

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

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

November 6, 1989

Meridian Oil Inc.
P.O. Box 4289
Farmington, New Mexico 87499-4289

ATTN: Mr. Alan Alexander

RE: Rosa Unit I, Section 587
Rio Arriba County, New Mexico
1989 Supplemental Plan of Development - Drilling Program

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned Supplemental 1989 Plan of Development - Drilling Program. Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files. If we may be of further help, please do not hesitate to contact Susan Howarth at (505) 827-5791.

Very truly yours,

W.R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

Floyd O. Prando
BY: FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5749

cc: OCD - Santa Fe, New Mexico
BLM
Unit Correspondence File
Unit P.O.D. File

WRH/FOP/SMH

MERIDIAN OIL

OIL CONSERVATION DIVISION
RECEIVED

'89 OCT 24 AM 8 43

October 19, 1989

Bureau of Land Management
Farmington Resource Area
1235 La Plata Highway
Farmington, New Mexico 87401

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

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

#133

Re: Rosa Unit I, Section 587
San Juan County, New Mexico &
Rio Arriba County, New Mexico
SUPPLEMENTAL - 1989 Drilling Program

Gentlemen:

By letter dated March 3, 1989, Northwest Pipeline Corporation, as Unit Operator for the Rosa Unit, filed a drilling program which indicated that fifty Fruitland Coal wells and three Morrison/Entrada water disposal wells would be drilled during 1989 in the unit.

Subsequent to the filing of said letter, Meridian Oil Inc., as Sub-Operator of the Fruitland formation, proposed and has received the necessary concurrence of a majority of the working interest owners to drill four (4) additional wells. The proposed wells are as follows:

<u>WELL NAME</u>	<u>DESCRIPTION</u>	<u>FORMATION</u>
Rosa Unit #257	W/2 Sec. 27, T31N, R5W	Fruitland Coal
Rosa Unit #258	W/2 Sec. 22, T31N, R5W	Fruitland Coal
Rosa Unit #259	S/2 Sec. 33, T31N, R5W	Fruitland Coal
Rosa Unit #260	S/2 Sec. 21, T31N, R6W	Fruitland Coal

Meridian Oil Inc., as Sub-Operator of the Fruitland formation, 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 Sub-Operator or the working interest owners.

Regulatory Agencies

-2-

October 19, 1989

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to Meridian Oil Inc.

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "Alan Alexander".

Alan Alexander
Senior Land Advisor

AA:gm
Attachments

cc: Working Interest Owners

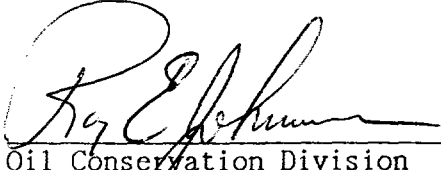
38+

APPROVED: _____
Bureau of Land Management
(Subject to like approval by the
Commissioner of Public Lands and
the Oil Conservation Division)

DATED: _____

APPROVED: _____
Commissioner of Public Lands
(Subject to like approval by the
Bureau of Land Management and the
Oil Conservation Division)

DATED: _____

APPROVED:  _____
Oil Conservation Division
(Subject to like approval by the
Bureau of Land Management and the
Commissioner of Public Lands)

DATED: 10-24-89

The foregoing approvals for the Supplemental 1989 Drilling Program for the Rosa Unit I, Sec. 587, San Juan County, New Mexico and Rio Arriba County, New Mexico.

ROSA UNIT WORKING INTEREST OWNERS

Amoco Production Company

Coastal Oil & Gas Corp.

Elizabeth T. Calloway

Winifred K. Ponder

Frank A. Schultz

Fred E. Turner

J. Glenn Turner, Jr.

John Brennand, Executor

John L. Turner

Lois J. Willard

Mary Francis Truner, Jr.

Mitchell Energy Corporation

Northwest Pipeline Corporation

Patricia Penrose Schieffer, Trustee

Phillips Petroleum Company

The Wiser Oil Company

William G. Webb

OIL CONSERVATION DIVISION
RECEIVED

'89 OCT 23 AM 8 20

Rosa Unit (GC)
3160 (019)

OCT. 20 1989

Meridian Oil Incorporated
P. O. Box 4289
Farmington, NM 87499

Gentlemen:

Your letter of October 2, 1989, transmitted a copy of a "Designation of Sub-Operator" instrument whereby Northwest Pipeline Corporation, unit operator under the Rosa Unit agreement, designates Meridian Oil Incorporated as sub-operator for the drilling and production of unitized substances from the Fruitland Formation under all lands in the Rosa Unit.

The designation of Meridian Oil Incorporated as sub-operator of the Fruitland Formation is hereby accepted for record purposes.

If you have any questions, please contact Gail Keller at the above address or telephone (505) 327-5344.

Sincerely,

/s/ John L. Keller

FOR Ron Fellows
Area Manager

cc: New Mexico Oil Conservation Division, State Land Office Building,
P. O. Box 2088, Santa Fe, NM 87504
Commissioner of Public Lands, State of New Mexico, P. O. Box 1148,
Santa Fe, NM 87504

OIL CONSERVATION DIVISION
RECEIVED

'89 NOV 1 AM 9 20

Rosa Unit (POD)
3180 (019)

OCT. 25 1989

Meridian Oil Incorporated
Attn: Mr. Alan Alexander
P. O. Box 4289
Farmington, NM 87499

Gentlemen:

One approved copy of your supplemental 1989 Plan of Development for the Rosa Unit area, Rio Arriba County, New Mexico, is enclosed. Such plan, proposing the drilling of four Fruitland Coal wells (Rosa Unit No. 257, Rosa Unit No. 258, Rosa Unit No. 259 and Rosa Unit No. 260) was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

The possibility of drainage by wells outside of the unit boundary may exist. You will be contacted at a later date about this possibility.

If you have any questions, please contact Gail Keller at the above address or telephone (505) 327-5344.

Sincerely,

/s/ John L. Keller

John Keller
Chief, Branch of Minerals

Enclosure

cc: New Mexico Oil Conservation Division, 310 Old Santa Fe Trail,
Room 206, Santa Fe, NM 87503
Commissioner of Public Lands, State of New Mexico, P. O. Box 1148,
Santa Fe, NM 87504

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

581-89

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0900
801-584-6669
801-584-7215

October 2, 1989

Assistant District Manager, Minerals
Bureau of Land Management
Farmington Resource Area
1235 La Plata Highway
Farmington, NM 87401

RECEIVED

OCT 10 1989

OIL CONSERVATION DIV.
SANTA FE

State of New Mexico
Commissioner of Public Lands
Attn: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87504-1148

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Designation of Suboperator
Rosa Unit I-Sec. No. 587
Fruitland Formation
San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

Pursuant to the provisions of Section 5 Successor Unit Operator of the Rosa Unit Area Unit Agreement I-Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, hereby respectfully requests approval of the attached Designation of Suboperator wherein Northwest Pipeline Corporation intends to relinquish its rights as Unit Operator of the Rosa Fruitland formation, and proposes that Meridian Oil Inc. be designated as Suboperator of the Rosa Fruitland formation.

The following is the results of the pool taken of the Fruitland formation working interest owners:

<u>Working Interest</u> <u>Owner</u>	<u>Percentage</u>	<u>Yes</u>	<u>Well Approval</u>	
			<u>No</u>	<u>No Response</u>
NWP	22.640940%	X		
Coastal	11.006789%	X		

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 2, 1989
Page 2

<u>Working Interest Owner</u>	<u>Percentage</u>	<u>Yes</u>	<u>Well Approval</u>	
			<u>No</u>	<u>No Response</u>
Amoco	29.646317%	X		
Mitchell	21.162680%	X		
EPNG	10.037879%	X		
Turner	3.807882%	X		
Wiser	.297822%	X		
Penrose	1.280562%			X
Ponder	.059565%			X
Willard	.029782%	X		
Brennand	.029782%			X
		<u>98.630091</u>	<u>-0-</u>	<u>1.369909</u>

As the results of the poll indicates the majority of the working interest owners have selected Meridian Oil Inc. Suboperator of the Rosa Unit Fruitland formation. Pursuant to the terms of the Designation of Suboperator and Meridian's execution of same, Meridian has accepted the duties and responsibilities of Unit Operator of the Rosa Unit Fruitland formation. Northwest Pipeline Corporation will continue to operate all other formations in the Rosa Unit.

If this Designation of Suboperator for the Rosa Unit Fruitland formation meets with your approval, please indicate such approval in the space provided on the attached sheet and return an approved copy for our files.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Land Manager

DLG:cg
Attachment
cc: Working Interest Owners
K. J. Stracke
W. O. Curtis
P. C. Thompson
L. L. Fullmer
R. L. Glenn
J. E. McNeil

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 2, 1989
Page 3

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
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
Area Oil and Gas Supervisor and
the Oil Conservation Commission

DATE

APPROVED


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

DATE

10-11-89

The foregoing approvals are for the Designation of Suboperator for the Rosa
Unit Fruitland formation.

WORKING INTEREST OWNERS
ROSA UNIT FRUITLAND

Amoco Production Company
Southern Division, Production Mgr.
1670 Broadway
P.O. Box 800
Denver, CO 80201

Mary Francis Turner, Jr.
c/o Mercantile Nat'l Bank at Dallas
P.O. Box 225415
Dallas, TX 75265

Coastal Oil & Gas Corp.
Attn: Mr. John R. Kennedy
P.O. Box 749
Denver, CO 80201-0749

Mitchell Energy Corporation
Attn: Mr. Jerry Taylor
555 Seventeenth Street, Suite 3500
Denver, CO 80202

El Paso Natural Gas Company
Land Department
P.O. Box 4289
Farmington, NM 87401

Patricia Penrose Schieffer, Trustee
1640 1st City Bank Tower
201 Main Street
Fort Worth, TX 76102

Elizabeth T. Calloway
4801 St. Johns Drive
Dallas, TX 75205

The Wiser Oil Company
700 Petroleum Building
Wichita Falls, TX 76301

Fred E. Turner
One Energy Square, Suite 852
4925 Greenville Avenue
Dallas, TX 75201

Winifred K. Ponder
c/o Texas Commerce Bank of El Paso
Attn: Julia E. Merkt
P.O. Drawer 140
El Paso, TX 79980

J. Glenn Turner, Jr.
500 LTV Center
2001 Ross Avenue
Dallas, TX 75201

John Brennand, Executor of
Estate of J. R. Brennand
P.O. Box 6616
Santa Barbara, CA 93160

John L. Turner
8585 North Stemmons, Suite 925N
Dallas, TX 75247

Louis J. Willard
P.O. Box 5205
Santa Fe, NM 87502

EXHIBIT "D"

DESIGNATION OF SUBOPERATOR
To Farmout Agreement
dated AUGUST 25th, 1989, by and between
NORTHWEST PIPELINE CORPORATION
and
MERIDIAN OIL INC

THIS designation is made and entered in this 25th day of AUGUST, 1989, by and between NORTHWEST PIPELINE CORPORATION (hereinafter referred to as "Northwest"), a Delaware corporation, whose address is 295 Chipeta Way, P.O. Box 58900, Salt Lake City, Utah 84158-0900; and MERIDIAN OIL INC. (hereinafter referred to as "Meridian"), a Delaware corporation, whose address is 3535 East 30th Street, P.O. Box 4289, Farmington, New Mexico 87499; and all other working interest owners in the Rosa Fruitland formation (hereinafter referred to as "working interest owners").

WHEREAS, Northwest is Unit Operator for the Rosa Unit, created by that certain Unit Agreement for the Development and Operation of the Rosa Unit Area, I. Sec. No. 587, Rio Arriba and San Juan Counties, New Mexico (hereinafter referred to as "Unit Agreement"); and

WHEREAS, Northwest and Meridian have entered into a certain Farmout Agreement dated AUGUST 25th 1989, (hereinafter referred to as "Farmout Agreement") for the purpose of exploring and developing the unitized substances from the top of the Fruitland Coal bearing interval to the base of the Fruitland Coal bearing interval. (Fruitland formation), as defined in Article II of the Farmout Agreement; and

WHEREAS, Meridian desires pursuant to the Farmout Agreement to develop and operate the production of unitized substances from the Rosa Fruitland formation (the lands therein shall hereafter be referred to as the "Suboperated Premises"); and

WHEREAS, Northwest hereto intends to relinquish its rights as Unit Operator for the Rosa Fruitland formation pursuant to said Farmout Agreement; and

WHEREAS, Northwest pursuant to the terms of the Rosa Unit Agreement will request the parties to the Unit Agreement in the Rosa Fruitland formation to execute this designation in order that the Suboperated Premises may be developed and operated by Meridian.

NOW, THEREFORE, in consideration of the mutual covenants and other valuable consideration hereby acknowledged Northwest and Meridian hereby agree as follows:

A. Designation

In order to permit Meridian to develop and operate the Suboperated Premises, Northwest, as Unit Operator of the Rosa Fruitland formation, and a working interest owner in the Suboperated Premises, hereby designates Meridian, also a working interest owner in the Suboperated Premises, suboperator for the sole and only purpose of developing and operating the Suboperated Premises.

B. Notices

Meridian indicates its acceptance of this designation by placing its signature in the space provided below and agrees to develop and operate the Suboperated Premises as a reasonable and prudent operator in accordance with the terms and conditions of the Unit Agreement, and also agrees to:

- (1) Furnish the Bureau of Land management (BLM), the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico all proper and necessary reports and well data in the required numbers and time period as specified by the BLM, the Commissioner of Public Lands and the Oil Conservation Commission of the State of New Mexico, with a copy to Northwest at the addresses hereinafter provided.
- (2) Copies of all notices or other information required to be furnished shall be sent by Meridian to:

Northwest Pipeline Corporation
Attn: Manager, Administration
295 Chipeta Way
P.O. Box 58900
Salt Lake City, UT 84158-0900

With copies to:

Northwest Pipeline Corporation
Attn: Manager, Production
3539 East 30th Street
Farmington, NM 87401

C. Indemnity

Meridian shall defend, indemnify and hold Northwest and its officers, directors, agents, employees, and invites harmless from all liability for damage to the person and/or property of all persons arising from the performance or non-performance of Meridian's operations conducted hereunder. Northwest shall defend, indemnify and hold Meridian and its officers, directors, agents, employees and invites harmless from all liability for damage to the person and/or property of all persons arising from the performance or non-performance of Northwest's operations hereunder.

D. Unit Agreement

The parties hereto agree that Meridian shall develop the Suboperated Premises in conformity with the provisions of the Unit Agreement, and the Unit Accounting Agreement for the Development and Operations of the Rosa Unit Area dated January 6, 1948 and Farmout Agreement dated AUGUST 25th, 1989.

E. Jurisdiction

Development of the Suboperated Premises is subject to the jurisdiction of the Oil Conservation Commission of the State of New Mexico as to privately owned lands, the Commissioner of Public Lands of the State of New Mexico as to state lands, and the Assistant District Manager, Minerals of the BLM, Farmington, New Mexico, as to Federal and/or Indian Lands.

F. Term

This designation shall continue and be effective until dissolved by the terms set forth in the Farmout Agreement or Unit Agreement.

G. Assignment

This designation is personal and cannot be assigned in whole or in part by Meridian without the written consent of all the other parties hereto having first been obtained.

H. Counterparts

This designation may be executed in any number of counterparts with the same force and effect as if all parties has signed the same document.

IN WITNESS WHEREOF, this designation is executed as of the day and year first hereinabove written.

NORTHWEST PIPELINE CORPORATION

Approved as
to Form
MEM
O.G.C.

Date: 8-29-89
By: *Warren O. Curtis*
Warren O. Curtis
Attorney-in-Fact

MERIDIAN OIL INC.

Date: 8-25-89
By: *LA B*
Attorney-in-Fact Kent Beers

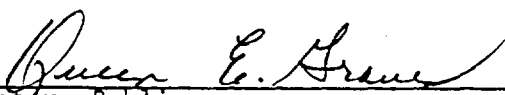
COASTAL OIL & GAS CORPORATION

ATTEST:

Date: _____
By: _____

STATE OF UTAH)
 : ss.
COUNTY OF SALT LAKE)

The foregoing instrument was acknowledged before me on this 30th day of August, 1989 by Warren O. Curtis, Attorney-in-Fact for NORTHWEST PIPELINE CORPORATION, a Delaware corporation, on behalf of said corporation.



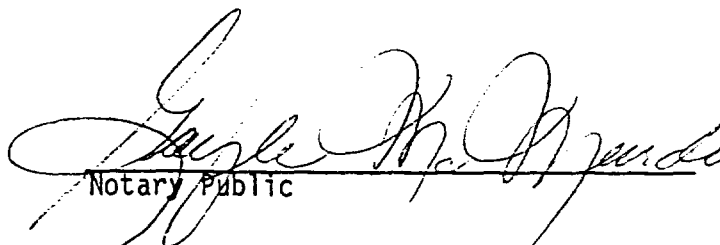
Notary Public

My Commission Expires:

09-08-91

STATE OF NEW MEXICO)
 : ss.
COUNTY OF SAN JUAN)

The foregoing instrument was acknowledged before me this 25th day of AUGUST, 1989, by Kent Beers, Attorney-in-Fact of MERIDIAN OIL INC., a Delaware corporation, on behalf of said corporation.



Notary Public

My Commission Expires:

May 30, 1993

ATTEST:

AMOCO PRODUCTION COMPANY

Date: _____

By: _____

ATTEST:

MITCHELL ENERGY CORPORATION

Date: _____

By: _____

FRED E. TURNER

Date: _____

By: _____

JOHN L. TURNER

Date: _____

By: _____

ATTEST:

BY *[Signature]*
Trust Officer

MARY FRANCIS TURNER, JR. (6743)
MTRUST CORP, N.A. Trustee

Date: *9-28-81*

By: *[Signature]*

Iris B. Gleiser, Vice President

Executed by MTRUST Corp. N.A. (and its Co-
Fiduciaries) in its representative capacity
to herein stated and not otherwise, and on the
condition that no such action shall be deemed
in its, his or her individual capacity on any
agreement, warranty or indemnity herein con-
tained.

STATE OF _____)
COUNTY OF _____) SS.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of JOHN L. TURNER.

Notary Public

My Commission Expires:

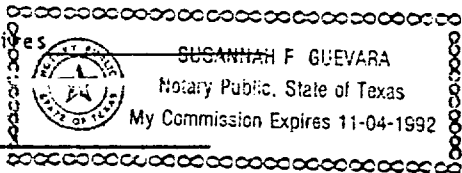
CORPORATION ACKNOWLEDGEMENT

THE STATE OF Texas
COUNTY OF Dallas

BEFORE ME, the undersigned authority, on this day personally appeared Chris B. Houser
known to me to be the person whose name is subscribed to the foregoing instrument, as Vice President
of MTrust Corp. N.A., a corporation, and acknowledged to me that he executed the same for the purposes and
consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, This the 28th day of September, 1989.

My Commission expires _____



Susan F. Guevara
Notary Public in and for State of Texas

J. GLENN TURNER, JR.

Date: _____

By: _____

LOIS J. WILLARD

Date: 9-18-89

By: Lois J. Willard

PATRICIA PENROSE SCHIEFFER, TRUSTEE

Date: _____

By: _____

ATTEST:

THE WISER OIL COMPANY

Date: _____

By: _____

WINIFRED K. PONDER

Date: _____

By: _____

JOHN BRENNAND, EXECUTOR OF THE ESTATE
OF J. R. BRENNAND

Date: _____

By: _____

STATE OF New Mexico)
COUNTY OF Santa Fe) ss.

The foregoing instrument was acknowledged before me this 18th day
of September, 1989, by Lois J. Willard,
on behalf of LOIS J. WILLARD.

Ernest R. Cady
Notary Public

My Commission Expires:

2-2-91

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of PATRICIA PENROSE SCHIEFFER, TRUSTEE.

Notary Public

My Commission Expires:

ATTEST:

AMOCO PRODUCTION COMPANY

Date: _____

By: _____

ATTEST:

MITCHELL ENERGY CORPORATION

Date: _____

By: _____

FRED E. TURNER

Date: August 31, 1989

By: *Fred E. Turner*

JOHN L. TURNER

Date: _____

By: _____

MARY FRANCIS TURNER, JR.

Date: _____

By: _____

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of MITCHELL ENERGY CORPORATION.

Notary Public

My Commission Expires:

STATE OF TEXAS)
COUNTY OF DALLAS) ss.

The foregoing instrument was acknowledged before me this 31ST day
of AUGUST, 1989, by FRED E. TURNER,
on behalf of FRED E. TURNER.



SHERRY G. GIBBS
Notary Public, State of Texas
My Commission Expires Sept. 23, 1991

Sherry G. Gibbs
Notary Public - SHERRY G. GIBBS

My Commission Expires:

9/23/91

J. GLENN TURNER, JR.

Date: _____

By: _____

LOIS J. WILLARD

Date: _____

By: _____

PATRICIA PENROSE SCHIEFFER, TRUSTEE

Date: _____

By: _____

THE WISER OIL COMPANY

Date: September 11, 1989

By: _____

John C. Wright, President

WINIFRED K. PONDER

Date: _____

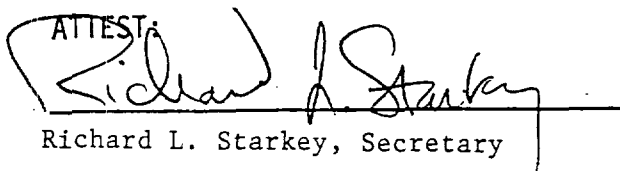
By: _____

JOHN BRENNAND, EXECUTOR OF THE ESTATE
OF J. R. BRENNAND

Date: _____

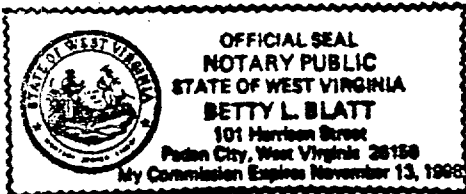
By: _____

ATTEST:


Richard L. Starkey, Secretary

STATE OF WEST VIRGINIA)
 :
COUNTY OF TYLER) SS.

The foregoing instrument was acknowledged before me this 11th day
of September, 1989, by John C. Wright, President,
on behalf of THE WISER OIL COMPANY.



Betty L. Blatt
Notary Public

My Commission Expires:

November 13, 1998

STATE OF _____)
 :
COUNTY OF _____) SS.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of WINIFRED K. PONDER.

Notary Public

My Commission Expires:

ATTEST:

AMOCO PRODUCTION COMPANY

Date: _____

By: _____

ATTEST:

MITCHELL ENERGY CORPORATION

Date: _____

By: _____

FRED E. TURNER

Date: _____

By: _____

JOHN L. TURNER

Date: 9-10-89

By: John L. Turner

MARY FRANCIS TURNER, JR.

Date: _____

By: _____

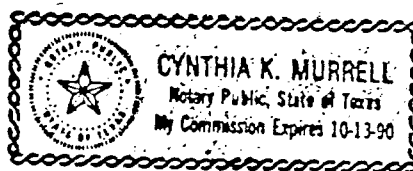
STATE OF Texas)
COUNTY OF Dallas) ss.

The foregoing instrument was acknowledged before me this 10th day
of September, 1989, by John L. Turner,
on behalf of COASTAL OIL & GAS CORPORATION.

Cynthia K. Murrell
Notary Public

My Commission Expires:

10-13-90



STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of AMOCO PRODUCTION COMPANY.

Notary Public

My Commission Expires:

ATTEST:

AMOCO PRODUCTION COMPANY

Date: _____

By: _____

ATTEST:

MITCHELL ENERGY CORPORATION

Date: *Gerry W. Taylor*

By: Gerry W. Taylor
Attorney-In-Fact

see
ja

FRED E. TURNER

Date: _____

By: _____

JOHN L. TURNER

Date: _____

By: _____

MARY FRANCIS TURNER, JR.

Date: _____

By: _____

STATE OF Colorado)
COUNTY OF Denver) ss.

The foregoing instrument was acknowledged before me this 15th day
of September, 1989, by Jerry W. Taylor,
on behalf of MITCHELL ENERGY CORPORATION.

Mary K. Halsen
Notary Public

My Commission Expires:

3-19-92

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of FRED E. TURNER.

Notary Public

My Commission Expires:

ATTEST:

ATTEST:

AMOCO PRODUCTION COMPANY

Date: 9/27/89

By: G.W. Chapman
Its Attorney-in-Fact

mac
B2

MITCHELL ENERGY CORPORATION

Date: _____

By: _____

FRED E. TURNER

Date: _____

By: _____

JOHN L. TURNER.

Date: _____

By: _____

MARY FRANCIS TURNER, JR.

Date: _____

By: _____

Designation of Sub-Operator
Rosa Unit Area
Rio Arriba County, New Mexico

STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of COASTAL OIL & GAS CORPORATION.

Notary Public

My Commission Expires:

STATE OF COLORADO)
CITY AND) ss.
COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 27th day
of September, 1989, by G. W. Chipman,
on behalf of AMOCO PRODUCTION COMPANY, as its Attorney-in-Fact.

Sh. H. M. Dickson
Notary Public

My Commission Expires:

6/20/90

F. Term

This designation shall continue and be effective until dissolved by the terms set forth in the Farmout Agreement or Unit Agreement.

G. Assignment

This designation is personal and cannot be assigned in whole or in part by Meridian without the written consent of all the other parties hereto having first been obtained.

H. Counterparts

This designation may be executed in any number of counterparts with the same force and effect as if all parties has signed the same document.

IN WITNESS WHEREOF, this designation is executed as of the day and year first hereinabove written.

NORTHWEST PIPELINE CORPORATION

Approved as
to Form
MEM
O.G.C.

Date: 8-29-89
By: *Warren O. Curtis*
Warren O. Curtis
Attorney-in-Fact

MERIDIAN OIL INC.

Date: 8-25-89
By: *1 A B*
Attorney-in-Fact Kent Beers

ATTEST:

David H. Heard
Assistant Secretary

* COASTAL OIL & GAS CORPORATION

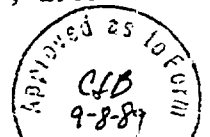
Date: September 6, 1989
By: *W. L. Donnelly*

W. L. Donnelly, Vice President, ²¹

*Subject to acceptance of that certain Letter Agreement dated September 6, 1989

INITIALED: Northwest Pipeline Corporation: _____

Meridian Oil Inc.: _____



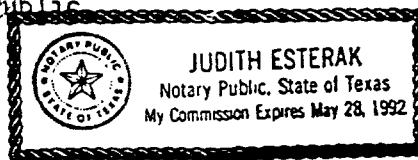
STATE OF Texas)
COUNTY OF Harris) ss.

The foregoing instrument was acknowledged before me this 8th day
of September, 1989, by W. L. Donnelly,
on behalf of COASTAL OIL & GAS CORPORATION.

Judith Esterak
Notary Public

My Commission Expires:

May 28, 1992



STATE OF _____)
COUNTY OF _____) ss.

The foregoing instrument was acknowledged before me this _____ day
of _____, 1989, by _____,
on behalf of AMOCO PRODUCTION COMPANY.

Notary Public

My Commission Expires:

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

219-89

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0399
801-584-7215

April 27, 1989

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
Attn: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87504-1148

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
1989 Drilling Program

Gentlemen:

The 1989 Drilling Program filed by letter dated March 3, 1989, for the Rosa Unit has been approved by the regulatory agencies as follows:

Bureau of Land Management	3/31/89
Commissioner of Public Lands	4/3/89
Oil Conservation Commission	3/13/89

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Land Manager

DLG:cg
Attachment

cc: Working Interest Owners
W. O. Curtis
P. C. Thompson

U56N2650
04/27/89

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
P.O. BOX 6616
SANTA BARBARA, CA 93160

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: PARTNERSHIP OPERATION
P.O. BOX 1967
HOUSTON, TX 77251-1967

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
2200 ROSS AVENUE, SUITE 2200
DALLAS, TX 75201-6776

U56N2650
04/27/89

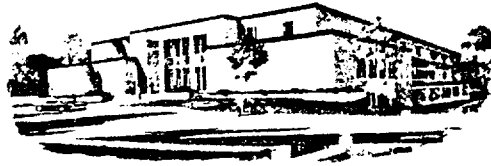
WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

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

April 4, 1989

Northwest Pipeline Corporation
P.O. Box 8900
Salt Lake City, Utah 84108-0899

ATTN: Darrell L. Gillen

RE: 1989 Plan of Development
Rosa Unit
San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved the above captioned 1989 Plan of Development. Our approval is subject to like approval by all other appropriate agencies.

Enclosed is a copy for your files.

If we may be of further help, please do not hesitate to contact us.

Very truly yours,

W.R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

cc:OCD
BLM



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107

TAKE
PRIDE IN
AMERICA

Rosa (POD)
3180 (015)

MAR 31 1989

Northwest Pipeline Corporation
ATTN: Mr. Darrell L. Gillen
P.O. Box 8900
Salt Lake City, Utah 84108-0899

Gentlemen:

Two approved copies of your 1989 Plan of Development for the Rosa Unit Area, San Juan and Rio Arriba Counties, New Mexico are enclosed. Such plan, proposing to drill fifty Fruitland Coal wells and three Morrison/Entrada wells to be used for water disposal was approved on this date subject to like approval by the appropriate officials of the State of New Mexico.

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

Sincerely,

/s/ Gary A. Stephens

Assistant District Manager
Mineral Resources

Enclosure

v NMOCD, Santa Fe

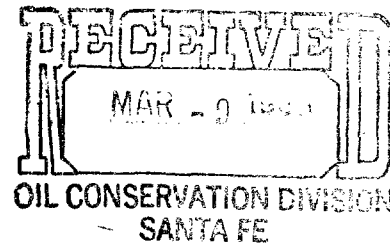
NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

102-89

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

March 3, 1989



Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
Attn: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87504-1148

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I, Sec. No. 587
San Juan & Rio Arriba Counties, New Mexico
1989 Drilling Program

Gentlemen:

By letter dated April 13, 1988, July 25, 1988 and August 10, 1988, Northwest Pipeline Corporation, as Unit Operator, filed the original and two supplementals to the 1988 Drilling Program for the referenced Unit. The Drilling Program indicated that four Fruitland Coal wells would be drilled and that one salt water disposal facility would be completed for the Fruitland Coal waste water during 1988 in the Unit. All wells were timely drilled and the salt water disposal facility timely completed during the calendar year 1988.

As of this date, the total number of wells drilled in the Rosa Unit on acreage committed to the unit is as follows:

Fruitland Coal, commerciality undetermined	4
Salt Water Disposal Facility, (Mesaverde formation)	1
Pictured Cliffs, plugged and abandoned	2
Pictured Cliffs/Mesaverde, (Pictured Cliffs non-commercial, Mesaverde commercial)	1
Mesaverde, commercial	27

Assistant District Manager, Minerals
 Commissioner of Public Lands
 Oil Conservation Commission
 March 3, 1989
 Page 2

Mesaverde, non-commercial	3
Mesaverde, plugged and abandoned	8
Mesaverde/Dakota, commercial	2
Dakota, commercial	3
Dakota, non-commercial	14
Dakota, undetermined	4
Dakota, plugged and abandoned	3
Mesaverde/Gallup/Dakota, (Gallup non-commercial, Dakota and Mesaverde commercial)	1
Gallup/Dakota, (Gallup non-commercial, Dakota commercial)	9
Gallup/Dakota, commerciality undetermined	4
Gallup/Dakota, plugged and abandoned	2
Gallup/Dakota, non-commercial	5
Gallup, non-commercial	1
Gallup/Dakota, (Gallup commerciality undetermined, Dakota plugged and abandoned)	1
Gallup/Dakota, (Gallup commerciality undetermined, Dakota non-commercial)	<u>1</u>
TOTAL	96

The Participating Areas which have been established in the Rosa Unit are as follows:

<u>Formation</u>	<u>Revision</u>	<u>Effective</u>
Mesaverde	Fourteenth	December 1, 1981
Dakota	Fifth	May 1, 1981

Pursuant to the Bureau of Land Management's new requirements to provide maps and the latest geologic interpretations of each of the Participating Areas within the unit, and our discussions with Robert Kent and Gail Keller of BLM, it was agreed that new maps are not required at this time due to the fact that Northwest Pipeline Corporation has provided maps for the Participating Areas listed above at the time of application, and there have been no changes to the Participating Areas listed. Additionally, the geology of the San Juan Basin is well established, therefore as agreed, we are not including our geologic interpretations.

Attached is a production history of each Participating Area within the Rosa Unit area.

Pursuant to Section 9 of the Rosa 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 wells during the calendar year 1989.

Assistant District Manager, Minerals
 Commissioner of Public Lands
 Oil Conservation Commission
 March 3, 1989
 Page 3

<u>Well Number</u>	<u>Drilling Block</u>	<u>Formation</u>
Rosa Unit #200	E/2 Sec. 29, T31N, R5W	Fruitland Coal
Rosa Unit #201	E/2 Sec. 22, T31N, R6W	Fruitland Coal
Rosa Unit #202	W/2 Sec. 23, T31N, R6W	Fruitland Coal
Rosa Unit #208	W/2 Sec. 15, T31N, R6W	Fruitland Coal
Rosa Unit #209	S/2 Sec. 24, T31N, R6W	Fruitland Coal
Rosa Unit #210	S/2 Sec. 13, T31N, R6W	Fruitland Coal
Rosa Unit #211	E/2 Sec. 26, T31N, R6W	Fruitland Coal
Rosa Unit #212	E/2 Sec. 14, T31N, R6W	Fruitland Coal
Rosa Unit #213	E/2 Sec. 23, T31N, R6W	Fruitland Coal
Rosa Unit #214	W/2 Sec. 14, T31N, R6W	Fruitland Coal
Rosa Unit #215	W/2 Sec. 26, T31N, R6W	Fruitland Coal
Rosa Unit #216	W/2 Sec. 11, T31N, R6W	Fruitland Coal
Rosa Unit #217	E/2 Sec. 11, T31N, R6W	Fruitland Coal
Rosa Unit #218	S/2 Sec. 25, T31N, R6W	Fruitland Coal
Rosa Unit #219	S/2 Sec. 19, T31N, R5W	Fruitland Coal
Rosa Unit #220	N/2 Sec. 13, T31N, R6W	Fruitland Coal
Rosa Unit #221	N/2 Sec. 18, T31N, R5W	Fruitland Coal
Rosa Unit #222	E/2 Sec. 15, T31N, R6W	Fruitland Coal
Rosa Unit #223	N/2 Sec. 30, T31N, R5W	Fruitland Coal
Rosa Unit #224	N/2 Sec. 8, T31N, R6W	Fruitland Coal
Rosa Unit #225	S/2 Sec. 12, T31N, R6W	Fruitland Coal
Rosa Unit #226	N/2 Sec. 12, T31N, R6W	Fruitland Coal
Rosa Unit #227	S/2 Sec. 7, T31N, R5W	Fruitland Coal
Rosa Unit #228	N/2 Sec. 7, T31N, R5W	Fruitland Coal
Rosa Unit #229	W/2 Sec. 29, T31N, R5W	Fruitland Coal
Rosa Unit #230	N/2 Sec. 31, T31N, R5W	Fruitland Coal
Rosa Unit #231	S/2 Sec. 31, T31N, R5W	Fruitland Coal
Rosa Unit #232	S/2 Sec. 20, T31N, R5W	Fruitland Coal
Rosa Unit #233	S/2 Sec. 30, T31N, R5W	Fruitland Coal
Rosa Unit #234	W/2 Sec. 9, T31N, R6W	Fruitland Coal
Rosa Unit #235	E/2 Sec. 9, T31N, R6W	Fruitland Coal
Rosa Unit #236	A11 Sec. 5, T31N, R6W	Fruitland Coal
Rosa Unit #237	A11 Sec. 4, T31N, R6W	Fruitland Coal
Rosa Unit #238	A11 Sec. 3, T31N, R6W	Fruitland Coal
Rosa Unit #239	A11 Sec. 2, T31N, R6W	Fruitland Coal
Rosa Unit #240	A11 Sec. 1, T31N, R6W	Fruitland Coal
Rosa Unit #241	A11 Sec. 6, T31N, R5W	Fruitland Coal
Rosa Unit #242	W/2 Sec. 33, T32N, R6W	Fruitland Coal
Rosa Unit #243	W/2 Sec. 36, T32N, R6W	Fruitland Coal
Rosa Unit #245	S/2 Sec. 8, T31N, R5W	Fruitland Coal
Rosa Unit #246	W/2 Sec. 9, T31N, R5W	Fruitland Coal
Rosa Unit #247	E/2 Sec. 9, T31N, R5W	Fruitland Coal
Rosa Unit #248	W/2 Sec. 15, T31N, R5W	Fruitland Coal
Rosa Unit #249	W/2 Sec. 16, T31N, R5W	Fruitland Coal

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 3, 1989
Page 4

<u>Well Number</u>	<u>Drilling Block</u>	<u>Formation</u>
Rosa Unit #250	E/2 Sec. 16, T31N, R5W	Fruitland Coal
Rosa Unit #251	E/2 Sec. 17, T31N, R5W	Fruitland Coal
Rosa Unit #252	W/2 Sec. 32, T31N, R5W	Fruitland Coal
Rosa Unit #253	E/2 Sec. 32, T32N, R6W	Fruitland Coal
Rosa Unit #254	E/2 Sec. 36, T32N, R6W	Fruitland Coal
Rosa Unit #255	All Sec. 4, T31N, R5W	Fruitland Coal

In addition to the wells listed above, Northwest Pipeline Corporation, as Unit Operator, plans to drill three Morrison/Entrada tests for the disposal of water from the Fruitland Coal formation.

