-25-N, R-10-W
191	NW/4 Sec. 21, T-26-N, R-9-W
192	SE/4 Sec. 22, T-26-N, R-9-W
193	SE/4 Sec. 29, T-26-N, R-9-W
119	NW/4 Sec. 15, T-26-N, R-10-W
194	NW/4 Sec. 16, T-26-N, R-10-W
195	NW/4 Sec. 21, T-26-N, R-10-W
196	SE/4 Sec. 21, T-26-N, R-10-W
198	SE/4 Sec. 27, T-26-N, R-10-W
151-Y	NW/4 Sec. 35, T-26-N, R-10-W
54	NW/4 Sec. 27, T-26-N, R-9-W
186	NW/4 Sec. 31, T-27-N, R-9-W
197	SE/4 Sec. 28, T-26-N, R-10-W
199	SW/4 Sec. 17, T-25-N, R-9-W

All of the working interest owners have been contacted; and this Drilling Program reflects, insofar as possible, their desires for additional drilling.

El Paso Natural Gas Company intends to drill these wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 200' and a full string of production casing will be run to the base of the Dakota Formation and will be cemented in place in three stages. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. The entire hole will be mud drilled and mud will be used in setting the production string of casing when said casing is run. Due care will be taken to protect all horizons.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,

A handwritten signature in cursive script, appearing to read "T. W. Bittick".

T. W. Bittick
Manager
Land Department

TWB:DI:sf
Enclosures

APPROVED: _____
United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

DATE: _____

APPROVED: _____
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

DATE: _____

APPROVED: A. L. Carter, Jr.
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands

DATE: January 29, 1969

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1969.

HUERFANO UNIT

Working interest owners

B & M Construction Corporation

Benson-Montin-Greer Drilling Corp.

Brookhaven Oil Company

Barbara Ann McConnell Bruss

CRA International, Ltd.

Cenard Oil & Gas Company

Consolidated Oil & Gas, Inc.

Continental Oil Company

Evko Development Company

Mr. Albert R. Greer

Mrs. Charline Greer

Alfred Gross, Trustee

Peter Gross

Bernice Jeffs

La Plata Gathering System, Inc.

Mr. O. J. Lilly

Mrs. Marjorie Lundean

Mr. K. E. McAfee

Mr. J. W. McConnell, Jr.

Barbara Irene McConnell

N-M Oil & Gas Venture

Oil & Gas Property Management, Inc.

Pan American Petroleum Corporation (3)

Lucille H. Pipkin

Pearl O. Pipkin

Texas Pacific Oil Company (2)

Sinclair Oil Corporation (3)

Sunset International Petroleum Corp.

Sunland Refining Corporation

Sunshine Royalty Company

Texas National Bank of Commerce

Tenneco Oil Company (Denver)

Tenneco Oil Company (Denver)

Mr. J. Glenn Turner

Union Texas Petroleum (Houston)

Union Texas Petroleum (Denver)

Mr. William G. Webb

Dr. Sherman Wengerd

HUERFANO UNIT

Working interest owners - page 2

Corrine Roy Kelly, Individually,
and as Executrix of the Estate of
Frank S. Kelly, Jr., Deceased

Mr. G. W. Hannett

Mr. William H. McCartney

Mr. Robert L. Breedlove

Thomas G. Cornish, Executor of the
Estate of A. T. Hannett, Deceased

Mr. Thomas G. Cornish

Mr. J. C. Smith

Mr. Vincent B. Hamilton

Mr. Harold Kogan

Mrs. Ola E. Callahan

Dr. & Mrs. James R. Hamilton, Jr.

Gladys Sketch

Elma R. Jones

Mr. & Mrs. Frank Toombs

Mrs. Beulah Hanson

Mrs. Billie D. Hood

Estate of Murrell Price, Deceased

Mr. & Mrs. Forrest Gelbke

Mr. & Mrs. Reino R. Saari

Mr. & Mrs. Bert Walters

El Paso Natural Gas Company

El Paso, Texas 79901

December 30, 1968

1/15

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPROVAL OF THE TWENTY-EIGHTH AND
TWENTY-NINTH REVISIONS OF THE
PARTICIPATING AREA FOR THE DAKOTA
FORMATION

Gentlemen:

This is to advise that the captioned Expansion for the Huerfano Unit was approved by the Regulatory Bodies on the following dates:

1. United States Geological Survey - December 19, 1968
2. Commissioner of Public Lands - December 3, 1968
for the State of New Mexico
3. Oil Conservation Commission - December 9, 1968
for the State of New Mexico

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,

Charles Higgins

Charles Higgins
Supervising Landman
Land Department

CH:DI:ec

cc: Mrs. Pepita O. Jeffus



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 80201

IN REPLY REFER TO:

December 19, 1968

195

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Gentlemen:

The twenty-eighth and twenty-ninth revisions of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, were approved on December 19, 1968, by the Acting Oil and Gas Supervisor, U. S. Geological Survey, effective as of September 1 and November 1, 1968, respectively.

The twenty-eighth revision of the Dakota participating area adds 960 acres described as the $N\frac{1}{2}$ secs. 26, 27, and 28, T. 26 N., R. 9 W., N.M.P.M., and is based upon the completion of unit wells No. 181 in the $NE\frac{1}{4}$ sec. 26, and No. 182 in the $NE\frac{1}{4}$ sec. 28, as paying wells pursuant to the terms of the unit agreement. Unit well No. 181 was tested August 28, 1968, for a calculated absolute open flow potential of 3,919 MCFPD from the Dakota 6,427 to 6,659 feet. Unit well No. 182 was tested August 21, 1968, for a calculated absolute open flow potential of 3,275 MCFPD from the Dakota 6,462 to 6,636 feet.

The twenty-ninth revision adds 320 acres to the Dakota participating area described as the $E\frac{1}{2}$ sec. 18, T. 25 N., R. 9 W., N.M.P.M., and is based upon the completion of unit well No. 153 in the $NE\frac{1}{4}$ sec. 18. Unit well No. 153 was tested October 4, 1968, for a calculated absolute open flow potential of 7,042 MCFPD from the Dakota 6,628 to 6,696 feet.

Copies of the approved application are being distributed to the Federal offices involved and one copy is returned herewith. You are requested to furnish the State of New Mexico and all interested parties with appropriate evidence of this approval.

cc:

Washington (w/cy appln.)
Farmington (w/cy appln.)
Com. of Pub. Lands, Santa Fe (ltr. only)
BLM, Santa Fe (ltr. only)
NMOC, Santa Fe (ltr. only)✓

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

December 9, 1968

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Re: Twenty-eighth and Twenty-
ninth Revisions Dakota
Participating Area,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Twenty-eighth and Twenty-ninth Revisions of the participating area for the Dakota formation for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell, New Mexico.

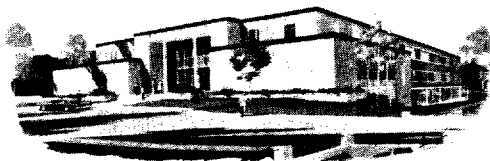
Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

State of New Mexico



Commissioner of Public Lands

GUYTON B. HAYS
COMMISSIONER



P. O. BOX 1148
SANTA FE, NEW MEXICO

December 3, 1968

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico
Twenty-Eighth and Twenty-Ninth
Revisions of the Participating
Area - Dakota Formation

ATTENTION: Mr. Charles Higgins

Gentlemen:

The Commissioner of Public Lands has this date approved the Twenty-Eighth and Twenty-Ninth Revisions, Dakota Formation, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing the Oil Conservation Commission six copies and requesting that they forward five (5) copies to the United States Geological Survey at their earliest convenience.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Malcolm L. Long, Supervisor
Unit Division

GBH/TB/ML/s

cc: USGS-Roswell, New Mexico
occ- Santa Fe, New Mexico ✓

MAIL OFFICE
'68 DEC 3 PM 1 59

El Paso Natural Gas Company

El Paso, Texas 79999

November 26, 1968

NOV 28 1968

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
**TWENTY-EIGHTH AND TWENTY-NINTH
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION**

Gentlemen:

Enclosed for your approval are eight copies of the Twenty-Eighth and Twenty-Ninth Revisions of the Participating Area for the Dakota Formation covering the above described Unit.

If these Revisions meet with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After the Revisions have been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two file copies and the Oil Conservation Commission should retain one file copy, and five copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for approval. After these Revisions have been approved and signed by the United States Geological Survey, one copy thereof should be returned to El Paso.

Yours very truly,

Original in 100-45.

CHARLES HIGGINS

Charles Higgins
Supervising Landman
Land Department

CH:DI:cc
Enclosures

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

COPY

El Paso Natural Gas Company

El Paso, Texas 79909

November 25, 1968

RECEIVED

DEC 2 3 00 PM '68

SANTA FE, N.M.

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-EIGHTH AND TWENTY-NINTH
REVISIONS OF THE PARTICIPATING
AREA FOR THE DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Twenty-Eighth and Twenty-Ninth Revisions of the Participating Area for the Dakota Formation, to wit:

Twenty-Eighth Revision - Effective September 1, 1968

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-9-W, N.M.P.M.	
Section 26: N/2	320.00
Section 27: N/2	320.00
Section 28: N/2	320.00
TOTAL	960.00

DEC 3 1 59 PM '68

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Two

November 25, 1968

This proposed Twenty-Eighth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #181 Well, located in the NW/4 of Section 26, Township 26 North, Range 9 West, and the Huerfano Unit #182 Well, located in the NW/4 of Section 28, Township 26 North, Range 9 West.

The Huerfano Unit #181 Well, located 800' from the North line and 1650' from the West line of Section 26, Township 26 North, Range 9 West, was spudded on August 1, 1968 and completed on August 19, 1968 at a total depth of 6745' in the Dakota Formation. On August 18, 1968, the Dakota Formation from 6427'-6439', 6464'-6476', 6522'-6534', 6548'-6560', 6628'-6640', 6653'-6659' was treated with a sand-water fracturing process. After being shut-in for eight (8) days, the Dakota Formation was tested on August 28, 1968, and following a three (3) hour blow-down period gauged 3662 MCF/D through a 3/4" choke and 3919 MCF/D by the calculated absolute open-flow method, with a SIPC of 1976 psia and a SIPT of 1971 psia.

The Huerfano Unit #182 Well, located 990' from the North line and 890' from the West line of Section 28, Township 26 North, Range 9 West, was spudded on July 16, 1968 and completed on July 31, 1968 at a total depth of 6775' in the Dakota Formation. On July 30, 1968, the Dakota Formation from 6462'-6477', 6564'-6579', 6626'-6636' was treated with a sand-water fracturing process. After being shut-in for twenty (20) days, the Dakota Formation was tested on August 21, 1968, and following a three (3) hour blow-down period gauged 2891 MCF/D through a 3/4" choke and 3275 MCF/D by the calculated absolute open-flow method, with a SIPC of 1820 psia and a SIPT of 1858 psia.

Twenty-Ninth Revision - Effective November 1, 1968

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-9-W, N.M.P.M. Section 18: E/2	320.00

This proposed Twenty-Ninth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #153 Well, located in the NE/4 of Section 18, Township 25 North, Range 9 West, N.M.P.M.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Three

November 25, 1968

The Huerfano Unit #153 Well was spudded on August 20, 1968, and completed on September 24, 1968, at a total depth of 6840'. The Dakota Formation in the intervals between 6628'-6634', 6656'-6674', 6684'-6696' was treated with a sand-water fracturing process. After being shut-in for ten (10) days, the Dakota Formation was tested on October 4, 1968, and following a three hour blow-down period gauged 4776 MCF/D through a 3/4" choke and 7042 MCF/D by the calculated absolute open-flow method, with a SIPC of 1894 psia and a SIPT of 1893 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership maps reflecting the boundaries of the Unit and the proposed Twenty-Eighth and Twenty-Ninth Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Twenty-Eighth and Twenty-Ninth Expansion of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production

Attached to this application are Schedules XXX and XXXI showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Twenty-Eighth and Twenty-Ninth Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Four

November 25, 1968

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:ec
Enclosures

cc: Mrs. Pepita O. Jeffus
Executive Director
New Mexico Oil and Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

APPROVED: _____ DATE: _____
United States Geological Survey
Subject to like approval by the
appropriate State Regulatory Bodies.

APPROVED: *Lytle B. Hays* DATE: *December 3, 1968*
Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey
and the Oil Conservation Commission.

APPROVED: *C. L. Carter, Jr.* DATE: *Dec. 9, 1968*
Oil Conservation Commission
Subject to like approval by the
United States Geological Survey
and the Commissioner of Public Lands.

The foregoing approvals are for the Twenty-Eighth and Twenty-Ninth Revisions of the Participating Area for the Dakota Formation of the Huerfano Unit.

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

CRA International, Ltd.
1638 Bank of the Southwest Building
Houston, Texas 77002

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 77002

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Evko Development Company
166 Geary Street, Room 22
San Francisco, California 94108

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
112 Rio Vista Place
Santa Fe, New Mexico 87501

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Oil & Gas Property Management, Inc.
6th Floor, C&I Life Building
Houston, Texas 77002

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Lucille H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Pearl O. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

HUERFANO UNIT

Working Interest Owners - Page 2

Peter Gross
110 E. 57th Street
New York, New York 10022

Sinclair Oil Corporation (3)
Attention: Mr. S. K. Van Steenbergh
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petroleum Corp.
2400 Fidelity Union Tower
Dallas, Texas 75201

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Sunshine Royalty Company
P. O. Box 1355
Roswell, New Mexico 88201

Texas National Bank of Commerce
Attention: Oil & Gas Department
Box 2558
Houston, Texas 77001

Tenneco Oil Company
Attention: Mr. C. W. Nance
Suite 1200, Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Corinne Roy Kelly, Individually,
and Executrix of the Estate of
Frank S. Kelly, Jr., Deceased
P. O. Box 8156
Shreveport, Louisiana 71108

Mr. G. W. Hannett
515 First National Bank Building
Albuquerque, New Mexico 87101

Mr. William H. McCartney
Forbing, Louisiana 71026

Mr. Robert L. Breedlove
P. O. Box 247
Greenwood, Louisiana 71033

Texas Pacific Oil Company (2)
P. O. Box 747
Dallas, Texas 75221

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Oil & Gas Accounting
P. O. Box 2120
Houston, Texas 77001

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. T. Simpson
Suite 1010, Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive N.E.
Albuquerque, New Mexico 87106

Mr. Harold Kogan
742-35th Avenue
San Francisco, California 84121

Mrs. Ola E. Callahan
824 York Street, Apt. 2
Oakland, California 94610

Dr. and Mrs. James R. Hamilton, Jr.
1115 Richland Road
Yuba City, California 95991

Gladys Sketch
4111 Webster Street
Oakland, California 94609

HUERFANO UNIT

Working Interest Owners - Page 3

Thomas G. Cornish, Executor of
the Estate of A. T. Hannett, Deceased
515 First National Bank Building
Albuquerque, New Mexico 87101

Mr. Thomas G. Cornish
515 First National Bank Building
Albuquerque, New Mexico 87101

Mr. J. C. Smith
1314 Commercial National Bank Building
Shreveport, Louisiana 71101

Mr. Vincent B. Hamilton
815 First Avenue, S.E.
Hampton, Iowa 50401

Mr. and Mrs. Reino R. Saari
227 Marlow Drive
Oakland, California 94605

Mr. and Mrs. Bert Walters
961 Glen Drive
San Leandro, California 94577

Elma R. Jones
3526 Pacific Avenue
Stockton, California 95200

Mr. and Mrs. Frank Toombs
459 Country Club Drive
Placerville, California 95667

Mrs. Beulah Hanson
P. O. Box 1515
Roswell, New Mexico

Mrs. Billie D. Hood
501-A North K Street
Lompoc, California 93436

Mr. and Mrs. Forrest Gelbke
813 Carro Drive, Apt. 4
Sacramento, California 95825

18 41 8 22

El Paso Natural Gas Company

El Paso, Texas 79999

November 15, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDI-
TIONAL WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one (1) additional well capable of producing unitized substances in commercial quantities has been completed upon acreage committed to the Unit. This well is as follows:

The Huerfano Unit #150 Well, located 890' from the South line and 1500' from the East line of Section 12, T-25-N, R-10-W, was spudded on September 5, 1968, and completed on September 20, 1968, in the Dakota Formation at a total depth of 6915'. The Dakota Formation in the intervals between 6774'-6794', 6804'-6814', was treated with a sand-water fracturing process on September 19, 1968. The Well was shut-in on September 21, 1968, and after being shut-in for gauge for eighteen (18) days, the well was tested on October 9, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 3520 MCFPD through a 3/4" choke, and 2936 MCFGPD by the calculated absolute open-flow method with an SIPC of 1585 psia and and SIPT of 1579 psia. The spacing unit for this Well is described as the S/2 of Section 12, T-25-N, R-10-W, containing 320.00 acres.

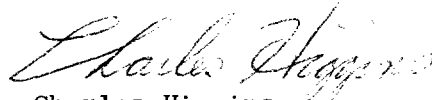
Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page Two

November 15, 1968

The above described spacing unit was included in the Huerfano Unit Twenty-Fourth Expanded Participating Area of the Dakota Formation effective February 1, 1965, and the completion of this Well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:mb
Enclosure

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO Unit
Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R.R. #1, Box 236
Kula Maui, Hawaii 96790

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446

CRA International, Ltd.
1638 Bank of the Southwest Bldg.
Houston, Texas 77002

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Evko Development Company
166 Geary Street, Room 22
San Francisco, California 94108

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
112 Rio Vista Place
Santa Fe, New Mexico 87501

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C&I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Lucille H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Texas Pacific Oil Company (2)
P. O. Box 747
Dallas, Texas 75221

Pearl O. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

HUERFANO Unit

Working Interest Owners - Page 2

Sinclair Oil Corporation (3)
Attention: Mr. S. K. Van Steenbergh
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petroleum Corp.
2400 Fidelity Union Tower
Dallas, Texas 75201

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Sunshine Royalty Company
P. O. Box 1355
Roswell, New Mexico 88201

Texas National Bank of Commerce
Attention: Oil & Gas Department
Box 2558
Houston, Texas 77001

Tenneco Oil Company
Attention: Mr. C. W. Nance
Suite 1200, Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Oil & Gas Accounting
P. O. Box 2120
Houston, Texas 77001

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. T. Simpson
Suite 1010, Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive N.E.
Albuquerque, New Mexico 87106

El Paso Natural Gas Company

El Paso, Texas 79999

October 2, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1968 Supplemental Drilling Program

Gentlemen:

The 1968 Supplemental Drilling Program for the referenced Unit was approved by the regulatory bodies on the dates indicated:

United States Geological Survey - August 16, 1968

Oil Conservation Commission for - September 25, 1968
the State of New Mexico

Commissioner of Public Lands for - August 20, 1968
the State of New Mexico

Copies of this letter are being sent to the working interest owners of the above described Unit.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DI:vjh

Huerfano Unit 3.0

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

195

September 25, 1968

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: Supplemental 1968
Drilling Program,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Supplemental 1968 Drilling Program dated July 12, 1968, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the supplemental program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1357
Roswell, New Mexico 88201

August 16, 1968

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your Supplemental Plan of Development for 1968, dated July 12, 1968, for the Huertano unit area, San Juan County, New Mexico, proposing the drilling of two Dakota formation wells, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:

Washington (w/cy plan)
Farmington (w/cy plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)

68 AUG 20 AM 10 10

State of New Mexico



Commissioner of Public Lands



August 20, 1968

GUYTON B. HAYS
COMMISSIONER

P. O. BOX 1148
SANTA FE, NEW MEXICO

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico
1968 Supplemental Drilling Program

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your Supplemental Plan of Development for 1968, which calls for the drilling of two Dakota formation wells. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed herewith.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Ted Bilberry, Director
Oil and Gas Department

GBH/TB/s
encl.

cc: UEGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico

100 AUG 20 1968

El Paso Natural Gas Company

El Paso, Texas 79999

July 12, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

63 JUL 15 1968

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1968 Supplemental Drilling Program

Gentlemen:


By letter dated January 5, 1968, El Paso Natural Gas Company, as Unit Operator, filed a Plan of Development for the calendar year 1968. This Plan of Development stated that ten (10) Dakota wells would be drilled, all of said wells to be located inside the existing Dakota Participating Area. By letter dated March 25, 1968, El Paso Natural Gas Company, as Unit Operator, filed a Supplemental Drilling Program that provided for one (1) additional well to be drilled outside of the existing Dakota Participating Area. Based upon the recommendation of a majority of the working interest owners in the unit, El Paso Natural Gas Company desires to amend the 1968 Plan of Development for the Huerfano Unit to include, in addition to the eleven (11) wells originally scheduled, Dakota wells for the NW/4 of Section 26, T-26-N, R-9-W, and the NW/4 of Section 28, T-26-N, R-9-W. Each of these wells will be located outside of the existing Participating Area. The drilling procedure as set out in our letter dated January 5, 1968, will also apply to the new wells added to the program.

In addition to the thirteen (13) Dakota wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,

A handwritten signature in dark ink, reading "T. W. Bittick" with a stylized flourish at the end.

T. W. Bittick
Manager
Land Department

TWB:DI:vjh

APPROVED: _____ DATE: _____
United States Geological Survey
Subject to like approval by the
appropriate State Regulatory
Bodies.

APPROVED: _____ DATE: _____
Commissioner of Public Lands
Subject to like approval by the
United States Geological Survey
and the Oil Conservation
Commission

APPROVED: A. L. Carter DATE: Sept 25, 1968
Oil Conservation Commission
Subject to like approval by the
United States Geological Survey
and the Commissioner of Public
Lands.

The foregoing approvals are for the Huerfano Unit Supplemental
Drilling Program for the calendar year 1968.

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico

Mr. Vincent B. Hamilton
815 First Avenue, S. E.
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Bank Building
Albuquerque, New Mexico 87101

Estate of Frank S. Kelly, Jr.
P. O. Box 8156
Shreveport, Louisiana 71108

J. C. Smith
1314 Commercial National Bank Building
Shreveport, Louisiana 71101

William H. McCartney
Forbing, Louisiana 71026

Robert L. Breedlove
Route 2, Box 647
Shreveport, Louisiana 71108

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management,
Inc.
6th Floor, C&I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corp. (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

HUERFANO UNIT

Working Interest Owners - Page 2

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Texas Pacific Oil Company
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Route 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. D. B. Brown
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston, Texas 77001
Attention: Oil & Gas Accounting

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive N. E.
Albuquerque, New Mexico 87106

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. T. Simpson
Suite 1010, Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 84121

Charline Greer has no forwarding
address - Do not mail to Golden
address.

El Paso Natural Gas Company

El Paso, Texas 79999

September 6, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELL, Pictured Cliffs Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one additional well capable of producing unitized substances in commercial quantities from the Pictured Cliffs Formation has been completed upon acreage committed to the unit. This well is as follows:

The Huerfano Unit #10-Y Well, located 790' from the North line and 1650' from the East line of Section 6, Township 26 North, Range 10 West, San Juan County, New Mexico, was spudded on June 13, 1968, and completed on August 16, 1968, in the Pictured Cliffs Formation at a total depth of 2238'. The Pictured Cliffs Formation in the intervals between 2134' - 2144', 2154' - 2164', 2177' - 2187' was treated with a sand-water fracturing process on August 2, 1968. The well was shut-in on August 6, 1968, and after being shut-in for gauge for ten (10) days, the well was tested on August 16, 1968, and following a three (3) hour blow-down period the Pictured Cliffs Formation gauged 1433 MCF/D through a

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission
Page 2

September 6, 1968

3/4" choke, and 1994 MCF/D by the calculated absolute open-flow method with an SIPC of 252 psia. The spacing unit upon which this well is located is described as the NE/4 of Section 6, Township 26 North, Range 10 West, containing 160.24 acres. The Huerfano Unit #10 well which is located 1650' from the North line and 1650' from the East line of Section 6, T-26-N, R-10-W was plugged and abandoned October 14, 1967.

This spacing unit was included in the Huerfano Unit Second Expanded Participating Area of the Pictured Cliffs Formation, effective October 1, 1952, and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Very truly yours,



Charles Higgins
Supervising Landman
Land Department

TWB:DI:mb

Attachment

HUERFANO UNIT
PICTURED CLIFFS FORMATION
Working Interest Owners

B & M Construction Corp.
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma 73102

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Edward C. and Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, S. E.
Hampton, Iowa 50441

Hannett, Hannett & Cornish (Not W/I)
Attorneys at Law
515 First National Building
Albuquerque, New Mexico 87101

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Estate of Frank S. Kelly, Jr.
P. O. Box 8156
Shreveport, Louisiana 71108

J. C. Smith
1314 Commercial National Bank Building
Shreveport, Louisiana 71101

William H. McCartney
Forbing, Louisiana 71026

Robert L. Breedlove
P. O. Box 647
Shreveport, Louisiana 71108

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

HUERFANO UNIT
PICTURED CLIFFS FORMATION
Working Interest Owners - Page 2

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Route 5, Box 5466
Albuquerque, New Mexico 87112

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Tenneco Oil Company
Attention: Mr. C. W. Nance
Lincoln Tower Building, Suite 1200
1860 Lincoln Street
Denver, Colorado 80203

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston, Texas 77001
Attention: Oil & Gas Accounting

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. A. Patchen
Suite 1010, Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, N. E.
Albuquerque, New Mexico 87106

El Paso Natural Gas Company

El Paso, Texas 79999

August 29, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF
ADDITIONAL WELLS,
Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that two (2) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #127-Y Well, located 890' from the North line and 1650' from the West line of Section 26, T-26-N, R-10-W, was spudded on June 29, 1968, and completed on July 15, 1968, in the Dakota Formation at a total depth of 6881'. The Dakota Formation in the intervals between 6647'-6653', 6666'-6672', 6700'-6712', 6723'-6735', 6746'-6758' was treated with a sand-water fracturing process on July 14, 1968. The well was shut-in

August 29, 1968

on July 24, 1968, and after being shut-in for gauge for seven (7) days, the well was tested on July 31, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 5239 MCFPD through a 3/4" choke, and 7125 MCFGPD by the calculated absolute open-flow method with an SIPC of 1907 psia and an SIPT of 1907 psia. The spacing unit for this well is described as the W/2 of Section 26, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

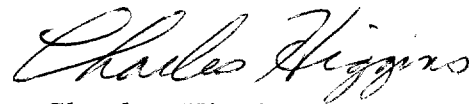
The Huerfano Unit #177 Well, located 1650' from the South line and 800' from the East line of Section 22, T-26-N, R-10-W, was spudded on June 11, 1968, and completed on June 28, 1968, in the Dakota Formation at a total depth of 6851'. The Dakota Formation in the intervals between 6602'-6608', 6620'-6626', 6656'-6664', 6688'-6702', 6728'-6738' was treated with a sand-water fracturing process on June 27, 1968. The well was shut-in on July 3, 1968, and after being shut-in for gauge for fourteen (14) days, the well was tested on July 17, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 3752 MCFPD through a 3/4" choke, and 5532 MCFGPD by the calculated absolute open-flow method with an SIPC of 1642 psia and an SIPT of 1644 psia. The spacing unit for this well is described as the E/2 of Section 22, T-26-N, R-10-W, containing 320.00 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the SE/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

August 29, 1968

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

A handwritten signature in cursive script that reads "Charles Higgins".

