DHC 7/16/97
1608

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

RECEIVED
JUN 26 1997
CONSERVATION DIVISION

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

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

APPROVAL PROCESS:
X Administrative __Hearing

EXISTING WELLBORE
X YES __ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Phillips Petroleum Company — Operator
5525 Hwy. 64, Farmington, NM 87401 — Address

San Juan 29-5 Unit #55 — Lease
Well No.
M, Sec. 18, T29N, R5W — Unit Ltr. - Sec - Twp - Rge
Rio Arriba — County

OGRID NO. 017654 Property Code 009256 API NO. 30-039-20458
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)	4300' - 6030'		7869' - 8006'
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) 843 psi (est.) b. (Original) 1234 psi (est.)	a. b.	a. 1224 psi (est.) b. 2981 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1150 btu/cu. ft.		1000 btu/cu. ft.
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: Estimate Rates: 438 mcfd	Date: Rates:	Date: 6/12/97 Rates: 120 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 Sean C Helton TITLE Staff Reservoir Engineer DATE 6-25-97

TYPE OR PRINT NAME Sean C. Helton TELEPHONE NO. (505) 599-3455

Danny Jaap $485

District I
PO Box 1980, Hobbs, NM 88241-1980
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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-20458	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
009256	San Juan 29-5 Unit	#55

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	Phillips Petroleum Company	

[10] Surface Location

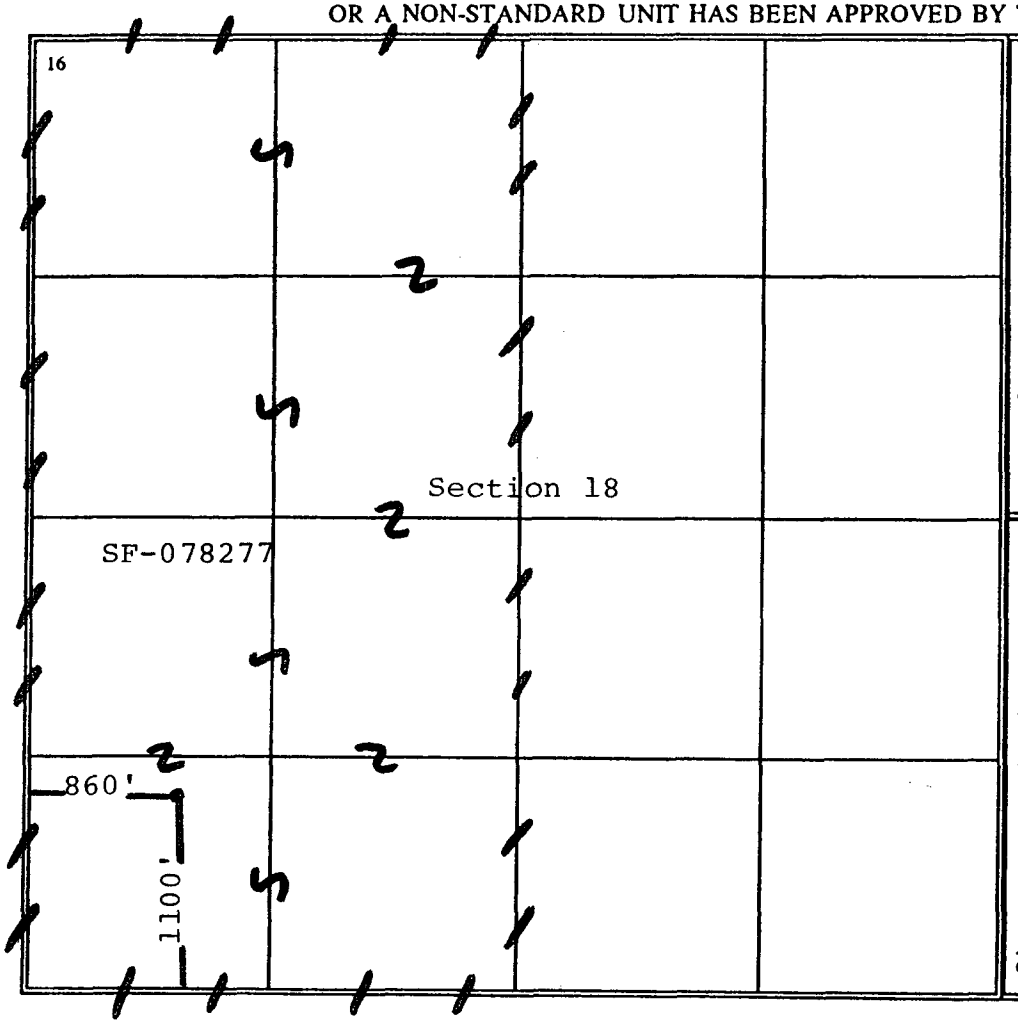
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	18	29N	5W		1100	South	860	West	Rio Arriba