The proposed salt water disposal facilities are as follows:

<u>Well Number</u>	<u>Location</u>	<u>Estimated Total Depth</u>
Rosa Unit #300	SW/4 Sec. 23, T31N, R6W	9000'
Rosa Unit #301	SW/4 Sec. 19, T31N, R5W	9100'
Rosa Unit #302	NW/4 Sec. 33, T32N, R6W	9200'

All of the Working Interest Owners have been contacted and this Drilling Program reflects the desires of a majority of the Working Interest Owners. Northwest Pipeline Corporation, as Unit Operator, and the Working Interest Owners believe that all current obligations have been satisfied.

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.

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Land Manager

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 3, 1989
Page 5

DLG:cg
Attachment

cc: Working Interest Owners
W. O. Curtis
P. C. Thompson

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 3, 1989
Page 6

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
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
Area Oil and Gas Supervisor and
the Oil Conservation Commission

DATE

APPROVED



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

DATE

3-13-89

The foregoing approvals are for the 1989 Drilling Program for the Rosa Unit I,
Sec. No. 587.

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
P.O. BOX 6616
SANTA BARBARA, CA 93160

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: PARTNERSHIP OPERATION
P.O. BOX 1967
HOUSTON, TX 77251-1967

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
2200 ROSS AVENUE, SUITE 2200
DALLAS, TX 75201-6776

U56N2650
02/23/89

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

WELLS IN SUMMARY = 31
AVERAGE BTU/SCF = 1016
AVERAGE GRAVITY = 0.586
R.L. RATIO..... = 0.0

INITIAL.....MMCF = 0.000
CUMULATIVE...MMCF = 19247.327
REMAINING...MMCF = -19247.327

MONTH	1972		1973		1974		1975		1976		1977	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	49291	0 0.0	55864	0 0.0	50118	0 0.0	44879	0 0.0	46613	0 0.0	38370	0 0.0
FEB	50222	0 0.0	41648	0 0.0	33744	0 0.0	43523	0 0.0	34884	0 0.0	30131	0 0.0
MAR	34089	0 0.0	53425	0 0.0	42374	0 0.0	43658	0 0.0	42001	0 0.0	34402	0 0.0
APR	46538	0 0.0	49926	0 0.0	33935	0 0.0	33104	0 0.0	41524	0 0.0	36147	0 0.0
MAY	48395	0 0.0	50696	0 0.0	40121	0 0.0	45071	0 0.0	37939	0 0.0	42008	0 0.0
JUN	40152	0 0.0	38067	0 0.0	31114	0 0.0	42013	0 0.0	41202	0 0.0	30042	224 21.8
JUL	55006	0 0.0	49970	0 0.0	32194	0 0.0	34789	0 0.0	40762	0 0.0	40630	229 28.1
AUG	45513	0 0.0	49776	0 0.0	31506	0 0.0	39675	0 0.0	24902	0 0.0	41476	240 28.2
SEP	37575	0 0.0	48401	0 0.0	40111	0 0.0	39564	0 0.0	34512	0 0.0	37619	215 27.9
OCT	56402	0 0.0	45319	0 0.0	37589	0 0.0	32282	0 0.0	41576	0 0.0	37002	229 26.1
NOV	61241	0 0.0	44985	0 0.0	33328	0 0.0	43073	0 0.0	40256	0 0.0	31986	229 20.8
DEC	58678	0 0.0	35786	0 0.0	29289	0 0.0	42256	0 0.0	39197	0 0.0	37941	234 24.7
TOTALS	583102	0 0	563863	0 0	435423	0 0	483887	0 0	465368	0 0	437754	228 178

MONTH	1978		1979		1980		1981		1982		1983	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	42674	221 27.5	40744	186 27.1	25777	200 19.3	36494	247 21.8	77426	292 22.1	76924	299 24.4
FEB	37106	222 25.8	27502	172 20.5	40469	193 26.0	40697	238 24.2	64315	289 19.9	40440	301 15.1
MAR	34980	232 26.3	36508	177 25.8	42034	194 25.2	35179	238 23.9	46376	297 24.6	37127	270 22.2
APR	25468	276 18.7	37556	195 25.2	39700	192 26.1	28130	259 19.5	71543	325 21.3	46485	315 14.4
MAY	32857	282 23.7	38892	226 27.0	38668	199 25.8	33302	254 23.3	76790	310 17.9	35918	322 12.6
JUN	36757	262 25.6	37872	220 24.3	22532	227 17.2	1321	262 0.6	100281	316 12.6	38940	326 13.0
JUL	36515	280 27.2	26696	219 19.5	37476	193 24.3	9225	322 4.4	82437	343 12.5	47235	281 8.6
AUG	34078	280 24.1	35931	213 25.0	35618	220 22.9	26562	279 17.8	78093	323 11.5	41099	303 9.8
SEP	26301	279 18.8	35807	232 23.4	34114	256 20.2	15017	268 20.9	57268	286 20.5	36320	290 12.4
OCT	33798	299 25.1	46883	229 23.9	40798	236 25.2	29450	305 14.2	58408	315 19.9	59927	298 13.3
NOV	42691	250 25.4	43876	196 25.1	34663	243 17.3	61178	291 22.0	70522	322 22.5	91078	263 22.1
DEC	42795	199 26.4	36944	212 23.9	42173	238 21.7	72171	312 22.6	88678	307 25.6	74164	233 22.0
TOTALS	426020	256 294	445211	206 291	434022	215 271	388726	272 217	872137	310 231	625657	291 190

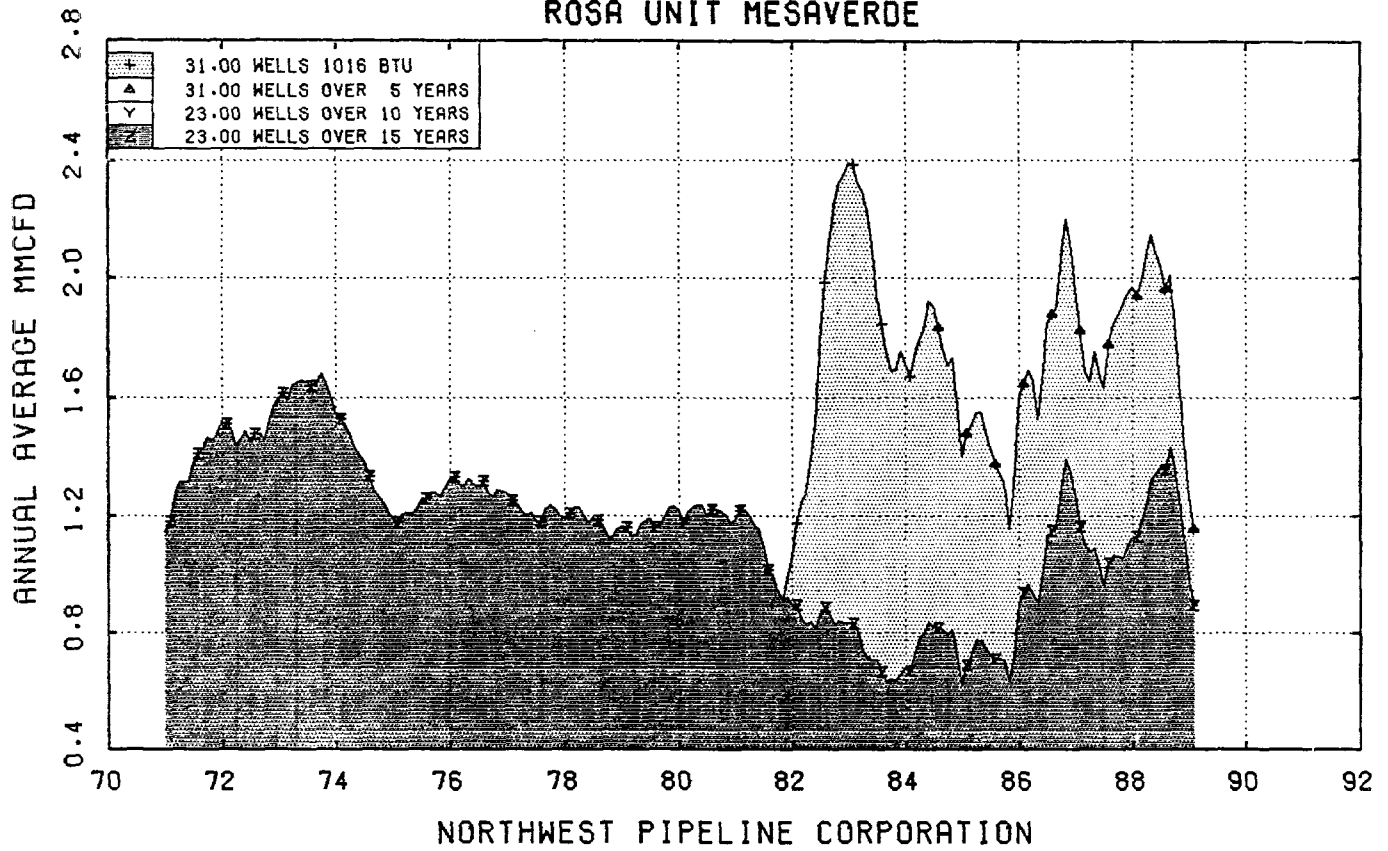
MONTH	1984		1985		1986		1987		1988		1989	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	61762	222 21.2	91391	295 20.0	108699	226 20.0	57972	263 10.7	46900	296 10.3	6371	277 7.7
FEB	63236	244 22.4	71740	249 17.7	86934	260 16.4	40654	296 9.9	58736	270 10.6		
MAR	55548	245 24.7	71125	228 19.8	59117	260 10.8	45897	252 11.2	77390	263 10.5		
APR	61493	274 21.5	62434	257 12.0	15502	259 11.2	51606	256 10.0	75810	237 10.3		
MAY	69952	277 21.4	45518	286 8.0	94753	254 17.9	69071	271 16.0	47634	254 10.6		
JUN	32002	286 8.7	12410	241 3.0	81316	243 20.0	63387	256 15.9	45269	265 10.1		
JUL	21158	253 10.7	289	209 1.0	11462	246 3.4	65291	291 12.9	37736	248 8.7		
AUG	13291	223 19.8	0	0 0.0	8157	319 2.0	33554	324 7.6	51616	276 9.3		
SEP	18265	266 8.8	6501	226 2.9	66518	289 9.8	79058	315 12.2	19096	259 3.5		
OCT	68980	296 11.8	12689	238 1.8	60934	262 10.1	72454	297 12.7	78	306 0.0		
NOV	35505	286 7.2	89560	253 9.2	60591	247 10.0	73739	313 11.5	0	0 0.0		
DEC	8580	316 3.3	117434	240 17.1	58818	275 11.2	66391	309 11.5	173	292 0.2		
TOTALS	509772	265 181	581091	247 112	712801	261 143	719074	286 142	460438	269 84	6371	277 8

MONTH	1972		1973		1974		1975		1976		1977	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	20	0	20	0	20	0	23	0	23	0	23	0
FEB	20	0	20	0	19	0	23	0	23	0	23	0
MAR	20	0	20	0	20	0	23	0	23	0	23	0
APR	20	0	20	0	20	0	23	0	23	0	23	0
MAY	20	0	20	0	20	0	23	0	23	0	23	0
JUN	20	0	20	0	20	0	23	0	23	0	23	0
JUL	20	0	20	0	19	0	23	0	23	0	23	317
AUG	20	0	20	0	20	0	23	0	23	0	23	302
SEP	20	0	20	0	20	0	23	0	23	0	23	298
OCT	20	0	20	0	20	0	23	0	23	0	23	280
NOV	20	0	20	0	20	0	23	0	23	0	23	291
DEC	20	0	20	0	20	0	23	0	23	0	23	285
TOTALS	20	0	20	0	20	0	23	0	23	0	23	317

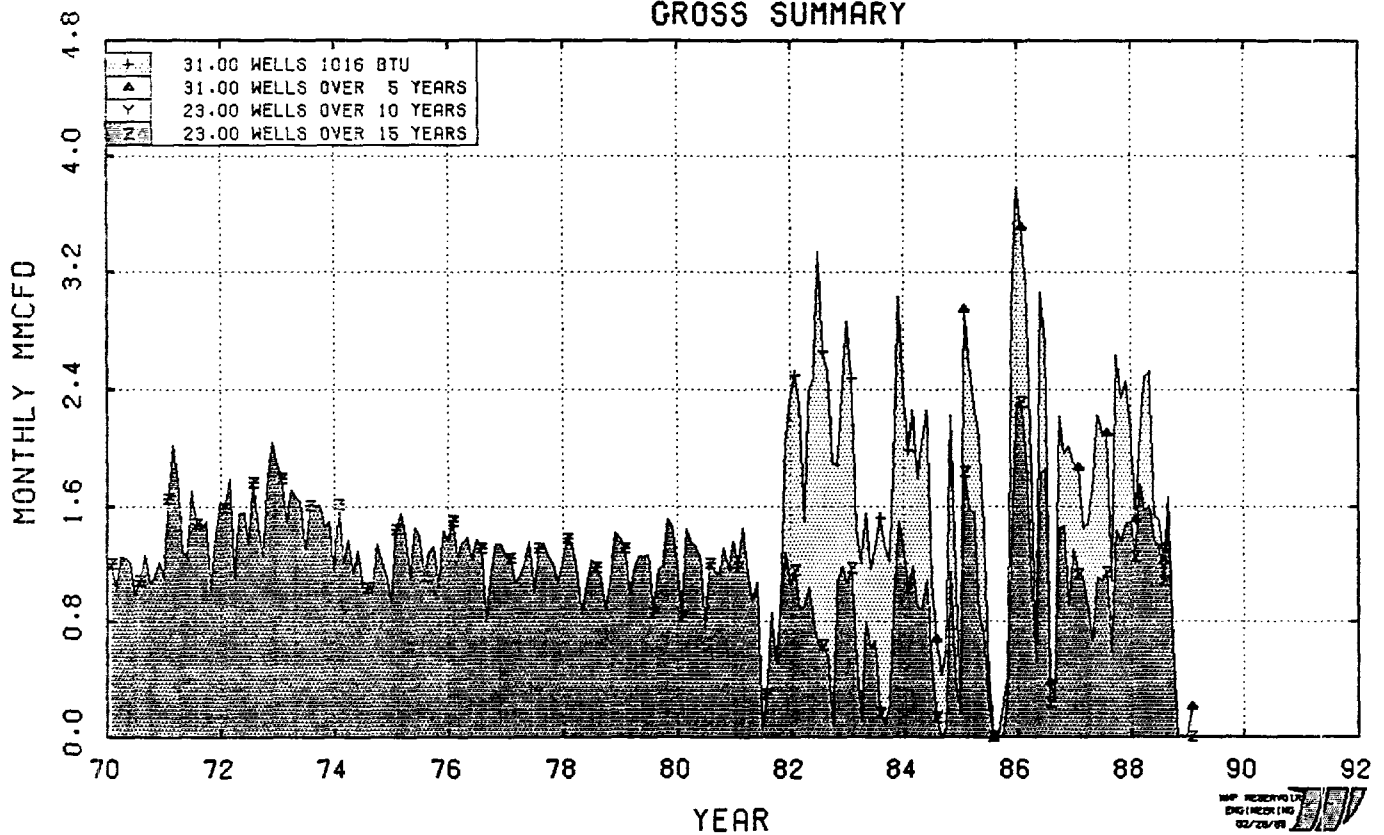
MONTH	1978		1979		1980		1981		1982		1983	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	23	281	23	343	23	380	23	321	24	321	29	351
FEB	23	295	23	253	23	375	23	316	23	318	28	342
MAR	23	290	23	360	23	310	23	265	20	323	13	283
APR	23	320	23	252	23	260	23	339	27	395	23	398
MAY	23	387	23	307	23	260	23	318	28	362	21	408
JUN	23	305	23	291	23	279	20	299	29	419	25	373
JUL	23	343	23	278	23	273	14	517	30	441	17	351
AUG	23	345	23	287	23	290	15	401	30	448	15	400
SEP	23	329	23	325	23	383	9	302	9	319	16	417
OCT	23	340	23	391	23	352	21	411	23	515	29	423
NOV	23	310	23	373	23	358	22	356	26	414	30	376
DEC	23	304	23	383	23	330	23	348	28	360	30	326
TOTALS	23	387	23	391	23	383	23	517	30	515	30	423

MONTH	1984		1985		1986		1987		1988		1989	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	28	327	29	392	30	288	22	285	24	339	2	289
FEB	28	319	29	282	31	282	22	336	26	319		
MAR	26	332	28	261	31	282	21	278	30	303		
APR	27	346	31	274	9	267	19	286	30	297		
MAY	30	346	30	433	31	377	20	299	23	291		
JUN	30	348	15	421	29	280	20	281	23	293		
JUL	10	262	2	211	28	383	29	502	23	288		
AUG	4	229	0	0	11	330	29	455	23	358		
SEP	8	317	5	236	30	437	30	441	23	309		
OCT	27	366	13	276	26	455	30	358	3	307		
NOV	27	384	25	486	23	265	30	346	0	0		
DEC	18	535	30	426	22	296	30	334	1	292		
TOTALS	30	535	31	496	31	455	30	502	30	356	2	289

ROSA UNIT MESAVERDE



GROSS SUMMARY



NORTHWEST PIPELINE CORPORATION
RESERVOIR ENGINEERING HISTORY FILE EXTRACT @ 14.73 PSIA
ROSA DAKOTA

U53N0580 JANUARY 1989
WED FEBRUARY 22, 1989 8:20:33 AM

WELLS IN SUMMARY = 6 INITIAL.....MMCF = 0.000
AVERAGE BTU/SCF = 987 CUMULATIVE..MMCF = 7098.127
AVERAGE GRAVITY = 0.587 REMAINING....MMCF = -7098.127
R.L. RATIO..... = 0.0

MONTH	1972		1973		1974		1975		1976		1977	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
APR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAY	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AUG	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SEP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OCT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOV	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
DEC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1978		1979		1980		1981		1982		1983	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	13018	334 32.0	62170	221 15.9	135351	250 32.0	70054	304 20.6	135918	302 29.8
FEB	0	0.0	5660	309 16.0	89783	220 27.9	131755	236 31.9	92485	304 17.6	115882	300 25.2
MAR	0	0.0	12151	451 13.5	87790	194 31.9	126122	248 30.1	100512	308 30.3	107789	302 26.5
APR	0	0.0	24655	346 32.0	84508	178 32.0	6708	270 3.2	69666	330 15.3	72408	311 18.9
MAY	0	0.0	59441	273 32.0	16849	177 16.4	91609	263 20.8	43455	316 15.8	28922	310 10.2
JUN	0	0.0	39684	207 23.9	5665	228 15.9	327	290 1.2	53635	307 21.4	45871	325 12.3
JUL	0	0.0	41712	209 23.1	5164	173 19.5	5365	303 13.1	75560	336 19.4	71274	271 16.4
AUG	0	0.0	44467	198 28.4	20172	219 12.7	9585	267 31.0	85374	294 20.8	67678	283 16.4
SEP	0	0.0	45305	223 32.1	115537	277 14.8	2709	262 16.7	127047	293 25.7	75303	275 14.4
OCT	0	0.0	51039	208 32.0	24657	214 14.2	0	0.0	75982	295 25.4	10882	318 4.6
NOV	22449	427 23.7	76662	207 23.4	101153	253 20.0	13971	300 11.0	60675	319 26.0	16818	262 20.0
DEC	19142	376 29.0	93372	218 31.8	135221	280 27.2	94297	327 22.8	82125	304 23.4	13508	236 17.1
TOTALS	41591	401 53	507166	265 320	748669	219 248	617799	274 214	936570	308 262	762253	291 212

MONTH	1984		1985		1986		1987		1988		1989	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	51754	221 14.3	100665	298 22.0	20495	219 17.1	75121	276 10.6	103509	310 19.0	47607	278 13.9
FEB	81339	244 19.1	86205	239 17.7	18656	262 12.9	86155	301 12.6	39399	298 9.2		
MAR	85217	253 29.2	54884	221 14.7	14286	257 11.0	102562	264 16.1	37818	273 11.3		
APR	85366	311 22.0	66405	255 14.3	12718	260 15.3	51840	255 15.4	92477	246 14.6		
MAY	76137	283 19.9	74331	271 13.2	56041	251 16.3	54104	274 19.4	94994	278 19.6		
JUN	75671	281 20.8	8454	231 16.6	102093	244 14.2	52250	259 18.9	75217	289 16.8		
JUL	57995	249 19.9	468	223 0.5	52734	279 4.9	88153	295 14.4	14541	251 18.3		
AUG	54069	226 26.1	3711	266 2.8	0	0.0	81000	321 10.1	39640	288 15.7		
SEP	60917	252 13.9	9605	235 5.1	7764	262 10.7	132359	317 16.8	4195	261 8.7		
OCT	100551	289 19.8	12205	243 7.3	8410	240 14.6	130144	303 19.7	25571	299 24.2		
NOV	35294	283 13.8	22122	238 13.8	68838	263 11.3	130057	320 17.6	28659	298 30.0		
DEC	7955	312 2.9	24248	229 19.0	123547	285 16.6	141084	318 19.2	34473	295 17.7		
TOTALS	77265	267 222	463303	245 147	485582	256 145	1124829	291 191	590493	282 205	47607	278 14

NORTHWEST PIPELINE CORPORATION
RESERVOIR ENGINEERING HISTORY FILE EXTRACT @ 14.73 PSIA
ROSA DAKOTA

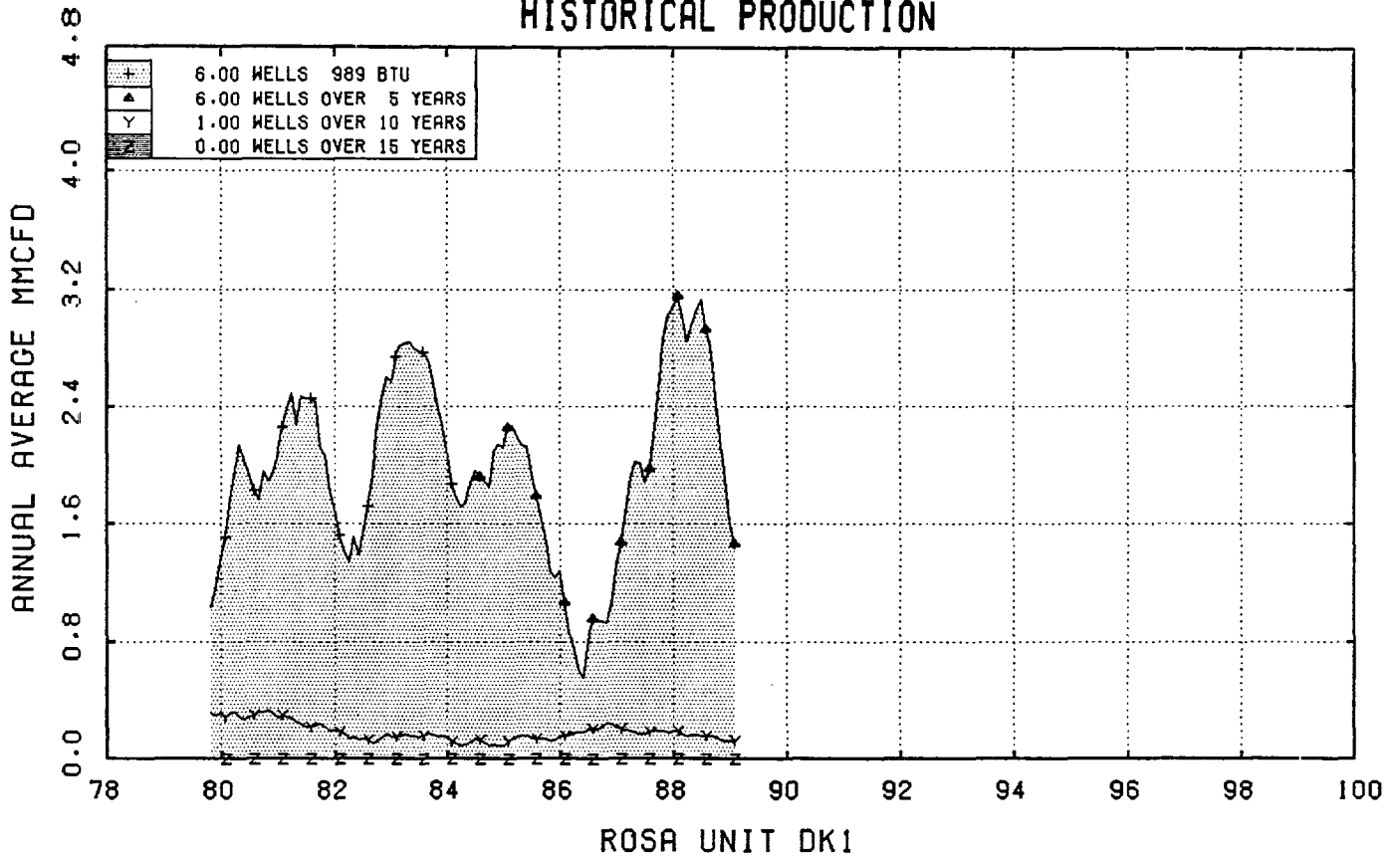
U53N0580 JANUARY 1989
WED FEBRUARY 22, 1989 8:20:33 AM

MONTH	1972		1973		1974		1975		1976		1977	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	0	0	0	0	0	0	0	0	0	0	0	0
FEB	0	0	0	0	0	0	0	0	0	0	0	0
MAR	0	0	0	0	0	0	0	0	0	0	0	0
APR	0	0	0	0	0	0	0	0	0	0	0	0
MAY	0	0	0	0	0	0	0	0	0	0	0	0
JUN	0	0	0	0	0	0	0	0	0	0	0	0
JUL	0	0	0	0	0	0	0	0	0	0	0	0
AUG	0	0	0	0	0	0	0	0	0	0	0	0
SEP	0	0	0	0	0	0	0	0	0	0	0	0
OCT	0	0	0	0	0	0	0	0	0	0	0	0
NOV	0	0	0	0	0	0	0	0	0	0	0	0
DEC	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

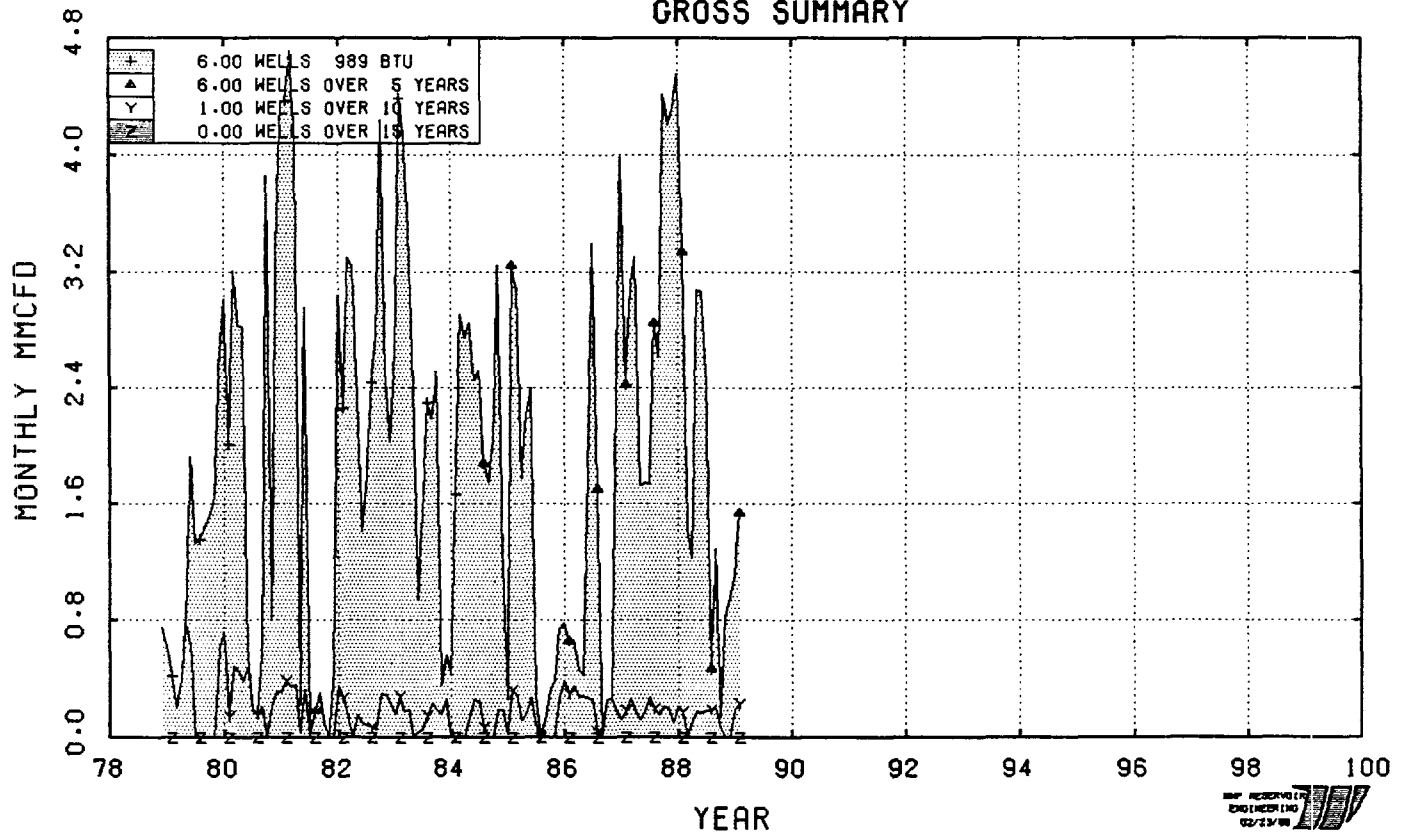
MONTH	1978		1979		1980		1981		1982		1983	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	0	0	1	334	2	251	3	256	4	313	6	312
FEB	0	0	1	309	2	257	3	242	4	297	6	304
MAR	0	0	1	451	2	219	3	256	3	313	5	414
APR	0	0	2	346	2	185	2	274	6	339	5	318
MAY	0	0	2	337	2	196	3	269	5	340	5	319
JUN	0	0	1	207	1	228	1	290	5	331	5	341
JUL	0	0	1	209	2	173	1	303	6	375	5	275
AUG	0	0	1	198	2	228	1	267	6	333	6	288
SEP	0	0	1	223	3	301	1	262	6	301	6	283
OCT	0	0	1	208	2	220	0	0	5	308	4	388
NOV	1	427	2	224	3	263	2	301	5	325	3	278
DEC	1	376	2	238	3	314	4	340	6	309	3	246
TOTALS	1	427	2	451	3	314	4	340	6	375	6	414

MONTH	1984		1985		1986		1987		1988		1989	
	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG	WELLS FLOWING	MAX PSIG
JAN	5	238	5	321	3	233	6	293	3	327	5	288
FEB	5	262	5	245	3	272	6	316	4	315		
MAR	4	263	5	226	3	267	6	278	5	285		
APR	6	453	6	264	2	268	5	281	6	264		
MAY	6	303	6	276	4	267	4	282	4	305		
JUN	6	291	2	242	6	255	4	267	4	307		
JUL	4	261	2	247	6	340	6	332	2	254		
AUG	3	232	2	271	0	0	6	343	3	296		
SEP	5	290	3	240	1	262	6	332	2	282		
OCT	6	316	3	257	1	240	6	319	1	299		
NOV	5	308	3	246	6	269	6	332	1	298		
DEC	5	441	3	237	6	298	6	341	2	304		
TOTALS	6	453	6	321	6	340	6	343	6	327	5	288

HISTORICAL PRODUCTION



GROSS SUMMARY



17-89

LAND DEPARTMENT

P O BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

January 12, 1989

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
Attn: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87504-1148

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
Rio Arriba County, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELLS
Gallup Formation

Gentlemen:

The Notice of Completion of Non-Commercial Wells for the Rosa Gallup Unit #109 and #116 filed by letter dated October 26, 1988, has been approved by the regulatory agencies as follows:

Bureau of Land Management	11/29/88
Commissioner of Public Lands	12/28/88
Oil Conservation Commission	11/3/88

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land Department

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
January 12, 1988
Page 2

DLG:cg
Attachment

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
L. K. Leaver

U56N2650
01/11/89

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: PARTNERSHIP OPERATION
P.O. BOX 1967
HOUSTON, TX 77251-1967

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
01/11/89

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980



United States Department of the Interior

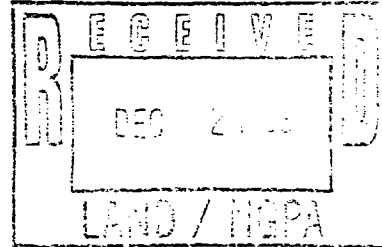


BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107

NOV 29 1988

Rosa (PA)
3180 (015)

Northwest Pipeline Corporation
Attn: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108



Gentlemen:

By letter dated October 26, 1988, we received a Notice of Completion of Non-Commercial wells, Gallup Formation, San Juan and Rio Arriba Counties, New Mexico. Northwest Pipeline Corporation, as unit operator, has determined that the Rosa well No. 109 (located 1190 feet from the south line and 1010 feet from the west line, Section 9, T. 31 N., R. 5 W.) and the Rosa well No. 116 (located 1050 feet from the north line and 790 feet from the east line, Section 24, T. 31 N., R. 6 W.) is not capable of producing unitized substances in paying quantities from the Gallup Formation. This notice is hereby accepted for the record.

If you have any further questions, please contact Gail Keller at (505) 761-4503.

Sincerely,

Sid Vogelbehl

Assistant District Manager
Mineral Resources



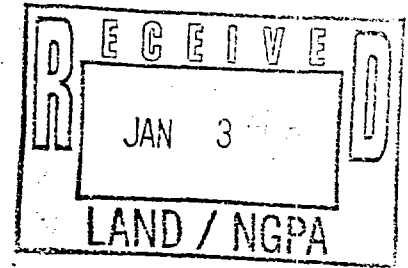
W.R. HUMPHRIES
COMMISSIONER

State of New Mexico



Commissioner of Public Lands

December 28, 1988



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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Gallup Formation

Gentlemen:

The Bureau of land Management has advised this office by their letter of November 29, 1988, that the Rosa Gallup Unit Well Nos. 109 and 116 are not capable of producing unitized substances in paying quantities from the Gallup formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 3

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

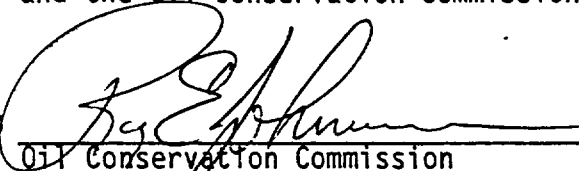
DATE

APPROVED

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

DATE

APPROVED


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

DATE

11-3-88

The foregoing is the approval of Notice of Completion of Non-Commercial Wells
for the Rosa Unit #109 and #116 Wells, Gallup Formation.

