DATE IN 9/29/99 | SUSPENSE 10/19/99 | ENGINEER DC | LOGGED BY MV | TYPE DHC

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
2040 South Pacheco, Santa Fe, NM 87505

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]

RECEIVED
SEP 29 1999
DIVISION

[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	Clinton L. Hutchinson	Reservoir Engr.	9/28/99
Print or Type Name	Signature	Title	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 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
New 3-12-96

APPROVAL PROCESS:
X Administrative ___Hearing

EXISTING WELLBORE
X YES ___ NO

Phillips Petroleum Company (Operator) | 5525 Hwy. 64, Farmington, NM 87401 (Address)

San Juan 30-5 Unit (Lease) | 70 E (Well No.) | O, Sec. 9, 30N, 5W (Unit Ltr. - Sec - Twp - Rge) | Rio Arriba (County)

OGRID NO. 017654 Property Code 009258 API NO. 30-039-26028 Spacing Unit Lease Types: (check 1 or more) Federal X, 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)			
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: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) 1030 (est.) b. (Original) 1294 (est.)	a. b.	a. 1274 b. 3412
6. Oil Gravity (°API) or Gas BTU Content	1030		990
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 andoil/gas/water rates of recent test (within 60 days)	Date: Estimated Rates: 550 mcfd	Date: Rates:	Date: 8/31/99 Rates: 382 mcfd
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 X No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? X 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. X Yes ___ No (If No, attach explanation)

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

13. Will the value of production be decreased by commingling? ___ Yes X 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-10770

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 Clinton L. Hutchinson TITLE Reservoir Engr. DATE 9/28/99

TYPE OR PRINT NAME Clint Hutchinson TELEPHONE NO. (505) 599-3423

P.O. Box 1980, Hobbs, N.M. 88241-1980 — Energy, Minerals & Natural Resources Department — Revised February 21, 1994

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

RECEIVED
BLM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	71599	Basin Dakota

[4] Property Code	[5] Property Name	[6] Well Number
009258	SAN JUAN 30-5	70E

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	PHILLIPS PETROLEUM COMPANY	6382'

[10] Surface Location

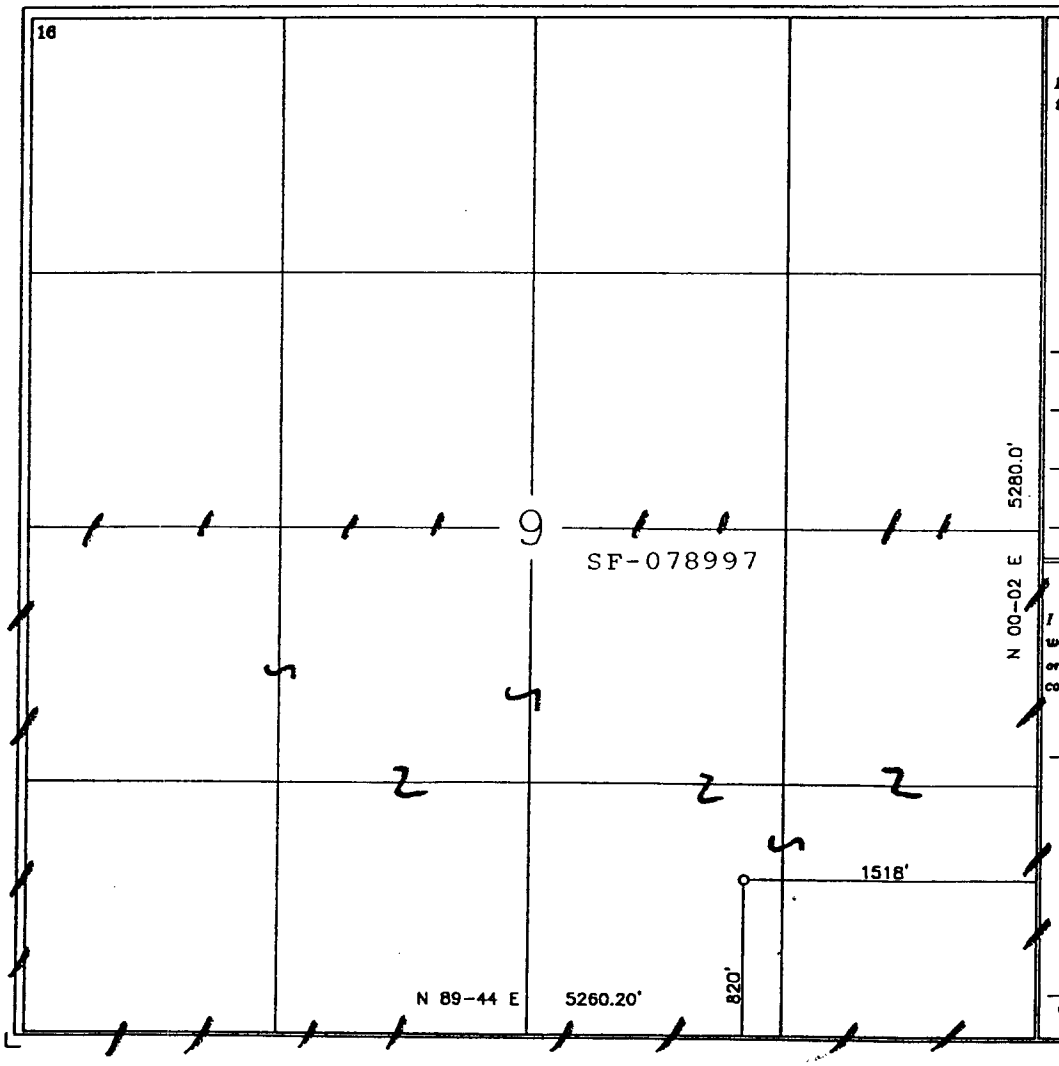
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	9	30-N	5-W		820	SOUTH	1518	EAST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 S/2	I	U	