Charles Higgins
Supervising Landman
Land Department

CH:DI:vjh
enclosure

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT

Working Interest Owners - Page 1

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
La Casa Loma Apartments
112 Rio Vista Place
Santa Fe, New Mexico 87501

Mr. Vincent B. Hamilton
815 First Avenue, S. E.
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Bank Building
Albuquerque, New Mexico 87101

Estate of Frank S. Kelly, Jr.
P. O. Box 8156
Shreveport, Louisiana 71108

J. C. Smith
1314 Commercial National Bank Building
Shreveport, Louisiana 71101

William H. McCartney
Forbing, Louisiana 71026

Robert L. Breedlove
Route 2, P. O. Box 647
Shreveport, Louisiana 71108

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

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1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Route 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. C. W. Nance
Lincoln Tower Building, Suite 1200
1860 Lincoln Street
Denver, Colorado 80203

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston, Texas 77001
Attention: Oil & Gas Accounting

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, N. E.
Albuquerque, New Mexico 87106

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

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Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. T. Simpson
Suite 1010, Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742 - 35th Avenue
San Francisco, California 84121

Lignum Oil Company
3642 Inverness Street
Houston, Texas 77019

Mr. Walter Duncan
P. O. Box 211
La Salle, Illinois 61301

Mobil Oil Corporation
P. O. Box 778
Farmington, New Mexico 87401

Mobil Oil Corporation (3)
Attention: Production Manager
P. O. Box 1652
Casper, Wyoming 82601

El Paso Natural Gas Company

El Paso, Texas 79999

July 1, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that seven (7) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #180 Well, located 1090' from the North line and 1090' from the West line of Section 18, T-26-N, R-9-W, was spudded on March 7, 1968, and completed on March 22, 1968, in the Dakota Formation at a total depth of 6743'. The Dakota Formation in the intervals between 6572'-6582', 6598'-6603', 6660'-6675', 6690'-6695', 6720'-6725', was treated with a sand-water fracturing process on March 21, 1968. The well was shut-in on March 22, 1968, and after being shut-in for gauge for twelve (12) days, the well was tested on April 3, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 1899 MCFPD through a 3/4" choke, and 2074 MCFGPD by the calculated absolute open-flow method with an SIPC of 1973 psia and an SIPT of 1963 psia. The spacing unit for this well is described as the W/2 of Section 18, T-26-N, R-9-W, containing 328.20 acres.

Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission

-2-

July 1, 1968

The above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #173 Well, located 990' from the South line and 1500' from the East line of Section 13, T-26-N, R-10-W, was spudded on February 20, 1968, and completed on March 7, 1968, in the Dakota Formation at a total depth of 6800'. The Dakota Formation in the intervals between 6656'-6670', 6682'-6689', 6740'-6754', 6765'-6772', was treated with a sand-water fracturing process on March 6, 1968. The well was shut-in on March 8, 1968, and after being shut-in for gauge for twelve (12) days, the well was tested on March 20, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 1909 MCFPD through a 3/4" choke, and 4198 MCFGPD by the calculated absolute open-flow method with an SIPC of 1494 psia and an SIPT of 1259 psia. The spacing unit for this well is described as the E/2 of Section 13, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #174 Well, located 1650' from the North line and 990' from the West line of Section 13, T-26-N, R-10-W, was spudded on March 23, 1968, and completed on April 8, 1968, in the Dakota Formation at a total depth of 6889'. The Dakota Formation in the intervals between 6610'-6620', 6634'-6639', 6692'-6707', 6760'-6770', 6790'-6795', 6826'-6831', was treated with a sand-water fracturing process on April 7, 1968. The well was shut-in on April 8, 1968, and after being shut-in for gauge for ten (10) days, the well was tested on April 18, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 3653 MCFPD through a 3/4" choke, and 4171 MCFGPD by the calculated absolute open-flow method with an SIPC of 1980 psia and an SIPT of 1973 psia. The spacing unit for this well is described as the W/2 of Section 13, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

July 1, 1968

The Huerfano Unit #175 Well, located 890' from the South line and 1650' from the East line of Section 14, T-26-N, R-10-W, was spudded on April 24, 1968, and completed on May 10, 1968, in the Dakota Formation at a total depth of 6890'. The Dakota Formation in the intervals between 6618'-6628', 6644'-6650', 6698'-6704', 6716'-6740', 6770'-6776', 6816'-6822', 6838'-6844', was treated with a sand-water fracturing process on May 9, 1968. The well was shut-in on May 11, 1968, and after being shut-in for gauge for twenty six (26) days, the well was tested on June 6, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 4450 MCFPD through a 3/4" choke, and 5553 MCFGPD by the calculated absolute open-flow method with an SIPC of 1929 psia and an SIPT of 1960 psia. The spacing unit for this well is described as the E/2 of Section 14, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #179 Well, located 1750' from the North line and 1650' from the West line of Section 14, T-26-N, R-10-W, was spudded on April 8, 1968, and completed on April 24, 1968, in the Dakota Formation at a total depth of 6964'. The Dakota Formation in the intervals between 6678'-6686', 6702'-6706', 6720'-6724', 6770'-6786', 6824'-6836', was treated with a sand-water fracturing process on April 23, 1968. The well was shut-in on May 29, 1968, and after being shut-in for gauge for seven (7) days, the well was tested on June 5, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 2890 MCFPD through a 3/4" choke, and 4608 MCFGPD by the calculated absolute open-flow method with an SIPC of 1941 psia and an SIPT of 1969 psia. The spacing unit for this well is described as the W/2 of Section 14, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

July 1, 1968

The Huerfano Unit #176 Well, located 890' from the South line and 890' from the East line of Section 15, T-26-N, R-10-W, was spudded on May 11, 1968, and completed on May 26, 1968, in the Dakota Formation at a total depth of 6868'. The Dakota Formation in the intervals between 6600'-6610', 6623'-6628', 6639'-6644', 6680'-6698', 6712'-6722', 6742'-6760', was treated with a sand-water fracturing process on May 25, 1968. The well was shut-in on May 27, 1968, and after being shut-in for gauge for seventeen (17) days, the well was tested on June 13, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 4381 MCFPD through a 3/4" choke, and 5310 MCFPD by the calculated absolute open-flow method with an SIPC of 1901 psia and an SIPT of 1896 psia. The spacing unit for this well is described as the E/2 of Section 15, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #178 Well, located 1650' from the North line and 1750' from the West line of Section 22, T-26-N, R-10-W, was spudded on May 27, 1968, and completed on June 11, 1968, in the Dakota Formation at a total depth of 6803'. The Dakota Formation in the intervals between 6542'-6552', 6565'-6570', 6581'-6586', 6620'-6640', 6682'-6692', 6726'-6736', was treated with a sand-water fracturing process on June 9, 1968. The well was shut-in on June 11, 1968, and after being shut-in for gauge for seven (7) days, the well was tested on June 18, 1968, and following a three (3) hour blow-down period the Dakota Formation gauged 2063 MCFPD through a 3/4" choke, and 2245 MCFPD by the calculated absolute open-flow method with an SIPC of 1784 psia and an SIPT of 1777 psia. The spacing unit for this well is described as the W/2 of Section 22, T-26-N, R-10-W, containing 320.00 acres.

The NW/4 of the above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the SW/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

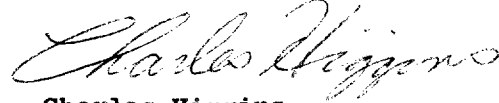
Mr. John A. Anderson
Commissioner of Public Lands
Oil Conservation Commission

-5-

July 1, 1968

Copies of this letter are being sent to the working interest owners
as shown on the attached sheet.

Yours very truly,



Charles Higgins
Supervising Landman
Land Department

CH:DL:ec
Enclosure

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado

Mr. Vincent B. Hamilton
815 First Avenue, S. E.
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Bank Building
Albuquerque, New Mexico 87101

Estate of Frank S. Kelly, Jr.
P. O. Box 8156
Shreveport, Louisiana 71108

J. C. Smith
1314 Commercial National Bank Building
Shreveport, Louisiana 71101

William H. McCartney
Forbing, Louisiana 71026

Robert L. Breedlove
P. O. Box 647
Shreveport, Louisiana 71108

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
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Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

HUERFANO UNIT

Working Interest Owners - Page 2

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Route 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. D. B. Brown
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Tenneco Oil Company
Attention: Mr. J. P. Wasinger
P. O. Box 2410
Denver, Colorado 80201

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A Division of Allied Chemical Corp.
P. O. Box 2120
Houston, Texas 77001

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1700 Mercantile Bank Building
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1044 Stanford Drive, N. E.
Albuquerque, New Mexico 87106

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4150 East Mexico Avenue
Denver, Colorado 80202

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

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A Division of Allied Chemical Corp.
Attention: Mr. C. A. Patchen
Suite 1010 Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742 - 35th Avenue
San Francisco, California 84121

El Paso Natural Gas Company

El Paso, Texas 79999

April 15, 1968

195

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 2857
Roswell, New Mexico 88201

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

68 APR 16 AM 10 21

✓ Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico

Re: 1968 Drilling Program
Huerfano Unit
San Juan County, New Mexico

Gentlemen:

The 1968 Drilling Program for the referenced Unit was approved by the regulatory bodies on the dates indicated below:

United States Geological Survey	-	April 9, 1968
Commissioner of Public Lands	-	January 15, 1968
Oil Conservation Commission	-	January 18, 1968

The Supplemental Drilling Program, as set out in our letter dated March 25, 1968, has been approved as follows:

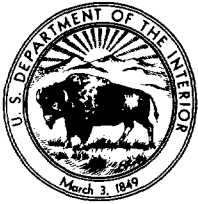
United States Geological Survey	-	April 9, 1968
Commissioner of Public Lands	-	March 27, 1968
Oil Conservation Commission	-	April 2, 1968

Copies of this letter are being sent to the working interest owners of the above described Unit.

Yours very truly,

Charles Higgins

Charles Higgins
Supervising Landman
Land Department



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

April 9, 1968

175

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1968 Plan of Development, dated January 5, 1968, and your Supplemental Plan of Development for 1968, dated March 25, 1968, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of eleven Dakota formation wells, have been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of each plan are enclosed.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

cc:
Washington (w/cy. each plan)
Farmington (w/cy. each plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

195

April 2, 1968

C
O
P
Y

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1968 Supplemental Drilling Program
Huerfano Unit, San Juan County, New
Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Supplemental Drilling Program dated March 25, 1968, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands
Santa Fe, New Mexico

United States Geological Survey
Roswell, New Mexico

State of New Mexico



Commissioner of Public Lands



March 27, 1968

P. O. BOX 1148
SANTA FE, NEW MEXICO

GUYTON B. HAYS
COMMISSIONER

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico
1968 SUPPLEMENTAL DRILLING
PROGRAM

MAIN OFFICE
68 MAR 29 AM 8

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your Supplemental Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

This supplement includes an additional well to be drilled in the NE/4 of Section 18, Township 25 North, Range 9 West, besides the ten (10) Dakota wells scheduled to be drilled in your first Plan of Development.

One approved copy of the plan is enclosed herewith.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Eddie Lopez, Supervisor
Unit Division

GBH/TB/EL/s
encl.

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79999

March 25, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1968 SUPPLEMENTAL DRILLING PROGRAM

Gentlemen:

By letter dated January 5, 1968, El Paso Natural Gas Company, as Unit Operator, filed a Plan of Development for the calendar year 1968. This Plan of Development stated that ten (10) Dakota wells would be drilled, all of said wells to be located inside the existing Dakota Participating Area. Based upon the recommendation of a majority of the working interest owners in the unit, El Paso Natural Gas Company desires to amend the 1968 Plan of Development for the Huerfano Unit to include, in addition to the ten (10) wells originally scheduled, a Dakota well for the NE/4 of Section 18, T-25-N, R-9-W. The drilling procedure as set out in our letter dated January 5, 1968, will also apply to the new well added to the program.

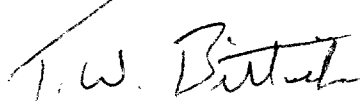
In addition to the eleven (11) Dakota wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

-2-

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,

A handwritten signature in dark ink, appearing to read "T. W. Bittick". The signature is written in a cursive style with a large, sweeping initial "T".

T. W. Bittick
Manager
Land Department

TWB:CH:vjh

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
R. R. #1, Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: Mr. W. C. Blackburn
200 North Wolcott
Casper, Wyoming 82601

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12858 West 26th Avenue #39
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Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Bank Building
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Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L.
Breedlove
Oil & Gas Building
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Shreveport, Louisiana 71102

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Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

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Roswell, New Mexico 88201

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Dallas, Texas 75221

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Attention: Mr. S. K. Van Steenberg
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

HUERFANO UNIT

Working Interest Owners - Page 2

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

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Rt. 5, Box 5466
Albuquerque, New Mexico 87112

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Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

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4150 East Mexico Avenue
Denver, Colorado 80202

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Denver, Colorado 80210

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Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. C. A. Patchen
Suite 1010 Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742 - 35th Avenue
San Francisco, California 84121



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

115

Drewer 1857
Roswell, New Mexico 88201,

February 8, 1968

MAIL OFFICE
FEB 13 AM 8 36

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Charles Higgins

Gentlemen:

Your letter of February 1, 1968, advises that as operator of the Huerfano unit, San Juan County, New Mexico, you have determined that unit well No. 172 in the SW1/4 sec. 9, T. 25 N., R. 9 W., E.M.P.M., lease New Mexico 03039, is not capable of producing unitized substances in paying quantities from the Dakota formation. Your letter furnishes reserve and economic information to justify your determination.

Well No. 172 was completed on December 6, 1966, and tested on December 27, 1966, for an initial absolute open flow potential of 1,365 MCF of gas per day from Dakota perforations in the interval from 6,502 to 6,670 feet.

This office concurs with your determination that the well is not capable of producing unitized substances in paying quantities under existing conditions. Two surplus copies of the notice are attached.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

cc:
Washington (w/cy notice)
Farmington (w/cy notice)
Com. of Pub. Lands - Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only)
Accounts

El Paso Natural Gas Company

El Paso, Texas 79999

February 1, 1968

195

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

MAK 2-105 11

'68 FEB 2 AM 8 40

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELL in the Dakota
Formation

Dear Mr. Anderson:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit Agreement, pursuant to the provisions of Section 10 thereof, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Dakota Formation, to wit:

The Huerfano Unit #172 Well, located 1720' from the North line and 1090' from the West line of Section 9, Township 25 North, Range 9 West, N.M.P.M., San Juan County, New Mexico, was spudded on November 18, 1966, and completed on December 6, 1966, at a total depth of 6723' in the Dakota Formation. The lower Dakota Formation in the interval between 6663'-6670', the main Dakota Formation in the intervals between 6578'-6588', 6597'-6607', and the Graneros Dakota Formation in the intervals between 6502'-6508', 6528'-6534' were all treated with a sand-water fracturing process. The well was shut-in for gauge on December 17, 1966, and after being shut-in for ten (10) days, the Dakota Formation was tested on December 27, 1966, and following a three (3) hour blow-down period gauged 1299 MCFGPD through a 3/4" choke and 1365 MCFGPD AOF with a SIPC of 2029 psia and a SIPT of 2029 psia.

This well first produced on April 20, 1967, and after evaluating the well's producing ability since that date, El Paso Natural Gas Company, as Unit Operator, is of the opinion that this well is noncommercial for unit purposes. If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

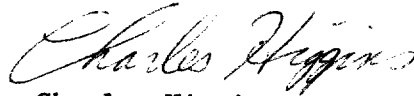
Mr. John A. Anderson

-2-

February 1, 1968

Copies of this letter are being sent to the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Very truly yours,



Charles Higgins
Supervising Landman
Land Department

CH:AJM:vjh
Attachments

cc: Commissioner of Public Lands (Information Only)
State of New Mexico
P. O. Box 1148
Santa Fe, New Mexico

Oil Conservation Commission (Information Only)
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
RR #1 Box 236
Kula Maui, Hawaii 96790

Continental Oil Company
Attention: W. C. Blackburn
P. O. Box 680
Casper, Wyoming 82601

Edward C. Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Bank Building
Albuquerque, New Mexico 87101

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana 71102

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

HUERFANO UNIT

Working Interest Owners - Page 2

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Rt. 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

Mr. J. Glen Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston, Texas 77001

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, N. E.
Albuquerque, New Mexico 87106

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals
900 Wilco Building
Midland, Texas 79701

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. C. A. Patchen
Denver, Colorado 80202

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 94121



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

195
January 24, 1968

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

MAIN OFFICE OF

'68 JAN 25 AM 8 37

Your 1968 plan of development for the Huerfano unit filed with this office on January 9 proposes the drilling of 10 Dakota wells, all of which are within the existing Dakota participating area.

Section 9 of the Huerfano unit agreement requires the unit operator to submit plans of development providing for exploration of the unitized area and for the determination of the commercially productive area thereof in each and every productive formation. Such section further provides that the plan of development shall be as complete and adequate as determined necessary for timely development and proper conservation of the oil and gas resources of the unitized area. Pursuant to the intent of such language, we believe it is necessary to drill sufficient wells to establish the productive limits of the Dakota formation and expand the participating area accordingly, in order to protect the equities involved within the objectives of unitization, as well as to timely develop the portions of the unit within the participating area. Accordingly, we believe a minimum of one well outside the participating area should be proposed by your 1968 plan of development. It appears that the east half of sec. 18, T. 25 N., R. 9 W., should be considered as a potential location to expand the participating area inasmuch as this tract is offset to the north by unit well No. 142 which has 28 feet of net pay and to the west by unit well No. 149 which has 19 feet of pay. Our records show that well No. 142 has produced a cumulative volume of 350,882 MCF to October 1,



1967, 115,026 MCF of which was produced during the first 9 months of 1967 during 241 producing days for an average rate of 477 MCF per day. Well No. 149 has produced 96,319 MCF from November 1966 through September 1967 and appears to be stabilized at a rate of approximately 340 MCF per producing day.

Please consider the inclusion of a Dakota well in the east half of sec. 18 in your 1968 drilling program in order to establish the Dakota productive limits in this area, and advise us of your decision in this matter. We will defer approval of the 1968 plan of development until we receive an amended plan providing for the drilling requested or adequate geologic justification as to why a well should not be drilled at the suggested location or some alternate location outside the participating area in this portion of the unit.

Sincerely yours,

(ORIG. SCD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington 
Farmington
Com. of Pub. Lands, Santa Fe
NMOCC, Santa Fe 

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

145

January 18, 1968

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1968 Drilling Program,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Drilling Program for the calendar year of 1968 providing for the drilling of ten Dakota wells for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

State of New Mexico



Commissioner of Public Lands



GUYTON B. HAYS
COMMISSIONER

P. O. BOX 1148
SANTA FE, NEW MEXICO

January 15, 1968

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

Re: Huerfano Unit
San Juan County, New
Mexico

ATTENTION: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has this date approved your 1968 Plan of Development, which proposes the drilling of ten Dakota wells. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

One approved copy of the plan is enclosed.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Eddie Lopez, Supervisor
Unit Division

GBH/TB/EL/s
encl.

cc: USGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79999

January 5, 1968

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico 87501

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1968 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering the captioned unit on January 6, 1967, for the calendar year 1967, consisting of seventeen (17) Dakota wells. All of these wells were timely drilled in the existing Dakota Participating Area and did not cause expansions. El Paso Natural Gas Company is presently evaluating the Huerfano Unit #172 Well (Edith A. Payne #1) drilled by Pan American Petroleum Corporation in the N/2 of Section 9, T-25-N, R-9-W, to determine whether this well is commercial.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	47
Pictured Cliffs, Noncommercial	2
Pictured Cliffs, Plugged and Abandoned	33
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	44
Dakota, Noncommercial	1
Dakota, Plugged and Abandoned	5
	<u>147</u> *

* Does not include Huerfano Unit #172 Well.

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1968 providing for the drilling of the following described Dakota wells:

<u>Huerfano Unit Well No.</u>	<u>Location</u>
127Y	NW/4 Sec. 26, T-26-N, R-10-W
150	SE/4 Sec. 12, T-25-N, R-10-W
173	SE/4 Sec. 13, T-26-N, R-10-W
174	NW/4 Sec. 13, T-26-N, R-10-W
175	SE/4 Sec. 14, T-26-N, R-10-W
176	SE/4 Sec. 15, T-26-N, R-10-W
177	SE/4 Sec. 22, T-26-N, R-10-W
178	NW/4 Sec. 22, T-26-N, R-10-W
179	NW/4 Sec. 14, T-26-N, R-10-W
180	NW/4 Sec. 18, T-26-N, R-9- W

All of the working interest owners have been contacted; and this Drilling Program reflects, insofar as possible, their desires for additional drilling.


El Paso Natural Gas Company intends to drill these wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 200' and a full string of production casing will be run to the base of the Dakota Formation and will be cemented in place in three stages. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. The entire hole will be mud drilled and mud will be used in setting the production string of casing when said casing is run. Due care will be taken to protect all horizons.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,


T. W. Bittick
Manager
Land Department

APPROVED:

United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

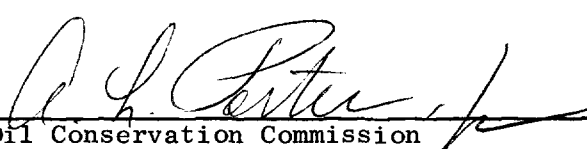
DATE:

APPROVED:

Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

DATE:

APPROVED:


Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

DATE:

Jan. 18, 1968

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1968.

HUERFANO UNIT
Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. W. C. Blackburn
P. O. Box 680
Casper, Wyoming 82601

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico 87101

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

Frank S. Kelly, Jr. J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana 71102

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

HUERFANO UNIT

Working Interest Owners - Page 2

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Rt. 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston, Texas 77001

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico 87106

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals
900 Wilco Building
Midland, Texas 79701

Cenard Oil Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention Mr. C. A. Patchen
Denver, Colorado 80202

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 94121

El Paso Natural Gas Company

El Paso, Texas 79999

July 25, 1967

MAIN OFFICE
'67 JUL 25 PM 1 13

195

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that two (2) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #161 Well, located 990' from the South line and 1750' from the East line of Section 18, T-26-N, R-9-W, was spudded on April 1, 1967, and completed on June 1, 1967, in the Dakota Formation at a total depth of 6710'. The Dakota Formation in the intervals between 6512'-6516', 6540'-6544', 6600'-6604', 6620'-6624' was treated with a sand-water fracturing process on May 30, 1967. The well was shut-in on June 1, 1967, and after being shut-in for gauge for twenty (20) days, the well was tested on June 21, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 1885 MCFGPD through a 3/4" choke, and 2120 MCFGPD by the calculated absolute open-flow method with and SIPC of 1881 psia and an SIPT of 1304 psia. The spacing unit for this well is described as the E/2 of Section 18, T-26-N, R-9-W, containing 320.00 acres.

Mr. John A. Anderson,
Commissioner of Public Lands and
Oil Conservation Commission,
State of New Mexico

-2-

July 25, 1967

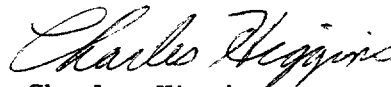
The above described spacing unit was included in the Huerfano Unit Sixth Expanded Participating Area of the Dakota Formation effective November 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #168 Well, located 890' from the South line and 1650' from the East line of Section 23, T-26-N, R-10-W, was spudded on May 9, 1967, and completed on June 3, 1967, in the Dakota Formation at a total depth of 6762'. The Dakota Formation in the intervals between 6620'-6626', 6678'-6684', 6702'-6708', 6720'-6726' was treated with a sand-water fracturing process on June 1, 1967. The well was shut-in on June 4, 1967, and after being shut-in for gauge for twenty-four (24) days, the well was tested on June 28, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 3628 MDFGPD through a 3/4" choke, and 4203 MCFGPD by the calculated absolute open-flow method with an SIPC of 1933 psia and an SIPT of 1936 psia. The spacing unit for this well is described as the E/2 of Section 23, T-26-N, R-10-W, containing 320.00 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961 and the SE/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961. The completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Very truly yours,



Charles Higgins
Assistant Supervising Landman
Land Department

CH:AJM:cjt
Attachment

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

WORKING INTEREST OWNERS - HUERFANO UNIT

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
5515 First National Building
Albuquerque, New Mexico 87101

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Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana 71102

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1700 Mercantile Bank Building
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Oil & Gas Property Management, Inc.
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Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petr. Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Rt. 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston, Texas 77001

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1700 Mercantile Bank Building
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Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico 87106

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
900 Wilco Building
Midland, Texas 79701
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. C. A. Patchen
Suite B-400, 1740 Broadway
Denver, Colorado 80202

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 94121

El Paso Natural Gas Company

El Paso, Texas 79999

June 21, 1967

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that eight (8) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #132 Well, located 890' from the South line and 890' from the East line of Section 26, T-26-N, R-10-W, was spudded on February 4, 1967, and completed on March 21, 1967, in the Dakota Formation at a total depth of 6753'. The Dakota Formation in the intervals between 6633'-6638', 6689'-6697', 6709'-6717' was treated with a sand-water fracturing process on March 20, 1967. The well was shut-in on March 21, 1967, and after being shut-in for gauge for seventy-seven (77) days, the well was tested on June 6, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 6064 MCFGPD through a 3/4" choke, and 9915 MCFGPD by the calculated absolute open-flow method with an SIPC of 1807 psia and an SIPT of 1843 psia. The spacing unit for this well is described as the E/2 of Section 26, T-26-N, R-10-W, containing 320.00 acres.

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The above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #162 Well, located 800' from the North line and 800' from the West line of Section 19, T-26-N, R-9-W, was spudded on April 13, 1967, and completed on May 22, 1967, in the Dakota Formation at a total depth of 6790'. The Dakota Formation in the intervals between 6580'-6598', 6612'-6620', 6671'-6695' was treated with a sand-water fracturing process on May 20, 1967. The well was shut-in on May 22, 1967, and after being shut-in for gauge for sixteen (16) days, the well was tested on June 7, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 4186 MCFGPD through a 3/4" choke, and 5326 MCFGPD by the calculated absolute open-flow method with an SIPC of 1892 psia and an SIPT of 1894 psia. The spacing unit for this well is described as Lots 1, 2, 3, 4, E/2 W/2 (W/2) of Section 19, T-26-N, R-9-W, containing 326.34 acres.

The NW/4 of the above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960. The SW/4 of the above described spacing unit was included in the Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #163 Well, located 800' from the South line and 1800' from the East line of Section 19, T-26-N, R-9-W, was spudded on April 17, 1967, and completed on May 24, 1967, in the Dakota Formation at a total depth of 6720'. The Dakota Formation in the intervals between 6466'-6471', 6489'-6494', 6560'-6565' was treated with a sand-water fracturing process on May 23, 1967. The well was shut-in on May 25, 1967, and after being shut-in for gauge for fourteen (14) days, the well was tested on June 8, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 1666 MCFGPD through a 3/4" choke, and 1765 MCFGPD by the calculated absolute open-flow method with an SIPC of 1909 psia and an SIPT of 1917 psia. The spacing unit for this well is described as the E/2 of Section 19, T-26-N, R-9-W, containing 320.00 acres.

The NE/4 of the above described spacing unit was included in the Huerfano Unit Sixth Expanded Participating Area of the Dakota Formation effective November 1, 1959. The SE/4 of the above described spacing unit was included in the Twelfth Expanded Participating Area of the Dakota

June 21, 1967

Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #164 Well, located 1090' from the South line and 1800' from the East line of Section 20, T-26-N, R-9-W, was spudded on April 5, 1967, and completed on May 27, 1967, in the Dakota Formation at a total depth of 6645'. The Dakota Formation in the intervals between 6444'-6452', 6476'-6480', 6532'-6540', 6552'-6556' was treated with a sand-water fracturing process on May 26, 1967. The well was shut-in on May 28, 1967, and after being shut-in for gauge for eleven (11) days, the well was tested on June 8, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 3302 MCFGPD through a 3/4" choke, and 3917 MCFGPD by the calculated absolute open-flow method with an SIPC of 1732 psia and an SIPT of 1727 psia. The spacing unit for this well is described as the S/2 of Section 20, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Sixth Expanded Participating Area of the Dakota Formation effective November 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #167 Well, located 1825' from the North line and 1650' from the West line of Section 23, T-26-N, R-10-W, was spudded on April 26, 1967, and completed on May 19, 1967, in the Dakota Formation at a total depth of 6865'. The Dakota Formation in the intervals between 6650'-6658', 6674'-6678', 6692'-6696', 6726'-6742', 6802'-6810' was treated with a sand-water fracturing process on May 17, 1967. The well was shut-in on May 19, 1967, and after being shut-in for gauge for eighteen (18) days, the well was tested on June 6, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 5552 MCFGPD through a 3/4" choke, and 7861 MCFGPD by the calculated absolute open-flow method with an SIPC of 1811 psia and an SIPT of 1829 psia. The spacing unit for this well is described as the W/2 of Section 23, T-26-N, R-10-W, containing 320.00 acres.

