

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:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Address 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Lease Jicarilla 22 Well No 6 Section 22, T-25-N, R-4-W, A Rio Arriba County

OGRID NO. 005073 Property Code 003203 API NO. 30-039-20442 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	Blanco Mesaverde 72319		Lindrieth Gallup-Dakota, West 39189
2. TOP and Bottom of Pay Section (Perforations)	5702-5884'		6835-7990'
3. Type of production (Oil or Gas)	Gas		Oil
4. Method of Production (Flowing or Artificial Lift)	To pump		Artificial Lift
5. Bottomhole Pressure	a (Current)		a.
Oil Zones - Artificial Lift: Estimated Current	583		860
Gas & Oil - Flowing: Measured Current	b(Original)		b.
All Gas Zones: Estimated Or Measured Original	1314		2644
6. Oil Gravity (*API) or Gas BT Content	1269		1269
7. Producing or Shut-In?	To be Completed		Producing
Production Marginal? (yes or no)	Yes		Yes
• If Shut-In give date and oil/gas/water rates of last production	Date Rates	Date Rates	Date Rates
Note For new zones with no production history applicant shall be required to attach production estimates and supporting data			
• If Producing date and oil/gas/water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	Production to be allocated by subtraction - See attached table		Est 7/98 40 MCFD, 1.1 BOPD, 0 BWPD
8. Fixed Percentage Allocation Formula - % or each zone	% Gas %	% Gas %	% 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 others ☒ 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). \_\_\_\_\_

16. ATTACHMENTS

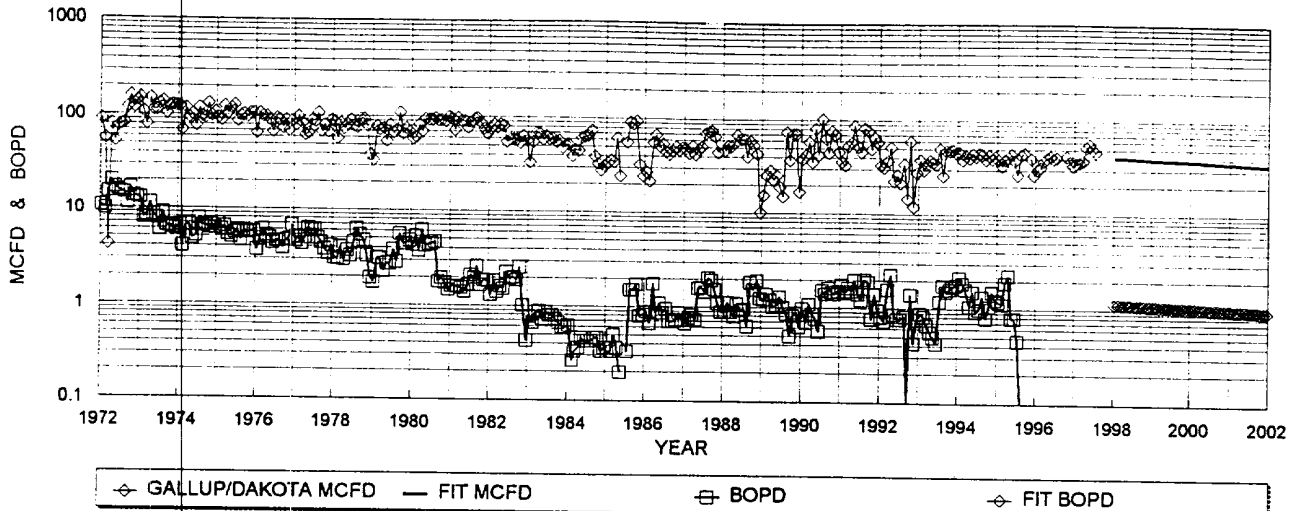
- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support 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 Kay Maddox TITLE Regulatory Agent DATE February 16, 1998

TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

**JICARILLA 22 NO. 6 GALLUP/DAKOTA PRODUCTION  
SECTION 22A-25N-04W**



**GALLUP DAKOTA HISTORICAL DATA: 1ST PROD: 01/72**

OIL CUM: 26.04 MBC  
 GAS CUM: 596.0 MMCF  
 CUM OIL YIELD: 0.0437 BBL/MCF  
 OIL YIELD: 0.0116 BBL/MCF, LAST 3 YRS  
 AVG. USED: 0.0277 BBL/MCF

**PROJECTED DATA**

7/1/98 Qi: 40 MCFD  
 DECLINE RATE: 4.6% (EXPONENTIAL)