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

19-89

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

January 12, 1989

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
Attn: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87504-1148

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELLS
Dakota Formation

Gentlemen:

The Notice of Completion of Non-Commercial Wells for the Rosa Dakota Unit #107, #108, #109, #112Y, and #115 filed by letter dated October 26, 1988, has been approved by the regulatory agencies as follows:

Bureau of Land Management	11/29/88
Commissioner of Public Lands	12/28/88
Oil Conservation Commission	11/3/88

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

Sincerely,

NORTHWEST PIPELINE CORPORATION

Darrell L. Gillen
Darrell L. Gillen
Supervisor, Land Department

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
January 12, 1988
Page 2

DLG:cg
Attachment

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
L. K. Leaver

U56N2650
01/11/89

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: PARTNERSHIP OPERATION
P.O. BOX 1967
HOUSTON, TX 77251-1967

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
01/11/89

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980



United States Department of the Interior

BUREAU OF LAND MANAGEMENT ALBUQUERQUE DISTRICT OFFICE

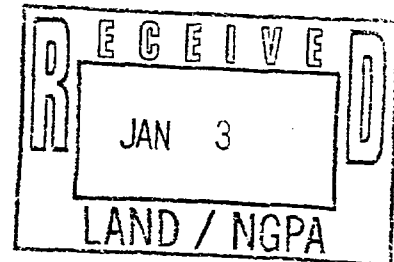
435 Montano N.E.
Albuquerque, New Mexico 87107



IN REPLY REFER TO:

Rosa (PA)
3180 (015)

DEC 29 1988



Northwest Pipeline Corporation
ATTN: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108

Gentlemen:

This is in response to an error in our November 29, 1988 acceptance letter for Notice of Completion of Non-Commercial wells, Dakota Formation, Rosa Unit, San Juan and Rio Arriba Counties, New Mexico. The Rosa Unit Well No. 108 (located 1850 feet from the north line and 1720 feet from the east line Section 7, T. 31 N., R. 5 W.) was left off the list of Non-Commercial wells, Dakota Formation. The Rosa Unit Well No. 108 was determined to be a Non-Commercial well, Dakota Formation, Rosa Unit. We regret any inconvenience that this action may have caused.

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

Sincerely,

Assistant District Manager
Mineral Resources



United States Department of the Interior

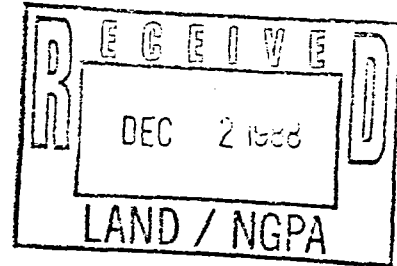


BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107

Rosa (PA)
3180 (015)

NOV 29 1988

Northwest Pipeline Corporation
Attn: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108



Gentlemen:

By letter dated October 26, 1988, we received a Notice of Completion of Non-Commercial wells, Dakota Formation, Rosa Unit, San Juan and Rio Arriba Counties, New Mexico. Northwest Pipeline Corporation, as unit operator, has determined that the Rosa Unit Well No. 107 (located 2160 feet from the south line and 1850 feet from the west line Section 4, T. 31 N., R. 5 W.); Rosa Unit Well No. 109 (located 1190 feet from the south line and 1010 feet from the west line, Section 9, T. 31 N., R. 5 W.); Rosa Unit Well No. 112Y (located 850 feet from the south line and 850 feet from the west line, section 27, T. 31 N., R. 5 W.); and the Rosa Unit Well No. 115 (located 1510 feet from the north line and 1050 feet from the east line, Section 22, T. 31 N., R. 6 W.) are not capable of producing unitized substances in paying quantities from the Dakota Formation. This notice is hereby accepted for the record.

If you have any further questions, please contact Gail Keller at (505) 761-4503.

Sincerely,

Sid Vagelpohl

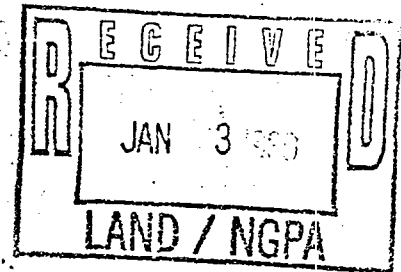
Assistant District Manager
Mineral Resources

SLO REF NO OG-978



W.R. HUMPHRIES
COMMISSIONER

State of New Mexico



Commissioner of Public Lands

December 28, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Dakota Formation

Gentlemen:

This office is in receipt of your letter of October 16, 1988, together with a copy of a letter from the Bureau of Land Management, advising this office that the Rosa Dakota Unit Well Nos. 107, 108, 109, 112Y, and 115 are not capable of producing unitized substances in paying quantities from the Dakota formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.

cc: OCD
BLM
OGAD

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 5

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

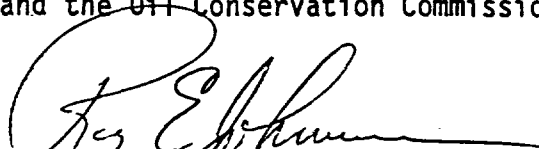
DATE

APPROVED

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

DATE

APPROVED


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

DATE

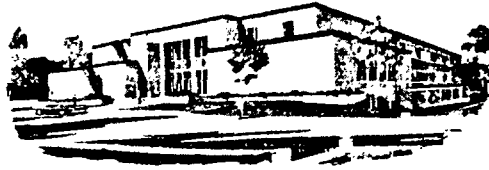
11-3-88

The foregoing is the approval of Notice of Completion of Non-Commercial Wells
for the Rosa Unit #107, #108, #109, #112Y and #115 Wells, Dakota Formation.

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

December 30, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Gallup Formation

Gentlemen:

This office is in receipt of your letter of March 9, 1988, and a copy of a letter from the Bureau of Land Management, advising this office that the Rosa Gallup Unit Well Nos. 59, 77, 97, 98 and 99Y are not capable of producing unitized substances in paying quantities from the Gallup formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM
OGAD

State of New Mexico



REF NO OG-986



W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

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

December 30, 1988

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Dakota Formation

Gentlemen:

This office is in receipt of your letter of November 21, 1988 advising this office that the Notice of Completion of Non-Commercial Well for the Rosa Dakota Unit Well No. 117 filed by your letter dated October 10, 1988, has been approved by the Bureau of Land Management and the New Mexico Oil Conservation Division.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, and the New Mexico Oil Conservation Division that the above well is non-commercial and should be produced on a lease basis.

Please submit a copy of the approval letters from the Bureau of Land Management and the Oil Conservation Division to this office for our records.

If we may be of further help please do not hesitate to call on us.

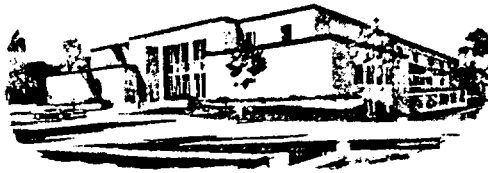
Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM
OGAD

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

December 28, 1988

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

AMENDED LTR TO INCLUDE WELL NO. 108

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Gallup Formation

Gentlemen:

This office is in receipt of your letter of December 5, 1988, together with a copy of a letter from the Bureau of Land Management, advising this office that the Rosa Gallup Unit Well Nos. 87, 107, 108, 112Y, and 115 are not capable of producing unitized substances in paying quantities from the Gallup formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*

FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM
OGAD



W.R. HUMPHRIES
COMMISSIONER

State of New Mexico



Commissioner of Public Lands

December 28, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Dakota Formation

Gentlemen:

This office is in receipt of your letter of October 16, 1988, together with a copy of a letter from the Bureau of Land Management, advising this office that the Rosa Dakota Unit Well Nos. 107, 108, 109, 112Y, and 115 are not capable of producing unitized substances in paying quantities from the Dakota formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

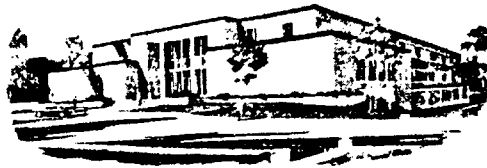
WRH/FOP/pm
encls.

cc: OCD
BLM
OGAD



W.R. HUMPHRIES
COMMISSIONER

State of New Mexico



Commissioner of Public Lands

December 28, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Gallup Formation

Gentlemen:

The Bureau of land Management has advised this office by their letter of November 29, 1988, that the Rosa Gallup Unit Well Nos. 109 and 116 are not capable of producing unitized substances in paying quantities from the Gallup formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

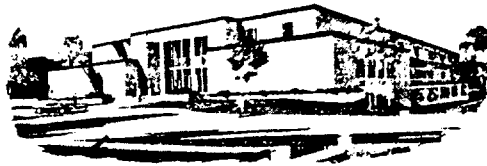
Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

December 16, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0899

Re: Rosa Unit I Sec. No. 587
San Juan & Rio Arriba Counties, NM
Notice of Completion of NC wells
Gallup Formation

Gentlemen:

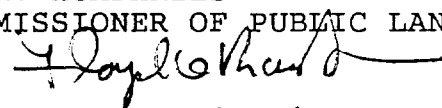
This office is in receipt of your letter of December 5, 1988, together with a copy of a letter from the Bureau of Land Management, advising this office that the Rosa Gallup Unit Well Nos. 87, 107, 112Y, and 115 are not capable of producing unitized substances in paying quantities from the Gallup formation.

Please be advised that the Commissioner of Public Lands, concurs with the Bureau of Land Management, that the above wells are non-commercial and should be produced on a lease basis.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: 
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM



well file
United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107



DEC 2 1988

NOV 29 1988

Rosa (PA)
3180 (015)

Northwest Pipeline Corporation
Attn: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108

Gentlemen:

By letter dated October 26, 1988, we received a Notice of Completion of Non-Commercial wells, Gallup Formation, San Juan and Rio Arriba Counties, New Mexico. Northwest Pipeline Corporation, as unit operator, has determined that the Rosa well No. 109 (located 1190 feet from the south line and 1010 feet from the west line, Section 9, T. 31 N., R. 5 W.) and the Rosa well No. 116 (located 1050 feet from the north line and 790 feet from the east line, Section 24, T. 31 N., R. 6 W.) is not capable of producing unitized substances in paying quantities from the Gallup Formation. This notice is hereby accepted for the record.

If you have any further questions, please contact Gail Keller at (505) 761-4503.

Sincerely,

Sid Vogelpohl

Assistant District Manager
Mineral Resources



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107



NOV 29 1988

Rosa (PA)
3180 (015)

Northwest Pipeline Corporation
Attn: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108

Gentlemen:

By letter dated October 26, 1988, we received a Notice of Completion of Non-Commercial wells, Dakota Formation, Rosa Unit, San Juan and Rio Arriba Counties, New Mexico. Northwest Pipeline Corporation, as unit operator, has determined that the Rosa Unit Well No. 107 (located 2160 feet from the south line and 1850 feet from the west line Section 4, T. 31 N., R. 5 W.); Rosa Unit Well No. 109 (located 1190 feet from the south line and 1010 feet from the west line, Section 9, T. 31 N., R. 5 W.); Rosa Unit Well No. 112Y (located 850 feet from the south line and 850 feet from the west line, section 27, T. 31 N., R. 5 W.); and the Rosa Unit Well No. 115 (located 1510 feet from the north line and 1050 feet from the east line, Section 22, T. 31 N., R. 6 W.) are not capable of producing unitized substances in paying quantities from the Dakota Formation. This notice is hereby accepted for the record.

If you have any further questions, please contact Gail Keller at (505) 761-4503.

Sincerely,

Sid Vogelsohl

Assistant District Manager
Mineral Resources

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

664-88

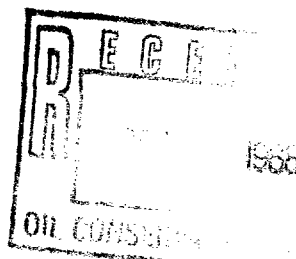
P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0399
801-584-7215

LAND DEPARTMENT

November 21, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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



State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
Rio Arriba County, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Dakota Formation

Gentlemen:

The Notice of Completion of Non-Commercial Well for the Rosa Dakota Unit #117 filed by letter dated October 10, 1988, has been approved by the regulatory agencies as follows:

Bureau of Land Management	11/9/88
Oil Conservation Commission	10/20/88

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

Sincerely,

NORTHWEST PIPELINE CORPORATION

Darrell L. Gillen
Supervisor, Land Department

DLG:cg
Attachment

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
November 21, 1988
Page 2

cc: Working Interest Owners

K. J. Stracke

W. S. West

L. G. Loving

C. N. Potter

R. L. Glenn

M. H. Johnson

R. P. Gregory

L. K. Leaver

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
11/21/88

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

WORKING INTEREST OWNERS
ROSA UNIT

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

November 18, 1988

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

Northwest Pipeline Corporation
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, UT 84108

#133

Re: Rosa Unit
Non-Commercial Well No. 94
San Juan & Rio Arriba Counties
New Mexico

Gentlemen:

This office is in receipt of your letter of October 10, 1988 and the notification letter by BLM dated November 4, 1988 regarding the noncommercial well determination on the above captioned well.

Please be advised that the Commissioner of Public Lands concurs with the Bureau of Land Management that the Rosa Unit Well No. 94-K located in Sec. 16-31N-5W is not capable of producing unitized substances in paying quantities from the Mesaverde Formation.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY:

Floyd O. Prando
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

649-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

November 16, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Mesaverde Formation

Gentlemen:

The Notice of Completion of Non-Commercial Well for the Rosa Mesaverde Unit #94 filed by letter dated October 10, 1988, has been approved by the regulatory agencies as follows:

Bureau of Land Management	11/4/88
Oil Conservation Commission	10/20/88

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land Department

DLG:cg
Attachment

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
November 16, 1988
Page 2

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
L. K. Leaver

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
11/14/88

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

WORKING INTEREST OWNERS
ROSA UNIT



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ALBUQUERQUE DISTRICT OFFICE
435 MONTANO N.E.
ALBUQUERQUE, NEW MEXICO 87107



NOV 04 1988

133

Rosa Unit
3180 (015) (PA)

Northwest Pipeline Corporation
ATTN: Darrell L. Gilllen
P.O. Box 8900
Salt Lake City, UT 84108

Gentlemen:

By letter dated October 10, 1988, we received a Notice of Completion of a Non-Commercial well, Mesaverde Formation, Rosa Unit, San Juan and Rio Arriba Counties, New Mexico. Northwest Pipeline Corporation, as unit operator, has determined that the Rosa Unit well No. 94 (located 1650 feet from the south and 1820 feet from the west of Section 16, T.31 N., R. 5 W.) is not capable of producing unitized substances in paying quantities from the Mesaverde Formation. This notice is hereby accepted for the record.

If you have any questions, please contact Gail Keller at (505) 761-4503.

Sincerely,

/s/ Gary A. Stephens

Assistant District Manager
Mineral Resources

✓ NMOCD

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

610-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

October 26, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELLS
Dakota Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Dakota formation.

The well data is as follows:

The Rosa Dakota Unit #107 well is located 2160 feet from the south line and 1850 feet from the west line, Section 4, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 30, 1984 and completed in the Dakota formation on February 1, 1985. The plug back depth is 7970'. The Dakota formation was perforated with two shots per foot across the following intervals:

7748'-7766'; 7792'-7806'; 7810'-7826'; 7830'-7852'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 2

The Dakota formation was hydraulically fractured with 130,000 gallons of gelled water carrying 240,000 pounds of 20/40 mesh sand. On April 13, 1985 the Dakota formation was tested using a positive choke. During the 3-hour test the well produced 201 Mcf of gas. The 24 hour calculated rate was 1605 Mcfd with an AOF of 1620 Mcfd. The shut-in tubing pressure was 2702 psig.

The Rosa Dakota Unit #108 well is located 1850 feet from the north line and 1720 feet from the east line, Section 7, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on September 8, 1984 and completed in the Dakota formation on November 12, 1984. The plug back depth is 8010'. The Dakota formation was perforated with four shots per foot across the following intervals:

7828'-7840'; 7908'-7926'; 7958'-7974'

The Dakota formation was hydraulically fractured with 125,000 gallons of gelled water carrying 270,000 pounds of 20/40 mesh sand. On February 8, 1985 the Dakota formation was tested using a positive choke. During the 3-hour test the well produced 284 Mcf of gas. The 24 hour calculated rate was 2270 Mcfd with an AOF of 2337 Mcfd. The shut-in tubing pressure was 2211 psig.

The Rosa Dakota Unit #109 well is located 1190 feet from the south line and 1010 feet from the west line, Section 9, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 3, 1984 and completed in the Dakota formation on January 2, 1985. The plug back depth is 8430'. The Dakota formation was perforated with two shots per foot across the following intervals:

8200'-8213'; 8244'-8254'; 8270'-8300'; 8314'-8324';
8340'-8352'

The Dakota formation was hydraulically fractured with 145,000 gallons of gelled water carrying 210,500 pounds of 20/40 mesh sand. On February 7, 1985 the Dakota formation was tested using a positive choke. During the 3-hour test the well produced 381 Mcf of gas. The 24 hour calculated rate was 3048 Mcfd with an AOF of 3176 Mcfd. The shut-in tubing pressure was 2546 psig.

The Rosa Dakota Unit #112Y well is located 850 feet from the south line and 850 feet from the west line, Section 27, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on May 9, 1985 and completed in the Dakota formation on July 14, 1985. The plug back depth is 8500'. The Dakota formation was perforated with two shots per foot across the following intervals:

8290'-8316'; 8328'-8398'; 8410'-8420'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 3

The Dakota formation was hydraulically fractured with 133,000 gallons of gelled water carrying 235,400 pounds of 20/40 mesh sand. On August 9, 1985 the well was tested using a positive choke. During the 3-hour test the well produced 218 Mcf of gas. The 24 hour calculated rate was 1746 Mcfd with an AOF of 1771 Mcfd. The shut-in tubing pressure was 2552 psig.

The Rosa Dakota Unit #115 well is located 1510 feet from the north line and 1050 feet from the east line, Section 22, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on July 7, 1984 and completed in the Dakota formation on October 26, 1984. The plug back depth is 8060'. The Dakota formation was perforated with four shots per foot across the following intervals:

7766'-7792'; 7810'-7830'; 7833'-7840'
7845'-7862'; 7878'-7888'; 7899'-7907'

The Dakota formation was hydraulically fractured in two stages as follows:

7766'-7792': 22,176 gallons gelled water carrying 28,600 lbs. of 20/40 mesh sand as proppant, &

7810'-7907': 81,000 gallons gelled water carrying 174,000 lbs. of 20/40 mesh sand as proppant.

On December 11, 1984 the well was tested using a positive choke. During the 3-hour test the well produced 221 Mcf of gas. The 24 hour calculated rate was 1770 Mcfd with an AOF of 1775 Mcfd. The shut-in tubing pressure was 2835 psig.

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

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land Department

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 4

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
M. H. Johnson
R. P. Gregory
R. L. Glenn
L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 5

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

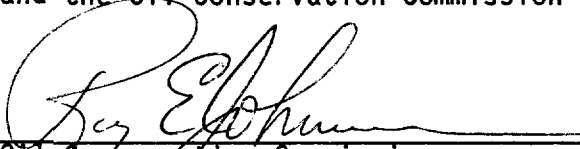
DATE

APPROVED

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

DATE

APPROVED



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

DATE

11-3-88

The foregoing is the approval of Notice of Completion of Non-Commercial Wells
for the Rosa Unit #107, #108, #109, #112Y and #115 Wells, Dakota Formation.

U56N2650
10/24/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 871-2

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
10/24/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT #107 (85942) (DK)

FRI OCTOBER 7, 1988
3:32:12 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX USED AS FUTURE CREDIT	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA UNIT #107 (DK)

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES....%	10.4	OPERATING COSTS (\$/MO)	454.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	421.2	TANGIBLE \$ (% OF DRILLING \$)	24.7
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	DECLINE %	TO MCF/D	ENDING MONTH
8	44.0	57.1	41.0	9
9	41.0	59.8	38.0	10
10	38.0	47.7	36.0	11
11	36.0	37.6	32.0	14
14	32.0	28.8	27.0	20
20	27.0	10.9	17.0	68
68	17.0	3.8	14.0	128
128	14.0	3.0	12.0	188
188	12.0	3.6	10.0	248
248	10.0	100.0	0.0	249

YEAR	BEG. VR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	16	5893.	737.	9.
1987	1.72	29	10495.	1312.	14.
1988	1.34	24	8918.	1115.	10.
1989	1.25	22	7944.	993.	9.
1990	1.25	19	7076.	884.	8.
1991	1.25	17	6336.	792.	7.
1992	1.25	16	6002.	750.	7.
1993	1.25	16	5774.	722.	6.
1994	1.25	15	5554.	694.	6.
1995	1.25	15	5342.	668.	6.
1996	1.25	14	5142.	643.	6.
1997	1.25	14	4978.	622.	5.
1998	1.25	13	4826.	603.	5.
1999	1.25	13	4680.	585.	5.
2000	1.25	12	4538.	567.	5.
2001	1.25	12	4398.	550.	5.
2002	1.25	12	4246.	531.	5.
2003	1.25	11	4094.	512.	4.
2004	1.25	11	3947.	493.	4.
2005	1.25	10	3806.	476.	4.
2006	1.25	7	2461.	308.	3.
TOTAL.....			116443.	14556.	133.

NORTHWEST PIPELINE CORPORATION
 GAS RESERVES DEPARTMENT ECONOMIC STUDY
 ROSA UNIT #107 (85942) (DK) FRI OCTOBER 7, 1988
 3:32:12 PM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
 WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
 INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
 UNIT OF PRODUCTION DEPRECIATION

DISCOUNT ***** DISCOUNTED PROFIT TO**
 RATE ***** **INVESTMENT RATIO**
 *** % ** BEFORE TAX AFTER TAX BEFORE TAX AFTER TAX
 ***** 0.00 RATE OF RETURN B.T.
 ***** 0.0 RATE OF RETURN A.T.
 15.0 -373. -0.89 -0.89

CASH FLOW ANALYSIS IN \$1000									
YEAR	INCOME	**PROJECT EXPENSES IN \$1000*	AD.V.	PROD.	BEFORE TAXES	*TAXES	BEFORE TAXES	AFTER TAXES	AFTER TAXES
	NET	CAPI- TAL*	DEPR.	TAXES	SEV.	COSTS	BEFORE TAXES	AFTER TAXES	AFTER TAXES
1986	9	421	5	1	2	2	-415	-415	-415
1987	14	0	9	2	5	5	-408	-408	-408
1988	10	0	8	1	5	5	-405	-405	-405
1989	9	0	7	1	5	5	-402	-402	-402
1990	8	0	6	1	5	5	-401	-401	-401
1991	7	0	6	1	5	5	-400	-400	-400
1992	7	0	5	1	5	5	-400	-400	-400
1993	6	0	5	1	5	5	-399	-399	-399
1994	6	0	5	1	5	5	-400	-400	-400
1995	6	0	5	1	5	5	-400	-400	-400
1996	6	0	5	1	5	5	-400	-400	-400
1997	5	0	4	1	5	5	-401	-401	-401
1998	5	0	4	1	5	5	-401	-401	-401
1999	5	0	4	1	5	5	-402	-402	-402
2000	5	0	4	1	5	5	-403	-403	-403
2001	5	0	4	1	5	5	-405	-405	-405
2002	5	0	4	0	5	5	-406	-406	-406
2003	4	0	4	0	5	5	-407	-407	-407
2004	4	0	4	0	5	5	-409	-409	-409
2005	4	0	3	0	5	5	-411	-411	-411
2006	3	0	2	0	4	4	-412	-412	-412
TOTAL	133	421	104	14	110	110	-412	0	-412

THIS PROJECT DOES NOT PAYOUT

API:30-039-23579-0000 ROSA UNIT #107									
NEW MEXICO BASIN DAKOTA									
NORTHWEST PIPELINE CORPORATION OPERATOR									
NWP SAN JUAN GATHERING SYSTEM									
I.D.DATE(MMDDYY):12/17/86									
YEAR	MCF	PSIG	DAYS	MONTH	MCF	PSIG	DAYS	1984	
1977	0	0	0	JAN	0	0	0	0	
1978	0	0	0	FEB	0	0	0	0	
1979	0	0	0	MAR	0	0	0	0	
1980	0	0	0	APR	0	0	0	0	
1981	0	0	0	MAY	0	0	0	0	
1982	0	0	0	JUN	0	0	0	0	
1983	0	0	0	JUL	0	0	0	0	
1984	0	0	0	AUG	0	0	0	0	
1985	0	0	0	SEP	0	0	0	0	
1986	332	279	1	OCT	0	0	0	0	
1987	11308	298	39	NOV	0	0	0	0	
1988	3648	269	18	DEC	0	0	0	0	

NORTHWEST PIPELINE CORPORATION
 GAS RESERVES DEPARTMENT ECONOMIC STUDY
 ROSA UNIT 108 (US932) (DK)
 THU OCTOBER 6, 1988
 9:11:44 AM

WORKING INT. B/PAYOUT.....% 100.0
 WORKING INT. A/PAYOUT.....% 100.0
 INCOME TAX.....% 36.0
 UNIT OF PRODUCTION DEPRECIATION

ANNUAL COST INFLATION.....% 0.0
 ANNUAL PRICE INFLATION.....% 0.0
 NEG INC TAX USED AS FUTURE CREDIT

GAS PRODUCTION FROM ROSA UNIT 108 (DK)
 LAND OWNER ROYALTY.....% 12.5
 AD VALOREM AND SEV TAXES.....% 10.4
 MONTH OF CAPITAL EXPENSE..... 8
 DRILLING COSTS (\$1000)..... 373.2
 SALVAGE VALUE (\$1000)..... 0.0
 OVERRIDING ROYALTY..... 0.0
 OPERATING COSTS (\$/MO)..... 353.0
 OPERATING COSTS (% OF PROD): 0.0
 TANGIBLE \$ (% OF DRILLING \$) 28.3

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	50	18384.	2298.	26.
1987	1.52	91	33161.	4145.	40.
1988	1.25	77	28294.	3537.	31.
1989	1.25	68	24757.	3095.	27.
1990	1.25	59	21663.	2708.	24.
1991	1.25	52	19075.	2384.	21.
1992	1.25	49	18007.	2251.	20.
1993	1.25	47	17321.	2165.	19.
1994	1.25	46	16661.	2083.	18.
1995	1.25	44	16026.	2003.	17.
1996	1.25	42	15425.	1928.	17.
1997	1.25	41	14933.	1867.	16.
1998	1.25	40	14479.	1810.	16.
1999	1.25	38	14040.	1755.	15.
2000	1.25	37	13614.	1702.	15.
2001	1.25	36	13207.	1651.	14.
2002	1.25	35	12881.	1610.	14.
2003	1.25	34	12581.	1573.	14.

INITIAL MONTH	MCF/D	DECLINE %	TO MCF/D	ENDING MONTH
8	137.0	51.4	129.0	9
9	129.0	62.0	119.0	10
10	119.0	51.7	112.0	11
11	112.0	42.2	107.0	12
12	107.0	36.7	103.0	13
13	103.0	29.9	100.0	14
14	100.0	30.6	97.0	15
15	97.0	31.4	94.0	16
16	94.0	22.7	92.0	17
17	92.0	23.2	90.0	18
18	90.0	23.6	88.0	19
19	88.0	12.8	87.0	20
20	87.0	12.5	51.0	68
68	51.0	3.8	42.0	128
128	42.0	3.0	36.0	188
188	36.0	2.3	32.0	248
248	32.0	100.0	0.0	249

2004	1.25	34	12288.	1536.	13.
2005	1.25	33	12002.	1500.	13.
2006	1.25	21	7846.	981.	9.
TOTAL			356638.	44580.	400.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT 108 (85932) (DK)

THU OCTOBER 6, 1988
9:11:44 AM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
UNIT OF PRODUCTION DEPRECIATION

DISCOUNT ***PRESENT VALUE***** DISCOUNTED PROFIT TO**
RATE** ** \$1000 ***** **INVESTMENT RATIO***
*** % ** BEFORE TAX AFTER TAX BEFORE TAX AFTER TAX
-3.9 0.0 0.00 RATE OF RETURN B.T.
-3.9 -224. -0.60 RATE OF RETURN A.T.
15.0

CASH FLOW ANALYSIS IN \$1000									
YEAR	INCOME	**PROJECT EXPENSES IN \$1000*	AD.V.	PROD.	COSTS	TAXES	DEPR.	CAPIT-	TOTAL*
	\$1000	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1986	26	373	5	3	2	-351	-351	-351	-351
1987	40	0	10	4	4	32	-320	22	0
1988	31	0	8	3	4	23	-296	15	0
1989	27	0	7	3	4	20	-276	13	0
1990	24	0	6	2	4	17	-259	11	0
1991	21	0	6	2	4	14	-245	9	0
1992	20	0	5	2	4	13	-231	8	0
1993	19	0	5	2	4	12	-219	7	0
1994	18	0	5	2	4	11	-207	6	0
1995	18	0	5	2	4	11	-195	5	0
1996	17	0	5	2	4	11	-184	4	0
1997	16	0	4	2	4	10	-174	3	0
1998	16	0	4	2	4	10	-164	2	0
1999	15	0	4	2	4	10	-154	1	0
2000	15	0	4	2	4	9	-145	0	0
2001	14	0	4	2	4	8	-137	0	0
2002	14	0	4	1	4	8	-128	0	0
2003	14	0	4	1	4	8	-120	0	0
2004	13	0	4	1	4	8	-112	0	0
2005	13	0	4	1	4	8	-105	0	0
2006	9	0	2	1	3	5	-100	3	0
TOTAL	400	373	106	42	85	-100	0	-100	0

THIS PROJECT DOES NOT PAYOUT

AUGUST 1988 U53N0110 PAGE 001
TUE OCTOBER 11, 1988 9:30:18 AM

[illegible]

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT 109 (85938) (DK)

THU OCTOBER 6, 1988
9:48:47 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX USED AS FUTURE CREDIT	

UNIT OF PRODUCTION DEPRECIATION

GAS PRODUCTION FROM ROSA UNIT 109 (DK)	
LAND OWNER ROYALTY.....%	12.5
AD VALOREM AND SEV TAXES.....%	10.4
MONTH OF CAPITAL EXPENSE.....	8
DRILLING COSTS (\$1000).....	407.3
SALVAGE VALUE (\$1000).....	0.0

OVERRIDING ROYALTY.....	0.0
OPERATING COSTS (\$/MO).....	442.0
OPERATING COSTS (% OF PROD).....	0.0
TANGIBLE \$ (% OF DRILLING \$)	25.6

INITIAL MONTH	MCF/D	DECLINE %	TO MCF/D	ENDING MONTH
8	106.0	20.4	104.0	9
9	104.0	37.5	100.0	10
10	100.0	30.6	97.0	11
11	97.0	22.1	95.0	12
12	95.0	22.5	93.0	13
13	93.0	12.2	92.0	14
14	92.0	12.3	91.0	15
15	91.0	23.4	89.0	16
16	89.0	12.7	88.0	17
17	88.0	12.8	87.0	18
18	87.0	13.0	86.0	19
19	86.0	13.1	85.0	20
20	85.0	6.8	84.0	68
68	64.0	3.0	55.0	128
128	55.0	2.3	49.0	188
188	49.0	1.7	45.0	248
248	45.0	100.0	0.0	249

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	42	15280.	1910.	22.
1987	1.52	87	31838.	3980.	38.
1988	1.25	80	29184.	3648.	32.
1989	1.25	74	27185.	3398.	30.
1990	1.25	69	25323.	3165.	28.
1991	1.25	65	23654.	2957.	26.
1992	1.25	62	22765.	2846.	25.
1993	1.25	60	22085.	2761.	24.
1994	1.25	59	21426.	2678.	23.
1995	1.25	57	20786.	2598.	23.
1996	1.25	55	20176.	2522.	22.
1997	1.25	54	19687.	2461.	22.
1998	1.25	53	19238.	2405.	21.
1999	1.25	51	18798.	2350.	21.
2000	1.25	50	18369.	2296.	20.
2001	1.25	49	17957.	2245.	20.
2002	1.25	48	17633.	2204.	19.
2003	1.25	47	17335.	2167.	19.

2004	1.25	47	17042.	2130.	19.
2005	1.25	46	16754.	2094.	18.
2006	1.25	30	11012.	1377.	12.
TOTAL.....			433521.	54191.	483.

THU OCTOBER 6, 1988
9:48:47 AM

DISCOUNT	*****	DISCOUNTED PROFIT TO**	
RATE**	**	***INVESTMENT RATIO***	
%	*****	BEFORE TAX AFTER TAX	
-2.5	0.	0.00	0.0
-2.5	0.		0.0
15.0	-248.		-0.61
			-0.61

THIS PROJECT DOES NOT PAYOUT

AUGUST 1988 U53N0110 PAGE 001
TUE OCTOBER 11, 1988 9:30:18 AM

API:30-039-23520-0000 ROSA UNIT #109									
NEW MEXICO BASIN DAKOTA									
NORTHWEST PIPELINE CORPORATION OPERATOR									
NWP SAN JUAN GATHERING SYSTEM									
I.D. DATE(MMDDYY):12/09/86									
YEAR	MCF	PSIG	DAYS	MONTH	MCF	PSIG	DAYS	1984	1985
1977	0	0	0	JAN	0	0	0	0	0
1978	0	0	0	FEB	0	0	0	0	0
1979	0	0	0	MAR	0	0	0	0	0
1980	0	0	0	APR	0	0	0	0	0
1981	0	0	0	MAY	0	0	0	0	0
1982	0	0	0	JUN	0	0	0	0	0
1983	0	0	0	JUL	0	0	0	0	0
1984	0	0	0	AUG	0	0	0	0	0
1985	0	0	0	SEP	0	0	0	0	0
1986	5718	304	10	OCT	0	0	0	0	0
1987	29599	300	38	NOV	0	0	0	0	0
1988	18461	287	21	DEC	0	0	0	0	0

NORTHWEST PIPELINE CORPORATION
 GAS RESERVES DEPARTMENT ECONOMIC STUDY
 ROSA UNIT #112V (85940) (DK) WED OCTOBER 5, 1988
 12:14:53 PM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
 WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
 INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
 UNIT OF PRODUCTION DEPRECIATION

GAS PRODUCTION FROM ROSA UNIT #112V (DK)
 LAND OWNER ROYALTY.....% 12.5 OVERRIDING ROYALTY..... 0.0
 AD VALOREM AND SEV TAXES...% 10.4 OPERATING COSTS (\$/MO)..... 327.0
 MONTH OF CAPITAL EXPENSE.... 13 OPERATING COSTS (% OF PROD)..... 0.0
 DRILLING COSTS (\$1000)..... 421.2 TANGIBLE \$ (% OF DRILLING \$) 25.1
 SALVAGE VALUE (\$1000)..... 0.0

INITIAL MONTH	MCF/D	DECLINE %	TO MCF/D	ENDING MONTH
13	247.0	80.0	216.0	14
14	216.0	86.3	183.0	15
15	183.0	73.2	164.0	16
16	164.0	58.0	132.0	19
19	132.0	37.9	104.0	25
25	104.0	15.0	55.0	72
72	55.0	6.2	40.0	132
132	40.0	3.2	34.0	192
192	34.0	3.1	29.0	252
252	29.0	100.0	0.0	253

YEAR	BEG. \$/ MCF	YR MCF/D	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	0	0	0.	0.	0.
1987	1.72	152	152	55494.	6937.	82.
1988	1.47	97	97	35296.	4412.	41.
1989	1.25	82	82	29997.	3750.	33.
1990	1.25	70	70	25494.	3187.	28.
1991	1.25	59	59	21667.	2708.	24.
1992	1.25	53	53	19411.	2426.	21.
1993	1.25	50	50	18213.	2277.	20.
1994	1.25	47	47	17089.	2136.	19.
1995	1.25	44	44	16035.	2004.	18.
1996	1.25	41	41	15045.	1881.	16.
1997	1.25	39	39	14356.	1794.	16.
1998	1.25	38	38	13897.	1737.	15.
1999	1.25	37	37	13452.	1682.	15.
2000	1.25	36	36	13022.	1628.	14.
2001	1.25	35	35	12605.	1576.	14.
2002	1.25	33	33	12207.	1526.	13.
2003	1.25	32	32	11825.	1478.	13.
2004	1.25	31	31	11454.	1432.	13.
2005	1.25	30	30	11096.	1387.	12.
2006	1.25	29	29	10748.	1344.	12.
TOTAL				378396.	47300.	438.

