DHC 10/27/97

RECEIVED
OCT - 7 1997
CONSERVATION DIVISION

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
XYES __NO

1719

APPLICATION FOR DOWNHOLE COMMINGLING

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

San Juan 30-5 Unit — Lease
#110M — Well No.
E — Unit Ltr. - Sec - Twp - Rge
Sec. 16 T30N, R5W, Rio Arriba — County

OGRID NO. 017654 Property Code 009258 API NO. 30-039-25658 Spacing Unit Lease Types: (check 1 or more) Federal ___, State X, (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)			7740' 7859'
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) 1156 psig b. 3412 psi (est.)
6. Oil Gravity (°API) or Gas BTU Content	1030 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: 420 mcfd	Date: Rates:	Date: 9/10/97 Rates: 382 mcfd 0 bwpd
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 (see attached)

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 Staff Reservoir Engineer DATE 9-25-97

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

District I
PO Box 1980, Hobbs, NM 88241-1980
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811 South First, Artesia, NM 88210
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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
30-039-25658	72319	Blanco Mesaverde

⁴ Property Code	⁵ Property Name	⁶ Well Number
009258	SAN JUAN 30-5 UNIT	110M

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
017654	PHILLIPS PETROLEUM CO.	6346

¹⁰ Surface Location

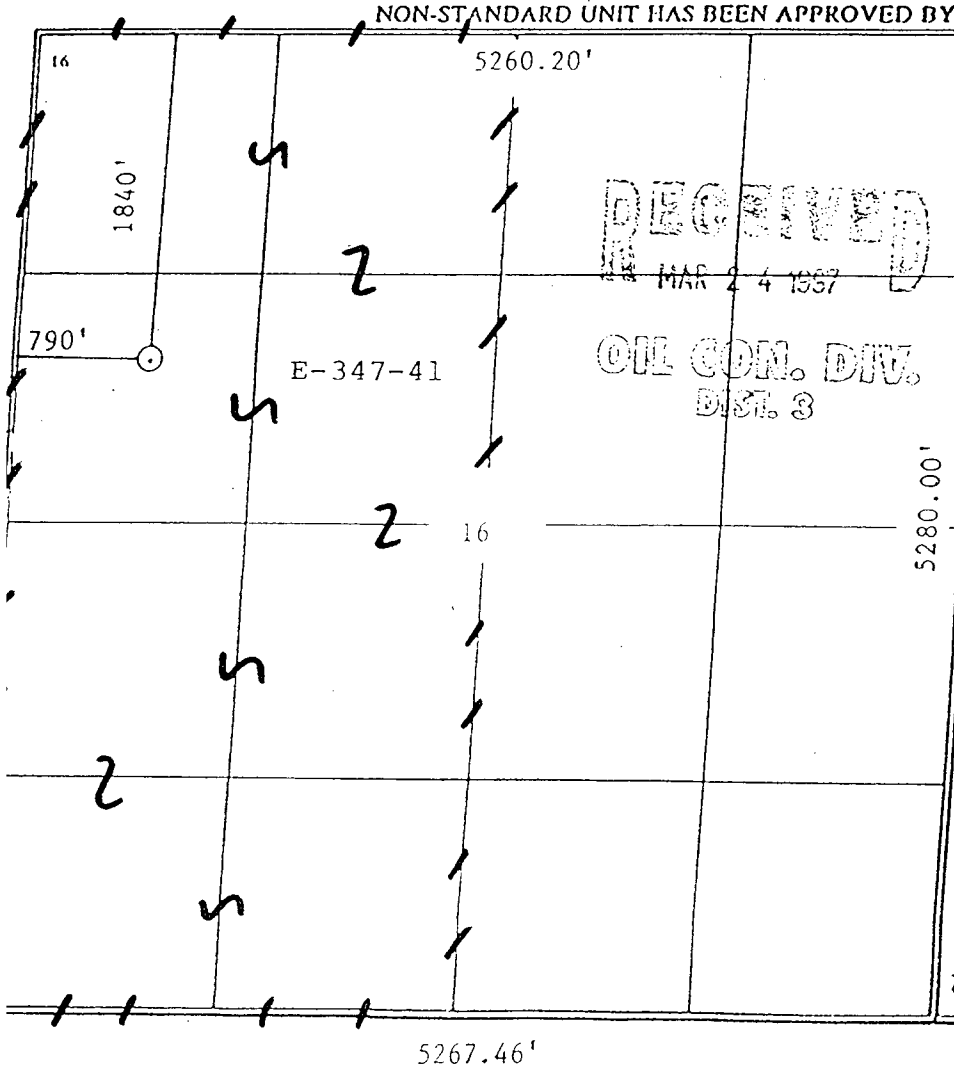
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	16	30N	5W		1840	NORTH	790	WEST	RIO ARRIBA