**PRODUCTION FORECAST FOR SUBTRACTION METHOD COMMINGLE ALLOCATION**

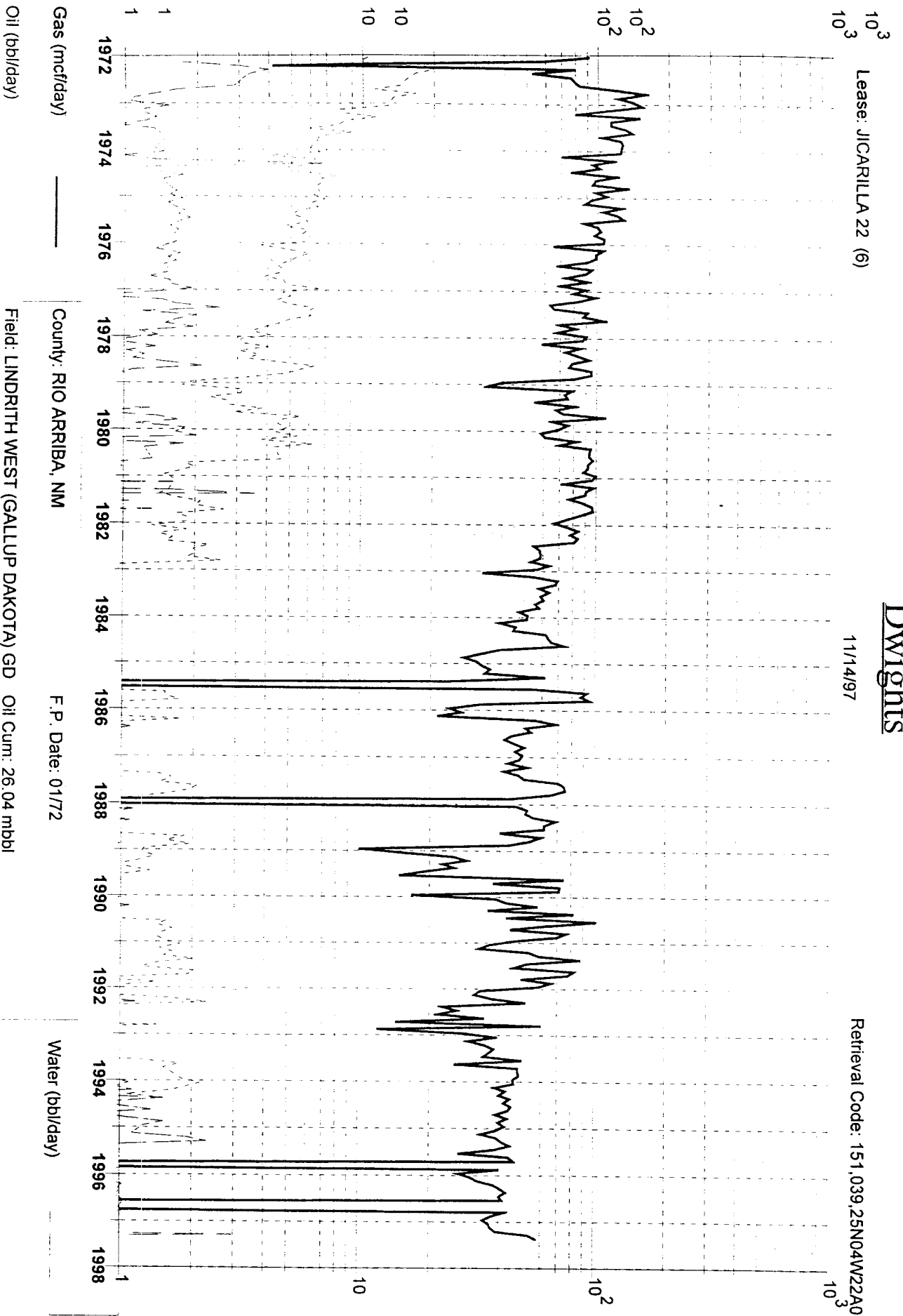
YEAR	MID-YEAR AVG. MCFD	MID-YEAR AVG. BOPD
1998	40	1.1
1997	38	1.1
1996	36	1.0
1995	35	1.0
2000	33	0.9
2001	32	0.9
2002	30	0.8
2003	29	0.8
2004	27	0.8
2005	26	0.7
2006	25	0.7
2007	24	0.7
2008	23	0.6
2009	22	0.6
2010	21	0.6
2011	20	0.5
2012	19	0.5
2013	18	0.5
2014	17	0.5
2015	16	0.5
2016	16	0.4
2017	15	0.4
2018	14	0.4
2019	13	0.4
2020	13	0.4
2021	12	0.3
2022	12	0.3
2023	11	0.3
2024	11	0.3
2025	10	0.3
2026	10	0.3
2027	9	0.3
2028	9	0.2
2029	8	0.2
2030	8	0.2

# Dwights

Lease: JICARILLA 22 (6)

11/14/97

Retrieval Code: 151,039,25N04W22A00GD



County: RIO ARriba, NM

F.P. Date: 01/72

Field: LINDRITH WEST (GALLUP DAKOTA) GD

Oil Cum: 26.04 mbbl

Reservoir: GALLUP DAKOTA

Gas Cum: 593.1 mmcf

Operator: CONOCO INC

Location: 22A 25N 4W

District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd. Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe. NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102

Revised February 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

API Number 30-039-20442		2 Pool Code 72319	3 Pool Name Blanco Mesaverde
4 Property Code 003203	5 Property Name Jicarilla 22		6 Well Number #6
7 OGRID No. 005073	8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500		9 Elevation 7112' GL

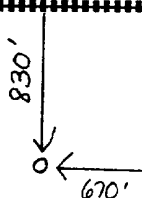
## 10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	22	25N	4W		830	North	670	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
12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code		15 Order No.					