The SW/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961. The NW/4 of the above described spacing unit was included in the Eleventh Expanded Participating Area of the Dakota Formation effective February 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

June 21, 1967

The Huerfano Unit #169 Well, located 990' from the South line and 1650' from the East line of Section 24, T-26-N, R-10-W, was spudded on April 27, 1967, and completed on May 30, 1967, in the Dakota Formation at a total depth of 6745'. The Dakota Formation in the intervals between 6526'-6530', 6604'-6608', 6620'-6624', 6648'-6652' was treated with a sand-water fracturing process on May 28, 1967. The well was shut-in on May 30, 1967, and after being shut-in for gauge for eight (8) days, the well was tested on June 7, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 4331 MCFGPD through a 3/4" choke, and 5529 MCFGPD by the calculated absolute open-flow method with an SIPC of 1790 psia and an SIPT of 1797 psia. The spacing unit for this well is described as the E/2 of Section 24, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #170 Well, located 990' from the South line and 1650' from the East line of Section 25, T-26-N, R-10-W, was spudded on February 28, 1967, and completed on March 28, 1967, in the Dakota Formation at a total depth of 6673'. The Dakota Formation in the intervals between 6512'-6516', 6536'-6540', 6588'-6596', 6606'-6614', 6624'-6628' was treated with a sand-water fracturing process on March 25, 1967. The well was shut-in on March 28, 1967, and after being shut-in for gauge for fifty-five (55) days, the well was tested on May 22, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 5865 MCFGPD through a 3/4" choke, and 8379 MCFGPD by the calculated absolute open-flow method with an SIPC of 1825 psia and an SIPT of 1856 psia. The spacing unit for this well is described as the E/2 of Section 25, T-26-N, R-10-W, containing 320.00 acres.

The SE/4 of the above described spacing unit was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961. The NE/4 of the above described spacing unit was included in the Ninth Expanded Participating Area of the Dakota Formation effective December 1, 1960, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #171 Well, located 990' from the North line and 990' from the West line of Section 36, T-26-N, R-10-W, was spudded on February 16, 1967, and completed on March 24, 1967, in the Dakota Formation at a total depth of 6714'. The Dakota Formation in the intervals

June 21, 1967

between 6568'-6573', 6620'-6628', 6640'-6648' was treated with a sand-water fracturing process on March 23, 1967. The well was shut-in on March 24, 1967, and after being shut-in for gauge for sixty-eight (68) days, the well was tested on June 1, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 5834 MCFGPD through a 3/4" choke, and 8544 MCFGPD by the calculated absolute open-flow method with an SIPC of 1843 psia and an SIPT of 1859 psia. The spacing unit for this well is described as the W/2 of Section 36, T-26-N, R-10-W, containing 320.00 acres.

The above described spacing unit was included in the Huerfano Unit Seventeenth Expanded Participating Area of the Dakota Formation effective October 1, 1962, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Very truly yours,



Charles Higgins
Assistant Supervising Landman
Land Department

CH:AJM:sb

Attachment

cc: Mrs. Pepita O. Jeffus, Executive Director
New Mexico Oil & Gas Accounting Commission
P. O. Box 2308
Santa Fe, New Mexico 87501

WORKING INTEREST OWNERS - HUERFANO UNIT

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
221 Petroleum Center Building
Farmington, New Mexico 87401

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco, California 94117

Mr. Albert R. Greer
221 Petroleum Center Building
Farmington, New Mexico 87401

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa 50401

Hannett, Hannett & Cornish
Attorneys at Law
5515 First National Building
Albuquerque, New Mexico 87101

Bernice Jeffs
P. O. Box 51
Gorman, Texas 76454

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana 71102

La Plata Gathering System, Inc.
1700 Mercantile Bank Building
Dallas, Texas 75201

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg
Attention: Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Sunset International Petr. Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Rt. 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

Mr. J. Glenn Turner
1700 Mercantile Bank Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston, Texas 77001

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico 87106

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
900 Wilco Building
Midland, Texas 79701
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. C. A. Patchen
Suite B-400, 1740 Broadway
Denver, Colorado 80202

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New York, New York 10022

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300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 94121

El Paso Natural Gas Company

El Paso, Texas 79999

May 25, 1967

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, 1 Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that seven (7) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #156 Well, located 990' from the North line and 1800' from the West line of Section 6, T-26-N, R-9-W, was spudded on January 24, 1967, and completed on March 15, 1967, in the Dakota Formation at a total depth of 6975'. The Dakota Formation in the intervals between 6664'-6676', 6694'-6698', 6752'-6756', 6848'-6854' was treated with a sand-water fracturing process on March 14, 1967. The well was shut-in on March 15, 1967, and after being shut-in for gauge for nineteen (19) days, the well was tested on April 3, 1967, and following a three (3) hour blow-down period, the Dakota Formation gauged 3386 MCFGPD through a 3/4" choke, and 3881 MCFGPD by the calculated absolute open-flow method with an SIPC of 1984 psia and an SIPT of 1098 psia. The spacing unit for this well is described as Lots 3, 4, 5, 6, 7, SE/4 NW/4, E/2 SW/4 (W/2) of Section 6, T-26-N, R-9-W, containing 328.22 acres.

The above described spacing unit was included in the Huerfano Unit Thirteenth Expanded Participating Area of the Dakota Formation effective September 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #157 Well, located 1090' from the South line and 805' from the East line of Section 8, T-26-N, R-9-W, was spudded on February 9, 1967, and completed on March 17, 1967, in the Dakota Formation at a total depth of 6904'. The Dakota Formation in the intervals between 6642'-6650', 6668'-6676', 6720'-6736', 6756'-6772' was treated with a sand-water fracturing process on March 16, 1967. The well was shut-in on March 17, 1967, and after being shut-in for gauge for twenty (20) days, the well was tested on April 6, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 2903 MCFGPD through a 3/4" choke, and 3255 MCFGPD by the calculated absolute open-flow method with an SIPC of 1971 psia and an SIPT of 1970 psia. The spacing unit for this well is described as the E/2 of Section 8, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing was included in the Huerfano Unit Thirteenth Expanded Participating Area of the Dakota Formation effective September 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #158 Well, located 1650' from the North line and 990' from the West line of Section 8, T-26-N, R-9-W, was spudded on February 23, 1967, and completed on March 19, 1967, in the Dakota Formation at a total depth of 6908'. The Dakota Formation in the intervals between 6635'-6651', 6669'-6674', 6730'-6746' was treated with a sand-water fracturing process on March 18, 1967. The well was shut-in on March 19, 1967, and after being shut-in for gauge for twenty-four (24) days, the well was tested on April 12, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 1559 MCFGPD through a 3/4" choke, and 1666 MCFGPD by the calculated absolute open-flow method with an SIPC of 1989 psia and an SIPT of 1988 psia. The spacing unit for this well is described as the W/2 of Section 8, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing was included in the Huerfano Unit Thirteenth Expanded Participating Area of the Dakota Formation effective September 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #159 Well, located 1650' from the North line and 890' from the West line of Section 17, T-26-N, R-9-W, was spudded on March 7, 1967, and completed on April 1, 1967, in the Dakota Formation at a total depth of 6695'. The Dakota Formation in the intervals between 6512'-6518', 6534'-6540', 6596'-6608' was treated with a sand-water fracturing process on March 30, 1967. The well was shut-in on April 1, 1967, and after being shut-in for gauge for eighteen (18) days, the well was tested on April 19, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 1924 MCFGPD through

a 3/4" choke, and 2045 MCFGPD by the calculated absolute open-flow method with an SIPC of 1951 psia and an SIPT of 1975 psia. The spacing unit for this well is described as the W/2 of Section 17, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing was included in the Huerfano Unit Sixth Expanded Participating Area of the Dakota Formation effective November 1, 1959, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #160 Well, located 990' from the South line and 1800' from the East line of Section 17, T-26-N, R-9-W, was spudded on March 20, 1967, and completed on April 7, 1967, in the Dakota Formation at a total depth of 6740'. The Dakota Formation in the intervals between 6472'-6478', 6498'-6504', 6558'-6570' was treated with a sand-water fracturing process on April 4, 1967. The well was shut-in on April 7, 1967, and after being shut-in for gauge for thirteen (13) days, the well was tested on April 20, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 783 MCFGPD through a 3/4" choke, and 826 MCFGPD by the calculated absolute open-flow method with an SIPC of 2006 psia and an SIPT of 1004 psia. The spacing unit for this well is described as the E/2 of Section 17, T-26-N, R-9-W, containing 320.00 acres.

The above described spacing was included in the Huerfano Unit Thirteenth Expanded Participating Area of the Dakota Formation effective September 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #165 Well, located 990' from the South line and 1750' from the East line of Section 30, T-26-N, R-9-W, was spudded on March 21, 1967, and completed on April 4, 1967, in the Dakota Formation at a total depth of 6650'. The Dakota Formation in the intervals between 6492'-6498', 6550'-6562', 6572'-6584' was treated with a sand-water fracturing process on April 3, 1967. The well was shut-in on April 4, 1967, and after being shut-in for gauge for twenty-three (23) days, the well was tested on April 27, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 3667 MCFGPD through a 3/4" choke, and 4180 MCFGPD by the calculated absolute open-flow method with an SIPC of 1965 psia and an SIPT of 1989 psia. The spacing unit for this well is described as the E/2 of Section 30, T-26-N, R-9-W, containing 320 acres.

The above described spacing was included in the Huerfano Unit Twelfth Expanded Participating Area of the Dakota Formation effective April 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #166 Well, located 990' from the North line and 990' from the West line of Section 31, T-26-N, R-9-W, was spudded on March 10, 1967, and completed on March 30, 1967, in the Dakota Formation at a total depth of 6653'. The Dakota Formation in the intervals between 6513'-6519', 6540'-6546', 6597'-6603', 6613'-6619' was treated with a sand-water fracturing process on March 28, 1967.

The well was shut-in on March 30, 1967, and after being shut-in for gauge for thirty-four (34) days, the well was tested on May 3, 1967, and following a three (3) hour blow-down period the Dakota Formation gauged 3420 MCFGPD through a 3/4" choke, and 4405 MCFGPD by the calculated absolute open-flow method with an SIPC of 1973 psia and an SIPT of 2000 psia. The spacing unit for this well is described as Lots 1, 2, 3, 4, E/2 W/2 (W/2) of Section 31, T-26-N, R-9-W, containing 325.28 acres.

The above described spacing was included in the Huerfano Unit Seventeenth Expanded Participating Area of the Dakota Formation effective October 1, 1962, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

A handwritten signature in cursive script that reads "Charles Higgins".

Charles Higgins
Assistant Supervising Landman
Land Department

CH:AJM:psr

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona 85251

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
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Oil & Gas Building, P. O. Box 1775
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La Plata Gathering System, Inc.
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Dallas, Texas 75201

Oil and Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
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Austin, Texas 78758

Mrs. Margorie Lundean
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New York, New York 10023

Mr. K. E. McAfee
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Oklahoma City, Oklahoma 73102

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma 73651

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico 87401

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
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Denver, Colorado 80202

Mr. E. H. Pipkin
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Roswell, New Mexico 88201

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno, California 93716

Tamanaco Oil Corporation
Rt. 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado 81302

Mr. J. Glenn Turner
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Dallas, Texas 75201

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A Division of Allied Chemical Corporation
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Houston, Texas 77001

Mr. William G. Webb
1700 Mercantile Bank Building
Dallas, Texas 75201

Dr. Sherman Wengerd
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Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
4th Floor, 201 Wall Building
Midland, Texas 79701
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. C. A. Patchen
Suite B-400, 1740 Broadway
Denver, Colorado 80202

Alfred Gross, Trustee
110 E. 57th Street
New York, New York 10022

Peter Gross
110 E. 57th Street
New York, New York 10022

N-M Oil & Gas Venture
Room 1200
300 W. Washington
Chicago, Illinois 60606

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California 94121

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

175

April 11, 1967

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1967 Drilling Program
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1967 Drilling Program dated January 6, 1967 and as amended by letter dated January 16, 1967, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands - Santa Fe
United States Geological Survey - Roswell

C
O
P
Y

January 23, 1967

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

Re: Huerfano Unit
San Juan County, New Mexico

Attention: Mr. T. W. Bittick

Gentlemen:

Pursuant to your 1967 Plan of Development you state you are presently evaluating the Edith A. Payne #1 Well, drilled by Pan American Petroleum Corporation in the N/2 of Section 9, Township 25 North, Range 9 West, to determine whether this well is commercial. This office has no record of such a well having been drilled on the Huerfano Unit. Please furnish this office well reports on this well at your earliest convenience.

The Commissioner is approving the 1967 Plan of Development for the Huerfano Unit which provides for the drilling of seventeen Dakota wells during the calendar year 1967.

We are returning one approved copy of this plan.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Ted Bilberry, Director
Oil and Gas Department

GBH/MMR/v

cc: United States Geological Survey
Roswell, New Mexico
Oil Conservation Commission
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79999

January 16, 1967

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico

Re: 1967 Drilling Program
Huerfano Unit
San Juan County, New Mexico

Gentlemen:

By letter dated January 6, 1967, El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, submitted a proposed 1967 Drilling Program for the captioned unit. In order to conform with the established well spacing in this area we desire to change the quarter section location of two (2) wells as set out in the proposed program. The new locations are:

<u>Well No.</u>	<u>Previous Location</u>	<u>New Location</u>
157	NE/4 Sec. 8, T-26-N, R-9-W	SE/4 Sec. 8, T-26-N, R-9-W
158	SW/4 Sec. 8, T-26-N, R-9-W	NW/4 Sec. 8, T-26-N, R-9-W

Please make this change on all copies of our letter dated January 6, 1967. We have secured the concurrence of the required number of working interest owners for this change.

Very truly yours,



T. W. Bittick
Manager
Land Department

TWB:AJM:sb

COPY

El Paso Natural Gas Company

El Paso, Texas 79999

April 17, 1967

RECEIVED
APR 20 1967
AM 8 08

115

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1967 DRILLING PROGRAM

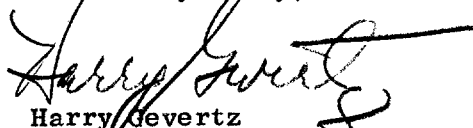
Gentlemen:

This is to advise that the Drilling Program for 1967 for the Huerfano Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - March 22, 1967
2. Commissioner of Public Lands - January 23, 1967
3. Oil Conservation Commission - April 11, 1967

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,


Harry Gevertz
Supervising Landman
Land Department

HG:AJM:sb

Huerfano 3.0

El Paso Natural Gas Company

El Paso, Texas

January 6, 1967

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1967 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering captioned unit on November 4, 1966, for the calendar year 1966, consisting of five (5) Dakota wells and one (1) Pictured Cliffs well. All of these wells were timely drilled. El Paso Natural Gas Company is presently evaluating the Edith A. Payne #1 Well, drilled by Pan American Petroleum Corporation in the N/2 of Section 9, T-25-N, R-9-W, to determine whether this well is commercial. Completion attempts on the Huerfano #151 Well, located in the NW/4 Section 35, T-26-N, R-10-W, were unsuccessful and El Paso is presently conducting tests to determine if the well should be plugged and abandoned or if additional completion attempts should be made. The remaining wells were completed in existing participating areas and did not cause expansions.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	49
Pictured Cliffs, Noncommercial	2
Pictured Cliffs, Plugged and Abandoned	31
Gallup-Dakota, Commercial	11

Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	27
Dakota, Noncommercial	2
Dakota, Plugged and Abandoned	3
	<hr/>
	129 *

* Does not include the Edith A. Payne #1 and the Huerfano #151

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1967 providing for the drilling of the following described Dakota wells:

<u>Huerfano Unit Well No.</u>		<u>Location</u>
156		NW/4 6, T-26-N, R-9-W
157	SE/4	NE/4 8, T-26-N, R-9-W
158	NW/4	SW/4 8, T-26-N, R-9-W
159		NW/4 17, T-26-N, R-9-W
160		SE/4 17, T-26-N, R-9-W
161		SE/4 18, T-26-N, R-9-W
162		NW/4 19, T-26-N, R-9-W
163		SE/4 19, T-26-N, R-9-W
164		SE/4 20, T-26-N, R-9-W
165		SE/4 30, T-26-N, R-9-W
166		NW/4 31, T-26-N, R-9-W
167		NW/4 23, T-26-N, R-10-W
168		SE/4 23, T-26-N, R-10-W
169		SE/4 24, T-26-N, R-10-W
170		SE/4 25, T-26-N, R-10-W
132		SE/4 26, T-26-N, R-10-W
171		NW/4 36, T-26-N, R-10-W

All of the working interest owners have been contacted; and this Drilling Program reflects, insofar as possible, their desires for additional drilling.

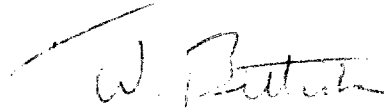
In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Yours very truly,

EL PASO NATURAL GAS COMPANY


A handwritten signature in dark ink, appearing to read "T. W. Bittick", with a long horizontal stroke extending to the left.

T. W. Bittick
Manager
Land Department

TWB:AJM:md

APPROVED: _____ DATE: _____
United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

APPROVED: _____ DATE: _____
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

APPROVED:  DATE: 4-11-67
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

The foregoing approvals are for the Huerfano Unit Drilling Program for the calendar year 1967.

HUERFANO UNIT

Working Interest Owners - All Formations

Page 2

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
Route 5, Box 5466
Albuquerque, New Mexico 87112

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. C. A. Patchen
Suite B-400, 1740 Broadway
Denver, Colorado 80202

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas Incorporated
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
4th Floor, 201 Wall Building
Midland, Texas

Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

Mr. Alfred Gross, Trustee
110 East 57th Street
New York, New York

Mr. Peter Gross
110 East 57th Street
New York, New York

N-M Oil & Gas Venture
Room 1200, 300 West Washington
Chicago, Illinois

HUERFANO UNIT

Working Interest Owners - All Formations

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221



MAINTENANCE OFFICE (MAR 22 PM 7)
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

March 22, 1967

El Paso Natural Gas Company
P. O. Box 1402
El Paso, Texas

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1967 Plan of Development, dated January 6, 1967, for the Ruerfano unit area, San Juan County, New Mexico, proposing the drilling of seventeen Dakota formation wells, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON

Regional Oil and Gas Supervisor

cc:

Washington (w/cy plan)

Farmington (w/cy plan)

NMOCC, Santa Fe (ltr. only) ✓

Com. of Pub. Lands, Santa Fe (ltr. only)

El Paso Natural Gas Company

El Paso, Texas 79999

January 9, 1967

11/5

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
1966 DRILLING PROGRAM

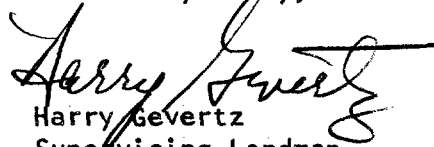
Gentlemen:

This is to advise that the Drilling Program for 1966 for the Huerfano Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - January 4, 1967
2. Commissioner of Public Lands - November 21, 1966
3. Oil Conservation Commission - November 21, 1966

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,


Harry Gevertz
Supervising Landman
Land Department

HG:AJM:jm

Huerfano, 3.0



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

~~Drawer 1857~~
Roswell, New Mexico 88201

January 4, 1967

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your 1966 Plan of Development, dated November 4, 1966, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of five Dakota formation wells and one Pictured Cliffs well has been approved on this date. The Commissioner of Public Lands and the Oil Conservation Commission, State of New Mexico, approved the plan on November 21, 1966.

Four approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. 666) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:

Washington (w/cy plan)

Farmington (w/cy plan)

NMOCC, Santa Fe (ltr. only) ✓

Com. of Pub. Lands, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

1175

November 21, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: 1966 Drilling Program
Huerfano Unit, San
Juan County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1966 Drilling Program dated November 4, 1966, for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies of the program are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands - Santa Fe
United States Geological Survey - Roswell

C
O
P
Y

November 21, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Re: Huerfano Unit
San Juan County, New Mexico
1966 Drilling Program

ATTENTION: Mr. Harry Gevertz

Gentlemen:

The Commissioner of Public Lands approves the Plan of Development for the Huerfano Unit, San Juan County, New Mexico, for the calendar year 1966. This approval is subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing eight copies of this Plan of Development to the Oil Conservation Commission for their consideration and requesting that they forward at least seven copies to the United States Geological Survey.

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Ted Bilberry, Director
Oil and Gas Department

GBH/MMR/s
cc: United States
Geological Survey
Roswell, New Mexico
Oil Conservation Commission
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas 79999

November 7, 1966

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
1966 DRILLING PROGRAM

Dear Sir:

We are enclosing for your approval ten (10) copies of the 1966 Drilling Program for the captioned Unit.

If this Drilling Program meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After this Drilling Program has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file and seven (7) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After this Drilling Program has been approved and signed by the United States Geological Survey, four (4) copies should be returned to El Paso for further handling.

Yours very truly,
Original Signed by
HARRY GEVERTZ
Harry Gevertz
Supervising Landman
Land Department

HG:AJM:jm
Enclosures

Huerfano, 5.0

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico

COPY

El Paso Natural Gas Company

El Paso, Texas 79999

November 4, 1966

RECEIVED
Nov 8 9 32 AM '66
STATE LAND OFFICE
SANTA FE, N. M.

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, Sec. No. 731
San Juan County, New Mexico
1966 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, filed a Drilling Program covering captioned unit on August 6, 1965 and a Supplemental Drilling Program on November 12, 1965 for the calendar year of 1965, consisting of four (4) Dakota Wells. All four of these wells were drilled and completed on lands committed to the Huerfano Unit. The Huerfano Unit #143, #144, and #145 Wells were completed within the Dakota Participating Area and caused no expansion. The Huerfano Unit No. 155 Well was determined to be commercial and is the basis for the proposed Twenty-seventh Expansion of the Dakota Participating Area.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commerical	50
Pictured Cliffs, Non-Commercial	2
Pictured Cliffs, Plugged and Abandoned	30
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	23
Dakota, Non-Commercial	2
Dakota, Plugged and Abandoned	2
Dakota, Temporarily Abandoned	1
Total	124

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1966 providing for the drilling of the following described wells:

<u>Name and Spacing Unit</u>	<u>Formation</u>
1. Huerfano Unit #148 Well W/2 Sec. 1, T-25-N, R-10-W, N.M.P.M.	Dakota
2. Huerfano Unit #149 Well W/2 Sec. 18, T-25-N, R-9-W, N.M.P.M.	Dakota
3. Huerfano Unit #151 Well W/2 Sec. 35, T-26-N, R-10-W, N.M.P.M.	Dakota
4. Huerfano Unit #152 Well N/2 Sec. 12, T-25-N, R-10-W, N.M.P.M.	Dakota
5. Edith A. Payne #1 N/2 Sec. 9, T-25-N, R-9-W, N.M.P.M.	Dakota
6. Huerfano Unit #17-X NE/4 Sec. 31, T-27-N, R-10-W, N.M.P.M.	Pictured Cliffs

The well shown above as No. 5 will be drilled by Pan American Petroleum Corporation under a Designation of Sub-Operator from El Paso Natural Gas Company. The Pictured Cliffs well shown as No. 6 above has been drilled as a replacement well for the Huerfano Unit #17 Well which was plugged and abandoned April 16, 1966.

All of the working interest owners have been contacted; and this Drilling Program reflects, insofar as possible, their desires for additional drilling.

In addition to the above wells, El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By


T. W. Bittick, Manager
Land Department

APPROVED: _____

DATE: _____

United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

APPROVED: _____

Clinton B. Say
Commissioner of Public Lands

DATE: _____

November 2, 1966

Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

APPROVED: _____

C. L. Peterson
Oil Conservation Commission

DATE: _____

Nov 29, 1966

Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1966.

HUERFANO UNIT
Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
5515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr. J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

HUERFANO UNIT

Working Interest Owners

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: C. A. Patchen
B-400, 1740 Broadway
Denver, Colorado

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
4th Floor, 201 Wall Building
Midland, Texas
Attention: Mr. Weaver W. Ralls,
Supervisor Division
Records and Rentals

Cenard Oil & Gas Company
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roosevel, New Mexico 88501

IN REPLY REFER TO:

195
November 16, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79900

Attention: Mr. A. M. Derrick

Gentlemen:

Your letter of November 9 transmits one copy of a Dakota formation net sand isopach map for the Bursum unit area revised on the basis of the new information contributed by the completion of unit wells Nos. 148, 149, and 152. Such revised map shows a thinning of the Dakota formation pay thickness in the vicinity of the No. 149 well. Your letter offers the opinion that an expansion of the Dakota participating area to include the E $\frac{1}{4}$ sec. 18, T. 25 N., R. 9 W., based on the new information contributed by the No. 149 well, is not justified.

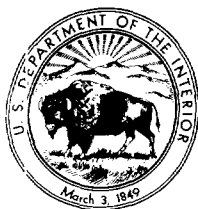
This office concurs in your opinion that an expansion of the Dakota participating area is not warranted as a result of the completion of the No. 149 unit well.

Sincerely yours,

ENCLOSURE

CARL C. TRABUE
Acting Oil and Gas Supervisor

cc:
Washington
Farmington
Com. of Pub. Lands, Santa Fe
RMOCC, Santa Fe ✓



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

October 12, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Harry Govertz

Gentlemen:

By notice dated September 28, this office was advised that Huerfano unit wells Nos. 148, 149, and 152, located on lands previously included in the Dakota formation participating area, have been completed and are considered to be capable of producing untaxed substances in paying quantities from the Dakota formation. Such notice also states that in El Paso's opinion, the completion of these wells does not warrant further expansion of the Dakota participating area.

This office concurs in your opinion that such wells are capable of producing in paying quantities and that no expansion is necessitated by the new information contributed by the completion of interior wells Nos. 148 and 152. However, we request that additional information be furnished to justify your opinion that the completion of the No. 149 well does not warrant an expansion of the Dakota participating area.

Sincerely yours,

(2219.400) FORM 1-1-57 (200)

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington
Farmington
Com. of Pub. Lands, Santa Fe
NMOC, Santa Fe ✓



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Room 12 New Mexico 88201

October 3 1966

Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Attention: Mr. S. B. Richards

Don't Forget!

Your letter of September 23 transmits five copies of a "Designation of Sub-Operator" by which El Paso Natural Gas Company, unit operator of the Huerfano unit, San Juan County, New Mexico, designates Pan American Petroleum Corporation as sub-operator for the drilling of a Dakota well in the NW sec. 9, T. 25 N., R. 9 W., N.M.P.M.

The Designation of Sub-Operator is accepted as a Designation of Agent from El Paso Natural Gas Company. Such acceptance does not relieve El Paso Natural Gas Company of its responsibility as unit operator to operate any well on the above described land that is determined to be qualified for inclusion in a participating area.

Sincerely yours

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSEN
Regional Oil and Gas Supervisor

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

Washington (w/cy desig.)
BLM, Santa Fe (w/cy desig.)
Farmington (w/cy desig.)
Com. of Pub. Lands, Santa Fe (ltr. only)
NEIOCC, Santa Fe (ltr. only) ✓

El Paso Natural Gas Company

195

El Paso, Texas 79999

September 28, 1966

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

SEP 30 AM

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELLS, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Section No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the dates set out below that three (3) additional wells capable of producing unitized substances in commercial quantities have been completed upon acreage committed to the unit. These wells are as follows:

The Huerfano Unit #148 Well, located 800' from the North line and 800' from the West line of Section 1, T-25-N, R-10-W, was spudded on July 14, 1966 and completed on July 27, 1966 in the Dakota Formation at a total depth of 6739'. The Dakota Formation in the intervals between 6668' - 6680', 6701' - 6713' was treated with a sand-water fracturing process on July 26, 1966. The well was shut-in on July 27, 1966, and after being shut-in for gauge for seven (7) days, the well was tested on August 3, 1966, and following a three (3) hour blow-down period the Dakota Formation gauged 1156 MCFGPD through a 3/4" choke, and 1223 MCFGPD by the calculated absolute open-flow method with an SIPC of 1909 psia and an SIPT of 1915 psia. The spacing unit upon which this well is located is described as the W/2 of Section 1, T-25-N, R-10-W, containing 319.69 acres.

The NW/4 of this spacing unit was included in the Huerfano Unit Seventeenth Expanded Participating Area of the Dakota Formation effective October 1, 1962, and the SW/4 of this spacing unit was included in the Twenty-Second Expanded Participating Area of the Dakota Formation effective November 1, 1964, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #149 Well, located 1650' from the South line and 1650' from the West line of Section 18, T-25-N, R-9-W, was spudded on June 16, 1966, and completed June 28, 1966, in the Dakota Formation at a total depth of 6640'. The Dakota Formation in the intervals between 6586' - 6596', 6610' - 6616' was treated with a sand-water fracturing process on June 28, 1966. The well was shut-in on June 28, 1966, and after being shut-in for gauge for fifteen (15) days, the well was tested on July 13, 1966, and following a three (3) hour blow-down period the Dakota Formation gauged 4240 MCFGPD through a 3/4" choke, and 5035 MCFGPD by the calculated absolute open-flow method with an SIPC of 1908 psia and an SIPT of 1927 psia. The spacing unit upon which this well is located is described as the W/2 of Section 18, T-25-N, R-9-W, containing 324.24 acres.

