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

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 30-5 Unit — Lease
#73 — Well No.
B Sec. 10, 30N, R5W — Unit Ltr. - Sec - Twp - Rge
Rio Arriba — County

OGRID NO. 017654 Property Code 009258 API NO. 30-039-22572
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)	4,100' - 6,000'		7,924' - 7,950
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 psi (est.) b. (Original) 1294 psi (est.)	a. b.	a. 24 hr. SI 1058 psig. b. 3412 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1050 btu/ft^3 (est).		985 btu/ft^3
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: 400 mcfd, 0 bopd	Date: Rates:	Date: 7/19/98 Rates: 144 mcfd, 0 bopd
8. Fixed Percentage Allocation Formula -% for each zone	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

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OIL CON. DIV.
DIST. 3

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. X Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10771

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 8-14-98

TYPE OR PRINT NAME Mark Stodola TELEPHONE NO. (505) 599-3455

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
30-039-22572	72319	Blanco Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
009258	San Juan 30-5 Unit	#73

[7] OGRID No.	[8] Operator Name	[9] Elevation
017654	Phillips Petroleum Company	6537

[10] Surface Location

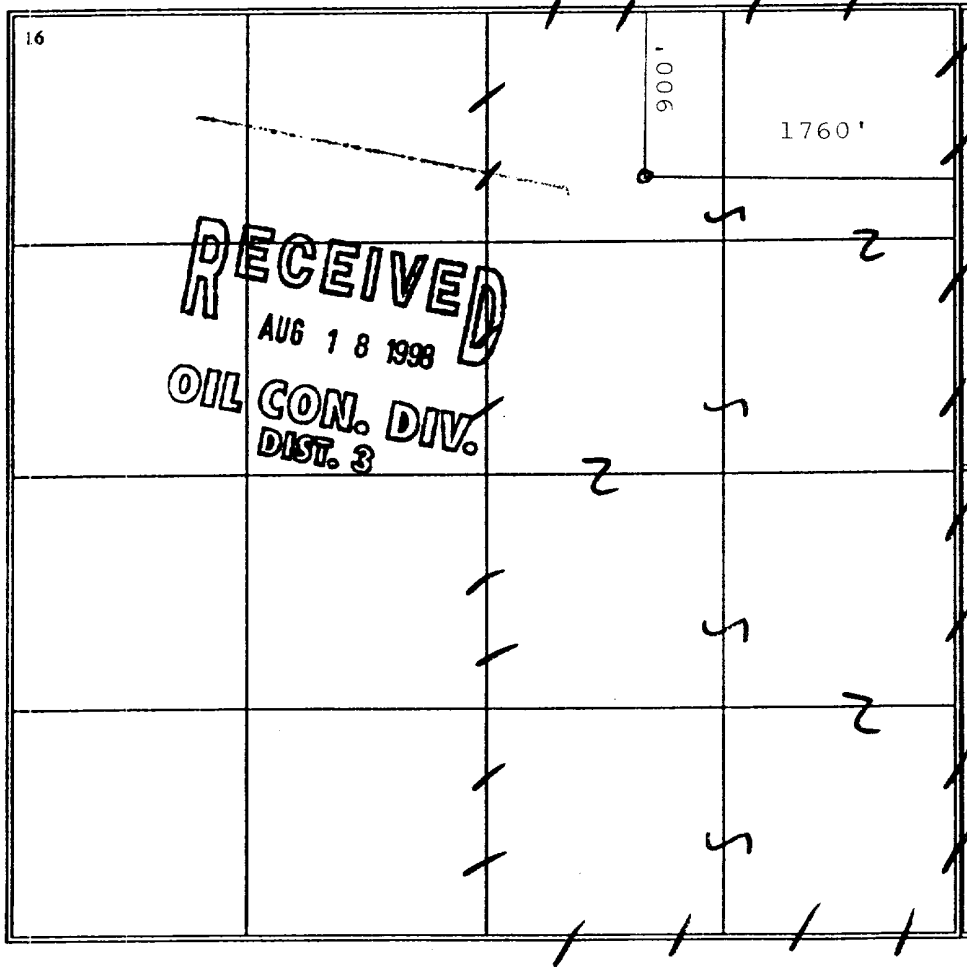
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	30N	5W		900	North	1760	East	Rio Arriba

[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
B									

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

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



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OIL CON. DIV.
DIST. 3

[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

8-14-98
Date

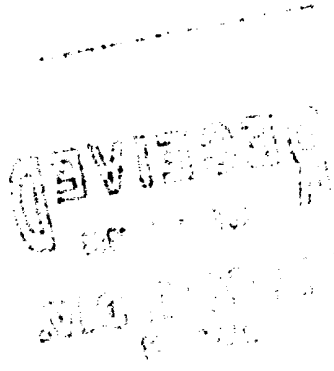
[18] SURVEYOR CERTIFICATION

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.

