

# El Paso Natural Gas Company

El Paso, Texas

March 28, 1961

3/28/61

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
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  
Capitol Annex Building  
Santa Fe, New Mexico

Re: San Juan 28-4 Unit  
1961 Drilling Program

Gentlemen:

The 1961 Drilling Program for the San Juan 28-4 Unit was approved by the regulatory bodies on the following dates:

1. United States Geological Survey - March 13, 1961.
2. Commissioner of Public Lands - February 10, 1961.
3. Oil Conservation Commission - March 23, 1961.

Copies of this letter are being sent to the working interest owners of the San Juan 28-4 Unit.

Very truly yours,



Charles Higgins  
Area Coordinator  
Land Department

CH:WVC:cah

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

Case # 551

March 23, 1961

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

O  
Attention: Mr. Sam Smith

Re: 1961 Plan of Development  
San Juan 28--4 Unit Rio  
Arriba County, New Mexico.

P  
Gentlemen:

Y  
This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1961 Plan of Development for the San Juan 28-4 Unit Rio Arriba 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 plan is returned herewith.

Very truly yours,

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

ALP/JEK/ig

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



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

551

P.O. Box 6721  
Roswell, New Mexico

March 13, 1961

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

Attention: Mr. Sam Smith

Gentlemen:

Your plan of development for 1961, dated January 6, 1961, for the San Juan 28-4 unit area, Rio Arriba County, New Mexico, which proposes the drilling of one Mesaverde formation well, has been approved on this date. The Commissioner of Public Lands of the State of New Mexico approved the plan as a matter of record on February 10, 1961.

Two approved copies of the plan are enclosed.

Very truly yours,

[Orig. Sgd.] JOHN A. ANDERSON

JOHN A. ANDERSON  
Regional Oil and Gas Supervisor

Copy to: Washington  
Farmington  
NMOCC, Santa Fe (ltr. only)  
Com. of Pub. Lands, Santa Fe (ltr. only)

In reply refer to:  
Unit Division

February 10, 1961

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

Re: 1961 Drilling Program  
San Juan 28-4 Unit  
Rio Arriba County, New Mexico

Attention: Mr. Sam Smith

There being no State lands within the boundaries of the San Juan 28-4 Unit Area, the Commissioner of Public Lands, herewith, approves the 1961 Drilling Program as a matter of record.

We are enclosing two approved copies of the Plan of Development.

Very truly yours,

E. S. JOHNNY WALKER  
COMMISSIONER OF PUBLIC LANDS

ESW/mmr/s  
cc: US Geological Survey  
Roswell, New Mexico

Oil Conservation Commission  
Santa Fe, New Mexico

ILLEGIBLE

# El Paso Natural Gas Company

El Paso, Texas

January 6, 1961

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

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

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

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
1961 DRILLING PROGRAM

Gentlemen:

By letter dated December 3, 1959, El Paso Natural Gas Company, as Unit Operator, filed a Drilling Program regarding the captioned unit for the calendar year 1960. Said program provided for the drilling of one (1) Mesaverde Well. This well was completed on August 20, 1960, as a gas well capable of producing unitized substances in paying quantities and has been admitted to the Mesaverde Participating Area effective November 1, 1960.

As of this date, the total number of wells in the San Juan 28-4 Unit is as follows:

Pictured Cliffs	1
Mesaverde	16
Pictured Cliffs-Mesaverde, dual which is commercial in PC and non-commercial in MV	1
Non-Commercial (Mesaverde)	1
Temporarily Abandoned (PC)	1
Plugged and Abandoned (MV-Dakota)	1

Pursuant to Section 10 of the San Juan 28-4 Unit Agreement, El Paso Natural Gas Company, as Unit Operator, is submitting this Drilling Program providing for the drilling of the following described wells during the period from January 1, 1961 to December 31, 1961:

<u>DRILLING BLOCK</u>	<u>FORMATION</u>
S/2 Section 19, T-28-N, R-4-W	Mesaverde

In addition to the above well, El Paso Natural Gas Company, as Unit Operator, also plans to 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 in the affected drilling block.

El Paso Natural Gas Company, as Unit Operator, intends to drill the above listed Mesaverde well to the base of the Mesaverde Formation using rotary tools. Surface casing will be set to approximately 150' below the surface and an intermediate string will be set through the Pictured Cliffs Formation to a depth of approximately 3200'. A production string will be set through the Mesaverde Formation, and the casing of the Mesaverde Formation will then be selectively perforated and the Mesaverde Formation will be subjected to a hydraulic fracturing process. Mud will be used in setting the intermediate string of casing, and the hole below the intermediate string will be drilled with gas. Due care will be taken to protect all horizons.

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

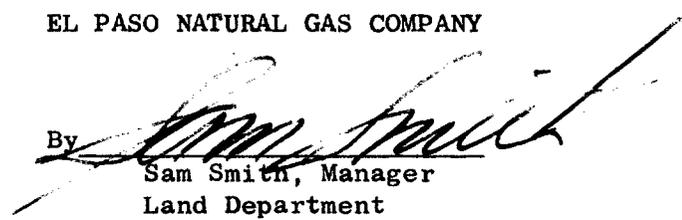
If this Drilling Program is acceptable, please signify your approval as required under Section 10 of the Unit Agreement, in the space provided on the attached sheet and return an approved copy to El Paso Natural Gas Company.

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

Very truly yours,

EL PASO NATURAL GAS COMPANY

By



Sam Smith, Manager  
Land Department

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

DATE: 3. 23. 61

The foregoing approvals are for the San Juan 28-4 Unit #14-08-001-949 1961  
Drilling Program, Rio Arriba County, New Mexico.

SAN JUAN 28-4 UNIT

Working Interest Owners

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or R.A. Brown

Mr. M. A. Romero  
P.O. Box 2011  
Santa Fe, New Mexico

General American Oil Company of Texas  
Meadows Building  
Dallas, Texas  
Attention: Mr. James W. Goss,  
Vice President

Mr. Jack Yeisley  
Champlin Oil & Refining Company  
2501 First National Building  
Denver 2, Colorado

Mr. L. O. Speer, Jr. (12)  
Pan American Petroleum Corporation  
Post Office Box 480  
Farmington, New Mexico

Mr. Robert Critchfield  
Gay Acres Farm  
Wooster, Ohio

Mr. C. Taylor Pruitt  
Champlin Oil & Refining Company  
P.O. Box 9365  
Fort Worth 7, Texas

# El Paso Natural Gas Company

El Paso, Texas

November 9, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

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

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

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
ELEVENTH EXPANDED PARTICIPATING AREA  
for the Mesaverde Formation  
Effective November 1, 1960

Gentlemen:

Pursuant to Section 11(a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, El Paso Natural Gas Company, as Unit Operator, has determined that one additional well capable of producing unitized substances in paying quantities has been completed on acreage committed to this Unit, and that the Participating Area for the Mesaverde formation is accordingly expanded.

The well information is as follows:

San Juan 28-4 Unit #26-18 Well is located 1850' from the South line and 790' from the West line of Section 18, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded on August 1, 1960, and completed August 20, 1960 in the Mesaverde formation at a total depth of 6898'. The Mesaverde formation between 6654' - 6662', 6706' - 6712', 6758' - 6766', 6772' - 6778', 6782' - 6788', 6798' - 6810', 6816' - 6828' was perforated and treated with a sand-water fracturing process. After being shut-in for fifty-one (51) days, the Mesaverde formation was tested on October 10, 1960, and following a three (3) hour blow down period gauged 3343 MCFGPD through a 3/4" choke and 4849 MCFGPD by the calculated absolute open flow method, with an SIPC of 1141# and an SIPT of 1139#. The committed drilling block upon which this well is located is described as the S/2 of Section 18, Township 28 North, Range 4 West, N.M.P.M., containing 319.56 acres. This drilling

block is hereby admitted to the Mesaverde Participating Area effective November 1, 1960.

Attached is Schedule XII, showing the Eleventh Expanded Participating Area for the Mesaverde formation of the San Juan 28-4 Unit Area. This Schedule describes the expanded participating area and shows the percentage of unitized substances allocated to each unitized tract. Inasmuch as this needs no official approval, no provision is made therefor, and in the absence of disapproval, this Eleventh Expanded Participating Area will become effective as of November 1, 1960.

Copies of this letter and Schedule are being sent to all the working interest owners as 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:BGI:js

Attachments

**SAN JUAN 28-4 UNIT**  
**Working Interest Owners**

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood  
                  Mr. R. A. Brown

Mr. M. A. Romero  
Post Office Box 2011  
Santa Fe, New Mexico

General American Oil Company of Texas  
Meadows Building  
Dallas, Texas  
Attention: Mr. William P. Barnes

Mr. Jack Yeisley  
Champlin Oil & Refining Company  
2501 First National Building  
Denver 2, Colorado

Mr. L. O. Speer, Jr.  
Pan American Petroleum Corporation  
Post Office Box 480  
Farmington, New Mexico

Mr. Robert Critchfield  
Gay Acres Farm  
Wooster, Ohio

Mr. C. Taylor Pruitt  
Champlin Oil & Refining Company  
Post Office Box 9365  
Fort Worth 7, Texas



SCHEDULE XI I

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PRESENT ACTUAL PARTICIPATION
			OWNERSHIP	PERCENTAGE	
			PERCENTAGE COMMITTED		
<u>Tract 1-A</u>					
SF 079525-A	T-28-N, R-4-W Sec. 36: S/2	320.00			6.364967%
	Royalty;		12.50%	12.50%	
	Working Interest:		83.75%	83.75%	
	El Paso Natural Gas Co.;		3.75%	3.75%	
	ORRI;		100.00%	100.00%	
	TOTAL		100.00%	100.00%	
<u>Tract 7</u>					
San Juan 28-4 MV Well #8-36	Sec. 36: S/2	320.00		100.00%	6.364967%
	Royalty;		12.50%	12.50%	
	Working Interest:		85.00%	85.00%	
	El Paso Natural Gas Co.;		2.50%	2.50%	
	ORRI;		100.00%	100.00%	
	TOTAL		100.00%	100.00%	
<u>Tract 8</u>					
San Juan 28-4 W Well #9-32	Sec. 32: S/2	320.00		100.00%	6.364967%
	Royalty;		12.50%	12.50%	
	Working Interest:		85.00%	85.00%	
	El Paso Natural Gas Co.;		2.50%	2.50%	
	ORRI;		100.00%	100.00%	
	TOTAL		100.00%	100.00%	
<u>Tract 8</u>					
SF 079732	T-28-N, R-4-W Sec. 31: N/2	319.74		100.00%	6.359796%
	Royalty;		12.50%	12.50%	
	Working Interest:		85.00%	85.00%	
	El Paso Natural Gas Co.;		2.50%	2.50%	
	ORRI;		100.00%	100.00%	
	TOTAL		100.00%	100.00%	
San Juan 28-4 MV Well #11-31	Sec. 31: N/2	319.74		100.00%	6.359796%

