

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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BLM

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir

Use "APPLICATION FOR PERMIT -" for such proposals

SUBMIT IN TRIPLICATE

070 FARMINGTON, NM

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Phillips Petroleum Company

3. Address and Telephone No.

5525 Highway 64, NBU 3004, Farmington, NM 87401 505-599-3454

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Unit M, 800' FSL & 990' FWL
Section 31, T29N, R6W

5. Lease Designation and Serial No.

NM-03040-A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

San Juan 29-6 Unit

8. Well Name and No.

SJ 29-6 Unit #106

9. API Well No.

30-039-21039

10. Field and Pool, or exploratory Area

Basin Dakota

11. County or Parish, State

Rio Arriba, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other Add MV pay & commingle

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Plans are to add the Mesaverde pay to the existing Dakota interval and then commingle production from both zones per Order R-11187. The individual well commingle application has been filed and approval will be received before actual commingling occurs. Brief details of the procedure we will use are as follows:

MIRU. COOH w/tubing. Cleanout to PBTD @ 8050'. Run GR/CCL/CBL from 6200' to surface & GSL from 6150' to 4150' to select perforation depths. If records indicate no cement across the Mesaverde interval, it may be necessary to shoot squeeze holes in casing and pump sufficient volumes of cement to cover and isolate the Mesaverde intervals.

Set CIBP @ 6800' to isolate Dakota intervals. Perforate and stimulate all Mesaverde intervals (Point Lookout, Menefee, Cliffhouse and Lewis Shale). Cleanout and drillout CIBPs between intervals then down to the CIBP @ 6800'. Drill out CIBP and then cleanout to PBTD. RIH w/2-3/8" tubing @ approx. 8000'. RD & MO. Turn over to production and flow Mesaverde and Dakota commingled into sales line.

14. I hereby certify that the foregoing is true and correct

Signed

Patsy Clugston

Title

Regulatory Assistant

Date

6/30/99

(This space for Federal or State office use)

Approved by

Jim [Signature]

Title

Reg. Eng.

Date

7-6-99

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

NMOC

District I
PO Box 1900, Hobbs, NM 88241-1900
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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☐ AMENDED REPORT

99 JUL -2 AM 10:36

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-21039		Pool Code 72319	070 FARMINGTON, NM Blanco Mesaverde	
Property Code 009257	Property Name San Juan 29-6 Unit			Well Number #106
OGRID No. 017654	Operator Name Phillips Petroleum Company			Elevation 6822'

10 Surface Location

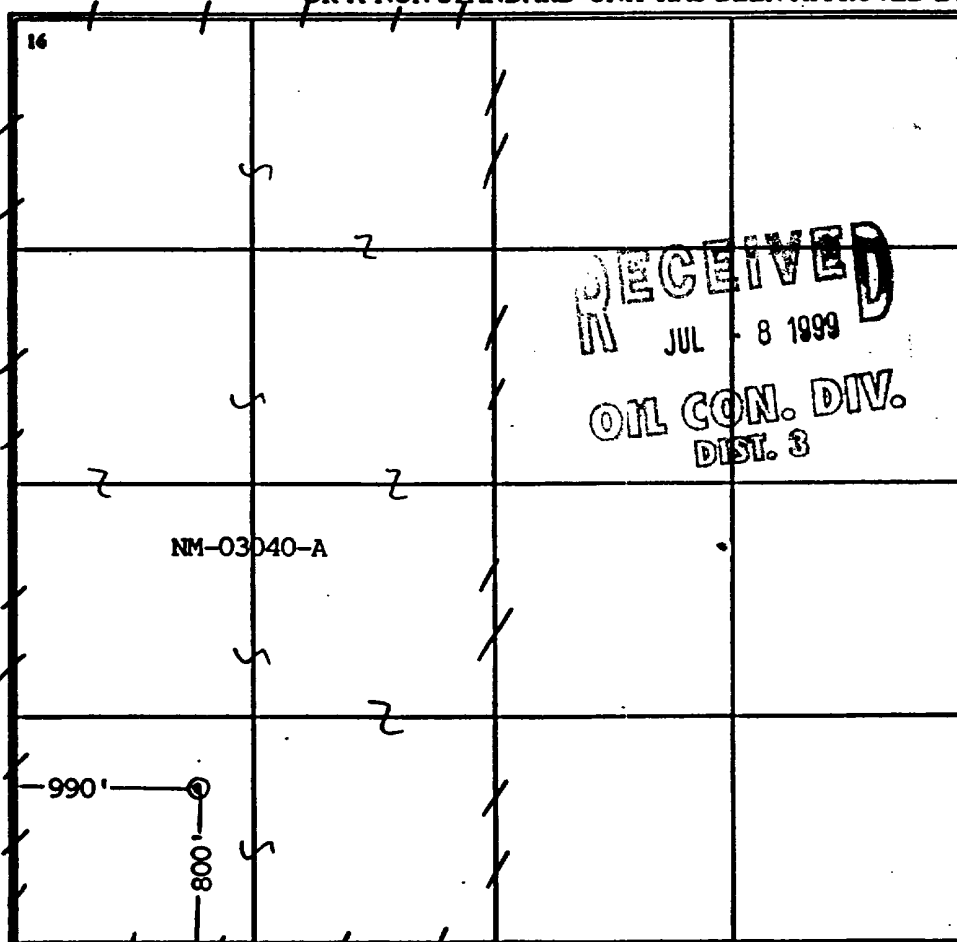
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
M	31	29N	6W		800	South	990	West	Rio Arriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
M									