8-26-80
Date of Survey

Signature and Seal of Professional Surveyer:
See original signed 8/26/80
by Fred B. Kerr, Jr.
on the 30-5 #73 Dakota

3950
Certificate Number



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-

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

Operator	Lease	Well No.
NORTHWEST PIPELINE CORPORATION	SAN JUAN 30-5 UNIT	73

Unit Letter	Section	Township	Range	County
B	10	30N	5W	Rio Arriba

Actual Footage Location of Well: 900 feet from the North line and 1760 feet from the East line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
6537	Dakota	Basin Dakota	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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).

NORTHWEST PIPELINE CORPORATION

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?

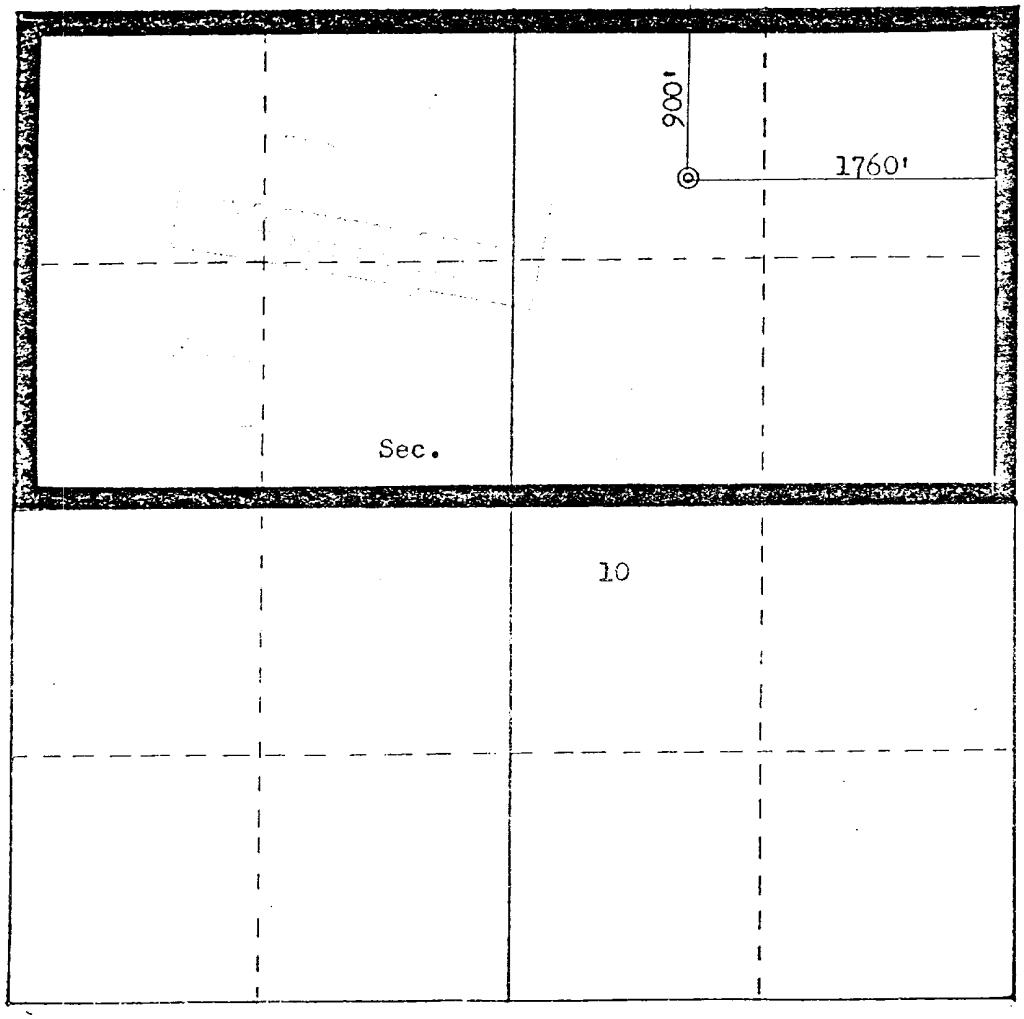
AUG 27 1980

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

PRODUCTION AND DRILLING

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.