Effective November 1, 1960

SCHEDULE XII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
			OWNERSHIP	PERCENTAGE		
<u>Tract 7</u>						
SF 079731	T-28-N, R-4-W Sec. 33: S/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.50% 85.00% 2.50% 100.00%	12.50% 85.00% 2.50% 100.00%	<u>6.364967%</u>
<u>Tract 5</u>						
San Juan 28-4 MV Well #12-33	Sec. 33: S/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.500% 83.125% 4.375% 100.000%	12.500% 83.125% 4.375% 100.000%	<u>6.364967%</u>
SF 079729	T-28-N, R-4-W Sec. 20: N/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.500% 83.125% 4.375% 100.000%	12.500% 83.125% 4.375% 100.000%	<u>6.364967%</u>
<u>Tract 5</u>						
San Juan 28-4 W #17-20	Sec. 20: N/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.500% 83.125% 4.375% 100.000%	12.500% 83.125% 4.375% 100.000%	<u>6.364967%</u>
SF 079729	T-28-N, R-4-W Sec. 20: S/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.500% 83.125% 4.375% 100.000%	12.500% 83.125% 4.375% 100.000%	<u>6.364967%</u>
<u>Tract 5</u>						
San Juan 28-4 MV Well #13-20	Sec. 20: S/2	320.00	Royalty; Working Interest; El Paso Natural Gas Co.; ORRI;	12.500% 83.125% 4.375% 100.000%	12.500% 83.125% 4.375% 100.000%	<u>6.364967%</u>

Effective November 1, 1960

SCHEDULE XII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PRESENT ACTUAL PARTICIPATION
			OWNERSHIP	PERCENTAGE	
			PERCENTAGE COMMITTED		
<u>Tract 10</u>					
NM 03863	T-28-N, R-4-W Sec. 29: N/2	320.00			6.364967%
	Royalty;		12.500%	12.500%	
	Working Interest:		83.125%	83.125%	
	El Paso Natural Gas Co.;		4.375%	4.375%	
	ORRI;		100.000%	100.000%	
	TOTAL		100.000%	100.000%	
<u>Tract 10</u>					
San Juan 28-4 MV Well #14-29	Sec. 29: N/2	320.00			6.364967%
<u>Tract 10</u>					
NM 03863	T-28-N, R-4-W Sec. 29: S/2	320.00			6.364967%
	Royalty;		12.500%	12.500%	
	Working Interest:		83.125%	83.125%	
	El Paso Natural Gas Co.;		4.375%	4.375%	
	ORRI;		100.000%	100.000%	
	TOTAL		100.000%	100.000%	
<u>Tract 8</u>					
No Well 1	Sec. 29: S/2	320.00			6.364967%
<u>Tract 8</u>					
SF 079732	T-28-N, R-4-W Sec. 31: Lots 3 & 4 E/2 SW/4, SE/4	319.82			6.361387%
	Royalty;		12.50%	12.50%	
	Working Interest:		85.00%	85.00%	
	El Paso Natural Gas Co.;		2.50%	2.50%	
	ORRI;		100.00%	100.00%	
	TOTAL		100.00%	100.00%	
<u>Tract 8</u>					
San Juan 28-4 Well #18-31	Sec. 31: S/2	319.82			6.361387%

SCHEDULE XI I

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PRESENT ACTUAL PARTICIPATION
			OWNERSHIP	PERCENTAGE	
NM 03862	T-28-N, R-4-W Sec. 30: Lots 1 & 2 E/2 NW/4, NE/4	319.41	Tract 9		6.353232%
			Royalty;	12.500%	
			Working Interest: El Paso Natural Gas Co.;	83.125%	
			ORRI;	4.375%	
TOTAL		100.000%		100.000%	
San Juan 28-4 Well #16-30	Sec. 30: N/2	319.41	Tract 9		6.353232%
			Royalty;	12.500%	
			Working Interest: El Paso Natural Gas Co.;	83.125%	
			ORRI;	4.375%	
TOTAL		100.000%		100.000%	
NM 03862	T-28-N, R-4-W Sec. 30: Lots 3 & 4 E/2 SW/4, SE/4	319.63	Tract 9		6.357608%
			Royalty;	12.500%	
			Working Interest: El Paso Natural Gas Co.;	83.125%	
			ORRI;	4.375%	
TOTAL		100.000%		100.000%	
San Juan 28-4 Well #20-30	Sec. 30: S/2	319.63	Tract 2		6.357608%
			Royalty;	12.50%	
			Working Interest: El Paso Natural Gas Co.;	82.50%	
			ORRI;	5.00%	
TOTAL		100.00%		100.00%	
SF 079727	T-28-N, R-4-W Sec. 7: All	229.88	Tract 2		4.572434%
			Royalty;	12.50%	
			Working Interest: El Paso Natural Gas Co.;	82.50%	
			ORRI;	5.00%	
TOTAL		100.00%		100.00%	
San Juan 28-4 Well #21-7	Sec. 7: All	229.88	Tract 2		4.572434%
			Royalty;	12.50%	
			Working Interest: El Paso Natural Gas Co.;	82.50%	
			ORRI;	5.00%	
TOTAL		100.00%		100.00%	

Effective November 1, 1960

SCHEDULE XII

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	DRILLING BLOCK		PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION		
			OWNERSHIP	PERCENTAGE				
NM 03862	T-28-N, R-4-W Sec. 18: Lots 3,4, E/2 SW/4, SE/4	319.56						
			<u>Tract 9</u>					
			Royalty;	12.500%	12.500%	6.356216%		
			Working Interest:	83.125%	83.125%			
			El Paso Natural Gas Co.;	4.375%	4.375%			
ORRI;								
	TOTAL		100.000%	100.000%				
San Juan 28-4								
#26-18 Well	Sec. 18: S/2	319.56			100.000%	6.356216%		

SCHEDULE XII  
 ELEVENTH EXPANDED PARTICIPATING AREA FOR THE MESAVERDE FORMATION  
 SAN JUAN 28-4 UNIT AREA

RECAPITULATION

Description of lands in Participating Area:

Township 28 North, Range 4 West, N.M.P.M.  
 Section 7: A11  
 Section 17: S/2  
 Section 18: A11  
 Section 20: A11  
 Section 29: A11  
 Section 30: A11  
 Section 31: A11  
 Section 32: A11  
 Section 33: S/2  
 Section 36: S/2

Total Number of Acres in Participating Area:	5027.52
Percentage of Working Interest Committed:	100.00%
Percentage of Basic Royalty Interest Committed:	100.00%
Percentage of Overriding Royalty Interest Committed:	100.00%

El Paso Natural Gas Company  
MAIN OFFICE OGC

El Paso, Texas

1960 JUN 22 AM 9 01

June 17, 1960

551

Mr. John Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P. O. Box 6721  
Roswell, New Mexico

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

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

Re: San Juan 28-4 Unit  
No. 14-08-001-933

Gentlemen:

You will find set out below the dates that action was taken by the regulatory bodies recognizing El Paso Natural Gas Company as the Unit Operator of the San Juan 28-4 Unit:

1. Acting Director of the United States Geological Survey on May 20, 1960.
2. Commissioner of Public Lands of the State of New Mexico on April 4, 1960.
3. Oil Conservation Commission of the State of New Mexico on April 22, 1960.

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

Very truly yours,

*Charles Higgins*  
Charles Higgins  
Area Coordinator  
Land Department

CH:GWO:nl

San Juan 28-4 Unit  
Working Interest Owners

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
                  Mr. R. A. Brown

Mr. M. A. Romero  
134 S. Capitol Place  
Santa Fe, New Mexico

General American Oil Company of Texas  
1404 Republic Bank Building  
Dallas, Texas  
Attention: Mr. W. P. Barnes

Mr. Jack Yeisley  
Champlin Oil & Refining Company  
2501 First National Building  
Denver 2, Colorado

Mr. L. O. Speer, Jr. (12)  
Pan American Petroleum Corporation  
P. O. Box 400  
Farmington, New Mexico

Mr. Robert Critchfield  
Gay Acres Farm  
Wooster, Ohio

Mr. C. Taylor Pruitt  
Champlin Oil & Refining Company  
P. O. Box 9365  
Fort Worth 7, Texas

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

Case # 551

April 22, 1960

C

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

O

Attention: Mr. Sam Smith

Re: Change of Unit Operator,  
San Juan 28-4 Unit, Rio  
Arriba County, New Mexico.

P

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission approves El Paso Natural Gas Company as Unit Operator for San Juan 28-4 Unit.

Y

As the surviving corporation by Merger with Pacific Northwest, El Paso Natural Gas Company complies fully with the terms of the San Juan 28-4 Unit Agreement allowing El Paso's assumption of rights, duties, obligations and responsibility of Unit Operator.

The approval of this change of Unit Operator is made subject to like approval by the Director of the United States Geological Survey and the Commissioner of Public Lands.

One approved copy is enclosed.

Very truly yours,

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

ALP/JEK/pj

cc: United States Geological Survey - Roswell

State Land Office - Santa Fe

In reply refer to:  
Unit Division

April 14, 19

C  
O  
El Paso Natural Gas Company  
El Paso, Texas

ATTENTION: Mr. Sam Smith

Re: San Juan 28-4 Unit  
Rio Arriba County, New Mexico

P  
Gentlemen:

The Commissioner of Public Lands, approves the designation of El Paso Natural Gas Company as operator of the above designated unit.

Y  
Change of operator of this unit being due to Pacific Northwest Pipeline Corporation, which merged with and into El Paso Natural Gas Company, El Paso, Texas as the surviving corporation.

Section 6 of the unit agreement, has been complied with and the working interest owners of the unit have confirmed El Paso as being acceptable as Unit Operator.

We are enclosing two approved copies of this designation. Please remit two dollars (\$2.00) filing fee to cover handling of these documents.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands  
BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/s

cc:

OCC-Santa Fe  
USGS-Roswell

# El Paso Natural Gas Company

El Paso, Texas

April 4, 1960

*Case # 551*

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
P. O. Box 6721  
Roswell, New Mexico

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

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

Re: San Juan 28-4 Unit #14-08-001-933  
1960 Plan of Development

Gentlemen:

This is to advise that the 1960 Plan of Development has been approved as follows:

1. Supervisor, United States Geological Survey on March 18, 1960.
2. Commissioner of Public Lands of the State of New Mexico on December 22, 1959.
3. Oil Conservation Commission of the State of New Mexico on March 24, 1960.

Copies of this letter are being sent to all working interest owners within the San Juan 28-4 Unit.

Very truly yours,

*Charles Higgins*

Charles Higgins  
Area Landman  
Land Department

CH:CVD:nl

cc: Attached List

**San Juan 28-4 Unit**  
**Working Interest Owners**

**Phillips Petroleum Company**  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or R. A. Brown

**Mr. M. A. Romero**  
134 S. Capitol Place  
Santa Fe, New Mexico

**General American Oil Company of Texas**  
1404 Republic Bank Building  
Dallas, Texas  
Attention: Mr. W. P. Barnes

**Mr. Jack Yeisley**  
Champlin Oil & Refining Company  
2501 First National Building  
Denver 2, Colorado

**Mr. L. O. Speer, Jr. (12)**  
Pan American Petroleum Corporation  
P. O. Box 487  
Farmington, New Mexico

**Mr. Robert Critchfield**  
Gay Acres Farm  
Wooster, Ohio

**Mr. C. Taylor Pruitt**  
Champlin Oil & Refining Company  
P. O. Box 9365  
Fort Worth 7, Texas

# El Paso Natural Gas Company

El Paso, Texas

March 28, 1960

Mr. John A. Anderson  
Regional Oil and Gas Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

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

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

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico

Gentlemen:

Since December 31, 1959, on which date Pacific Northwest Pipeline Corporation was merged with and into El Paso Natural Gas Company, El Paso, as the surviving corporation, has been acting in the capacity of Operator of the captioned Unit.