Dedicated Acres 320 W/2	Joint or Infill I	Consolidation Code II	Order No. 29-6 Unit DHC - Order No. R-11187
----------------------------	----------------------	--------------------------	--

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Patsy Clugston
Signature
Patsy Clugston
Printed Name
Regulatory Assistant
Title
June 9, 1999
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

11/29/1971
Date of Survey
Signature and Seal of Professional Surveyor:
See original Dakota C102
signed by David O. Vilven
dated 11/29/1971
1760
Certificate Number

OK @

**NEO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

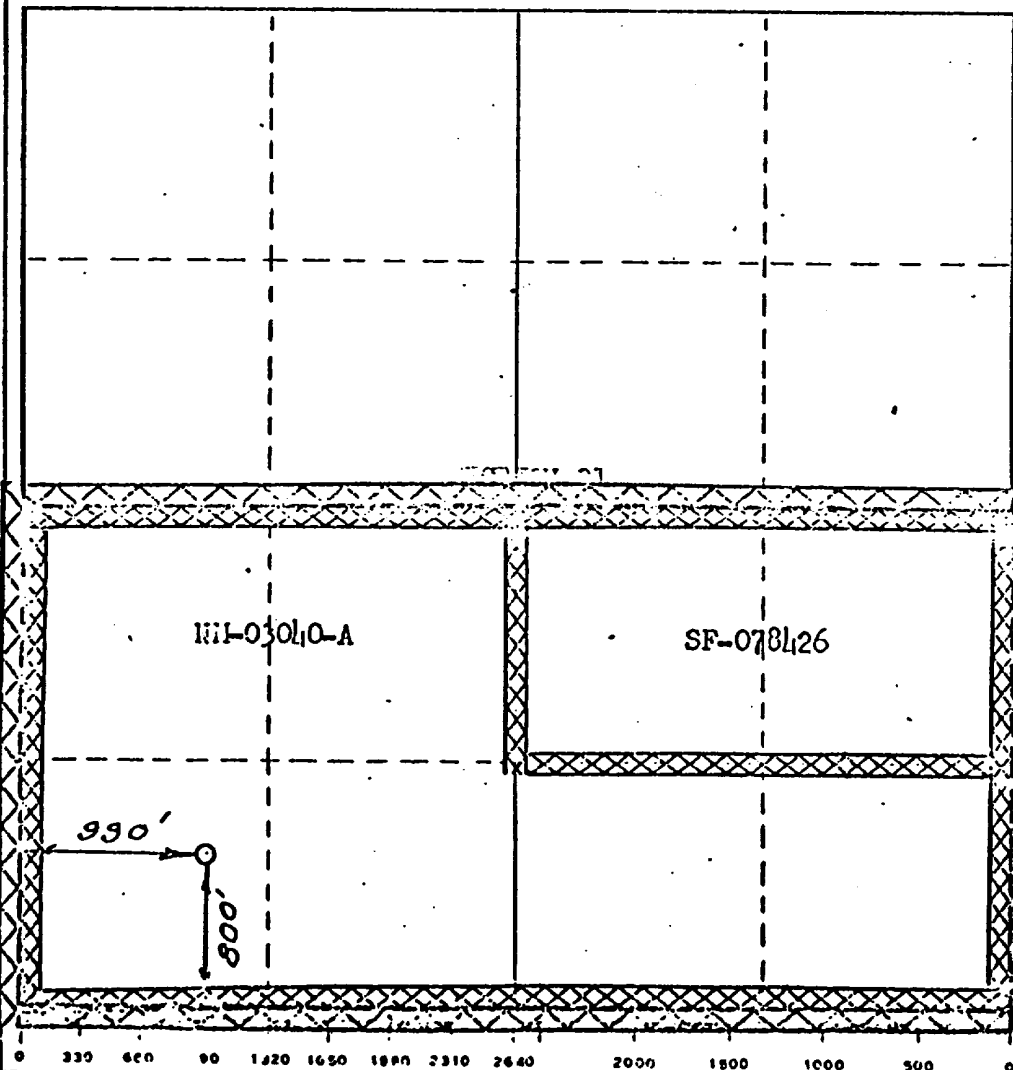
Operator <u>Northwest Pipeline Corp.</u> <u>EL PASO NATURAL GAS COMPANY</u>		Lease <u>SAN JUAN 29-6 UNIT (HIL-03040-A)</u>		Well No. <u>105</u>
Unit Letter <u>H</u>	Section <u>31</u>	Township <u>29-N</u>	Range <u>6-W</u>	County <u>BLAHO ARRIBA</u>
Actual Fracture Location of Well: <u>800</u> feet from the <u>SOUTH</u> line and <u>990</u> feet from the <u>WEST</u> line.				
Ground Level Elev. <u>6822</u>	Producing Formation <u>DAKOTA</u>	Pool <u>BASTIN DAKOTA</u>	Dedicated Acreage <u>320.00</u> Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) SW 1/4 SW/4 Section 31, T29N, R6W