Scale: 1"=1000'

CERTIFICATION

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

Paul C. Thompson

Name: Paul C. Thompson

Position: Drilling Engineer

Company: Northwest Pipeline Corp.

Date: August 28, 1980

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.

REGISTERED LAND SURVEYOR STATE OF NEW MEXICO

Date Surveyed: August 26, 1980

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

FORM 24-11

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

August 14, 1998

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 #73

Dear Sirs:

Phillips is proposing to utilize the subtraction method on the subject well for approximately six months after actual commingling occurs. After the six 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 several months and that the production will not be stabilized on the Mesaverde for several months.

Dakota Production Forecast

September 1998	4,439	October 1998	4,526
November 1998	4,465	December 1998	4,405
January 1999	4,346	February 1999	4,287
March 1999	4,229	April 1999	4,173
May 1999	4,116	June 1999	4,061
July 1999	4,006	August 1999	3,953

For example, if the total volume for December 1998 were 8,434 mcf, then the Dakota would be allocated 4,405 mcf and the Mesaverde 4,029 mcf. And subsequently, the Dakota would be allocated (4,405/8,434) or 52.23%, and Mesaverde would be allocated (4,029/8,434) or 47.77%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Mark Stodola

Mark W. Stodola
Reservoir Engineer

MS/pc

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

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

DATE: AUGUST 7, 1998

WELL NAME: SAN JUAN 30-5 # 73
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

ELEVATION: GL.
TOTAL DEPTH: PBTD 7958'
PERFORATIONS: 7924' TO 7950'
TUBING SIZE: 2 3/8 TO 7929'
CASING SIZE: 4 1/2 TO 8035'
PACKER:
OTHER:

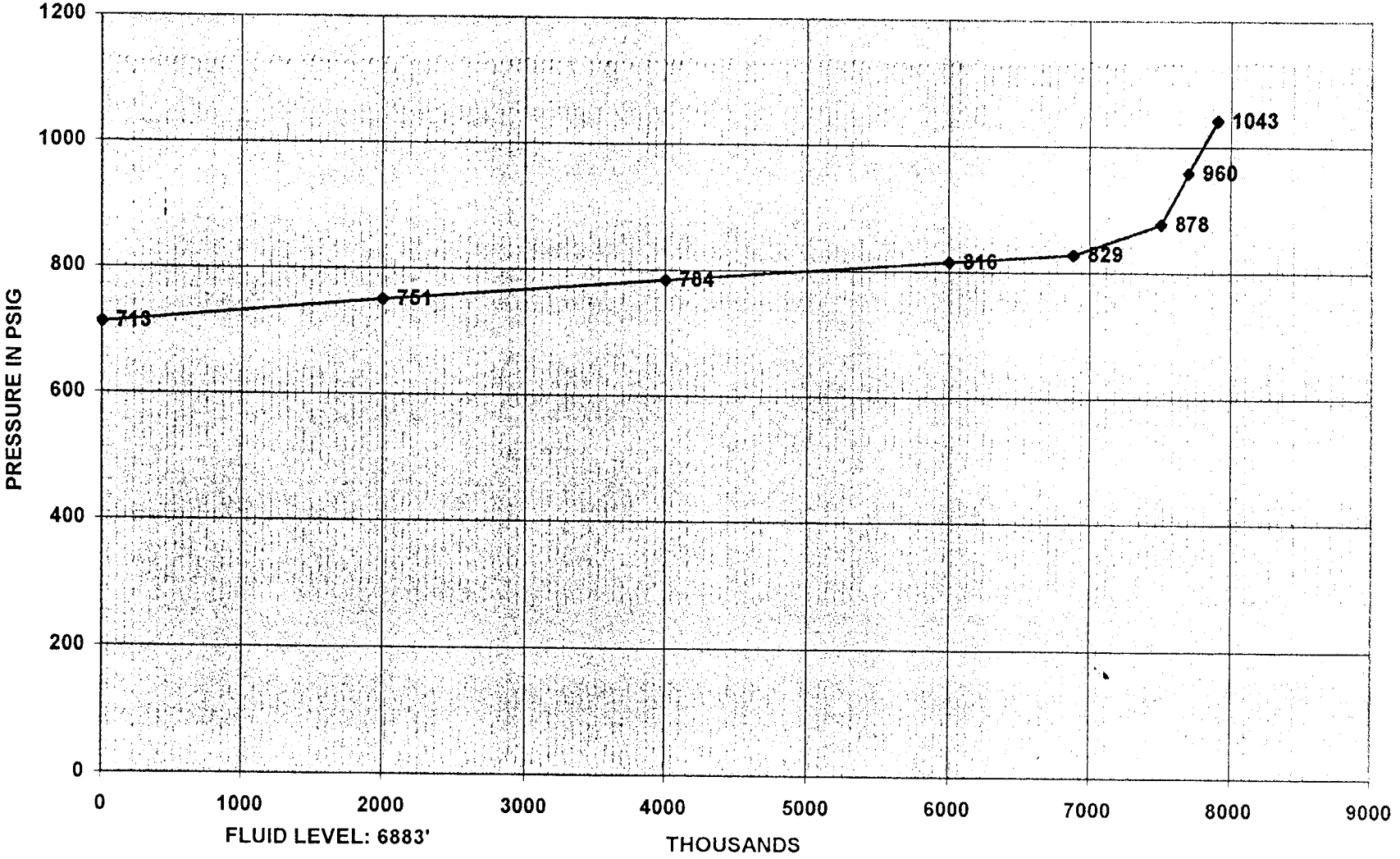
CASING PRESSURE: 760
TUBING PRESSURE: 715
OIL LEVEL:
WATER LEVEL: 6883'
TEMPERATURE:
ANERADA ELEMENT # 87977
RAMGE: 0 TO 2500
WELL STATUS: SHUT IN

INDIVIDUAL WELL DATA SHEET

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	713	0
2000	751	0.019
4000	784	0.017
6000	816	0.016
7500	878	0.041
7700	960	0.41
7900	1043	0.415
7437 (MID PERF)	1058	0.415

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, N. MEX. 87415
OPERATOR: C. HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 30-5 # 73
DATE: AUGUST 7, 1998



FLUID LEVEL: 6883'

MEP81-01 PARPI - WELLZONE PRODUCTION BROWSE Date: 8/14/98
DAILY AVERAGE BY MONTH User: MWSTODO

Wellzone L9894 01 Yr: 1997 Mth: 07 Property: 650262 SAN JUAN 30-5 DAKOTA UNIT
Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000073
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
	1997-07	0.00	84	1	26.00	26	11	03	2
	1997-08	0.00	73	0	31.00	31	11	03	2
	1997-09	0.00	52	0	30.00	30	11	03	2
	1997-10	0.00	43	0	31.00	31	11	03	2
*	1997-11	0.00	52	0	30.00	30	11	03	2
	1997-12	0.00	58	0	31.00	31	11	03	2
	1998-01	0.00	47	0	31.00	31	11	03	2
	1998-02	0.00	60	0	28.00	28	11	03	2
	1998-03	0.00	45	0	31.00	31	11	03	2
	1998-04	0.00	21	0	29.00	29	11	03	2
	1998-05	0.00	148	0	31.00	31	11	03	2
	1998-06	0.00	150	0	30.00	30	11	03	2