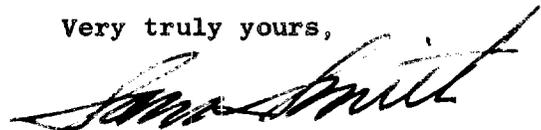
In compliance with Section 6 of the Unit Agreement, the working interest owners were polled to ascertain if El Paso was acceptable to succeed Pacific as Unit Operator. The results of voting by a majority of the working interest ownership has confirmed El Paso as Unit Operator.

In the event El Paso's confirmation as Unit Operator is approved by the regulatory agencies, El Paso assumes and accepts all of the rights, duties, obligations and responsibilities attendant upon the Operator of the captioned Unit pursuant to the terms of the Unit Agreement and Unit Operating Agreement.

We herewith respectfully request that El Paso Natural Gas Company be approved as Unit Operator in the space provided on the attached sheet and that one copy be returned to this office.

A copy of this letter is being sent to all working interest owners within this Unit.

Very truly yours,



Sam Smith, Manager  
Land Department

SS:CVD:nl

cc: Attached List

San Juan 28-4 Unit  
Working Interest Owners

Phillips Petroleum Company  
508 Bank Building  
Bartlesville, Oklahoma  
Attention: Mr. R. F. Rood or  
                  Mr. R. A. Brown

Mr. M. A. Romero  
134 S. Capitol Place  
Santa Fe, New Mexico

General American Oil Company of Texas  
1404 Republic Bank Building  
Dallas, Texas  
Attention: Mr. W. P. Barnes

Mr. Jack Yeisley  
Champlin Oil & Refining Company  
2501 First National Building  
Denver 2, Colorado

Mr. L. O. Speer, Jr.  
Pan American Petroleum Corporation  
P. O. Box 487  
Farmington, New Mexico

Mr. Robert Critchfield  
Gay Acres Farm  
Wooster, Ohio

Mr. C. Taylor Pruitt  
Champlin Oil & Refining Company  
P. O. Box 9365  
Fort Worth 7, Texas

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: *A. L. Patton*  
Oil Conservation Commission  
Subject to like approval by the United States  
Geological Survey and the Commissioner of  
Public Lands.

DATE: 4-22-60

**CONSERVATION COMMISSION**

P. O. BOX 871

SANTA FE, NEW MEXICO

*Case # 551*

March 24, 1960

**C**  
**P**  
**O**  
**P**  
**Y**  
Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, Utah

**ATTENTION: Mr. R. N. Richey**

**RE: 1960 Plan of Development,  
San Juan 28-4 Unit Rio  
Arriba County, New Mexico.**

**Gentlemen:**

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1960 Plan of Development for the San Juan 28-4 Unit Rio Arriba 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.

Two approved copies of the plan are returned herewith.

Very truly yours,

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

ALP/JEK/ig

cc: State Land Office - Santa Fe  
US Geological Survey - Roswell

P. O. Box 6721  
Howell, New Mexico

March 17, 1960

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, Utah

Attention: Mr. R. M. Richey

Gentleman:

Your plan of development for 1960, dated December 3, 1959, for the San Juan 28-4 unit area, No. 14-08-001-933, Rio Arriba County, New Mexico, which proposes the drilling of one Mesaverde formation well, has been approved on this date.

Two approved copies of the plan are enclosed.

Very truly yours,



EDWIN M. THOMASSON  
Acting Oil and Gas Supervisor

**Enclosures**

Copy to: Washington (w/cy of plan)  
Farmington "  
NMOCC, Santa Fe (1tr only)  
Comm. of Pub. Lands, Santa Fe (1tr only)

# El Paso Natural Gas Company

El Paso, Texas

January 12, 1960

ADDRESS REPLY TO:  
POST OFFICE BOX 1528  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
TENTH EXPANDED PARTICIPATING AREA  
FOR THE MESAVERDE FORMATION AND  
NOTICE OF COMPLETION OF ADDITIONAL  
WELL  
Effective: January 1, 1960

Pursuant to Section 11 (a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, El Paso Natural Gas Company, as Unit Operator, has determined that one additional well capable of producing unitized substances in paying quantities has been completed on acreage committed to this Unit, and that the Participating Area for the Mesaverde formation is accordingly expanded. Also this is to advise of the completion of an additional well on acreage previously admitted to the participating area as an intervening drilling block.

The well information is as follows:

San Juan 28-4 Unit #21-7 Well is located 815' from the South line and 1475' from the West line of Section 7, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded on October 21, 1959, and completed December 1, 1959, in the Mesaverde formation at a total depth of 6690'. The Mesaverde formation between 6480' - 6632' was perforated and treated with a water fracturing process. After being shut-in for approximately seven (7) days, the Mesaverde formation was tested on December 1, 1959, and following a three (3) hour blow down period gauged 2124 MCF/D through 3/4" choke and 2551 MCF/D by the calculated absolute open flow method, with a SIPC 1067#. The committed drilling block upon which this well is located is described as all of Section 7, Township 28 North, Range 4 West, N.M.P.M. containing 229.88 acres. This drilling block is hereby admitted to the Mesaverde Participating Area effective January 1, 1960.

San Juan 28-4 Unit  
Tenth Expanded Participating Area  
January 12, 1960  
Page 2

San Juan 28-4 Unit #20-30 Well is located 567' from the South line and 660' from the West line of Section 30, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded on September 24, 1959, and completed on October 28, 1959, in the Mesaverde formation at a total depth of 6050'. The Mesaverde formation between 5876' - 6032' was perforated and treated with a sand-water fracturing process. After being shut-in for seven (7) days the Mesaverde formation was tested on October 28, 1959, and following a three (3) hour blow-down gauged 3,629 MCF/D through 3/4" choke and 5,814 MCF/D by the calculated absolute open flow method, with a SIPC 1088#. The committed drilling block upon which this well is located is described as the S/2 of Section 30, Township 28 North, Range 4 West, N.M.P.M., containing 319.63 acres.

This drilling block has been previously admitted to the participating area as an intervening drilling block effective October 1, 1958; therefore, the participating area is not further increased by this completion.

Attached is Schedule XI, showing the Tenth Expanded Participating Area for the Mesaverde formation of San Juan 28-4 Unit Area. This Schedule describes the expanded participating area and shows the percentage of unitized substances allocated to each unitized tract.

Attached as Exhibit "A" is a plat of San Juan 28-4 Unit indicating the Mesaverde Participating Area.

Copies of this letter and Schedule are being sent to all Working Interest Owners within the San Juan 28-4 Unit.

Very truly yours,

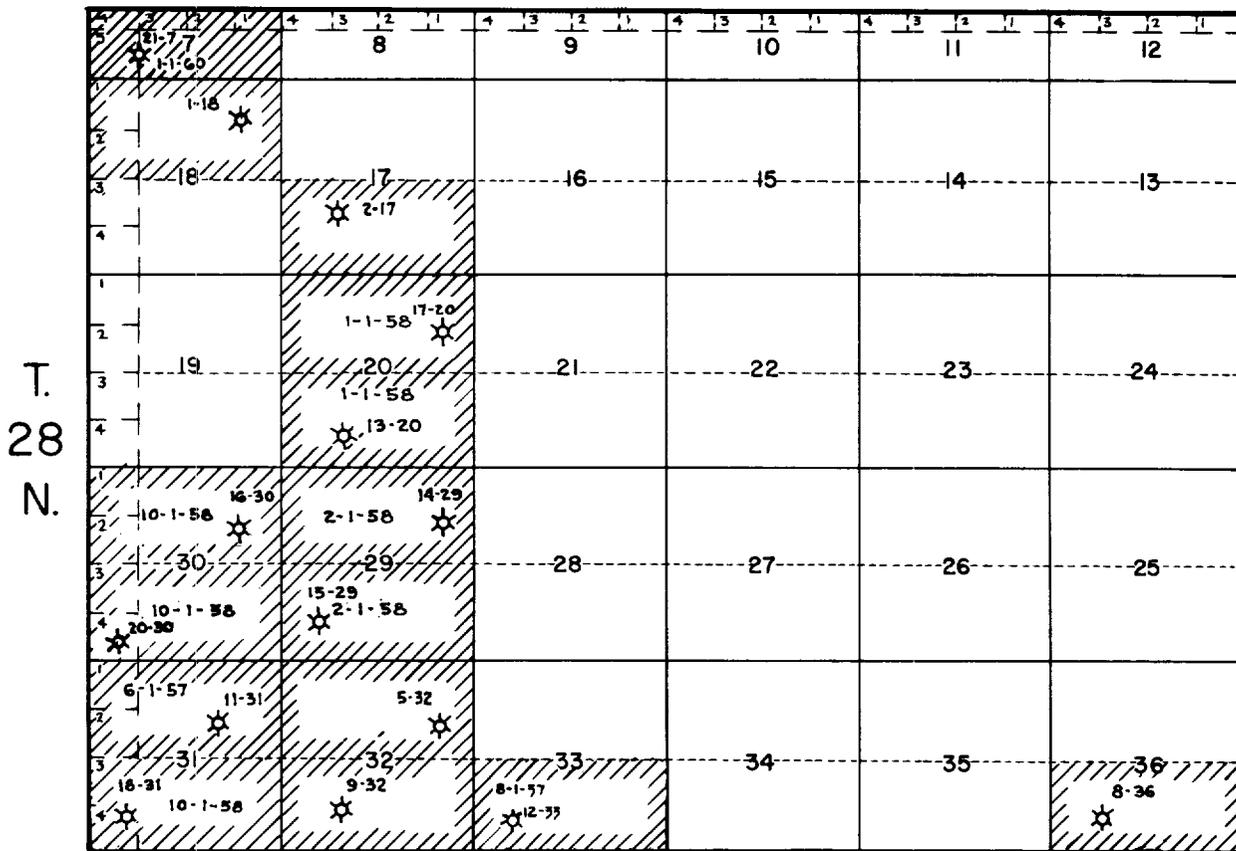
EL PASO NATURAL GAS COMPANY  
Successor by merger as of December 31,  
1959, to Pacific Northwest Pipeline  
Corporation

By Claude Van Dyke  
Claude Van Dyke  
Land Department  
Rocky Mountain Region

CVD:jc  
Attachments

# EXHIBIT "A"

R. 4 W.



## SAN JUAN 28-4 UNIT

RIO ARRIBA COUNTY, NEW MEXICO

Mesaverde Participating Area

TENTH REVISION EFFECTIVE JANUARY 1, 1960

SCALE 1 inch = 1 mile



Participating area.



Drilling blocks added to participating area by this revision.

NOTE: Effective date of inclusion is shown on each drilling block admitted to participating area.