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name O.B. Whitenburg
 Position Production & Drilling Engineer
 Company Northwest Pipeline Corp.
 Date October 25, 1974

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed NOVEMBER 29, 1971

Registered Professional Engineer
 and/or Land Surveyor
[Signature]
 Certificate No. 1760

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 South First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Phillips Petroleum Company

5525 Hwy. 64

Address

Farmington, NM 87401

Operator

San Juan 29-6 Unit

106

M, 31 - T29N, R6W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

OGRID NO. 017654

Property Code 009267

API NO. 30-039-21039

Spacing Unit Lease Types: (check 1 or more)

Federal ☒ , State ☐ , (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco Mesaverde		Basin Dakota
2. Top and Bottom of Pay Section (Perforations)	4250' - 6000'		7882' - 8016'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 600 psi (est.) b. (Original) 1280 psi (est.)	a. b.	a. 721 psi b. 3130 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1150 BTU/mscf		1010 BTU/mscf
7. Producing or Shut-In?			Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 860 mcf/d Rates: 0.5 bopd (estimated)	Date: Rates:	Date: 4/30/99 Rates: 37 mcf/d 0 bwpd
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?

If not, have all working, overriding, and royalty interests been notified by certified mail?

Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☒ No
☒ Yes ☐ No
☒ Yes ☐ No

11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☐ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-11187

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Mark Stodola

TITLE

Reservoir Engr.

DATE

6/8/99

TYPE OR PRINT NAME

Mark Stodola

TELEPHONE NO. (505)

599-3455

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

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Revised October 18, 1994
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99 JUN 11 PM 12:28
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-21039		Pool Code 72319	Pool Name Blanco Mesaverde
Property Code 009257	Property Name San Juan 29-6 Unit		Well Number #106
OGRID No. 017654	Operator Name Phillips Petroleum Company		Elevation 6822'

Surface Location

UL or lot no. M	Section 31	Township 29N	Range 6W	Lot Ida	Feet from the 800	North/South line South	Feet from the 990	East/West line West	County Rio Arriba
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Bottom Hole Location If Different From Surface