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
E									

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



RECEIVED
MAR 24 1997
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

R A Allred
Signature

R. A. Allred
Printed Name

Drilling/Production Spvr
Title

March 18, 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 Surveyor

HENRY P. BROADHURST
NEW MEXICO
11393
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

District I
PO Box 1980, Hobbs, NM 88241-1980
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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
30-039-25658	71599	Basin Dakota

⁴ Property Code	⁵ Property Name	⁶ Well Number
009258	SAN JUAN 30-5 UNIT	110M

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
017654	PHILLIPS PETROLEUM CO.	6346

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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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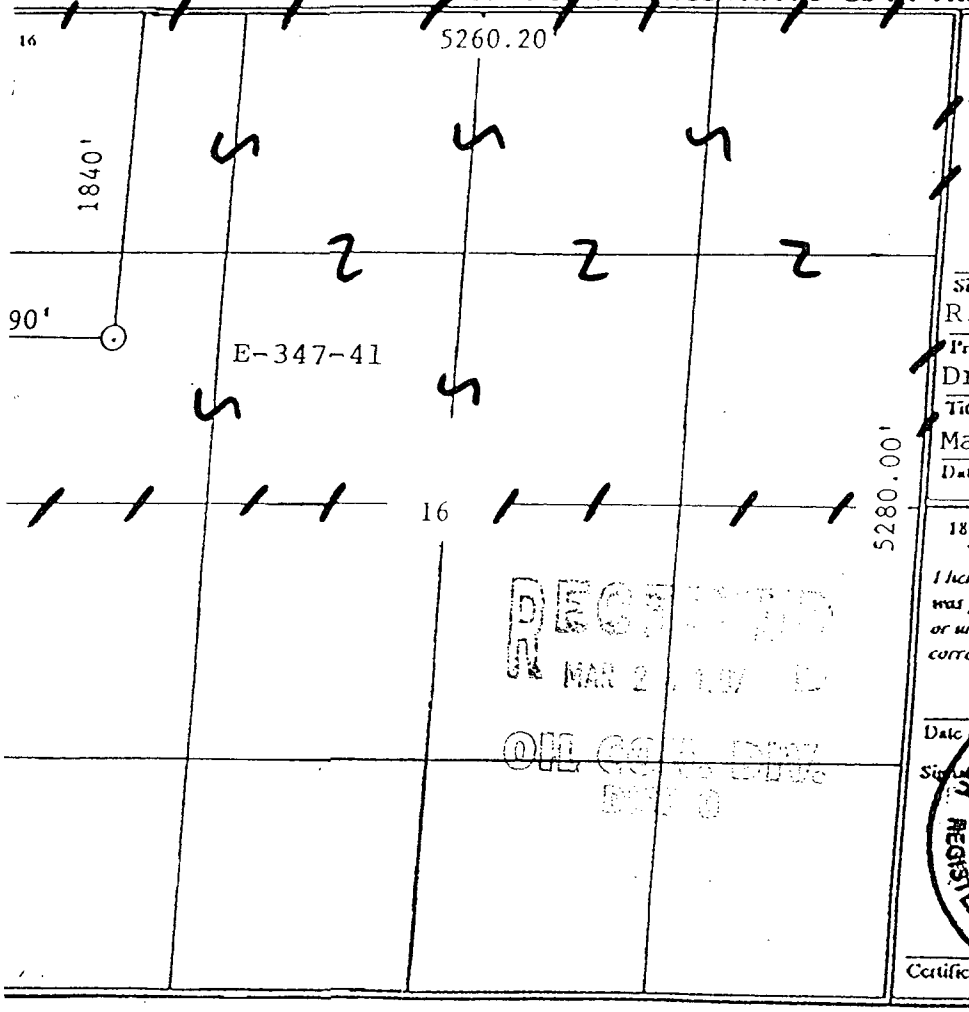

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Signature
R. A. Allred
Printed Name
Drilling/Production Spvr
Title
March 18, 1997
Date

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Date of Survey
Signature and Seal of Professional Surveyor
HENRY P. BROADHURST
NEW MEXICO
11393
REGISTERED PROFESSIONAL LAND SURVEYOR
Certificate Number

RECEIVED
MAR 2 1 '97
OIL CON. DIV.
DIST. 3

PHILLIPS PETROLEUM COMP[illegible]Y
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO [illegible]7401

DATE: SEPTEMBER 16, 1997

WELL NAME: SAN JUAN [illegible] # 110M
FORMATION: DAKOTA

TYPE TEST: STATIC GRADIENT

COUNTY: RIO ARRIBA
STATE: NEW MEXICO

ELEVATION: GL
TOTAL DEPTH: PBTD 777[illegible]
PERFORATIONS: MID PE[illegible] 7800'
TUBING SIZE: 2 3/8 [illegible] 7711'
CASING SIZE: "
PACKER:
OTHER: F NIPPLE @ 7680'

CASING PRESSURE: 970
TUBING PRESSURE: 970
OIL LEVEL:
WATER LEVEL:
TEMPERATURE:
AMERADA ELEMENT NUMBER: 45876
RANGE: 0-3000
WELL STATUS: SHUT IN
25 HOURS 15 MIN.