AMENDMENT AND SUPPLEMENT TO  
SAN JUAN 28-4 UNIT OPERATING AGREEMENT  
RIO ARRIBA COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of January, 1960, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as "parties hereto",

W I T N E S S E T H:

WHEREAS, the parties hereto are the owners of working interests in the Unit Area subject to the Unit Agreement for the Development and Operation of the San Juan 28-4 Unit Area, Rio Arriba County, New Mexico, designated Contract Number 14-08-001-933 and subject to the Unit Operating Agreement for the San Juan 28-4 Unit Area (said Unit Operating Agreement hereinafter referred to as "Unit Operating Agreement"), reference to which is here made for all purposes; and

WHEREAS, the parties hereto desire to provide for the drilling and operation of wells to be completed in dual formations and for the sharing and allocation of costs and risks incident thereto.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, and other good and valuable consideration, the full receipt and sufficiency of which are hereby acknowledged, the parties hereto have agreed and do agree as follows:

ARTICLE I

Unit Agreement Confirmed

The Unit Agreement and all Exhibits attached thereto, are hereby confirmed and made a part of this agreement; and in the event of any conflict between the provisions of the Unit Agreement and the provisions of the Unit Operating Agreement, as amended and supplemented hereby, the provisions of the Unit Agreement shall prevail.

ARTICLE II

Unit Operating Agreement Amended

In order to prevent conflict between the provisions of this Amendment and Supplement and the provisions of the Unit Operating Agreement, the following quoted sentence in Section 9 of the Unit Operating Agreement is hereby deleted:

"In the event any one well is completed as a paying producer in more than one formation, the Working Interest Owners of the respective participating areas established for such formations shall arrange for appropriate allocation of investment and operating costs of such well by separate agreement."

## ARTICLE III

### Supplement to Unit Operating Agreement

The provisions which follow in this Article III are supplemental to the Unit Operating Agreement and are hereby adopted as part of said Agreement.

#### 1. Definitions

- "Shallow Owners" - the working interest owners either in the Unit Area, Participating Area, drilling block or in less than the Unit Area, whichever is applicable, owning the working interest in and to the shallower formation of a well to be drilled or which is completed in two formations.
- "Deep Owners" - the working interest owners either in the Unit Area, Participating Area, drilling block or in less than the Unit Area, whichever is applicable, owning the working interest in and to the deeper formation of a well to be drilled or which is completed in two formations.

#### 2. Formula for Allocation of Costs for Drilling and Completing Dual Wells.

Whenever in this Agreement it is provided that costs will be borne by Shallow Owners and Deep Owners in accordance with Section 2, Article III, the following procedures will be used:

At the same time Shallow and Deep Owners separately agree to the drilling of a well to be projected to dual formations, both such categories of Owners shall approve an estimate prepared by Unit Operator of the total costs of drilling and completing said well to the wellhead in both formations. Such approval shall be obtained in accordance with Section 7 of the Unit Operating Agreement. The estimated total costs shall be divided into the following categories:

- a) Costs to be incurred above the base of the shallower of the two formations, except those set forth in Subsection (c) hereof.
- b) Costs to be incurred below the base of the shallower of the two formations.
- c) Costs attributable to testing and completing in the shallower formation.

Upon completion of the well, the actual costs of drilling, completing, testing and equipping such well will be apportioned among the three categories set forth hereinabove, and these actual costs will be paid by the obligated parties as follows:

- a) Costs incurred above the base of the shallower formation except those set forth in Subsection (c) hereof will be shared equally by and between Shallow Owners and Deep Owners.
- b) The costs incurred below the base of the shallower formation shall be paid by Deep Owners.

c) Costs attributable to testing and completing in the shallower formation shall be paid by Shallow Owners.

3. Drilling and Completing Dual Wells. Costs of drilling, testing, treating, equipping and completing wells to the wellhead which are begun with the objective of dual completion and which are completed as dual wells shall be borne by Shallow Owners and by Deep Owners in accordance with the provisions of Section 2, Article III. Until admission into a participating area the material and equipment thereon shall be owned by the party or parties paying the cost thereof pursuant to Section 2, Article III. Shallow Owners and Deep Owners shall respectively own, subject to allocation to an appropriate participating area, all unitized substances produced from their respective formations. Upon abandonment of the well if dry in both formations, costs of plugging and abandoning shall be shared equally by and between Shallow Owners and Deep Owners. Upon the completed well being admitted into a participating area or areas, the ownership of equipment and materials shall pass to the owners of the participating area or areas in accordance with the terms of Section 3 of the Unit Operating Agreement.
4. Completion of Well in Shallower Formation but Abandoned as to Deeper Formation. In the event that a well begun with the objective of dual completion is drilled to the deeper formation and results in discovery of unitized substances in paying quantities in the shallower formation but is dry in the deeper formation, all costs of drilling, testing and treating shall be borne by the Shallow Owners and Deep Owners in accordance with Section 2, Article III. All costs of equipping the well shall be borne by Shallow Owners. Further, Shallow Owners shall pay to Deep Owners the salvable value of the material and equipment or share thereof paid for or furnished by Deep Owners. Thereafter Shallow Owners shall own all material and equipment acquired in the drilling and completing of said well. Shallow Owners shall own all unitized substances produced from the shallow formation and shall bear all costs of plugging and abandonment of the well.

5. Completion of Well in Deeper Formation but Abandoned as to Shallower Formation. In the event that a well begun with the objective of dual completion results in discovery of unitized substances in paying quantities in the deeper formation, but dry in the shallower formation, all costs of drilling, testing and treating shall be borne by the Shallow Owners and the Deep Owners in accordance with the provisions of Section 2, Article III. All costs of equipping the well shall be borne by Deep Owners. Further, Deep Owners shall pay to Shallow Owners the salvable value of the material and equipment or share thereof paid for or furnished by Shallow Owners. Thereafter, Deep Owners shall own all material and equipment acquired in the drilling and completion of such well. Deep Owners shall own all unitized substances produced from the deeper formation, and shall bear all costs of plugging and abandoning the well.
6. Abandonment as to one Formation after Completion of Well in Both Formations. In the event that, after completion of a dual well, the working interest owners of one formation should decide to abandon the well as to their formation, the working interest owners of the remaining producing formation shall pay to the working interest owners of the formation to be abandoned, the salvage value of equipment belonging to the owners of the formation to be abandoned. The owners of the formation to be abandoned shall pay for the abandonment of that formation. After payment of the amount provided for above, the working interest owners of the formation from which the well continues to produce shall own all of such equipment. The working interest owners of the producing formation, after abandonment as to the other formation, shall also bear all costs of plugging and abandoning upon later abandonment of the well as to their formation.
7. Deepening a Shallow Well or Converting a Deeper Well for Dual Completion. Before any well which is completed in a single formation may be deepened or perforated at a shallower depth for purposes of completion as a dual well, the working interest owners of both formations must approve the operation under the general

provisions of the Unit Operating Agreement. The payment to the owners of the single existing completion by the owners desiring to dual the well shall be a fair value representative of the well. If the operation should result in an impairment of production from, or a loss of, the existing well, the provisions of Section 10, Article III shall govern unless otherwise provided for in the approval.

8. Allocation of General Operating and Maintenance Costs in Dual Wells.

After completion of a dual well, the costs of producing operations shall be borne by the working interest owners of the two formations as follows:

- a) The completion in each separate formation shall be treated as a separate well for overhead and district and camp expense. Such expense shall be borne by the working interest owners of the respective formations as a separate cost allocable to their interest;
- b) Each formation shall bear all costs of normal producing operations, including costs of labor, repairs, maintenance and replacement of equipment attributable to such formation. All costs of operations performed for the joint benefit of both formations shall be borne on a per well basis by the Shallow Owners to the extent of 50% of the total cost, and by the Deep Owners to the extent of 50% of total cost.

9. Allocation of Cost of Workover Operations for both Formations.

After completion of a dual well, the costs of any workover or other operations on such well involving both formations shall be borne by the working interest owners of such formations as follows:

- a) The costs of any operation which is directly related to one formation, including but not limited to operations such as treatments and perforations, shall be borne by the working interest owners of the formation for which the operation is performed.
- b) All costs of material, equipment, repairs, replacements and labor not directly related to one formation, including but not limited to repair and correction of leaks which may result in communication between the two formations within the well bore shall be borne by the Shallow Owners to the extent of 50% of the total cost and by Deep Owners to the extent of 50% of the total cost.
- c) Any material and equipment acquired by any such expenditures provided for in Subparagraph (a) and (b) above shall be owned by the Shallow Owners and the Deep Owners so as to be consistent with the ownership of the material and equipment as set forth in Section 3, Article III.
- d) The working interest owners of each formation shall not be responsible for nor be charged with any loss of production from any other formations during any such operation.

10. Workover Operations of One Formation. After completion of a dual well, any subsequent workover, deepening, plugging back, or other operations or repair as to one formation only of such well, which requires a separation of the formations for the repair or other work on any portion of the well, shall be governed by the provisions which follow:

- a) The proposed plan of operation must be approved in accordance with the voting procedure prescribed by Section 7 of the Unit Operating Agreement prior to commencement of operations by the working interest owners of the formation not to be worked upon, if there be no participating area; or the working interest owners of the participating area for the formation not to be worked upon, if such well be within a participating area for that formation; or by the working interest owners of such well, if it be excluded from the participating area; whichever is applicable.
- b) The costs and expenses of any such operations will be borne by the working interest owners of the formation to be worked upon, or the working interest owners of the participating area for the formation to be worked upon or by the working interest owners of such well in the formation to be worked upon, whichever is applicable.
- c) The working interest owners bearing the cost of the operation shall not be liable to the working interest owners of the formation not being worked upon for cessation of production during such operations for a period of time not exceeding a total of ninety (90) days. In the event such cessation of production during operations is for a longer period of time, the working interest owners of the formation being worked upon, hereinafter referred to as Remedial Owners, shall pay to the working interest owners of the formation not being worked upon, hereinafter referred to as Damaged Owners, damages in such amount as shall be determined by Remedial Owners and Damaged Owners jointly in accordance with the voting procedure prescribed by Section 7 of the Unit Operating Agreement for loss of production occurring after a ninety (90) day period.
- d) If such operations disturb or remove the means of separation of the two formations in the well bore or otherwise require a cessation of production from the other formation not being reworked, the operator shall, before and after the operation, conduct a test of the well as to such other formation for the purpose of determining whether or not the producing capacity as to said formation has been impaired, by employing the procedure set forth as follows:
  - (1) For an oil well producing capacity will be measured by actual production obtained for thirty (30) producing days immediately preceding the workover and compared with the actual production for thirty (30) producing days immediately following the workover operations. If either the conditions or equipment have in any way been changed during the period of comparison, then the production figures obtained shall be corrected by calculation to account for any such change or changes.
  - (2) With respect to gas wells connected to a gas gathering system, the producing capacity shall be determined by the actual production before and after the workover

and shall be the thirty (30) days in which there was actual production into the line immediately before or after the workover as applicable with the well producing under similar pressure differential and other conditions. If the producing conditions or equipment size are different or the well is not connected to a gathering system, an appropriate applicable method will be utilized to determine the effect on deliverabilities which the workover has caused.

- (3) If the producing capacity of the well as to such other formation has been reduced in excess of twenty per cent (20%), damages will be deemed to have occurred. If damage has occurred, the rights and liabilities between Remedial Owners and Damaged Owners shall be adjusted in accordance with the provisions set out below:

Remedial Owners may at their sole cost, risk and expense attempt to restore the well to 80% of its former capacity or may pay to Damaged Owners the cost of a replacement well completed in the damaged formation. If the attempt is unsuccessful, or if no attempt is made, and if the cost of a replacement well is not so paid, Remedial Owners shall pay damages to Damaged Owners in an amount determined by the following formula:

$$\text{Damage Payment} = \text{Cost of Replacement Well} \\ \times \left( 1 - \frac{A}{0.80B} \right)$$

A = The capacity of the well from the damaged formation after the workover or other operation or after completion of any further work to restore the well as to the damaged formation which the Remedial Owners elect to perform.