This spacing unit was included in the Huerfano Unit Twenty-Sixth Expanded Participating Area of the Dakota Formation, effective May 1, 1965, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

The Huerfano Unit #152, located 890' from the North line and 1535' from the West line of Section 12, T-25-N, R-10-W, was spudded on June 30, 1966, and completed on July 13, 1966, in the Dakota Formation at a total depth of 6855'. The Dakota Formation in the intervals between 6764' - 6776', 6786' - 6798' was treated with a sand-water fracturing process on July 12, 1966. The well was shut-in on July 13, 1966, and after being shut-in for gauge for seven (7) days, the well was tested on July 20, 1966, and following a three (3) hour blow-down period the Dakota Formation gauged 5550 MCFGPD through a 3/4" choke and 7347 MCFGPD by the calculated absolute open-flow method with an SIPC of 1949 psia and an SIPT of 1759 psia. The spacing unit upon which this well is located is described as the N/2 of Section 12, T-25-N, R-10-W, containing 320 acres.

The NW/4 of this spacing unit was included in Twenty-Second Expanded Participating Area of the Dakota Formation effective November 1, 1964, and the NE/4 of this spacing unit was included in the Twenty-Third Expanded Participating Area of the Dakota Formation effective December 1, 1964, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Yours very truly,

By Harry Gevertz
Harry Gevertz
Supervising Landman
Land Department

HG:AJM:je
Attachment

HUERFANO UNIT
Working Interest Owners

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
5515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr. J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

El Paso Natural Gas Company

El Paso, Texas 79999

November 1, 1966

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-SEVENTH REVISION OF THE
PARTICIPATING AREA for the Dakota
Formation


Gentlemen:

This is to advise that the captioned Twenty-Seventh Revision of the Dakota Participating Area was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - October 18, 1966
2. Commissioner of Public Lands,
State of New Mexico - September 8, 1966
3. Oil Conservation Commission,
State of New Mexico - September 9, 1966

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,


Harry Gevertz
Supervising Landman
Land Department

HG:AJM:sb
Huerfano, 4.3

HUERFANO UNIT
Working Interest Owners

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas 75201

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. Wm. M. Brodrick
1200 Skirvin Tower
Oklahoma City, Oklahoma 73109

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
10th Floor, 201 Wall Building
Midland, Texas
Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

195

Drawer 1857
Roswell, New Mexico 88201

October 25, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79948

MAIL ROOM

'66 OCT 27 AM 8

Attention: Mr. T. W. Bittick

Gentlemen:

The twenty-seventh expansion of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, effective as of March 1, 1966, was approved on October 18, 1966, by the Acting Director of the Geological Survey.

Two approved copies of the application are enclosed. You are requested to furnish all interested principals with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:

Washington (ltr. only)
Farmington (w/ey approved application)
Com. of Public Lands - Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only) ✓
Accounts

OIL CONSERVATION COMMISSION

P. O. Box 871
SANTA FE, NEW MEXICO

195

September 9, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: ~~Twenty-Seventh~~ Revision,
Dakota Participating Area,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the ~~Twenty-Seventh~~ Revision of the Dakota Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the application are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands
Santa Fe, New Mexico

United States Geological Survey
Drawer 1857
Roswell, New Mexico 88201

C

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P

Y

El Paso Natural Gas Company

El Paso, Texas

August 26, 1966

MAILED 000
SEP 1 1966
PH 1 19

195

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY SEVENTH REVISION OF THE
PARTICIPATING AREA
Dakota Formation

Dear Sir:

We are enclosing for your approval eight (8) copies of Application for Approval of the Twenty-Seventh Revision of the Participating Area of the Dakota Formation for the captioned Unit.

If this Revision meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After this Revision has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file, and five (5) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After this Revision has been approved and signed by the United States Geological Survey, two (2) copies should be returned to El Paso.

Very truly yours,

Harry Gevertz

Harry Gevertz
Supervising Landman
Land Department

HG:AJM:cah
Enclosures

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

COPY

El Paso Natural Gas Company

El Paso, Texas 79999

SEP 26 1966

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

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF
THE TWENTY-SEVENTH REVISION
OF THE PARTICIPATING AREA
FOR THE DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Twenty-Seventh Revision of the Participating Area for the Dakota Formation, to wit:

Twenty-Seventh Revision - Effective March 1, 1966

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-9-W, N. M. P. M.	
Section 5: W/2	320.99
Section 8: W/2	320.00
TOTAL	<u>640.99</u>

SEP 1 3 31 AM '66
STATE LAND OFFICE
SANTA FE, N.M.

This proposed Twenty-Seventh Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #155 Well, located in the NW/4 of Section 8, Township 25 North, Range 9 West, N. M. P. M.

The Huerfano Unit #155 Well was spudded on December 5, 1965, and completed on January 12, 1966, at a total depth of 6900'. The Dakota Formation in the intervals between 6666' - 6670', 6714' - 6718', 6740' - 6748', 6790' - 6794', 6804' - 6812' was treated with a sand-water fracturing process. After being shut-in for twenty-one (21) days, the Dakota Formation was tested on February 2, 1966, and following a three hour blow-down period gauged 2337 MCFGPD through a 3/4" choke and 2493 MCFGPD by the calculated absolute open-flow method, with a SIPC of 1962 psia and a SIPT of 1990 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Twenty-Seventh Revision of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Twenty-Seventh Expansion of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production

Attached to this application is Schedule XXIX showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Twenty-Seventh Revision of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By



T. W. Bittick

Manager

Land Department

TWB:AJM:cah

D: _____ DATE: _____

Director, United States Geological
Survey

Subject to like approval by the appropriate State officials.

ROVED: *Samuel B. Hays* DATE: 9/9/66
Commissioner of Public Lands

Subject to like approval by the United States Geological Survey
and the Oil Conservation Commission.

APPROVED: *A. L. Porter* DATE: 9/9/66
Oil Conservation Commission

Subject to like approval by the United States Geological Survey
and the Commissioner of Public Lands.

The foregoing approvals are for the Twenty-Seventh Revision of the
Participating Area for the Dakota Formation, effective March 1, 1966,
under Huerfano Unit, 1 Sec. No. 731, San Juan County, New Mexico.

APPROVED: _____ DATE: _____

Director, United States Geological
Survey

Subject to like approval by the appropriate State officials.

APPROVED: Samuel B. Hays DATE: 9/9/66

Commissioner of Public Lands

Subject to like approval by the United States Geological Survey
and the Oil Conservation Commission.

APPROVED: A. L. Porter DATE: 9/9/66

Oil Conservation Commission

Subject to like approval by the United States Geological Survey
and the Commissioner of Public Lands.

The foregoing approvals are for the Twenty-Seventh Revision of the
Participating Area for the Dakota Formation, effective March 1, 1966,
under Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT
Working Interest Owners - All Formations

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr. J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (3)
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc. (2)
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company (3)
Attention: Mr. S. K. Van Steenberg and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

HUERFANO UNIT

Working Interest Owners - All Formations

Page 2

**Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California**

**Cenard Oil & Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221**

**Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico**

**Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado**

**Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas 75201**

**Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston 1, Texas**

**Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. Wm. M. Brodrick
1200 Skirvin Tower
Oklahoma City, Oklahoma 73109**

**Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas 75201**

**Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico**

**Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202**

**Tenneco Oil Company
4th Floor, 201 Wall Building
Midland, Texas**

**Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals**

El Paso Natural Gas Company

El Paso, Texas 79999

August 23, 1966

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELL, Pictured Cliffs Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, 1 Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one additional well capable of producing unitized substances in commercial quantities from the Pictured Cliffs Formation has been completed upon acreage committed to the unit. This well is as follows:

The Huerfano Unit #17-X Well, located 900' from the North line and 1850' from the East line of Section 31, Township 27 North, Range 10 West, San Juan County, New Mexico, was spudded on June 20, 1966, and completed on July 13, 1966, in the Pictured Cliffs Formation at a total depth of 1762'. The Pictured Cliffs Formation in the intervals between 1638' - 1652' was treated with a sand-water fracturing process on July 12, 1966. The well was shut-in on July 13, 1966, and after being shut-in for gauge for seven (7) days, the well was tested on July 20, 1966, and following a three (3) hour blow-down period the Pictured Cliffs Formation gauged 1585 MCFGPD through a 3/4" choke, and 2162 MCFGPD by the calculated absolute open-flow method

with an SIPC of 282 psia. The spacing unit upon which this well is located is described as the NW/4 of Section 31, Township 27 North, Range 10 West, containing 160.00 acres. The Huerfano Unit #17 well which is located 1550' from the North line and 1550' from the East line of Section 31, T-27-N, R-10-W was plugged and abandoned April 16, 1966.

This spacing unit was included in the Huerfano Unit Fourth Expanded Participating Area of the Pictured Cliffs Formation, effective October 1, 1952, and the completion of this well does not warrant any further expansion of the Pictured Cliffs Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Very truly yours,

By _____
T. W. Bittick
Manager
Land Department

TWB:AJM:je

Attachment

HUERFANO UNIT

Working Interest Owners - All Formations

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

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739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hampton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr. J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York, New York 10023

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc.
A Division of Texas Pacific Oil Co.
P. O. Box 747
Dallas, Texas 75221

Sinclair Oil & Gas Company
Attention: Mr. S. K. Van Steenbergh and
Mr. W. A. Walther, Jr.
501 Lincoln Tower Building
Denver, Colorado 80203

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Blvd.
Beverly Hills, California 90211

HUERFANO UNIT

Continued Page 2

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corporation
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corporation
Attention: Mr. Wm. M. Brodrick
1200 Skirvin Tower
Oklahoma City, Oklahoma 73109

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas 75201

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas Inc.
4150 East Mexico Avenue
Denver, Colorado 80202

Tenneco Oil Company
4th Floor, 201 Wall Building
Midland, Texas

Attention: Mr. Weaver W. Ralls, Supervisor
Division Records and Rentals

Cenard Oil & Gas Co.
Republic National Bank Building
P. O. Box 446
Dallas, Texas 75221

145
FARM OFFICE 000

MAR 21 AM 7 58 Drawer 1857
Roswell, New Mexico 88201

March 17, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Gentlemen:

Your notice of December 1, 1965, advises that as operator of the Huerfano unit, San Juan County, New Mexico, you have determined that Consolidated Oil and Gas, Inc.'s well No. 1-3 Lundean in the SE1/4 sec. 3, T. 25 N., R. 10 W., N.M.P.M., lease Santa Fe 078124, is not capable of producing unitized substances in paying quantities from the Dakota formation.

Well No. 1-3 Lundean was completed on February 8, 1965 and tested on February 23, 1965 for an initial absolute open flow potential of 2,571 MCF of gas per day from the Dakota 6526-6556 feet. Your letter of January 21, 1966 furnishes additional reserve and economic information.

This office concurs with your determination that the well is not capable of producing unitized substances in paying quantities under existing conditions. Three surplus copies of the notice are attached.

Sincerely yours,

(ORIG. SCD.) BILLY J. SHOGER

Billy J. Shogar
Acting Oil and Gas Supervisor

cc:
Washington (w/cy notice)
Farmington (w/cy notice)
Com. of Pub. Lands - Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only)
Accounts

JWSutherland:jh:3-17-66

El Paso Natural Gas Company

El Paso, Texas 79999

MAR 21 AM 7 50

March 16, 1966

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit
I Sec. No. 731
San Juan County, New Mexico

Gentlemen:

By letter dated March 2, 1966, we forwarded the Revised Twenty-Sixth Expanded Participating Area for the Dakota Formation. The correct Navajo Contract Number of Tract No. 144 is 14-20-0603-9537 instead of No. 14-20-0600-9537.

Copies of this letter and a corrected page No. 32 for the Schedule XXVIII are being furnished to all working interest owners of the Huerfano Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY



Harry Gevertz
Supervising Landman
Land Department

HG:AJM:sb

Enclosure

Huerfano Unit 4.3
Huerfano Unit 5.0

SCHEDULE XXVIII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTUA PARTICIPATION
			OWNERSHIP	PERCENTAGE		
14-20-0603- 9537	T-25-N, R-9-W Sec. 7: SE/4 SE/4	40.00	<u>TRACT 144</u> Royalty; Working Interest; El Paso Natural Gas Co.; Pan American Pet. Corp.; ORRI;	16.6666666% 41.6666667% 41.6666667% <u>0.0000000%</u> 100.0000000%	16.6666666% 41.6666667% 41.6666667% <u>0.0000000%</u> 100.0000000%	<u>.127935%</u>
			TOTAL			

El Paso Natural Gas Company

El Paso, Texas 79999 MAR 16 1966

March 16, 1966

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit
I Sec. No. 731
San Juan County, New Mexico

Gentlemen:

By letter dated March 2, 1966, we forwarded the Revised Twenty-Sixth Expanded Participating Area for the Dakota Formation. The correct Navajo Contract Number of Tract No. 144 is 14-20-0603-9537 instead of No. 14-20-0600-9537.

Copies of this letter and a corrected page No. 32 for the Schedule XXVIII are being furnished to all working interest owners of the Huerfano Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY



Harry Gevertz
Supervising Landman
Land Department

HG:AJM: sb

Enclosure

Huerfano Unit 4.3
Huerfano Unit 5.0

SCHEDULE XXVIII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTUA PARTICIPATION
			OWNERSHIP	PERCENTAGE		
14-20-0603- 9537	T-25-N, R-9-W Sec. 7: SE/4 SE/4	40.00	<u>TRACT 144</u> Royalty; Working Interest; El Paso Natural Gas Co.; Pan American Pet. Corp.; ORRI;	16.6666666% 41.6666667% 41.6666667% <u>0.0000000%</u> 100.0000000%	16.6666666% 41.6666667% 41.6666667% <u>0.0000000%</u> 100.0000000%	<u>.127935%</u>
			TOTAL			

El Paso Natural Gas Company

El Paso, Texas 79999

March 2, 1966

MAR 9 AM 11:00

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit
I Sec. No. 731
San Juan County, New Mexico

Gentlemen:

We are enclosing for your records Schedule XXVIII covering the Revised Twenty-Sixth Expanded Participating Area for the Dakota Formation of the Huerfano Unit which was occasioned by the admission of Tract No. 144, Navajo Oil and Gas Lease Contract No. 14-20-0600-9537 to the Huerfano Unit.

Copies of this letter and the Schedule attached are being furnished to all working interest owners of the Huerfano Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY



Harry Gevertz
Supervising Landman
Land Department

HG:GA:sb

Enclosure

Huerfano Unit 4.3
Huerfano Unit 5.0

El Paso Natural Gas Company

MAIL OFFICE CDD

El Paso, Texas 79999

FEB 11 AM 10:05

February 8, 1966

REGISTERED MAIL

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

Re: Navajo Allotted Indian Lands
Contract No. 14-20-0603-9537

Gentlemen:

We are enclosing for your file Ratification and Joinder Agreement, approved by the Area Director of the United States Department of the Interior Geological Survey, for the captioned lease of the Huerfano Unit.

Very truly yours,



Harry Gevertz
Supervising Landman
Land Department

HG:GA:sb

Enclosures

NM 4776



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

FEB 11 1966
RICHARDSON

February 1, 1966

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Huerfano S.O
NM 4776

Attention: Mr. Harry Gevertz

Gentlemen:

Your letter of January 6, received by this office on January 10, 1966, transmits copies of a ratification and joinder committing Navajo allotted lease No. 14-08-0603-9537 (unit tract No. 144) to the Huerfano unit and unit operating agreement, I-Sec. No. 731, San Juan County, New Mexico. The unit agreement and unit operating agreement joinders are executed by Pan American Petroleum Corporation and El Paso Natural Gas Company as record lessees and working interest owners. The unit agreement joinder is also executed by the Navajo allotted lessor and approved by Assistant Area Director, Bureau of Indian Affairs.

Section 23 of the unit agreement requires that copies of such ratification and joinder be filed with the Commissioner of Public Lands of the State of New Mexico. Subject to compliance with such requirement, unit tract 144 is considered effectively committed to the Huerfano unit agreement as of February 1, 1966.

Copies of the ratification and joinder are being distributed to the appropriate Federal offices. All copies of the ratification and joinder excess to our needs are returned herewith.

The portion of unit tract 144 described as the SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 25 N., R. 9 W., N.M.P.M., is included in the Dakota participating area. Please submit a revised allocation schedule for such participating area showing the participation factor allocated to the SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, effective as of February 1, 1966.

Sincerely yours,

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

RATIFICATION AND JOINDER OF UNIT AGREEMENT

In consideration of the execution of ~~the~~ ^{FEB 11 11 40 AM '66} Unit Agreement for the Development and Operation of the Huerfano Unit Area located within the County of San Juan, State of New Mexico, in form approved on behalf of the Secretary of the Interior, the undersigned owners of lands or leases, or interests therein or royalties presently held or which may arise under existing option agreements, or other interests in production covered by said Unit Agreement hereby severally, each to the extent of their particular ownership or interest, as may appear, consent to the inclusion of said lands within the Unit Area therein defined, ratify, approve and adopt the terms of said Unit Agreement and any modifications thereof approved by the Secretary of the Interior or his duly authorized representative as applicable to said several lands and interests, agree that the term of any lease given by the undersigned or under which the undersigned claims an interest herein is extended and modified to the extent necessary to make the same conform to the terms of said Unit Agreement, agree that the drilling, development and producing requirements of all leases and other contracts in which their several rights and interests are created or defined shall be deemed fully performed by performance of the provisions of said Unit Agreement, and agree that payment for or delivery of (whichever may be required under prior agreements) oil and gas duly made at contract rates applied to the production allocated under said Unit Agreement to the particular lands to which such rights or interests do or shall apply, regardless of actual production therefrom shall constitute full performance of all such obligations to the undersigned existing under such leases or other contracts.


This Ratification and Joinder of Unit Agreement may be executed in any number of counterparts with the same force and effect as if all parties had signed the same document and shall be binding upon all those who execute a counterpart hereof, regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands affected hereby, and when so executed shall be binding upon the undersigned, their heirs, assigns or successors in interest.

This instrument is intended to cover the following described lease and lands only:

Allotted Indian Lands Contract No. 14-20-0606³-9537
Navajo Tribe of Indians, Sale No. 82, Tract No. 154
Township 25 North, Range 9 West, N.M.P.M.
Section 7: SE/4 SE/4
Section 8: W/2 SW/4
Section 17: NW/4 NW/4
Containing 160.00 acres, more or less.

Date: NOV 22 1965

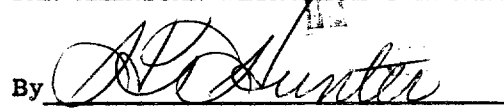
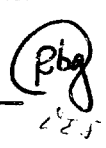
EL PASO NATURAL GAS COMPANY

By 
Attorney-in-Fact
(Unit Operator and Working Interest
Owner of the Huerfano Unit)

ATTEST:

Date: DEC 6 1965

PAN AMERICAN PETROLEUM CORPORATION

By  
Attorney-in-Fact
(Working Interest Owner of the
Huerfano Unit)

APPROVED JAN 24 1966

Huerfano Unit 1.0

S/ JOHN C. DIEBERN
ASSISTANT AREA DIRECTOR

WITNESSES:

Howard Wilson

P. O. Box 1610 Leake W. Galapagos

Lily Wilson

P. O. Box

Ush ke tah le wood C#11346

Allottee No. 037799

(Lessor above lease)

APPROVED:

UNITED STATES GEOLOGICAL SURVEY

By

Director

STATE OF TEXAS)

COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 22nd day of November, 1965, by SAM SMITH, Attorney-in-Fact for EL PASO NATURAL GAS COMPANY, a Delaware Corporation, on behalf of said corporation.

Witness my hand and official seal.

My commission expires:

ELOISE BUSSE

Notary Public in and for El Paso County, Texas

My Commission Expires June 1, 1967

STATE OF Colorado

COUNTY OF Denver

The foregoing instrument was acknowledged before me this 6th day of December, 1965, by H. T. Hunter, Attorney-in-Fact for PAN AMERICAN PETROLEUM CORPORATION, a Delaware Corporation, on behalf of said corporation.

Witness my hand and official seal.

My commission expires:

3-12-67

STATE OF NEW MEXICO)

COUNTY OF SAN MATEO

McKinley

The foregoing instrument was acknowledged before me this 27th day of December, 1965, by Ush Ke Tah Le Wood

My commission expires:

My Commission expires October 8, 1966

Howard Wilson
Notary Public

RECEIVED

JAN 20 1966

El Paso Natural Gas Company

El Paso, Texas

January 6, 1966

195

Mr. John Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Dear Sir:

We are enclosing for your approval fourteen (14) copies of Ratification and Joinder of Unit Agreement covering Allotted Indian Lands Contract No. 14-20-0600-9537, as to the following described acreage in the Huerfano Unit:

Township 25 North, Range 9 West
Section 7: SE/4 SE/4
Section 8: W/2 SW/4
Section 17: NW/4 NW/4
Containing 160.00 acres, more or less

After this Ratification and Joinder of Unit Agreement has been approved by the United States Geological Survey, please furnish six (6) copies to the Navajo Indian Agency in Window Rock Arizona, and return five (5) copies to this office in order that we may furnish the Commissioner of Public Lands two copies, the Oil Conservation Commission one copy, Pan American Petroleum Corporation one copy and retain one copy for our files.

Very truly yours,

Original Signed by

HARRY GEVERTZ

Harry Gevertz
Supervising Landman
Land Department

HG:GA:rr
Enclosures

NM 4776

cc: Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

U. S. Department of Interior
Bureau of Indian Affairs
Navajo Agency
Window Rock, Arizona 86515

C O P Y

El Paso Natural Gas Company

El Paso, Texas

January 6, 1966

**Mr. John Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico**

Dear Sir:

We are enclosing for your files three (3) copies of Ratification and Joinder of Unit Accounting Agreement Under Unit Agreement For The Development And Operation Of The Huerfano Unit Area, San Juan County, New Mexico. These Ratifications were obtained in conjunction with the Ratification and Joinder of Unit Agreement furnished you by letter of this same date.

Very truly yours,

Original Signed by

HARRY GEVERTZ

**Harry Gevertz
Supervising Landman
Land Department**

**HG:GA:rr
Enclosure**

NM 4776

**cc: Pan American Petroleum Corporation
Security Life Building
Denver, Colorado 80202**

**Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico**

**Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501**

As soon as the Ratification and Joinder of Unit Agreement is approved by the United States Geological Survey approved copies will be furnished you.

C O P Y

**RATIFICATION AND JOINDER OF UNIT ACCOUNTING AGREEMENT UNDER
UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE
HUERFANO UNIT AREA, SAN JUAN COUNTY, NEW MEXICO**

In consideration of the execution of the Unit Accounting Agreement under Unit Agreement for the Development and operation of the said Huerfano Unit Area, in form approved by the Secretary of the Interior, the undersigned owners of lands or leases or interests therein presently held or which may arise under existing option agreements or other interests in production covered by said Unit Accounting Agreement, each to the extent of their particular ownership or interest, as may appear, have consented to the inclusion of said lands within the Unit Area therein defined, and do hereby approve, adopt and ratify the said Unit Accounting Agreement in the form and as submitted to the United States Geological Survey in connection with the submission of Unit Agreement for the Development and Operation of the said Unit Area.


This Ratification and Joinder of Unit Accounting Agreement may be executed in any number of counterparts with the same force and effect as if all parties had signed the same document and shall be binding upon all those who execute a counterpart hereof, regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands affected hereby, and when so executed shall be binding upon the undersigned, their heirs, successors or assigns, subject to all the terms, provisions and conditions of said Unit Accounting Agreement.

This instrument is intended to cover the following described lease and lands only:

Allotted Indian Lands Contract No. 14-20-0600-9537
Navajo Tribe of Indians, Sale No. 82, Tract No. 154
Township 25 North, Range 9 West, N.M.P.M.
Section 7: SE/4 SE/4
Section 8: W/2 SW/4
Section 17: NW/4 NW/4
Containing 160.00 acres, more or less.

EL PASO NATURAL GAS COMPANY

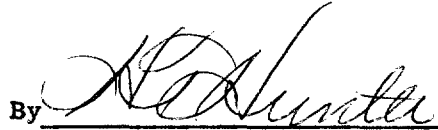

Date: NOV 22 1965

By 
Attorney-in-Fact
(Unit Operator and Working Interest
Owner of the Huerfano Unit)

ATTEST:

PAN AMERICAN PETROLEUM CORPORATION

Date: NOV 30 1965

By  
Attorney-in-Fact
(Working Interest Owner of the
Huerfano Unit)

Huerfano Unit 2.0

STATE OF TEXAS)
)
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 22nd
day of November, 1965, by SAM SMITH, Attorney-in-Fact for EL PASO
NATURAL GAS COMPANY, a Delaware Corporation, on behalf of said corporation.

Witness my hand and official seal.

My commission expires:

Eloise Busse
Notary Public

ELOISE BUSSE

Notary Public in and for El Paso County, Texas
My Commission Expires 1, 1967

STATE OF Colorado
)
COUNTY OF Denver

The foregoing instrument was acknowledged before me this 6th
day of December, 1965, by H. T. Hunter, Attorney-in-Fact for
PAN AMERICAN PETROLEUM CORPORATION, a Delaware Corporation, on behalf of
said corporation.

Witness my hand and official seal.

My commission expires:

Catherine L. Eskew
Notary Public

3-12-67

El Paso Natural Gas Company

El Paso, Texas

December 20, 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-FOURTH, TWENTY-FIFTH AND
TWENTY-SIXTH REVISIONS OF THE
PARTICIPATING AREA for the Dakota
Formation

Gentlemen:

This is to advise that the above captioned Twenty-Fourth, Twenty-Fifth and Twenty-Sixth Revisions of the Dakota Participating Area were approved by the regulatory bodies on the following dates:

1. United States Geological Survey - December 10, 1965
2. Commissioner of Public Lands - October 13, 1965
3. Oil Conservation Commission - October 14, 1965

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Yours very truly,



Harry Gevertz
Supervising Landman
Land Department

GA:saz

Huerfano, 4.3



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 86201

195
December 17, 1965

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

Attention: Mr. T. W. Bittick

Gentlemen:

The twenty-fourth, twenty-fifth, and twenty-sixth expansions of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, effective as of February 1, April 1, and May 1, 1965, respectively, were approved on December 10, 1965, by the Acting Director of the Geological Survey.

Three approved copies of the application are enclosed. You are requested to furnish all interested principals with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SCD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:

Washington (ltr. only)
BLM, Santa Fe (w/cy appvd. appln.)
Com. of Pub. Lands, Santa Fe (ltr. only)
NMOCC, Santa Fe (ltr. only) ✓
Farmington (w/cy appd. appln.)
Accounts

El Paso Natural Gas Company

El Paso, Texas

December 16, 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

112

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

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

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
SUPPLEMENTAL 1965 DRILLING PROGRAM

Gentlemen:

This is to advise that the captioned Supplemental Drilling Program for 1965 for the Huerfano Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - December 9, 1965
2. Commissioner of Public Lands - November 16, 1965
3. Oil Conservation Commission - November 23, 1965

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Very truly yours,



Harry Gevertz
Supervising Landman
Land Department

HG:GA:kf

Huerfano, 3.0



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

DEC 15 1965

145

December 14, 1965

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your notice of December 1 advises that El Paso Natural Gas Company, as unit operator of the Huerfano unit area, has determined Consolidated Oil and Gas Inc.'s well No. 1-3 Lundean in the SE $\frac{1}{4}$ sec. 3, T. 25 N., R. 10 W., N.M.P.M., as not capable of producing unitized substances in paying quantities from the Dakota formation. The well was tested on February 23, 1965, for an initial absolute open flow potential of 2.871 MCF of gas per day from the Dakota formation.

We need the following information to supplement your determination:

1. An estimate of the recoverable reserves from the Dakota formation attributable to well No. 1-3 Lundean.
2. The reservoir data from which the reservoir calculations were made; including the gas gravity, pay thickness, porosity, water saturation, initial and subsequent bottom hole pressures, bottom hole temperature, drainage area, abandonment pressure, and monthly gas, condensate, and water production.
3. The economics involved; including well costs, surface equipment costs, monthly operating expense, and estimated life of the well.

