

ABOVE THIS LINE FOR DIVISION USE ONLY

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



2/8/96

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

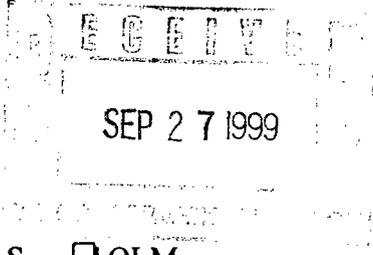
Check One Only for [B] or [C]

[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 H. Hutchinson
 Signature

Reservoir Engr.

Title

9/23/99

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

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

OIL CONSERVATION DIVISION

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

APPROVAL PROCESS:
 Administrative Hearing

EXISTING WELLBORE
 YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

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

San Juan 30-5 Unit 20A P, 28 30N, 5W Rio Arriba
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 017654 Property Code 009258 API NO. 30-039-26040 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	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: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 1030 (est.)	a.	a. 993
	b. (Original) 1294 (est.)	b.	b. 3412
6. Oil Gravity (° API) or Gas BTU Content	1030		990
7. Producing or Shut-in?			Producing
Production Marginal? (yes or no) * 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)	Yes		Yes
	Date: Rates:	Date: Rates:	Date: Rates:
	Date: estimate Rates: 435 mcf/d	Date: Rates:	Date: 8/31/99 Rates: 139 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 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-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 9/23/99

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

FD Form 1980, Hobbs, NMI 88241-1980
 District I
 811 South First, Artesia, NMI 88210
 District III
 1000 Rio Hondo Rd., Aztec, NMI 87410
 District IV
 2040 South Pacheco, Santa Fe, NMI 87505

ENERGY, MINERAL & ENVIRONMENTAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
 2040 South Pacheco
 Santa Fe, NM 87505

REVISED OCTOBER 16, 1994
 Instructions on back
 Submit to Appropriate District Office
 State Lease - 4 Copies
 Fee Lease - 3 Copies

RECEIVED
 11/23/98

AMENDED REPORT

COPIES - 3 PM 2:44

WELL LOCATION AND ACREAGE DEDICATION PLAT

* All Number 30-139-26-040		* Pool Code 72319	* Pool Name Blanco Mesavero, NM	
* Property Code 009258	* Property Name SAN JUAN 30-5 UNIT			* Well Number 20A
* UGRID No. 017654	* Operator Name PHILLIPS PETROLEUM COMPANY			* Elevation 6287'

¹⁰ Surface Location

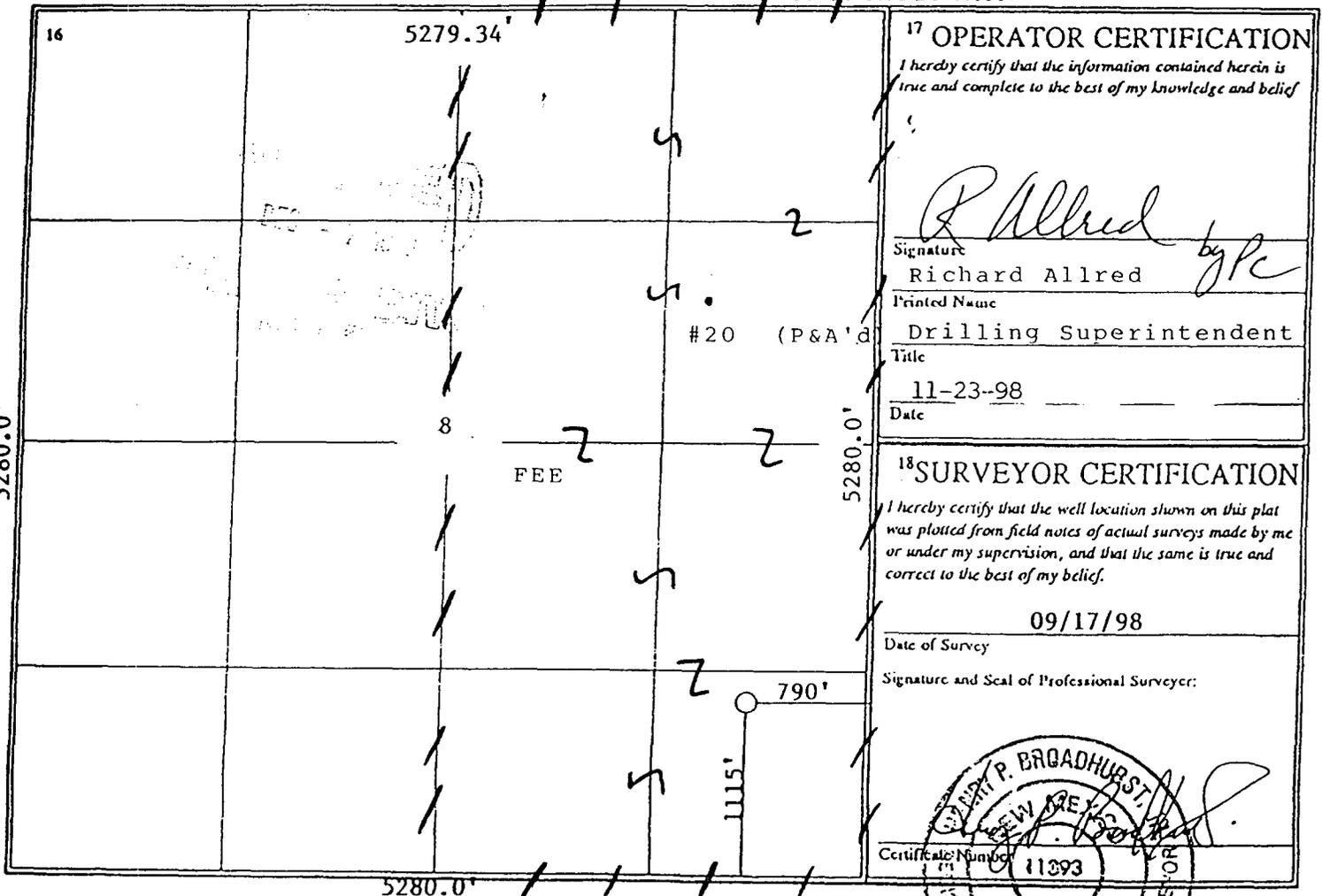
Ul, or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	30N	5W		1115'	SOUTH	790'	EAST	RIO ARriba

