

DATE

11/5/99

SUSPENSE

11/29/99

ENGINEER

DC

LOGGED BY

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TYPE

DHC

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

2040 South Pacheco, Santa Fe, NM 87505



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ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATION FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

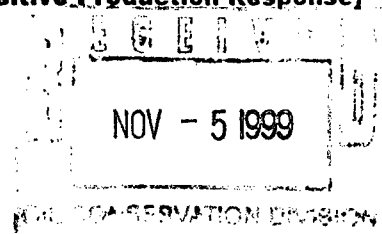
☐ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR
[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply[A] ☐ Working, Royalty or Overriding Royalty Interest Owners[B] ☐ Offset Operators, Leaseholders or Surface Owner[C] ☐ Application is One Which Requires Published Legal Notice[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Clint Hutchinson
 Print or Type Name

Clint L. Hutchinson
 Signature

Reservoir Engr.
 Title

11/4/99
 Date

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

Operator Phillips Petroleum Company Address 5525 Hwy 64, Farmington, New Mexico 87401Lease San Juan 32-7 Unit Well No. 34 Unit Ltr. - Sec - Twp - Rge A, 27, T32N, R7W County San Juan

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. -17654 Property Code 009260 API NO. 30-045-21330 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	72319 Blanco Mesaverde		71599 Basin Dakota
2. Top and Bottom of Pay Section (Perforations)			8110' - 8208'
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) 578 (est.) psi b. (Original) 1360 (est.) psi	a. b.	a. 710 psi b. 3190 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1005 btu		963 btu
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 • If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: Date: Est. Rates: 169 mcf/d	Date: Rates: Date: Rates:	Date: Rates: Date: 7/1/99 Rates: 33 mcf/d
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? ☐ Yes ☒ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. 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 ☐ No13. 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 ☐ No15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-11210

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 Clint Hutchinson TITLE Reservoir Engr. DATE 11/4/99TYPE OR PRINT NAME Clint Hutchinson TELEPHONE NO. (505) 599-3423

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

Operator El Paso Natural Gas Company			Lease San Juan 32-7 Unit (SF-078472)		Well No. 34
Unit Letter A	Section 27	Township 32N	Range 7W	County San Juan	
Actual Footage Location of Well: 1080 feet from the North line and 1190 feet from the East line					
Ground Level Elev. 6600	Producing Formation Dakota	Pool Basin Dakota		Dedicated Acreage: 311.62 Acres	

99 JUL 30 PM 4:32

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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?