B = The capacity of the well from the damaged formation before the workover or other operation which impaired the producing capacity of such well.

In no event, however, shall the amount of damages, computed in the manner hereinabove provided, exceed the value of the remaining recoverable reserves (less cost of recovery) of the formation as to which the well was damaged which could have been recovered from such well if it had not been damaged. If more than one capacity test is made after completion of the workover or other operation or work performed at the election of Remedial Owners, the last capacity obtained in such testing will be used in calculating the reduction of capacity. The Remedial Owners will pay such damages within fifteen (15) days following the date the amount of damages is determined. Payment of damages will not alter the ownership of formations or equipment except if cost of a replacement well is paid Remedial Owners shall own all material and equipment on or used in connection with the damaged well and shall bear all costs of plugging and abandonment. If an attempt to restore the well to 80% of its former capacity is made and such attempt is successful, Remedial Owners shall have no further liability.

- e) It is understood, however, that liability for loss or damages shall not accrue hereunder if: (1) in workover of the shallow formation such loss or damage exists prior to actual commencement of the operations to be performed in said formation, or,

in workover of the deep formation, loss or damage exists prior to penetration of workover equipment below the base of the shallow formation, and (2) the evidence is conclusive that the loss or damage resulted solely from the previously existing poor mechanical condition of the well.

11. Allocation of Overhead and District and Camp Expense in Dual Completion Operations. As to any well which was begun with the objective of dual completion and as to any well on which work is begun to deepen or to convert it into a dual completion, overhead charges during drilling shall be billed as though the well were a single well to be drilled to test the deepest formation, and for purposes of allocating district and camp expense among wells, each drilling well shall be treated as one well. Upon completion of such a well, each formation in which the well is completed shall be treated as a separate well for purposes of charging overhead and allocating field and camp expenses.

#### ARTICLE IV

##### Effective Date

When fully executed, as set forth in Article V, this Agreement shall be effective as to all parties hereto as of the first date hereinabove written, and unless otherwise terminated, it shall be effective as long as the Unit Agreement is effective. This Agreement may be terminated in any manner by which said Unit Agreement may be terminated.

#### ARTICLE V

##### Counterparts

This Amendment and Supplement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be a binding agreement when all parties owning a working interest committed to the San Juan 28-4 Unit have executed such a counterpart, ratification or consent hereto, with the same force and effect as if all such parties had signed the same document.

EL PASO NATURAL GAS COMPANY

By   
Attorney in Fact *et*

Supplemental Execution Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

ATTEST:

[Signature]  
ASSISTANT SECRETARY

PHILLIPS PETROLEUM COMPANY

By [Signature]  
VICE PRESIDENT

ATTEST:

[Signature]  
ASS'T. SECRETARY

GENERAL AMERICAN OIL COMPANY OF TEXAS

By [Signature]  
VICE PRESIDENT

PAN AMERICAN PETROLEUM CORPORATION

By \_\_\_\_\_

ATTEST:

[Signature]  
Assistant Secretary

CHAMPLIN OIL & REFINING COMPANY

By [Signature]  
VICE PRESIDENT

Date February 8, 1960

Date \_\_\_\_\_

Supplemental Execution Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

ATTEST:

\_\_\_\_\_

PHILLIPS PETROLEUM COMPANY

By \_\_\_\_\_

ATTEST:

\_\_\_\_\_

GENERAL AMERICAN OIL COMPANY OF TEXAS

By \_\_\_\_\_

ATTEST:

*[Handwritten Signature]*  
\_\_\_\_\_  
ASSIST. SECRETARY

PAN AMERICAN PETROLEUM CORPORATION

By *[Handwritten Signature]*  
\_\_\_\_\_  
ATTORNEY-IN-FACT

APPROVED  
4/9/60  
*[Handwritten Signature]*

ATTEST:

\_\_\_\_\_

CHAMPLIN OIL & REFINING COMPANY

By \_\_\_\_\_

Date \_\_\_\_\_

Supplemental Execution Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

ATTEST:

PHILLIPS PETROLEUM COMPANY

\_\_\_\_\_

By \_\_\_\_\_

ATTEST:

GENERAL AMERICAN OIL COMPANY OF TEXAS

\_\_\_\_\_

By \_\_\_\_\_

PAN AMERICAN PETROLEUM CORPORATION

By \_\_\_\_\_

ATTEST:

CHAMPLIN OIL & REFINING COMPANY

\_\_\_\_\_

By \_\_\_\_\_

Date 3/4/60

*Robert C. Critchfield*

Date 3/4/60

*Margaret N. Critchfield*

Date \_\_\_\_\_

\_\_\_\_\_

Supplemental Execution Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

Date 3/17/60

*[Signature]*

Date 3/17/60

Alicia Y. Romero

Date \_\_\_\_\_

\_\_\_\_\_

Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF TEXAS            |  
                                  |  
COUNTY OF EL PASO       |

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of July, 19 60, by SAM SMITH, Attorney in Fact of EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My Commission expires: \_\_\_\_\_  
*Natalie Taylor*  
Notary Public  
NATALIE TAYLOR  
Notary Public in and for El Paso County, Texas  
My Commission Expires June 1, 1961

STATE OF                    |  
                                  |  
COUNTY OF                 |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_, by \_\_\_\_\_ of PHILLIPS PETROLEUM COMPANY.

My Commission expires: \_\_\_\_\_  
Notary Public

STATE OF                    |  
                                  |  
COUNTY OF                 |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_, by \_\_\_\_\_ of GENERAL AMERICAN OIL COMPANY OF TEXAS.

My Commission expires: \_\_\_\_\_  
Notary Public

STATE OF                    |  
                                  |  
COUNTY OF                 |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_, by \_\_\_\_\_ of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires: \_\_\_\_\_  
Notary Public

Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF TEXAS            I  
                                  I  
COUNTY OF EL PASO       I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ of EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My Commission expires: \_\_\_\_\_  
Notary Public

STATE OF *Okla*            I  
                                  I  
COUNTY OF *Washington* I

The foregoing instrument was acknowledged before me this *4<sup>th</sup>* day of *February*, 19*60*, by *C. O. Stark*, *vice-president* of PHILLIPS PETROLEUM COMPANY.

My Commission expires: \_\_\_\_\_  
*Pauline Walby*  
Notary Public

STATE OF                    I  
                                  I  
COUNTY OF                 I

The foregoing instrument was acknowledged before me this *1<sup>st</sup>* day of *June*, 19*61*, by *W. P. BARNES*, *VICE PRESIDENT* of GENERAL AMERICAN OIL COMPANY OF TEXAS.

My Commission expires: \_\_\_\_\_  
*Jo Ann Shimanek*  
Notary Public  
JO ANN SHIMANEK  
MY COMMISSION EXPIRES JUNE 1, 1961

STATE OF                    I  
                                  I  
COUNTY OF                 I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires: \_\_\_\_\_  
Notary Public

Supplemental Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF Texas |  
|  
COUNTY OF Tarrant |

The foregoing instrument was acknowledged before me this 8<sup>th</sup> day of February, 1960, by Ira H. Stein, Notary Public,  
CHAMPLIN OIL & REFINING COMPANY.

My Commission expires: 6-1-61  
Lately R. Herrera  
Notary Public

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 19\_\_\_, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_  
Notary Public

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 19\_\_\_, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_  
Notary Public

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 19\_\_\_, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_  
Notary Public

Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF TEXAS            I  
                                  I  
COUNTY OF EL PASO       I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ of EL PASO NATURAL GAS COMPANY, a Delaware corporation, on behalf of said corporation.

My Commission expires: \_\_\_\_\_ Notary Public \_\_\_\_\_

STATE OF                    I  
                                  I  
COUNTY OF                 I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ of PHILLIPS PETROLEUM COMPANY.

My Commission expires: \_\_\_\_\_ Notary Public \_\_\_\_\_

STATE OF                    I  
                                  I  
COUNTY OF                 I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ of GENERAL AMERICAN OIL COMPANY OF TEXAS.

My Commission expires: \_\_\_\_\_ Notary Public \_\_\_\_\_

STATE OF TEXAS            I  
                                  I  
COUNTY OF TARRANT       I

The foregoing instrument was acknowledged before me this 14th day of March, 1960, by C. F. BEDFORD, ATTORNEY-IN-FACT of PAN AMERICAN PETROLEUM CORPORATION.

Pauline A. Kay  
Notary Public       PAULINE A. KAY

My Commission expires: June 4, 1961

Supplemental Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_  
CHAMPLIN OIL & REFINING COMPANY.

My Commission expires: \_\_\_\_\_ Notary Public

STATE OF *Ohio* |  
|  
COUNTY OF *Wayne* |

The foregoing instrument was acknowledged before me this 4 day of March, 19 60, by Robert Bitchfield & Margaret Mitchellfield.

My Commission expires: \_\_\_\_\_ Notary Public  
*Etta Mae Erwin*

ETTA MAE ERWIN, Notary Public  
~~My Commission Expires March 22, 1961~~

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_

My Commission expires: \_\_\_\_\_ Notary Public

STATE OF |  
|  
COUNTY OF |

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_

My Commission expires: \_\_\_\_\_ Notary Public

Supplemental Acknowledgement Page to Amendment and Supplement to San Juan 28-4 Unit Operating Agreement, County of Rio Arriba, State of New Mexico, effective January 1, 1960.

STATE OF I  
COUNTY OF I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_, CHAMPLIN OIL & REFINING COMPANY.

My Commission expires: \_\_\_\_\_ Notary Public

STATE OF *New Mexico*  
COUNTY OF *Santa Fe* I

The foregoing instrument was acknowledged before me this *17th* day of *March*, 19 *60*, by *Don Ramon and Alicia Ramon, his wife*

My Commission expires: \_\_\_\_\_ Notary Public *LeBorg*

STATE OF I  
COUNTY OF I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_ Notary Public

STATE OF I  
COUNTY OF I

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_.

My Commission expires: \_\_\_\_\_ Notary Public

PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

December 3, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

*Case 551*

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
PLAN OF DEVELOPMENT FOR CALENDAR  
YEAR 1960

Pursuant to Section 10 of San Juan 28-4 Unit Agreement, Pacific Northwest Pipeline Corporation, as Unit Operator, respectfully submits herewith for your approval the 1960 Plan of Development for the subject unit providing for the drilling of the wells set out below during the period from January 1, 1960, to December 31, 1960.

The Plan of Development for 1959 on San Juan 28-4 Unit called for the drilling of three Mesaverde wells. Tabulated below is the status of wells shown on this Plan of Development.

<u>Location</u>	<u>Drilling Status</u>	<u>Formation</u>	<u>Determination</u>
S/2 of Sec. 7, T-28-N, R-4-W	Drilling	Mesaverde	---
S/2 of Sec. 30, T-28-N, R-4-W	Complete	Mesaverde	Commercial
* S/2 of Sec. 26, T-28-N, R-4-W	P. & A.	MV - DAK	---

\* Substitution for well scheduled on Plan of Development for S/2 of Sec. 25, T-28-N, R-4-W.