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
P									

* Dedicated Acres 320 E/2	* Joint or Infill Y	* Consolidation Code	* 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



¹⁷ OPERATOR CERTIFICATION

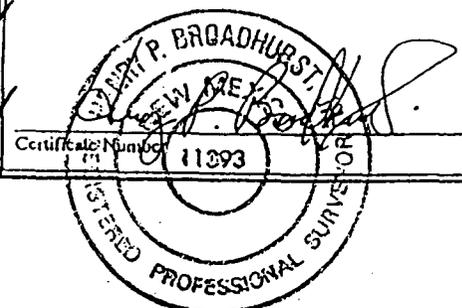
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Richard Allred
 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.

09/17/98
 Date of Survey
 Signature and Seal of Professional Surveyor:



ENR Dec 1980, Hobbs, NM 88240-4780
 Dist Set 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

OIL CONSERVATION DIVISION
 2040 South Pacheco
 Santa Fe, NM 87505

RECEIVED
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AMENDED REPORT
 09 DEC -3 PM 2:44

WELL LOCATION AND ACREAGE DEDICATION PLAT

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* Property Code 009258	* Property Name SAN JUAN 30-5 UNIT		* Well Number 20A
* OGRID No. 017654	* Operator Name PHILLIPS PETROLEUM COMPANY		* Elevation 6287'