UL or lot no. M	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres 320 W/2	Joint or Infill I	Consolidation Code U	Order No. 29-6 Unit DHC - Order No. R-11187
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>NM-03040-A</p> <p>990'</p> <p>1008</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Patsy Clugston</i> Signature Patsy Clugston Printed Name Regulatory Assistant Title June 9, 1999 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>11/29/1971 Date of Survey Signature and Seal of Professional Surveyer: See original Dakota C102 signed by David O. Vilven dated 11/29/1971 1760 Certificate Number</p>

NEW ICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

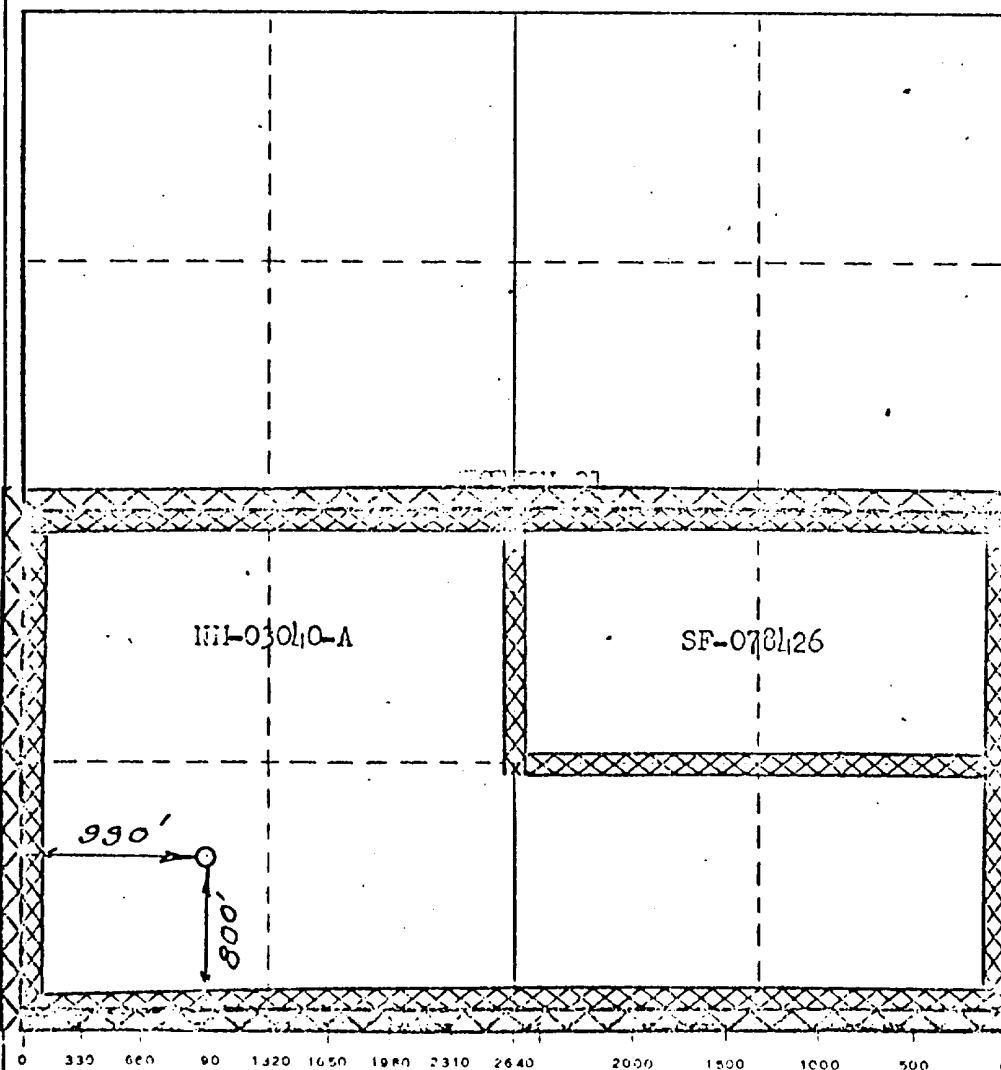
Operator <i>Northwest Pipeline Corp.</i> EL PASO NATURAL GAS COMPANY		Lease SAN JUAN 29-6 UNIT (NH-03040-A)		Well No. 105
Unit Letter H	Section 31	Township 29-N	Range 6-W JUN 1	County RIO ARriba
Actual Footage Location of Well: 800 feet from the SOUTH line and 990 feet from the WEST line				
Ground Level Elev. 6822	Producing Formation DAKOTA	Pool BASIN DAKOTA	Dedicated Acreage: 320.00 Acres	