[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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 acr	Y	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

Sean C Helton
Signature
Sean C. Helton
Printed Name
Staff Reservoir Engineer
Title
June 25, 1997
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.

Date of Survey

Signature and Seal of Professional Surveyer:

See Dakota C-102
dated 11-24-71

Certificate Number

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator: EL PASO NATURAL GAS COMPANY	Lease: SAN JUAN 29-5 UNIT (SF-078277)		Well No.: 55
Unit Letter: M	Section: 18	Township: 29-N	Range: 5-W	County: RIO ARRIBA
Actual Footage Location: 1100 feet from the SOUTH line		860 feet from the WEST line	
Ground Level Elev.:	Producing Formation: DAKOTA	Pool: BASIN DAKOTA	Dedicated Acreage: ~~320.00~~ 318.97 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. FHW 6/20/72

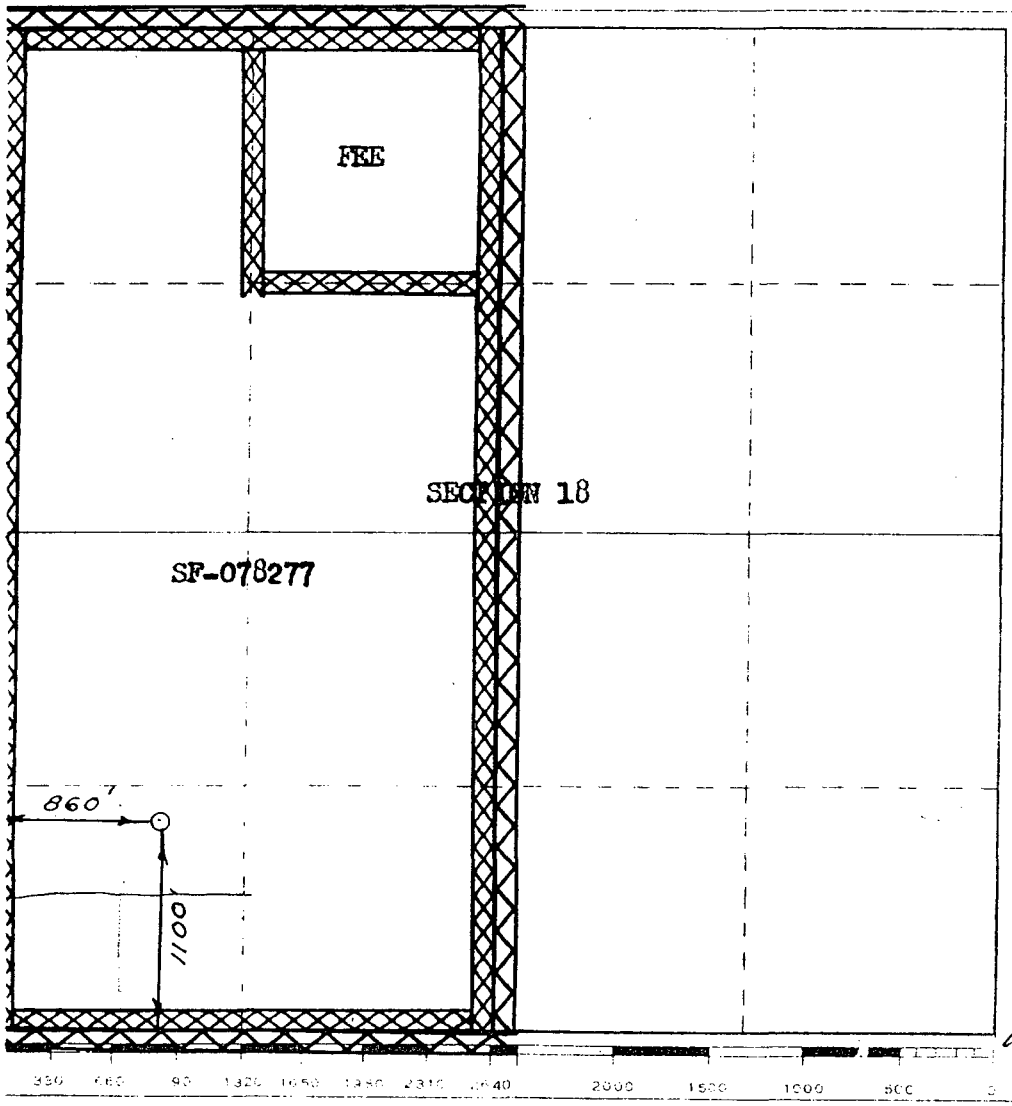
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