NORTHWEST PIPELINE CORPORATION
 GAS RESERVES DEPARTMENT ECONOMIC STUDY
 KOSA UNIT #112Y (B5940) (DK) WED OCTOBER 5, 1988
 12:14:53 PM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
 WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
 INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
 UNIT OF PRODUCTION DEPRECIATION

DISCOUNT ***** DISCOUNTED PROFIT TO**
 RATE ***** \$1000 ***** **INVESTMENT RATIO***
 ***% ** BEFORE TAX AFTER TAX BEFORE TAX AFTER TAX
 -4.1 0. -0.52 0.00 RATE OF RETURN B.T.
 -4.1 -219. -0.52 -0.52 RATE OF RETURN A.T.
 15.0

CASH FLOW ANALYSIS IN \$1000									
YEAR	INCOME	**PROJECT EXPENSES IN \$1000*	AD.V.	PROD.	BEFORE TAXES	CUM	TAXED INCOME	AFTER TAXES	
1986	0	0	0	0	0	0	0	0	0
1987	82	421	16	9	-352	-352	-262	0	-352
1988	41	0	10	4	33	-319	23	0	33
1989	33	0	8	3	25	-293	17	0	25
1990	28	0	7	3	21	-272	14	0	21
1991	24	0	6	2	17	-255	11	0	17
1992	21	0	5	2	15	-240	10	0	15
1993	20	0	5	2	14	-226	9	0	14
1994	19	0	5	2	13	-213	8	0	13
1995	18	0	4	2	12	-201	7	0	12
1996	16	0	4	2	11	-191	7	0	11
1997	16	0	4	2	10	-181	6	0	10
1998	15	0	4	2	10	-171	6	0	10
1999	15	0	4	2	9	-162	5	0	9
2000	14	0	4	1	9	-153	5	0	9
2001	14	0	4	1	8	-144	5	0	8
2002	13	0	3	1	8	-136	5	0	8
2003	13	0	3	1	8	-129	4	0	8
2004	13	0	3	1	7	-121	4	0	7
2005	12	0	3	1	7	-115	4	0	7
2006	12	0	3	1	7	-108	4	0	7
TOTAL	438	421	106	46	79	-108	0	-108	0

THIS PROJECT DOES NOT PAYOUT

WED OCTOBER 5, 1988
4:22:26 PM

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT #115 (85934) (DK)

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX USED AS FUTURE CREDIT	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA UNIT #115 (DK)

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV. TAXES.....%	10.4	OPERATING COSTS (\$/MO).....	453.0
MONTH OF CAPITAL EXPENSE.....	11	OPERATING COSTS (% OF PROD):	0.0
DRILLING COSTS (\$1000).....	466.3	TANGIBLE \$ (% OF DRILLING \$)	21.7
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
11	146.0	57.3	136.0	12
12	136.0	63.7	125.0	13
13	125.0	54.8	117.0	14
14	117.0	39.9	103.0	17
17	103.0	27.0	88.0	23
23	88.0	11.3	55.0	70
70	55.0	5.3	42.0	130
130	42.0	3.0	36.0	190
190	36.0	2.3	32.0	250
250	32.0	100.0	0.0	251

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	24	8583.	1073.	12.
1987	1.72	101	37014.	4627.	54.
1988	1.47	82	29837.	3730.	35.
1989	1.25	72	26463.	3308.	29.
1990	1.25	64	23471.	2934.	26.
1991	1.25	57	20844.	2606.	23.
1992	1.25	53	19338.	2417.	21.
1993	1.25	50	18323.	2290.	20.
1994	1.25	48	17361.	2170.	19.
1995	1.25	45	16449.	2056.	18.
1996	1.25	43	15593.	1949.	17.
1997	1.25	41	15010.	1876.	16.
1998	1.25	40	14554.	1819.	16.
1999	1.25	39	14112.	1764.	15.
2000	1.25	37	13684.	1710.	15.
2001	1.25	36	13270.	1659.	15.
2002	1.25	35	12932.	1616.	14.
2003	1.25	35	12631.	1579.	14.
2004	1.25	34	12337.	1542.	13.
2005	1.25	33	12049.	1506.	13.
2006	1.25	27	9827.	1228.	11.
TOTAL.....			363675.	45460.	417.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT #115 (85934) (DK)

WED OCTOBER 5, 1988
4:22:26 PM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
UNIT OF PRODUCTION DEPRECIATION

DISCOUNT ***PRESENT VALUE***** DISCOUNTED PROFIT TO**
RATE** ** \$1000 ***** **INVESTMENT RATIO***
% BEFORE TAX AFTER TAX BEFORE TAX AFTER TAX
-6.9 0. 0.00 RATE OF RETURN B.T.
-295. -295. 0.0 RATE OF RETURN A.T.
15.0 -0.63 -0.63

CASH FLOW ANALYSIS IN \$1000									
YEAR	INCOME \$1000	***NET* CAPI- TAL*	DEPR. TAXES	AD.V. SEV. PROD. COSTS	BEFORE TAXES	TAXES	CUM TAXES	BEFORE TAXES	AFTER TAXES
1986	12	466	2	1	1	-456	-456	-357	0
1987	54	0	10	6	5	43	-413	33	0
1988	35	0	8	4	5	26	-387	17	0
1989	29	0	7	3	5	20	-367	13	0
1990	26	0	7	3	5	18	-349	11	0
1991	23	0	6	2	5	15	-334	9	0
1992	21	0	5	2	5	13	-321	8	0
1993	20	0	5	2	5	12	-308	7	0
1994	19	0	5	2	5	11	-297	6	0
1995	18	0	5	2	5	10	-286	5	0
1996	17	0	4	2	5	9	-276	4	0
1997	16	0	4	2	5	8	-267	3	0
1998	16	0	4	2	5	7	-258	2	0
1999	15	0	4	2	5	6	-250	1	0
2000	15	0	4	2	5	5	-242	0	0
2001	15	0	4	2	5	4	-234	0	0
2002	14	0	4	1	5	3	-227	0	0
2003	14	0	4	1	5	2	-220	0	0
2004	14	0	3	1	5	1	-214	0	0
2005	13	0	3	1	5	0	-207	0	0
2006	11	0	3	1	5	0	-202	0	0
TOTAL	417	466	101	44	109	-202	0	-202	0

THIS PROJECT DOES NOT PAYOUT

AUGUST 1988 U53N0110 PAGE 001
TUE OCTOBER 11, 1988 9:30:18 AM

[illegible]

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

October 26, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
310 Old Santa Fe Trail, Room 206
Santa Fe, NM 87503

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELLS
Gallup Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Gallup formation.

The well data is as follows:

The Rosa Gallup Unit #109 well is located 1190 feet from the south line and 1010 feet from the west line, Section 9, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 3, 1984 and completed in the Gallup formation on January 2, 1985. The plug back depth is 8430'. The Gallup formation was perforated with one shot per foot across the following intervals:

7216'-7324'; 7400'-7620'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 2

The Gallup formation was hydraulically fractured with 122,598 gallons of gelled water carrying 190,000 pounds of 20/40 mesh sand. On February 8, 1985 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 226 Mcf of gas. The 24 hour calculated rate was 1805 Mcfd with an AOF of 2385 Mcfd. The shut-in tubing pressure was 2435 psig.

The Rosa Gallup Unit #116 well is located 1050 feet from the north line and 790 feet from the east line, Section 24, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on July 24, 1984 and completed in the Gallup formation on September 19, 1984. The plug back depth is 8035'. The Gallup formation was perforated with one shot per foot across the following intervals:

6766'-7020'; 7070'-7266'

The Gallup formation was hydraulically fractured with 130,000 gallons of gelled water carrying 160,000 pounds of 20/40 mesh sand. On January 2, 1985 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 349 Mcf of gas. The 24 calculated rate was 2789 Mcfd with an AOF of 3030 Mcfd. The shut-in casing pressure was 2410 psig.

If these determinations meet with your approval, please indicate such approval in the space provided and return an approved copy for our files.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION



Darrell L. Gillen
Supervisor, Land Department

DLG/cg

Attachments

cc: Working Interest Owners

K. J. Stracke

W. S. West

L. G. Loving

C. N. Potter

M. H. Johnson

R. P. Gregory

R. L. Glenn

L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 26, 1988
Page 3

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

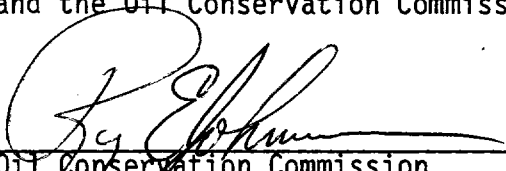
DATE _____

APPROVED

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

DATE _____

APPROVED


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

DATE 11-3-88

The foregoing is the approval of Notice of Completion of Non-Commercial Wells
for the Rosa Unit #109 and #116 Wells, Gallup Formation.

U56N2650
10/24/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 871-2

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
10/24/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
 GAS RESERVES DEPARTMENT ECONOMIC STUDY
 ROSA UNIT #116 (85937) (GL)

WED OCTOBER 5, 1988
 10:14:11 AM

WORKING INT. B/PAYOUT.....% 100.0
 WORKING INT. A/PAYOUT.....% 100.0
 INCOME TAX.....% 36.0
 UNIT OF PRODUCTION DEPRECIATION

ANNUAL COST INFLATION.....% 0.0
 ANNUAL PRICE INFLATION.....% 0.0
 NEG INC TAX USED AS FUTURE CREDIT

GAS PRODUCTION FROM ROSA UNIT #116 (GL)

LAND OWNER ROYALTY.....% 12.5
 AD VALOREM AND SEV TAXES....% 10.4
 MONTH OF CAPITAL EXPENSE.... 8
 DRILLING COSTS (\$1000)..... 376.4
 SALVAGE VALUE (\$1000)..... 0.0

OVERRIDING ROYALTY..... 0.0
 OPERATING COSTS (\$/MO)..... 351.0
 OPERATING COSTS (% OF PROD).. 0.0
 TANGIBLE \$ (% OF DRILLING \$) 13.1

INITIAL MONTH	MCF/D	DECLINE %	TO MCF/D	ENDING MONTH
8	116.0	47.1	110.0	9
9	110.0	64.1	101.0	10
10	101.0	30.4	98.0	11
11	98.0	31.1	95.0	12
12	95.0	22.5	93.0	13
13	93.0	32.5	90.0	14
14	90.0	12.5	89.0	15
15	89.0	23.9	87.0	16
16	87.0	24.4	85.0	17
17	85.0	13.2	84.0	18
18	84.0	13.4	83.0	19
19	83.0	8.8	57.0	68
68	57.0	3.8	47.0	128
128	47.0	2.7	41.0	188
188	41.0	2.0	37.0	248
248	37.0	100.0	0.0	249

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	43	15828.	1978.	24.
1987	1.77	85	30942.	3868.	43.
1988	1.39	76	27766.	3471.	31.
1989	1.25	69	25325.	3166.	28.
1990	1.25	63	23098.	2887.	25.
1991	1.25	58	21144.	2643.	23.
1992	1.25	55	20129.	2516.	22.
1993	1.25	53	19368.	2421.	21.
1994	1.25	51	18635.	2329.	20.
1995	1.25	49	17929.	2241.	20.
1996	1.25	47	17264.	2158.	19.
1997	1.25	46	16762.	2095.	18.
1998	1.25	45	16310.	2039.	18.
1999	1.25	43	15871.	1984.	17.
2000	1.25	42	15443.	1930.	17.
2001	1.25	41	15034.	1879.	16.
2002	1.25	40	14709.	1839.	16.
2003	1.25	39	14410.	1801.	16.
2004	1.25	39	14117.	1765.	15.

2005	1.25	38	13830.	1729.	15.
2006	1.25	25	9064.	1133.	10.
TOTAL.....			382971.	47872.	435.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT #116 (85937) (GL)

WED OCTOBER 5, 1988
10:14:11 AM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
UNIT OF PRODUCTION DEPRECIATION

DISCOUNT ***PRESENT VALUE***** DISCOUNTED PROFIT TO**
RATE** ** **INVESTMENT RATIO***
*** % ** BEFORE TAX AFTER TAX BEFORE TAX AFTER TAX
-2.5 0. 0.00 RATE OF RETURN B.T.
-2.5 -219. -0.58 0.0 RATE OF RETURN A.T.
15.0

YEAR	**PROJECT EXPENSES IN \$1000*				***CASH FLOW ANALYSIS IN \$1000***			
	INCOME	***** AD.V.	***** SEV.	***** PROD.	***** BEFORE TAXES	***** BEFORE TAXES	***** AFTER TAXES	***** AFTER TAXES
1986	24	376	2	2	-357	-310	0	-357
1987	43	0	4	4	34	30	0	34
1988	31	0	4	4	24	20	0	24
1989	28	0	3	3	21	17	0	21
1990	25	0	3	3	18	15	0	18
1991	23	0	3	3	16	14	0	16
1992	22	0	3	3	15	13	0	15
1993	21	0	2	2	15	12	0	15
1994	20	0	2	2	14	12	0	14
1995	20	0	2	2	13	11	0	13
1996	19	0	2	2	13	10	0	13
1997	18	0	2	2	12	10	0	12
1998	18	0	2	2	12	10	0	12
1999	17	0	2	2	11	9	0	11
2000	17	0	2	2	11	9	0	11
2001	16	0	2	2	11	9	0	11
2002	16	0	2	2	10	8	0	10
2003	16	0	2	2	10	8	0	10
2004	15	0	2	2	10	8	0	10
2005	15	0	2	2	9	8	0	9
2006	10	0	1	3	6	5	0	6
TOTAL	436	377	49	46	-71	-71	0	-71

THIS PROJECT DOES NOT PAYOUT

AUGUST 1988 U53N0110 PAGE 001
TUE OCTOBER 11, 1988 9:30:18 AM

API: 30-039-23484-0000 ROSA UNIT #1116									
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)									
NORTHWEST PIPELINE CORPORATION OPERATOR									
NWP SAN JUAN GATHERING SYSTEM									
I.D. DATE (MMDDYY): 11/11/86									
YEAR	MCF	PSIG	DAYS	MONTH	MCF	PSIG	DAYS	1984	1985
1977	0	0	0	JAN	0	0	0	0	0
1978	0	0	0	FEB	0	0	0	0	0
1979	0	0	0	MAR	0	0	0	0	0
1980	0	0	0	APR	0	0	0	0	0
1981	0	0	0	MAY	0	0	0	0	0
1982	0	0	0	JUN	0	0	0	0	0
1983	0	0	0	JUL	0	0	0	0	0
1984	0	0	0	AUG	0	0	0	0	0
1985	0	0	0	SEP	0	0	0	0	0
1986	11036	274	31	OCT	0	0	0	0	0
1987	22744	300	58	NOV	0	0	0	0	0
1988	12194	290	26	DEC	0	0	0	0	0

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA UNIT 109 (85939) (GL)

THU OCTOBER 6, 1988
10:16:12 AM

WORKING INT. B/PAYOUT.....% 100.0 ANNUAL COST INFLATION.....% 0.0
WORKING INT. A/PAYOUT.....% 100.0 ANNUAL PRICE INFLATION.....% 0.0
INCOME TAX.....% 36.0 NEG INC TAX USED AS FUTURE CREDIT
UNIT OF PRODUCTION DEPRECIATION

GAS PRODUCTION FROM ROSA UNIT 109 (GL)
LAND OWNER ROYALTY.....% 12.5 OVERRIDING ROYALTY..... 0.0
AD VALOREM AND SEV TAXES.....% 10.4 OPERATING COSTS (\$/MO)..... 427.0
MONTH OF CAPITAL EXPENSE.... 8 OPERATING COSTS (% OF PROD): 0.0
DRILLING COSTS (\$1000)..... 407.3 TANGIBLE \$ (% OF DRILLING \$) 25.6
SALVAGE VALUE (\$1000)..... 0.0

INITIAL MONTH	MCF/D	DECLINE %	MCF/D	TO MCF/D	ENDING MONTH
8	121.0	33.2	117.0	9	9
9	117.0	46.8	111.0	10	10
10	111.0	35.6	107.0	11	11
11	107.0	28.9	104.0	12	12
12	104.0	20.8	102.0	13	13
13	102.0	21.2	100.0	14	14
14	100.0	21.5	98.0	15	15
15	98.0	21.9	96.0	16	16
16	96.0	22.3	94.0	17	17
17	94.0	12.0	93.0	18	18
18	93.0	12.2	92.0	19	19
19	92.0	23.2	90.0	20	20
20	90.0	7.8	65.0	68	68
68	65.0	3.6	54.0	128	128
128	54.0	2.7	47.0	188	188
188	47.0	1.8	43.0	248	248
248	43.0	100.0	0.0	249	249

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.60	47	17045.	2131.	24.
1987	1.52	93	34058.	4257.	41.
1988	1.25	84	30622.	3828.	33.
1989	1.25	77	28229.	3529.	31.
1990	1.25	71	26024.	3253.	28.
1991	1.25	66	24062.	3008.	26.
1992	1.25	63	22985.	2873.	25.
1993	1.25	61	22148.	2768.	24.
1994	1.25	58	21342.	2668.	23.
1995	1.25	56	20565.	2571.	22.
1996	1.25	54	19829.	2479.	22.
1997	1.25	53	19251.	2406.	21.
1998	1.25	51	18723.	2340.	20.
1999	1.25	50	18211.	2276.	20.
2000	1.25	48	17712.	2214.	19.
2001	1.25	47	17239.	2155.	19.
2002	1.25	46	16902.	2113.	18.
2003	1.25	45	16604.	2075.	18.

2004	1.25	45	16311.	2039.	18.
2005	1.25	44	16023.	2003.	18.
2006	1.25	29	10525.	1316.	12.
TOTAL.....			434404.	54301.	485.

THU OCTOBER 6, 1988
10:16:12 AM

ANNUAL COST INFLATION.....%	0.0
ANNUAL PRICE INFLATION.....%	0.0
NEG INC TAX USED AS FUTURE CREDIT	

TO**
IO***
R TAX
RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.
-0.59

YEAR	INCOME **\$1000 *****	**PROJECT ***** CAPL- *TAL*	***** DEPR.	***** AD.V. SEV. TAXES	IN \$1000* ***** PROD. COSTS	***CASH ***** BEFORE *TAXES	***CASH ***** FLOW BEFORE TAXES	ANALYSIS ***** TAXED INCOME	IN \$1000* ***** INCOME TAXES	***** AFTER TAXES
1986	24	407	4	3	2	-388	-388	-287	0	-388
1987	41	0	0	4	5	32	-356	24	0	32
1988	34	0	7	3	5	25	-331	18	0	25
1989	31	0	7	3	5	23	-308	16	0	23
1990	28	0	6	3	5	20	-288	14	0	20
1991	26	0	6	3	5	18	-270	13	0	18
1992	25	0	6	3	5	17	-252	12	0	17
1993	24	0	5	3	5	17	-236	11	0	17
1994	23	0	5	2	5	16	-220	11	0	16
1995	23	0	5	2	5	15	-205	10	0	15
1996	22	0	5	2	5	14	-191	10	0	14
1997	21	0	5	2	5	14	-177	9	0	14
1998	20	0	5	2	5	13	-164	9	0	13
1999	20	0	4	2	5	13	-151	8	0	13
2000	19	0	4	2	5	12	-139	8	0	12
2001	19	0	4	2	5	12	-127	8	0	12
2002	18	0	4	2	5	11	-116	7	0	11
2003	18	0	4	2	5	11	-104	7	0	11
2004	18	0	4	2	5	11	-94	7	0	11
2005	18	0	4	2	5	11	-83	7	0	11
2006	12	0	3	1	3	7	-76	4	0	7
TOTAL	485	407	104	51	103	-76	0	-76	0	-76

THIS PROJECT DOES NOT PAYOUT

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

October 12, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Dakota Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Dakota formation.

The well data is as follows:

The Rosa Dakota Unit #117 well is located 1150 feet from the north line and 1070 feet from the west line, Section 33, Township 32 North, Range 6 West, N.M.P.M., San Juan County, New Mexico. This well was spudded on October 9, 1984 and completed in the Dakota formation on December 7, 1984. The plug back depth is 8200'. The Dakota formation was perforated with two shots per foot over the following intervals:

7936'-7970'; 8006'-8040'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 12, 1988
Page 2

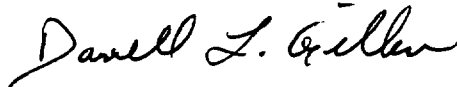
The Dakota formation was hydraulically fractured with 45,000 gallons of 60-pound cross-linked gelled water and 81,000 pounds of 20/40 mesh sand. On February 12, 1985 the Dakota formation was tested using a positive choke. During the 3-hour test the well flowed at a rate of 1684 Mcfd with a calculated AOF of 1700 Mcfd. The shut-in pressure prior to the test was 2851 psig.

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

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

Sincerely,

NORTHWEST PIPELINE CORPORATION



Darrell L. Gillen
Supervisor, Land Department

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
M. H. Johnson
R. P. Gregory
R. L. Glenn
L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 12, 1988
Page 3

APPROVED

DATE

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

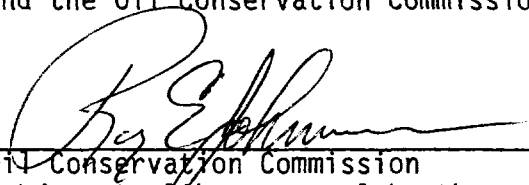
APPROVED

DATE

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

APPROVED

DATE


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

10-20-88

The foregoing is the approval of Notice of Completion of Non-Commercial Well
for the Rosa Unit #117 Well, Dakota Formation.

U56N2650
10/12/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 871-2

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
10/12/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #117 DK COMMERCIALITY

WED MAY 4, 1988
11:00:46 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #117 DK

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	246.0
MONTH OF CAPITAL EXPENSE....	5	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	347.5	TANGIBLE \$ (% OF DRILLING \$)	43.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
13	193.0	65.8	135.0	17
17	135.0	60.3	125.0	18
18	125.0	17.4	110.0	26
26	110.0	6.9	29.0	250
250	29.0	100.0	0.0	251

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	0.98	0	0.	0.	0.
1987	0.98	137	50161.	6270.	62.
1988	1.70	107	39158.	4895.	58.
1989	1.70	100	36427.	4553.	54.
1990	1.70	93	33916.	4240.	50.
1991	1.70	86	31578.	3947.	47.
1992	1.70	80	29402.	3675.	44.
1993	1.70	75	27375.	3422.	41.
1994	1.70	70	25488.	3186.	38.
1995	1.70	65	23731.	2966.	35.
1996	1.70	60	22095.	2762.	33.
1997	1.70	56	20572.	2572.	31.
1998	1.70	52	19154.	2394.	28.
1999	1.70	49	17834.	2229.	27.
2000	1.70	45	16605.	2076.	25.
2001	1.70	42	15460.	1933.	23.
2002	1.70	39	14394.	1799.	21.
2003	1.70	37	13402.	1675.	20.
2004	1.70	34	12478.	1560.	19.
2005	1.70	32	11618.	1452.	17.
TOTAL.....			460845.	57606.	673.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #117 DK COMMERCIALITY

WED MAY 4, 1988
11:00:46 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
6.7	0.		0.00	RATE OF RETURN B.T.
5.4		0.		0.0 RATE OF RETURN A.T.
15.0	-113.	-103.	-0.33	-0.29

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	CAPIT*	***	SEV.	PROD.	*****	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	TAL*	DEPR.	TAXES	COSTS	*****	*TAXES	TAXES	INCOME	TAXES	TAXES
1986	0	348	0	0	0	-348	-348	-198	-71	-276
1987	62	0	16	6	3	53	-295	36	13	39
1988	58	0	13	6	3	49	-246	37	13	36
1989	54	0	12	6	3	46	-200	34	12	33
1990	50	0	11	5	3	42	-158	31	11	31
1991	47	0	10	5	3	39	-119	29	10	29
1992	44	0	10	5	3	36	-83	27	10	27
1993	41	0	9	4	3	34	-49	25	9	25
1994	38	0	8	4	3	31	-18	23	8	23
1995	35	0	8	4	3	29	11	21	8	21
1996	33	0	7	3	3	26	37	19	7	20
1997	31	0	7	3	3	24	61	18	6	18
1998	29	0	6	3	3	23	84	16	6	17
1999	27	0	6	3	3	21	105	15	5	15
2000	25	0	5	3	3	19	124	14	5	14
2001	23	0	5	2	3	18	142	13	5	13
2002	21	0	5	2	3	16	158	12	4	12
2003	20	0	4	2	3	15	173	11	4	11
2004	19	0	4	2	3	14	186	10	3	10
2005	17	0	4	2	3	13	199	9	3	9
TOTAL	673	348	150	70	56	199	0	199	72	127

PAYOUT DURING MONTH 8 OF YEAR 10

API:30-045-26046-0000 ROSA UNIT #117
NEW MEXICO BASIN DAKOTA
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.O.DATE(MMDDYY):01/08/87

METER/UT: B5928/00000
N.M.P.M.: T 32N R 6W 33D
FOOTAGE.: 0F L 0F L
S DATE-RL/WS: 2/03/88-1/5

```
INITIAL MMCF:
CUMULATIVE.:
REMAINING.:
R.L.RATIO.:

```

0.000	BTU/GRAV:	978/0.000
53.048	%CO2/%N2:	3.62/ 0.41
--53.048	LSHD INSTR:	0.000000
0.0	CNTR INSTR:	0.000000

[illegible][illegible]

MONTH	1983			1984			1985			1986			1987			1988		
	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN.	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	1420	232	7.5	1109	271	2.8
FEB.	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	7602	256	27.6	3662	262	14.6
MAR.	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4964	230	23.9	659	250	2.7
APR.	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4671	246	29.6			
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4213	257	31.0			
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	3787	243	30.0			
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	3526	253	30.9			
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4370	288	30.8			
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	3880	294	27.7			
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4046	260	30.9			
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	3179	273	13.8			
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	1960	267	7.9			
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	47618	258	292	5430	261	20

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

October 12, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELLS
Gallup Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Gallup formation.

The well data is as follows:

The Rosa Gallup Unit #87 well is located 1660 feet from the north line and 700 feet from the east line, Section 28, Township 31 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on September 10, 1981 and completed in the Gallup formation on February 23, 1982. The plug back depth is 8729'. The Gallup formation was perforated with four shots per foot over the following intervals:

7509'-7520'; 7546'-7590'; 7620'-7647'; 7730'-7760'; 7815'-7826'

The Gallup formation was hydraulically fractured with 132,000 gallons of fluid carrying 331,000 pounds of 20/40 mesh sand. On March 31, 1982 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 192 Mcf of gas, flowing at a rate of 1534 Mcfd.

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 12, 1988
Page 2

The Rosa Gallup Unit #107 well is located 2160 feet from the south line and 1850 feet from the west line, Section 4, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 30, 1984 and completed in the Gallup formation on February 1, 1985. The plug back depth is 7970'. The Gallup formation was perforated with one shot per foot over the following intervals:

6736'-6894'; 6970'-7150'

The Gallup formation was hydraulically fractured with 140,000 gallons of 50-pound gelled water carrying 175,000 pounds of 20/40 mesh sand. On April 13, 1985, the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 319 Mcf of gas, flowing at a rate of 2549 Mcfd. The calculated AOF was 2798 Mcfd. The shut-in pressure prior to the test was 2902 psig.

The Rosa Gallup Unit #108 well is located 1850 feet from the north line and 1720 feet from the east line, Section 7, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on September 8, 1984 and completed in the Gallup formation on November 12, 1984. The plug back depth is 8010'. The Gallup formation was perforated with one shot per foot over the following intervals:

6886'-6938'; 7046'-7188'; 7228'-7252'

The Gallup formation was hydraulically fractured with 106,000 gallons of 50-pound gelled water carrying 150,000 pounds of 20/40 mesh sand. On February 8, 1985, the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 296 Mcf of gas, flowing at a rate of 2366 Mcfd. The calculated AOF was 2842 Mcfd. The shut-in pressure prior to the test was 3150 psig.

The Rosa Gallup Unit #112Y well is located 850 feet from the south line and 850 feet from the west line, Section 27, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on May 9, 1985 and completed in the Gallup formation on July 14, 1985. The plug back depth is 8500'. The Gallup formation was perforated with one shot per foot over the following intervals:

7320'-7470'; 7546'-7680'

The Gallup formation was hydraulically fractured with 123,000 gallons of 50-pound gelled water carrying 150,000 pounds of 20/40 mesh sand. On August 9, 1985, the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 145 Mcf of gas, flowing at a rate of 1157 Mcfd.

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 12, 1988
Page 3

The Rosa Gallup Unit #115 well is located 1510 feet from the north line and 1050 feet from the east line, Section 22, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on July 7, 1984 and completed in the Gallup formation on October 26, 1984. The Gallup formation was perforated with one shot per foot over the following intervals:

6748'-6934'; 6957'-7083'; 7097'-7136'; 7152'-7176'

The Gallup formation was hydraulically fractured with 75,012 gallons of 50-pound gelled water carrying 185,000 pounds of 20/40 mesh sand. On January 2, 1985, the Gallup formation was tested using a positive choke. During the 3-hour test the well flowed at a rate of 3060 Mcfd with a calculated AOF of 3523 Mcfd. The shut-in pressure prior to the test was 2510 psig.

If these determinations meet with your approval, please indicate such approval in the space provided and return an approved copy for our files.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land Department

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
M. H. Johnson
R. P. Gregory
R. L. Glenn
L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 12, 1988
Page 4

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

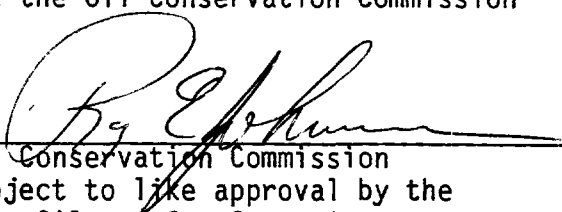
DATE _____

APPROVED

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

DATE _____

APPROVED



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

DATE 10-20-88

The foregoing is the approval of Notice of Completion of Non-Commercial Wells
for the Rosa Unit #87, #107, #108, #112Y, and #115 Wells, Gallup Formation.

U56N2650
10/12/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 871-2

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

US6N2650
10/12/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #87 GL COMMERCIALITY

THU MAY 12, 1988
12:00:41 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #87 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES....%	10.4	OPERATING COSTS (\$/MO).....	350.0
MONTH OF CAPITAL EXPENSE....	1	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	275.0	TANGIBLE \$ (% OF DRILLING \$)	34.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
9	175.0	96.0	35.0	15
15	35.0	64.9	19.0	22
22	19.0	9.2	12.0	79
79	12.0	6.2	7.0	180
180	7.0	100.0	0.0	181

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1983	2.91	41	14897.	1862.	38.
1984	3.05	29	10763.	1345.	29.
1985	2.73	18	6483.	810.	15.
1986	2.46	16	5885.	736.	9.
1987	0.98	15	5342.	668.	7.
1988	1.68	13	4850.	606.	7.
1989	1.68	12	4417.	552.	6.
1990	1.68	11	4123.	515.	6.
1991	1.68	11	3867.	483.	6.
1992	1.68	10	3627.	453.	5.
1993	1.68	9	3402.	425.	5.
1994	1.68	9	3191.	399.	5.
1995	1.68	8	2993.	374.	4.
1996	1.68	8	2808.	351.	4.
1997	1.68	7	2633.	329.	4.
TOTAL.....			79279.	9910.	151.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #87 GL COMMERCIALITY

THU MAY 12, 1988
12:00:41 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE*****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
*****	0.		0.00	
				RATE OF RETURN B.T.
-18.2		0.		0.0 RATE OF RETURN A.T.
15.0	-215.	-153.	-0.78	-0.56

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPIT*	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1983	38	275	18	4	1	-242	-242	-166	-60	-182
1984	29	0	13	3	4	22	-221	9	3	18
1985	15	0	8	2	4	10	-211	2	1	9
1986	9	0	7	1	4	4	-207	-3	-1	5
1987	7	0	6	1	4	2	-205	-4	-2	3
1988	7	0	6	1	4	2	-203	-4	-1	3
1989	6	0	5	1	4	2	-202	-4	-1	3
1990	6	0	5	1	4	1	-200	-4	-1	3
1991	6	0	5	1	4	1	-200	-4	-1	2
1992	5	0	4	1	4	1	-199	-4	-1	2
1993	5	0	4	1	4	0	-199	-4	-1	2
1994	5	0	4	0	4	0	-199	-4	-1	1
1995	4	0	4	0	4	0	-199	-4	-1	1
1996	4	0	3	0	4	-1	-200	-4	-1	1
1997	4	0	3	0	4	-1	-200	-4	-1	1
TOTAL	151	275	94	16	60	-200	0	-200	-72	-128

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
SAN JUAN BASIN

MARCH 1988 U53N0580 PAGE 002
THU MAY 12, 1988 9:59:19 AM

API:30-039-22767-0000 ROSA UNIT #87
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D.DATE(MMDDYY):09/15/83

METER/UT:85762/00000
N.M.P.M.:T 3IN R 4W 28H
FOOTAGE.: 1660FNL 700FEL
S DATE-RL/MS: 1/11/84-1/5
R.L.RATIO....:

INITIAL MMCF: 0.000
CUMULATIVE.: 36.655
REMAINING....: -36.655
%CO2/%N2: 3.18/ 0.92
LSHD INTRST: 0.000000
CNTR INTRST: 0.000000

MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	1769	238	11.3	885	312	1.9	379	224	4.4	446	270	2.8	0	0	0.0
FEB	0	0	0.0	1220	273	7.8	860	274	4.1	284	272	3.0	591	306	2.8	0	0	0.0
MAR	0	0	0.0	1090	258	8.8	161	255	1.4	14	273	0.1	386	241	2.0	0	0	0.0
APR	0	0	0.0	1084	285	7.8	945	302	3.5	0	0	0.0	228	305	1.9	433	304	0.9
MAY	0	0	0.0	238	293	1.5	348	293	0.9	466	266	2.7	0	0	0.0	0	0	0.0
JUN	0	0	0.0	1057	315	3.1	548	231	3.8	634	235	1.7	196	294	2.2	0	0	0.0
JUL	0	0	0.0	1335	260	7.7	219	203	1.2	135	0	0.0	161	318	1.0	0	0	0.0
AUG	0	0	0.0	911	228	6.7	0	0	0.0	0	0	0.0	114	0	0.0	0	0	0.0
SEP	5324	249	10.0	503	240	4.5	0	0	0.0	0	0	0.0	436	325	2.2	0	0	0.0
OCT	3866	336	21.1	539	331	1.4	1069	236	4.9	0	0	0.0	417	314	3.1	0	0	0.0
NOV	992	263	3.7	504	302	3.0	555	266	4.7	1406	275	9.0	336	316	2.7	0	0	0.0
DEC	2597	253	10.1	0	0	0.0	285	256	2.1	216	272	1.3	233	319	1.5	0	0	0.0
TOTALS	12779	275	45	10250	274	64	5875	262	28	3534	259	22	3784	300	22	433	304	1

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #107 GL COMMERCIALITY

TUE MAY 3, 1988
2:28:38 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #107 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	324.0
MONTH OF CAPITAL EXPENSE....	4	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
12	91.0	53.9	75.0	15
15	75.0	35.5	54.0	24
24	54.0	6.5	15.0	251
251	15.0	100.0	0.0	252

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	0.98	8	2770.	346.	2.
1987	0.98	67	24509.	3064.	31.
1988	1.70	52	19017.	2377.	28.
1989	1.70	49	17772.	2221.	26.
1990	1.70	45	16608.	2076.	25.
1991	1.70	42	15521.	1940.	23.
1992	1.70	40	14505.	1813.	22.
1993	1.70	37	13555.	1694.	20.
1994	1.70	35	12667.	1583.	19.
1995	1.70	32	11838.	1480.	18.
1996	1.70	30	11063.	1383.	16.
1997	1.70	28	10339.	1292.	15.
1998	1.70	26	9662.	1208.	14.
1999	1.70	25	9029.	1129.	13.
2000	1.70	23	8438.	1055.	13.
2001	1.70	22	7886.	986.	12.
2002	1.70	20	7369.	921.	11.
2003	1.70	19	6887.	861.	10.
2004	1.70	18	6436.	804.	10.
2005	1.70	16	6014.	752.	9.
TOTAL.....			231878.	28985.	337.