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CERTIFICATION

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Name *O.B. Whitenburg*
O.B. Whitenburg
Position
Production & Drilling Engineer
Company
Northwest Pipeline Corp.
Date
October 25, 1974

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
NOVEMBER 29, 1971
Registered Professional Engineer
and/or Land Surveyor
Paul J. Allen
Certificate No. 1760



PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

June 9, 1999

New Mexico Oil & Gas Conservation Div.
2040 South Pacheco
Santa Fe, New Mexico 87505-6429

Downhole Commingling Allocation Method
on the San Juan 29-6 Unit #106

Dear Sirs:

Phillips is proposing to utilize the subtraction method on the subject well for approximately twelve months after actual commingling occurs. After the twelve month period we will convert to the ratio method as indicated in our commingling application. We believe this will be a more accurate method of allocating production considering that the Dakota interval has been producing for years and that the production will not be stabilized on the Mesaverde for several months.

Dakota Production Forecast

July 1999	1,235	August 1999	1,226
September 1999	1,178	October 1999	1,208
November 1999	1,160	December 1999	1,190
January 2000	1,181	February 2000	1,097
March 2000	1,164	April 2000	1,118
May 2000	1,147	June 2000	1,102

For example, if the total volume for August 1999 were 4,230 mcf, then the Dakota would be allocated 1,226 mcf and the Mesaverde 3,004 mcf. And subsequently, the Dakota would be allocated $(1,226/4,230)$ or 28.98%, and Mesaverde would be allocated $(3,004/4,230)$ or 71.02%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Mark W. Stodola
Reservoir Engineer

MS/pc

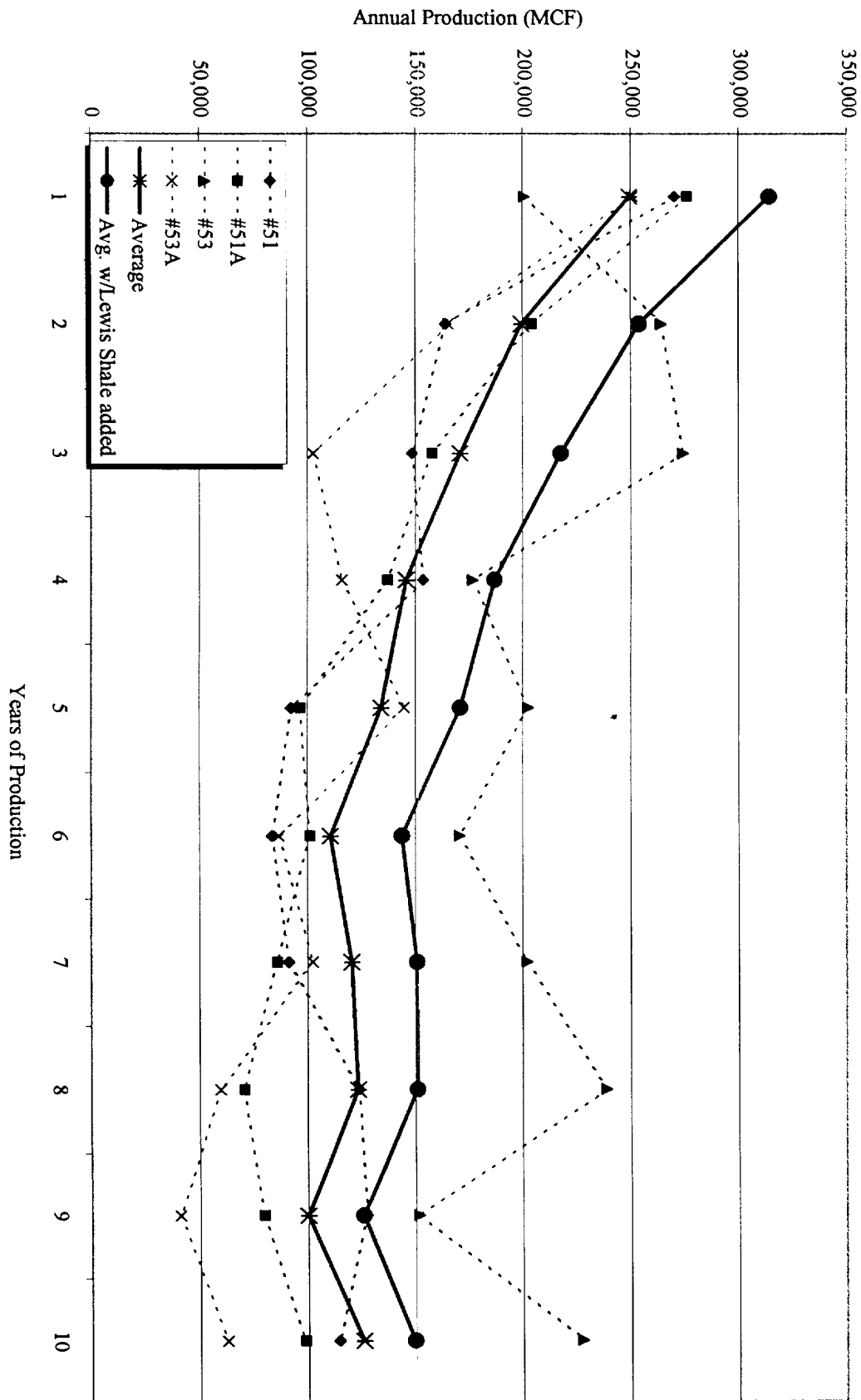
cc: OCD – Aztec
BLM- Farmington
NM Commissioner of Public Lands – Santa Fe