[X] 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 F. H. WOOD

Name: **Petroleum Engineer**

Position: **El Paso Natural Gas Co.**

Company: **December 22, 1971**

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: **NOVEMBER 24, 1971**

Registered Professional Engineer and/or Land Surveyor: David O. Wilson

Certificate No. 1760

SAN JUAN 29-5 UNIT #55 DAKOTA

	MONTH	MONTHLY FORECAST (MCF)
	Jun-97	3600
1	Jul-97	3570
2	Aug-97	3541
3	Sep-97	3512
4	Oct-97	3483
5	Nov-97	3454
6	Dec-97	3426
7	Jan-98	3398
8	Feb-98	3371
9	Mar-98	3343
10	Apr-98	3316
11	May-98	3290
12	Jun-98	3263
13	Jul-98	3237
14	Aug-98	3211
15	Sep-98	3185
16	Oct-98	3160
17	Nov-98	3135
18	Dec-98	3110

M2Y60-02 PRODUCTION HISTORY FOR WELLZONE L994101 DATE: 06/24/97
USER: SCHELTO

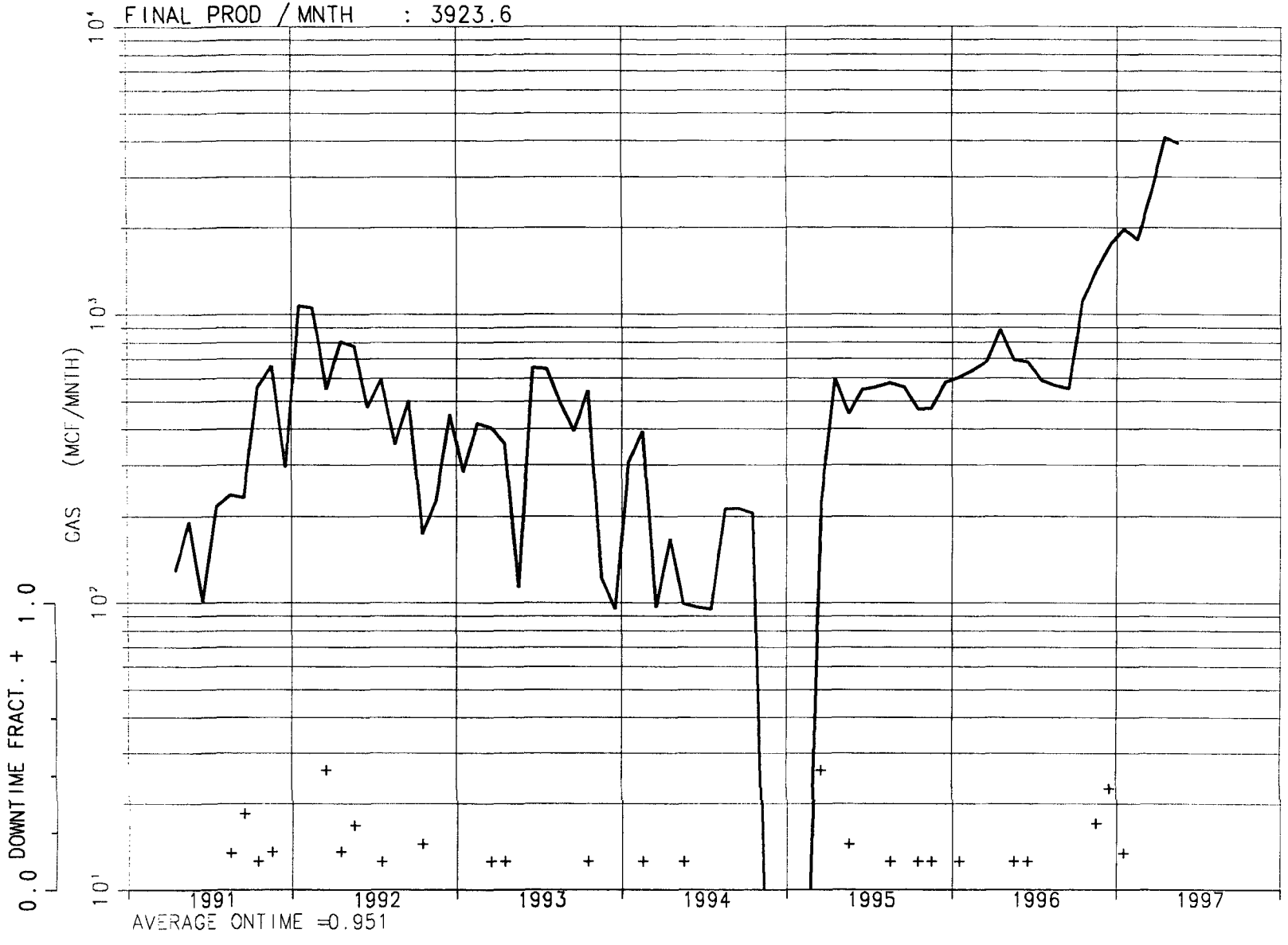
PROPERTY: 650265 - SAN JUAN 29-5 DAKOTA UNIT
WELL NO: 000055 RESVR: DAKOTA WELL: 1 OF 1

DATE	DAYS OPER	DAYS PROD	ST	CL	TY	RESVR	OIL PRODUCTION	GAS PRODUCTION	WATER PRODUCTION
199601	30	30.00	11	03	2	20076	0.00	589	0
199602	29	29.00	11	03	2	20076	0.00	574	0