TUE MAY 3, 1988
2:28:38 PM

ANNUAL COST INFLATION.....%	0.0
ANNUAL PRICE INFLATION.....%	0.0
NEG INC TAX OFFSET BY OTHER INCOME	

DISCOUNT	****PRESENT VALUE****	DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****	***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX AFTER TAX
-6.1	0.		0.00
-4.9		0.	0.0
15.0	-276.	-204.	-0.72 -0.53

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
	NET*	CAPI-	***	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1986	2	384	2	0	0	-382	-382	-249	-90	-292
1987	31	0	14	3	4	23	-359	9	3	20
1988	28	0	11	3	4	21	-337	10	4	18
1989	26	0	10	3	4	20	-318	9	3	16
1990	25	0	10	3	4	18	-299	9	3	15
1991	23	0	9	2	4	17	-283	8	3	14
1992	22	0	8	2	4	15	-267	7	3	13
1993	20	0	8	2	4	14	-253	6	2	12
1994	19	0	7	2	4	13	-240	6	2	11
1995	18	0	7	2	4	12	-228	5	2	10
1996	16	0	6	2	4	11	-217	4	2	9
1997	15	0	6	2	4	10	-207	4	1	8
1998	14	0	6	2	4	9	-198	3	1	8
1999	13	0	5	1	4	8	-190	3	1	7
2000	13	0	5	1	4	7	-183	2	1	6
2001	12	0	5	1	4	7	-176	2	1	6
2002	11	0	4	1	4	6	-170	2	1	5
2003	10	0	4	1	4	5	-165	1	0	5
2004	10	0	4	1	4	5	-160	1	0	4
2005	9	0	3	1	4	4	-156	1	0	4
TOTAL	337	384	135	35	74	-156	0	-156	-56	-100

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
SAN JUAN BASIN

MARCH 1988 US3N0580 PAGE 003
TUE MAY 3, 1988 10:08:06 AM

API:30-039-23579-0000 ROSA UNIT #107
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D.DATE(MMDVVY):12/17/86

METER/UT:85943/00000
N.M.P.M.:T 31N R 5W 4K
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/04/88-1/4
R.L.RATIO....:

INITIAL MMCF: 0.000 BTU/GRAV: 981/0.000
CUMULATIVE...: 14.622 %CO2/%N2: 3.07/ 1.20
REMAINING...: -14.622 LSHD INSTR: 0.000000
R.L.RATIO....: 0.0 CNTR INSTR: 0.000000

MONTH	1971	1972	1973	1974	1975	1976
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1977	1978	1979	1980	1981	1982
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1983	1984	1985	1986	1987	1988
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	2724	269	7
				2724	269	7
				8149	289	43
				3749	275	11

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #108 GL COMMERCIALITY

WED MAY 4, 1988
9:20:35 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #108 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	327.0
MONTH OF CAPITAL EXPENSE....	4	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	263.5	TANGIBLE \$ (% OF DRILLING \$)	39.5
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
12	273.0	97.6	200.0	13
13	200.0	73.1	60.0	24
24	60.0	40.7	55.0	26
26	55.0	7.0	14.0	251
251	14.0	100.0	0.0	252

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	0.98	23	8309.	1039.	7.
1987	0.98	118	42928.	5366.	51.
1988	1.70	54	19615.	2452.	29.
1989	1.70	50	18175.	2272.	27.
1990	1.70	46	16896.	2112.	25.
1991	1.70	43	15707.	1963.	23.
1992	1.70	40	14601.	1825.	22.
1993	1.70	37	13574.	1697.	20.
1994	1.70	35	12619.	1577.	19.
1995	1.70	32	11730.	1466.	17.
1996	1.70	30	10905.	1363.	16.
1997	1.70	28	10137.	1267.	15.
1998	1.70	26	9424.	1178.	14.
1999	1.70	24	8761.	1095.	13.
2000	1.70	22	8144.	1018.	12.
2001	1.70	21	7571.	946.	11.
2002	1.70	19	7038.	880.	10.
2003	1.70	18	6543.	818.	10.
2004	1.70	17	6083.	760.	9.
2005	1.70	15	5654.	707.	8.
TOTAL.....			254408.	31801.	361.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #108 GL COMMERCIALITY

WED MAY 4, 1988
9:20:35 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE*****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
-0.9	0.	0.00
-0.7	0.	0.0
15.0	-140. -109.	-0.53 -0.41

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES

1986	7	264	3	1	0	-257	-257	-157	-56	-201
1987	51	0	18	5	4	42	-216	24	9	33
1988	29	0	8	3	4	22	-193	14	5	17
1989	27	0	7	3	4	20	-173	13	5	16
1990	25	0	7	3	4	19	-154	12	4	14
1991	23	0	6	2	4	17	-138	11	4	13
1992	22	0	6	2	4	16	-122	10	3	12
1993	20	0	6	2	4	14	-108	9	3	11
1994	19	0	5	2	4	13	-95	8	3	10
1995	17	0	5	2	4	12	-83	7	2	9
1996	16	0	4	2	4	11	-73	6	2	8
1997	15	0	4	2	4	10	-63	5	2	8
1998	14	0	4	1	4	9	-54	5	2	7
1999	13	0	4	1	4	8	-47	4	1	6
2000	12	0	3	1	4	7	-40	4	1	6
2001	11	0	3	1	4	6	-34	3	1	5
2002	10	0	3	1	4	5	-28	3	1	5
2003	10	0	3	1	4	5	-23	2	1	4
2004	9	0	2	1	4	4	-19	2	1	4
2005	8	0	2	1	4	4	-16	1	0	3
TOTAL	361	264	104	38	75	-16	0	-16	-6	-10

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
SAN JUAN BASIN

MARCH 1988 US3N0580 PAGE 001
WED MAY 4, 1988 9:17:25 AM

API:30-039-23506-0000 ROSA UNIT #108
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D.DATE(MMODYY):12/01/86

METER/UT:85933/00000
N.M.P.M.:T 31N R 5W 7G
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/04/88-1/4 R.L.RATIO....:

INITIAL NMCF: 0.000 BTU/GRAY: 979/0.000
CUMULATIVE.: 30.379 %CO2/%N2: 3.24/ 0.71
REMAINING.: -30.379 LSHD INTRST: 0.000000
R.L.RATIO....: 0.0 CNTR INTRST: 0.000000

MONTH	1971			1972			1973			1974			1975			1976		
	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1977			1978			1979			1980			1981			1982		
	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1983			1984			1985			1986			1987			1988		
	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4359	256	13.5
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2256	249	12.4
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	563	336	1.2
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	1446	317	1.8
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4428	316	13.7
DEC	0	0	0.0	0	0	0.0	0	0	0.0	8280	279	16.6	1958	318	7.8			
TOTALS	0	0	0	0	0	0	0	0	0	8280	279	17	18237	292	65	3862	276	19

1983	1984	1985	1986	1987	1988
MCF	PSIG	DAYS	MCF	PSIG	DAYS
8280	279	16.6	8280	279	16.6
18237	292	65	3862	276	19

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #112Y GP COMMERCIALITY

WED JUNE 15, 1988
5:04:45 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #112Y GP

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	321.0
MONTH OF CAPITAL EXPENSE....	2	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	421.2	TANGIBLE \$ (% OF DRILLING \$)	25.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
10	170.0	93.8	85.0	13
13	85.0	69.5	77.0	14
14	77.0	7.2	18.0	249
249	18.0	100.0	0.0	250

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1987	1.50	34	12541.	1568.	16.
1988	1.50	76	27587.	3448.	36.
1989	1.50	70	25402.	3175.	33.
1990	1.50	65	23585.	2948.	31.
1991	1.50	60	21898.	2737.	29.
1992	1.50	56	20331.	2541.	27.
1993	1.50	52	18877.	2360.	25.
1994	1.50	48	17527.	2191.	23.
1995	1.50	45	16273.	2034.	21.
1996	1.50	41	15109.	1889.	20.
1997	1.50	38	14028.	1754.	18.
1998	1.50	36	13025.	1628.	17.
1999	1.50	33	12093.	1512.	16.
2000	1.50	31	11228.	1404.	15.
2001	1.50	29	10425.	1303.	14.
2002	1.50	27	9679.	1210.	13.
2003	1.50	25	8987.	1123.	12.
2004	1.50	23	8344.	1043.	11.
2005	1.50	21	7747.	968.	10.
2006	1.50	20	7193.	899.	9.
2007	1.50	14	5055.	632.	7.
TOTAL.....			306926.	38366.	403.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #112Y GP COMMERCIALITY

WED JUNE 15, 1988
5:04:45 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE*****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
-4.8	0.	0.00
-4.1	0.	0.0
15.0	-292.	-209.

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.
-0.50

INCOME	**PROJECT EXPENSES IN \$1000*	****CASH FLOW ANALYSIS IN \$1000****				
*\$1000	***** AD.V. *****	*****	**CUM	*****	*****	*****
NET*	CAPIT- *** SEV. PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
YEAR	*TAL* DEPR. TAXES COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1987	16 421 4 2 1	-407	-407	-306	-110	-297
1988	36 0 9 4 4	29	-379	19	7	22
1989	33 0 9 3 4	26	-353	17	6	20
1990	31 0 8 3 4	24	-329	16	6	18
1991	29 0 8 3 4	22	-307	14	5	17
1992	27 0 7 3 4	20	-287	13	5	15
1993	25 0 6 3 4	18	-269	12	4	14
1994	23 0 6 2 4	17	-252	11	4	13
1995	21 0 6 2 4	15	-237	10	3	12
1996	20 0 5 2 4	14	-223	9	3	11
1997	18 0 5 2 4	13	-210	8	3	10
1998	17 0 4 2 4	11	-199	7	3	9
1999	16 0 4 2 4	10	-188	6	2	8
2000	15 0 4 2 4	9	-179	5	2	7
2001	14 0 4 1 4	8	-171	5	2	7
2002	13 0 3 1 4	8	-163	4	2	6
2003	12 0 3 1 4	7	-156	4	1	5
2004	11 0 3 1 4	6	-151	3	1	5
2005	10 0 3 1 4	5	-145	3	1	4
2006	9 0 2 1 4	5	-141	2	1	4
2007	7 0 2 1 3	3	-138	1	0	3
TOTAL	403 421 105 42 77	-138	0	-138	-49	-88

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
SAN JUAN BASIN

APRIL 1988 US3N0580 PAGE 001
TUE JUNE 21, 1988 4:11:19 PM

API:30-039-23705-0000 ROSA UNIT #112V
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)
NORTHWEST PIPELINE CORPORATION OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D. DATE(MMDVVY):01/14/87

METER/UT:85941/00000
N.M.P.M.:T 31N R SW 27M
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/04/88-1/4
R.L.RATIO....:

INITIAL MMCF: 0.000
BTU/GRAV: 1151/0.000
CUMULATIVE.: 13.922
%CD2/%N2: 2.66/ 1.03
REMAINING....: -13.922
LSHD INTRST: 0.000000
CNTR INTRST: 0.000000

MONTH	1971	1972	1973	1974	1975	1976
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1977	1978	1979	1980	1981	1982
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1983	1984	1985	1986	1987	1988
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	8172	326
					19	5750
					308	31

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #115 GL COMMERCIALITY

MON APRIL 4, 1988
3:22:55 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #115 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	285.0
MONTH OF CAPITAL EXPENSE....	3	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
11	225.0	63.0	65.0	26
26	65.0	17.9	57.0	34
34	57.0	5.9	19.0	250
250	19.0	100.0	0.0	251

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	1.05	36	13153.	1644.	12.
1987	0.98	126	45997.	5750.	56.
1988	1.70	61	22282.	2785.	33.
1989	1.70	55	19941.	2493.	30.
1990	1.70	51	18761.	2345.	28.
1991	1.70	48	17650.	2206.	26.
1992	1.70	45	16605.	2076.	25.
1993	1.70	43	15622.	1953.	23.
1994	1.70	40	14697.	1837.	22.
1995	1.70	38	13827.	1728.	21.
1996	1.70	36	13008.	1626.	19.
1997	1.70	34	12238.	1530.	18.
1998	1.70	32	11513.	1439.	17.
1999	1.70	30	10831.	1354.	16.
2000	1.70	28	10190.	1274.	15.
2001	1.70	26	9587.	1198.	14.
2002	1.70	25	9019.	1127.	13.
2003	1.70	23	8485.	1061.	13.
2004	1.70	22	7983.	998.	12.
2005	1.70	21	7510.	939.	11.
TOTAL.....			298892.	37362.	424.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #115 GL COMMERCIALITY

MON APRIL 4, 1988
3:22:55 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE*****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
-2.6	0.		0.00	
-2.1		0.		
15.0	-237.	-178.	-0.62	-0.46
				RATE OF RETURN B.T.
				0.0 RATE OF RETURN A.T.

INCOME		**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****	
NET*	CAPIT	***	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER	
YEAR	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	
1986	12	384	6	1	1	-374	-374	-246	-88	-286
1987	56	0	21	6	3	47	-328	26	9	37
1988	33	0	10	3	3	26	-301	16	6	20
1989	30	0	9	3	3	23	-278	14	5	18
1990	28	0	8	3	3	22	-257	13	5	17
1991	26	0	8	3	3	20	-236	12	4	16
1992	25	0	7	3	3	19	-218	11	4	15
1993	23	0	7	2	3	17	-200	10	4	14
1994	22	0	7	2	3	16	-184	10	3	13
1995	21	0	6	2	3	15	-169	9	3	12
1996	19	0	6	2	3	14	-155	8	3	11
1997	18	0	6	2	3	13	-143	7	3	10
1998	17	0	5	2	3	12	-131	7	2	9
1999	16	0	5	2	3	11	-120	6	2	9
2000	15	0	5	2	3	10	-109	6	2	8
2001	14	0	4	1	3	9	-100	5	2	8
2002	13	0	4	1	3	9	-92	5	2	7
2003	13	0	4	1	3	8	-84	4	1	6
2004	12	0	4	1	3	7	-76	4	1	6
2005	11	0	3	1	3	7	-70	3	1	5
TOTAL	424	384	135	44	66	-70	0	-70	-25	-45

THIS PROJECT DOES NOT PAYOUT

API:30-039-23483-0000 ROSA UNIT #115
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D. DATE (MMDVY): 11/06/86

METER/UT: B5935/00000
N.M.P.M.: T 31N R 6W 22H
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/04/88-1/4
R.L. RATIO....

INITIAL MMCF: 0.000 BTU/GRAV: 986/0.000
29.872 %CO2/WN2: 2.79/1.03
-29.872 LSHD INTRST: 0.000000
0.0 CNTR INTRST: 0.000000

MONTH	1971	1972	1973	1974	1975	1976
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1977	1978	1979	1980	1981	1982
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

MONTH	1983	1984	1985	1986	1987	1988
	MCF	MCF	MCF	MCF	MCF	MCF
	PSIG	PSIG	PSIG	PSIG	PSIG	PSIG
	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
JAN	0	0	0	0	0	0
FEB	0	0	0	0	0	0
MAR	0	0	0	0	0	0
APR	0	0	0	0	0	0
MAY	0	0	0	0	0	0
JUN	0	0	0	0	0	0
JUL	0	0	0	0	0	0
AUG	0	0	0	0	0	0
SEP	0	0	0	0	0	0
OCT	0	0	0	0	0	0
NOV	0	0	0	0	0	0
DEC	0	0	0	0	0	0
TOTALS	0	0	0	0	0	0

1717 262 12.4
1866 270 7.7
1035 258 4.2

1723 289 2.9
2065 313 3.4
4841 323 17.4
2609 316 13.6

11693 272 41
12955 300 50
5224 277 20

586-88

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0399
801-584-7215

LAND DEPARTMENT

October 10, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Mesaverde Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described well is not capable of producing unitized substances in paying quantities from the Mesaverde formation.

The well data is as follows:

The Rosa Mesaverde Unit #94 well is located 1650 feet from the south line and 1820 feet from the west line, Section 16, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 4, 1982 and completed in the Mesaverde formation on October 3, 1982. The Mesaverde formation was perforated with one shot per foot at each of the following depths:

5360', 5364', 5413', 5510', 5514', 5554', 5558', 5562',
5566', 5570', 5574', 5578', 5590', 5606', 5610', 5614',
5644', 5648', 5652', 5656', 5678', 5681'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 10, 1988
Page 2

The Mesaverde formation was hydraulically fractured with 76,440 gallons of fluid carrying 80,000 pounds of 20/40 mesh sand. On June 29, 1983 the Mesaverde formation was tested using a positive choke. During the 3-hour test the well produced 25 Mcf of gas, flowing at a rate of 155 Mcfd. The well produced a very heavy mist and logged off during the test. The well is incapable of sustained production and will not be connected to a pipeline.

Northwest Pipeline Corporation has received approval under the Rosa Unit 1988 Supplemental Drilling Program, filed by letter dated July 25, 1988, to convert this well to a salt water disposal facility.

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

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

Sincerely,

NORTHWEST PIPELINE CORPORATION



Darrell L. Gillen
Supervisor, Land Department

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
M. H. Johnson
R. P. Gregory
R. L. Glenn
L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
October 10, 1988
Page 3

APPROVED

DATE _____

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

APPROVED

DATE _____

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

APPROVED

DATE 10-20-88

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

The foregoing is the approval of Notice of Completion of Non-Commercial Well for the Rosa Unit #94 Well, Mesaverde Formation.

U56N2650
10/10/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75206-4079

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75201

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC.
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 871-2

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
10/10/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

535-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

September 1, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. 587
San Juan & Rio Arriba Counties, New Mexico
Supplemental 1988 Drilling Program
Second Supplemental 1988 Drilling Program

Gentlemen:

The Supplemental 1988 Drilling Program filed on July 25, 1988 for the Rosa Unit has been approved by the Regulatory Agencies as follows:

Bureau of Land Management	8/3/88
Commissioner of Public Lands	8/26/88
Oil Conservation Commission	8/1/88

The Second Supplemental 1988 Drilling Program filed on August 10, 1988 for the Rosa Unit has been approved by the Regulatory Agencies as follows:

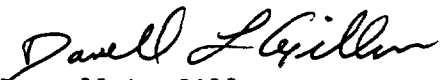
Bureau of Land Management	8/25/88
Commissioner of Public Lands	8/26/88
Oil Conservation Commission	8/23/88

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
September 1, 1988
Page 2

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachment

cc: Working Interest Owners
K. J. Stracke
P. C. Thompson

U56N2650
09/01/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

PHILLIPS PETROLEUM COMPANY
ATTN: GARY KUSE
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

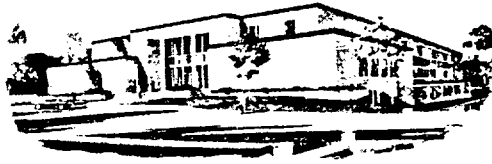
WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
09/01/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

State of New Mexico



SLO REF NO OG-867

W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

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

August 26, 1988

Northwest Pipeline Corp.
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0900

Re: 1988 Plan of Development
Rosa Unit (2nd Supplemental)
San Juan & Rio Arriba Counties, NM

Gentlemen:

The Commissioner of Public Lands has this date approved your 1988 Plan of Development for the above captioned unit area.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

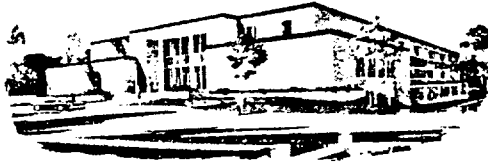
Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

State of New Mexico



SLO REF NO OG-866

W.R. HUMPHRIES
COMMISSIONER

Commissioner of Public Lands

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

August 26, 1988

Northwest Pipeline Corp.
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Ut 84108-0900

Re: 1988 Plan of Development
Rosa Unit (Supplemental)
San Juan & Rio Arriba Counties, NM

Gentlemen:

The Commissioner of Public Lands has this date approved your 1988 Plan of Development for the above captioned unit area.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

AUG 24 1988

Rosa (POD)
3180 (015)

Northwest Pipeline Corporation
ATTN: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108-0899

Gentlemen:

Two approved copies of your second amendment to the 1988 Plan of Development for the Rosa Unit area, San Juan and Rio Arriba Counties, New Mexico are enclosed. Such plan, proposing to drill a Fruitland coal well, the Rosa Unit No. 207 in the SW $\frac{1}{4}$ Section 17, T. 31 N., R. 5 W., NMPM, is approved this date subject to like approval by the appropriate officials of the State of New Mexico.

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

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

All plans of development are to be filed in triplicate.

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

Sincerely,

/s/ Gary A. Stephens

Assistant District Manager
Mineral Resources

cc: NMOCU, Santa Fe Comm. of Pub. Lands, Santa Fe
HM-019 015:RKent:ja:8/23/88:0305M

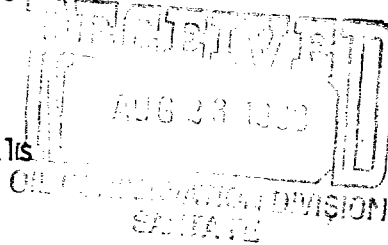
NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

485-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

August 10, 1988



Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. 587
San Juan & Rio Arriba Counties, New Mexico
Second Supplemental 1988 Drilling Program

Gentlemen:

By letter dated July 25, 1988, Northwest Pipeline Corporation, as Unit Operator for the Rosa Unit, filed a Supplemental Drilling Program which proposed the drilling of the Rosa Unit #203, #204, #206 Fruitland Coal wells, and to convert the Rosa Unit #94 to a salt water disposal facility.

In addition to the Supplemental Drilling Program proposed by letter dated July 25, 1988, Northwest Pipeline Corporation, as Unit Operator, has proposed and has received the necessary concurrence of a majority of the Working Interest Owners to drill a fourth well in the Rosa Unit in 1988. The proposed well is as follows:

<u>Well No.</u>	<u>Spacing Unit</u>	<u>Formation</u>
Rosa Unit #207	SW/4 Sec. 17, T31N, R5W	Fruitland Coal

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.

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
August 10, 1988
Page 2

If this Second Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to Northwest Pipeline Corporation.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
P. C. Thompson

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
August 10, 1988
Page 3

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
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
Area Oil and Gas Supervisor
and the Oil Conservation Commission

DATE

APPROVED



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

DATE

8-23-88

The foregoing are approvals for the Second Supplemental 1988 Drilling Program
for the Rosa Unit I, Sec. 587.

U56N2650
08/10/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
08/10/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

443-88

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

LAND DEPARTMENT

July 25, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. 587
San Juan & Rio Arriba Counties, New Mexico
Supplemental 1988 Drilling Program

Gentlemen:

By letter dated April 13, 1988, Northwest Pipeline Corporation, as Unit Operator for the Rosa Unit, filed a drilling program which indicated that no additional wells would be drilled during 1988 in the unit.

Subsequent to the filing of said letter, Northwest Pipeline Corporation, as Unit Operator, proposed and has received the necessary concurrence of a majority of the Working Interest Owners to drill three (3) wells and convert one (1) existing well to a salt water disposal facility. The proposed wells are as follows:

<u>Well No.</u>	<u>Spacing Unit</u>	<u>Formation</u>
Rosa Unit #203	SE/4 Sec. 18, T31N, R5W	Fruitland Coal
Rosa Unit #204	NE/4 Sec. 19, T31N, R5W	Fruitland Coal
Rosa Unit #206	Lots 1, 2, W/2NE/4 Sec. 24 T31N, R6W	Fruitland Coal

It is proposed that Northwest Pipeline Corporation, as Unit Operator, convert the Rosa Unit #94 Mesaverde well to a salt water disposal facility for the Fruitland Participating Area. This well has been determined non-commercial and is temporarily abandoned.

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
July 25, 1988
Page 2

The proposed salt water disposal facility is as follows:

<u>Well No.</u>	<u>Location</u>	<u>Formation</u>
Rosa Unit #94	Sec. 16, T31N, R5W	Convert for disposal in the Mesaverde formation

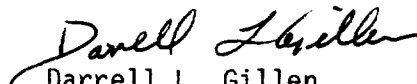
Northwest Pipeline Corporation, as Unit Operator, will drill any offset wells that may be required to prevent drainage of unitized substances and any other wells deemed necessary or which are requested by the Unit Operator or the Working Interest Owners.

If this Supplemental Drilling Program is acceptable, please signify your approval as required under Section 9 of the Unit Agreement in the space provided on the attached sheet and return an approved copy to Northwest Pipeline Corporation.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
P. C. Thompson

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
July 25, 1988
Page 3

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

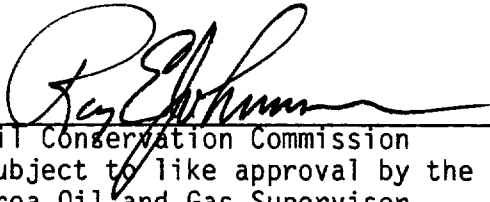
DATE

APPROVED

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

DATE

APPROVED


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

DATE

8-1-88

The foregoing are approvals for the Supplemental 1988 Drilling Program for the
Rosa Unit I, Sec. 587.

U56N2650
07/20/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

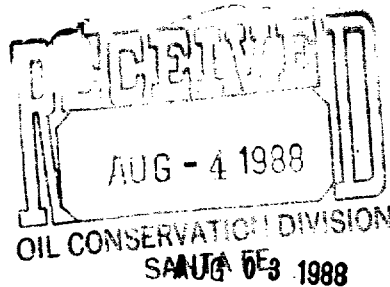
JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
07/20/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980



Rosa (POD)
318C (015)

Northwest Pipeline Corporation
ATTN: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, UT 84108-0899

Gentlemen:

Two approved copies of your amended 1988 Plan of Development for the Rosa Unit area, San Juan and Rio Arriba Counties, New Mexico are enclosed. Such plan, proposing to drill three Fruitland coal wells and convert the Rosa Unit No. 94 well to a disposal well was approved this date subject to like approval by the appropriate officials of the State of New Mexico.

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

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

All plans of development are to be filed in triplicate.

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

Sincerely,
[s] Gary A. Stephens

Assistant District Manager
Mineral Resources

cc: NMOC, Santa Fe
NM-019
Comm. of Pub. Lands, Santa Fe
015:RKent:ja:7/29/88:0260M

379-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

July 5, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. 587
San Juan & Rio Arriba Counties, New Mexico
Revised by Bureau of Land Management

APPROVAL OF THE INITIAL PARTICIPATING AREA
Dakota Formation
Effective January 10, 1966

APPROVAL OF THE FIRST PARTICIPATING AREA
Dakota Formation
Effective September 1, 1978

APPROVAL OF THE SECOND PARTICIPATING AREA
Dakota Formation
Effective June 1, 1980

APPROVAL OF THE THIRD PARTICIPATING AREA
Dakota Formation
Effective March 1, 1981

APPROVAL OF THE FOURTH PARTICIPATING AREA
Dakota Formation
Effective April 1, 1981

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
July 5, 1988
Page 2

APPROVAL OF THE FIFTH PARTICIPATING AREA
Dakota Formation
Effective May 1, 1981

Gentlemen:

The referenced approvals of the Initial, First, Second, Third, Fourth, and Fifth Participating Areas in the Rosa Dakota Unit have been approved by the Bureau of Land Management April 7, 1988, the Commissioner of Public Lands April 18, 1988 and the Oil Conservation Commission March 25, 1988.

It has come to our attention that Mitchell Energy is the owner of the N/2 of Sec. 10, T-31-N, R-5-W, Tract 13 of the Rosa Dakota Participating Area, not Amoco Production Co. as shown on the schedules originally sent. Attached are corrected schedules for the Initial through Fifth Participating Areas. Please replace the schedules as originally sent with the attached corrected schedules for the Initial through Fifth Rosa Dakota Participating Areas.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
L. K. Leaver

U56N2650
06/29/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
06/29/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

SCHEDULE I
INITIAL PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
			<u>TRACT 13</u>			
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	100.000000%
			Working Interest			
			Mitchell Energy Corp.	81.250000%	81.250000%	
			ORRI	6.250000%	6.250000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	

SCHEDULE I
INITIAL PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.
Section 10: N/2

Total Number of Acres in Participating Area:	320.00
Total Number of Acres Committed in Participating Area:	320.00

SCHEDULE II
FIRST PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>OWNERSHIP</u>	<u>DRILLING BLOCK PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	50.000000%
			Working Interest			
			Mitchell Energy Corp.	81.250000%	81.250000%	
			ORRI	6.250000%	6.250000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	50.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	

SCHEDULE II
FIRST PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.
Section 10: N/2

Township 31 North, Range 6 West, N.M.P.M.
Section 13: W/2

Total Number of Acres in Participating Area:	640.00
Total Number of Acres Committed in Participating Area:	640.00

SCHEDULE III
SECOND PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	T-31-N, R-5-W Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	33.333333%
			Working Interest			
			Mitchell Energy Corp.	81.250000%	81.250000%	
			ORRI	6.250000%	6.250000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 14</u>						
USA SF-078767	T-31-N, R-6-W Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	33.333333%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 17</u>						
USA SF-078769	T-31-N, R-5-W Sec. 17: W/2	320.00	Royalty	12.500000%	12.500000%	33.333334%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE III
SECOND PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Total Number of Acres in Participating Area: 960.00

Total Number of Acres Committed in Participating Area: 960.00

SCHEDULE IV
THIRD PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>OWNERSHIP</u>	<u>DRILLING BLOCK PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	25.000000%
			Working Interest			
			Mitchell Energy Corp.	81.250000%	81.250000%	
			ORRI	6.250000%	6.250000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	25.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty	12.500000%	12.500000%	25.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 39</u>						
USA SF-078766	<u>T-31-N, R-6-W</u> Sec. 22: Lot 1, E/2NW/4, SW/4	248.41	Royalty	12.500000%	12.500000%	19.407031%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 43</u>						
E-289-43	<u>T-31-N, R-6-W</u> Sec. 22: portion of Tract 40 lying in W/2NW/4	71.59	Royalty	12.500000%	12.500000%	5.592369%
			Working Interest			
			Phillips Petroleum Co.	82.500000%	82.500000%	
			ORRI	5.000000%	5.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE IV
THIRD PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,280.00

Total Number of Acres Committed in Participating Area: 1,280.00

SCHEDULE V
FOURTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 8: S/2	320.00	Royalty	12.500000%	12.500000%	20.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	20.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty	12.500000%	12.500000%	20.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 39</u>						
USA SF-078766	<u>T-31-N, R-6-W</u> Sec. 22: Lot 1, E/2NW/4, SW/4	248.41	Royalty	12.500000%	12.500000%	15.525625%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	

SCHEDULE V
FOURTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
			<u>TRACT 43</u>			
E-289-43	T-31-N, R-6-W	71.59	Royalty	12.500000%	12.500000%	4.474375%
	Sec. 22: portion		Working Interest			
	of Tract 40		Phillips Petroleum Co.	82.500000%	82.500000%	
	lying in		ORRI	5.000000%	5.000000%	
	W/2NW/4		Total	100.000000%	100.000000%	
				=====	=====	

SCHEDULE V
FOURTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 8: S/2

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,600.00

Total Number of Acres Committed in Participating Area: 1,600.00

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>OWNERSHIP</u>	<u>DRILLING BLOCK PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 8: S/2	320.00	Royalty	12.500000%	12.500000%	16.666666%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	16.666667%
			Working Interest			
			Mitchell Energy Corp.	81.250000%	81.250000%	
			ORRI	6.250000%	6.250000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	16.666667%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty	12.500000%	12.500000%	16.666667%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	
<u>TRACT 28</u>						
USA SF-078773	<u>T-31-N, R-5-W</u> Sec. 33: S/2	320.00	Royalty	12.500000%	12.500000%	16.666667%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u> =====	<u>100.000000%</u> =====	

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 39</u>						
USA SF-078766	T-31-N, R-6-W	248.41	Royalty	12.500000%	12.500000%	12.938021%
	Sec. 22: Lot 1,		Working Interest			
	E/2NW/4, SW/4		Amoco Production Co.	87.500000%	87.500000%	
			ORRI	<u>0.000000%</u>	<u>0.000000%</u>	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 43</u>						
E-289-43	T-31-N, R-6-W	71.59	Royalty	12.500000%	12.500000%	3.728645%
	Sec. 22: portion		Working Interest			
	of Tract 40		Phillips Petroleum Co.	82.500000%	82.500000%	
	lying in		ORRI	<u>5.000000%</u>	<u>5.000000%</u>	
	W/2NW/4		Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 8: S/2

Section 10: N/2

Section 17: W/2

Section 33: S/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,920.00

Total Number of Acres Committed in Participating Area: 1,920.00

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

371-88

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

LAND DEPARTMENT

June 8, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I, Sec. No. 587
San Juan & Rio Arriba Counties, New Mexico
1988 Drilling Program

Gentlemen:

The 1988 Drilling Program filed on April 13, 1988, for the Rosa Unit has been approved by the Regulatory Agencies as follows:

Bureau of Land Management	5/18/88
Commissioner of Public Lands	4/20/88
Oil Conservation Commission	4/20/88

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachment

cc: Working Interest Owners
K. J. Stracke
P. C. Thompson

U56N2650
06/08/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87502

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
700 PETROLEUM BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
FIRST REPUBLIC BANK CENTER
3600 TOWER II
DALLAS, TX 75201-3989

U56N2650
06/08/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

252-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801-584-7215

May 2, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

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

State of New Mexico
Oil Conservation Commission
Attn: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Gallup Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Gallup formation.

The well data is as follows:

The Rosa Unit #100 well is located 890 feet from the south line and 1850 feet from the west line, Section 21, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on May 31, 1984 and completed in the Gallup formation on August 28, 1984. The plug back depth is 8070 feet. This well is dually completed with the Dakota formation. The Gallup formation was perforated with one shot per foot over the following interval:

7092-7300'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
May 2, 1988
Page 2

The Gallup formation was hydraulically fractured with 81,000 gallons of gelled water carrying 84,000 pounds of 20/40 mesh sand. On October 3, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 279 Mcf of gas, flowing at a rate of 2232 Mcfd.

The Rosa Unit #101 well is located 1760 feet from the south line and 1850 feet from the west line, Section 24, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on December 19, 1983 and completed in the Gallup formation on August 1, 1984. The plug back depth is 8055 feet. This well is dually completed with the Dakota formation. The Gallup formation was perforated with one shot per foot over the following interval:

7074-7232'

The Gallup formation was hydraulically fractured with gelled water and 20/40 mesh sand. On August 22, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 89 Mcf of gas, flowing at a rate of 714 Mcfd with a calculated AOF of 719 Mcfd.

The Rosa Unit #102 well is located 1790 feet from the south line and 900 feet from the east line, Section 30, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on December 15, 1983 and completed in the Gallup formation on August 22, 1984. The plug back depth is 8140 feet. This well is dually completed with the Dakota formation. The Gallup formation was perforated with one shot per foot over the following interval:

7190-7358'

The Gallup formation was hydraulically fractured with gelled water and 20/40 mesh sand. On October 4, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 177 Mcf of gas, flowing at a rate of 1412 Mcfd.

The Rosa Unit #117 well is located 1150 feet from the north line and 1070 feet from the west line, Section 33, Township 32 North, Range 6 West, N.M.P.M., San Juan County, New Mexico. This well was spudded on October 9, 1984 and completed in the Gallup formation on December 7, 1984. The well is dually completed with the Dakota formation. The Gallup formation was perforated with one shot per two feet over the following intervals:

6790-6820'; 6860-6900'; 7004-7094'; 7170-7390'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
May 2, 1988
Page 3

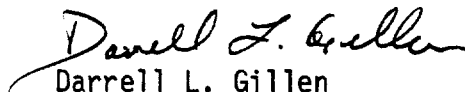
The Gallup formation was hydraulically fractured with 115,000 gallons of gelled water carrying 135,000 pounds of 20/40 mesh sand. On February 12, 1985 the Gallup formation was tested using a positive choke. During the 3-hour test the well flowed at a rate of 2104 Mcfd with a calculated AOF of 2284 Mcfd. The shut-in pressure prior to the test was 2208 psig.

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

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachments

cc: Working Interest Owners
K. J. Stracke
W. S. West
L. G. Loving
C. N. Potter
M. H. Johnson
R. P. Gregory
R. L. Glenn
L. K. Leaver

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
May 2, 1988
Page 4

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
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
Area Oil and Gas Supervisor
and the Oil Conservation Commission

DATE

APPROVED



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

DATE

5-12-88

The foregoing is the approval of Notice of Completion of Non-Commercial Well for the Rosa Unit #100, 101, 102, and 117 Wells, Gallup Formation.