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

R A Allred bypc
Signature

Richard Allred
Printed Name

Drilling Superintendent
Title

11-23-98
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.

9-[illegible]-98
Date of Survey

Signature and Seal of Professional Surveyor:

ROY A. RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

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98 DEC -3 PM 2:46
070 FARMINGTON, NM

Form C-102
Revised Febuary 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
009258	SAN JUAN 30-5	70E

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	PHILLIPS PETROLEUM COMPANY	6382'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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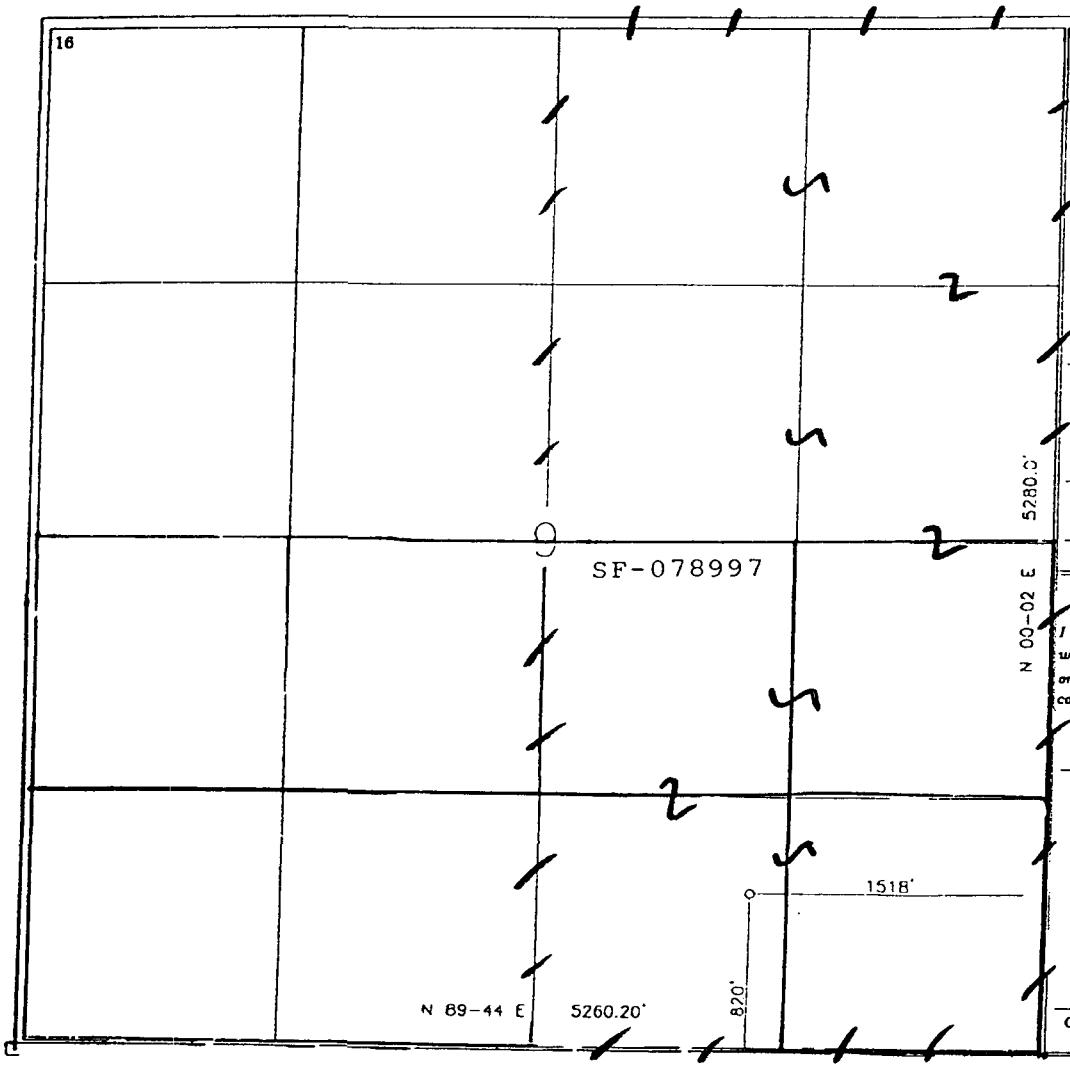
[11] Bottom Hole Location If Different From Surface