199603	31	31.00	11	03	2	20076	0.00	682	0
199604	30	30.00	11	03	2	20076	0.00	851	0
199605	28	28.00	11	03	2	20076	0.00	692	0
199606	29	29.00	11	03	2	20076	0.00	659	0
199607	31	31.00	11	03	2	20076	0.00	594	0
199608	31	31.00	11	03	2	20076	0.00	552	0
199609	30	30.00	11	03	2	20076	0.00	521	0
199610	31	31.00	11	03	2	20076	0.00	1123	0
199611	23	23.00	11	03	2	20076	0.00	1349	0
199612	20	20.00	11	03	2	20076	0.00	1763	0
			YEARLY TOTAL				0.00	9949	0
199701	27	27.00	11	03	2	20076	0.00	1922	0
199702	28	28.00	11	03	2	20076	0.00	1631	0
199703	31	31.00	11	03	2	20076	0.00	2635	0
199704	30	30.00	11	03	2	20076	0.00	3955	0
199705	31	31.00	11	03	2	20076	0.00	3899	0
			YEARLY TOTAL				0.00	14042	0
		L994101 SELECTION TOTAL					0.00	23991	0
		L994101 LIFE CUMULATIVE					0.00	1230381	0

4/91-5/97

INITIAL PROD / MNTH : 129.0
REMAINING LIFE : 6.17
0.00
CUM PRODUCTION : 45659.
FINAL PROD / MNTH : 3923.6

Current Cums
45659. MCF GAS



AVERAGE ONTIME =0.951

LEASE- 650265 : SAN JUAN 29-5 DAKOTA UNIT
RESVR- 076 : BASIN DAKOTA
WELL - 000055 CUM MMCF= 1261.

