

RESERVES AND EVALUATIONS DEPARTMENT  
**NORTHWEST PIPELINE CORPORATION**

EXHIBIT "C" FIGURE 3  
 WELL LOG WITH FORMATION TOPS

San Juan 32-8 Unit, No. 11A  
 SE/4 sec. 21, T. 31 N.-R. 8 W.  
 San Juan County, New Mexico

DATA: C. Hurst  
 DRAFTING: M. Andersen

JULY, 1982

EXHIBIT "D"

TABLE 1

SAN JUAN 32-8 UNIT: DAKOTA GAS PRODUCTION  
 GAS VOLUMES IN MCF @ 14.73 PSIA AND 60° F

UNIT WELL NO.	LOCATION	CAOF (MCFD)	I.D. DATE	I.D. DATE						CUM. PROD. TO 7-1-82		
				NOV 81	DEC 81	JAN 82	FEB 82	MAR 82	APR 82		MAY 82	JUN 82
12A	21 31N 8W	1268	11-81	4361	18348	12910	12746	12509	8656	9009	6640	85179
11A	21 31N 8W	2308	*	---	---	---	---	---	---	---	---	---

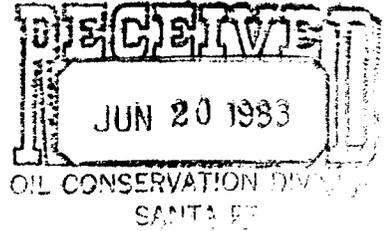
\*Awaiting connection



IN REPLY  
REFER TO:

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
505 Marquette Avenue N.W., Suite 815  
Albuquerque, New Mexico 87102



16 JUN 1983

Northwest Pipeline Corporation  
Attention: Kathy Michael  
1125 Seventeenth Street, Suite 2140  
Denver, Colorado 80202

Gentlemen:

An approved copy of your 1983 plan of development for the San Juan 32-8 unit area, San Juan County, New Mexico, is enclosed. Such plan, proposing to drill one Mesaverde well during 1983 was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

Sincerely yours,

James W. Shelton  
Assistant District Manager  
for Minerals

Enclosure

CC:  
Comm. of Pub. Lands  
NMOC ✓  
Farmington RA (w/encl.)

# State of New Mexico



JIM BACA  
COMMISSIONER

## Commissioner of Public Lands

June 14, 1983

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

Northwest Pipeline Corporation  
1125 Seventeenth Street, Suite 2140  
Denver, Colorado 80202

Re: San Juan 32-8 Unit  
APPLICATION FOR APPROVAL OF THE  
INITIAL PARTICIPATING AREA  
Pictured Cliffs Formation  
Effective January 13, 1982

ATTENTION: Kathy Michael

Gentlemen:

This office is in receipt of two copies of the Initial Participating Area for the Pictured Cliffs Formation, San Juan 32-8 Unit.

Inasmuch as this needs no official approval we have this date filed it in our unit file. Enclosed is one copy for your files reflecting the date received in this office.

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

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

JB/RDG/pm  
encls.  
cc:

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

# State of New Mexico



JIM BACA  
COMMISSIONER



## Commissioner of Public Lands

May 20, 1983

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

Northwest Pipeline Corporation  
1125 Seventeenth Street, Suite 2140  
Denver, Colorado 80202

Re: 1983 Drilling Program  
San Juan 32-8 Unit  
San Juan County, New Mexico

ATTENTION: Kathy Michael

Gentlemen:

The Commissioner of Public Lands has this date approved your 1983 Drilling Program for the San Juan 32-8 Unit, San Juan County, New Mexico. Such program calls for the drilling of the Unit Well No. 50 to test the Mesaverde formation. Our approval is subject to like approval by the New Mexico Oil Conservation Division and the Bureau of Land Management.

Enclosed is an approved copy for your files.

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

Very truly yours,

JIM BACA  
COMMISSIONER OF PUBLIC LANDS

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

JB/RDG/pm  
encls.