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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 E/2	I	U	

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

R Allred by SPC
Signature
Richard Allred
Printed Name
Drilling Superintendent
Title
11-23-98
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.

9-8-98
Date of Survey
Signature and Seal of Professional Surveyor:

ROY R. RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

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

September 28, 1999

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

Downhole Commingling Allocation Method
On the San Juan 30-5 Unit #70E

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	11432	November 1999	10329
December 1999	9980	January 2000	9335
February 2000	8197	March 2000	8236
April 2000	7494	May 2000	7289
June 2000	6648	July 2000	6481
August 2000	6481	September 2000	6116

For example, if the total volume for November 1999 were 21,377, then the Dakota would be allocated 10,329 mcfd and the Mesaverde 11,048 mcf. And subsequently, the Dakota would be allocated (10,329/21,377) or 48.32 % and the Mesaverde would be allocated (11,048/21,377) or 51.68%.

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 30-5 Unit
Well #70E

Year	Month	Gas (MCF)
Oct-99	1	11432
Nov-99	2	10329
Dec-99	3	9980
Jan-00	4	9335
Feb-00	5	8197
Mar-00	6	8236
Apr-00	7	7494
May-00	8	7289
Jun-00	9	6648
Jul-00	10	6481
Aug-00	11	6116
Sep-00	12	5596
Oct-00	13	5474
Nov-00	14	5018
Dec-00	15	4918
Jan-01	16	4664
Feb-01	17	4009
Mar-01	18	4227