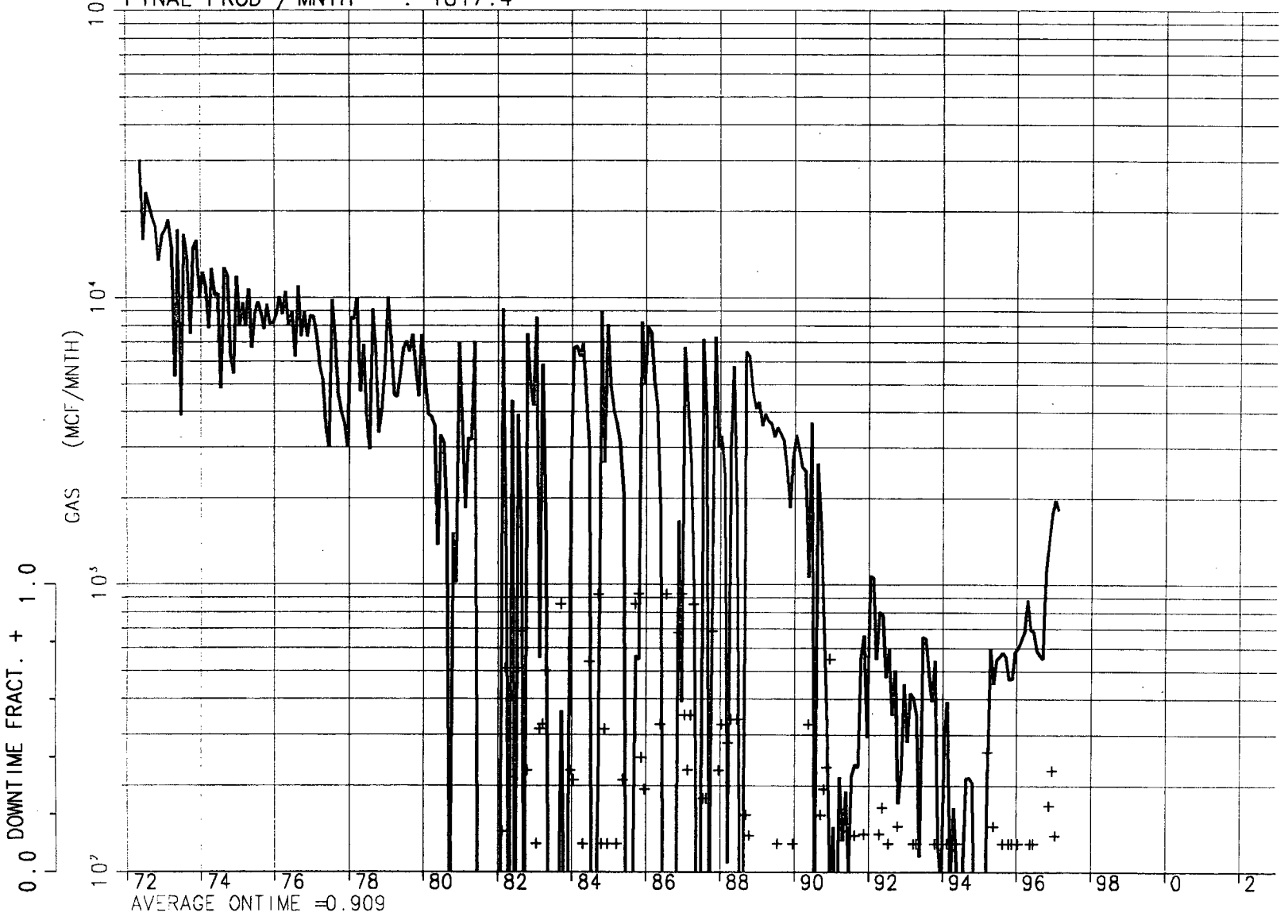
L994101
ZONE-650265076000055 L994101
API-30039204580000 THRU 97/05

#AM3 06/24/97 08:31

5/72-2/97

INITIAL PROD / MNTH : 30135.1
REMAINING LIFE : 24.83
0.00
CUM PRODUCTN-MUNITS : 1251.
FINAL PROD / MNTH : 1817.4

Current Cums
1251. MMCF GAS
233. BBL H2O



DWIGHTS
COMPOSITE OF TOTAL , 1 WELLS(MAX)
THRU 2/97

WELL - 55 CUM MMCF= 1251.