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



NORTHWEST PIPELINE CORPORATION

LAND DEPARTMENT

May 19, 1983

Assistant Area Oil and Gas Supervisor  
Minerals Management Service  
Western National Bank Building  
505 Marquette NW, Suite 815  
Albuquerque, New Mexico 87102

State of New Mexico  
Commissioner of Public Lands  
Attn: Mr. Ray D. Graham  
P. O. Box 1148  
Santa Fe, New Mexico 87501

State of New Mexico  
Oil Conservation Commission  
Attn: Mr. Joe Ramey  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: San Juan 32-8 Unit #14-08-001-446  
San Juan County, New Mexico  
CORRECTED INITIAL PARTICIPATING AREA  
Pictured Cliffs Formation  
Effective January 13, 1982

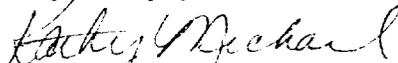
Gentlemen:

It has been brought to our attention that an error was made on Schedule I in the Working Interest Ownership for Tract 15 on Page 1 of 2.

Enclosed you will find a corrected copy of Page 1 for the said Schedule I.

Copies of this letter and copies of the corrected Page 1 are being sent to the Working Interest Owners.

Very truly yours,

  
Kathy Michael  
Supervisor/Land Department

KM:bs  
enclosures  
CC: Working Interest Owners

SCHEDULE I  
 INITIAL PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION  
 SAN JUAN 32-8 UNIT AREA

SERIAL NUMBER	DESCRIPTION	NUMBER OF ACRES	OWNERSHIP	DRILLING BLOCK	PERCENTAGE	PERCENTAGE COMMITTED	PRESENT ACTUAL PARTICIPATION
<u>TRACT 14</u>							
SF-079353	T32N-R8W Sec. 14: N $\frac{1}{2}$	320.00	Royalty: Working Interest; Northwest Pipeline Corp. ORRI:		12.500000%	12.500000%	50.000000%
			Total		<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 15</u>							
SF-079380	T32N-R8W Sec. 14: S $\frac{1}{4}$	320.00	Royalty: Working Interest; El Paso Natural Gas Co. ORRI:		12.500000%	12.500000%	50.000000%
			Total		<u>100.000000%</u>	<u>100.000000%</u>	

SAN JUAN 32-8 UNIT  
WORKING INTEREST OWNERS

Phillips Oil Company  
Attn: Debbie Shell  
Meadows Building  
Dallas, Texas 75206

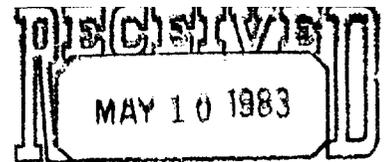
Getty Oil Company  
Attn: Mr. T. L. Ditmore  
Three Park Central - Suite 700  
Denver, Colorado 80202

Sun Gas Division  
Sun Exploration & Production Company  
Attn: Joint Operations  
P. O. Box 20  
Dallas, Texas 75221

Texaco, Inc.  
Box 2100  
Denver, Colorado 80201

El Paso Exploration Company  
Attn: Mr. James R. Permenter  
P. O. Box 1492  
El Paso, Texas 79978

Phillips Petroleum Company  
Attn: M. K. Study  
8055 E. Tufts Avenue Parkway  
Denver, Colorado 80237



NORTHWEST PIPELINE CORPORATION OIL CONSERVATION DIVISION  
SANTA FE

LAND DEPARTMENT

May 6, 1983

1125 Seventeenth Street, Suite 2140  
Denver, Colorado 80202  
303-292-4906

Assistant Area Oil and Gas Supervisor  
Minerals Management Service  
Western National Bank Building  
505 Marquette NW, Suite 815  
Albuquerque, New Mexico 87102

State of New Mexico  
Commissioner of Public Lands  
Attn: Mr. Ray D. Graham  
P. O. Box 1148  
Santa Fe, New Mexico 87501

State of New Mexico  
Oil Conservation Commission  
Attn: Mr. Joe Ramey  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: San Juan 32-8 Unit #14-08-001-446  
San Juan County, New Mexico  
1983 Drilling Program

Gentlemen:

By letter dated April 1, 1982, Northwest Pipeline Corporation, as Unit Operator, filed a Drilling Program for the captioned Unit providing for the drilling of one (1) Pictured Cliffs/Mesaverde Well. This well was timely drilled.