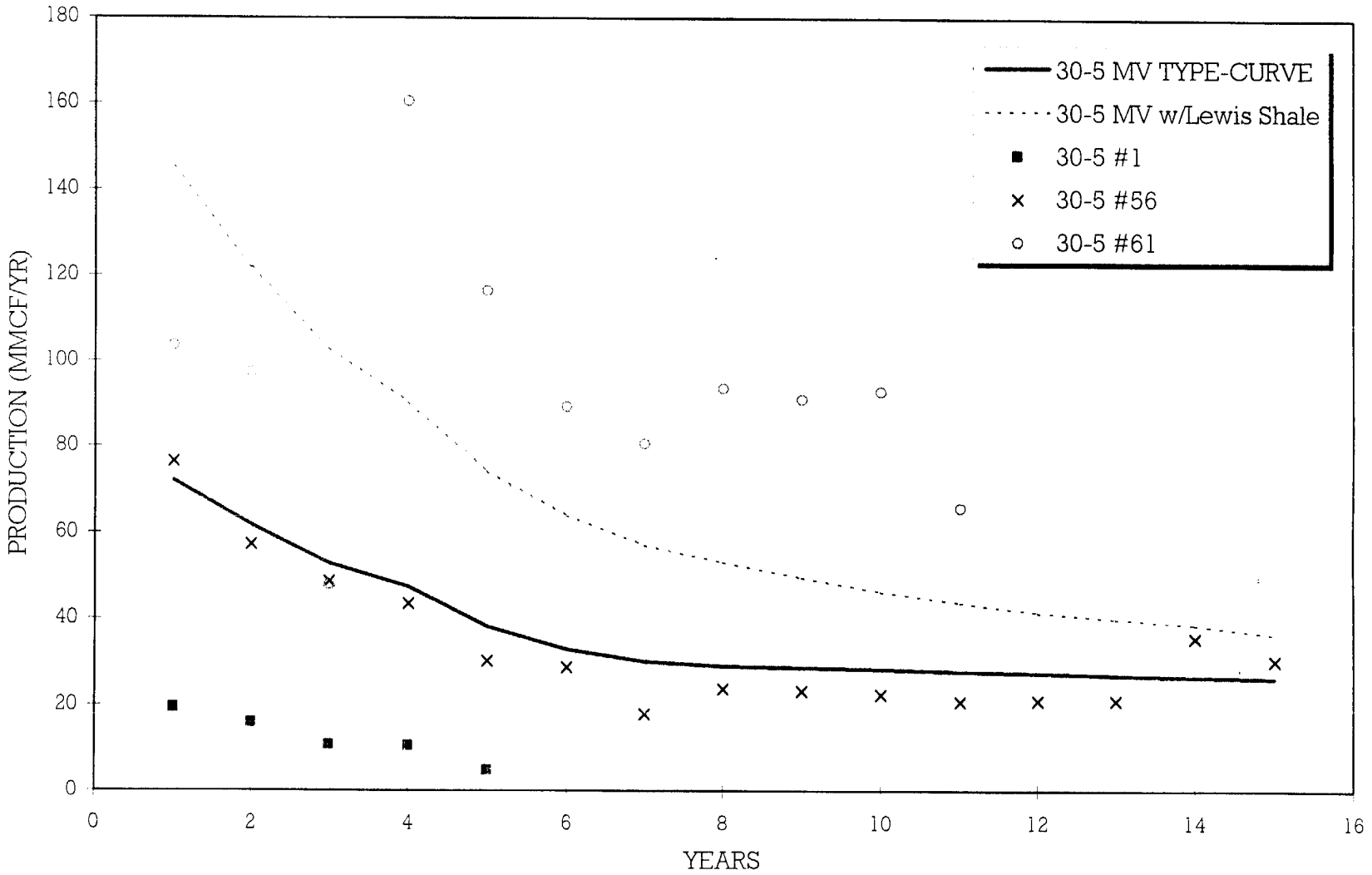
PA1=ICE PA2=Exit PF1=Help PF3=End PF5=INITIAL CUM PF11=GRAPH
Transfer-> PF7=Backward PF8=Forward PF10=GRAND MENU PF12=LOG GRAPH

Dakota Production Forecast for 30-5 Unit
Well #73

Year	Month	Gas (MCF)
Sept. 98	1	4,439
Oct	2	4,526
Nov	3	4,465
Dec	4	4,405
1999	5	4,346
Feb	6	4,287
Mar	7	4,229
Apr	8	4,173
May	9	4,116
Jun	10	4,061
Jul	11	4,006
Aug	12	3,953
Sep	13	3,899
Oct	14	3,847
Nov	15	3,795
Dec	16	3,744
Jan	17	3,694
Feb	18	3,644

Initial Rate = 150 MCF/D

30-5 UNIT MESAVERDE



30-5mvtc

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.

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