Pacific Northwest Pipeline Corporation, as Unit Operator, in concurrence with the other working interest owners in the unit, proposes the following Plan of Development for 1960:

- 1. Drill the following well:

<u>Location</u>	<u>Formation</u>
S/2 of Sec. 18, T-28-N, R-4-W	Mesaverde

Plan of Development for 1960  
San Juan 28-4 Unit

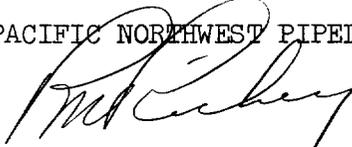
2. Drill any wells required to prevent Unit drainage.
3. Drill additional Mesaverde wells which may be requested by working interest owners.
4. Drill wells to other horizons when authorized by working interest owners.

Gas drilling will be employed wherever practicable and it is contemplated that casing will be set through the potentially productive gas sands. Completions will be effected by perforating the casing opposite best log indications and applying high velocity frac treatment. Multiple zone completions will be made when appropriate and properly approved.

If this drilling program is acceptable, please signify your approval, as requested under Section 10 of the Unit Agreement, in the space provided below and return an approved copy to Pacific Northwest Pipeline Corporation.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

RNR:CVD:kfb  
Attachment

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Supervisor, United States Geological Survey

Subject to like approval by the appropriate State officials.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Commissioner of Public Lands

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

APPROVED:  \_\_\_\_\_ DATE: 3/22/60  
Oil Conservation Commission

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

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

December 3, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

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

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

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

Re: San Juan 28-4 Unit #14-08-001-933  
AUTOMATIC ELIMINATION FROM UNIT AREA

Gentlemen:

Pursuant to Section 22 of the San Juan 28-4 Unit Agreement #14-08-001-933 approved July 24, 1953, Pacific Northwest Pipeline Corporation, as Unit Operator, hereby advises that the following described acreage was automatically eliminated from the San Juan 28-4 Unit Area on the date set out below.

Inasmuch as no portion of the following four leases was included within a participating area as of October 29, 1959, nor were drilling operations in progress on such lands covered by said leases at that time, the provisions of Section 22 of the Unit Agreement apply. The leases eliminated from the Unit Area as of October 29, 1959, are as follows:

SF-079728

Township 28 North - Range 4 West N.M.P.M.

Section 14: All      Section 22: All  
Section 15: All      Section 23: All  
(Containing 2560 acres)  
Rio Arriba County, New Mexico

SF-079730

Township 28 North - Range 4 West N.M.P.M.

Section 26: All      Section 34: All  
Section 27: All      Section 35: All  
(Containing 2560 acres)  
Rio Arriba County, New Mexico

December 3, 1959.  
Page 2

SF-079525

Township 28 North - Range 4 West N.M.P.M.  
Section 25: All  
(Containing 640 acres)  
Rio Arriba County, New Mexico

SF-079525 B

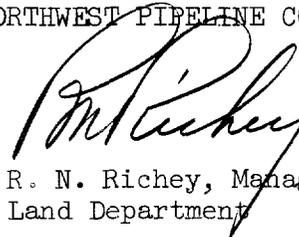
Township 28 North - Range 4 West N.M.P.M.  
Section 24: All      Section 36: N/2  
(Containing 960 acres)  
Rio Arriba County, New Mexico

As a result of the elimination of these leases from the 28-4 Unit, the Unit Area is contracted to a total of 10,013.16 acres.

Copies of this letter are being sent to all Working Interest owners within the 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



R. N. Richey, Manager  
Land Department

RNR:CVD:kfb

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

October 12, 1959

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
1959 Plan of Development

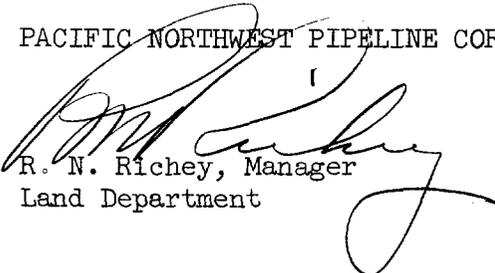
On December 16, 1958, Pacific Northwest Pipeline Corporation, as Unit Operator, submitted for your approval a 1959 Plan of Development for the San Juan 28-4 Unit. This plan provided for the drilling of three Mesaverde wells and specified the locations as the S/2 Section 30, S/2 Section 7, and S/2 Section 25; all in Township 28 North, Range 4 West. The well proposed for Section 30 is now drilling and the well proposed for Section 7 will be commenced very shortly.

The third Mesaverde well scheduled for Section 25 will not be drilled for the reason that in accordance with our plan to drill exploratory wells, an unsuccessful Mesaverde-Dakota dual completion was attempted in Section 26. The failure of Well #24-26 to obtain production from either Mesaverde or Dakota, has caused us to drop Section 25 from our drilling schedule. Although the attempted dual completion in Section 26 was not intended to be a substitute for the Mesaverde well scheduled for Section 25, it may now be considered as such in fulfillment of our plan to drill three Mesaverde tests on the Unit during 1959.

By copy of this letter, all working interest owners are advised of the foregoing and are requested to furnish us their drilling requirements for incorporation into a Plan of Development for 1960.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

RNR:CVD:jc  
CC: All Working Interest Owners

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

March 30, 1959

REPLY TO:  
P. O. BOX 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

*File  
551*

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit  
1959 Plan of Development

This is to advise that the 1959 Plan of Development for the San Juan 28-4 Unit has been approved as follows:

1. Supervisor, United States Geological Survey, March 23, 1959.
2. Commissioner of Public Lands, State of New Mexico, February 4, 1959.
3. Oil Conservation Commission, State of New Mexico, January 7, 1959.

Copies of this letter are being sent to all Working Interest Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*

Claude Van Dyke  
District Manager, Land Department

CVD:jc

P. O. Box 6721  
Roswell, New Mexico

March 23, 1959

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

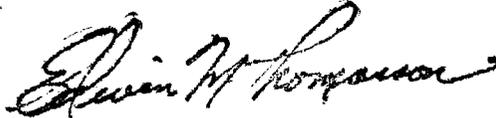
Attention: Mr. R. N. Richey

Gentlemen:

Your Plan of Development for 1959, dated December 16, 1958, for the San Juan 28-4 unit area, No. 14-08-001-933, Rio Arriba County, New Mexico, which proposes the drilling of three Mesaverde formation wells, has been approved on this date subject to like approval by the appropriate State Officials.

One approved copy of the plan is enclosed.

Very truly yours,



EDWIN M. THOMASSON  
Acting Oil and Gas Supervisor

Enclosure 1

Copy to: Wash. (w/cy of plan)  
F'ton. (w/cy of plan)  
— NMOCC, Santa Fe (letter only)  
Comm. of Pub. Lands, Santa Fe (letter only)

MAIN OFFICE GCC

In reply refer to:  
Unit Division

1959 FEB 5 AM 9:09

February 4, 1959

File  
551

C  
O  
P  
Y

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City, 10, Utah

ATTENTION: Mr. R. N. Rickey

Re: San Juan 28-4  
San Juan 29-4

Gentlemen:

We are enclosing one copy of the 1959 Drilling Program for the San Juan 28-4 Unit and two copies of the 1959 Drilling Program for San Juan 29-4 Unit.

The Commissioner of Public Lands has approved these Drilling Programs although there is not any State acreage within these units, therefore, the Commissioner's signature has no force or effect.

Very truly yours,  
MURRAY E. MORGAN  
Commissioner of Public Lands

BY:  
Ted Bilberry, Supervisor  
Oil and Gas Division

MEM/MMR/m

cc:

OCC- Santa Fe ✓  
USGS- Roswell

ILLEGIBLE

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

File

January 7, 1959

551

C  
O  
P  
Y

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

ATTENTION: Mr. R. N. Richey

Re: Plan of Development For  
Calendar Year 1959 San  
Juan 28-4 Unit Rio Arriba  
County, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Plan of Development For Calendar Year 1959 for the San Juan 28-4 Unit Rio Arriba 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/RLS/ig

cc: State Land Office - Santa Fe  
US Geological Survey - Roswell

# PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

DEC 16 1958

REPLY TO:  
P. O. BOX 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
PLAN OF DEVELOPMENT FOR CALENDAR  
YEAR 1959

Pursuant to Section 10 of San Juan 28-4 Unit Agreement, Pacific Northwest Pipeline Corporation, as Unit Operator, respectfully submits herewith for your approval the 1959 Plan of Development for the subject unit providing for the drilling of the wells set out below during the period from January 1, 1959, to December 31, 1959.

The Plan of Development for 1958 on San Juan 28-4 Unit called for the drilling of four Mesaverde wells. These four wells were completed successfully, also there was one additional well drilled and completed successfully and all five wells have been admitted to the Mesaverde Participating Area.

Pacific Northwest Pipeline Corporation, as Unit Operator, in concurrence with the other working interest owners in the unit, proposes the following Plan of Development for 1959:

1. Drill the following wells:

<u>Location</u>	<u>Formation</u>	<u>Date Requirement</u>
S/2 of Sec. 7, T 28 N, R 4 W	Mesaverde	Complete Prior to October 1, 1959
S/2 of Sec. 25, T 28 N, R 4 W	Mesaverde	Complete Prior to October 1, 1959
S/2 of Sec. 30, T 28 N, R 4 W	Mesaverde	Commence by October 1, 1959

2. Drill any wells required to prevent Unit drainage.

Plan of Development  
San Juan 28-4 Unit

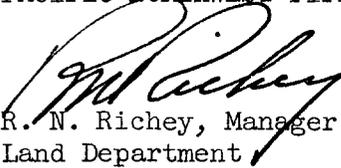
- 3. Drill additional Mesaverde wells which may be requested by working interest owners.
- 4. Drill exploratory wells to other horizons when authorized by working interest owners.

Gas drilling will be employed wherever practicable and it is contemplated that casing will be set through the potentially productive gas sands. Completions will be effected by perforating the casing opposite best log indications and applying high velocity frac treatment. Multiple zone completions will be made when appropriate and properly approved.

If this drilling program is acceptable, please signify your approval, as requested under Section 10 of the Unit Agreement, in the space provided below and return an approved copy to Pacific Northwest Pipeline Corporation.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

  
R. N. Richey, Manager  
Land Department

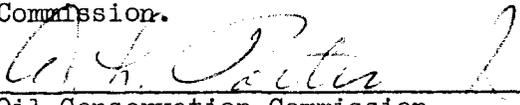
RNR:CVD:jc  
Attachment.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Supervisor, United States Geological Survey

Subject to like approval by the appropriate State officials.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Commissioner of Public Lands

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

APPROVED:  \_\_\_\_\_ DATE: Jan 7, 1959  
Oil Conservation Commission

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

# PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

October 13, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

File 551

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
NINTH EXPANDED PARTICIPATING AREA  
FOR THE MESAVERDE FORMATION and  
NOTICE OF COMPLETION OF ADDITIONAL  
WELL  
Effective: October 1, 1958

Pursuant to Section 11 (a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, Pacific Northwest Pipeline Corporation, as Unit Operator, has determined that two additional wells capable of producing unitized substances in paying quantities have been completed on acreage committed to this Unit, and that the Participating Area for the Mesaverde formation is accordingly expanded. Also this is to advise of the completion of an additional well on acreage previously admitted to the participating area as an intervening drilling block..