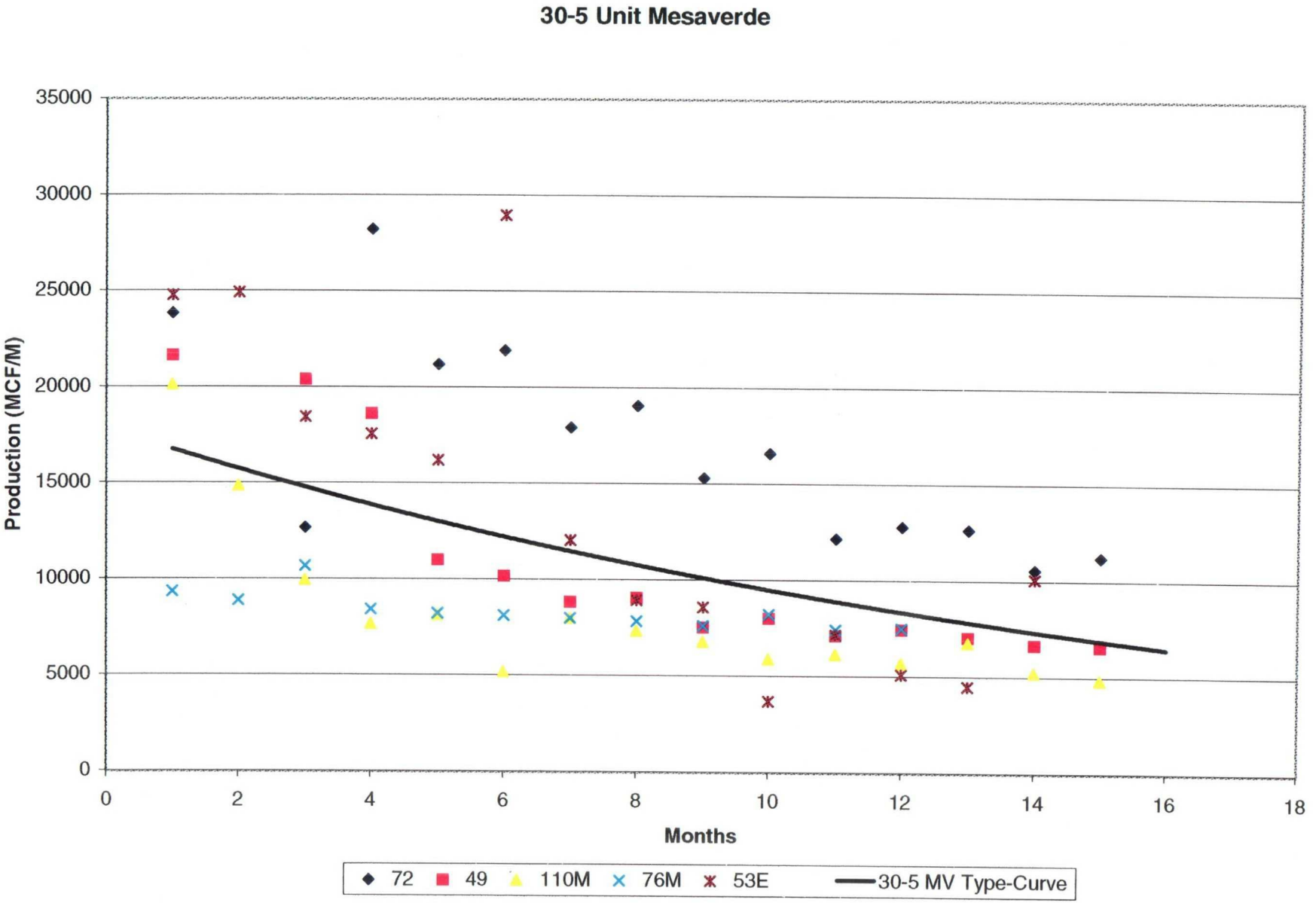
Initial Rate 382 MCF/D

M2Y67-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 9/23/99
MONTHLY TOTALS User: #W9R

Wellzone F0644 01 Yr: 1999 Mth: 05 Property: 650402 SAN JUAN 30-5 DAKOTA
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000070E
Type: T (T-Total, D-Daily Avg) Field: 0422 BASIN
Period: M (M-Monthly, Y-Yearly, C-Cumm) Reserv: 20079 DAKOTA NQ

ADJ		PRODUCED			DAYS	WELL			
FLG	DATE	OIL (BBL)	GAS (MCF)	WATER (BBL)	PROD	OP	ST	CL	TY
*	1999-05	0.00	8,203	118	30.00	13	11	03	2
*	1999-06	0.00	16,332	40	30.00	30	11	03	2
*	1999-07	0.00	16,858	40	31.00	31	11	03	2

NO MORE DATA AVAILABLE
PA1=ICE PF1=Help PF3=End PF10=Next Well
PF7=Backward PF8=Forward PF11=Prev Well


30-5 Unit Mesaverde
Production (MCF/M)
35000
30000
25000
20000
15000
10000
5000
0
0
2
4
6
8
10
12
14
16
18
Months
72
49
110M
76M
53E
30-5 MV Type-Curve

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

DATE: SEPTEMBER 21, 1999

WELL NAME: SAN JUAN 30-5 # 70E
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: 7839'
PERFS: M.P. @ 7781'
TUBING SIZE: 2 3/8 TO 7812'
CASING SIZE:
PACKER:
OTHER: 1.81 FN @ 7779'
RAN PRESSURE @ 09:00

CASING PRESSURE: 1175
TUBING PRESSURE: 725
OIL LEVEL:
WATER LEVEL: 6223'
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3000