U56N2650
04/20/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
P.O. BOX 800
DENVER, CO 80201

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO 80201-0749

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX 75205

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX 75201

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX 75201

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX 75206

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J. R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA 93105

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX 75247

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM 87501

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX 75265

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM 87401

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO 80202

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX 76102

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO 80237

THE WISER OIL COMPANY
905 OIL & GAS BUILDING
WICHITA FALLS, TX 76301

WILLIAM G. WEBB
4200 REPUBLIC BANK TOWER BLDG.
DALLAS, TX 75201

U56N2650
04/20/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX 79980

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #100 GP COMMERCIALITY

MON MARCH 7, 1988
4:21:12 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #100 GP

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	370.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	300.0	99.6	190.0	17
17	190.0	49.7	160.0	20
20	160.0	43.1	100.0	30
30	100.0	7.1	25.0	255
255	25.0	100.0	0.0	256

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.02	0	0.	0.	0.
1986	2.02	131	47747.	5968.	62.
1987	0.98	105	38480.	4810.	48.
1988	1.70	93	33825.	4228.	50.
1989	1.70	86	31415.	3927.	47.
1990	1.70	80	29176.	3647.	43.
1991	1.70	74	27096.	3387.	40.
1992	1.70	69	25165.	3146.	37.
1993	1.70	64	23372.	2921.	35.
1994	1.70	59	21706.	2713.	32.
1995	1.70	55	20159.	2520.	30.
1996	1.70	51	18722.	2340.	28.
1997	1.70	48	17388.	2174.	26.
1998	1.70	44	16149.	2019.	24.
1999	1.70	41	14998.	1875.	22.
2000	1.70	38	13929.	1741.	21.
2001	1.70	35	12936.	1617.	19.
2002	1.70	33	12014.	1502.	18.
2003	1.70	31	11158.	1395.	17.
2004	1.70	28	10363.	1295.	15.
2005	1.70	26	9624.	1203.	14.
TOTAL.....			435416.	54427.	630.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #100 GP COMMERCIALITY

MON MARCH 7, 1988
4:21:12 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE*****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
3.1	0.	0.00
2.6	0.	
15.0	-162. -129.	-0.42 -0.34

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
	NET*	CAPIT*	***	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	384	0	0	0	-384	-384	-250	-90	-294
1986	62	0	15	6	3	52	-332	38	14	39
1987	48	0	12	5	4	39	-293	27	10	29
1988	50	0	10	5	4	41	-252	30	11	30
1989	47	0	10	5	4	37	-215	28	10	27
1990	43	0	9	5	4	34	-181	25	9	25
1991	40	0	8	4	4	32	-149	23	8	23
1992	37	0	8	4	4	29	-120	21	8	21
1993	35	0	7	4	4	27	-93	19	7	20
1994	32	0	7	3	4	24	-69	18	6	18
1995	30	0	6	3	4	22	-46	16	6	17
1996	28	0	6	3	4	20	-26	15	5	15
1997	26	0	5	3	4	19	-7	13	5	14
1998	24	0	5	3	4	17	10	12	4	13
1999	22	0	5	2	4	16	26	11	4	12
2000	21	0	4	2	4	14	40	10	4	11
2001	19	0	4	2	4	13	52	9	3	10
2002	18	0	4	2	4	12	64	8	3	9
2003	17	0	3	2	4	10	74	7	3	8
2004	15	0	3	2	4	9	84	6	2	7
2005	14	0	3	2	4	8	92	5	2	6
TOTAL	630	384	135	66	88	92	0	92	33	59

PAYOUT DURING MONTH 5 OF YEAR 14

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA GP/DK

JANUARY 1988 U53N0580 PAGE 001
MON MARCH 7, 1988 4:24:28 PM

API:30-039-23360-0000 ROSA UNIT #100 NEW MEXICO LAGUNA-SECA MANCOS (GALLUP) NORTHWEST PIPELINE CORP OPERATOR NWP SAN JUAN GATHERING SYSTEM I.D.DATE(MMDDYY):04/15/86									
METER/UT:85867/000000 N.M.P.M.:T 31N R 6W 21N FOOTAGE: OF L OF L S DATE-RL/WS: 9/30/85-1/1 R.L.RATIO....:									
INITIAL MMCF: CUMULATIVE...: REMAINING...: CNTR INTRST: 0.000000									
0.000 BTU/GRAY: 986/0.000 69.982 %CO2/%N2: 2.60/ 0.98 -69.982 LSHD INTRST: 0.000000 0.0 CNTR INTRST: 0.000000									
MONTH	1971	1972	1973	1974	1975	1976	1977	1978	1979
JAN	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS
FEB	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
MAR	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
APR	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
MAY	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
JUN	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
JUL	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
AUG	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
SEP	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
OCT	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
NOV	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
DEC	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0
TOTALS	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

MONTH	1980	1981	1982
JAN	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS
FEB	0 0 0.0	0 0 0.0	0 0 0.0
MAR	0 0 0.0	0 0 0.0	0 0 0.0
APR	0 0 0.0	0 0 0.0	0 0 0.0
MAY	0 0 0.0	0 0 0.0	0 0 0.0
JUN	0 0 0.0	0 0 0.0	0 0 0.0
JUL	0 0 0.0	0 0 0.0	0 0 0.0
AUG	0 0 0.0	0 0 0.0	0 0 0.0
SEP	0 0 0.0	0 0 0.0	0 0 0.0
OCT	0 0 0.0	0 0 0.0	0 0 0.0
NOV	0 0 0.0	0 0 0.0	0 0 0.0
DEC	0 0 0.0	0 0 0.0	0 0 0.0
TOTALS	0 0 0	0 0 0	0 0 0

MONTH	1983	1984	1985	1986	1987	1988
JAN	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS	MCF PSIG DAYS
FEB	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	4133 255 31.0	281 319 1.8
MAR	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	8556 281 15.6	
APR	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	4270 246 16.0	
MAY	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	4184 250 15.5	
JUN	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	4706 269 16.1	
JUL	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	3202 262 15.2	
AUG	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	1751 272 7.5	
SEP	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	834 308 2.0	
OCT	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	4473 325 7.9	
NOV	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	102 303 0.5	
DEC	0 0 0.0	0 0 0.0	0 0 0.0	0 0 0.0	349 306 1.4	
TOTALS	0 0 0	0 0 0	0 0 0	32424 260 174	37277 281 132	281 319 2

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #101 GL COMMERCIALITY

WED MARCH 9, 1988
10:44:15 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #101 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES....%	10.4	OPERATING COSTS (\$/MO).....	304.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	200.0	100.0	100.0	17
17	100.0	99.4	65.0	18
18	65.0	66.8	45.0	22
22	45.0	98.3	32.0	23
23	32.0	10.5	30.0	30
30	30.0	5.3	19.0	130
130	19.0	100.0	0.0	131

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.02	0	0.	0.	0.
1986	2.02	53	19371.	2421.	27.
1987	0.98	30	10999.	1375.	14.
1988	1.70	28	10351.	1294.	15.
1989	1.70	27	9799.	1225.	15.
1990	1.70	25	9276.	1159.	14.
1991	1.70	24	8781.	1098.	13.
1992	1.70	23	8313.	1039.	12.
1993	1.70	22	7870.	984.	12.
1994	1.70	20	7450.	931.	11.
1995	1.70	16	5904.	738.	9.
1996	1.70	0	0.	0.	0.
1997	1.70	0	0.	0.	0.
1998	1.70	0	0.	0.	0.
1999	1.70	0	0.	0.	0.
2000	1.70	0	0.	0.	0.
2001	1.70	0	0.	0.	0.
2002	1.70	0	0.	0.	0.
2003	1.70	0	0.	0.	0.
2004	1.70	0	0.	0.	0.
TOTAL.....			98111.	12264.	142.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #101 GL COMMERCIALITY

WED MARCH 9, 1988
10:44:15 AM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
-23.3	0.	0.00
-17.6	0.	0.0
15.0	-304. -213.	-0.79 -0.56

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.

YEAR	INCOME *\$1000 **NET*	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	*****	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
	*****	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	384	0	0	0	-384	-384	-250	-90	-294
1986	27	0	27	3	3	22	-362	-5	-2	23
1987	14	0	15	1	4	9	-353	-6	-2	11
1988	15	0	14	2	4	10	-343	-4	-1	12
1989	15	0	13	2	4	9	-334	-4	-1	11
1990	14	0	13	1	4	9	-325	-4	-1	10
1991	13	0	12	1	4	8	-317	-4	-1	9
1992	12	0	11	1	4	7	-310	-4	-1	9
1993	12	0	11	1	4	7	-303	-4	-1	8
1994	11	0	10	1	4	6	-297	-4	-1	8
1995	9	0	8	1	3	5	-292	-3	-1	6
1996	0	0	0	0	0	0	-292	0	0	0
1997	0	0	0	0	0	0	-292	0	0	0
1998	0	0	0	0	0	0	-292	0	0	0
1999	0	0	0	0	0	0	-292	0	0	0
2000	0	0	0	0	0	0	-292	0	0	0
2001	0	0	0	0	0	0	-292	0	0	0
2002	0	0	0	0	0	0	-292	0	0	0
2003	0	0	0	0	0	0	-292	0	0	0
2004	0	0	0	0	0	0	-292	0	0	0
TOTAL	142	384	135	15	35	-292	0	-292	-105	-187

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA GP/DK

JANUARY 1988 U53N0580 PAGE 002
WED MARCH 9, 1988 10:49:55 AM

API:30-039-23361-0000 ROSA UNIT #101
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D.DATE(MDDVV):04/01/86

METER/UT:85883/000000
N.M.P.M.:T 31N R 6W 24K
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/04/88-1/4 R.L.RATIO...:

0.000 BTU/GRV: 986/0.000
26.452 %CO2/%N2: 3.06/ 0.18
-26.452 LSHD INTRST: 0.000000
0.0 CNTR INTRST: 0.000000

MONTH	1971		1972		1973		1974		1975		1976	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
APR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAY	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AUG	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SEP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OCT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOV	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
DEC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1977		1978		1979		1980		1981		1982	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
APR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAY	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AUG	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SEP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OCT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOV	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
DEC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1983		1984		1985		1986		1987		1988	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	1262	259 30.0	0	0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	1485	279 4.5	0	0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	907	257 4.4	0	0
APR	0	0.0	0	0.0	0	0.0	6096	262 25.4	699	245 3.6	0	0
MAY	0	0.0	0	0.0	0	0.0	1925	241 18.7	752	260 3.8	0	0
JUN	0	0.0	0	0.0	0	0.0	2011	243 30.6	817	246 3.4	0	0
JUL	0	0.0	0	0.0	0	0.0	131	218 2.6	543	269 2.0	0	0
AUG	0	0.0	0	0.0	0	0.0	1952	310 23.6	285	322 1.5	0	0
SEP	0	0.0	0	0.0	0	0.0	965	302 11.0	1212	313 4.1	0	0
OCT	0	0.0	0	0.0	0	0.0	1408	234 30.8	1046	298 5.0	0	0
NOV	0	0.0	0	0.0	0	0.0	973	250 29.9	608	300 2.5	0	0
DEC	0	0.0	0	0.0	0	0.0	1064	276 30.6	311	307 1.4	0	0
TOTALS	0	0	0	0	0	0	16525	259 203	9927	279 66	0	0

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #102 GL COMMERCIALITY

WED MARCH 9, 1988
2:48:20 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #102 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	350.0
MONTH OF CAPITAL EXPENSE....	4	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
12	175.0	84.3	150.0	13
13	150.0	80.2	100.0	16
16	100.0	57.8	34.0	31
31	34.0	5.3	19.0	160
160	19.0	100.0	0.0	161

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.48	15	5327.	666.	12.
1986	2.48	90	32940.	4117.	53.
1987	0.98	39	14187.	1773.	18.
1988	1.70	32	11792.	1474.	18.
1989	1.70	31	11171.	1396.	17.
1990	1.70	29	10582.	1323.	16.
1991	1.70	27	10025.	1253.	15.
1992	1.70	26	9496.	1187.	14.
1993	1.70	25	8996.	1124.	13.
1994	1.70	23	8522.	1065.	13.
1995	1.70	22	8073.	1009.	12.
1996	1.70	21	7647.	956.	11.
1997	1.70	20	7244.	906.	11.
1998	1.70	6	2329.	291.	3.
1999	1.70	0	0.	0.	0.
2000	1.70	0	0.	0.	0.
2001	1.70	0	0.	0.	0.
2002	1.70	0	0.	0.	0.
2003	1.70	0	0.	0.	0.
2004	1.70	0	0.	0.	0.
2005	1.70	0	0.	0.	0.
TOTAL.....			148327.	18541.	225.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #102 GL COMMERCIALITY

WED MARCH 9, 1988
2:48:20 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE*****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
-15.2	0.		0.00	
-11.8		0.		
15.0	-285.	-204.	-0.74	-0.53
				RATE OF RETURN B.T.
				0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000*****				
	*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	CAPIT	***	SEV.	PROD.		BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*TAL*	DEPR.	TAXES	COSTS		*TAXES	TAXES	INCOME	TAXES	TAXES
1985	12	384	5	1	0	-374	-374	-244	-88	-286
1986	53	0	30	6	4	43	-331	13	5	38
1987	18	0	13	2	4	11	-319	-1	0	12
1988	18	0	11	2	4	11	-308	1	0	11
1989	17	0	10	2	4	11	-297	1	0	10
1990	16	0	10	2	4	10	-287	0	0	10
1991	15	0	9	2	4	9	-278	0	0	9
1992	14	0	9	1	4	8	-270	0	0	8
1993	13	0	8	1	4	8	-262	0	0	8
1994	13	0	8	1	4	7	-255	-1	0	7
1995	12	0	7	1	4	7	-248	-1	0	7
1996	11	0	7	1	4	6	-242	-1	0	6
1997	11	0	7	1	4	5	-237	-1	0	6
1998	3	0	2	0	1	2	-235	0	0	2
1999	0	0	0	0	0	0	-235	0	0	0
2000	0	0	0	0	0	0	-235	0	0	0
2001	0	0	0	0	0	0	-235	0	0	0
2002	0	0	0	0	0	0	-235	0	0	0
2003	0	0	0	0	0	0	-235	0	0	0
2004	0	0	0	0	0	0	-235	0	0	0
2005	0	0	0	0	0	0	-235	0	0	0
TOTAL	225	384	135	24	52	-235	0	-235	-85	-151

THIS PROJECT DOES NOT PAYOUT

API:30-039-23359-0000 ROSA UNIT #102												
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)												
NORTHWEST PIPELINE CORP OPERATOR												
NWP SAN JUAN GATHERING SYSTEM												
I.D.DATE(MMDDYY):12/11/85												
METER/UT:85861/000000												
N.M.P.M.:T 31N R 5W 30I												
FOOTAGE.: 1790FSL 900FEL												
S DATE-RL/WS: 2/04/88-1/4												
INITIAL MMCF:												
CUMULATIVE...:												
REMAINING...:												
R.L.RATIO...:												
0.000 BTU/GRAV: 989/0.000												
33.471 %CO2/%N2: 2.42/ 0.79												
-33.471 LSHD INTRST: 0.000000												
0.0 CNTR INTRST: 0.000000												

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #117 GL COMMERCIALITY

WED MARCH 9, 1988
4:19:56 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #117 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	246.0
MONTH OF CAPITAL EXPENSE....	4	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	347.5	TANGIBLE \$ (% OF DRILLING \$)	30.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
13	200.0	98.4	100.0	15
15	100.0	94.8	61.0	17
17	61.0	18.9	54.0	24
24	54.0	5.3	19.0	252
252	19.0	100.0	0.0	253

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1986	2.48	0	0.	0.	0.
1987	2.48	82	29799.	3725.	50.
1988	0.98	52	19147.	2393.	24.
1989	1.70	50	18123.	2265.	27.
1990	1.70	47	17154.	2144.	26.
1991	1.70	44	16236.	2029.	24.
1992	1.70	42	15367.	1921.	23.
1993	1.70	40	14545.	1818.	22.
1994	1.70	38	13767.	1721.	20.
1995	1.70	36	13031.	1629.	19.
1996	1.70	34	12334.	1542.	18.
1997	1.70	32	11674.	1459.	17.
1998	1.70	30	11050.	1381.	16.
1999	1.70	29	10459.	1307.	16.
2000	1.70	27	9899.	1237.	15.
2001	1.70	26	9370.	1171.	14.
2002	1.70	24	8868.	1109.	13.
2003	1.70	23	8394.	1049.	12.
2004	1.70	22	7945.	993.	12.
2005	1.70	21	7520.	940.	11.
TOTAL.....			254676.	31835.	380.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #117 GL COMMERCIALITY

WED MARCH 9, 1988
4:19:56 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

DISCOUNT	****PRESENT VALUE*****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
-2.4	0.		0.00	
-2.1		0.		
15.0	-219.	-162.	-0.63	-0.47

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPIT*	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES

1986	0	348	0	0	0	-348	-348	-243	-88	-260
1987	50	0	12	5	3	42	-306	29	11	31
1988	24	0	8	3	3	19	-287	11	4	15
1989	27	0	7	3	3	21	-266	14	5	16
1990	26	0	7	3	3	20	-246	13	5	15
1991	24	0	7	3	3	19	-227	12	4	14
1992	23	0	6	2	3	18	-210	11	4	13
1993	22	0	6	2	3	16	-193	10	4	13
1994	20	0	6	2	3	15	-178	10	4	12
1995	19	0	5	2	3	14	-164	9	3	11
1996	18	0	5	2	3	13	-150	8	3	10
1997	17	0	5	2	3	13	-138	8	3	10
1998	16	0	5	2	3	12	-126	7	3	9
1999	16	0	4	2	3	11	-115	7	2	9
2000	15	0	4	2	3	10	-105	6	2	8
2001	14	0	4	1	3	10	-95	6	2	7
2002	13	0	4	1	3	9	-86	5	2	7
2003	12	0	3	1	3	8	-78	5	2	6
2004	12	0	3	1	3	8	-70	4	2	6
2005	11	0	3	1	3	7	-63	4	1	6
TOTAL	380	348	104	40	56	-63	0	-64	-23	-41

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA GP/DK

JANUARY 1988 U53N0580 PAGE 001
WED MARCH 9, 1988 4:25:29 PM

API: 30-045-26046-0000 ROSA UNIT #117											
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)											
NORTHWEST PIPELINE CORP OPERATOR											
NWP SAN JUAN GATHERING SYSTEM											
I.D.DATE(MMDDYY): 01/08/87											
METER/UT: 85929/00000				INITIAL MMCF:				0.000 BTU/GRAV: 980/0.000			
N.M.P.M.: T 32N R 6W 33D				CUMULATIVE...:				29.774 %CO2/%N2: 3.59/ 0.18			
FOOTAGE.: OF L OF L				REMAINING...:				-29.774 LSHD INSTRST: 0.000000			
S DATE-RL/WS: 2/03/88-1/5				R.L.RATIO...:				0.0 CNTR INSTRST: 0.000000			
1971 1972 1973 1974 1975 1976											
MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS											
JAN	0	0	0	0	0	0	0	0	0	0	0
FEB	0	0	0	0	0	0	0	0	0	0	0
MAR	0	0	0	0	0	0	0	0	0	0	0
APR	0	0	0	0	0	0	0	0	0	0	0
MAY	0	0	0	0	0	0	0	0	0	0	0
JUN	0	0	0	0	0	0	0	0	0	0	0
JUL	0	0	0	0	0	0	0	0	0	0	0
AUG	0	0	0	0	0	0	0	0	0	0	0
SEP	0	0	0	0	0	0	0	0	0	0	0
OCT	0	0	0	0	0	0	0	0	0	0	0
NOV	0	0	0	0	0	0	0	0	0	0	0
DEC	0	0	0	0	0	0	0	0	0	0	0

TOTALS	0	0	0	0	0	0	0	0	0	0	0
1977 1978 1979 1980 1981 1982											
MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS											
JAN	0	0	0	0	0	0	0	0	0	0	0
FEB	0	0	0	0	0	0	0	0	0	0	0
MAR	0	0	0	0	0	0	0	0	0	0	0
APR	0	0	0	0	0	0	0	0	0	0	0
MAY	0	0	0	0	0	0	0	0	0	0	0
JUN	0	0	0	0	0	0	0	0	0	0	0
JUL	0	0	0	0	0	0	0	0	0	0	0
AUG	0	0	0	0	0	0	0	0	0	0	0
SEP	0	0	0	0	0	0	0	0	0	0	0
OCT	0	0	0	0	0	0	0	0	0	0	0
NOV	0	0	0	0	0	0	0	0	0	0	0
DEC	0	0	0	0	0	0	0	0	0	0	0

TOTALS	0	0	0	0	0	0	0	0	0	0	0
1983 1984 1985 1986 1987 1988											
MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS MCF PSIG DAYS											
JAN	0	0	0	0	0	0	0	0	1979	227	1366
FEB	0	0	0	0	0	0	0	0	5828	259	1366
MAR	0	0	0	0	0	0	0	0	4262	228	1366
APR	0	0	0	0	0	0	0	0	2525	247	1366
MAY	0	0	0	0	0	0	0	0	1991	260	1366
JUN	0	0	0	0	0	0	0	0	1642	243	1366
JUL	0	0	0	0	0	0	0	0	1417	255	1366
AUG	0	0	0	0	0	0	0	0	1935	270	1366
SEP	0	0	0	0	0	0	0	0	2110	292	1366
OCT	0	0	0	0	0	0	0	0	1661	262	1366
NOV	0	0	0	0	0	0	0	0	2098	278	1366
DEC	0	0	0	0	0	0	0	0	960	270	1366

TOTALS	0	0	0	0	0	0	0	0	28408	257	1366

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA GP/DK

JANUARY 1988 U53N0580 PAGE 001
WED MARCH 9, 1988 4:25:29 PM

API: 30-045-26046-0000 ROSA UNIT #117
NEW MEXICO UNDESIGNATED MANCOS (GALLUP)
NORTHWEST PIPELINE CORP OPERATOR
NWP SAN JUAN GATHERING SYSTEM
I.D.DATE(MMDDYY): 01/08/87
METER/UT: 85929/00000
N.M.P.M.: T 32N R 6W 33D
FOOTAGE.: OF L OF L
S DATE-RL/WS: 2/03/88-1/5 R.L.RATIO...:
INITIAL MMCF:
CUMULATIVE...:
REMAINING...:
BTU/GRAV: 980/0.000
%CO2/%N2: 3.59/ 0.18
LSHD INSTRST: 0.000000
CNTR INSTRST: 0.000000

MONTH	1971		1972		1973		1974		1975		1976	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
APR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAY	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AUG	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SEP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OCT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOV	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
DEC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1977		1978		1979		1980		1981		1982	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
FEB	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
APR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
MAY	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JUL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
AUG	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SEP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
OCT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NOV	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
DEC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0

MONTH	1983		1984		1985		1986		1987		1988	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0.0	0	0.0	0	0.0	0	0.0	1979	227	1366	274
FEB	0	0.0	0	0.0	0	0.0	0	0.0	5828	259	1366	274
MAR	0	0.0	0	0.0	0	0.0	0	0.0	4262	228	1366	274
APR	0	0.0	0	0.0	0	0.0	0	0.0	2525	247	1366	274
MAY	0	0.0	0	0.0	0	0.0	0	0.0	1991	260	1366	274
JUN	0	0.0	0	0.0	0	0.0	0	0.0	1642	243	1366	274
JUL	0	0.0	0	0.0	0	0.0	0	0.0	1417	255	1366	274
AUG	0	0.0	0	0.0	0	0.0	0	0.0	1935	270	1366	274
SEP	0	0.0	0	0.0	0	0.0	0	0.0	2110	292	1366	274
OCT	0	0.0	0	0.0	0	0.0	0	0.0	1661	262	1366	274
NOV	0	0.0	0	0.0	0	0.0	0	0.0	2098	278	1366	274
DEC	0	0.0	0	0.0	0	0.0	0	0.0	960	270	1366	274
TOTALS	0	0	0	0	0	0	0	0	28408	257	1366	274

MAY 23 1988
MAY 18 1988

Rosa Unit (POD)
3180 (015)

Northwest Pipeline Corp.
Attn: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, Utah 84108

Gentlemen:

Two approved copies of your 1988 Plan of Development for the Rosa Unit area, San Juan and Rio Arriba County, New Mexico are enclosed. Such plan, proposing no additional wells to be drilled during 1988 was approved this date subject to like approval by the appropriate officials of the State of New Mexico.

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

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

All plans of development are to be filed in triplicate.

The possibility might exist of drainage by wells outside of the unit boundary. You will be contacted at a later date about this possibility.

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

Sincerely,

(Orig. Signed) - Sid Vogelpohl

Assistant District Manager
Mineral Resources

Enclosure

cc:

NM-019

✓ NMOCD, Santa Fe w/o encl.

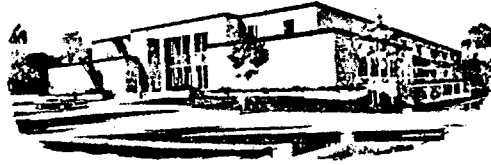
Comm. of Pub. Lands, Santa Fe w/o encl.

015:GKeller:ag:5/9/88:0020M

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

SLO REF NO OG-765

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

April 20, 1988

Northwest Pipeline Corp.
Attn: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, UT 84108-0899

Re: 1988 Plan of Development
Rosa Unit
San Juan & Rio Arriba Counties, NM

Gentlemen:

The Commissioner of Public Lands has this date approved your 1988 Plan of Development for the above captioned unit area.

Our approval is subject to like approval by all other appropriate agencies.

Enclosed is an approved copy for your files.

If we may be of further help please do not hesitate to call on us.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY:

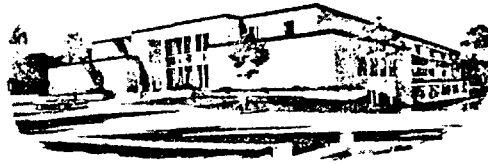
Floyd O. Prando
FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.
cc: OCD
BLM

State of New Mexico



W.R. HUMPHRIES
COMMISSIONER



Commissioner of Public Lands

SLO REF NO. OG-756

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

April 18, 1988

Northwest Pipeline Corporation
ATTENTION: Mr. Darrell L. Gillen
P. O. Box 8900
Salt Lake City, Utah 87108-0900

Re: Rosa Unit Agreement
Revised Application for Approval
of the Initial through fifth
revisions of the Dakota Particip-
ating Area San Juan & Rio Arriba
Counties, New Mexico

Gentlemen:

The Commissioner of Public Lands has this date approved your application dated February 29, 1988, requesting approval of the Initial thru Fifth revisions of the Dakota Participating Area in the Rosa Unit, San Juan and Rio Arriba Counties, New Mexico.

The Initial Participating Area is effective as of January 10, 1966, and covers the N/2 of Section 10, Township 31 North, Range 5 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 70.

The First Revision to the Participating Area is effective September 1, 1978, and covers the W/2 of Section 13, Township 31 North, Range 6 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 66.

The Second Revision to the Participating area is effective June 1, 1980, and covers the W/2 of Section 17, Township 31 North, Range 5 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 68.

The Third Revision to the Participating Area is effective March 1, 1981, and covers the W/2 of Section 22, Township 31 North, Range 6 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 79.

The Fourth Revision to the Participating Area is Effective April 1, 1981, and covers the S/2 of Section 8, Township 31 North, Range 5 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 80.

Northwest Pipeline Corporation
April 18, 1988
Page 2

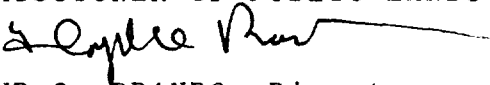
The Fifth Revision to the Participating Area is Effective May 1, 1981, and covers the S/2 of Section 33, Township 31 North, Range 5 West, containing 320.00 acres. This revision is based upon the completion of the Rosa Unit Well No. 77.

Our approval is subject to like approval by the Bureau of Land Management.

Very truly yours,

W. R. HUMPHRIES
COMMISSIONER OF PUBLIC LANDS

BY:


FLOYD O. PRANDO, Director
Oil and Gas Division
(505) 827-5744

WRH/FOP/pm
encls.

cc: OCD-Santa Fe, New Mexico
 BLM-Albuquerque, New Mexico
 GULRAM
 TRD-Oil and Gas Processing

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

159-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0899
801 584-7215

April 13, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I, Sec. No. 587
San Juan & Rio Arriba
Counties, New Mexico
1988 Drilling Program

Gentlemen:

By letter dated March 3, 1987, Northwest Pipeline Corporation, as Unit Operator, filed a Drilling Program for the referenced Unit. The Drilling Program indicated that no additional wells would be drilled during 1987 in the Unit.

As of this date, the total number of wells drilled in the Rosa Unit on acreage committed to the unit is as follows:

Pictured Cliffs, plugged and abandoned	2
Pictured Cliffs/Mesaverde, (Pictured Cliffs non-commercial, Mesaverde commercial)	1
Mesaverde, commerciality undetermined	1
Mesaverde, commercial	26
Mesaverde, non-commercial	4
Mesaverde, plugged and abandoned	8
Mesaverde/Dakota, commercial	2
Dakota, commercial	3
Dakota, non-commercial	14
Dakota, undetermined	4
Dakota, plugged and abandoned	3

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
April 13, 1988
Page 2

Mesaverde/Gallup/Dakota, (Gallup non-commercial, Dakota and Mesaverde commercial)	1
Gallup/Dakota, (Gallup non-commercial, Dakota commercial)	5
Gallup/Dakota, commerciality undetermined	12
Gallup/Dakota, plugged and abandoned	2
Gallup/Dakota, (Gallup non-commercial, Dakota undetermined	2
Gallup, non-commercial	1
Gallup/Dakota, (Gallup commerciality undetermined, Dakota plugged and abandoned)	<u>1</u>
TOTAL	92

Pursuant to Section 9 of the Rosa Unit Agreement, Northwest Pipeline Corporation is submitting a Drilling Program for the callendar year 1988. No additional wells are proposed to be drilled during 1988.

All of the Working Interest Owners have been contacted and this Drilling Program reflects the desires of a majority of the Working Interest Owners. Northwest Pipeline Corporation, as Unit Operator, and the Working Interest Owners believe that all current obligations have been satisfied.

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 9 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.

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG:cg
Attachment

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
April 13, 1988
Page 3

cc: Working Interest Owners
 K. J. Stracke
 P. C. Thompson

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 4

APPROVED

Assistant District Manager, Minerals
Bureau of Land Management
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
Area Oil and Gas Supervisor and
the Oil Conservation Commission

DATE

APPROVED



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

DATE

4-20-88

The foregoing approvals are for the 1988 Drilling Program for the Rosa Unit I,
Sec. No. 587.

U56N2650
04/13/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
DENVER, CO
80202

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM
87501

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO
80201

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX
75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX
75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM
87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX
75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
555 SEVENTEENTH STREET, SUITE 3500
DENVER, CO
80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX
75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX
76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX
75206

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO
80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA
93105

THE WISER OIL COMPANY
905 OIL & GAS BUILDING
WICHITA FALLS, TX
76301

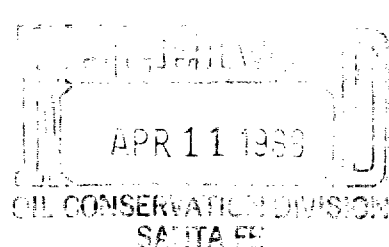
JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX
75247

WILLIAM G. WEBB
4200 REPUBLIC BANK TOWER BLDG.
DALLAS, TX
75201

U56N2650
04/13/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX
79980



Rosa Unit (DEPA)
3180 (015)

APR 07 1988

Northwest Pipeline Corporation
ATTN: Darrell L. Gillen
P.O. Box 8900
Salt Lake City, Utah 84108-0900

Gentlemen:

We have received the revised applications, maps, and schedules dated February 29, 1988, for the initial thru fifth revisions of the Dakota Participating Area in the Rosa Unit, San Juan and Rio Arriba Counties, New Mexico, No. I-Sec. 537. The revised applications were requested in our letter dated December 22, 1987. The applications were approved on this date.

The initial participating area comprises 320.00 acres described as N¹/₂ Section 10, T. 32 N., R. 5 W., NMPM, Rio Arriba County, New Mexico. The initial participating area is based on the completion of well No. 70 and is effective January 10, 1966.

The first revision to the participating area adds 320.00 acres described as N¹/₂ Section 13, T. 31 N., R. 6 W., NMPM, Rio Arriba County, New Mexico. The first revision is based on the completion of well No. 66 and is effective September 1, 1978.

The second revision to the participating area adds 320.00 acres described as N¹/₂ Section 17, T. 31 N., R. 5 W., NMPM, Rio Arriba County, New Mexico. The second revision is based on the completion of well No. 68 and is effective June 1, 1980.

The third revision to the participating area adds 320.00 acres described as N¹/₂ Section 22, T. 31 N., R. 6 W., NMPM, Rio Arriba County, New Mexico. The third revision is based on the completion of well No. 79 and is effective March 1, 1981.

The fourth revision to the participating area adds 320.00 acres described as S¹/₂ Section 8, T. 31 N., R. 5 W., NMPM, Rio Arriba County, New Mexico. The fourth revision is based on the completion of well No. 80 and is effective April 1, 1981.

The fifth revision to the participating area adds 320.00 acres described as S¹/₂ Section 33, T. 31 N., R. 5 W., NMPM, Rio Arriba County, New Mexico. The fifth revision is based on the completion of well No. 77 and is effective May 1, 1981.

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

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

Sincerely,

(Orig. Signed) - Sid Vogelpohl

For District Manager

Enclosures

cc:

NH-019

HMS

✓ NMOCD (w/o encl)

Comm. of Pub. Lands (w/o encl)

015:RKent:ja:3/31/88:4046H

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0900
801 583 8800

March 9, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. No. 587
San Juan and Rio Arriba Counties, New Mexico
NOTICE OF COMPLETION OF NON-COMMERCIAL WELL
Gallup Formation

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, Northwest Pipeline Corporation, as Unit Operator, has determined that the following described wells are not capable of producing unitized substances in paying quantities from the Gallup formation.

The well data is as follows:

The Rosa Unit #59 well is located 1120 feet from the south line and 1560 feet from the west line, Section 25, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October 21, 1983 and completed in the Gallup formation on July 26, 1984. The plug back depth is 8039 feet. A packer is set above Dakota perforations at a depth of 7697 feet. The Gallup formation was perforated with one shot per foot over the following intervals:

6444-6700', 6936-7087', 7088-7257', 7390-7520'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 9, 1988
Page 2

The Gallup Formation was hydraulically fractured in three stages with gelled fluid and 20/40 mesh sand. The well was tested on August 22, 1984 using a positive choke. During the test the well produced 207 Mcf of gas flowing at a rate of 1653 Mcfd.

The Rosa Unit #77 well is located 1820 feet from the south line and 810 feet from the west line, Section 33, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 5, 1980 and completed in the Gallup formation on April 27, 1981. The plug back depth is 8039 feet. The Gallup formation was perforated with two shots per foot over the following interval:

7660-7715'

The Gallup formation was hydraulically fractured with 45,550 gallons of fluid carrying 55,300 pounds of 20/40 mesh sand. The Gallup formation is commingled with the Dakota formation by NMOCD Order No. R-6756. On April 3, 1981 the Gallup formation was tested using a positive choke. During the test the well flowed at a rate of 692 Mcfd. The shut-in pressure prior to the test was 2871 psig.

The Rosa Unit #97 well is located 1850 feet from the south line and 790 feet from the west line, Section 31, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October 6, 1983 and completed in the Gallup formation on February 1, 1984. The plug back depth is 8195 feet. A packer is set above Dakota perforations at 7758 feet. The Gallup formation was perforated with 432 holes over the following intervals:

6628-6820', 6988-7120', 7208-7472', 7654-7792'

The Gallup formation was hydraulically fractured with gelled water and 20/40 mesh sand. On February 28, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 667 Mcf of gas, flowing at a rate of 5338 Mcfd.

The Rosa Unit #98 well is located 1840 feet from the south line and 790 feet from the west line of Section 23, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on September 13, 1983 and completed in the Gallup formation on December 21, 1983. The plug back depth is 7950 feet. A packer is set above Dakota perforations at 7691 feet and a sliding sleeve is set at 7593 feet. The Gallup formation was perforated with 492 holes over the following intervals:

6310-6540', 6838-7003', 7010-7194', 7258-7428', 7452-7592'

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 9, 1988
Page 3

The Gallup Formation was hydraulically fractured in five stages with a total of 436,092 gallons of gelled water with 2 per cent KCl carrying 311,680 pounds of 20/40 mesh sand. On January 11, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 471 Mcf of gas, flowing at a rate of 3767 Mcfd with a calculated AOF of 5506 Mcfd. The shut-in pressure prior to the test was 1990 psig.