The well information is as follows:

1. San Juan 28-4 Unit #18-31 Well is located 990' from the South line and 990' from the West line of Section 31, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This Well was spudded on August 15, 1958, and completed August 29, 1958, in the Mesaverde formation at a total depth of 6560'. The Mesaverde formation between 5,970' -6,530' was perforated and treated with a water fracturing process. After being shut-in for approximately seventeen (17) days, the Mesaverde formation was tested on September 16, 1958, and following a three (3) hour blow

down period gauged 6,159 MCF/D through 3/4" choke and 7,584 MCF/D by the calculated absolute open flow method, with a SIPC 1131# and SIPT 916#. The committed drilling block upon which this well is located is described as the S/2 of Section 31, Township 28 North, Range 4 West, N.M.P.M. containing 319.82 acres.

2. San Juan 28-4 Unit #16-30 Well is located 1650' from the North line and 990' from the East line of Section 30, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded July 10, 1958, and completed on August 6, 1958, in the Mesaverde formation at a total depth of 6672'. The Mesaverde formation between 6416' - 6592' was perforated and treated with sand-water fracturing process. After being shut-in for 38 days, the Mesaverde formation was tested on September 19, 1958, and following a three (3) hour blow-down period gauged 3624 MCF/D through 3/4" choke and 5570 MCF/D by the calculated absolute open flow method with a SIPC 1170# and SIPT 1182#. The committed drilling block upon which this well is located is described as the N/2 of Section 30, Township 28 North, Range 4 West, N.M.P.M. containing 319.41 acres.

With the completion of this well, there is one intervening drilling block created as follows:

S/2 of Section 30, Township 28 North, Range 4 West, N.M.P.M.

This intervening drilling block contains 319.63 acres and under the terms of the Unit Agreement is hereby admitted to the Mesaverde Participating Area effective October 1, 1958.

3. San Juan 28-4 Unit #17-20 Well is located 1150' from the North line and 890' from the East line of Section 20, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded on July 13, 1958, and completed on September 4, 1958, in the Mesaverde formation at a total depth of 6,690'. The Mesaverde formation between 6,454' - 6,634' was perforated and treated with a sand-water fracturing process. After being shut-in for eighteen (18) days the Mesaverde formation was tested on September 22, 1958, and following a three (3) hour blow-down gauged 2,580 MCF/D through 3/4" choke and 3,174 MCF/D by the calculated absolute open flow method, with a SIPC 1166# and a SIPT 1178#. The committed drilling block upon which this well is located is described as the N/2 of Section 20, Township 28 North, Range 4 West, N.M.P.M., containing 320 acres.

San Juan 28-4 Unit  
Ninth Expanded Participating Area  
October 13, 1958  
Page 3

This drilling block has been previously admitted to the participating area as an intervening drilling block effective January 1, 1958; therefore, the participating area is not further increased by this completion.

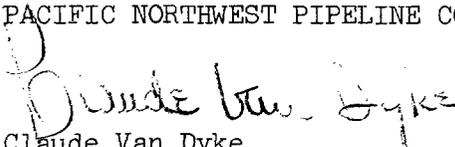
Attached is Schedule X showing the Ninth Expanded Participating Area for the Mesaverde formation of San Juan 28-4 Unit area. This Schedule describes the expanded participating area and shows the percentage of unitized substances allocated to each unitized tract.

Attached as Exhibit "A" is a plat of San Juan 28-4 Unit indicating the Mesaverde Participating Area.

Copies of this letter and Schedule are being sent to all Working Interest Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

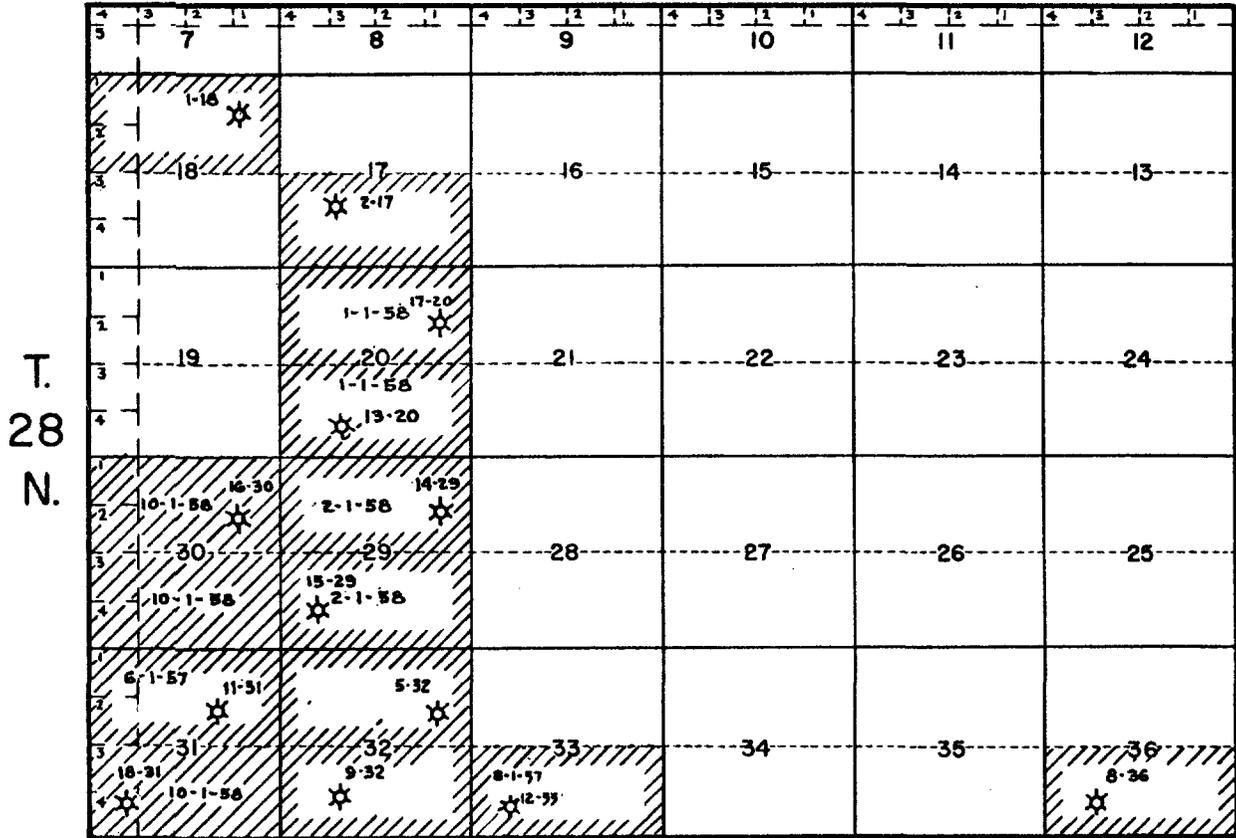
  
Claude Van Dyke  
District Manager, Land Department

CVD: jc

Attachments

# EXHIBIT "A"

R. 4 W.



## SAN JUAN 28-4 UNIT

RIO ARRIBA COUNTY, NEW MEXICO

Mesaverde Participating Area

NINTH REVISION EFFECTIVE OCTOBER 1, 1958

SCALE 1 inch = 1 mile



Participating area.



Drilling blocks added to participating area by this revision.

NOTE: Effective date of inclusion is shown on each drilling block admitted to participating area.

PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

August 21, 1958  
REPLY TO: P. O. Box 1526 SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

All Working Interest Owners

Gentlemen:

Re: San Juan 28-4 Unit #14-08-001-933  
Rio Arriba County, New Mexico  
NOTICE OF COMPLETION OF ADDITIONAL  
WELL

Pursuant to Section 11 (a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, Pacific Northwest Pipeline Corporation, as Unit Operator, has determined that an additional well capable of producing unitized substances in paying quantities has been completed upon acreage committed to this Unit. The well data is as follows:

The San Juan 28-4 Unit No. 15-29 Well is located 990' from the South line and 990' from the West line of Section 29, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This well was spudded June 15, 1958 and completed on July 16, 1958, in the Mesaverde formation at a total depth of 6553'. The Mesaverde formation between 6332' - 6510' was perforated and treated with a water fracturing process. After being shut-in for seven (7) days, the Mesaverde formation was tested July 16, 1958 and following a three (3) hour blow down period gauged 3392 MCFGPD through 3/4" choke and 5024 MCFGPD by the calculated absolute open flow method, with a shut-in SIPC of 1117# and a SIPT of 1117#. The committed drilling block

*F, 1/2*  
*Case 551*

Well Completion  
28-4 Unit - Well #15-29  
August 21, 1958  
Page 2

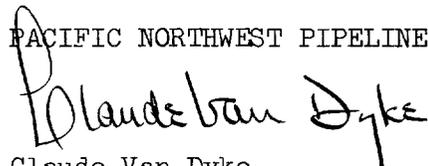
on which this well is located is described as the S/2  
of Section 29, Township 28 North, Range 4 West, N.M.P.M.  
containing 320 acres.

The Mesaverde Participating Area is not expanded with the completion of this well due to it having been included in the participating area as an intervening drilling block with the Eighth Expansion of the Participating Area For The Mesaverde Formation effective February 1, 1958. The ownership of the participating area remains as is shown on Schedule IX attached to the Eighth Expansion.

Copies of this letter are being sent to all Working Interest Owners within the 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



Claude Van Dyke  
District Manager, Land Department

CVD:jc

**PACIFIC NORTHWEST PIPELINE CORPORATION**

**SALT LAKE CITY, UTAH**

April 3, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
P. O. Box 6721  
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

*Case 551*  
All Working Interest Owners

Gentlemen:

Re: San Juan 28-4 Unit  
1958 Plan of Development

This is to advise that the 1958 Plan of Development for the San Juan 28-4 Unit has been approved as follows:

1. Supervisor, United States Geological Survey, March 4, 1958.
2. Commissioner of Public Lands, State of New Mexico, January 6, 1958.
3. Oil Conservation Commission, State of New Mexico, March 28, 1958.

Copies of this letter are being sent to all Working Interest Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION

*Claude Van Dyke*

Claude Van Dyke  
District Manager, Land Department

CVD:jc

**U. S. CONSERVATION COMMISSION**

P. O. BOX 871

SANTA FE, NEW MEXICO

*Case  
5-5-1*

**March 28, 1958**

C  
O  
P  
Y

**Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah**

**Attention: Mr. R. N. Richey**

**Re: San Juan 28-4 Unit Area  
Rio Arriba County, N.M.  
1958 Plan of Development**

**Gentlemen:**

**This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1958 Plan of Development for the San Juan 28-4 Unit Area, dated December 4, 1957, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.**

**One approved copy of the Plan is returned herewith.**

**Very truly yours,**

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

**ALP/RLS/ir**

**Enclosure**

PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

March 11, 1958

File  
451  
REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
Post Office Box 6721  
Roswell, New Mexico

Commissioner of Public Lands  
State of New Mexico  
Post Office Box 791  
Santa Fe, New Mexico

Oil Conservation Commission  
State of New Mexico  
Post Office Box 871  
Santa Fe, New Mexico

Gentlemen:

Re: San Juan 28-4 Unit  
No. 14-08-001-933  
Rio Arriba County, New Mexico  
EIGHTH EXPANDED PARTICIPATING AREA  
FOR THE MESAVERDE FORMATION  
Effective: February 1, 1958

Pursuant to Section 11 (a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, Pacific Northwest Pipeline Corporation, as Unit Operator, has determined that an additional well capable of producing unitized substances in paying quantities has been completed on acreage committed to this Unit, and that the Participating Area for the Mesaverde formation is accordingly expanded. This well is as follows:

The San Juan 28-4 Unit No. 14-29 Well is located 1850' from the North line and 800' from the East line of Section 29, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This Well was spudded on December 6, 1957, and completed on December 30, 1957, in the Mesaverde formation at a total depth of 6,740'. The Mesaverde formation between 6,142' - 6,600' was perforated and treated with a water fracturing process. After being shut-in for nineteen (19) days, the Mesaverde formation was tested on January 27, 1958, and following a three (3) hour blow-down period gauged 3,197 MCFGPD through 3/4" choke and 4,463 MCFGPD by the calculated absolute open flow method, with a SIPC 1,123# and SIPT 1,101#. The committed drilling

San Juan 28-4 Unit  
Eighth Expanded Participating Area  
for the Mesaverde Formation  
March 11, 1958  
Page 2

block upon which this well is located is described  
as the N/2 of Section 29, Township 28 North, Range  
4 West, N.M.P.M., containing 320 acres.