#AM3 06/24/97 08:44

SAN JUAN 29-5 UNIT
MESAVERDE

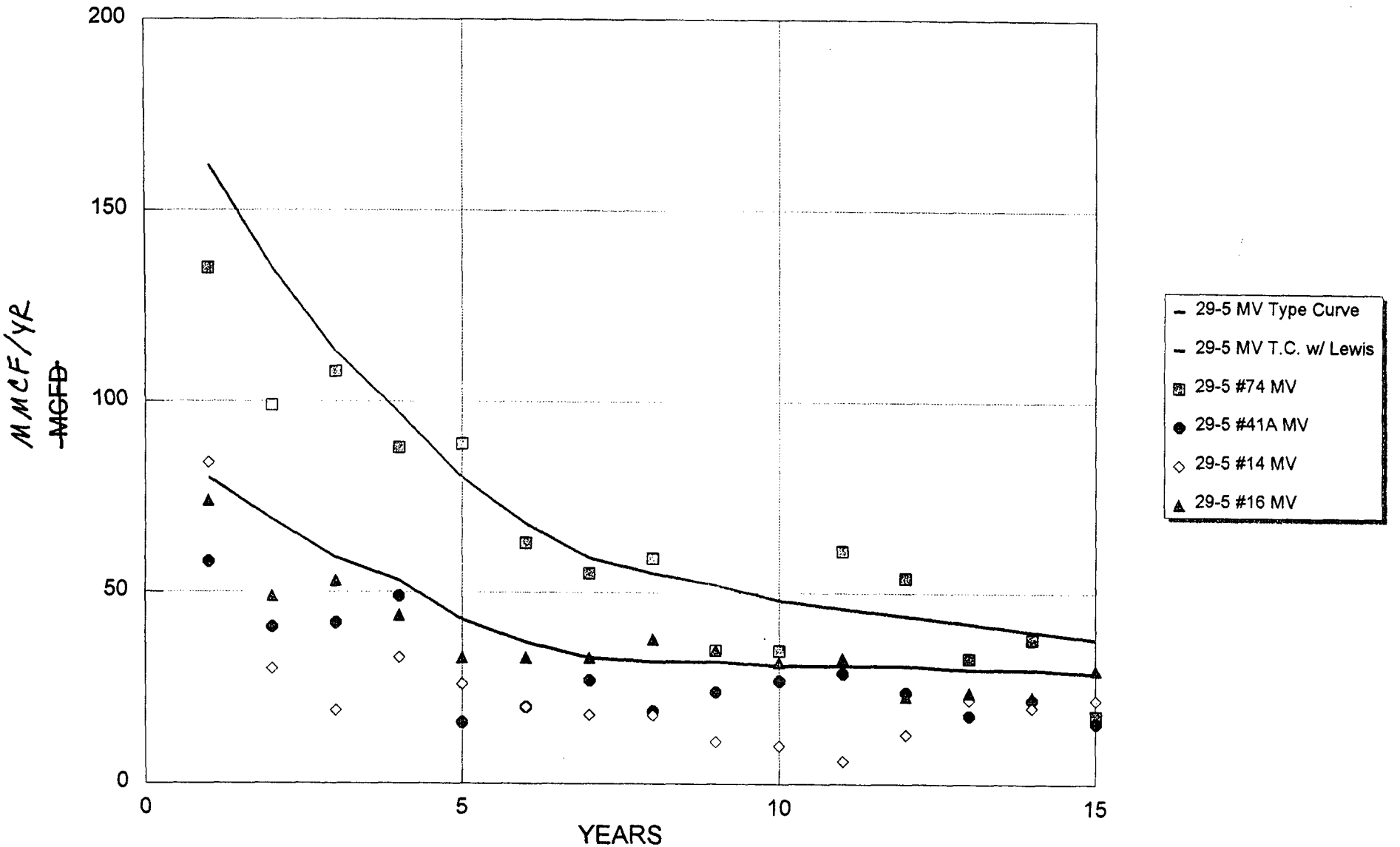


Exhibit 1.4

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