The Rosa Unit #99Y well is located 855 feet from the south line and 1790 feet from the west line of Section 26, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on June 21, 1984 and completed in the Gallup formation on October 1, 1984. The plug back depth is 8096 feet. This well is dually completed with the Dakota formation. The Gallup formation was perforated over the following intervals:

6887-7069', 7145-7166', 7195-7230', 7246-7270'

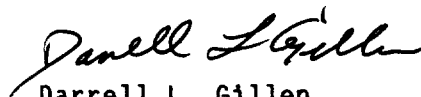
The Gallup formation was hydraulically fractured with 175,140 gallons of gelled water carrying 150,000 pounds of 20/40 mesh sand. On October 29, 1984 the Gallup formation was tested using a positive choke. During the 3-hour test the well produced 121 Mcf of gas, flowing at a rate of 969 Mcfd.

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

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg
Attachments

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
March 8, 1988
Page 4

cc: Working Interest Owners
K. J. Stracke
W. O. Curtis
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
N. K. Zunino

U56N2650
03/03/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
DENVER, CO
80202

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM
87501

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO
80201

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX
75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX
75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM
87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX
75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
1670 BROADWAY, SUITE 3200
DENVER, CO
80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX
75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX
76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX
75206

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO
80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA
93105

THE WISER OIL COMPANY
905 OIL & GAS BUILDING
WICHITA FALLS, TX
76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX
75247

WILLIAM G. WEBB
4200 REPUBLIC BANK TOWER BLDG.
DALLAS, TX
75201

U56N2650
03/03/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 14D
EL PASO, TX
79980

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #59 GP

MON FEBRUARY 22, 198
8 12:01:20 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	

UNIT OF PRODUCTION DEPRECIATION

GAS PRODUCTION FROM ROSA #59 GP

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	397.0
MONTH OF CAPITAL EXPENSE....	6	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.6	TANGIBLE \$ (% OF DRILLING \$)	33.1
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
15	150.0	43.9	60.0	34
34	60.0	6.5	19.0	240
240	19.0	100.0	0.0	241

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.48	0	0.	0.	0.
1986	2.48	102	37103.	4638.	51.
1987	0.98	73	26529.	3316.	33.
1988	1.70	57	20903.	2613.	31.
1989	1.70	54	19549.	2444.	29.
1990	1.70	50	18282.	2285.	27.
1991	1.70	47	17098.	2137.	25.
1992	1.70	44	15990.	1999.	24.
1993	1.70	41	14954.	1869.	22.
1994	1.70	38	13985.	1748.	21.
1995	1.70	36	13079.	1635.	19.
1996	1.70	33	12232.	1529.	18.
1997	1.70	31	11439.	1430.	17.
1998	1.70	29	10698.	1337.	16.
1999	1.70	27	10005.	1251.	15.
2000	1.70	26	9357.	1170.	14.
2001	1.70	24	8750.	1094.	13.
2002	1.70	22	8184.	1023.	12.
2003	1.70	21	7653.	957.	11.
2004	1.70	20	7157.	895.	11.
2005	1.70	0	0.	0.	0.
TOTAL.....			282942.	35368.	410.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #59 GP

MON FEBRUARY 22, 198
8 12:01:20 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE*****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
-4.2	0.	0.00
-3.4	0.	
15.0	-242. -180.	-0.63 -0.47
		RATE OF RETURN B.T.
		0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
		TAL	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	385	0	0	0	-385	-385	-257	-93	-292
1986	51	0	17	5	4	42	-343	25	9	33
1987	33	0	12	3	5	25	-318	13	5	20
1988	31	0	9	3	5	23	-295	14	5	18
1989	29	0	9	3	5	21	-274	12	4	17
1990	27	0	8	3	5	20	-254	11	4	15
1991	25	0	8	3	5	18	-236	10	4	14
1992	24	0	7	2	5	17	-220	9	3	13
1993	22	0	7	2	5	15	-205	8	3	12
1994	21	0	6	2	5	14	-191	8	3	11
1995	19	0	6	2	5	13	-178	7	2	10
1996	18	0	6	2	5	12	-167	6	2	9
1997	17	0	5	2	5	10	-156	5	2	9
1998	16	0	5	2	5	9	-147	5	2	8
1999	15	0	5	2	5	9	-138	4	1	7
2000	14	0	4	1	5	8	-130	3	1	6
2001	13	0	4	1	5	7	-124	3	1	6
2002	12	0	4	1	5	6	-117	2	1	5
2003	11	0	3	1	5	5	-112	2	1	5
2004	11	0	3	1	5	5	-107	2	1	4
2005	0	0	0	0	0	0	-107	0	0	0
TOTAL	410	385	127	43	90	-107	0	-107	-39	-69

THIS PROJECT DOES NOT PAYOUT

API:30-039-23270-0000 ROSA UNIT #59										METER/UT:55865/000000										INITIAL MMCF:										0.000 BTU/GRAV: 990/0.0000																													
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)										N.M.P.M.:T 3IN R GW 25N										CUMULATIVE...										50.986 %CO2/%N2: 2.96/ 0.41																													
NORTHWEST PIPELINE CORP OPERATOR										FOOTAGE.: 1120FSL 1560FWL										REMAINING...										-50.986 1SHD INSTRST: 0.000000																													
NWP SAN JUAN GATHERING SYSTEM										S DATE-RL/WS: 7/24/85-1/1										R.L.RATIO....										0.0 CNTR INIRST: 0.000000																													
I.D.DATE(MMOVVY):02/25/86																																																											
1971										1972										1973										1974										1975										1976									
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS																										
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																										

1977										1978										1979										1980										1981										1982									
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS																										
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																										

1983										1984										1985										1986										1987										1988									
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS																										
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0																										
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																										

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #77 GL COMMERCIALITY

MON FEBRUARY 22, 198
8 1:26:03 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
11.5	0.		0.00	
9.6		0.		
15.0	-32.	-38.	-0.12	-0.14

RATE OF RETURN B.T.
0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1981	0	275	0	0	0	-275	-275	-189	-68	-207
1982	75	0	7	8	3	64	-211	57	21	44
1983	69	0	6	7	4	58	-153	52	19	39
1984	70	0	6	7	4	58	-95	52	19	39
1985	60	0	6	6	4	49	-46	44	16	33
1986	37	0	5	4	4	29	-17	24	9	21
1987	29	0	5	3	4	22	5	16	6	16
1988	32	0	5	3	4	24	29	19	7	17
1989	31	0	5	3	4	23	52	18	7	16
1990	29	0	4	3	4	22	74	17	6	15
1991	28	0	4	3	4	20	94	16	6	15
1992	26	0	4	3	4	19	113	15	5	14
1993	25	0	4	3	4	18	131	14	5	13
1994	24	0	4	2	4	17	148	13	5	12
1995	23	0	3	2	4	16	164	12	4	11
1996	22	0	3	2	4	15	179	12	4	11
1997	21	0	3	2	4	14	193	11	4	10
1998	20	0	3	2	4	13	206	10	4	9
1999	19	0	3	2	4	12	218	9	3	9
2000	18	0	3	2	4	11	229	9	3	8
2001	17	0	3	2	4	11	240	8	3	8
TOTAL	673	275	86	70	87	240	0	240	86	154

PAYOUT DURING MONTH 10 OF YEAR 7

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #77 GL COMMERCIALITY

MON FEBRUARY 22, 198
8 1:26:03 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #77 GL

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	368.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	275.2	TANGIBLE \$ (% OF DRILLING \$)	31.2
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	150.0	59.6	76.0	25
25	76.0	4.1	63.0	79
79	63.0	4.9	30.0	257
257	30.0	100.0	0.0	258

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1981	2.78	0	0.	0.	0.
1982	2.78	85	30955.	3869.	75.
1983	2.91	75	27236.	3404.	69.
1984	3.05	72	26123.	3265.	70.
1985	2.73	69	25057.	3132.	60.
1986	2.46	66	24034.	3004.	37.
1987	0.98	63	23033.	2879.	29.
1988	1.68	60	21936.	2742.	32.
1989	1.68	57	20866.	2608.	31.
1990	1.68	54	19848.	2481.	29.
1991	1.68	52	18879.	2360.	28.
1992	1.68	49	17958.	2245.	26.
1993	1.68	47	17082.	2135.	25.
1994	1.68	44	16249.	2031.	24.
1995	1.68	42	15456.	1932.	23.
1996	1.68	40	14702.	1838.	22.
1997	1.68	38	13985.	1748.	21.
1998	1.68	36	13302.	1663.	20.
1999	1.68	35	12653.	1582.	19.
2000	1.68	33	12036.	1505.	18.
2001	1.68	31	11449.	1431.	17.
TOTAL.....			382834.	47855.	673.

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA UNIT

JANUARY 1988 U53N0580 PAGE 001
MON FEBRUARY 22, 1988 1:19:25 PM

API:30-039-22538-0000 ROSA UNIT #77 CMGD									
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)									
NORTHWEST PIPELINE CORP. OPERATOR									
NWP SAN JUAN GATHERING SYSTEM									
I.D.DATE(MMDDVV):04/07/82									
METER/UT:85638/00000									
N.M.P.M.:T 31N R 5W 33L									
FOOTAGE.: 1820FSL 810FWL									
S DATE-RL/WS: 0/00/00-0/0									
R.L.RATIO....									
INITIAL MMCF:									
CUMULATIVE...:									
REMAINING...:									
0.000 BTU/GRAV: 983/0.587									
125.497 %CO2/%N2: 2.85/ 0.31									
-125.497 LSHD INTRST: 0.000000									
0.0 CNIR INTRSI: 0.000000									

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #97 GL COMMERCIALITY

MON FEBRUARY 22, 198
8 3:15:21 PM

WORKING INT. B/PAYOUT.....% 100.0
WORKING INT. A/PAYOUT.....% 100.0
INCOME TAX.....% 36.0
UNIT OF PRODUCTION DEPRECIATION

ANNUAL COST INFLATION.....% 0.0
ANNUAL PRICE INFLATION.....% 0.0
NEG INC TAX OFFSET BY OTHER INCOME

GAS PRODUCTION FROM ROSA #97 GL
LAND OWNER ROYALTY.....% 12.5
AD VALOREM AND SEV TAXES...% 10.4
MONTH OF CAPITAL EXPENSE.... 8
DRILLING COSTS (\$1000)..... 384.0
SALVAGE VALUE (\$1000)..... 0.0

OVERRIDING ROYALTY..... 0.0
OPERATING COSTS (\$/MO)..... 330.0
OPERATING COSTS (% OF PROD). 0.0
TANGIBLE \$ (% OF DRILLING \$) 35.0

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	200.0	38.3	93.0	35
35	93.0	6.0	30.0	255
255	30.0	100.0	0.0	256

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.02	0	0.	0.	0.
1986	2.02	128	46883.	5860.	59.
1987	0.98	113	41215.	5152.	51.
1988	1.70	89	32688.	4086.	49.
1989	1.70	84	30732.	3841.	46.
1990	1.70	79	28893.	3612.	43.
1991	1.70	74	27163.	3395.	40.
1992	1.70	70	25538.	3192.	38.
1993	1.70	66	24009.	3001.	36.
1994	1.70	62	22573.	2822.	34.
1995	1.70	58	21222.	2653.	32.
1996	1.70	55	19952.	2494.	30.
1997	1.70	51	18758.	2345.	28.
1998	1.70	48	17635.	2204.	26.
1999	1.70	45	16580.	2072.	25.
2000	1.70	43	15587.	1948.	23.
2001	1.70	40	14654.	1832.	22.
2002	1.70	38	13777.	1722.	20.
2003	1.70	35	12953.	1619.	19.
2004	1.70	33	12178.	1522.	18.
TOTAL.....			442983.	55373.	638.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #97 GL COMMERCIALITY

MON FEBRUARY 22, 198
8 3:15:21 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	*****PRESENT VALUE*****		DISCOUNTED PROFIT TO**	
RATE**	** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
3.6	0.		0.00	
3.0		0.		
15.0	-158.	-127.	-0.41	-0.33
				RATE OF RETURN B.T.
				0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				*****CASH FLOW ANALYSIS IN \$1000*****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	*TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	384	0	0	0	-384	-384	-250	-90	-294
1986	59	0	14	6	3	50	-334	36	13	37
1987	51	0	13	5	4	42	-292	29	11	31
1988	49	0	10	5	4	40	-253	30	11	29
1989	46	0	9	5	4	37	-216	28	10	27
1990	43	0	9	4	4	35	-181	26	9	25
1991	40	0	8	4	4	32	-149	24	9	24
1992	38	0	8	4	4	30	-119	22	8	22
1993	36	0	7	4	4	28	-91	21	7	21
1994	34	0	7	4	4	26	-65	19	7	19
1995	32	0	6	3	4	24	-40	18	6	18
1996	30	0	6	3	4	23	-18	17	6	17
1997	28	0	6	3	4	21	3	15	6	15
1998	26	0	5	3	4	20	23	14	5	14
1999	25	0	5	3	4	18	41	13	5	13
2000	23	0	5	2	4	17	58	12	4	12
2001	22	0	4	2	4	16	73	11	4	12
2002	21	0	4	2	4	14	88	10	4	11
2003	19	0	4	2	4	13	101	9	3	10
2004	18	0	4	2	4	12	113	9	3	9

TOTAL	638	384	135	67	74	113	0	113	41	72

PAYOUT DURING MONTH 11 OF YEAR 13

API: 30-039-23304-0000 ROSA UNIT #97 NEW MEXICO LAGUNA-SECA MANCOS (GALLUP) NORTHWEST PIPELINE CORP OPERATOR NWP SAN JUAN GATHERING SYSTEM I.D. DATE(MDDVV): 04/14/86										METER/UT: 85879/00000 N.M.P.M.: T 31N R 5W 31K FOOTAGE.: OF L OF L S DATE-RL/WS: 11/04/85-1/1 R.L.RATIO: . . .										INITIAL MMCF: CUMULATIVE: . . . REMAINING: . . . R.L. RATIO: . . .									
1971			1972			1973			1974			1975			1976														
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS											
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											

API: 30-039-23304-0000 ROSA UNIT #97 NEW MEXICO LAGUNA-SECA MANCOS (GALLUP) NORTHWEST PIPELINE CORP OPERATOR NWP SAN JUAN GATHERING SYSTEM I.D. DATE(MDDVV): 04/14/86										METER/UT: 85879/00000 N.M.P.M.: T 31N R 5W 31K FOOTAGE.: OF L OF L S DATE-RL/WS: 11/04/85-1/1 R.L.RATIO: . . .										INITIAL MMCF: CUMULATIVE: . . . REMAINING: . . . R.L. RATIO: . . .									
1977			1978			1979			1980			1981			1982														
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS											
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
AUG	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
SEP	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
OCT	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
NOV	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
DEC	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0											
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											

API: 30-039-23304-0000 ROSA UNIT #97 NEW MEXICO LAGUNA-SECA MANCOS (GALLUP) NORTHWEST PIPELINE CORP OPERATOR NWP SAN JUAN GATHERING SYSTEM I.D. DATE(MDDVV): 04/14/86										METER/UT: 85879/00000 N.M.P.M.: T 31N R 5W 31K FOOTAGE.: OF L OF L S DATE-RL/WS: 11/04/85-1/1 R.L.RATIO: . . .										INITIAL MMCF: CUMULATIVE: . . . REMAINING: . . . R.L. RATIO: . . .									
1983			1984			1985			1986			1987			1988														
MONTH	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS	MCF	PSIG	DAYS											
JAN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	4194	0	0.0	0	0	0.0											
FEB	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	3432	272	28.0	0	0	0.0											
MAR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2879	238	20.8	0	0	0.0											
APR	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2655	246	15.5	0	0	0.0											
MAY	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2560	264	15.7	0	0	0.0											
JUN	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2444	253	15.1	0	0	0.0											
JUL	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	2823	269	13.4	0	0	0.0											
AUG	0	0	0.0	0	0	0.0	0	0	0.0	4127	328	7.1	1180	306	5.9	0	0	0.0											
SEP	0	0	0.0	0	0	0.0	0	0	0.0	6232	272	13.6	2835	302	13.6	0	0	0.0											
OCT	0	0	0.0	0	0	0.0	0	0	0.0	4428	0	0.0	3861	283	15.8	0	0	0.0											
NOV	0	0	0.0	0	0	0.0	0	0	0.0	4335	247	30.0	2939	300	15.2	0	0	0.0											
DEC	0	0	0.0	0	0	0.0	0	0	0.0	3942	267	31.0	1471	296	8.8	0	0	0.0											
TOTALS	0	0	0	0	0	0	0	0	0	29021	269	96	33273	275	168	0	0	0											

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #98 GL COMMERCIALITY

MON FEBRUARY 29, 198
8 3:00:48 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #98 GL			
LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	350.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	105.0	32.7	64.0	31
31	64.0	5.6	22.0	255
255	22.0	100.0	0.0	256

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.02	0	0.	0.	0.
1986	2.02	69	25298.	3162.	32.
1987	0.98	68	24690.	3086.	31.
1988	1.70	61	22132.	2766.	33.
1989	1.70	57	20901.	2613.	31.
1990	1.70	54	19739.	2467.	29.
1991	1.70	51	18642.	2330.	28.
1992	1.70	48	17605.	2201.	26.
1993	1.70	46	16626.	2078.	25.
1994	1.70	43	15702.	1963.	23.
1995	1.70	41	14829.	1854.	22.
1996	1.70	38	14004.	1751.	21.
1997	1.70	36	13226.	1653.	20.
1998	1.70	34	12490.	1561.	19.
1999	1.70	32	11796.	1474.	18.
2000	1.70	30	11140.	1393.	17.
2001	1.70	29	10521.	1315.	16.
2002	1.70	27	9936.	1242.	15.
2003	1.70	26	9383.	1173.	14.
2004	1.70	24	8862.	1108.	13.
2005	1.70	23	8369.	1046.	12.
TOTAL.....			305886.	38236.	443.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #98 GL COMMERCIALITY

MON FEBRUARY 29, 198
8 3:00:48 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE****		DISCOUNTED PROFIT TO**	
RATE	***** \$1000 *****		***INVESTMENT RATIO***	
*** % **	BEFORE TAX	AFTER TAX	BEFORE TAX	AFTER TAX
-2.3	0.		0.00	
-1.9		0.		
15.0	-236.	-178.	-0.61	-0.46
				RATE OF RETURN B.T.
				0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	*\$1000	*****	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPI-	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
		TAL	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	384	0	0	0	-384	-384	-250	-90	-294
1986	32	0	11	3	3	25	-359	14	5	20
1987	31	0	11	3	4	24	-335	13	5	19
1988	33	0	10	3	4	25	-310	16	6	20
1989	31	0	9	3	4	24	-286	14	5	18
1990	29	0	9	3	4	22	-264	13	5	17
1991	28	0	8	3	4	21	-244	12	4	16
1992	26	0	8	3	4	19	-224	12	4	15
1993	25	0	7	3	4	18	-206	11	4	14
1994	23	0	7	2	4	17	-190	10	4	13
1995	22	0	7	2	4	16	-174	9	3	12
1996	21	0	6	2	4	14	-160	8	3	11
1997	20	0	6	2	4	13	-146	8	3	11
1998	19	0	5	2	4	12	-134	7	3	10
1999	18	0	5	2	4	12	-122	6	2	9
2000	17	0	5	2	4	11	-112	6	2	9
2001	16	0	5	2	4	10	-102	5	2	8
2002	15	0	4	2	4	9	-93	5	2	7
2003	14	0	4	1	4	8	-85	4	2	7
2004	13	0	4	1	4	8	-77	4	1	6
2005	12	0	4	1	4	7	-70	3	1	6
TOTAL	444	384	135	46	83	-70	0	-70	-25	-45

THIS PROJECT DOES NOT PAYOUT

NORTHWEST PIPELINE RESERVOIR ENGINEERING SUMMARY @ 14.73 PSIA
ROSA UNIT

JANUARY 1988 U53N0580 PAGE 001
MON FEBRUARY 29, 1988 4:41:19 PM

API:30-039-23265-0000 ROSA UNIT #98										METER/UT:85829/00000										INITIAL MMCF:										0.000 BTU/GRV: 979/0.000																													
NEW MEXICO LAGUNA-SECA MANCOS (GALLUP)										N.M.P.M.I.T 31N R 6W 23L										CUMULATIVE...:										45.226 %CO2/MN2: 3.00/ 0.89																													
NORTHWEST PIPELINE CORP OPERATOR										FOOTAGE: OF L										REMAINING...:										-45.226 LSHD INTRST: 0.000000																													
NWP SAN JUAN GATHERING SYSTEM										S DATE-RL/WS: 2/04/88-1/4										R.L.RATIO...:										0.0 CNTR INTRST: 0.000000																													
I.D.DATE(MMDDYY):04/14/88																																																											
1971										1972										1973										1974										1975										1976									
MCF PSIG DAYS										MCF PSIG DAYS										MCF PSIG DAYS										MCF PSIG DAYS										MCF PSIG DAYS										MCF PSIG DAYS									
JAN	0 0 0.0									JAN	0 0 0.0									JAN	0 0 0.0									JAN	0 0 0.0									JAN	0 0 0.0									JAN	0 0 0.0								
FEB	0 0 0.0									FEB	0 0 0.0									FEB	0 0 0.0									FEB	0 0 0.0									FEB	0 0 0.0									FEB	0 0 0.0								
MAR	0 0 0.0									MAR	0 0 0.0									MAR	0 0 0.0									MAR	0 0 0.0									MAR	0 0 0.0									MAR	0 0 0.0								
APR	0 0 0.0									APR	0 0 0.0									APR	0 0 0.0									APR	0 0 0.0									APR	0 0 0.0									APR	0 0 0.0								
MAY	0 0 0.0									MAY	0 0 0.0									MAY	0 0 0.0									MAY	0 0 0.0									MAY	0 0 0.0									MAY	0 0 0.0								
JUN	0 0 0.0									JUN	0 0 0.0									JUN	0 0 0.0									JUN	0 0 0.0									JUN	0 0 0.0									JUN	0 0 0.0								
JUL	0 0 0.0									JUL	0 0 0.0									JUL	0 0 0.0									JUL	0 0 0.0									JUL	0 0 0.0									JUL	0 0 0.0								
AUG	0 0 0.0									AUG	0 0 0.0									AUG	0 0 0.0									AUG	0 0 0.0									AUG	0 0 0.0									AUG	0 0 0.0								
SEP	0 0 0.0									SEP	0 0 0.0									SEP	0 0 0.0									SEP	0 0 0.0									SEP	0 0 0.0									SEP	0 0 0.0								
OCT	0 0 0.0									OCT	0 0 0.0									OCT	0 0 0.0									OCT	0 0 0.0									OCT	0 0 0.0									OCT	0 0 0.0								
NOV	0 0 0.0									NOV	0 0 0.0									NOV	0 0 0.0									NOV	0 0 0.0									NOV	0 0 0.0									NOV	0 0 0.0								
DEC	0 0 0.0									DEC	0 0 0.0									DEC	0 0 0.0									DEC	0 0 0.0									DEC	0 0 0.0									DEC	0 0 0.0								
TOTALS										TOTALS										TOTALS										TOTALS										TOTALS										TOTALS									

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #99Y GP COMMERCIALITY

THU MARCH 3, 1988
12:32:07 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

GAS PRODUCTION FROM ROSA #99Y GP

LAND OWNER ROYALTY.....%	12.5	OVERRIDING ROYALTY.....	0.0
AD VALOREM AND SEV TAXES...%	10.4	OPERATING COSTS (\$/MO).....	370.0
MONTH OF CAPITAL EXPENSE....	8	OPERATING COSTS (% OF PROD).	0.0
DRILLING COSTS (\$1000).....	384.0	TANGIBLE \$ (% OF DRILLING \$)	35.0
SALVAGE VALUE (\$1000).....	0.0		

INITIAL MONTH	MCF/D	% DECLINE	TO MCF/D	ENDING MONTH
16	220.0	99.0	150.0	17
17	150.0	79.7	115.0	19
19	115.0	28.5	100.0	24
24	100.0	20.0	80.0	36
36	80.0	7.3	20.0	255
255	20.0	100.0	0.0	256

YEAR	BEG. YR \$/ MCF	AVG MCF/D	ANNUAL MCF	ROYALTY MCF	REVENUE AFTER ROYALTY \$1000
1985	2.02	0	0.	0.	0.
1986	2.02	95	34866.	4358.	45.
1987	0.98	89	32433.	4054.	41.
1988	1.70	77	28049.	3506.	42.
1989	1.70	71	25997.	3250.	39.
1990	1.70	66	24095.	3012.	36.
1991	1.70	61	22333.	2792.	33.
1992	1.70	57	20699.	2587.	31.
1993	1.70	53	19185.	2398.	29.
1994	1.70	49	17782.	2223.	26.
1995	1.70	45	16481.	2060.	25.
1996	1.70	42	15276.	1909.	23.
1997	1.70	39	14158.	1770.	21.
1998	1.70	36	13123.	1640.	20.
1999	1.70	33	12163.	1520.	18.
2000	1.70	31	11273.	1409.	17.
2001	1.70	29	10448.	1306.	16.
2002	1.70	27	9684.	1211.	14.
2003	1.70	25	8976.	1122.	13.
2004	1.70	23	8319.	1040.	12.
2005	1.70	21	7711.	964.	11.
TOTAL.....			353045.	44131.	511.

NORTHWEST PIPELINE CORPORATION
GAS RESERVES DEPARTMENT ECONOMIC STUDY
ROSA #99Y GP COMMERCIALITY

THU MARCH 3, 1988
12:32:07 PM

WORKING INT. B/PAYOUT.....%	100.0	ANNUAL COST INFLATION.....%	0.0
WORKING INT. A/PAYOUT.....%	100.0	ANNUAL PRICE INFLATION.....%	0.0
INCOME TAX.....%	36.0	NEG INC TAX OFFSET BY OTHER INCOME	
UNIT OF PRODUCTION DEPRECIATION			

DISCOUNT	****PRESENT VALUE****	DISCOUNTED PROFIT TO**
RATE	***** \$1000 *****	***INVESTMENT RATIO***
*** % **	BEFORE TAX AFTER TAX	BEFORE TAX AFTER TAX
-0.5	0.	0.00
-0.4	0.	0.0
15.0	-204. -156.	-0.53 -0.41
		RATE OF RETURN B.T.
		0.0 RATE OF RETURN A.T.

YEAR	INCOME	**PROJECT EXPENSES IN \$1000*				****CASH FLOW ANALYSIS IN \$1000****				
	\$1000	***	*****	AD.V.	*****	*****	**CUM	*****	*****	*****
NET*	***	CAPIT*	*****	SEV.	PROD.	BEFORE	BEFORE	TAXED	INCOME	AFTER
*****	*****	TAL*	DEPR.	TAXES	COSTS	*TAXES	TAXES	INCOME	TAXES	TAXES
1985	0	384	0	0	0	-384	-384	-250	-90	-294
1986	45	0	13	5	3	37	-347	24	9	29
1987	41	0	12	4	4	32	-315	20	7	25
1988	42	0	11	4	4	33	-282	22	8	25
1989	39	0	10	4	4	30	-251	20	7	23
1990	36	0	9	4	4	28	-224	18	7	21
1991	33	0	9	3	4	25	-198	17	6	19
1992	31	0	8	3	4	23	-175	15	5	18
1993	29	0	7	3	4	21	-154	14	5	16
1994	26	0	7	3	4	19	-135	12	4	15
1995	25	0	6	3	4	18	-117	11	4	13
1996	23	0	6	2	4	16	-102	10	4	12
1997	21	0	5	2	4	14	-87	9	3	11
1998	20	0	5	2	4	13	-74	8	3	10
1999	18	0	5	2	4	12	-62	7	3	9
2000	17	0	4	2	4	11	-52	6	2	8
2001	16	0	4	2	4	9	-42	5	2	7
2002	14	0	4	2	4	8	-34	5	2	7
2003	13	0	3	1	4	8	-26	4	1	6
2004	12	0	3	1	4	7	-20	3	1	5
2005	11	0	3	1	4	6	-14	3	1	5
TOTAL	512	384	135	53	88	-14	0	-14	-5	-9

THIS PROJECT DOES NOT PAYOUT

0.000	BTU/GRV:	1002/0.000
55.710	%CO2/%N2:	2.12/ 1.04
-55.710	LSHD INTRST:	0.000000
0.0	CNTR INTRST:	0.000000

MONTH	1983		1984		1985		1986		1987		1988	
	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS	MCF	PSIG DAYS
JAN	0	0	0	0	0	0	0	0	2326	255	0	0
FEB	0	0	0	0	0	0	0	0	255	29.8	0	0
MAR	0	0	0	0	0	0	0	0	1191	281	0	0
APR	0	0	0	0	0	0	0	0	1589	245	5.4	5.4
MAY	0	0	0	0	0	0	5853	248	1563	250	5.2	5.2
JUN	0	0	0	0	0	0	4085	0	1611	268	5.7	5.7
JUL	0	0	0	0	0	0	3684	235	1934	0	0.0	0.0
AUG	0	0	0	0	0	0	309	210	3214	0	0.0	0.0
SEP	0	0	0	0	0	0	3532	311	2969	287	4.8	4.8
OCT	0	0	0	0	0	0	2451	281	3009	309	5.8	5.8
NOV	0	0	0	0	0	0	3602	234	2817	293	6.5	6.5
DEC	0	0	0	0	0	0	3294	249	2267	308	6.2	6.2
TOTALS	0	0	0	0	0	0	3189	271	1221	308	3.5	3.5
	0	0	0	0	0	0	29999	254	25711	280	77	77

133

NORTHWEST PIPELINE CORPORATION
ONE OF THE WILLIAMS COMPANIES

100-88

LAND DEPARTMENT

P.O. BOX 8900
SALT LAKE CITY, UTAH 84108-0900
801-584-6669
801-584-7215

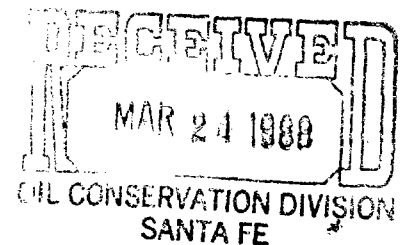
February 29, 1988

Assistant District Manager, Minerals
Bureau of Land Management
425 Montano, N.E.
Albuquerque, NM 87107

State of New Mexico
Commissioner of Public Lands
ATTN: Mr. Floyd O. Prando
P.O. Box 1148
Santa Fe, NM 87501

State of New Mexico
Oil Conservation Commission
ATTN: Mr. William J. LeMay
P.O. Box 2088
Santa Fe, NM 87501

Re: Rosa Unit I Sec. 587
San Juan & Rio Arriba Counties, New Mexico
Revised by Bureau of Land Management



APPLICATION FOR APPROVAL OF THE INITIAL PARTICIPATING AREA
Dakota Formation
Effective January 10, 1966

APPLICATION FOR APPROVAL OF THE FIRST PARTICIPATING AREA
Dakota Formation
Effective September 1, 1978

APPLICATION FOR APPROVAL OF THE SECOND PARTICIPATING AREA
Dakota Formation
Effective June 1, 1980

APPLICATION FOR APPROVAL OF THE THIRD PARTICIPATING AREA
Dakota Formation
Effective March 1, 1981

APPLICATION FOR APPROVAL OF THE FOURTH PARTICIPATING AREA
Dakota Formation
Effective April 1, 1981

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 2

APPLICATION FOR APPROVAL OF THE FIFTH PARTICIPATING AREA

Dakota Formation
Effective May 1, 1981

Gentlemen:

Pursuant to the provisions of Section 10 of the Rosa Unit Agreement I Sec. No. 587, approved January 24, 1948, Northwest Pipeline Corporation, as Unit Operator, hereby respectfully requests approval of captioned participating areas for the Dakota formation.

These proposed participating areas for the Dakota formation are predicated upon the determination by Northwest Pipeline Corporation, as Unit Operator, that the following Rosa Unit Dakota wells are capable of producing unitized substances in paying quantities.

INITIAL PARTICIPATING AREA - Effective January 10, 1966

<u>Description of Lands</u>	<u>No. of Acres</u>
Township 31 North, Range 5 West, N.M.P.M. Section 10: N/2	320.00

The well data is as follows:

The Rosa Unit #70 well (formerly Carson #1) is located 575 feet from the north line and 1300 feet from the west line, Section 10, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October 24, 1965 and completed on January 10, 1966 in the Dakota formation at a plug back depth of 8189 feet.

The Dakota formation was sand-water fractured below the casing from 8195 feet to 8330 feet, and later perforated from 8166 feet to 8178 feet with four shots per foot. This zone was treated with 500 gallons of mud acid. Prior to acidizing and setting tubing, the well was shut-in with a SIPC of 2280 psig. On January 10, 1966 five hours after perforating, the well flowed at a rate of 1450 Mcf/D.

FIRST PARTICIPATING AREA - Effective September 1, 1978

<u>Description of Lands</u>	<u>No. of Acres</u>
Township 31 North, Range 6 West, N.M.P.M. Section 13: W/2	320.00

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 3

The well data is as follows:

The Rosa Unit #66 well is located 1960 feet from the south line and 815 feet from the west line, Section 13, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on June 4, 1978 and completed on August 11, 1978 in the Dakota formation at a plug back depth of 8070 feet. The Dakota formation was perforated at the following depths with two shots per foot:

7913-28', 7960-84', 8032-38', 8050-58'

These perforations were fractured with sand and frac fluid. The well was shut-in with a SIPT of 2968 and a SIPC of 2958 psig. On August 11, 1978 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing the well gauged 4427 Mcf/D with a calculated AOF of 5039 Mcf/D.

SECOND PARTICIPATING AREA - Effective June 1, 1980

<u>Description of Lands</u>	<u>No. of Acres</u>
<u>Township 31 North, Range 5 West, N.M.P.M.</u> Section 17: W/2	320.00

The well data is as follows:

The Rosa Unit #68 well is located 1850 feet from the south line and 790 feet from the west line, Section 17, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 12, 1979 and completed on October 2, 1979 in the Dakota formation at a plug back depth of 8094 feet. The Dakota formation was perforated with two shots per foot at the following depths:

7864-80', 7910-26', 7998-8016', 8042-57'

These perforations were fractured with sand and frac fluid. The well was shut-in and a SIPC of 2460 psig and a SIPT of 2460 psig were measured. On May 16, 1980 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing, the well gauged 5757 Mcf/D with a calculated AOF of 6938 Mcf/D.

THIRD PARTICIPATING AREA - Effective March 1, 1981

<u>Description of Lands</u>	<u>No. of Acres</u>
<u>Township 31 North, Range 6 West, N.M.P.M.</u> Section 22: W/2	320.00

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 4

The well data is as follows:

The Rosa Unit #79 well is located 1800 feet from the south line and 1780 feet from the west line, Section 22, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on December 5, 1980 and completed on February 27, 1981. The Dakota formation was perforated with 64 holes between the following depths:

7772-88', 7817-31'

These perforations were sand/water fractured. This well has two tubing strings. The well was shut-in with a SIPT of 2901 psig. On February 27, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 1858 Mcf/D with a calculated AOF of 1960 Mcf/D.

FOURTH PARTICIPATING AREA - Effective April 1, 1981

<u>Description of Lands</u>	<u>No. of Acres</u>
<u>Township 31 North, Range 5 West, N.M.P.M.</u> Section 8: S/2	320.00

The well data is as follows:

The Rosa Unit #80 well is located 1660 feet from the south line and 1789 feet from the west line, Section 8, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 22, 1980 and completed on March 12, 1981. The Dakota formation was perforated with 56 holes between the following depths:

7845-57', 7897-7909'

These perforations were treated with 500 gallons of HCL followed by sand/water fracturing. This well has two tubing strings. The well was shut-in with a SIPT of 2553 psig. On March 12, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 1176 Mcf/D with a calculated AOF of 1177 Mcf/D.

FIFTH PARTICIPATING AREA - Effective May 1, 1981

<u>Description of Lands</u>	<u>No. of Acres</u>
<u>Township 31 North, Range 5 West, N.M.P.M.</u> Section 33: S/2	320.00

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 5

The well data is as follows:

The Rosa Unit #77 well is located 1820 feet from the south line and 810 feet from the west line, Section 33, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 5, 1980 and completed on April 27, 1981. The Dakota formation was perforated with 132 holes between the following depths:

7989' - 8091'

These perforations were sand/water fractured. This well has one tubing string. The well was shut-in with a SIPT of 2561 psig. On April 29, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 2544 Mcf/D with a calculated AOF of 2714 Mcf/D.