Upon receipt of the above requested information, your notice will be given prompt consideration.

Sincerely yours,

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington
Farmington
Con. of Pub. Lands / Santa Fe
NMOCC, Santa Fe ✓

El Paso Natural Gas Company

El Paso, Texas

December 3, 1965

195

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL
WELL in the Dakota Formation

Gentlemen:

We are enclosing for your approval six (6) copies of Notice of Completion of Non-Commercial well covering the Lundean #1-3 Well, located in the SE/4 of Section 3, Township 25 North, Range 10 West, N.M.P.M., San Juan County, New Mexico.

If this Notice of Completion meets with your approval, please execute all copies in the space provided and return the extra copies for further handling by El Paso.

Very truly yours,
ORIGINAL SIGNED BY
T.W. BITTICK
T. W. Bittick
Assistant Manager
Land Department

TWB:GA:kf
Enclosures

Huerfano, 4.3.1

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

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

COPY

El Paso Natural Gas Company

El Paso, Texas

December 1, 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELL in the Dakota
Formation

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Dakota Formation, to wit:

Consolidated Oil & Gas, Inc., Lundean No. 1-3 Well, located 790' from the South line and 790' from the East line of Section 3, Township 25 North, Range 10 West, N.M.P.M., San Juan County, New Mexico, was spudded on January 1, 1965, and completed on February 8, 1965, at a total depth of 6600' in the Dakota Formation. The Dakota Formation in the interval between 6526' - 6556' was treated with a sand-water fracturing process. The well was shut-in for gauge on February 8, 1965, and after being shut-in for fifteen (15) days, the Dakota Formation was tested on February 23, 1965, and following a three (3) hour blow-down period gauged 2545 MCFGPD through a 3/4" choke and 2571 MCFGPD AOF with a SIPC of 1970 pisa. This was a re-test through the casing rather than the 1.9" tubing as originally tested on February 8, 1965.

The well first delivered in April, 1965, and through September produced approximately 58,000 MCF, 1300 barrels of condensate and 6600 barrels of water. The well was produced continuously during August and September and the daily average production during September was 505 MCF, 11 barrels of condensate and approximately 50 barrels of water or 100 barrels of water per million cubic feet of gas. Therefore,

El Paso Natural Gas Company, as Unit Operator, is of the opinion that this well is non-commercial for unit purposes since any appreciable loss in bottom hole pressure would result in the well logging off and causing premature abandonment because of high water cut.

If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By



T. W. Bittick
Assistant Manager
Land Department

TWB:GA:kf

APPROVED: _____
United States Geological Survey

DATE: _____

For non-commercial determination of the Consolidated Oil & Gas, Inc., Lundean No.
1-3 Dakota well.

Information copy to:

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

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

HUERFANO UNIT

Working Interest Owners - Dakota Formation

B & M Construction Corporation
P. O. Box 12444
Oklahoma City, Oklahoma 73112

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Mrs. Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 3312
Durango, Colorado

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

La Plata Gathering System, Inc.
1940 Mercantile Dallas Building
Dallas 1, Texas

Mr. O. J. Lilly
1806 Prompton Drive
Austin, Texas 78758

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mrs. Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
Security Life Building

Texas Pacific Oil Company
P. O. Box 747
Dallas, Texas
Attention: Mr. L. B. Jeffers

Sinclair Oil & Gas Company
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. W. A. Walther, Jr.

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1412
Fresno 16, California

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Suite B-400, 1740 Broadway
Denver, Colorado

Mr. William G. Webb
1900 Mercantile Building
Dallas, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80222



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico 88201

1175
December 9, 1965

DEC 10 1965

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

Attention: Mr. Sam Smith

Gentlemen:

Your supplemental 1965 plan of development dated November 12, 1965, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of a Dakota well in the W $\frac{1}{2}$ sec. 8, T. 25 N., R. 9 W., has been approved on this date. The plan was approved by the Commissioner of Public Lands and Oil Conservation Commission, State of New Mexico, on November 16 and November 23, 1965, respectively.

Four approved copies of the plan are enclosed.

Sincerely yours,

JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington (w/cy of plan)
Farmington (w/cy of plan)
NMOCC, Santa Fe (ltr. only) ✓
Com. of Pub. Lands, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

142

November 23, 1965

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. Sam Smith

Re: Supplemental 1965 Drilling
Program, Huerfano Unit,
San Juan County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Supplemental 1965 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies of the program are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/og

cc: Commissioner of Public Lands - Santa Fe
United States Geological Survey - Roswell

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MAIL ROOM

'65 Nov 16 PM 3:00

November 16, 1965

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas/79999

Att: Harry Gevertz

In RE: Huerfano Unit
San Juan County, New Mexico

Gentlemen:

The Commissioner of Public Lands has approved as of this date your Supplemental 1965 Drilling Program, which provides for the drilling of a Huerfano Unit Well No. #155 in the W $\frac{1}{2}$ of Section 8-T25N-R9W.

We are handling eight (8) approved copies of this Supplement to the Oil Conservation Commission and requesting them to forward at least seven (7) copies to the United States Geological Survey, for their further handling.

Very truly yours,

GUYTON B. HAYS,
Commissioner of Public Lands

By

TED BILBERRY, Director,
Oil and Gas Department

GBH/MMR/TB/I

w/cc to: United States Geological Survey
Roswell, New Mexico

New Mexico Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico

C
O
P
Y

El Paso Natural Gas Company

El Paso, Texas

NOV 12 1965

NOV 12 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
SUPPLEMENTAL 1965 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, by letter dated August 6, 1965, filed a Drilling Program covering the Huerfano Unit for the calendar year 1965. This Program provided for the drilling of three (3) Dakota wells in the Unit during 1965 and was subsequently approved by you.

This letter further stated that a request had been made for the drilling of a Dakota well within the Unit in the NW/4 of Section 8, Township 25 North, Range 9 West, N.M.P.M. that was contingent upon an agreement being reached by the working interest owners in the spacing unit. These parties have now agreed that the well should be located in the NW/4 of said Section 8. Therefore, pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, respectfully requests approval for this Supplemental Drilling Program for the calendar year 1965, providing for the drilling of the following well:

<u>Name and Spacing Unit</u>	<u>Formation</u>
Huerfano Unit #155 Well	Dakota
W/2 Sec. 8, T-25-N, R-9-W, N.M.P.M.	

This well shall be in addition to the three (3) Unit Dakota Wells previously approved, and El Paso Natural Gas Company intends to drill this Dakota

well to the base of the Dakota Formation using rotary tools. Surface casing will be run to the depth of approximately 300' and an intermediate string will be run if necessary, through the Pictured Cliffs Formation to a depth of approximately 3,200', and then a production casing string will be run to the base of the Dakota Formation. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing when said casing is run and the hole below the intermediate string casing will be drilled with either mud or gas. Due care will be taken to protect all horizons.

El Paso Natural Gas Company, as Unit Operator, and the working interest owners believe that all current obligations have now been satisfied.

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By 

Attorney-in-Fact

SS:GA:kf

Huerfano, 3.0

APPROVED: _____
Director, United States Geological Survey
Subject to like approval by the appropriate
State officials.

DATE: _____

APPROVED: Justin B. Sany
Commissioner of Public Lands
Subject to like approval by the United States
Geological Survey and the Oil Conservation
Commission.

DATE: Nov. 16/65

APPROVED: A. L. Porter, Jr.
Oil Conservation Commission
Subject to like approval by the United States
Geological Survey and the Commissioner of
Public Lands.

DATE: 11-23-65

The foregoing approvals are for the Huerfano Unit Supplemental Drilling Program
for the calendar year 1965.

HUERFANO UNIT
Working Interest Owners

B & A Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Texas Pacific Oil Company
Attention: Mr. L. B. Jeffers
Box 747
Dallas 21, Texas

Sinclair Oil & Gas Company
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. W. A. Walther, Jr.

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

HUERFANO UNIT

Working Interest Owners - Page 2

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. Wm. M. Brodrick
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. Wm. G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80222

HUERFANO UNIT
Working Interest Owners

B & A Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 1621
Durango, Colorado 81302

Edward C. & Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
Security Life Building
Denver, Colorado 80202

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Texas Pacific Oil Company
Attention: Mr. L. B. Jeffers
Box 747
Dallas 21, Texas

Sinclair Oil & Gas Company
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. W. A. Walther, Jr.

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

El Paso Natural Gas Company

El Paso, Texas

MAILED

NOV 15 1965

November 12, 1965

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

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
SUPPLEMENTAL 1965 DRILLING PROGRAM

Dear Sir:

We are enclosing for your approval ten (10) copies of the Supplemental 1965 Drilling Program covering the captioned Unit.

If this Drilling Program meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After this Drilling Program has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file and seven (7) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After this Drilling Program has been approved and signed by the United States Geological Survey, four (4) copies should be returned to El Paso for further handling.

Very truly yours,

Original Signed By

HARRY GEVERTZ

Harry Gevertz
Supervising Landman
Land Department

HG:GA:kf
Enclosures

Huerfano, 5.0

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

/ Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico

COPY

OIL CONSERVATION COMMISSION

P. O. ~~BOX 2088~~ BOX 2088

SANTA FE, NEW MEXICO

112

October 14, 1965

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79999

Attention: Mr. T. W. Bittick

Re: Twenty-Fourth, Twenty-Fifth,
and Twenty-Sixth Revisions,
Dakota Participating Area,
Huerfano Unit, San Juan County,
New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Twenty-Fourth, Twenty-Fifth and Twenty-Sixth Revisions of the Participating Area for the Dakota Formation for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

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MAIN OFFICE
OCT 13 AM 11

October 13, 1965

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

Re: Huerfano Unit
San Juan County, New Mexico
Twenty-Fourth, Twenty-Fifth
and Twenty-Sixth Revisions
Participating Area
Dakota Formation

Attention: Mr. David T. Burleson

Gentlemen:

The Commissioner of Public Lands approved as of October 13, 1965, the Twenty-Fourth, Twenty-Fifth and Twenty-Sixth Revisions of the Dakota Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are handing eight (8) approved copies to the Oil Conservation Commission and requesting them to forward to the United States Geological Survey for their consideration.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:

Ted Bilberry, Director
Oil and Gas Department

MMR/e

cc: United States Geological Survey

Oil Conservation Commission

L

El Paso Natural Gas Company

El Paso, Texas

OCT 7 1965

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

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-FOURTH, TWENTH-FIFTH AND
TWENTY-SIXTH REVISIONS OF THE
PARTICIPATING AREA FOR THE DAKOTA
FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Twenty-fourth, Twenty-fifth and Twenty-sixth Revisions of the Participating Area for the Dakota Formation, to wit:

Twenty-Fourth Revision - Effective February 1, 1965

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-10-W, N.M.P.M.	
Section 11: W/2	320.00
Section 12: S/2	320.00
TOTAL	<u>640.00</u>

1965 OCT 13 AM 11:00

This proposed Twenty-fourth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Navajo No. 3-11 Well, located in the SE/4 of Section 11, Township 25 North, Range 10 West, N.M.P.M., and drilled by Consolidated Oil & Gas Inc.

The Navajo No. 3-11 (Dakota) Well was spudded on December 19, 1964, and completed on January 14, 1965, at a total depth of 6698' and plugged back to a total depth of 6664'. The Dakota Formation in the intervals between 6630' - 6635' and 6646' - 6654' was treated with a sand-water fracturing process. After being shut-in for seven (7) days, the Dakota Formation was tested on January 14, 1965, and following a three hour blow-down period gauged 2,949 MCFGPD through a 3/4" choke and 3,757 MCFGPD by the calculated absolute open-flow method, with a SIPC of 2,189 psia and a SIPT of 2,189 psia.

Twenty-fifth Revision - Effective April 1, 1965

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-10-W, N.M.P.M. Section 35: W/2	320.00
T-25-N, R-10-W, N.M.P.M. Section 2: W/2	320.17
TOTAL	<u>640.17</u>

This proposed Twenty-fifth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Jen-Na-Pia No. 1 Well, located in the NW/4 of Section 2, Township 25 North, Range 10 West, N.M.P.M. and drilled by Union Texas Petroleum.

The Jen-Na-Pia No. 1 (Dakota) Well was spudded on January 14, 1965, and completed on March 9, 1965, at a total depth of 6,767' and was plugged back to a total depth of 6,700'. The Dakota Formation in the intervals between 6656' - 6678' was treated with a sand-water fracturing process. After being shut-in for seven (7) days, the Dakota Formation was tested on March 9, 1965, and following a three hour blow-down period gauged 8,200 MCFGPD through a 3/4" choke and 9,222 MCFGPD by the calculated absolute open-flow method, with a SIPC of 1,922 psia and a SIPT of 1,922 psia.

Twenty-sixth Revision - Effective May 1, 1965

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-9-W, N.M.P.M. Section 18: W/2	324.24

<u>Description of Lands (Cont'd)</u>	<u>Acreage</u>
T-25-N, R-10-W, N.M.P.M. Section 13: All	640.00
TOTAL	<u>964.24</u>

This proposed Twenty-sixth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Sunshine No. 1 Well, located in the NE/4 of Section 13, Township 25 North, Range 10 West, N.M.P.M. and drilled by Consolidated Oil & Gas, Inc.

The Sunshine No. 1 (Dakota) Well was spudded on April 1, 1965, and completed on April 21, 1965, at a total depth of 6,735' and plugged back to a total depth of 6,734'. The Dakota Formation in the intervals between 6706' - 6724' was treated with a sand-water fracturing process. After being shut-in for seven (7) days, the Dakota Formation was tested on April 28, 1965, and following a three hour blow-down period gauged 5,211 MCFGPD through a 3/4" choke and 5,714 MCFGPD by the calculated absolute open-flow method, with a SIPI of 1,959 psia and a SIPT of 1,959 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Twenty-fourth, Twenty-fifth and Twenty-sixth Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Twenty-fourth, Twenty-fifth and Twenty-sixth Expansions of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production

Attached to this application are Schedules XXV, XXVI and XXVII showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

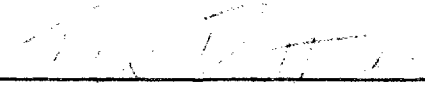
If the hereinabove selection of lands to constitute the Twenty-fourth, Twenty-fifth and Twenty-sixth Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By



T. W. Bittick
Assistant Manager
Land Department

TWB:GA:kf

APPROVED: _____

Director, United States Geological Survey
Subject to like approval by the appropriate
State officials.

DATE: _____

APPROVED: _____

ington B Hays
Commissioner of Public Lands
Subject to like approval by the United States
Geological Survey and the Oil Conservation
Commission.

DATE: _____

October 13, 1965

APPROVED: _____

A. L. Porter, Jr.
Oil Conservation Commission
Subject to like approval by the United States
Geological Survey and the Commissioner of
Public Lands.

DATE: _____

October 14, 1965

The foregoing approvals are for the Twenty-fourth, Twenty-fifth and Twenty-sixth Revisions of the Participating Area for the Dakota Formation, effective February 1, 1964, April 1, 1965 and May 1, 1965, respectively, under Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
2720 Classen. Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 3312
Durango, Colorado

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Mr. O. J. Lilly
8208 Emberwood Drive
Austin, Texas 78758

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (7)
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Sunset International Petroleum Corporation
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado

A Division of Texas Pacific Oil Company
Joseph E. Seagram & Sons, Inc. (2)
2700 Fidelity Union Tower
Dallas, Texas

Texas Pacific Oil Company
P. O. Box 747
Dallas, Texas
Attention: Mr. Joe Schmerber

J. Glenn Turner
1900 Mercantile Dallas Building
Dallas, Texas

William G. Webb
1900 Mercantile Dallas Building
Dallas, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. Wm. M. Brodrick
Suite B-400, 1740 Broadway
Denver 2, Colorado

Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80222

HUERFANITO UNIT

Working Interest Owners - Page 2

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish (not W/I)
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith (not W/I)
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

Oil & Gas Property, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mrs. Majorie Lundean
One West 67th Street
New York 23, New York

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Sinclair Oil & Gas Company (3)
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. S. K. Van Steenbergh

Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico

El Paso Natural Gas Company:

El Paso, Texas

MAILED

130
65 OCT

October 7, 1965

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

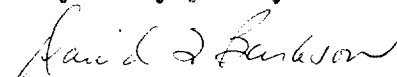
Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-FOURTH, TWENTY-FIFTH AND
TWENTY-SIXTH REVISIONS OF THE
PARTICIPATING AREA for the Dakota
Formation

Dear Sir:

We are enclosing for your approval ten (10) copies of Application for Approval of the Twenty-Fourth, Twenty-Fifth, and Twenty-Sixth Revisions of the Participating Area of the Dakota Formation for the captioned Unit.

If these Revisions meet with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After these Revisions have been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one (1) copy for its file and seven (7) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After these Revisions have been approved and signed by the United States Geological Survey, four (4) copies should be returned to El Paso for further handling.

Very truly yours,



David T. Burleson
Assistant Supervising Landman
Land Department

DTB:GA:kf
Enclosures

Huerfano, 4.3

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

COPY

El Paso Natural Gas Company

El Paso, Texas

September 30, 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1965 DRILLING PROGRAM

Gentlemen:

This is to advise that the captioned Drilling Program for the Huerfano Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - September 27, 1965
2. Commissioner of Public Lands - September 1, 1965
3. Oil Conservation Commission - September 7, 1965

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Very truly yours,



Harry Gevertz
Supervising Landman
Land Department

HG:GA:kf

Huerfano, 3.0



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

MAIN OFFICE

SEP 29 PM 1

IN REPLY REFER TO:

September 27, 1965

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

Attention: Mr. Sam Smith

Gentlemen:

Your 1965 plan of development dated August 6, 1965, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of three Dakota wells, has been approved on this date. The Commissioner of Public Lands and New Mexico Oil Conservation Commission approved the plan on September 1 and September 7, 1965, respectively.

Four approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. SGO.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:

Washington (w/cy of plan)
Farmington (w/cy of plan)
NMOCC-Santa Fe (ltr. only) ✓
Com. of Pub. Lands-Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

195

September 7, 1965

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

Attention: Mr. Sam Smith

Re: 1965 Drilling Program
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1965 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies of the program are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands

- Santa Fe

C
O
P
Y

September 1, 1965

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

In RE: HUERFANO UNIT
San Juan County, N.M.
1965 Drilling Program

Att: Harry Gevertz

Gentlemen:

The Commissioner of Public Lands approves as of this date the 1965 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey.

This plan of development provides for the drilling of three (3) Dakota wells during the calendar year 1965. El Paso Natural Gas has agreed to review a number of possible off-set obligations.

We are handing eight (8) approved copies of this Development Program to the Oil Conservation Commission, and requesting that seven (7) copies be forwarded to the United States Geological Survey in Roswell for further handling.

Very truly yours,

GUYTON B. HAYS,
Commissioner of Public Lands

By

GBH/TB/MMR/1
Enclosure
w/cc to:

TED SILBERRY, Director,
Oil and Gas Department
Oil Conservation Commission
United States Geological Survey

C
O
P
Y

El Paso Natural Gas Company

El Paso, Texas

August 6, 1965

Page 17
STANDARD TIME
11:35 AM
AUG 11 1965

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1965 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, on April 15, 1964, filed a Drilling Program covering captioned unit for the calendar year of 1964, consisting of three (3) Dakota wells. All three of these wells were drilled and completed during 1964 on lands committed to the Huerfano Unit. The Huerfano Unit No. 140 and No. 141 Wells were completed within the Dakota Participating Area and caused no expansion. The Huerfano Unit No. 142 Well was determined to be commercial and was the basis for the Twenty-third Expansion of the Dakota Participation Area.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	52
Pictured Cliffs, Non-commercial	2
Pictured Cliffs, Plugged and Abandoned	24
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1

Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	19
Dakota, Non-Commercial	1
Dakota, Plugged and Abandoned	2
Dakota, Temporarily Abandoned	<u>1</u>
Total	116

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1965 providing for the drilling of the following described wells:

<u>Name and Spacing Unit</u>	<u>Formation</u>
1. Huerfano Unit #143 Well E/2 Sec. 9, T-26-N, R-9-W, N.M.P.M.	Dakota
2. Huerfano Unit #144 Well E/2 Sec. 31, T-27-N, R-9-W, N.M.P.M.	Dakota
3. Huerfano Unit #145 Well E/2 Sec. 35, T-26-N, R-10-W, N.M.P.M.	Dakota

El Paso Natural Gas Company intends to drill the selected Dakota wells to the base of the Dakota Formation using rotary tools. Surface casing will be run to the depth of approximately 300' and an intermediate string will be run if necessary, through the Pictured Cliffs Formation to a depth of approximately 3200', and then a production casing string will be run to the base of the Dakota Formation. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing when said casing is run and the hole below the intermediate string casing will be drilled with either mud or gas. Due care will be taken to protect all horizons.

All of the working interest owners have been contacted. This Drilling Program reflects their desires for additional drilling, with the exception of a request for the drilling of a Dakota well in the NW/4 of Section 8, Township 25 North, Range 9 West, N.M.P.M. The working interest owners in the spacing unit involved have not yet agreed upon the location and this well is not being included in this proposed Drilling Program. If an agreement is reached that provides for additional development, a Supplemental Drilling Program will be furnished for your approval. El Paso Natural Gas Company, as Unit Operator, and the working interest owners believe that all current obligations have been satisfied.

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


-3-

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By


Sam Smith, Manager
Land Department

SS:GA:kf

Aug 17 3 33 AM '65
OFFICE
SALT DOME DIV.

APPROVED: _____
United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

DATE: _____

APPROVED: Wynston B. Hays
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

DATE: 7/1/65

APPROVED: A. L. Carter
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the Commissioner
of Public Lands.

DATE: 9/7/65

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1965.

Aug 17 9 33 AM '65
STENOGRAPHIC OFFICE
SALT LAKE CITY, UTAH

HUERFANO UNIT

Working Interest Owners - All Formations

B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
Box 547
Kailua, Hawaii 96734

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 3312
Durango, Colorado

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert I. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
1806 Pompton Drive
Austin, Texas 78758

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis (7)
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

A Division of Texas Pacific Oil Co.
Joseph Seagram & Sons, Inc. (2)
P. O. Box 4067
Midland, Texas 79101

Sinclair Oil & Gas Company (3)
501 Lincoln Tower Building
Denver, Colorado 80203
Attention: Mr. S. K. Van Steenbergh

Sunset International Petroleum Corp.
Sunset International Building
8920 Wilshire Boulevard
Beverly Hills, California 90211

STANDARD OIL CO.
JUL 17 9 33 AM '65

HUERFANO UNIT

Working Interest Owners - All Formations

Page 2

Sunland Refining Corporation

P. O. Box 1512

Fresno 16, California

Tamanaco Oil Corporation

1409 Mesilla, NE

Albuquerque, New Mexico

Tenneco Oil Company

Attention: Mr. R. E. Siverson

P. O. Box 1714

Durango, Colorado

Mr. J. Glenn Turner

1900 Mercantile Dallas Building

Dallas 1, Texas

Union Texas Petroleum

A Division of Allied Chemical Corp.

P. O. Box 2120

Houston 1, Texas

Union Texas Petroleum

A Division of Allied Chemical Corp.

Attention: Mr. Wm. M. Brodrick

Suite B-400, 1740 Broadway

Denver 2, Colorado

Mr. Wm. G. Webb

1900 Mercantile Dallas Building

Dallas, Texas

Dr. Sherman Wengerd

1044 Stanford Drive, NE

Albuquerque, New Mexico

Consolidated Oil & Gas Inc.

4150 East Mexico Avenue

Denver, Colorado

80222

Aug 17 9 33 AM '65
STATION OFFICE
SANTA FE, N.M.

El Paso Natural Gas Company

El Paso, Texas

MAIN OFFICE 000

'65 Aug 17 AM 8 11

August 13, 1965

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1965 DRILLING PROGRAM

Dear Sir:

We are enclosing for your approval ten (10) copies of the 1965 Drilling Program for the captioned Unit.

If this Drilling Program meets with your approval, please execute all copies and forward them to the Oil Conservation Commission for their approval and execution. After this Drilling Program has been signed by the Commissioner of Public Lands and the Oil Conservation Commission, the Commissioner of Public Lands should retain two (2) copies for his file and the Oil Conservation Commission should retain one copy for its file and seven (7) copies should be forwarded to the United States Geological Survey in Roswell, New Mexico, for their approval and further handling. After this Drilling Program has been approved and signed by the United States Geological Survey, four (4) copies should be returned to El Paso for further handling.

Very truly yours,
Original Signed By

HARRY GEVERTZ
Harry Gevertz
Regional Landman
Land Department

HG:GA:kf
Enclosures

Huerfano, 5.0

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

✓ Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico

COPY

El Paso Natural Gas Company

El Paso, Texas

MAIN OFFICE 0000

'65 JUL 13 PM 1

July 8, 1965

Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, 1 Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-FIRST, TWENTY-SECOND AND
TWENTY-THIRD REVISIONS OF THE
PARTICIPATING AREA for the Dakota
Formation

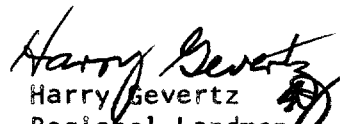
Gentlemen:

This is to advise that the above captioned Twenty-First, Twenty-Second and Twenty-Third Revisions of the Dakota Participating Area were approved by the regulatory bodies on the following dates:

1. United States Geological Survey - June 30, 1965
2. Commissioner of Public Lands - May 18, 1965
3. Oil Conservation Commission - May 24, 1965

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Very truly yours,


Harry Gevertz
Regional Landman
Land Department

HG:GA:kf

Huerfano, 4.3



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

IN REPLY REFER TO:

July 7, 1965

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your application of April 30, 1965, for approval of the twenty-first, twenty-second, and twenty-third Dakota participating area revisions for the Huerfano unit agreement, San Juan County, New Mexico, effective as of June 1, November 1, and December 1, 1964, respectively, was approved June 30, 1965, by the Acting Director of the Geological Survey.

One approved copy of the application is enclosed. You are requested to furnish all interested principals with appropriate evidence of the approval.

Sincerely yours,

[ORIG. SGD.] JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

cc:
Washington (ltr. only)
Farmington (w/cy approved agr.)
BLM-Santa Fe (w/cy approved agr.)
Com. of Public Lands-Santa Fe (ltr. only)
NMOCC-Santa Fe (ltr. only) ✓
Accounts

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

195

May 24, 1965

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

Attention: Mr. T. W. Bittick

Re: 21st, 22nd, and 23rd
Expansions of the Dakota
Participating Area,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Twenty-first, Twenty-second, and Twenty-third Revisions of the Participating Area for the Dakota Formation for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the application is returned herewith.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/og

cc: United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

May 21, 1965

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

Attention: Mr. Ted Bilberry

Re: Huerfano Unit
San Juan County,
New Mexico

Dear Sir:

In answer to your letter of May 18, 1965, concerning the 1965 Plan of Development for captioned Unit, we wish to advise that a proposed Plan of Development has been submitted to the working interest owners for their approval and, as yet, the necessary approval has not been received.

At such time as a majority of the working interest owners approve the 1965 Plan of Development, it will be submitted to the regulatory bodies for approval.

Very truly yours,



Harry Gevertz
Regional Landman
Land Department

HG:GA:kf

Huerfano, 5.0

cc: Mr. John A. Anderson
Regional Oil & Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

COPY

May 18, 1965

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

Attention: Mr. T. W. Bittick

Re: Huerfano Unit
San Juan County, New Mexico

Gentlemen:

We have not as yet received a plan of development for the Huerfano Unit for the calendar year 1965.

Please advise us if this plan of development has been submitted.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
(Mr.) Ted Bilberry, Director
Oil and Gas Department

GBH/MMR/d

cc: United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico
Attention: Mr. John A. Anderson

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

May 18, 1965

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

Attention: Mr. T. W. Bittick

Re: Huerfano Unit
San Juan County, New Mexico
Participating Area for the
Dakota Formation
21st, 22nd and 23rd Revisions

Gentlemen:

The Commissioner of Public Lands has approved as of May 18, 1965, your application for the 21st, 22nd and 23rd Revisions of the Participating Area for the Dakota Formation, Huerfano Unit Area, San Juan County, New Mexico, our approval being subject to like approval by the United States Geological Survey and Oil Conservation Commission.

We are returning one approved copy of this application.