As of this date, the total number of wells drilled in the San Juan 32-8 Unit on acreage committed to the Unit is as follows:

Fruitland, commercial	2
Fruitland, commerciality undetermined	2
Pictured Cliffs/Mesaverde, commerciality undetermined	4
Mesaverde, commercial	31
Mesaverde, commerciality undetermined	3
Mesaverde, noncommercial	1
Mesaverde, plugged and abandoned	2
Mesaverde/Dakota Dual, commerciality undetermined	2
Dakota, commerciality undetermined	<u>1</u>
Total	48

Assistant Area Oil and Gas Supervisor  
Commissioner of Public Lands  
Oil Conservation Commission  
San Juan 32-8 Unit  
May 6, 1983  
Page 2

Pursuant to Section 10 of the San Juan 32-8 Unit Agreement, Northwest Pipeline Corporation, as Unit Operator, has contacted all of the Working Interest Owners and has received the necessary concurrence to propose the drilling of the following additional well during the calendar year 1983:

<u>Well Number</u>	<u>Location</u>	<u>Formation</u>
#50	W/2 Sec. 28-32N-8W	MV

Northwest Pipeline Corporation, as Unit Operator, will drill any offset wells that may be required to prevent drainage of unitized substances and any other wells deemed necessary or which are requested by the Unit Operator or the Working Interest Owners.

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 Northwest Pipeline Corporation.

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

Very truly yours,



Kathy Michael  
Supervisor/Land Department

KM:bs  
Attachment  
CC: Working Interest Owners

Assistant Area Oil and Gas Supervisor  
Commissioner of Public Lands  
Oil Conservation Commission  
San Juan 32-8 Unit  
May 6, 1983  
Page 3

APPROVED:

Assistant Area Oil and Gas Supervisor  
Minerals Management Service  
Subject to like approval by the  
Commissioner of Public Lands and  
the Oil Conservation Commission

Date \_\_\_\_\_

APPROVED:

Commissioner of Public Lands  
Subject to like approval by the  
Minerals Management Service and  
the Oil Conservation Commission

Date \_\_\_\_\_

APPROVED:

  
Oil Conservation Commission  
Subject to like approval by the  
Minerals Management Service and  
the Commissioner of Public Lands

Date 5-10-83

The foregoing approvals are for the 1983 Drilling Program for the San Juan 32-8 Unit #14-08-001-446.

SAN JUAN 32-8 UNIT  
WORKING INTEREST OWNERS

General American Oil Company of Texas  
Attn: Mr. L. E. Dooley  
Meadows Building  
Dallas, Texas 75206

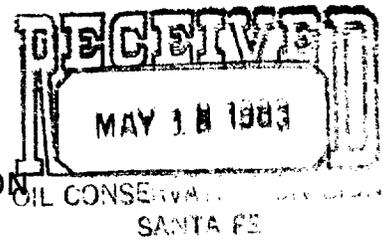
Getty Oil Company  
Attn: Mr. T. L. Ditmore  
Three Park Central - Suite 700  
Denver, Colorado 80202

Sun Gas Division  
Sun Exploration & Production Company  
Attn: Joint Operations  
P. O. Box 20  
Dallas, Texas 75221

Texaco, Inc.  
Box 2100  
Denver, Colorado 80201

El Paso Exploration Company  
Attn: Mr. James R. Permenter  
P. O. Box 1492  
El Paso, Texas 79978

Phillips Petroleum Company  
Attn: M. K. Study  
8055 E. Tufts Avenue Parkway  
Denver, Colorado 80237



NORTHWEST PIPELINE CORPORATION

OIL CONSERVATION COMMISSION  
SANTA FE

LAND DEPARTMENT

1125 Seventeenth Street, Suite 2140  
Denver, Colorado 80202  
303-292-4906

April 26, 1983

Assistant Area Oil and Gas Supervisor  
Minerals Management Service  
Western National Bank Building  
505 Marquette NW, Suite 815  
Albuquerque, NM 87102