10 Surface Location

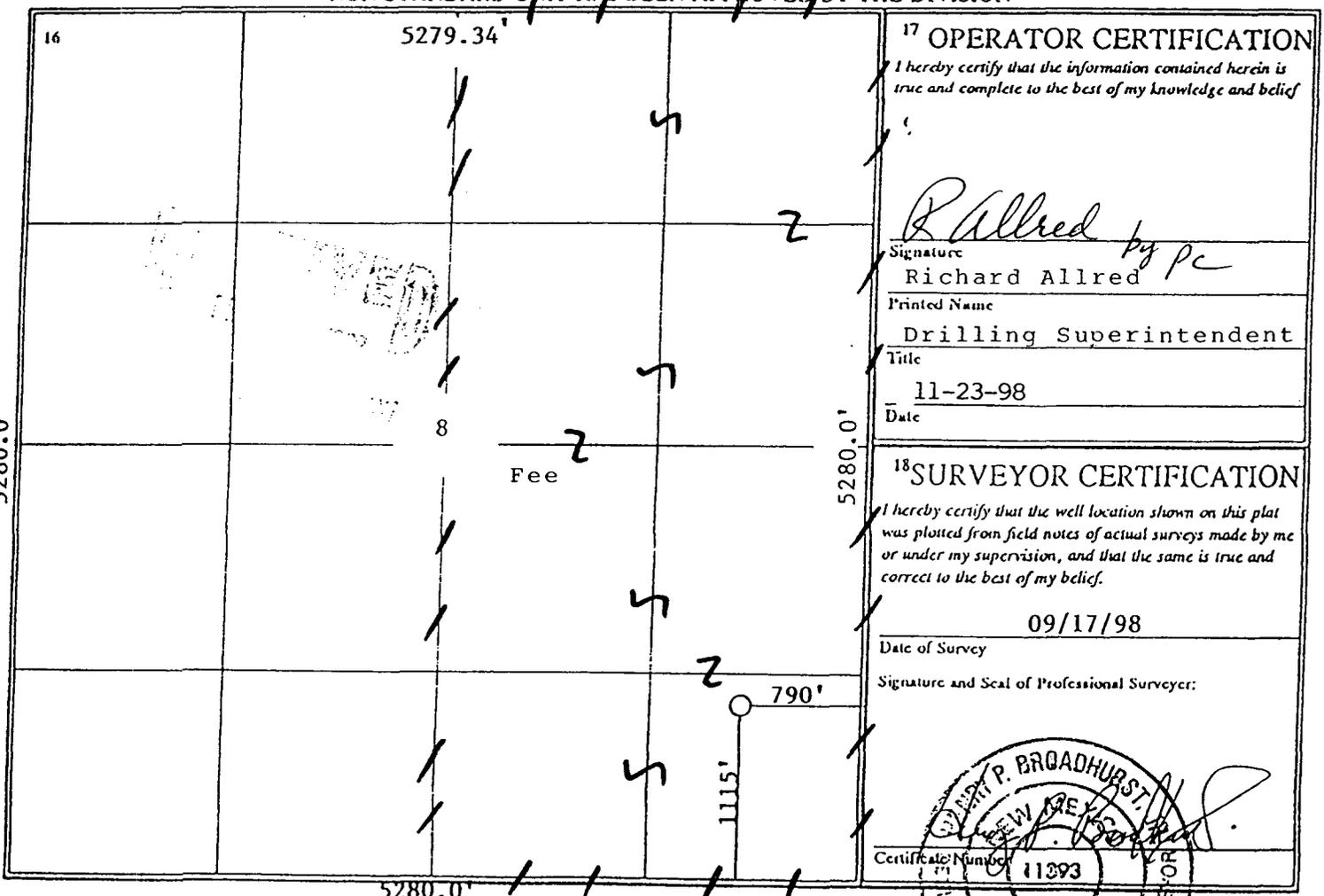
Ul. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	30N	5W		1115'	SOUTH	790'	EAST	RIO ARRIBA

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
P									

" Dedicated Acres 320 E/2	" Joint or Infill N	" Consolidation Code	" Order No.
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 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Richard Allred
 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.

09/17/98
 Date of Survey

Signature and Seal of Professional Surveyor:



PHILLIPS PETROLEUM COMPANY

FARMINGTON, NEW MEXICO 87401
5525 HWY. 64 NBU 3004

September 23, 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 #20A

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	3269	November 1999	2913
December 1999	2778	January 2000	2566
February 2000	2227	March 2000	2213
April 2000	1992	May 2000	1917
June 2000	1731	July 2000	1672
August 2000	1563	September 2000	1418

For example, if the total volume for November 1999 were 4473 mcf, then the Dakota would be allocated 2913 mcf and the Mesaverde 1560 mcf. And subsequently, the Dakota would be allocated $(2913/4473)$ or 65.2% and the Mesaverde would be allocated $(1560 / 4473)$ or 34.8%.