The graph displays the annual production in MCF over a 10-year period for five different shale gas wells and an average. The y-axis represents Annual Production (MCF) from 0 to 350,000. The x-axis represents Years of Production from 1 to 10. The legend identifies the following series:

- #51**: Dotted line with diamond markers.
- #51A**: Dashed line with square markers.
- #53**: Dotted line with triangle markers.
- #53A**: Dashed line with 'x' markers.
- Average**: Solid line with asterisk markers.
- Avg. w/Lewis Shale added**: Solid line with circle markers.

The 'Avg. w/Lewis Shale added' series shows a steady increase in production over the 10-year period, starting at approximately 300,000 MCF in Year 1 and reaching about 320,000 MCF in Year 10. The other series show more fluctuation, with some wells peaking in Year 1 and then declining or fluctuating at lower levels.

Years of Production	#51	#51A	#53	#53A	Average	Avg. w/Lewis Shale added
1	250,000	280,000	300,000	250,000	250,000	300,000
2	200,000	220,000	250,000	200,000	200,000	220,000
3	150,000	180,000	200,000	150,000	150,000	180,000
4	100,000	120,000	150,000	100,000	100,000	120,000
5	50,000	80,000	100,000	50,000	50,000	80,000
6	20,000	50,000	80,000	20,000	20,000	50,000
7	10,000	30,000	60,000	10,000	10,000	30,000
8	5,000	10,000	40,000	5,000	5,000	10,000
9	2,000	5,000	20,000	2,000	2,000	5,000
10	1,000	2,000	10,000	1,000	1,000	2,000



PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

DATE: JUNE 3, 1999

WELL NAME: SAN JUAN 29-6 # 106
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH:
PERFS:
TUBING SIZE: 1 1/2 TO 8013'
CASING SIZE:
PACKER:
OTHER: SN @ 7981'
ENGAGED @ 02:16