INDIVIDUAL WELL DATA SH[illegible]

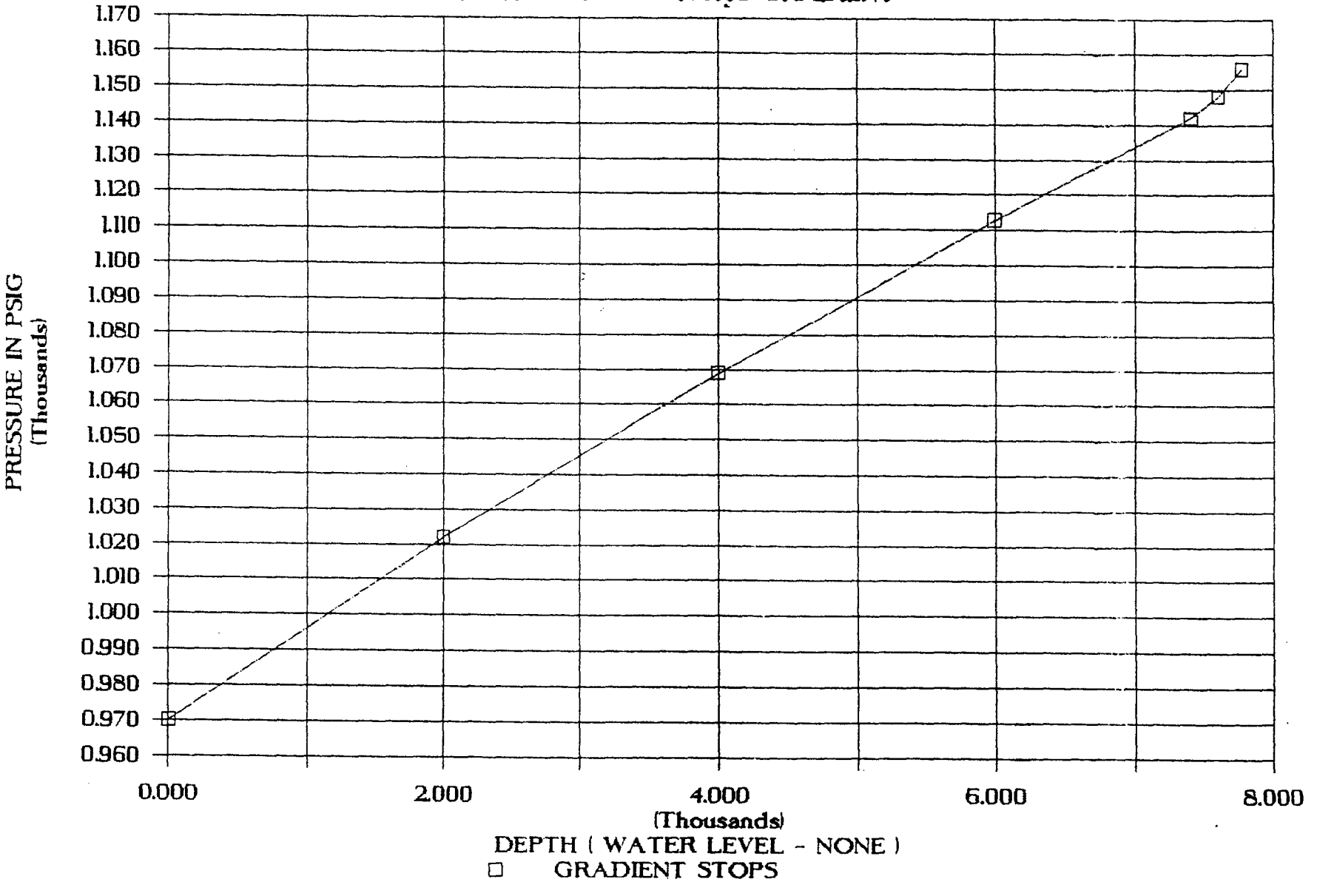
FLOWING GRADIENT TRAVE[illegible]

DEPTH IN FEET	PRESSURE PSIG	GRADIENT PSI/FT
0	970	
3000	1022	0.026
4000	1069	0.023
6000	[illegible]	0.027
7400	[illegible]	0.020
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