Very truly yours,

GUYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
(Mr.) Ted Bilberry, Director
Oil and Gas Department

GBH/MMR/d
Enclosures

cc: United States Geological Survey
P. O. Drawer 1857, Roswell, New Mexico
Attention: Mr. John A. Anderson

New Mexico Oil Conservation Commission
P. O. Box 2088, Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

April 30, 1965

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

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
TWENTY-FIRST, TWENTY-SECOND AND
TWENTY-THIRD REVISIONS OF THE
PARTICIPATING AREA FOR THE DAKOTA
FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Twenty-first, Twenty-second and Twenty-third Revisions of the Participating Area for the Dakota Formation, to-wit:

Twenty-first Revision - Effective June 1, 1964

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-10-W, N.M.P.M. Section 35: E/2	320.00
T-25-N, R-10-W, N.M.P.M. Section 2: E/2	320.00

This proposed Twenty-first Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Navajo #1-2 Well, located in the NE/4 of Section 2, Township 25 North, Range 10 West, N.M.P.M. and drilled by Consolidated Oil & Gas Inc.

The Navajo #1-2 Well was spudded on April 30, 1964, and completed on May 30, 1964, at a total depth of 6819'. The Dakota Formation in the interval between 6658' - 6690' was treated with a sand-water fracturing process. After being shut-in for seven (7) days, the well was tested on May 30, 1964, and following a three (3) hour blow-down period gauged 2348 MCFGPD through a 3/4" choke and 3252 MCFGPD by the calculated absolute open-flow method, with an SIPC of 1930 psig and an SIPT of 1926 psig.

Twenty-second Revision - Effective November 1, 1964

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-10-W, N.M.P.M.	
Section 1: SW/4	160.00
Section 11: E/2	320.00
Section 12: NW/4	160.00

This proposed Twenty-second Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Navajo #2-11 Well, located in the NE/4 of Section 11, Township 25 North, Range 10 West, N.M.P.M. and drilled by Consolidated Oil & Gas Inc.

The Navajo #2-11 Well was spudded on September 10, 1964, and completed on October 2, 1964, at a total depth of 6796'. The Dakota Formation in the interval between 6692' - 6724' was treated with a sand-water fracturing process. After being shut-in for seven (7) days, the well was tested on October 2, 1964, and following a three (3) hour blow-down period gauged 3750 MCFGPD through a 3/4" choke and 4660 MCFGPD by the calculated absolute open-flow method with an SIPC of 1900 psig.

Twenty-third Revision - Effective December 1, 1964

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-9-W, N.M.P.M.	
Section 6: Lots 6,7, E/2 SW/4, SE/4 (S/2)	320.55
Section 7: Lots 1,2,3,4, E/2 W/2, E/2 (All)	644.84

T-25-N, R-10-W, N.M.P.M.	
Section 1: SE/4	160.00
Section 12: NE/4	160.00

This proposed Twenty-third Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #142 Well, located in the NE/4 of Section 7, Township 25 North, Range 9 West, N.M.P.M.

The Huerfano Unit #142 Well was spudded on October 8, 1964, and completed on October 21, 1964, at a total depth of 6925'. The Dakota Formation in the intervals between 6732' - 6737'; 6751' - 6756'; 6795' - 6808' and 6819' - 6824' was treated with a sand-water fracturing process on October 21, 1964, and shut-in on October 22, 1964. After being shut-in for twenty (20) days, the well was tested on November 11, 1964, and following a three (3) hour blow-down period gauged 4045 MCFGPD through a 3/4" choke and 4645 MCFGPD by the calculated absolute open-flow method with an SIPC of 1971 psia and an SIPT of 1969 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Twenty-first, Twenty-second and Twenty-third Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Twenty-first, Twenty-second and Twenty-third Expansions of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plate No. 1: Structure Map on top of Graneros Shale.
Plate No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production

Attached to this application are Schedules XXII, XXIII and XXIV showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Twenty-first, Twenty-second and Twenty-third Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By T. W. Bittick
T. W. Bittick
Assistant Manager
Land Department


TWB:GA:kf

APPROVED: _____
Director, United States Geological Survey
Subject to like approval by the appropriate
State officials.

DATE: _____

APPROVED: _____
Commissioner of Public Lands
Subject to like approval by the United States
Geological Survey and the Oil Conservation
Commission.

DATE: _____

APPROVED:  _____
Oil Conservation Commission
Subject to like approval by the United States
Geological Survey and the Commissioner of
Public Lands.

DATE: 5. 24. 65

The foregoing approvals are for the Twenty-first, Twenty-second and Twenty-third Revisions of the Participating Area for the Dakota Formation, effective June 1, 1964, November 1, 1964 and December 1, 1964, respectively, under Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico

HUERFANO UNIT

Working Interest Owners - All Formations

B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
2958 East Cresthill Avenue
Littleton, Colorado

Continental Oil Company
Attention: Mr. H. D. Haley
P. O. Box 3312
Durango, Colorado

Edward C. & Hulda Evensen (2)
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
12858 West 26th Avenue #39
Golden, Colorado 80401

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Oil & Gas Property Management, Inc.
6th Floor, C & I Life Building
Houston, Texas 77002

Mr. O. J. Lilly
Box 248
Burnet, Texas

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
600 North Broadway
Hobart, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (7)
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

A Division of Texas Pacific Oil Company
Joseph E. Seagram & Sons, Inc. (2)
2700 Fidelity Union Tower
Dallas, Texas

Sinclair Oil & Gas Company (3)
P. O. Box 4005
Albuquerque, New Mexico

Sunset International Petroleum Corp.
400 So. Beverly Drive
Beverly Hills, California

HUERFANO UNIT

Working Interest Owners - All Formations

Page 2

**Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California**

**Tamanaco Oil Corporation
1409 Mesilla, NE
Albuquerque, New Mexico**

**Tenneco Oil Company
Attention: Mr. R. E. Siverson
P. O. Box 1714
Durango, Colorado**

**Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas**

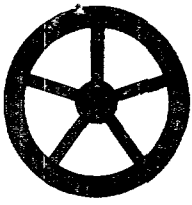
**Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas**

**Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. Wm. M. Brodrick
Suite B-400, 1740 Broadway
Denver 2, Colorado**

**Mr. Wm. G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas**

**Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico**

**Consolidated Oil & Gas, Inc.
4150 East Mexico Avenue
Denver, Colorado 80222
(Information only)**



Consolidated Oil & Gas, Inc.

Executive Offices

4150 EAST MEXICO AVENUE
DENVER, COLORADO 80222
PHONE: 757-5441

March 25, 1965

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

Huerfano Unit 5.0, Tract No. 89

Enclosed are two copies of Designation of Sub-Operator from
El Paso Natural Gas Company, as operator of the Huerfano Unit,
to Consolidated Oil & Gas, Inc.

This designation covers the north half of Section 13, Township 25
North, Range 10 West, San Juan County, New Mexico.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

Robert B. Tenison, Vice President

pt

Enclosures

COPY 20

DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 11th day of March 1965, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas 79999, hereinafter sometimes referred to as "Operator" and CONSOLIDATED OIL & GAS, INC., a Colorado corporation, whose address is 4150 East Mexico Avenue, Denver, Colorado 80222, hereinafter sometimes referred to as "Sub-Operator";

WHEREAS, Operator is Unit Operator for the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico; and

WHEREAS, Sub-Operator desires to drill a Dakota well on the following described land pursuant to the provisions of Section twelve (12) of the Huerfano Unit Agreement:

San Juan County, New Mexico
Township 25 North, Range 10 West, N.M.P.M.
Section 13: N/2
Containing 320.00 acres, more or less; and

WHEREAS, the above described land is committed to the terms and conditions of the Huerfano Unit Agreement and Huerfano Unit Accounting Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said Dakota well as Unit Operator under the terms of the Huerfano Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said Dakota well may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit Consolidated Oil & Gas, Inc. to drill the above described Dakota well, El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, hereby designates Consolidated Oil & Gas, Inc. as Sub-Operator for the sole and only purpose of drilling the said Dakota well on the above described land pursuant to Section twelve (12) of the Huerfano Unit Agreement.

Sub-Operator indicates his acceptance of this Designation by placing his signature in the space provided below and agrees to drill, complete and/or plug and abandon said Dakota well as a reasonable and prudent operator in accordance with the terms and conditions of the Huerfano Unit Agreement and the Huerfano Unit Accounting Agreement and also agrees to the following conditions:

1. Unit Operator's representative shall approve all casing programs and equipment specifications prior to the drilling of any well.
2. Notify Operator when drilling operations are commenced.
3. Furnish Operator with complete daily driller's tour report, at Sub-Operator's expense.
4. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
5. Allow representatives of Operator access to the derrick floor at all times.
6. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representatives to be present.
7. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
8. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
9. Furnish Operator three field prints and five final prints of all well surveys made during drilling or upon completion of the well.
10. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys, including a geophysical velocity survey as it may desire.
11. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
12. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
13. Notify Operator of any intention to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
14. Sub-Operator shall carry and pay for and file with Operator for its approval proper and acceptable evidence of the following insurance:
 - a. Workmen's Compensation and/or Employer's Liability Insurance which shall comply with the laws of the State in which this agreement is to be performed and shall cover all of its employees engaged in the activities to be performed under this agreement.
 - b. Automobile Public Liability Insurance with not less than \$100/300,000.00 limits covering bodily injury and death, and property damage with a limit of not less than \$50,000.00 to cover all automotive equipment used in connection with performance of this agreement.
 - c. Public Liability Insurance covering activities performed under this agreement with bodily injury and death limits of \$100,000.00 as to any one person and \$300,000.00 as to any one accident. Property Damage Insurance with limits of \$50,000.00

15. Furnish the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico all proper and necessary reports and well data in the required numbers and time periods as specified by the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico, with a copy to Operator at the addresses hereinafter provided.
16. Provide the Commissioner of Public Lands of the State of New Mexico with copies of all reports and other well data submitted in accordance with the preceding paragraph.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas
Attention: Land Department

With copies to:
El Paso Natural Gas Company
Post Office Box 990
Farmington, New Mexico
Attention: Area Exploration Manager

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Sub-Operator and Operator agree that Sub-Operator shall drill and complete or plug and abandon the subject Dakota well pursuant to the provisions of the Huerfano Unit Accounting Agreement. It is understood and agreed that if the Dakota well provided for in this Designation of Sub-Operator is completed as a well capable of producing in commercial quantities for Unit purposes and is subsequently brought into the Dakota Participating Area, no penalty provision of the Unit Accounting Agreement under Unit Agreement for the Development and Operation of the Huerfano Unit Area shall be applicable against the working interest owners of the Dakota Formation Participating Area.

The drilling of the said Dakota well is subject to approval by the Oil Conservation Commission of the State of New Mexico as to privately owned lands, the Commissioner of Public Lands of the State of New Mexico as to State lands, and the Supervisor of the United States Geological Survey, Roswell, New Mexico, as to Federal and/or Indian lands.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said Dakota test is completed

and/or plugged and abandoned, whichever is the sooner. Provided, however, that this Designation shall not be effective unless Sub-Operator shall commence the well provided for herein on or before May 17, 1965. *RBG*

THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first been obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

OPERATOR

EL PASO NATURAL GAS COMPANY

By *Sam Smith*
Attorney in Fact

SUB-OPERATOR

CONSOLIDATED OIL & GAS, INC.

By *Robert B. Penison*
VICE-President

ATTEST:

Douglas Hoy
Secretary

STATE OF TEXAS)
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 11th day of March, 1965, by SAM SMITH, Attorney in Fact for EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My commission expires:
June 1, 1965.

Eloise Busse
Notary Public

ELOISE BUSSE
Notary Public in and for El Paso County, Texas
My Commission Expires June 1, 1965

STATE OF Colorado)
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 16th day of March, 1965, by Robert B. Penison, Vice President of CONSOLIDATED OIL & GAS, INC., a Colorado corporation, on behalf of said corporation.

My commission expires:

May 25, 1966

Barbara Watz
Notary Public

DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 11th day of March, 1965, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas 79999, hereinafter sometimes referred to as "Operator" and CONSOLIDATED OIL & GAS, INC., a Colorado corporation, whose address is 4150 East Mexico Avenue, Denver, Colorado 80222, hereinafter sometimes referred to as "Sub-Operator";

WHEREAS, Operator is Unit Operator for the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico; and

WHEREAS, Sub-Operator desires to drill a Dakota well on the following described land pursuant to the provisions of Section twelve (12) of the Huerfano Unit Agreement:

San Juan County, New Mexico
Township 25 North, Range 10 West, N.M.P.M.
Section 13: N/2
Containing 320.00 acres, more or less; and

WHEREAS, the above described land is committed to the terms and conditions of the Huerfano Unit Agreement and Huerfano Unit Accounting Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said Dakota well as Unit Operator under the terms of the Huerfano Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said Dakota well may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit Consolidated Oil & Gas, Inc. to drill the above described Dakota well, El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, hereby designates Consolidated Oil & Gas, Inc. as Sub-Operator for the sole and only purpose of drilling the said Dakota well on the above described land pursuant to Section twelve (12) of the Huerfano Unit Agreement.

Sub-Operator indicates his acceptance of this Designation by placing his signature in the space provided below and agrees to drill, complete and/or plug and abandon said Dakota well as a reasonable and prudent operator in accordance with the terms and conditions of the Huerfano Unit Agreement and the Huerfano Unit Accounting Agreement and also agrees to the following conditions:

1. Unit Operator's representative shall approve all casing programs and equipment specifications prior to the drilling of any well.
2. Notify Operator when drilling operations are commenced.
3. Furnish Operator with complete daily driller's tour report, at Sub-Operator's expense.
4. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
5. Allow representatives of Operator access to the derrick floor at all times.
6. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representatives to be present.
7. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
8. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
9. Furnish Operator three field prints and five final prints of all well surveys made during drilling or upon completion of the well.
10. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys, including a geophysical velocity survey as it may desire.
11. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
12. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
13. Notify Operator of any intention to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
14. Sub-Operator shall carry and pay for and file with Operator for its approval proper and acceptable evidence of the following insurance:
 - a. Workmen's Compensation and/or Employer's Liability Insurance which shall comply with the laws of the State in which this agreement is to be performed and shall cover all of its employees engaged in the activities to be performed under this agreement.
 - b. Automobile Public Liability Insurance with not less than \$100/300,000.00 limits covering bodily injury and death, and property damage with a limit of not less than \$50,000.00 to cover all automotive equipment used in connection with performance of this agreement.
 - c. Public Liability Insurance covering activities performed under this agreement with bodily injury and death limits of \$100,000.00 as to any one person and \$300,000.00 as to any one accident. Property Damage Insurance with limits of \$50,000.00

15. Furnish the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico all proper and necessary reports and well data in the required numbers and time periods as specified by the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico, with a copy to Operator at the addresses herein-after provided.
16. Provide the Commissioner of Public Lands of the State of New Mexico with copies of all reports and other well data submitted in accordance with the preceding paragraph.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas
Attention: Land Department

With copies to:
El Paso Natural Gas Company
Post Office Box 990
Farmington, New Mexico
Attention: Area Exploration Manager

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Sub-Operator and Operator agree that Sub-Operator shall drill and complete or plug and abandon the subject Dakota well pursuant to the provisions of the Huerfano Unit Accounting Agreement. It is understood and agreed that if the Dakota well provided for in this Designation of Sub-Operator is completed as a well capable of producing in commercial quantities for Unit purposes and is subsequently brought into the Dakota Participating Area, no penalty provision of the Unit Accounting Agreement under Unit Agreement for the Development and Operation of the Huerfano Unit Area shall be applicable against the working interest owners of the Dakota Formation Participating Area.

The drilling of the said Dakota well is subject to approval by the Oil Conservation Commission of the State of New Mexico as to privately owned lands, the Commissioner of Public Lands of the State of New Mexico as to State lands, and the Supervisor of the United States Geological Survey, Roswell, New Mexico, as to Federal and/or Indian lands.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said Dakota test is completed

and/or plugged and abandoned, whichever is the sooner. Provided, however, that this Designation shall not be effective unless Sub-Operator shall commence the well provided for herein on or before May 17, 1965. *RR7*

THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first been obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

OPERATOR

EL PASO NATURAL GAS COMPANY

By

Sam Smith
Attorney in Fact

SUB-OPERATOR

CONSOLIDATED OIL & GAS, INC.

By

Robert B. Benson
Vice-President

ATTEST:

R. Douglas Hoy
Secretary

STATE OF TEXAS)
)
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 11th day of March, 1965, by SAM SMITH, Attorney in Fact for EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My commission expires:
June 1, 1965.

Eloise Busse
Notary Public

ELOISE BUSSE

Notary Public in and for El Paso County, Texas
My Commission Expires June 1, 1965

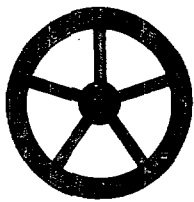
STATE OF Colorado)
)
COUNTY OF Denver)

The foregoing instrument was acknowledged before me this 16th day of March, 1965, by Robert B. Benson, Vice President of CONSOLIDATED OIL & GAS, INC., a Colorado corporation, on behalf of said corporation.

My commission expires:

May 25, 1966

Barbara Tally
Notary Public



Consolidated Oil & Gas, Inc.

Executive Offices

4150 EAST MEXICO AVENUE
DENVER, COLORADO 80222
PHONE: 757-5441

January 8, 1965

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

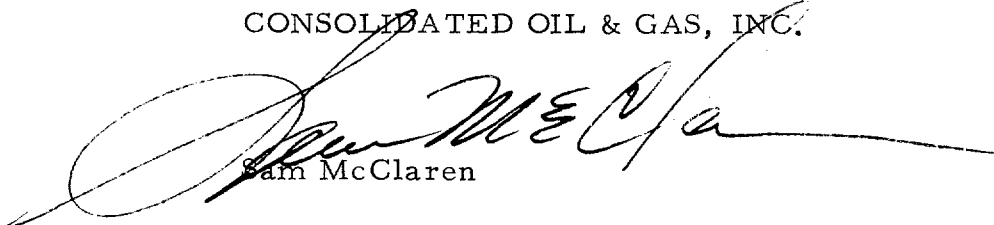
Re: Huerfano Unit 5.0
Tract No. 73

Gentlemen:

We are enclosing two copies of Designation of Suboperator covering the South Half of Section 3, Township 25 North, Range 10 West, N.M.P.M., San Juan County, New Mexico, from El Paso Natural Gas Company, as operator of the Huerfano Unit.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.


Sam McClaren

SM:c
enclosures

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DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 4th day of March, 1964, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas 79999, hereinafter sometimes referred to as "Operator" and CONSOLIDATED OIL & GAS, INC., a Colorado corporation, whose address is 4150 East Mexico Avenue, Denver, Colorado 80222, hereinafter sometimes referred to as "Sub-Operator";

WHEREAS, Operator is Unit Operator for the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico; and

WHEREAS, Sub-Operator desires to drill a Dakota well on the following described land pursuant to the provisions of Section twelve (12) of the Huerfano Unit Agreement:

San Juan County, New Mexico
Township 25 North, Range 10 West, N.M.P.M.
Section 3: S/2
Containing 320.00 acres, more or less; and

WHEREAS, the above described land is committed to the terms and conditions of the Huerfano Unit Agreement and Huerfano Unit Accounting Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said Dakota well as Unit Operator under the terms of the Huerfano Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said Dakota well may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit Consolidated Oil & Gas, Inc. to drill the above described Dakota well, El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, hereby designates Consolidated Oil & Gas, Inc. as Sub-Operator for the sole and only purpose of drilling the said Dakota well on the above described land pursuant to Section twelve (12) of the Huerfano Unit Agreement.

Sub-Operator indicates his acceptance of this Designation by placing his signature in the space provided below and agrees to drill, complete and/or plug and abandon said Dakota well as a reasonable and prudent operator in accordance with the terms and conditions of the Huerfano Unit Agreement and the Huerfano Unit Accounting Agreement and also agrees to the following conditions:

1. Unit Operator's representative shall approve all casing programs and equipment specifications prior to the drilling of any well.
2. Notify Operator when drilling operations are commenced.
3. Furnish Operator with complete daily driller's tour report, at Sub-Operator's expense.
4. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
5. Allow representatives of Operator access to the derrick floor at all times.
6. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representatives to be present.
7. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
8. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
9. Furnish Operator three field prints and five final prints of all well surveys made during drilling or upon completion of the well.
10. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys, including a geophysical velocity survey as it may desire.
11. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
12. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
13. Notify Operator of any intention to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
14. Sub-Operator shall carry and pay for and file with Operator for its approval proper and acceptable evidence of the following insurance:
 - a. Workmen's Compensation and/or Employer's Liability Insurance which shall comply with the laws of the State in which this agreement is to be performed and shall cover all of its employees engaged in the activities to be performed under this agreement.
 - b. Automobile Public Liability Insurance with not less than \$100/300,000.00 limits covering bodily injury and death, and property damage with a limit of not less than \$50,000.00 to cover all automotive equipment used in connection with performance of this agreement.
 - c. Public Liability Insurance covering activities performed under this agreement with bodily injury and death limits of \$100,000.00 as to any one person and \$300,000.00 as to any one accident. Property Damage Insurance with limits of \$50,000.00

15. Furnish the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico all proper and necessary reports and well data in the required numbers and time periods as specified by the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico, with a copy to Operator at the addresses hereinafter provided.
16. Provide the Commissioner of Public Lands of the State of New Mexico with copies of all reports and other well data submitted in accordance with the preceding paragraph.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas
Attention: Land Department

With copies to:
El Paso Natural Gas Company
Post Office Box 990
Farmington, New Mexico
Attention: Area Exploration Manager

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Sub-Operator and Operator agree that Sub-Operator shall drill and complete or plug and abandon the subject Dakota well pursuant to the provisions of the Huerfano Unit Accounting Agreement. It is understood and agreed that if the Dakota well provided for in this Designation of Sub-Operator is completed as a well capable of producing in commercial quantities for Unit purposes and is subsequently brought into the Dakota Participating Area, no penalty provision of the Unit Accounting Agreement under Unit Agreement for the Development and Operation of the Huerfano Unit Area shall be applicable against the working interest owners of the Dakota Formation Participating Area.

The drilling of the said Dakota well is subject to approval by the Oil Conservation Commission of the State of New Mexico as to privately owned lands, the Commissioner of Public Lands of the State of New Mexico as to State lands, and the Supervisor of the United States Geological Survey, Roswell, New Mexico, as to Federal and/or Indian lands.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said Dakota test is completed

and/or plugged and abandoned, whichever is the sooner. Provided, however, that this Designation shall not be effective unless Sub-Operator shall commence the well provided for herein on or before January 17, 1965.

THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first been obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

OPERATOR

EL PASO NATURAL GAS COMPANY

By [Signature]
Attorney in Fact

pm3

SUB-OPERATOR

CONSOLIDATED OIL & GAS, INC.

By [Signature]
VICE-President

Adm.	
Opr.	
Leg.	<i>[Signature]</i>

ATTEST:

[Signature]
Secretary

STATE OF TEXAS)
)
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 14 day of June, 1964, by SAM SMITH, Attorney in Fact for EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My commission expires:
June 1, 1965.

[Signature]
Notary Public

STATE OF)
)
COUNTY OF)

The foregoing instrument was acknowledged before me this ____ day of _____, 1964, by _____, _____ President of CONSOLIDATED OIL & GAS, INC., a Colorado corporation, on behalf of said corporation.

My commission expires:

Notary Public

1965 JAN 12 PM 1 10

DESIGNATION OF SUB-OPERATOR

THIS DESIGNATION is made and entered into this 4th day of January, 1964, by and between EL PASO NATURAL GAS COMPANY, a Delaware corporation, whose address is Post Office Box 1492, El Paso, Texas 79999, hereinafter sometimes referred to as "Operator" and CONSOLIDATED OIL & GAS, INC., a Colorado corporation, whose address is 4150 East Mexico Avenue, Denver, Colorado 80222, hereinafter sometimes referred to as "Sub-Operator";

WHEREAS, Operator is Unit Operator for the Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico; and

WHEREAS, Sub-Operator desires to drill a Dakota well on the following described land pursuant to the provisions of Section twelve (12) of the Huerfano Unit Agreement:

San Juan County, New Mexico
Township 25 North, Range 10 West, N.M.P.M.
Section 3: S/2
Containing 320.00 acres, more or less; and

WHEREAS, the above described land is committed to the terms and conditions of the Huerfano Unit Agreement and Huerfano Unit Accounting Agreement; and

WHEREAS, Sub-Operator has been furnished Notice of Operator's election not to drill the said Dakota well as Unit Operator under the terms of the Huerfano Unit Agreement; and

WHEREAS, Sub-Operator has requested that Operator execute this Designation in order that said Dakota well may be drilled by Sub-Operator.

NOW, THEREFORE, in order to permit Consolidated Oil & Gas, Inc. to drill the above described Dakota well, El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, hereby designates Consolidated Oil & Gas, Inc. as Sub-Operator for the sole and only purpose of drilling the said Dakota well on the above described land pursuant to Section twelve (12) of the Huerfano Unit Agreement.

Sub-Operator indicates his acceptance of this Designation by placing his signature in the space provided below and agrees to drill, complete and/or plug and abandon said Dakota well as a reasonable and prudent operator in accordance with the terms and conditions of the Huerfano Unit Agreement and the Huerfano Unit Accounting Agreement and also agrees to the following conditions:

1. Unit Operator's representative shall approve all casing programs and equipment specifications prior to the drilling of any well.
2. Notify Operator when drilling operations are commenced.
3. Furnish Operator with complete daily driller's tour report, at Sub-Operator's expense.
4. Furnish Operator with daily reports by telephone call or telegram at Sub-Operator's expense, as to the formation or formations penetrated during the previous day's drilling, the depth at which each formation is encountered, and the depth at which the report is made.
5. Allow representatives of Operator access to the derrick floor at all times.
6. Notify Operator of intentions to core, drill stem test or run well surveys in sufficient time to enable Operator's representatives to be present.
7. Adequately test and/or core all possible productive formations to the satisfaction of Operator upon request.
8. Have any core having shows of oil or gas analyzed by a competent core analysis laboratory, and have such laboratory send three preliminary copies and three final copies of the analysis report to Operator.
9. Furnish Operator three field prints and five final prints of all well surveys made during drilling or upon completion of the well.
10. Permit Operator, at its cost and for its sole use, including full rig time, to make any additional surveys, including a geophysical velocity survey as it may desire.
11. Furnish Operator a representative and adequate cut of all cores and ditch samples taken during the drilling of a well.
12. Provide Operator with copies of drilling time records, hole deviation tests and all records required by the governmental agencies having jurisdiction of the well.
13. Notify Operator of any intention to plug and abandon the well and allow Operator forty-eight (48) hours in which to concur.
14. Sub-Operator shall carry and pay for and file with Operator for its approval proper and acceptable evidence of the following insurance:
 - a. Workmen's Compensation and/or Employer's Liability Insurance which shall comply with the laws of the State in which this agreement is to be performed and shall cover all of its employees engaged in the activities to be performed under this agreement.
 - b. Automobile Public Liability Insurance with not less than \$100/300,000.00 limits covering bodily injury and death, and property damage with a limit of not less than \$50,000.00 to cover all automotive equipment used in connection with performance of this agreement.
 - c. Public Liability Insurance covering activities performed under this agreement with bodily injury and death limits of \$100,000.00 as to any one person and \$300,000.00 as to any one accident. Property Damage Insurance with limits of \$50,000.00

15. Furnish the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico all proper and necessary reports and well data in the required numbers and time periods as specified by the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico, with a copy to Operator at the addresses hereinafter provided.
16. Provide the Commissioner of Public Lands of the State of New Mexico with copies of all reports and other well data submitted in accordance with the preceding paragraph.

All notices, samples, or other information required to be furnished shall be sent to:

El Paso Natural Gas Company
Post Office Box 1492
El Paso, Texas
Attention: Land Department

With copies to:
El Paso Natural Gas Company
Post Office Box 990
Farmington, New Mexico
Attention: Area Exploration Manager

Sub-Operator shall comply with all applicable laws, rules and regulations of any governmental authority having jurisdiction over operations performed under this Designation, and shall indemnify, protect and hold Operator harmless from and against any and all claims, demands or causes of action for injuries or death to persons or damage to property occurring in connection with or in any manner incident to operations conducted by the Sub-Operator hereunder.