CASING PRESSURE:
TUBING PRESSURE: 600
OIL LEVEL:
WATER LEVEL:
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3500

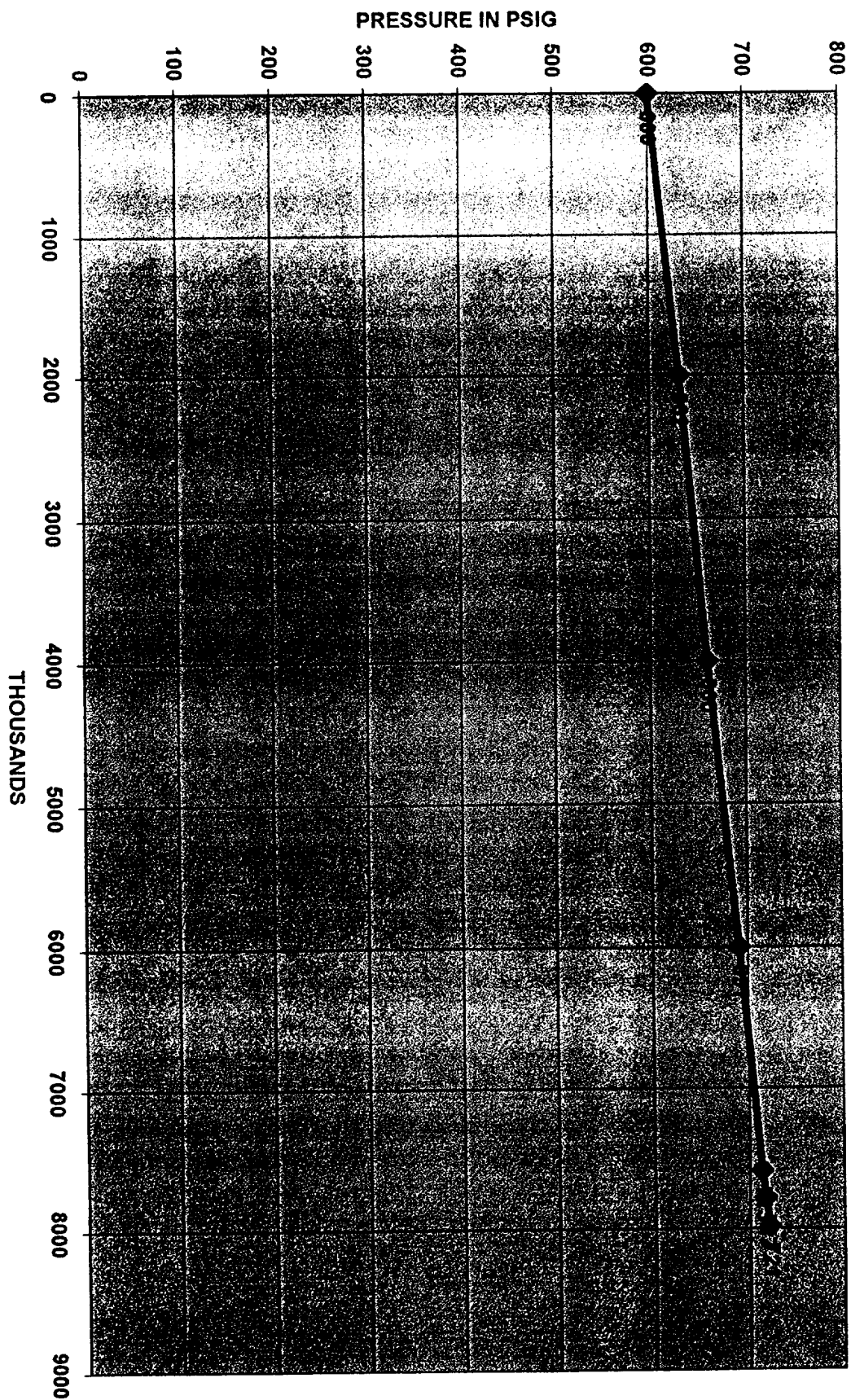
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	600	
2000	632	0.016
4000	660	0.014
6000	691	0.015
7581	713	0.014
7781	717	0.020
7981	721	0.020

RAN SLM @ 7981'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: STEVEN HODGES
UNIT NO. T-8

PHILLIPS PETROLEUM SAN JUAN 29-6 # 106
DATE: JUNE 3, 1999



29-6 Unit #106 Dakota Forecast

<i>Initial Production Rate</i>	=	40 MCFD
<i>Hyperbolic Exponent</i>	=	0.33
<i>Decline Rate</i>	=	9 %

	Month	Monthly MCF
1999	Jul	1,235
	Aug	1,226
	Sep	1,178
	Oct	1,208
	Nov	1,160
	Dec	1,190
2000	Jan	1,181
	Feb	1,097
	Mar	1,164
	Apr	1,118
	May	1,147
	Jun	1,102
	Jul	1,130
	Aug	1,122
	Sep	1,078
	Oct	1,106
	Nov	1,062
	Dec	1,090