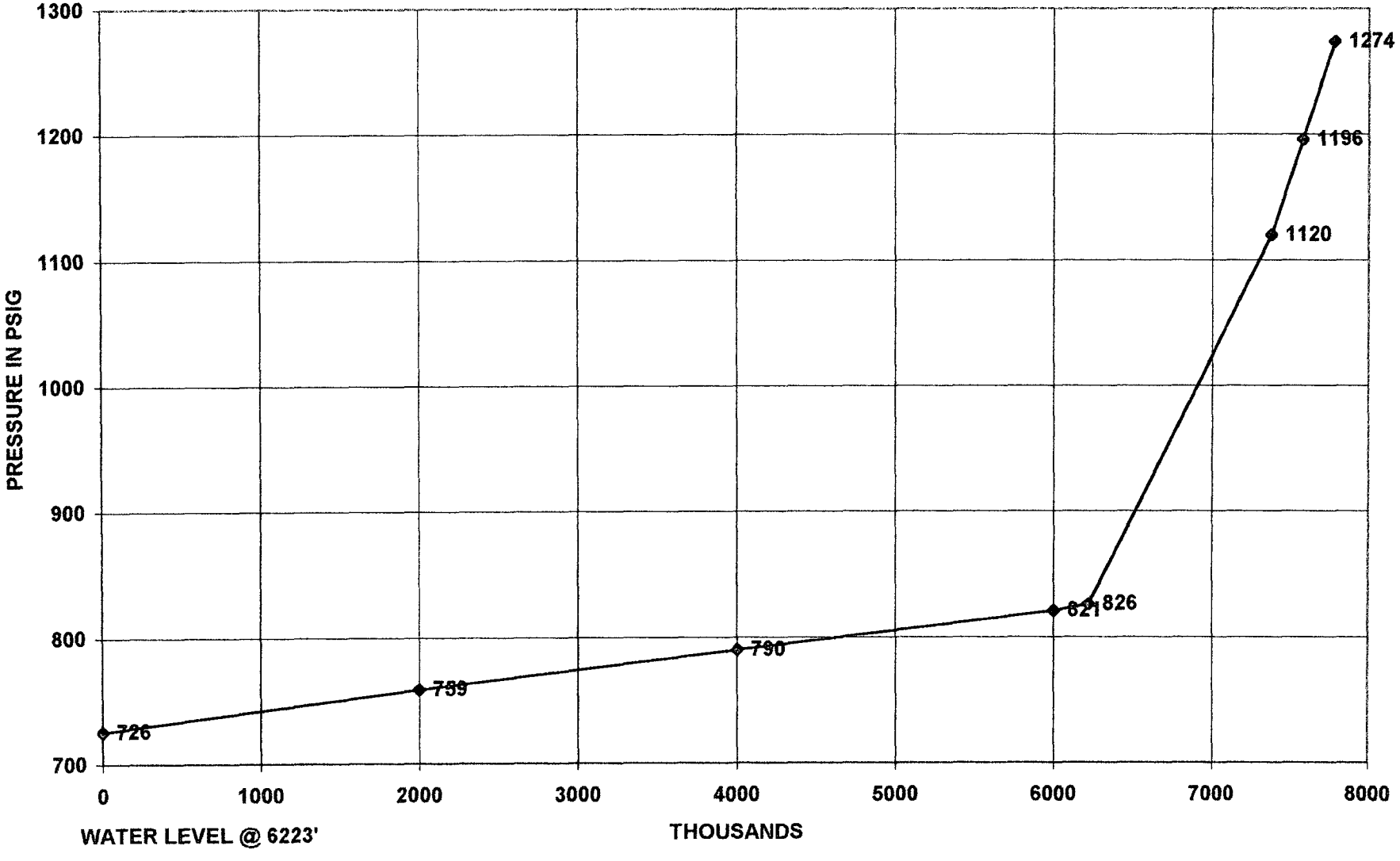
WELL STATUS: FLOWING SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	726	
2000	759	0.017
4000	790	0.016
6000	821	0.016
7379	1120	0.217
7579	1196	0.380
7779	1274	0.390

RAN SLM @

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-10

PHILLIPS PETROLEUM SAN JUAN 30-5 # 70E
DATE: SEPTEMBER 21, 1999



WATER LEVEL @ 6223'

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 = (Commingled rate - Lower zone rate) / Commingled rate