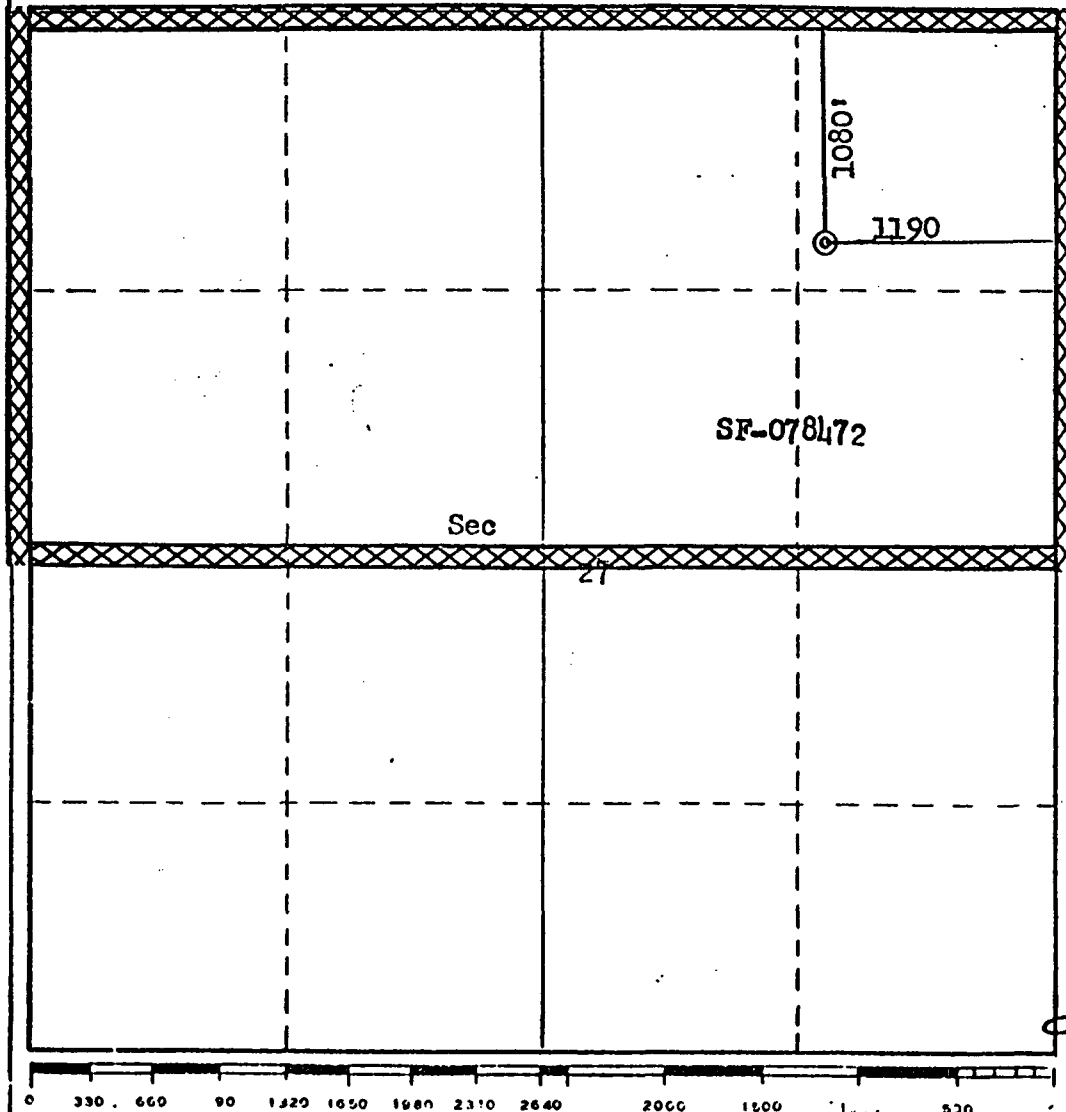
☒ Yes ☐ No

If answer is "yes," type of consolidation

Unitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

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.

Original Signed by

Name **D. G. Brisco**

Drilling Clerk

Position

El Paso Natural Gas Co.

Company

August 22, 1973

Date

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

August 4, 1973

Registered Professional Engineer and/or Land Surveyor

Fred B. Kern Jr.

License No.

3950

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

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

99 SEP -1 PM 3:11 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-21330	Pool Code 72319	Pool Name Blanco Mesaverde
Property Code 009260	Property Name San Juan 32-7 Unit	Well Number 34
OGRID No. 017654	Operator Name Phillips Petroleum Company	Elevation 6600'

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
A	27	32N	7W		1080	North	1190	East	San Juan

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
A									

Dedicated Acres 320 E/2	Joint or Infill Y	Consolidation Code U	Order No.
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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

16					1080'				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <u>Patsy Clugston</u> Printed Name <u>Patsy Clugston</u> Title <u>Regulatory Assistant</u> Date <u>August 31, 1999</u>
						1190'			
									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. Date of Survey <u>August 4, 1973</u> Signature and Seal of Professional Surveyor: <u>See original C102 dated 8/22/73</u> signed by <u>Fred B. Kerr, Jr.</u> 3950 Certificate Number



PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

November 4, 1999

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

Downhole Commingling Allocation Method
On the San Juan 32-7 Unit #34

Dear Sirs:

+

Phillips Petroleum is proposing to utilize the subtraction method on the subject well for approximately twelve months after actual commingling occurs. After the 12th 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 the Dakota interval has been producing for months and that the production will not be stabilized on the Mesaverde for several months.