MEP81-01

PARPI - WELLZONE PRODUCTION BROWSE

Date: 6/08/99

DAILY AVERAGE BY YEAR

User: MWSTODO

Wellzone L9958 01 Yr: 1991 Mth: 05 Property: 650266 SAN JUAN 29-6 UNIT DK #106

Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000106

Type: D (T-Total, D-Daily Avg) Field: 042233 BASIN

Period: Y (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20076 DAKOTA

ADJ		PRODUCED			DAYS		WELL	
FLG	DATE	OIL (BBL)	GAS (MCF)	WATER (BBL)	PROD	OP	ST	CL TY
	1991 IC	0.00	110	0	135.04	136		
	1992	0.00	81	0	349.00	354		
	1993	0.00	65	0	352.00	352		
	1994	0.00	61	0	359.00	359		
	1995	0.00	55	0	361.00	361		
	1996	0.00	59	0	356.00	356		
	1997	0.00	79	0	320.00	320		
	1998	0.00	70	0	365.00	365		
	1999	0.00	47	0	120.00	120		

NO MORE DATA AVAILABLE

PA1=ICE PA2=Exit PF1=Help

PF3=End

PF5=INITIAL CUM PF11=GRAPH

Transfer->

PF7=Backward

PF8=Forward

PF4=PREV SCREEN

PF12=LOG GRAPH

MEP81-01

PARPI - WELLZONE PRODUCTION BROWSE

Date: 6/08/99

DAILY AVERAGE BY MONTH

User: MWSTODO

Wellzone L9958 01 Yr: 1998 Mth: 05 Property: 650266 SAN JUAN 29-6 UNIT DK #106

Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000106

Type: D (T-Total, D-Daily Avg) Field: 042233 BASIN

Period: M (M-Mnthly, Y-Yrly, C-Cum) Resvr: 20076 DAKOTA

```

-----
ADJ          ----- PRODUCED ----- DAYS ----- - WELL -
FLG DATE          OIL (BBL)      GAS (MCF)      WATER (BBL)      PROD      OP ST CL TY
1998-05              0.00          77              0      31.00      31 11 03 2
1998-06              0.00          65              0      30.00      30 11 03 2
1998-07              0.00         100              0      31.00      31 11 03 2
1998-08              0.00          83              0      31.00      31 11 03 2
1998-09              0.00          60              0      30.00      30 11 03 2
1998-10              0.00          77              0      31.00      31 11 03 2
1998-11              0.00          69              0      30.00      30 11 03 2
1998-12              0.00          54              0      31.00      31 11 03 2
1999-01              0.00          60              0      31.00      31 11 03 2
* 1999-02            0.00          52              0      28.00      28 11 03 2
1999-03              0.00          39              0      31.00      31 11 03 2
1999-04              0.00          37              0      30.00      30 11 03 2

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PA1=ICE   PA2=Exit  PF1=Help   PF3=End   PF5=INITIAL CUM  PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF4=PREV SCREEN PF12=LOG GRAPH

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Production Allocation Methodology

◆ Adding New Zone to Existing Zone - Initially Subtraction Method followed by Fixed Allocation Method

- Subtraction Method (+/- 1st 12 months)
 - Forecast production rate by month for existing zone utilizing established decline curve for zone
 - Subtract forecasted rate from commingled rate to define new zone rate
 - Utilize subtraction method for +/- 12 months until new zone rate stabilizes, then utilize fixed allocation method with current rates
- Fixed Allocation Method (after Subtraction Method)
 - Utilize forecasted rate from established decline curve for lower zone
 - Calculate upper zone rate by subtracting lower zone rate from commingled rate
 - Lower zone allocation = $\frac{\text{Lower zone rate}}{\text{Commingled rate}}$
 - Upper zone allocation = $\frac{(\text{Commingled rate} - \text{Lower zone rate})}{\text{Commingled rate}}$

Attachment

OCD Form C-107A (3/12/96)

Item No. 12 - additional explanation:

Based on water analysis from the Mesaverde and Dakota zones and discussions with the chemical treating/analysis company the water from these two zones are compatible. Lab analysis of the individual waters from both the Mesaverde and Dakota formations resulted in positive scaling indices for barium sulfate. There was a slight increase in the barium sulfate scaling index of the combined waters relative to the scaling index of the individual waters.

None of the waters, combined or individual, had meaningful scaling tendencies and combined with the fact that typical water production from either of these zones in San Juan 30-5 are 0-1 BWPD and no barium sulfate scale has been detected to date, no negative impacts to the formations are anticipated.