Sub-Operator and Operator agree that Sub-Operator shall drill and complete or plug and abandon the subject Dakota well pursuant to the provisions of the Huerfano Unit Accounting Agreement. It is understood and agreed that if the Dakota well provided for in this Designation of Sub-Operator is completed as a well capable of producing in commercial quantities for Unit purposes and is subsequently brought into the Dakota Participating Area, no penalty provision of the Unit Accounting Agreement under Unit Agreement for the Development and Operation of the Huerfano Unit Area shall be applicable against the working interest owners of the Dakota Formation Participating Area.

The drilling of the said Dakota well is subject to approval by the Oil Conservation Commission of the State of New Mexico as to privately owned lands, the Commissioner of Public Lands of the State of New Mexico as to State lands, and the Supervisor of the United States Geological Survey, Roswell, New Mexico, as to Federal and/or Indian lands.

THIS DESIGNATION shall be effective for a period of time not to exceed three (3) months from the date hereof, or until said Dakota test is completed

and/or plugged and abandoned, whichever is the sooner. Provided, however, that this Designation shall not be effective unless Sub-Operator shall commence the well provided for herein on or before January 17, 1965.

THIS DESIGNATION is personal and cannot be assigned in whole or in part by Sub-Operator without the written consent of Operator having first been obtained.

IN WITNESS WHEREOF, this Designation is executed as of the day and year first hereinabove written.

OPERATOR

EL PASO NATURAL GAS COMPANY

By *Sam Smith*
Attorney in Fact

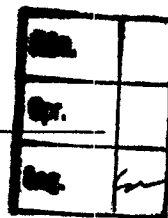
SUB-OPERATOR

CONSOLIDATED OIL & GAS, INC.

By *Robert B. Tension*
VICE-President

ATTEST:

W Douglas Hoy
Secretary



STATE OF TEXAS)
)
COUNTY OF EL PASO)

The foregoing instrument was acknowledged before me this 17th day of June, 1964, by SAM SMITH, Attorney in Fact for EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My commission expires:
June 1, 1965.

Natalie Taylor
Notary Public

STATE OF)
)
COUNTY OF)

The foregoing instrument was acknowledged before me this _____ day of _____, 1964, by _____, _____ President of CONSOLIDATED OIL & GAS, INC., a Colorado corporation, on behalf of said corporation.

My commission expires:

Notary Public

El Paso Natural Gas Company

El Paso, Texas

MAIN OFFICE OCC

1964 JUN 9 AM 7:34

June 3, 1964

195

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit
San Juan County, New Mexico
1964 DRILLING PROGRAM


Gentlemen:

The 1964 Drilling Program for the Huerfano Unit was approved by the Regulatory Bodies on the following dates:

1. United States Geological Survey - May 26, 1964
2. Commissioner of Public Lands,
State of New Mexico - April 22, 1964
3. Oil Conservation Commission,
State of New Mexico - April 30, 1964

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Very truly yours,


Charles T. Richardson
Area Coordinator
Land Department

CTR:GA:js

Huerfano, 3.0

RECEIVED MAY 27 1964

Drawer 1837
Roswell, New Mexico 88201

May 26, 1964

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

Attention: Mr. Sam Smith

Gentlemen:

Your 1964 plan of development dated April 15, 1964, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of three Dakota wells, has been approved on this date subject to like approval by the appropriate State officials.

Two approved copies of the plan are enclosed.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

cc:
Washington (w/cy of plan)
Farmington (w/cy of plan)
NMOCC - Santa Fe (ltr. only)✓
Com. of Pub. Lands - Santa Fe (ltr. only)

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

195

April 30, 1964

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

Attention: Mr. Sam Smith

Re: 1964 Drilling Program,
Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1964 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/og

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

C
O
P
Y

4-23-64 9 30

April 23, 1964

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

Re: Huerfano Unit
San Juan County, New Mexico
1964 Drilling Program

Attention: Mr. Sam Smith

Gentlemen:

The Commissioner of Public Lands approved as of April 22, 1964, your 1964 Drilling Program for the Huerfano Unit Area, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We are returning one approved copy of this Program.

Very truly yours,

E. S. JOHNNY WALKER
COMMISSIONER OF PUBLIC LANDS

BY:
(Mrs.) Marian M. Rhea, Supervisor
Unit Division

ESW/mmnr/v

cc: United States Geological Survey
Roswell, New Mexico

Oil Conservation Commission
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

April 15, 1964

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

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

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1964 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, on February 8, 1963, filed a Drilling Program covering captioned unit for the calendar year of 1963, consisting of three (3) Dakota wells. All three of these wells were drilled and completed during 1963 on lands committed to the Huerfano Unit. The Huerfano Unit No. 128 and No. 129 Wells were completed within the Dakota Participating Area and occasioned no expansion. The Huerfano Unit No. 139 Well was determined to be non-commercial and such non-commercial determination has been submitted to the applicable regulatory body for approval. At the request of the United States Geological Survey, the Huerfano Unit No. 138 Well was drilled in the NW/4 of Section 22, Township 26 North, Range 9 West, N.M.P.M., as an offset to the Turner-Ballard No. 12-15 Well located in the SE/4 of Section 15, Township 26 North, Range 9 West, N.M.P.M., and occasioned no expansion since it was located within the Dakota Participating Area.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	57
(El Paso Natural Gas Company is in the process of plugging and abandoning five (5) of these wells)	
Pictured Cliffs, Non-commercial	2
Pictured Cliffs, Plugged and Abandoned	19
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	16
Dakota, Non-Commercial	1
Dakota, Plugged and Abandoned	2
Dakota, Temporarily Abandoned	1
Total	113

Pursuant to Section 9 of the Huerfano Unit Agreement, El Paso Natural Gas Company, as Unit Operator, hereby respectfully requests the approval of a Drilling Program for the calendar year of 1964 providing for the drilling of the following described wells:

<u>Name and Spacing Unit</u>	<u>Formation</u>
1. Huerfano Unit #140 Well W/2 Sec. 5, T-26-N, R-9-W, N.M.P.M.	Dakota
2. Huerfano Unit #141 Well W/2 Sec. 16, T-26-N, R-9-W, N.M.P.M.	Dakota
3. Huerfano Unit #142 Well N/2 Sec. 7, T-25-N, R-9-W, N.M.P.M.	Dakota

El Paso Natural Gas Company intends to drill the selected Dakota wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 300' and an intermediate string will be run if necessary, through the Pictured Cliffs Formation to a depth of approximately 3200', and then a production casing string will be run to the base of the Dakota Formation. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing when said casing is run and the hole below the intermediate string of casing will be drilled with either mud or gas. 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 desires for additional drilling and El Paso Natural Gas Company, as Unit Operator, and the working interest owners believe that all current obligations have been satisfied.

El Paso Natural Gas Company, as Unit Operator, will drill any offset wells required to prevent drainage of unitized substances and any other wells deemed necessary or desirable by the Unit Operator and the working interest owners.

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

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By 

Sam Smith, Manager
Land Department

SS:GA:js

APPROVED:

United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

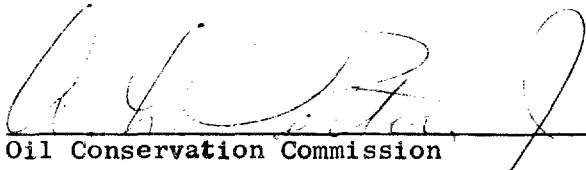
DATE: _____

APPROVED:

Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the
Oil Conservation Commission.

DATE: _____

APPROVED:


Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

DATE: 4.30.64

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1964.

HUERFANO UNIT

Working Interest Owners - All Formations

B. & M. Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
6011 N. 48th Avenue
Glendale, Arizona

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas 1, Texas

Edward C. & Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Berenice Jeffs
P. O. Box 51
Gorman, Texas

Frank S. Kelly, Jr., J. C. Smith,
Wm. H. McCartney & Robert L. Breedlove
Oil & Gas Building, P. O. Box 1775
Shreveport, Louisiana

Mr. Harold Kogan and Mathilda Kogan
742-35th Avenue
San Francisco, California

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Lignum Oil Company
1030 Bank of the Southwest Building
Houston 2, Texas

Mr. O. J. Lilly
Box 248
Burnet, Texas

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
P. O. Box 102
Lone Wolf, Oklahoma

Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph Seagram & Sons, Inc.
108 Gulf Building
Midland, Texas

Sunac Petroleum Corporation
1100 Mercantile Continental Building
Dallas, Texas

Sunland Refining Corporation
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, N.E.
Albuquerque, New Mexico

HUERFANO UNIT

Working Interest Owners - All Formations

Page 2

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Attention: Mr. Wm. M. Brodrick
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. Wm. G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

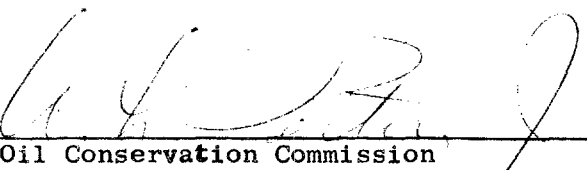
Sinclair Oil & Gas Company
P. O. Box 4005
Albuquerque, New Mexico

APPROVED: _____
United States Geological Survey
Subject to like approval by the appropriate
State Regulatory Bodies.

DATE: _____

APPROVED: _____
Commissioner of Public Lands
Subject to like approval by the United
States Geological Survey and the
Oil Conservation Commission.

DATE: _____

APPROVED:  _____
Oil Conservation Commission
Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

DATE: 4.30.64

The foregoing approvals are for the Huerfano Unit Drilling Program for the
calendar year 1964.

195
RECEIVED
APR 11 1964

April 13, 1964

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

Re: Huerfano Unit
San Juan County, New Mexico
Well No. 139

Attention: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands approves as of April 10, 1964, your determination that Well No. 139 within the boundaries of the Huerfano Unit is not capable of producing unitized substances in paying quantities from the Dakota Formation.

We are returning two approved copies.

Very truly yours,

E. S. JOHNNY WALKER
COMMISSIONER OF PUBLIC LANDS

BY:
(Mrs.) Marian M. Rhea, Supervisor
Unit Division

ESW/mmr/v

cc: United States Geological Survey
Roswell, New Mexico

Oil Conservation Commission
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

April 6, 1964

Commissioner of Public Lands
State of New Mexico
Post Office Box 1148
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELL in the Dakota
Formation

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Dakota Formation, to wit:

The Huerfano Unit No. 139 Well, located 1650' from the South line and 1650' from the East line of Section 32, Township 26 North, Range 9 West, N.M.P.M., San Juan County, New Mexico, was spudded on November 13, 1963, and completed on November 29, 1963, at a total depth of 6750' in the Dakota Formation. The Dakota Formation in the intervals between 6498' - 6502', 6525' - 6529', 6580' - 6584', 6594' - 6598', 6657' - 6671' was treated with a sand-water fracturing process on November 27, 1963. The Dakota Formation was shut-in for gauge on November 29, 1963, and after being shut-in for seven (7) days, the Dakota Formation was tested on December 6, 1963, and following a three (3) hour blow-down period gauged 1027 MCFGPD through a 3/4" choke and 1052 MCFGPD AOF with a SIPC of 1944 psia and a SIPT of 1451 psia.


If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the United States Geological Survey and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By

A handwritten signature in dark ink, appearing to read "T. W. Bittick", is written over a horizontal line.

T. W. Bittick
Assistant Manager
Land Department

TWB:GA:js

HUERFANO UNIT

Working Interest Owners - Gallup and Dakota Formations

B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City 6, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Mrs. Barbara Ann McConnell Bruss
2958 E. Cresthill Avenue
Littleton, Colorado

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas, Texas

Edward C. and Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
158 Petroleum Center Building
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Hannett, Hannett & Cornish
Attorneys at Law
515 First National Building
Albuquerque, New Mexico

Berenice Jeffs
P. O. Box 51
Gorman, Texas

Mr. Frank S. Kelly, Jr.
Mr. J. C. Smith
Mr. Wm. H. McCartney
Mr. Robert L. Breedlove
Oil & Gas Bldg., P. O. Box 1775
Shreveport, Louisiana

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas 1, Texas

Mr. O. J. Lilly
P. O. Box 185
Farmington, New Mexico

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mrs. Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Mr. J. W. McConnell, Jr.
P. O. Box 102
Lone Wolf, Oklahoma

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph E. Seagram & Sons, Inc.
P. O. Box 747, 1500 Davis Building
Dallas 21, Texas

Sinclair Oil & Gas Company
P. O. Box 4005
Albuquerque, New Mexico

Sunac Petroleum Corporation
1100 Mercantile Continental Building
Dallas, Texas

Sunland Refining Corporation
Attention: Mr. G. A. Olsen
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Messilla, N.E.
Albuquerque, New Mexico

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

HUERFANO UNIT

Working Interest Owners - Gallup and Dakota Formations - Page 2

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Dr. Sherman Wengerd
1044 Stanford Drive NE
Albuquerque, New Mexico

APPROVED: _____
Commissioner of Public Lands
State of New Mexico

DATE: _____

For non-commercial determination of the Huerfano Unit No. 139 Well, Dakota Formation.

Information copy to:

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

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

195
Form 1857
Roswell, New Mexico

July 30, 1963

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your application of May 8, 1963, for approval of the sixteenth, seventeenth, eighteenth, nineteenth, and twentieth Dakota participating area revisions for the Huerfano unit agreement, San Juan County, New Mexico, effective as of January 1, October 1, November 1, December 1, 1962, and January 1, 1963, respectively, was approved July 18, 1963, by the Acting Director of the Geological Survey.

The approved copy of the application is enclosed. It is assumed you will furnish any interested party with appropriate evidence of the approval.

Sincerely yours,

(ORIG. SGD.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil & Gas Supervisor

Copy to: Washington (ltr. only)
Farmington (w/cy of approved appln.)
BLM - Santa Fe (w/cy of approved appln.)
Com. of Pub. Lands - Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only)
Accounts

11/2

El Paso Natural Gas Company

El Paso, Texas

July 2, 1963

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1963 DRILLING PROGRAM

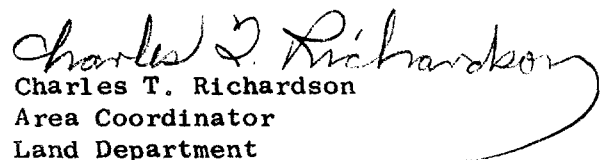
Gentlemen:

The 1963 Drilling Program for the Huerfano Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - April 11, 1963
2. Commissioner of Public Lands - March 26, 1963
3. Oil Conservation Commission - June 6, 1963

Copies of this letter are being sent to all the working interest owners of the Huerfano Unit.

Very truly yours,


Charles T. Richardson
Area Coordinator
Land Department

CTR:GA:js

Huerfano 3.0

El Paso Natural Gas Company

175

El Paso, Texas

June 25, 1963

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELLS, GALLUP FORMATION

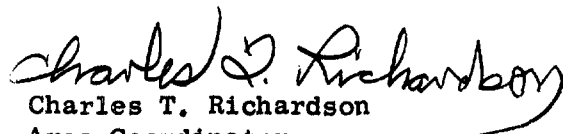
Gentlemen:

On January 22, 1963, we furnished the United States Geological Survey a Notice of Completion of Non-Commercial Wells as to the Gallup Formation covering the Huerfano Unit #110 Well located in the SE/4 of Section 3, Township 26 North, Range 10 West, the Huerfano Unit #111 Well located in the NW/4 of Section 20, Township 26 North, Range 9 West and the Huerfano Unit #116 Well located in the NW/4 of Section 11, Township 26 North, Range 10 West.

Said Notice was accepted and approved by the United States Geological Survey on February 11, 1963.

A copy of this letter is being sent to the working interest owners of the Huerfano Unit.

Very truly yours,


Charles T. Richardson
Area Coordinator
Land Department

CTR:GA:ag

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

195

June 6, 1963

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

Attention: Mr. Sam Smith

**Re: 1963 Drilling Program
Huerfano Unit, San
Juan County, New Mexico**

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1963 Drilling Program for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the program is returned herewith.

Very truly yours,

**A. L. PORTER, Jr.,
Secretary-Director**

ALP/JEK/ig

**cc: Commissioner Public Lands
Santa Fe, New Mexico**

**United States Geological Survey
Roswell, New Mexico**

Drawer 1857
Roswell, New Mexico

April 11, 1963

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

Attention: Mr. Sam Smith

Gentlemen:

Your 1963 plan of development dated February 8, 1963, for the Huerfano unit area, San Juan County, New Mexico, proposing the drilling of three Dakota wells, has been approved on this date subject to like approval by the appropriate State officials.

The Huerfano unit area appears subject to drainage by certain wells on land not subject to the unit agreement. You will be advised by separate letter of the protective wells required to prevent drainage of unitized substances from the Huerfano unit area.

Two approved copies of the plan are enclosed.

Very truly yours,

(Orig.Sgd.) WILLIAM H. FELDMILLER

For JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Washington (w/cy of plan)
Farmington (w/cy of plan)
NMOCC-Santa Fe (Ltr. only) ✓
Com. of Pub. Lands-Santa Fe (ltr. only)

RECEIVED
2003 MAR 26 PM 2:23

March 26, 1963

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

Re: Huerfano Unit, San Juan
County, New Mexico.
1963 Drilling Program

Attention: Mr. Sam Smith

Gentlemen:

The Commissioner of Public Lands approves as of March 26, 1963, the 1963 Drilling Program for the Huerfano Unit Area, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

We consider these three wells to be in addition to offset obligations required to prevent drainage of unitized substances from wells drilled outside the unit area.

We are returning one approved copy of this application.

Very truly yours,

E. S. Johnny Walker
COMMISSIONER OF PUBLIC LANDS

BY:
(Mrs.) Marian M. Rhea
Supervisor, Unit Division

ESW/mm/e

encl: United States Geological Survey
cc: Roswell, New Mexico

Oil Conservation Commission
Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

February 8, 1963

RECEIVED
FEB 13 AM 8 27

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
1963 DRILLING PROGRAM

Gentlemen:

El Paso Natural Gas Company, as Unit Operator of the Huerfano Unit, on May 10, 1962, filed a Drilling Program covering captioned unit for the calendar year of 1962, consisting of six (6) Dakota wells. All six of these wells were drilled and completed during 1962 on lands committed to the Huerfano Unit.

As of this date, the total number of wells drilled in the Huerfano Unit on acreage committed to the unit or on acreage pooled and communitized with committed acreage is as follows:

Pictured Cliffs, Commercial	57
(El Paso Natural Gas Company is in the process of plugging and abandoning five (5) of these wells)	
Pictured Cliffs, Non-commercial	2
Pictured Cliffs, Plugged and Abandoned	19
Gallup-Dakota, Commercial	11
Gallup-Dakota, Commercial in Gallup only	1
Gallup-Dakota, Commercial in Dakota only	3
Dakota, Commercial	13
Dakota, Plugged and Abandoned	2
Dakota, Temporarily Abandoned	1
Total	109

El Paso Natural Gas Company, as Unit Operator, requested, by letter dated December 27, 1962, permission from all working interest owners to file a 1963 Drilling Program calling for the drilling of three (3) Dakota wells within the Huerfano Unit Area. Said Approval from the working interest owners was requested with the understanding that the actual location of the three (3) wells would be subject to their approval upon selection of locations during the first half of 1963. The necessary approval from the working interest owners for the drilling of three (3) wells at locations to be subsequently chosen has been received.

Pursuant to Section 9 of the Huerfano Unit Agreement El Paso Natural Gas Company, as Unit Operator, hereby submits a proposed Drilling Program for the calendar year 1963, providing for the drilling of three (3) Dakota wells at locations to be selected at a later date that will satisfy all unit obligations for the calendar year of 1963.

In its selection of the locations to be drilled, El Paso Natural Gas Company, as Unit Operator, will provide for any offset wells required to prevent drainage of unitized substances, and any wells deemed necessary or desirable by the Unit Operator and the working interest owners.

El Paso Natural Gas Company intends to drill the selected Dakota wells to the base of the Dakota Formation using rotary tools. Surface casing will be set to the depth of approximately 300' and an intermediate string will be run if necessary, through the Pictured Cliffs Formation to a depth of approximately 3200', and then a production casing string will be run to the base of the Dakota Formation. The casing in the Dakota Formation will then be perforated and the Dakota Formation subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing when said casing is run and the hole below the intermediate string of casing will be drilled with either mud or gas. Due care will be taken to protect all horizons.

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

-3-

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By Sam Smith
Sam Smith, Manager
Land Department

SS:GA:js

APPROVED: _____
United States Geological Survey

DATE: _____

Subject to like approval by the appropriate
State regulatory bodies.

APPROVED: _____
Commissioner of Public Lands

DATE: _____

Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

APPROVED:  _____
Oil Conservation Commission

DATE: June 6, 1963

Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

The foregoing approvals are for the Huerfano Unit Drilling Program for
the calendar year 1963.

HUERFANO UNIT
All Formations
Working Interest Owners

B & M. Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City, Oklahoma

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
6011 North 48th Avenue
Glendale, Arizona

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas 1, Texas

Edward C. & Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
405½ West Broadway
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

Vincent B. Hamilton
815 1st Avenue, SE
Hamton, Iowa

Bernice Jeffs
P. O. Box 51
Gorman, Texas

Mr. Harold Kogan and Mathilda Kogan
742-35th Avenue
San Francisco, California

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas, Texas

Lignum Oil Company
1030 Bank of the Southwest Building
Houston 2, Texas

O, J. Lilly
P. O. Box 185,
Farmington, New Mexico

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mr. J. W. McConnell, Jr.
P. O. Box 102
Lone Wolf, Oklahoma

Mrs. Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Pan American Petroleum Corporation (12)
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph E. Seagram & Sons, Inc.
P. O. Box 747
1500 Davis Building
Dallas 21, Texas

Sunac Petroleum Corporation
1100 Mercantile Continental Building
Dallas, Texas

Sunland Refining Corporation
Attention: Mr. G. A. Olsen
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
644 E. Barcelona
Santa Fe, New Mexico

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical
P. O. Box 2120
Houston 1, Texas

Union Texas Petroleum
A Division of Allied Chemical
Suite B-400, 1740 Broadway
Denver 2, Colorado

HUERFANO UNIT
All Formations
Working Interest Owners
Page 2

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Western Natural Gas Company
Attention: Mr. K. P. Moore
P. O. Box 1508
Houston 2, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

El Paso Natural Gas Company

1963 JUN 10 10 3 El Paso, Texas

115

June 4, 1963

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
FOURTEENTH AND FIFTEENTH REVISIONS
OF THE PARTICIPATING AREA FOR THE
DAKOTA FORMATION


Gentlemen:

The above captioned Expansions were approved by the regulatory bodies on the following listed dates:

1. United States Geological Survey on May 20, 1963.
2. Commissioner of Public Lands on March 25, 1963.
3. Oil Conservation Commission on December 28, 1962.

Copies of this letter are being sent to the working interest owners of the Huerfano Unit.

Very truly yours,


Charles T. Richardson
Area Coordinator
Land Department

CIR:GA:js

195
MAY 23 AM 11

Denver 1857
Roswell, New Mexico

May 27, 1963

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your application of December 4, 1962, for approval of the fourteenth and fifteenth revisions of the Dakota participating area for the Huerfano unit agreement, San Juan County, New Mexico, effective as of October 1, and December 1, 1961, respectively, was approved May 20, 1963, by the Acting Director of the Geological Survey.

One approved copy of the application is enclosed. It is assumed you will furnish any interested party with appropriate evidence of the approval.

Sincerely yours,
(Orig.Sgd.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil & Gas Supervisor

Copy to: Washington (ltr. only)
Farmington (w/cy of approved appln.)
ELM - Santa Fe (w/cy of approved appln.)
Com. of Pub. Lands - Santa Fe (ltr. only)
NMOCC - Santa Fe (ltr. only) ✓
Accounts

OIL CONSERVATION COMMISSION

**P. O. BOX 871
SANTA FE, NEW MEXICO**

145

May 23, 1963

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

Attention: Mr. T. W. Bittick

**Re: Sixteenth, Seventeenth,
Eighteenth, Nineteenth,
and Twentieth Revisions
Dakota Participating Area
Huerfano Unit, San Juan
County, New Mexico.**

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Dakota Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the revisions are being forwarded to the United States Geological Survey, Roswell, New Mexico.

Very truly yours,

**A. L. PORTER, Jr.,
Secretary-Director**

ALP/JEK/ig

**cc: Commissioner of Public Lands
Santa Fe, New Mexico
United States Geological Survey
Roswell, New Mexico**

MAIN OFFICE OCC

1963 MAY 13 PM 3:51

195

May 13, 1963

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

Re: Huerfano Unit
San Juan County, New Mexico
Application for Approval of the
Sixteenth, Seventeenth, Eighteenth,
Nineteenth and Twentieth Revisions
of the Dakota Participating Area

Attention: Mr. Charles T. Richardson

Gentlemen:

The Commissioner of Public Lands has approved as of May 13, 1963, the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Participating Area for the Dakota Formation, Huerfano Unit Area, San Juan County, New Mexico.

Our approval is subject to like approval by the Oil Conservation Commission and the United States Geological Survey.

We are handing six (6) approved copies of these revisions to the Oil Conservation Commission requesting them to forward at least five to the United States Geological Survey for their consideration.

El Paso Natural Gas Company
Attention: Mr. Charles T. Richardson
May 13, 1963
- page 2 -

Very truly yours,

E. S. JOHNNY WALKER
COMMISSIONER OF PUBLIC LANDS

BY:
(Mrs.) Marian M. Rhea, Supervisor
Unit Division

ESW/mm/v
cc:

Oil Conservation Commission
Santa Fe, New Mexico

U. S. Department of Interior
Geological Survey
Roswell, New Mexico
Attention: Mr. John A. Anderson

El Paso Natural Gas Company

El Paso, Texas

May 8, 1963

Registered Mail

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Attention: Mrs. Marian M. Rhea

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
SIXTEENTH, SEVENTEENTH, EIGHTEENTH,
NINETEENTH AND TWENTIETH REVISIONS
OF THE PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

Attached are eight (8) copies of the subject Sixteenth through Twentieth Revisions of the Participating Area for the Dakota Formation for the Huerfano Unit, together with the appropriate exhibits and geological information.

If these Sixteenth through Twentieth Revisions meet with your approval, please execute all copies in the space provided and secure the approval of the Oil Conservation Commission on all copies thereof. Upon approval of the Oil Conservation Commission and your office, will you please retain two copies for your files and have the Oil Conservation Commission retain one copy for their files and forward the remaining five copies to the United States Geological Survey for approval.

Very truly yours,

Charles T. Richardson
Charles T. Richardson
Area Coordinator
Land Department

CTR:GA:ag
Attachments

cc: United States Geological Survey

Oil Conservation Commission ✓
Huerfano 4.3

COPY

El Paso Natural Gas Company

El Paso, Texas

May 8, 1963

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

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
SIXTEENTH, SEVENTEENTH, EIGHTEENTH,
NINETEENTH AND TWENTIETH REVISIONS
OF THE PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Participating Area for the Dakota Formation, to wit:

Sixteenth Revision - Effective January 1, 1962

<u>Description of Lands</u>	<u>Acreage</u>
T-27-N, R-10-W, N.M.P.M. Section 30: SW/4	167.64
T-27-N, R-11-W, N.M.P.M. Section 24: W/2 Section 25: W/2, SE/4	800.00

This proposed Sixteenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Hancock Federal #3 Well, located in the NE/4 of Section 24, Township 27 North, Range 11 West, N.M.P.M.

The Hancock Federal #3 Well was spudded on November 27, 1961, and completed on December 12, 1961, at a total depth of 6545'. The Dakota Formation in the intervals between 6316' - 6322', 6346' - 6350', 6354' - 6356', and 6407' - 6422' was treated with a sand-water fracturing process. The well was tested on December 12, 1961, and following a three (3) hour blow-down period gauged 3923 MCFGPD through a 3/4" choke and 5986 MCFGPD by the calculated absolute open-flow method, with an SIPC of 1986 psig and an SIPT of 1986 psig.

Seventeenth Revision - Effective October 1, 1962

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-10-W, N.M.P.M. Section 1: Lots 1,2,3,4, S/2 N/2 (N/2)	319.60
T-26-N, R-9-W, N.M.P.M. Section 23: S/2 Section 31: Lots 1,2,3,4, E/2 W/2 (W/2)	320.00 325.28
T-26-N, R-10-W, N.M.P.M. Section 36: All	640.00

This proposed Seventeenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #134 Well, located in the SE/4 of Section 36, Township 26 North, Range 10 West, N.M.P.M., and the Huerfano Unit #135 Well, located in the NW/4 of Section 23, Township 26 North, Range 9 West, N.M.P.M.