Dakota Production Forecast

October 1999	1034	November 1999	999
December 1999	1031	January 2000	1030
February 2000	963	March 2000	1028
April 2000	994	May 2000	1026
June 2000	992	July 2000	1024
August 2000	1023	September 2000	989

For example, if the total volume for November 1999 were 6238 mcf, then the Dakota would be allocated 999 mcf and the Mesaverde 5,239 mcf. And subsequently, the Dakota would be allocated $(999/6,238)$ or 16.01 % and the Mesaverde would be allocated $(5,239/6,238)$ or 83.99%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Clint Hutchinson
Reservoir Engineer

CH/pc

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

Dakota Production Forecast for 32-7 Unit
Well #34

Year	Month	Gas (MCF)
Sep-99	1	1001
Oct-99	2	1034
Nov-99	3	999
Dec-99	4	1031
Jan-00	5	1030
Feb-00	6	963
Mar-00	7	1028
Apr-00	8	994
May-00	9	1026
Jun-00	10	992
Jul-00	11	1024
Aug-00	12	1023
Sep-00	13	989
Oct-00	14	1020
Nov-00	15	986
Dec-00	16	1018
Jan-01	17	1017
Feb-01	18	918

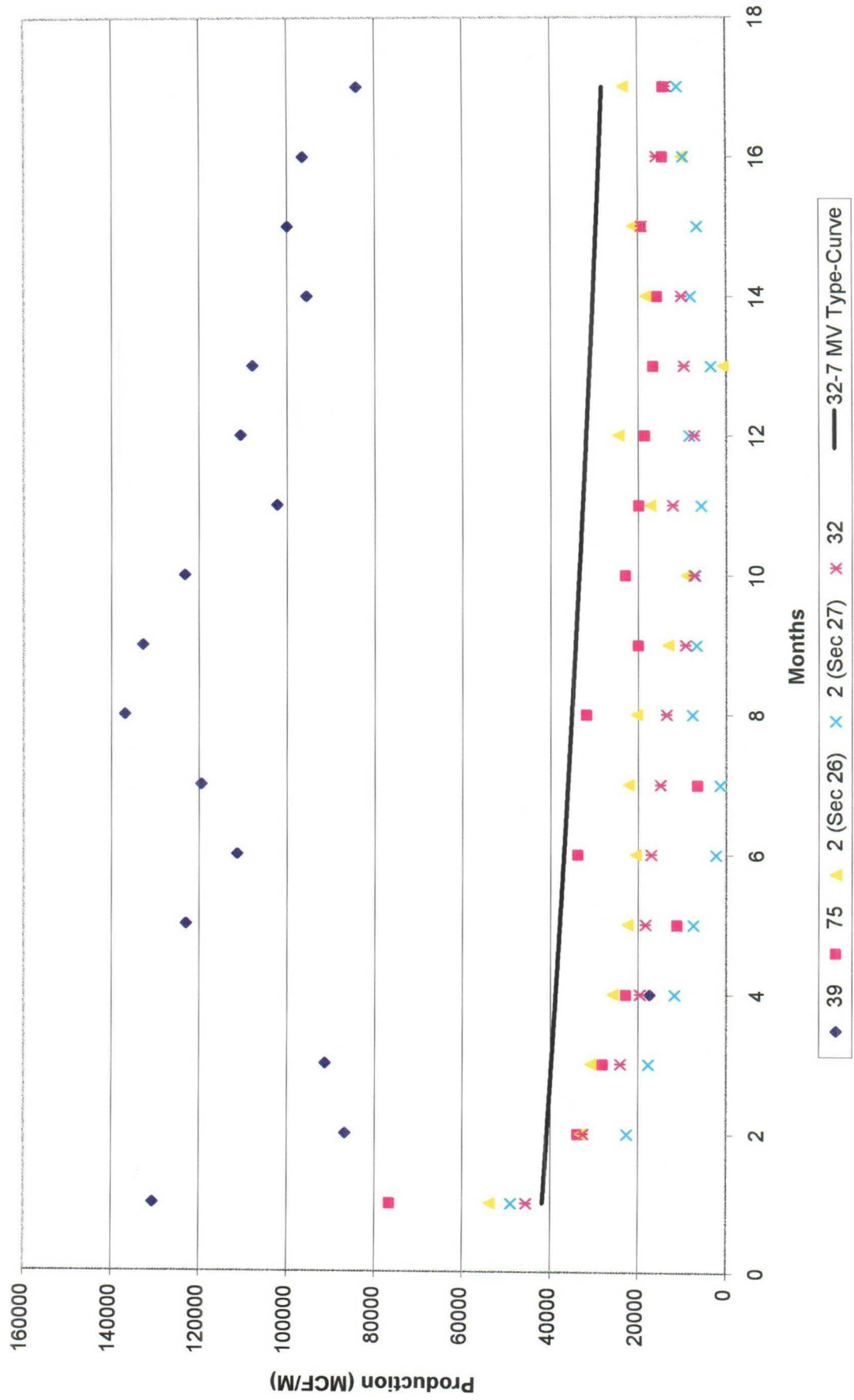
Initial Rate 33.4 MCF/D

M2Y67-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 11/04/99
 MONTHLY TOTALS User: #W9R
 Wellzone F0558 01 Yr: 1998 Mth: 09 Property: 650264 SAN JUAN 32-7 UNIT #
 Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000034
 Type: T (T-Total, D-Daily Avg) Field: 0422 BASIN
 Period: M (M-Monthly, Y-Yearly, C-Cumm) Reserv: 20076 DAKOTA

ADJ	FLG DATE	OIL (BBL)	GAS (MCF)	WATER (BBL)	PROD	OP	ST	CL	TY
*	1998-09	0.00	1,222	20	30.00	30	11	03	2
	1998-10	0.00	1,031	0	31.00	31	11	03	2
	1998-11	0.00	1,166	0	30.00	30	11	03	2
	1998-12	0.00	1,448	0	31.00	31	11	03	2
*	1999-01	0.00	1,542	40	31.00	31	11	03	2
*	1999-02	0.00	1,039	0	28.00	28	11	03	2
	1999-03	0.00	1,723	0	31.00	31	11	03	2
*	1999-04	0.00	1,431	25	30.00	30	11	03	2
	1999-05	0.00	1,073	0	31.00	31	11	03	2
	1999-06	0.00	1,009	0	30.00	30	11	03	2