Sincerely,

PHILLIPS PETROLEUM COMPANY

Clint Hutchinson
Reservoir Engineer

CH/pc

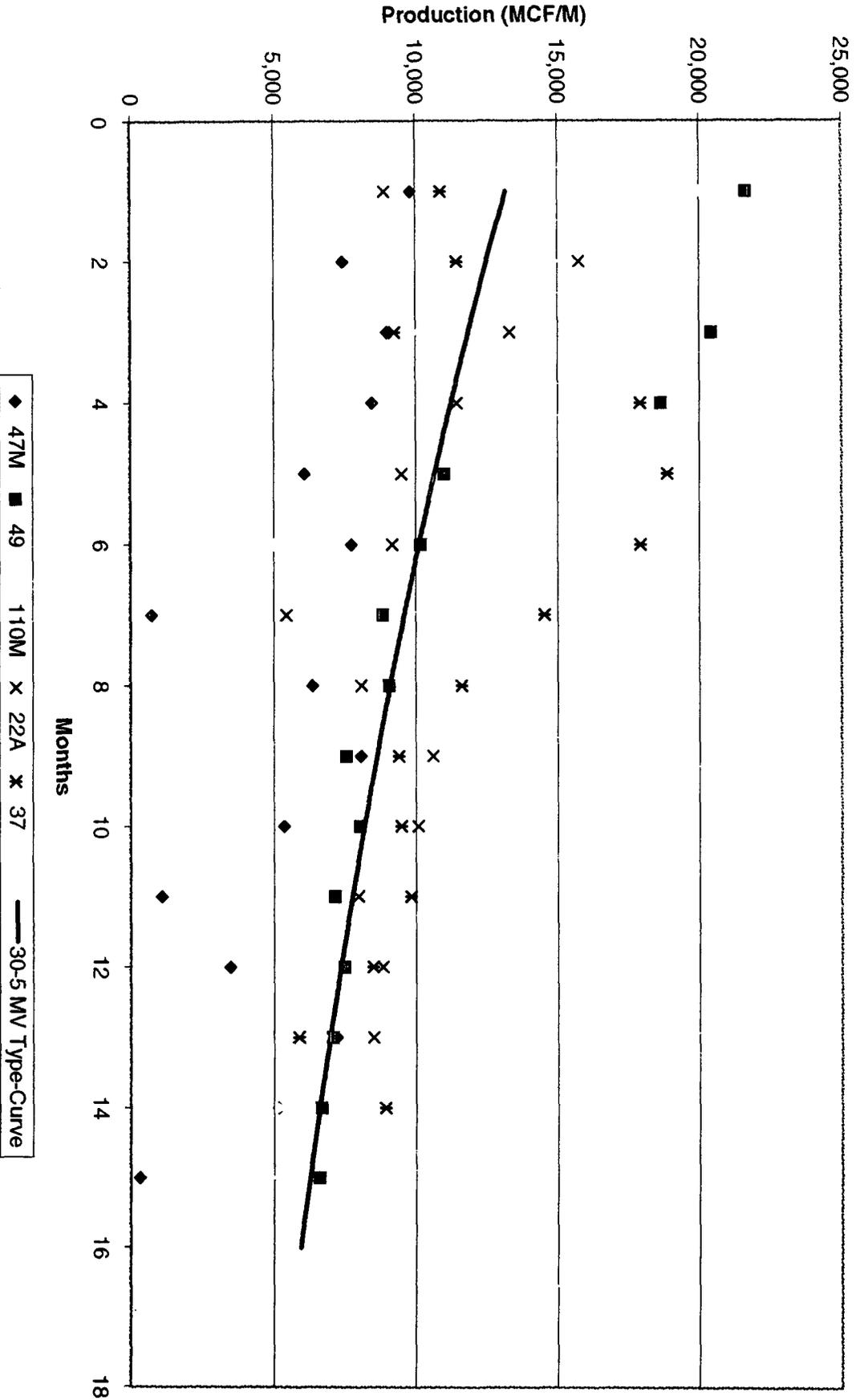
cc: OCD - Aztec
BLM - Farmington
NM Commissioner of Public Lands - Santa Fe

Dakota Production Forecast for 30-5 Unit
Well #20A

Year	Month	Gas (MCF)
Oct-99	1	3269
Nov-99	2	2913
Dec-99	3	2778
Jan-00	4	2566
Feb-00	5	2227
Mar-00	6	2213
Apr-00	7	1992
May-00	8	1917
Jun-00	9	1731
Jul-00	10	1672
Aug-00	11	1563
Sep-00	12	1418
Oct-00	13	1375
Nov-00	14	1251
Dec-00	15	1216
Jan-01	16	1144
Feb-01	17	977
Mar-01	18	1023

Initial Rate 110 MCF/D

30-5 Unit Mesaverde



M2Y67-01

PARPI - WELLZONE PRODUCTION BROWSE

Date: 9/23/99

MONTHLY TOTALS

User: #W9R

Wellzone F0642 01 Yr: 1999 Mth: 05 Property: 650402 SAN JUAN 30-5 DAKOTA
 Screen: 1 (1-Prod, 2-Inj, 3-Both) Well No: 000020A
 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	2,283	0	29.00	8	11	03	2	
* 1999-06	0.00	7,379	120	30.00	30	11	03	2	
* 1999-07	0.00	5,004	0	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

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

DATE: SEPTEMBER 1, 1999

WELL NAME: SAN JUAN 30-5 # 20A
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

TOTAL DEPTH: PBSD 7815'
PERFS: MP @ 7702'
TUBING SIZE: 2 3/8 TO 7767'
CASING SIZE: TO
PACKER:
OTHER: 1.81 SN @ 7734'
ENGAGED @ 12:00