The Huerfano Unit #134 Well was spudded on August 27, 1962, and completed on September 18, 1962, at a total depth of 6906'. The Dakota Formation in the intervals between 6513' - 6517', 6624' - 6628', 6641' - 6645', 6660' - 6664' was treated with a sand-water fracturing process on September 15, 1962, and shut-in on September 18, 1962. After being shut-in for seven (7) days, the well was tested on September 25, 1962, and following a three (3) hour blow-down period gauged 3237 MCFGPD through a 3/4" choke and 3587 MCFGPD by the calculated absolute open-flow method with an SIPC of 1983 psia and an SIPT of 1994 psia.

The Huerfano Unit #135 Well was spudded on August 6, 1962, and completed on August 25, 1962, at a total depth of 6724'. The Dakota Formation in the intervals between 6432' - 6436', 6450' - 6454', 6542' - 6548',

6560' - 6566', 6622' - 6628' was treated with a sand-water fracturing process on August 24, 1962, and shut-in on August 25, 1962. After being shut-in for twelve (12) days, the well was tested on September 6, 1962, and following a three (3) hour blow-down period gauged 5811 MCFGPD through a 3/4" choke and 7143 MCFGPD by the calculated absolute open-flow method with an SIPC of 2040 psia and an SIPT of 2040 psia.

Eighteenth Revision - Effective November 1, 1962

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-9-W, N.M.P.M. Section 29: All	640.00

This proposed Eighteenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #130 Well, located in the NW/4 of Section 29, Township 26 North, Range 9 West, N.M.P.M.

The Huerfano Unit #130 Well was spudded on October 8, 1962, and completed on October 24, 1962, at a total depth of 6742'. The Dakota Formation in the intervals between 6468' - 6480', 6554' - 6566', 6578' - 6590', 6650' - 6656' was treated with a sand-water fracturing process on October 22, 1962, and shut-in on October 24, 1962. After being shut-in for seven (7) days, the well was tested on October 31, 1962, and following a three (3) hour blow-down period gauged 5397 MCFGPD through a 3/4" choke and 7132 MCFGPD by the calculated absolute open-flow method with an SIPC of 1860 psia and an SIPT of 1523 psia.

Nineteenth Revision - Effective December 1, 1962

<u>Description of Lands</u>	<u>Acreage</u>
T-25-N, R-9-W, N.M.P.M. Section 6: Lots 1,2,3,4,5, SE/4 NW/4, S/2 NE/4 (N/2)	325.41
T-26-N, R-9-W, N.M.P.M. Section 31: E/2 Section 32: W/2	320.00 320.00

This proposed Nineteenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #137 Well, located in the SE/4 of Section 31, Township 26 North, Range 9 West, N.M.P.M.

The Huerfano Unit #137 Well was spudded on October 25, 1962, and completed on November 9, 1962, at a total depth of 6770'. The Dakota Formation in the intervals between 6532' - 6538', 6586' - 6592', 6608' - 6614',

6628' - 6634', 6693' - 6699' was treated with a sand-water fracturing process on November 7, 1962, and shut-in on November 9, 1962. After being shut-in for eighteen (18) days, the well was tested on November 27, 1962, and following a three (3) hour blow-down period gauged 6027 MCFGPD through a 3/4" choke and 8282 MCFGPD by the calculated absolute open-flow method with an SIPC of 1944 psia and an SIPT of 1952 psia.

Twentieth Revision - Effective January 1, 1963

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-9-W, N.M.P.M.	
Section 21: S/2	320.00
Section 22: S/2	320.00

The proposed Twentieth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Huerfano Unit #136 Well, located in the SE/4 of Section 21, Township 26 North, Range 9 West, N.M.P.M.

The Huerfano Unit #136 Well was spudded on November 10, 1962, and completed on November 26, 1962, at a total depth of 6703'. The Dakota Formation in the intervals between 6406' - 6418', 6444' - 6448', 6506' - 6518', 6624' - 6630' was treated with a sand-water fracturing process on November 24, 1962, and shut-in on November 26, 1962. After being shut-in for ten (10) days, the well was tested on December 6, 1962, and following a three (3) hour blow-down period gauged 2219 MCFGPD through a 3/4" choke and 2625 MCFGPD by the calculated absolute open-flow method with an SIPC of 1931 psia and an SIPT of 1707 psia.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Expansions of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plat No. 1: Structure Map on top of Graneros Shale.
Plat No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production.

Attached to this application are Schedules XVII, XVIII, XIX, XX and XXI showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By T. W. Bittick
T. W. Bittick
Assistant Manager
Land Department

TWB:GA:ag

APPROVED: _____
Director, United States Geological Survey

DATE: _____

Subject to like approval by the appropriate
State officials.

APPROVED: E. S. Walker
Commissioner of Public Lands

DATE: May 13, 1963

Subject to like approval by the United States
Geological Survey and the Oil Conservation
Commission.

APPROVED: A. L. Porter Jr.
Oil Conservation Commission

DATE: 5/24/63

Subject to like approval by the United States
Geological Survey and the Commissioner of
Public Lands.

The foregoing approvals are for the Sixteenth, Seventeenth, Eighteenth, Nineteenth and Twentieth Revisions of the Participating Area for the Dakota Formation, effective January 1, 1962, October 1, 1962, November 1, 1962, December 1, 1962, and January 1, 1963, respectively, under Huerfano Unit, I Sec. No. 731, San Juan County, New Mexico.

HUERFANO UNIT

**Working Interest Owners of the Dakota
Participating Area through the Twentieth
Expansion**

**B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City 6, Oklahoma**

**Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma**

**Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas, Texas**

**Mr. Albert R. Greer
405½ West Broadway
Farmington, New Mexico**

**Mrs. Charline Greer
888 Logan
Denver 3, Colorado**

**La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas 1, Texas**

**Mr. O. J. Lilly
P. O. Box 185
Farmington, New Mexico**

**Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma**

**Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico**

**Joseph Seagram and Sons, Inc.
P. O. Box 747
1500 Davis Building
Dallas 21, Texas**

**Sunac Petroleum Corporation
1100 Mercantile Continental Building
Dallas, Texas**

**Sunland Refining Corporation
Attention: Mr. G. A. Olsen
P. O. Box 1512
Fresno 16, California**

**Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas**

**Union Texas Petroleum
A Division of Allied Chemical Corp.
Liberty Bank Building
Oklahoma City 2, Oklahoma**

**Union Texas Petroleum
A Division of Allied Chemical Corp.
Suite B-400, 1740 Broadway
Denver 2, Colorado**

**Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas**

**Dr. Sherman Wengerd
1044 Standard Drive, NE
Albuquerque, New Mexico**

El Paso Natural Gas Company

El Paso, Texas

May 3, 1963

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF ADDITIONAL
WELL, Dakota Formation

Gentlemen:

Pursuant to Section 10 of the Huerfano Unit Agreement, I Sec. No. 731, El Paso Natural Gas Company, as Unit Operator, determined on the date set out below that one additional well capable of producing unitized substances in commercial quantities from the Dakota Formation has been completed upon acreage committed to the unit. This well is as follows:

The Huerfano Unit #133 Well, located 1840' from the South line and 1840' from the East line of Section 16, Township 26 North, Range 9 West, San Juan County, New Mexico, was spudded on September 19, 1962, and completed on October 7, 1962, in the Dakota Formation at a total depth of 6666'. The Dakota Formation in the intervals between 6398' - 6403', 6438' - 6442', 6500' - 6504', 6520' - 6524', 6566' - 6570' was treated with a sand-water fracturing process on October 5, 1962. The well was shut-in on October 7, 1962, and after being shut-in for gauge for eighteen (18) days, the well was tested on October 25, 1962, and following a three (3) hour blow-down period the Dakota Formation gauged 5132 MCFGPD through a 3/4" choke, and 6497 MCFGPD by the

calculated absolute open-flow method with an SIPC of 1986 psia and an SIPT of 1221 psia. The Spacing Unit upon which this well is located is described as the E/2 of Section 16, Township 26 North, Range 9 West, containing 320.00 acres.

This Spacing Unit was included in the Huerfano Unit Fifteenth Expanded Participating Area of the Dakota Formation, effective December 1, 1961, and the completion of this well does not warrant any further expansion of the Dakota Participating Area.

Copies of this letter are being sent to the working interest owners as shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By



T. W. Bittick
Assistant Manager
Land Department

TWB:GA:ag

HUERFANO UNIT

Working Interest Owners

B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City 6, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Mrs. Barbara Ann McConnell Bruss
2958 E. Cresthill Avenue
Littleton, Colorado

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas, Texas

Edward C. and Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
405½ West Broadway
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

Mr. Vincent B. Hamilton
815 First Avenue, SE
Hamton, Iowa

Berenice Jeffs
P. O. Box 51
Gorman, Texas

Mr. Harold Kogan & Mathilda Kogan
742-35th Avenue
San Francisco, California

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas 1, Texas

Mr. O. J. Lilly
P. O. Box 185
Farmington, New Mexico

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Mrs. Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Mr. J. W. McConnell, Jr.
P. O. Box 102
Lone Wolf, Oklahoma

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph E. Seagram & Sons, Inc.
P. O. Box 747, 1500 Davis Building
Dallas 21, Texas

Sunac Petroleum Corporation
1100 Mercantile Continental Building
Dallas, Texas

Sunland Refining Corporation
Attention: Mr. G. A. Olsen
P. O. Box 1512
Fresno 16, California

Tamanaco Oil Corporation
1409 Mesilla, N. E.
Albuquerque, New Mexico

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
P. O. Box 2120
Houston 1, Texas

HUERFANO UNIT

Working Interest Owners

(Continued)

Union Texas Petroleum
A Division of Allied Chemical Corp.
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, N. E.
Albuquerque, New Mexico

Western Natural Gas Company
P. O. Box 1508
Houston 2, Texas

175

March 25, 1963

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

Re: Huerfano Unit, San Juan County,
New Mexico. Fourteenth and Fif-
teenth Revisions of the Dakota
Participating Area.

Attention: Mr. T. W. Bittick

Gentlemen:

The Commissioner of Public Lands has approved as of
March 25, 1963, the Fourteenth and Fifteenth Revisions
of the Dakota Participating Area, Huerfano Unit, San
Juan County, New Mexico, subject to like approval by the
United States Geological Survey.

We are returning five approved copies of this app-
lication.

Very truly yours,

E. S. Johnny Walker
COMMISSIONER OF PUBLIC LANDS

EY:
(Mrs.) Marian M. Rhea
Supervisor, Unit Division

ESW/mm/e United States Geological Survey
encl: Roswell, New Mexico
cc: Oil Conservation Commission
 Santa Fe, New Mexico

El Paso Natural Gas Company

El Paso, Texas

February 18, 1963

1963 FEB 21 AM 11 22

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

On September 19, 1962, we furnished you an Application for Approval of the Fifth, Sixth and Seventh Revisions of the Participating Area for the Gallup Formation of the Huerfano Unit.

It has subsequently been noted that the Serial Number for Tract 27 on page 5 of each of the Schedules VI, VII and VIII should read NM 0396 instead of NM 01366, and we respectfully request that this change be made.

The Application has been approved as follows:

Oil Conservation Commission	- September 24, 1962
Commissioner of Public Lands	- October 9, 1962
United States Geological Survey	- January 31, 1963

A copy of this letter is being sent to the working interest owners in the Gallup Formation of the Huerfano Unit.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By Charles T. Richardson
Charles T. Richardson
Area Coordinator
Land Department

OFFICE 000

195
1953 FEB 14 PM 1:36

Drawer 1857
Roswell, New Mexico

February 12, 1963

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your notice of January 22, 1963, advises that El Paso Natural Gas Company, as unit operator of the Huerfano unit area, San Juan County, New Mexico, has determined unit wells Nos. 110, 111, and 116 to be incapable of producing unitized substances in paying quantities from the Gallup formation.

Unit well No. 110, in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 26 N., R. 10 W., was completed in December 1959, for a potential of 211 BOPD and 385 MCFGPD from the Gallup formation 5917 - 6220 feet. Well No. 111, in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 26 N., R. 9 W., was completed in November 1959, for a potential of 2,198 MCFGPD from the Gallup formation 5603 - 5894 feet. Unit well No. 116, in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 26 N., R. 10 W., was completed in January 1961, for a potential of 7.8 BOPD and 272 MCFGPD from the Gallup formation 5996 - 6192 feet.

This office concurs with your determination that unit wells Nos. 110, 111, and 116 are incapable of producing unitized substances in paying quantities under existing conditions.

Very truly yours,

(Orig. Sgd.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Washington (w/cy of notice)
Farmington (w/cy of notice)
NMOCC - Santa Fe (ltr. only)
Comm. of Pub. Lands (ltr. only)
Accounts

MAIN OFFICE OCC

1963 FEB 13 AM 8:23

Drawer 1857
Roswell, New Mexico

February 7, 1963

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

Attention: Mr. T. W. Bittick

Gentlemen:

Your application of September 19, 1962, for the fifth, sixth, and seventh revisions of the Gallup participating areas, Huerfano unit agreement, San Juan County, New Mexico, effective as of October 1, November 1, 1959, and February 1, 1961, respectively, was approved by the Acting Director of the Geological Survey on January 31, 1963.

One approved copy of the application is enclosed. You are requested to furnish the State of New Mexico and any other interested party with appropriate evidence of this approval.

Very truly yours,

(Orig. Set.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Washington (ltr. only)
Farmington (w/cy of appln.)
BLM-Santa Fe (w/cy of appln.)
NMOCC-Santa Fe (ltr. only) ✓
Com. of Pub. Lands - Santa Fe (ltr. only)

MAIN OFFICE 000

El Paso Natural Gas Company

El Paso, Texas

1963 JAN 23 AM 8:39

January 22, 1963

195

Mr. John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
NOTICE OF COMPLETION OF NON-
COMMERCIAL WELLS in the
Gallup Formation

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Gallup Formation, to wit:

1. The Huerfano Unit No. 110 (GD) Well, located 1650' from the South line and 990' from the East line of Section 3, Township 26 North, Range 10 West, San Juan County, New Mexico, was spudded on September 19, 1959, and completed on December 11, 1959, at a total depth of 7105' in the Gallup and Dakota Formations. The Gallup Formation in the intervals between 5917' - 5935', 5958' - 5968', 6026' - 6040', 6091' - 6104', 6112' - 6120', 6128' - 6136', 6182' - 6190', 6197' - 6206', 6213' - 6220' was treated with a sand-oil fracturing process on November 27 and 28, 1959. The Gallup Formation was shut-in for gauge on December 8, 1959 and after being shut-in for twenty-two (22) days, the Gallup Formation was tested on December 30 and 31, 1959 on pump through the 2" tubing on a 1" choke. After twenty (20) hours pumping at 15 SPM, with length of stroke 75", the well produced 176 Bbl. of oil and 321 MCF of gas, which computed on a 24 hour basis is the equivalent of 211 BOPD and 385 MCFGPD.

However, we wish to point out that even though the Huerfano Unit No. 110 Well in the Gallup Formation had a completion gauge of 211 BOPD it was determined that the reserves were not adequate to justify a commercial determination. The well during February of 1960 produced from the Gallup Formation 853 Bbls. of oil and in December produced 359 Bbls. In January of 1961 the well produced 400 Bbls. of oil and in December of 1961 produced 131 Bbls. of oil. In August of 1962 the well produced only 57 Bbls. of oil. This sampling of oil production history reflects the decreasing capabilities of this well and confirms the original non-commercial determination with respect to oil.

2. The Huerfano Unit No. 111 (GD) Well, located 1550' from the North line and 1550' from the West line of Section 20, Township 26 North, Range 9 West, San Juan County, New Mexico, was spudded on June 29, 1959, and completed on September 5, 1959, at a total depth of 6788' in the Gallup and Dakota Formations. The Gallup Formation in the intervals between 5603' - 5613', 5622' - 5629', 5718' - 5727', 5799' - 5807', 5835' - 5843', 5882' - 5894' was treated with a sand-oil fracturing process on August 22, 1959. The Gallup Formation was shut-in for gauge on October 7, 1959, and after being shut-in for twenty-six (26) days, the Gallup Formation was tested on November 2, 1959, and following a three (3) hour blow-down period gauged 1923 MCFGPD through a 3/4" choke, and 2198 MCFGPD by the calculated absolute open-flow method, with an SIPC of 1181 psia and an SIPT of 909 psia.
3. The Huerfano Unit No. 116 (GD) Well, located 990' from the North line and 1652' from the West line of Section 11, Township 26 North, Range 10 West, N.M.P.M., San Juan County, New Mexico, was spudded on October 11, 1960, and completed on October 30, 1960 at a total depth of 7030' in the Gallup and Dakota Formations. The Gallup Formation in the intervals between 5996' - 6008', 6154' - 6166', 6171' - 6180', 6184' - 6192' was treated with a sand-oil fracturing process on November 4, 1960. The Gallup Formation was shut-in for gauge on January 3, 1961, and after being shut-in for eight (8) days, the Gallup Formation was tested on January 11, 1961, through 2" tubing on a 14/64" choke. The well produced 272 MCFGPD and 7.8 BOPD with a gas-oil ratio of 34,871 cubic feet of gas per Bbl. of oil, and a tubing-flow pressure of 260 psig.

If this determination meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, and the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By T. W. Bittick
T. W. Bittick
Assistant Manager
Land Department

TWB:GA:js

APPROVED: _____
Supervisor, United States Geological Survey

DATE: _____

For non-commercial determination of the Huerfano Unit No. 110 (GD), the Huerfano Unit No. 111 (GD) and the Huerfano Unit No. 116 (GD) Wells, Gallup Formation.

HUERFANO UNIT

Gallup and Dakota Working Interest Owners

B & M Construction Corporation
2720 Classen, Corbyn Bldg.
Oklahoma City 6, Oklahoma

Benson-Montin-Greer Drilling Corp.
2808 First National Building
Oklahoma City, Oklahoma

Brookhaven Oil Company
P. O. Box 1267
Scottsdale, Arizona

Barbara Ann McConnell Bruss
6011 North 48th Avenue
Glendale, Arizona

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas, Texas

Edward C. and Hulda Evensen
739 Haight Street
San Francisco 17, California

Mr. Albert R. Greer
405½ West Broadway
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

Mr. Vincent B. Hamilton
815 First Avenue, Se
Hamton, Iowa

Berenice Jeffs
P. O. Box 51
Gorman, Texas

Mr. Harold Kogan
742-35th Avenue
San Francisco, California

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas 1, Texas

Mr. O. J. Lilly
P. O. Box 185
Farmington, New Mexico

Mrs. Marjorie Lundean
One West 67th Street
New York 23, New York

Mr. K. E. McAfee
2020 First National Bldg.
Oklahoma City 2, Oklahoma

Mrs. Barbara Irene McConnell
1224 Laguna Cove
Farmington, New Mexico

Mr. J. W. McConnell, Jr.
P. O. Box 102
Lone Wolf, Oklahoma

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Mr. E. H. Pipkin
P. O. Box 1174
Roswell, New Mexico

Joseph E. Seagram & Sons, Inc.
P. O. Box 747, 1500 Davis Bldg.
Dallas 21, Texas

Sunac Petroleum Corporation
1100 Mercantile Continental Bldg.
Dallas, Texas

Sunland Refining Corporation
Attention: Mr. G. A. Olsen
P. O. Box 1512
Fresno 16, California

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical
Liberty Bank Building
Oklahoma City 2, Oklahoma

Union Texas Petroleum
A Division of Allied Chemical
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas

Dr. Sherman Wengerd
1044 Stanford Drive, NE
Albuquerque, New Mexico

Western Natural Gas Company
Attention: Mr. K. P. Moore
P. O. Box 1508
Houston 2, Texas

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

195

December 28, 1962

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

Attention: Mr. T. W. Bittick

Re: Fourteenth and Fifteenth
Revisions Dakota Participating
Area, Huerfano Unit, San Juan
County, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Fourteenth and Fifteenth Revisions of the Dakota Participating Area for the Huerfano Unit, San Juan County, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Seven approved copies of the application are being forwarded to the Commissioner of Public Lands.

Very truly yours,

A. L. PORTER, Jr.,
Secretary-Director

ALP/JEK/ig

cc: Commissioner of Public Lands
Santa Fe, New Mexico

United States Geological Survey
Roswell, New Mexico

C
O
P
Y

El Paso Natural Gas Company

El Paso, Texas

December 5, 1962

Oil Conservation Commission
State of New Mexico
Post Office Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I. Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
FOURTEENTH AND FIFTEENTH REVISIONS
OF THE PARTICIPATING AREA for the
Dakota Formation


Gentlemen:

Attached are eight (8) copies of the subject Fourteenth and Fifteenth Revisions of the Participating Area of the Huerfano Unit, together with exhibits and geological information.

It is requested, upon your approval, that you kindly sign all copies in the space provided, retaining one (1) copy of same and forward the remaining seven (7) copies to the Commissioner of Public Lands for his approval and execution. Upon the approval by the Commissioner of Public Lands they are to retain one (1) copy and return the remaining six (6) copies to this office for our further handling in obtaining the approval of the United States Geological Survey.

After we have received fully executed and approved copies of these Expansions we will forward one (1) fully executed and approved copy to the Commissioner of Public Lands.

Very truly yours,


Charles T. Richardson
Area Coordinator
Land Department

CTR:GA:js
Enclosures

cc: Commissioner of Public Lands

El Paso Natural Gas Company

El Paso, Texas

December 4, 1962

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

Commissioner of Public Lands
State of New Mexico
P. O. Box 791
Santa Fe, New Mexico

Oil Conservation Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Re: Huerfano Unit, I Sec. No. 731
San Juan County, New Mexico
APPLICATION FOR APPROVAL OF THE
FOURTEENTH AND FIFTEENTH REVISIONS
OF THE PARTICIPATING AREA FOR THE
DAKOTA FORMATION

Gentlemen:

El Paso Natural Gas Company, as Unit Operator 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, pursuant to the provisions of Section 10 thereof, respectfully submits for your approval the following selection of lands to constitute the Fourteenth and Fifteenth Revisions of the Participating Area for the Dakota Formation, to wit:

Fourteenth Revision - Effective October 1, 1961

<u>Description of Lands</u>	<u>Acreage</u>
T-27-N, R-9-W, N.M.P.M. Section 31: All	644.80
T-27-N, R-10-W, N.M.P.M. Section 36: All	620.20

This proposed Fourteenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of EPNG Co.'s Frost No. 9 Well, located in the SE/4 of Section 25, Township 27 North, Range 10 West, N.M.P.M.

The Frost No. 9 Well was spudded on August 6, 1961, and completed on August 31, 1961, at a total depth of 7002'. The Dakota Formation in the intervals between 6718' - 6730', 6754' - 6760', 6772' - 6778', 6812' - 6818', 6822' - 6828', 6838' - 6844', 6898' - 6910' was treated with a sand-water fracturing process on August 27, and August 29, 1961, and shut-in on August 31, 1961. After being shut-in for eight (8) days, the well was tested on September 8, 1961, and following a three (3) hour blow-down period gauged 2267 MCFGPD through a 3/4" choke and 2428 MCFGPD by the calculated absolute open-flow method, with an SIPC of 1760 PSIA.

Fifteenth Revision - Effective December 1, 1961

<u>Description of Lands</u>	<u>Acreage</u>
T-26-N, R-9-W, N.M.P.M.	
Section 9: All	640.00
Section 15: All	640.00
Section 16: All	640.00
Section 21: N/2	320.00
Section 22: N/2	320.00
Section 23: N/2	320.00

This proposed Fifteenth Expansion of the Participating Area for the Dakota Formation is predicated upon the knowledge and information first obtained upon the completion in paying quantities of the Turner-Ballard No. 11-15 (GD) Well, located in the NW/4 of Section 15, Township 26 North, Range 9 West, N.M.P.M., and the Turner-Ballard No. 12-15 Well, located in the SE/4 of Section 15, Township 26 North, Range 9 West, N.M.P.M.

The Turner-Ballard No. 11-15 (GD) Well was spudded on October 6, 1961, and completed on November 1, 1961, at a total depth of 6800'. The Dakota Formation in the intervals between 6516' - 6548', 6412' - 6432' was treated with a sand-water fracturing process on November 1, 1961, and shut-in on November 1, 1961. After being shut-in for thirteen (13) days, the well was tested on November 14, 1961, and following a three (3) hour blow-down period gauged 2129 MCFGPD through a 3/4" choke and 2270 MCFGPD by the calculated absolute open-flow method with an SIPT of 1758 PSIA.

The Turner Ballard No. 12-15 Well was spudded on October 23, 1961 and completed on November 13, 1961, at a total depth of 6750'. The

Dakota Formation in the intervals between 6378' - 6396', 6422' - 6426', 6478' - 6482', 6494' - 6514', 6560' - 6568', 6580' - 6600', 6620' - 6624', 6636' - 6642' was treated with a sand-water fracturing process on November 13, 1961, and shut-in on November 13, 1961. After being shut-in for fourteen (14) days, the well was tested on November 27, 1961, and following a three (3) hour blow-down period gauged 5889 MCFGPD through a 3/4" choke and 7258 MCFGPD by the calculated absolute open-flow method with an SIPC of 2067 PSIA and an SIPT of 2082 PSIA.

In support of this application the following Exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Fourteenth and Fifteenth Revisions of the Dakota Participating Area.

EXHIBIT "B"

Geological Report concerning the Fourteenth and Fifteenth Expansions of the Dakota Formation in the Huerfano Unit.

EXHIBIT "C"

Plat No. 1: Structure Map on top of Graneros Shale.
Plat No. 2: Isopach Map

EXHIBIT "D"

Schedule of Dakota Gas Production..

Attached to this application are Schedules XV and XVI showing the lands entitled to participation in the unitized substances produced from the Dakota Formation with the percentage of participation of each lease or tract indicated thereon.

If the hereinabove selection of lands to constitute the Fourteenth and Fifteenth Revisions of the Dakota Participating Area meets with your approval, please indicate such approval in the space provided and return an approved copy hereof for our files.

Copies of this letter are being sent to the working interest owners shown on the attached sheet.

Very truly yours,

EL PASO NATURAL GAS COMPANY

By

A handwritten signature in dark ink, appearing to read "T. W. Bittick", is written over a horizontal line.

T. W. Bittick
Assistant Manager
Land Department

TWB:GA:js

APPROVED: _____
Director, United States Geological Survey


DATE: _____

Subject to like approval by the appropriate
State officials.

APPROVED: _____
Commissioner of Public Lands

DATE: _____

Subject to like approval by the United
States Geological Survey and the Oil
Conservation Commission.

APPROVED:  _____
Oil Conservation Commission

DATE: Dec 22, 1962

Subject to like approval by the United
States Geological Survey and the
Commissioner of Public Lands.

The foregoing approvals are for the Fourteenth and Fifteenth Revisions of
the Participating Area for the Dakota Formation, effective October 1, 1961
and December 1, 1961, respectively, under Huerfano Unit, I Sec. No. 731,
San Juan County, New Mexico.

Huerfano Unit
Working Interest Owners of the Dakota
Participating Area through the
Fifteenth Expansion

B & M Construction Corporation
2720 Classen, Corbyn Building
Oklahoma City 6, Oklahoma

Benson-Montin-Greer Drilling Corporation
2808 First National Building
Oklahoma City, Oklahoma

Delhi-Taylor Oil Corporation
2630 Fidelity Union Tower
Dallas, Texas

Mr. Albert R. Greer
405½ West Broadway
Farmington, New Mexico

Mrs. Charline Greer
888 Logan
Denver 3, Colorado

La Plata Gathering System, Inc.
1900 Mercantile Dallas Building
Dallas 1, Texas

Mr. O. J. Lilly
P. O. Box 185
Farmington, New Mexico

Mr. K. E. McAfee
2020 First National Building
Oklahoma City 2, Oklahoma

Pan American Petroleum Corporation
Attention: Mr. T. M. Curtis
P. O. Box 480
Farmington, New Mexico

Joseph Seagram and Sons, Inc.
P. O. Box 747
1500 Davis Building
Dallas 21, Texas

Mr. J. Glenn Turner
1900 Mercantile Dallas Building
Dallas 1, Texas

Union Texas Petroleum
A Division of Allied Chemical Corp.
Liberty Bank Building
Oklahoma City 2, Oklahoma

Union Texas Petroleum
A Division of Allied Chemical Corp.
Suite B-400, 1740 Broadway
Denver 2, Colorado

Mr. William G. Webb
1900 Mercantile Dallas Building
Dallas 1, Texas