State of New Mexico  
Commissioner of Public Lands  
Attn: Mr. Ray D. Graham  
P. O. Box 1148  
Santa Fe, NM 87501

State of New Mexico  
Oil Conservation Commission  
Attn: Mr. Joe Ramey  
Santa Fe, NM 87501

Re: San Juan 32-8 Unit #14-08-001-446  
San Juan County, New Mexico  
APPLICATION FOR APPROVAL OF THE  
INITIAL PARTICIPATING AREA  
Pictured Cliffs Formation  
Effective January 13, 1982

Gentlemen:

Pursuant to Section 11(a) of the San Juan 32-8 Unit Agreement, Northwest Pipeline Corporation, as Unit Operator, determined on the date indicated below that the following wells, which are capable of producing unitized substances in paying quantities from the Pictured Cliffs Formation, have been completed upon drilling blocks committed to this Unit:

INITIAL PARTICIPATING AREA - Effective January 13, 1982

<u>Description of Lands</u>	<u>Acres</u>	<u>Well Name</u>
<u>Township 32 North, Range 8 West</u>		
Section 14: E $\frac{1}{2}$	320.00	San Juan 32-8 Unit #46
Section 14: W $\frac{1}{2}$	320.00	San Juan 32-8 Unit #45

The well data is as follows:

The San Juan 32-8 #45 Well is located 1825 feet from the south line and 1640 feet from the west line, Section 14, Township 32 North, Range 8 West, N.M.P.M., San Juan County, New Mexico. This well was spudded on September 15, 1981 and is a dually completed well. The Pictured Cliffs Formation was completed on January 22, 1982. The Formation was perforated with 12 holes at the following depths:

3978' to 4036'

These perforations were treated with 5,000 gallons pad water followed by 60,000 pounds of 10/20 sand in fracturing fluid. The well was initially tested on January 22, 1982 with a positive choke in a three hour test. The SITP was 1496 psig with a flowing pressure of 185 psig producing at a rate of 2538 MCFD. The calculated AOF was 4243 MCFD.

The San Juan 32-8 #46 Well is located 1820 feet from the north line and 790 feet from the east line, Section 14, Township 32 North, Range 8 West, N.M.P.M., San Juan County, New Mexico. This well was spudded on September 5, 1981 and is a dually completed well. The Pictured Cliffs Formation was completed on January 13, 1982. This formation was perforated with 13 holes at the following depths:

3886' to 3973'

These perforations were treated with 5,000 gallons pad water followed by 60,000 pounds of 10/20 sand in fracturing fluid. The well was initially tested on January 13, 1982 with a positive choke in a three hour test. The SITP was 1331 psig with a flowing pressure of 233 psig producing at a rate of 3156 MCFD. The calculated AOF was 8041 MCFD.

Attached are Schedule I and Ownership Map showing the Initial Participating Area for the Pictured Cliffs Formation of the San Juan 32-8 Unit Area. This Schedule describes the 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 Initial Participating Area will become effective January 13, 1982.

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

Very truly yours,



Kathy Michael  
Supervisor/Land Department

KM:bs  
Attachments  
CC: Working Interest Owners

SCHEDULE I  
 INITIAL PARTICIPATING AREA FOR THE PICTURED CLIFFS FORMATION  
 SAN JUAN 32-8 UNIT AREA

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			Total		<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 15</u>							
SF-079380	<u>T32N-R8W</u> Sec. 14: S $\frac{1}{2}$	320.00	Royalty: Working Interest; Northwest Pipeline Corp. ORRI:		12.500000%	12.500000%	50.000000%
			Total		<u>100.000000%</u>	<u>100.000000%</u>	

Effective January 13, 1982



SAN JUAN 32-8 UNIT  
WORKING INTEREST OWNERS

Phillips Oil Company  
Attn: Debbie Shell  
Meadows Building  
Dallas, Texas 75206

Getty Oil Company  
Attn: Mr. T. L. Ditmore  
Three Park Central - Suite 700  
Denver, Colorado 80202

Sun Gas Division  
Sun Exploration & Production Company  
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Dallas, Texas 75221

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P. O. Box 1492  
El Paso, Texas 79978

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