CASING PRESSURE: 870
TUBING PRESSURE: 640
OIL LEVEL:
WATER LEVEL: 6726'
TEMPERATURE:
ELEMENT NO.
ELEMENT RANGE 0 TO 3000

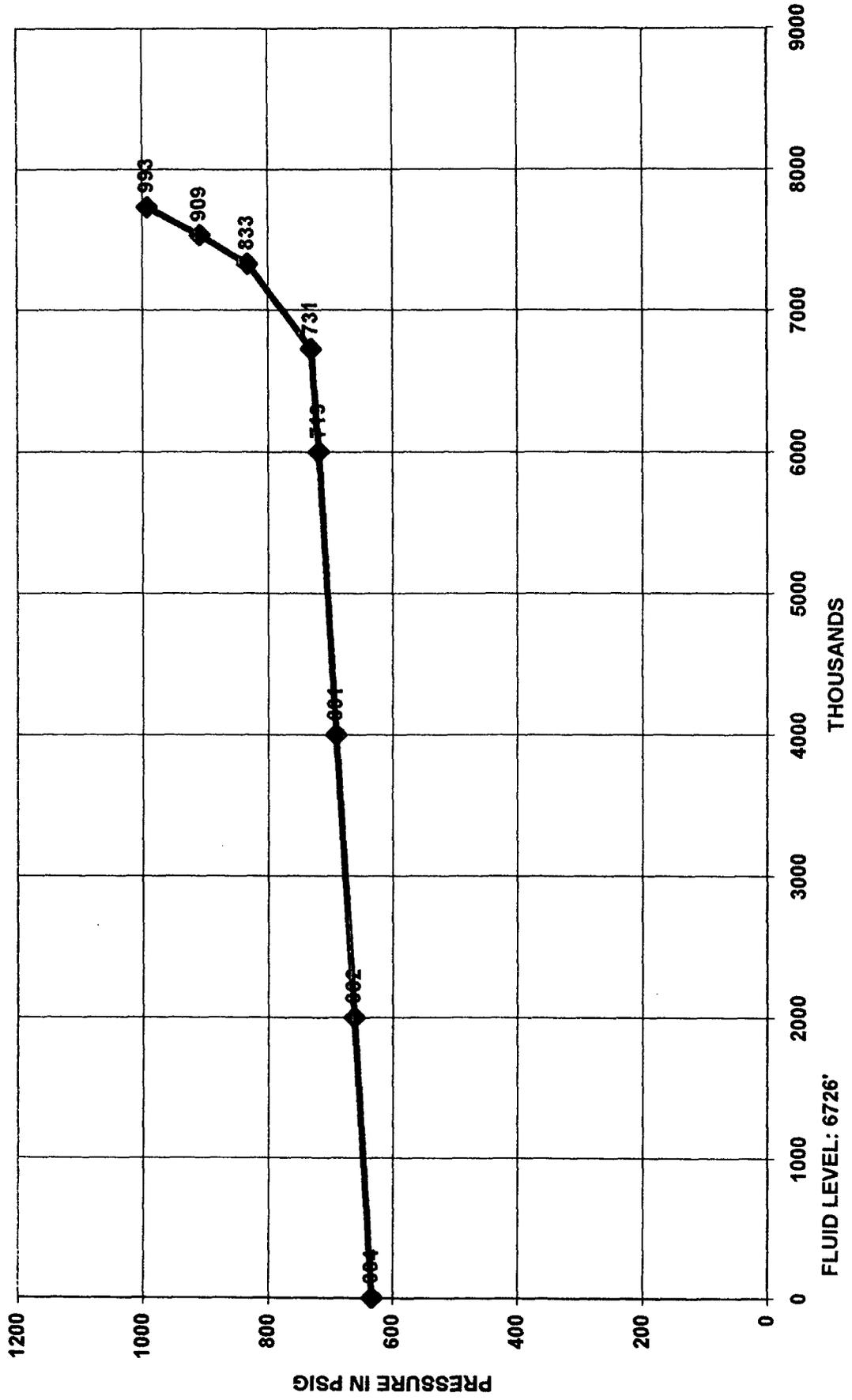
WELL STATUS: SHUT IN

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FOOT
0	634	
2000	662	0.014
4000	691	0.014
6000	719	0.014
7334	833	0.085
7534	909	0.380
7734	993	0.420

RAN TD @ 7809'

H & H WIRELINE SERVICE INC.
P. O. BOX 899
FLORA VISTA, NEW MEXICO 87415
OPERATOR: CHARLES HUGHES
UNIT NO. T-11

PHILLIPS PETROLEUM SAN JUAN 30-5 # 20A
DATE: SEPTEMBER 1, 1999



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