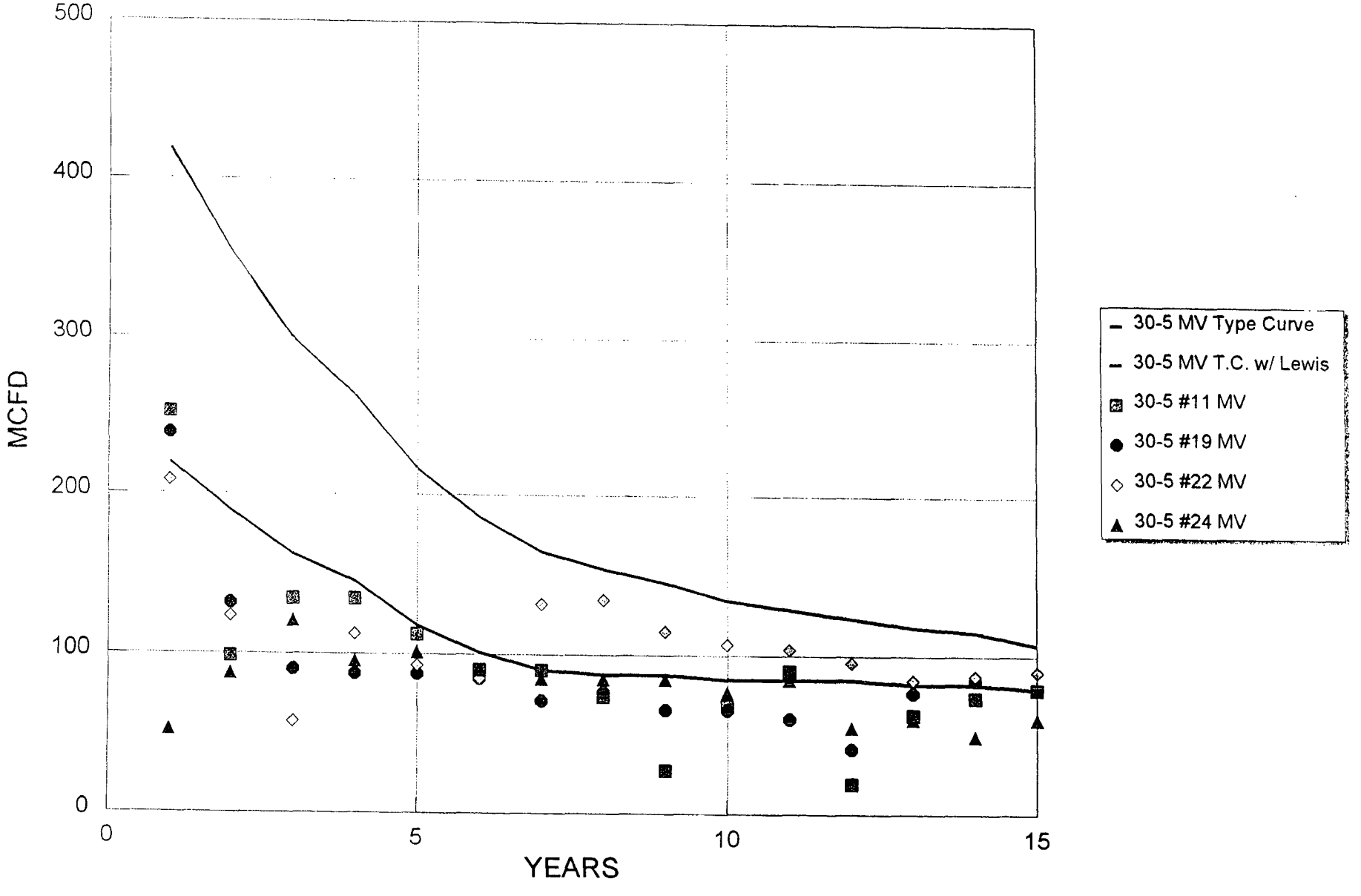
H & H WIRELINE SERVICE
P. O. BOX 899
FLORA VISTA, N. MEX. [illegible]
OPERATOR: [illegible]
[illegible]

PHILLIPS PETROLEUM SAN JUAN 30-5 # 110M

DATE: 09-16-97 STATIC GRADIENT



SAN JUAN 30-5 UNIT
MESAVERDE



Production Allocation Methodology

- New drill wells - Fixed Allocation Method
  Allocate production to each zone based on initial stabilized production rate from each zone.

  - Measure initial stabilized flow rate from lower zone producing into sales line.

  - Measure initial stabilized flow rate from both zones commingled producing into sales line.

  - Lower zone allocation = Lower zone rate / Commingled rate

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

  - Example: Lower zone rate - 400 MCFD
    Commingled rate - 1,000 MCFD

    Lower zone allocation = 400/1,000
    = 40%

    Upper zone allocation = (1,000-400)/1,000
    = 60%

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.