With the completion of this well, there is one Intervening Drilling  
Block created. It is as follows:

S/2 of Section 29, Township 28 North, Range 4 West.

This Intervening Drilling Block contains 320 acres and under the terms  
of the Unit Agreement is hereby admitted to the Participating Area,  
effective February 1, 1958.

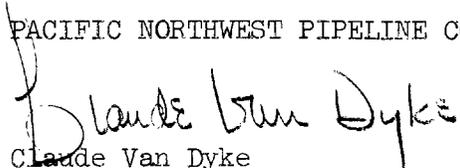
Attached is Schedule IX showing the Eighth Expanded Participating Area  
for the Mesaverde Formation of San Juan 28-4 Unit area. This Schedule  
describes the expanded participating area and shows the percentage of  
unitized substances allocated to each unitized tract.

Attached as Exhibit "A" is a plat of San Juan 28-4 Unit indicating the  
Mesaverde Participating Area.

Copies of this letter and Schedule are being sent to all Working Interest  
Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



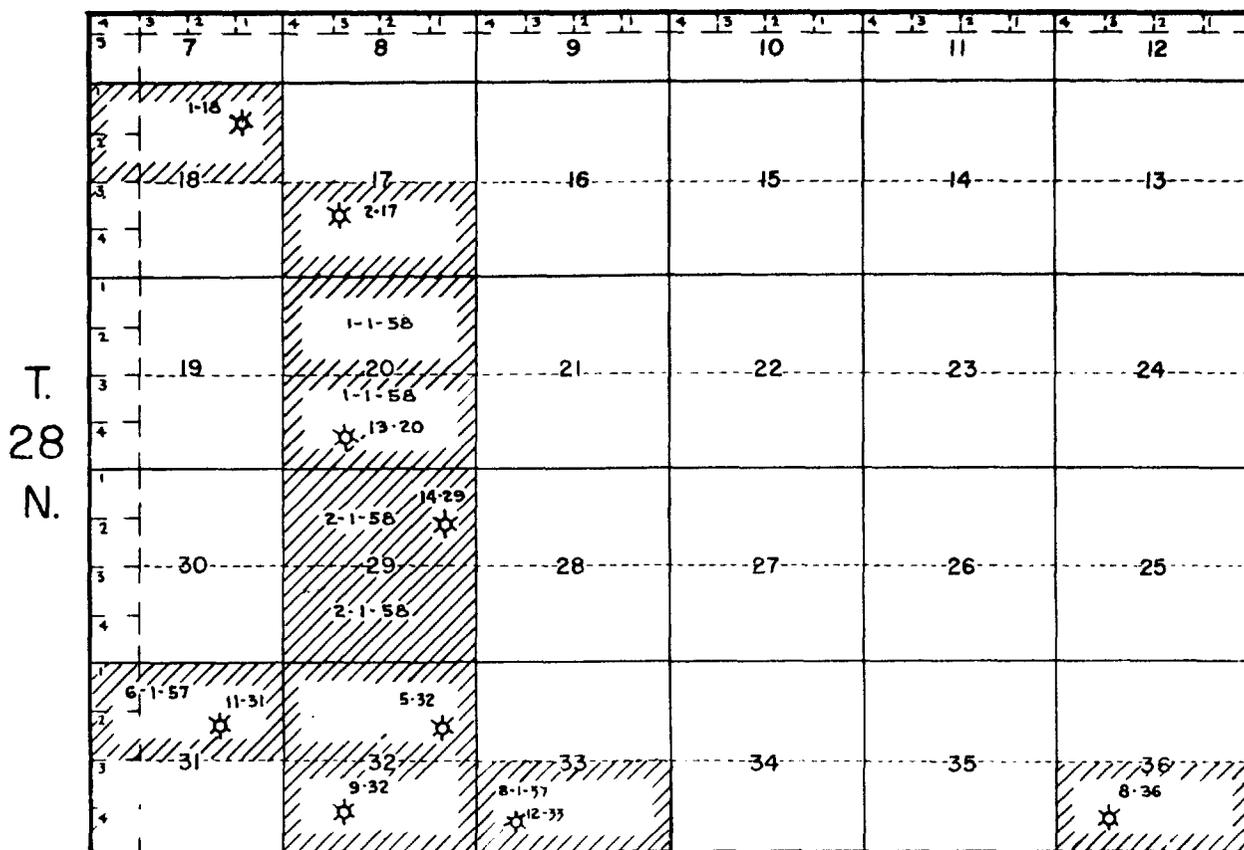
Claude Van Dyke  
District Manager, Land Department

CVD:jc

Attachments

# EXHIBIT "A"

R. 4 W.



## SAN JUAN 28-4 UNIT

RIO ARRIBA COUNTY, NEW MEXICO

Mesaverde Participating Area

EIGHTH REVISION EFFECTIVE FEBRUARY 1, 1958

SCALE 1 inch = 1 mile



Participating area.



Drilling blocks added to participating area by this revision.

NOTE Effective date of inclusion to show on each drilling block admitted to participating area



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
P. O. Box 6721  
Roswell, New Mexico

*H. N. Richey*  
*File*  
*551*

March 4, 1958

Pacific Northwest Pipeline Corporation  
P. O. Box 1526  
Salt Lake City 10, Utah

Attention: Mr. H. N. Richey

Gentlemen:

Your plan of development dated December 4, 1957, for the San Juan 28-4 Unit Area, New Mexico, for the calendar year 1958, has been approved on this date subject to like approval by the appropriate State of New Mexico officials.

One approved copy of the plan is enclosed.

Very truly yours,

(Orig. Sgd.) JOHN A. ANDERSON

JOHN A. ANDERSON  
Regional Oil and Gas Supervisor

Enclosure

Copy to: Wash. (w/copy of plan)  
Farmington (w/copy of plan)  
Comm. of Public Lands, Santa Fe (letter only)  
Oil Cons. Comm., Santa Fe (letter only)

F 1/6  
551

**PACIFIC NORTHWEST PIPELINE CORPORATION**

SALT LAKE CITY, UTAH

February 13, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
P. O. Box 6721  
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:

Re: San Juan 28-4 Unit  
No. 14-08-001-933  
Rio Arriba County, New Mexico  
SEVENTH EXPANDED PARTICIPATING AREA  
FOR THE MESAVERDE FORMATION  
Effective: January 1, 1958

Please refer to the above referenced Seventh Expanded Participating Area for the subject Unit which was mailed to you with our transmittal letter dated February 10, 1958. On the second page of our letter we inadvertently described the Intervening Drilling Block as follows:

N/2 of Section 20, Township 29 North, Range 7 West.

It should have been:

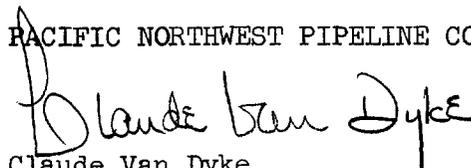
N/2 of Section 20, Township 28 North, Range 4 West.

We ask that you change your copies of the Expansion as set out above.

Copies of this letter are being sent to all Working Interest Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



Claude Van Dyke  
District Manager, Land Department

CVD:jc

PACIFIC NORTHWEST PIPELINE CORPORATION

SALT LAKE CITY, UTAH

February 10, 1958

REPLY TO:  
P. O. Box 1526  
SALT LAKE CITY 10, UTAH

Regional Supervisor  
United States Geological Survey  
P. O. Box 6721  
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:

Re: San Juan 28-4 Unit  
No. 14-08-001-933  
Rio Arriba County, New Mexico  
SEVENTH EXPANDED PARTICIPATING AREA  
FOR THE MESAVERDE FORMATION  
Effective: January 1, 1958

Pursuant to Section 11 (a) of the San Juan 28-4 Unit Agreement, approved July 24, 1953, Pacific Northwest Pipeline Corporation, as Unit Operator, has determined that an additional well capable of producing unitized substances in paying quantities has been completed on acreage committed to this Unit, and that the Participating Area for the Mesaverde formation is accordingly expanded. This well is as follows:

The San Juan 28-4 Unit No. 13-20 Well is located 840' from the South line and 1700' from the West line of Section 20, Township 28 North, Range 4 West, Rio Arriba County, New Mexico. This Well was spudded on September 30, 1957, and completed on November 7, 1957, in the Mesaverde formation at a total depth of 6,712'. The Mesaverde formation between 6,128' - 6,630' was perforated and treated with a water fracturing process. After being shut-in for twenty seven (27) days, the Mesaverde formation was tested on December 3, 1957, and following a three (3) hour blow-down period gauged 3,606 MCFGPD through 3/4" choke and 5,640 MCFGPD by the calculated absolute open flow method, with a SIPT 1,138# and SIPT 1,102#. The committed drilling

San Juan 28-4 Unit  
Seventh Expanded Participating Area  
for the Mesaverde Formation  
February 10, 1958  
Page 2

block upon which this well is located is described  
as the S/2 of Section 20, Township 28 North, Range  
4 West, N.M.P.M., containing 320 acres.

With the completion of this well, there is one Intervening Drilling  
Block created. It is as follows

N/2 of Section 20, Township 29 North, Range 7 West.

This Intervening Drilling Block contains 320 acres and under the terms  
of the Unit Agreement is hereby admitted to the Participating Area,  
effective January 1, 1958.

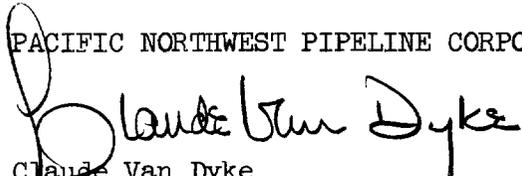
Attached is Schedule VIII showing the Seventh Expanded Participating Area  
for the Mesaverde Formation of San Juan 28-4 Unit area. This Schedule  
describes the expanded participating area and shows the percentage of  
unitized substances allocated to each unitized tract.

Attached as Exhibit "A" is a plat of San Juan 28-4 Unit indicating the  
Mesaverde Participating Area.

Copies of this letter and Schedule are being sent to all Working Interest  
Owners within the San Juan 28-4 Unit.

Very truly yours,

PACIFIC NORTHWEST PIPELINE CORPORATION



Claude Van Dyke  
District Manager, Land Department

CVD:jc

Attachments