	1999-07	0.00	1,032	0	31.00	31	11	03	2
	1999-08	0.00	1,348	0	31.00	31	11	03	2

PA1=ICE PF1=Help PF3=End PF5=INITIAL CUM PF10=Next Well
 PF7=Backward PF8=Forward PF11=Prev Well

32-7 Unit Mesaverde



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 = $\frac{(\text{Commingled rate} - \text{Lower zone rate})}{\text{Commingled rate}}$



PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

November 5, 1999

Mr. Larry Simmons
2815 Main
Durango, CO 81301

Downhole Commingling Order R-11210
San Juan 32-7 Unit, San Juan County, NM

Dear Mr. Simmons:

Please find attached a copy of our downhole commingling application made for the San Juan 32-7 Unit #34 well. As per item #16 on the DHC Order No. R-11210, Phillips was asked to send you a copy of any application for downhole commingling with the San Juan 32-7 Unit.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Patsy Clugston

Patsy Clugston
Regulatory Assistant
505-599-3454

SENDER: <input type="checkbox"/> Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b. <input type="checkbox"/> Print your name and address on the reverse of this form so that we can return this card to you. <input type="checkbox"/> Attach this form to the front of the mailpiece, or on the back if space does not permit. <input type="checkbox"/> Write "Return Receipt Requested" on the mailpiece below the article number. <input type="checkbox"/> The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input checked="" type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery	
3. Article Addressed to: Mr. Larry Simmons 2815 Main Durango, CO 81301		4a. Article Number Z 464 537 091	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
		7. Date of Delivery	
5. Received By: (Print Name)		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Addressee or Agent)			

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.