In support of this application, the following listed exhibits are made a part hereof:

EXHIBIT "A"

Ownership map reflecting the boundaries of the Unit and the proposed Dakota Participating Areas within the Rosa Unit.

EXHIBIT "B"

Geologic Report on the proposed Participating Areas within the Rosa Unit.

EXHIBIT "C"

Figure No. 1: Structure Map
Figure No. 2: Net Sand Thickness Map Upper Dakota Sand
Figure No. 3: Gross Sand Thickness Map
Figure No. 4: Typical Well Log
Figure No. 5: Stratigraphic Cross Section A-A'
Figure No. 6: Stratigraphic Cross Section B-B'

EXHIBIT "D"

Rosa Unit Production Schedule.

Attached hereto are schedules showing the proposed Dakota Participating Areas. The schedules describe the Participating Areas, show the percentage of unitized substances allocated to each unitized tract, and the percentage of ownership in the tracts.

Bureau of Land Management
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 6

If the proposed Participating Areas set forth herein meet with your approval, please indicate such approval in the space provided on the attached sheet and return an approved copy for our files.

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

Sincerely,

NORTHWEST PIPELINE CORPORATION


Darrell L. Gillen
Supervisor, Land/NGPA

DLG/cg

Attachments

cc: Working Interest Owners

K. J. Stracke
W. O. Curtis
W. S. West
L. G. Loving
C. N. Potter
R. L. Glenn
M. H. Johnson
R. P. Gregory
N. K. Zunino

Assistant District Manager, Minerals
Commissioner of Public Lands
Oil Conservation Commission
February 29, 1988
Page 7

APPROVED _____ DATE _____
Assistant District Manager, Minerals
Bureau of Land Management
Subject to like approval by the
Commissioner of Public Lands
and the Oil Conservation Commission

APPROVED _____ DATE _____
Commissioner of Public Lands
Subject to like approval by the
Area Oil and Gas Supervisor
and the Oil Conservation Commission

APPROVED  _____ DATE 3/25/88
Oil Conservation Commission
Subject to like approval by the
Area Oil and Gas Supervisor
and the Commissioner of Public Lands

The foregoing are approvals for the INITIAL, FIRST, SECOND, THIRD, FOURTH, AND FIFTH PARTICIPATING AREAS in the Dakota formation of the Rosa Unit.

U56N2650
03/01/88

WORKING INTEREST OWNERS
ROSA UNIT

AMOCO PRODUCTION COMPANY
SOUTHERN DIVISION, PRODUCTION MGR.
1670 BROADWAY
DENVER, CO
80202

LOIS J. WILLARD
P.O. BOX 5205
SANTA FE, NM
87501

COASTAL OIL & GAS CORP.
ATTN: MR. JOHN R. KENNEDY
P.O. BOX 749
DENVER, CO
80201

MARY FRANCIS TURNER, JR.
C/O MERCANTILE NAT'L BANK AT DALLAS
P.O. BOX 225415
DALLAS, TX
75265

ELIZABETH T. CALLOWAY
4801 ST. JOHNS DRIVE
DALLAS, TX
75205

MERIDIAN OIL PRODUCTION INC
LAND DEPARTMENT
P.O. BOX 4289
FARMINGTON, NM
87401

FRANK A. SCHULTZ
LINCOLN PLAZA, SUITE 2160 LB-1
500 NORTH AKARD
DALLAS, TX
75201

MITCHELL ENERGY CORPORATION
ATTN: MR. JERRY TAYLOR
1670 BROADWAY, SUITE 3200
DENVER, CO
80202

FRED E. TURNER
ONE ENERGY SQUARE, SUITE 852
4925 GREENVILLE AVENUE
DALLAS, TX
75201

PATRICIA PENROSE SCHIEFFER, TRUSTEE
1640 1ST CITY BANK TOWER
201 MAIN STREET
FORT WORTH, TX
76102

J. GLENN TURNER, JR.
500 LTV CENTER
2001 ROSS AVENUE
DALLAS, TX
75206

PHILLIPS PETROLEUM COMPANY
ATTN: DAVID S. SMITH
8055 E. TUFTS AVE. PKWY.
DENVER, CO
80237

JOHN BRENNAND, EXECUTOR OF
ESTATE OF J.R. BRENNAND
4476 MEADOWLARK LANE
SANTA BARBARA, CA
93105

THE WISER OIL COMPANY
905 OIL & GAS BUILDING
WICHITA FALLS, TX
76301

JOHN L. TURNER
8585 NORTH STEMMONS, SUITE 925N
DALLAS, TX
75247

WILLIAM G. WEBB
4200 REPUBLIC BANK TOWER BLDG.
DALLAS, TX
75201

U56N2650
03/01/88

WORKING INTEREST OWNERS
ROSA UNIT

WINIFRED K. PONDER
C/O TEXAS COMMERCE BANK OF EL PASO
ATTN: JULIA E. MERKT
P.O. DRAWER 140
EL PASO, TX
79980

SCHEDULE I
INITIAL PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>OWNERSHIP</u>	<u>DRILLING BLOCK PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
			<u>TRACT 13</u>			
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	100.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE I
INITIAL PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

RECAPITULATION

Township 31 North, Range 5 West, N.M.P.M.
Section 10: N/2

Total Number of Acres in Participating Area:	320.00
Total Number of Acres Committed in Participating Area:	320.00

SCHEDULE II
FIRST PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	50.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	50.000000%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE II
FIRST PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.
Section 10: N/2

Township 31 North, Range 6 West, N.M.P.M.
Section 13: W/2

Total Number of Acres in Participating Area:	640.00
Total Number of Acres Committed in Participating Area:	640.00

SCHEDULE III
SECOND PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty	12.500000%	12.500000%	33.333333%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty	12.500000%	12.500000%	33.333333%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty	12.500000%	12.500000%	33.333334%
			Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	

SCHEDULE III
SECOND PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Total Number of Acres in Participating Area: 960.00

Total Number of Acres Committed in Participating Area: 960.00

SCHEDULE IV
THIRD PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 10: N/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	25.000000%
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	25.000000%
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	25.000000%
<u>TRACT 39</u>						
USA SF-078766	<u>T-31-N, R-6-W</u> Sec. 22: Lot 1, E/2NW/4, SW/4	248.41	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	19.407031%
<u>TRACT 43</u>						
E-289-43	<u>T-31-N, R-6-W</u> Sec. 22: portion of Tract 40 lying in W/2NW/4	71.59	Royalty Working Interest Phillips Petroleum Co. ORRI Total	12.500000% 82.500000% 5.000000% <u>100.000000%</u>	12.500000% 82.500000% 5.000000% <u>100.000000%</u>	5.592969%

Effective March 1, 1981

SCHEDULE IV
THIRD PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,280.00

Total Number of Acres Committed in Participating Area: 1,280.00

SCHEDULE V
FOURTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u>	640.00	Royalty	12.500000%	12.500000%	40.000000%
	Sec. 8: S/2		Working Interest			
	Sec. 10: N/2		Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u>	320.00	Royalty	12.500000%	12.500000%	20.000000%
	Sec. 13: W/2		Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u>	320.00	Royalty	12.500000%	12.500000%	20.000000%
	Sec. 17: W/2		Working Interest			
			Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 39</u>						
USA SF-078766	<u>T-31-N, R-6-W</u>	248.41	Royalty	12.500000%	12.500000%	15.525625%
	Sec. 22: Lot 1,		Working Interest			
	E/2NW/4, SW/4		Amoco Production Co.	87.500000%	87.500000%	
			ORRI	0.000000%	0.000000%	
			Total	<u>100.000000%</u>	<u>100.000000%</u>	
<u>TRACT 43</u>						
E-289-43	<u>T-31-N, R-6-W</u>	71.59	Royalty	12.500000%	12.500000%	4.474375%
	Sec. 22: portion		Working Interest			
	of Tract 40		Phillips Petroleum Co.	82.500000%	82.500000%	
	lying in		ORRI	5.000000%	5.000000%	
	W/2NW/4		Total	<u>100.000000%</u>	<u>100.000000%</u>	

Effective April 1, 1981

SCHEDULE V
FOURTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

R E C A P I T U L A T I O N

Township 31 North, Range 5 West, N.M.P.M.

Section 8: S/2

Section 10: N/2

Section 17: W/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,600.00

Total Number of Acres Committed in Participating Area: 1,600.00

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
<u>TRACT 13</u>						
USA SF-078763	<u>T-31-N, R-5-W</u> Sec. 8: S/2 Sec. 10: N/2	640.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	33.333333%
<u>TRACT 14</u>						
USA SF-078767	<u>T-31-N, R-6-W</u> Sec. 13: W/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	16.666667%
<u>TRACT 17</u>						
USA SF-078769	<u>T-31-N, R-5-W</u> Sec. 17: W/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	16.666667%
<u>TRACT 28</u>						
USA SF-078773	<u>T-31-N, R-5-W</u> Sec. 33: S/2	320.00	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	16.666667%
<u>TRACT 39</u>						
USA SF-078766	<u>T-31-N, R-6-W</u> Sec. 22: Lot 1, E/2NW/4, SW/4	248.41	Royalty Working Interest Amoco Production Co. ORRI Total	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.500000% 87.500000% 0.000000% <u>100.000000%</u>	12.938021%

Effective May 1, 1981

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

<u>SERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>NUMBER OF ACRES</u>	<u>DRILLING BLOCK OWNERSHIP</u>	<u>PERCENTAGE</u>	<u>PERCENTAGE COMMITTED</u>	<u>PRESENT ACTUAL PARTICIPATION</u>
			<u>TRACT 43</u>			
E-289-43	<u>T-31-N, R-6-W</u>	71.59	Royalty	12.500000%	12.500000%	3.728645%
	Sec. 22: portion		Working Interest			
	of Tract 40		Phillips Petroleum Co.	82.500000%	82.500000%	
	lying in		ORRI	<u>5.000000%</u>	<u>5.000000%</u>	
	W/2NW/4		Total	<u>100.000000%</u>	<u>100.000000%</u>	

Effective May 1, 1981

SCHEDULE VI
FIFTH PARTICIPATING AREA FOR THE DAKOTA FORMATION
ROSA UNIT

RECAPITULATION

Township 31 North, Range 5 West, N.M.P.M.

Section 8: S/2

Section 10: N/2

Section 17: W/2

Section 33: S/2

Township 31 North, Range 6 West, N.M.P.M.

Section 13: W/2

Section 22: W/2

Total Number of Acres in Participating Area: 1,920.00

Total Number of Acres Committed in Participating Area: 1,920.00

REVISED JANUARY 1988

EXHIBIT "B"

ROSA UNIT
RIO ARRIBA AND SAN JUAN COUNTIES, NEW MEXICO

GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL

PROPOSED INITIAL DAKOTA PARTICIPATING AREA AND
FIRST THROUGH FIFTH EXPANSIONS OF THE DAKOTA
PARTICIPATING AREA

NORTHWEST PIPELINE CORPORATION

APPROVED BY:


Kenneth J. Stracke
Director
Production Division

EXHIBIT "B"

ROSA UNIT
RIO ARriba AND SAN JUAN COUNTIES, NEW MEXICO

GEOLOGIC REPORT
DAKOTA PRODUCING INTERVAL

PROPOSED INITIAL DAKOTA PARTICIPATING AREA
AND FIRST THROUGH FIFTH EXPANSIONS OF THE
DAKOTA PARTICIPATING AREA

GENERAL INFORMATION

The Rosa Unit is located in the Northeast quadrant of the New Mexico portion of the San Juan Basin along the synclinal axis of the Basin. It is composed of 54,211.01 acres within the unit outline of which 53,733.30 acres are committed to the unit.

Within the Rosa Unit, the Dakota Producing Interval (NMOCC Order No. R 1670-C Rule 25) has been tested in 27 wells resulting in 14 non-commercial wells, seven plugged and abandoned wells, and six commercial wells.

To date the producing sands within the Dakota Producing Interval are restricted to the Upper (Marine) and Middle (Fluvial) Dakota Sands. There are no sands developed within the Graneros Shale interval above, and the Lower or Basal Dakota Sands below are apparently water-wet.

As to the producing Dakota Sands, the Upper Dakota Sand is littoral marine sand with depositional characteristics that range from deltaic to off-shore bar in the immediate vicinity of the Rosa Unit. Porosity, grain size and sorting generally increase upward in the Upper Dakota Sand. The sand interval is generally correlatable across the extent of the unit. The Middle Dakota sands are interpreted to be a network of localized fluvial channel deposits. These sands are generally tight, often siliceous, with low porosity in the 0 to 6% range. Local porosity development of greater than 6% and the presence, in some instances, of hi-angle natural fractures permit these sands to be productive. These Middle Dakota Sands are not individually correlatable across the unit.

Well testing information gathered to date does not differentiate the productive capabilities between the Upper and Middle Dakota producing sands. Experience dictates that evaluation of the mechanical logs on these wells can be misleading. The actual drainage pattern for any given well in the Rosa Unit is probably quite irregular and not possible, at this time, to map.

Included in the report are three maps, a type log and two cross-sections entitled Exhibit "C", Figures 1 through 6.

Exhibit "C", Figure No. 1 shows the configuration of the subsurface structure of the Dakota interval using sea level as the datum plane, the top of the Graneros as the mapping horizon and a contour interval of 50 feet.

The structure map indicates a structural trough extending generally east-west across the Rosa Unit and rising toward the west. This trough is one limb of the synclinal axis of the San Juan Basin. It is apparent that here, as in much of the San Juan Basin, stratigraphy rather than structure controls the accumulation of hydrocarbons within the Dakota Producing Interval.

Exhibit "C", Figure No. 2 is a contour map of the thickness in feet of net reservoir sand which is interpreted from well logs to be present at each drilling site within the Upper Dakota Sand. Sand thickness trends in the San Juan 30-5 and 31-6 Units were extrapolated into the Rosa Unit, but because of limited data the contours should be considered as somewhat speculative.

Exhibit "C", Figure No. 3 indicates the gross sand development within the Middle Dakota interval at each drilling site as interpreted from well logs. No attempt has been made to contour the isopachous thickness of these gross sands.

Exhibit "C", Figure No. 4 is offered as a type log for the Rosa Unit. Completed intervals for this well, the Amoco Production Company's Rosa No. 68, SW/4 Section 17, Township 31 North, Range 5 West, Rio Arriba County, New Mexico, are indicated on the log track. Nomenclature, as used in this report, is indicated between the induction and porosity logs.

Exhibit "C", Figure Nos. 5 and 6 are stratigraphic cross sections of Rosa Unit wells in the area under consideration for participation. The stratigraphic datum for these wells is the base of the Greenhorn.

Exhibit "D", Table 1 is a tabulation of the Dakota gas production from the unit. The cumulative production through December 31, 1987 is shown. The Rosa Unit has produced a total of 13,458,019 Mcf from the Dakota as of January 1, 1988.

It is apparent from these exhibits that continuity of reservoir sands across the unit is questionable in the case of the Upper Dakota Sand and apparently not possible in the case of the Middle Dakota Sands. However, we believe that a 320-acre spacing pattern can be used to effectively produce the Dakota reservoir system. Because of the practical limitations in mapping and predicting a drainage area, it is recommended that each 320-acre tract be designated as a drilling and producing area for the Dakota Formation in this unit at this time.

INITIAL DAKOTA PARTICIPATING AREA

Effective Date: January 10, 1966
Proposed Acreage: Township 31 North, Range 5 West, N.M.P.M.
Section 10: N/2 (320 Acres)

The Initial Dakota Participating Area is based on interpretation of the well logs, the initial test results, and production history of the Rosa Unit No. 70 (formerly Carson #1) Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval.

The Rosa Unit No. 70 Well is located 575 feet from the North line and 1300 feet from the West line, Section 10, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on October 24, 1965 and completed on January 10, 1966, in the Dakota Formation at a plug back depth of 8189 feet.

The Dakota Formation was sand-water fractured below the casing from 8195 feet to 8330 feet, and later perforated from 8166 feet to 8178 feet with four shots per foot. This zone was treated with 500 gallons of mud acid. Prior to acidizing and setting tubing, the well was shut-in with a SIPC of 2280 psig. On January 10, 1966, five hours after perforating, the well flowed at a rate of 1450 Mcf/D.

On the basis of this well, the N/2 of Section 10 (320.00 acres) is recommended as the Initial Dakota Participating Area.

FIRST EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: September 1, 1978
Proposed Acreage: Township 31 North, Range 6 West, N.M.P.M.
Section 13, W/2 (320 Acres)

The First Expansion of the Dakota Participating Area is based on interpretation of the well logs, the initial test results, and production history of the Rosa Unit No. 66 Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval. The well is described as follows:

The Rosa Unit No. 66 Well is located 1960 feet from the South line and 815 feet from the West line, Section 13, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on June 4, 1978 and completed on August 11, 1978 in the Dakota Formation at a plug back depth of 8070 feet. The Dakota Formation was perforated at the following depths with two shots per foot:

7913-28', 7960-84', 8032-38', and 8050-58'.

These perforations were fractured with sand and frac fluid. The well was shut-in with a SIPT of 2968 and a SIPC of 2958 psig. On August 11, 1978 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing, the well gauged 4427 Mcf/D with a calculated AOF of 5039 Mcf/D.

On the basis of this well, the W/2 of Section 13 (320.00 acres) is recommended as the First Expansion of the Dakota Participating Area.

SECOND EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: June 1, 1980
Proposed Acreage: Township 31 North, Range 5 West, N.M.P.M.
Section 17: W/2 (320 Acres)

The Second Expansion of the Dakota Participating Area is based on interpretation of the well logs, initial test results, and production history of the Rosa Unit No. 68 Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval.

The Rosa Unit No. 68 Well is located 1850 feet from the South line and 790 feet from the West line, Section 17, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on August 12, 1979 and completed on October 2, 1979 in the Dakota Rosa Expansion Formation at a plug back depth of 8094 feet. The Dakota Formation was perforated with two shots per foot at the following depths:

7864-80', 7910-26', 7998-8016' and 8042-57'.

These perforations were fractured with sand and frac fluid. The well was shut-in and a SIPC of 2460 psig and a SIPT of 2460 psig were measured. On May 16, 1980 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 2 3/8 inch tubing, the well gauged 5757 Mcf/D with a calculated AOF of 6938 Mcf/D.

On the basis of this well, the W/2 of Section 17 (320.00 acres) is recommended as the Second Expansion of the Dakota Participating Area.

THIRD EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: March 1, 1981
Proposed Acreage: Township 31 North, Range 6 West
Section 22: W/2 (320 Acres)

The Third Expansion of the Dakota Participating Area is based on interpretation of the well logs, initial test results, and production history of the Rosa Unit No. 79 Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval.

The Rosa Unit #79 Well is located 1800 feet from the South line and 1780 feet from the West line, Section 22, Township 31 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on December 5, 1980 and completed on February 27, 1981. The Dakota Formation was perforated with 64 holes between the following depths:

7772-7788' and 7817-7831'.

These perforations were sand/water fractured. This well has two tubing strings. The well was shut-in with a SIPT of 2901 psig. On February 27, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 1858 Mcf/D with a calculated AOF of 1960 Mcf/D.

On the basis of this well, the W/2 of Section 22 (320.00 acres) is recommended as the Third Expansion of the Dakota Participating Area.

FOURTH EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: April 1, 1981
Proposed Acreage: Township 31 North, Range 5 West, N.M.P.M.
Section 8: S/2 (320 Acres)

The Fourth Expansion of the Dakota Participating Area is based on interpretation of the well logs, initial test results, and production history of the Rosa Unit No. 80 Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval.

The Rosa Unit #80 Well is located 1660 feet from the South line and 1789 feet from the West line, Section 8, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 22, 1980 and completed on March 12, 1981. The Dakota Formation was perforated with 56 holes between the following depths:

7845-57' and 7897-7909'.

These perforations were treated with 500 gallons of HCl acid followed by sand/water fracturing. This well has two tubing strings. The well was shut-in with a SIPT of 2553 psig. On March 12, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 1176 Mcf/D with a calculated AOF of 1177 Mcf/D.

On the basis of this well, the S/2 of Section 8 (320.00 acres) is recommended as the Fourth Expansion of the Dakota Participating Area.

FIFTH EXPANSION OF THE DAKOTA PARTICIPATING AREA

Effective Date: May 1, 1981
Proposed Acreage: Township 31 North, Range 5 West, N.M.P.M.
Section 33: S/2 (320 Acres)

The Fifth Expansion of the Dakota Participating Area is based on interpretation of the well logs, initial tests results, and production history of the Rosa Unit No. 77 Well. From this data, it is inferred that the proposed acreage is capable of producing unitized substances in commercial quantities from the Dakota Producing Interval.

The Rosa Unit #77 Well is located 1820 feet from the South line and 810 feet from the West line, Section 33, Township 31 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. This well was spudded on November 5, 1980 and completed on April 27, 1981. The Dakota Formation was perforated with 132 holes between the following depths:

7989' and 8091'

These perforations were sand/water fractured. The well was shut-in with a SIPT of 2561 psig. On April 29, 1981 the well was tested and after flowing for three hours through a 3/4 inch variable choke on the 1 1/2 inch tubing, the well gauged 2544 Mcf/D with a calculated AOF of 2714 Mcf/D.

On the basis of this well, the S/2 of Section 33 (320.00 acres) is recommended as the Fifth Expansion of the Dakota Participating Area.

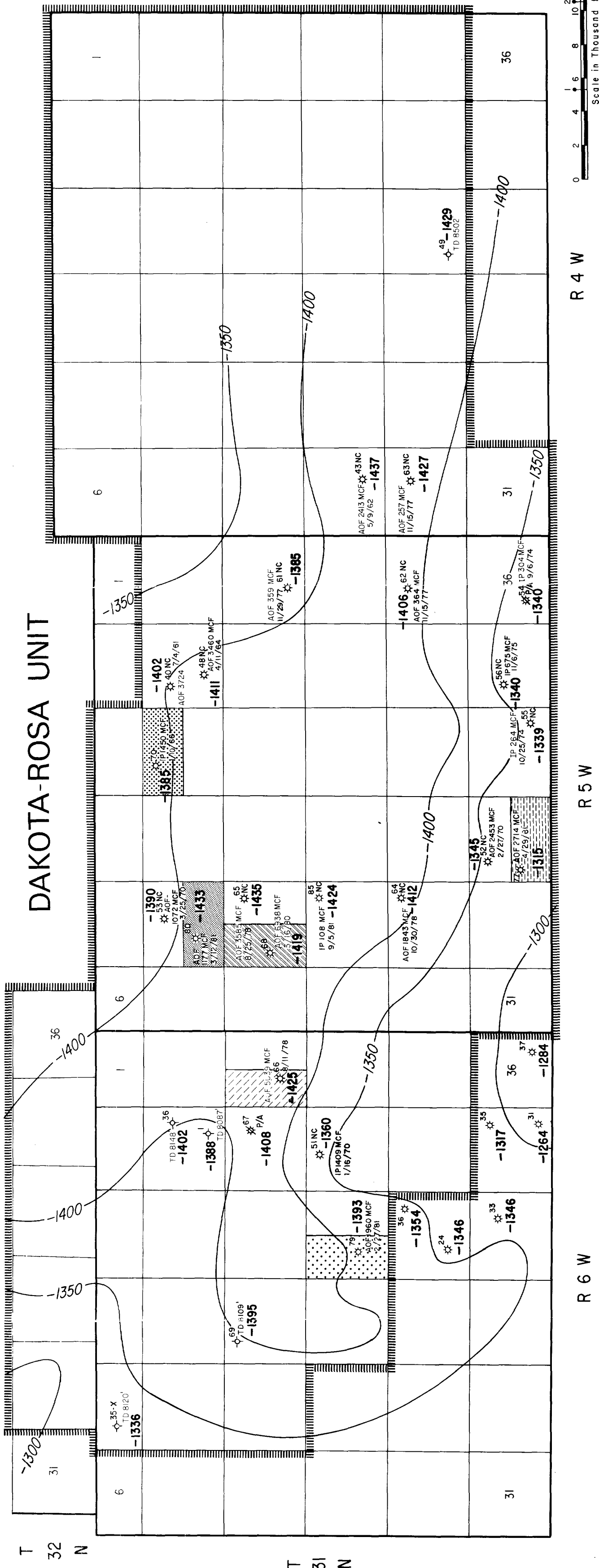
EXHIBIT "D"

TABLE NO. 1

ROSA UNIT: DAKOTA GAS PRODUCTION
 SAN JUAN & RIO ARIBA COUNTIES, NEW MEXICO
 GAS VOLUMES IN MCF @ 14.73 PSIA & 60 DEG. F

UNIT WELL NO.	LOCATION	I.D. DATE	JAN 87	FEB 87	MAR 87	APR 87	MAY 87	JUN 87	JUL 87	AUG 87	SEP 87	OCT 87	NOV 87	DEC 87	CUMULATIVE PRODUCTION TO 1/1/88
*61	13N 31N 5W	9/78	2078	4406	1799	0	0	0	1563	1952	2861	1805	2345	1775	156753
*62	25C 31N 5W	9/78	2629	3940	1196	0	4306	1060	1997	4013	2656	1041	3558	2959	240882
*63	30G 31N 4W	9/78	0	0	0	0	0	0	0	0	0	0	0	0	9257
*65	10D 31N 5W	11/78	5856	7487	5583	3677	5490	8224	6162	4751	6370	6217	3079	6442	680581
*66	17A 31N 5W	4/79	3609	5276	5420	2388	0	0	4426	3794	5418	3399	4233	5916	341777
*66	13L 31N 6W	4/79	33755	38346	36986	0	0	0	40453	54645	73789	64779	75068	100969	3016623
*64	29A 31N 5W	4/79	2604	4888	3242	0	0	0	1983	5056	2738	5659	4305	4382	350104
*48	110 31N 5W	3/79	9255	6460	4237	2863	8668	7852	6543	4265	7384	7232	2409	0	647433
*40	11E 31N 5W	3/79	5170	4055	2704	3350	4989	4432	3897	2935	3682	4383	2618	4072	502274
*43	19J 31N 4W	5/79	2969	2720	2181	1627	3363	2766	2626	2157	2082	1276	0	3588	266675
*68	17L 31N 5W	8/80	5439	5971	4089	3832	0	0	1020	4256	5909	8840	7310	9426	519540
*80	8K 31N 5W	11/81	3118	6098	8078	6386	6932	6452	5504	1923	5416	6031	5634	2983	393717
*79	22K 31N 6W	11/81	22483	25320	42252	33058	36467	33200	30861	12602	35631	39838	35335	19150	1541216
*77	33L 31N 5W	4/82	4470	2933	5574	4887	5215	4374	4153	2823	5244	4439	3631	2114	308350
*54	36K 31N 5W	5/75	0	0	0	0	0	0	0	0	0	0	0	0	32889
*55	34I 31N 5W	5/75	3899	1788	3	0	0	0	4100	3406	4516	1566	5552	6101	689691
*56	35E 31N 5W	10/75	1376	1633	5	0	0	0	3228	1702	3598	4917	4600	3672	390782
*52	33D 31N 5W	7/70	5990	4187	4913	450	550	0	5580	4730	0	2369	5972	6331	1450083
*51	23C 31N 6W	7/70	7613	5091	5299	0	0	0	4717	6757	107	1093	8156	5437	1027290
*53	8B 31N 5W	7/70	6018	3829	3465	928	0	0	4414	2858	0	2396	4057	2904	892102
TOTAL															13458019

* NON-COMMERCIAL



- NC— Non Commercial Production
Dakota Formation Wells

✖ P/A Plugged and Abandoned

◇ Dry Hole
- Initial Dakota Participating Area Effective 1-10-66

First Expansion of the Dakota Participating Area, Effective Date 9-1-78

Second Expansion of the Dakota Participating Area, Effective Date 6-1-80

Third Expansion of the Dakota Participating Area, Effective Date 3-1-81

Fourth Expansion of the Dakota Participating Area, Effective Date 4-1-81

Fifth Expansion of the Dakota Participating Area, Effective Date 5-1-81

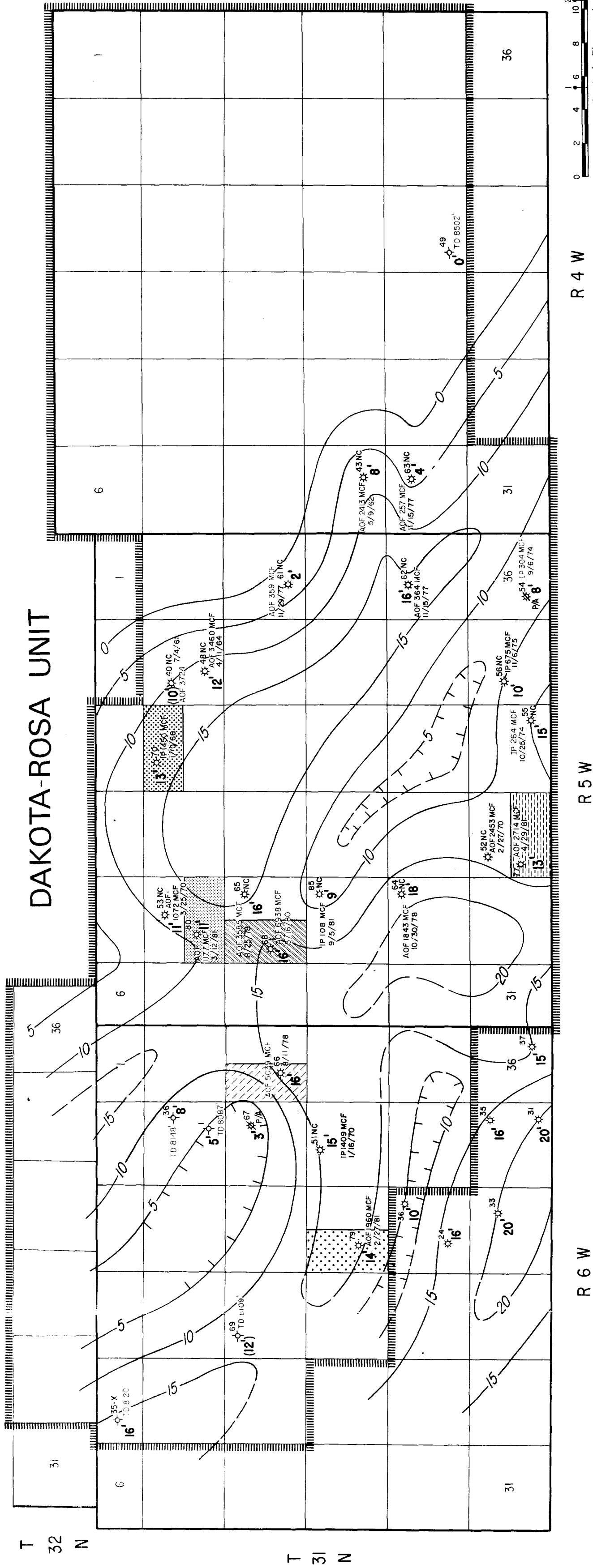
RESERVES AND EVALUATIONS DEPARTMENT
NORTHWEST PIPELINE CORPORATION

DAKOTA – ROSA UNIT
SAN JUAN, RIO ARriba CO.s, NEW MEXICO

STRUCTURE MAP
Datum: Base of Greenhorn Limestone
Mean: Sea Level
Contour Interval = 50 feet

Compiled: K.C.Bowman / C.Hurst
Drafting: M.B.Andersen

Date: August, 1980
Revised: January, 1988



- NC—Non Commercial Production
* Dakota Formation Wells

* Plugged and Abandoned
P/A

* Dry Hole
- Initial Dakota Participating Area Effective 1-10-66

First Expansion of the Dakota Participating Area, Effective Date 9-1-78

Second Expansion of the Dakota Participating Area, Effective Date 6-1-80

Third Expansion of the Dakota Participating Area, Effective Date 3-1-81

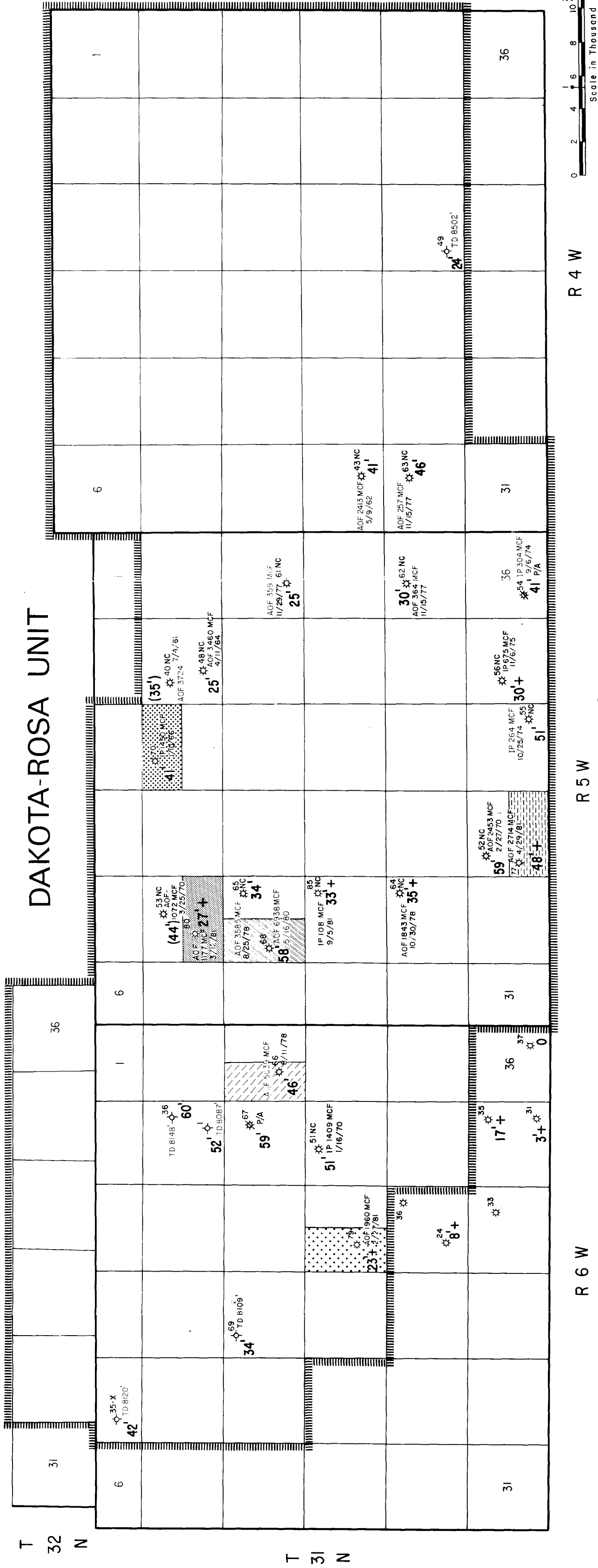
Fourth Expansion of the Dakota Participating Area, Effective Date 4-1-81

Fifth Expansion of the Dakota Participating Area, Effective Date 5-1-81

RESERVES AND EVALUATIONS DEPARTMENT
NORTHWEST PIPELINE CORPORATION

DAKOTA – ROSA UNIT
SAN JUAN, RIO ARriba CO.s, NEW MEXICO
NET SAND THICKNESS MAP
Upper Dakota Sandstone
40 OHMS Cut-Off
(10') From Gamma-Neutron or Gamma-Density Log
Contour Interval = 5 feet

Compiled: K.C. Bowman / C. Hurst
Drafting: M.B. Andersen
Date: August, 1980
Revised: January, 1988



NC - Non Commercial Production
☆ - Dakota Formation Wells
※ - Plugged and Abandoned P/A
◇ - Dry Hole

Initial Dakota Participating Area Effective 1-10-66
First Expansion of the Dakota Participating Area; Effective Date 9-1-78
Second Expansion of the Dakota Participating Area; Effective Date 6-1-80
Third Expansion of the Dakota Participating Area; Effective Date 3-1-81
Fourth Expansion of the Dakota Participating Area; Effective Date 4-1-81
Fifth Expansion of the Dakota Participating Area; Effective Date 5-1-81

RESERVES AND EVALUATIONS DEPARTMENT
NORTHWEST PIPELINE CORPORATION

DAKOTA - ROSA UNIT
SAN JUAN, RIO ARriba CO.s, NEW MEXICO

GROSS SAND THICKNESS MAP
Middle Dakota Sandstone
40 OHMS Cut-Off
(44') From Gamma-Neutron Log

Compiled: K.C. Bowman / C. Hurst
Drafting: M.B. Andersen
Date: August, 1980
Revised: January, 1988