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

16					<b>17 OPERATOR CERTIFICATION</b>	
					I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
					Signature <u>Kay Maddox</u>	
					Printed Name <u>Kay Maddox</u>	
Title <u>Regulatory Agent</u>		Date <u>2/16/98</u>				
					<b>18 SURVEYOR CERTIFICATION</b>	
					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:	
					Certificate Number	

# NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator <b>CONTINENTAL OIL COMPANY</b>		Lease <b>JICARILLA 22</b>		Well No <b>6</b>
Unit Letter <b>A</b>	Section <b>22</b>	Township <b>25 NORTH</b>	Range <b>4 WEST</b>	County <b>RIO ARriba</b>
Actual Footage Location of Well:				
<b>830</b>	feet from the	<b>NORTH</b>	line and	<b>670</b>
			feet from the	<b>EAST</b>
Ground Level Elev <b>7112.0</b>	Producing Formation	Pool	Dedicated Acreage	
				Acres

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

( ) Yes ( ) No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually 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.

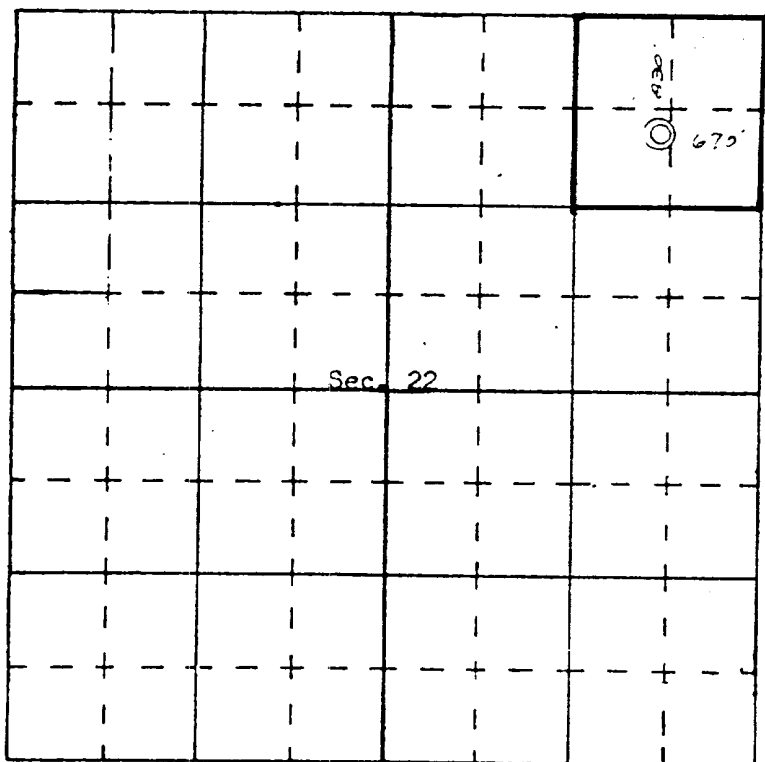
Name \_\_\_\_\_  
Position \_\_\_\_\_  
Company \_\_\_\_\_  
Date \_\_\_\_\_

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.

**20 November, 1971**  
Date Surveyed  
*James P. Lease*  
Registered Professional Engineer  
and/or Land Surveyor

**JAMES P. LEASE**

**1463**  
Certificate No.



N

SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

Conoco, Inc.  
Jicarilla 22 #6  
Section 22, T-25-N, R-4-W, A  
Rio Arriba County, New Mexico

Re: Application for Downhole Commingling

Offset Operators:

Burlington Resources Oil & Gas  
PO Box 4289  
Farmington, New Mexico 87499

Robert L. Bayless  
PO Box 168  
Farmington, New Mexico 87499

Chace Oil Co. Inc.  
5577 S Lewis  
Tulsa, Oklahoma 74105

M&W Petroleum Corp.  
200 Post Oak Blvd Ste 100  
Houston, Tx 77056-4400

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jicarilla 22 #6

1. The individual production zones will be tested every three years, or more often if production rates indicate a change to allocation factors, to verify that the allocation factors and methods remain proper.
2. Production from downhole commingled wells are to be reported with an alpha character, "C" (ie C1, C2, etc).
3. The following modifications to your downhole commingling program are to be made :

None

## **Jicarilla #22-6**

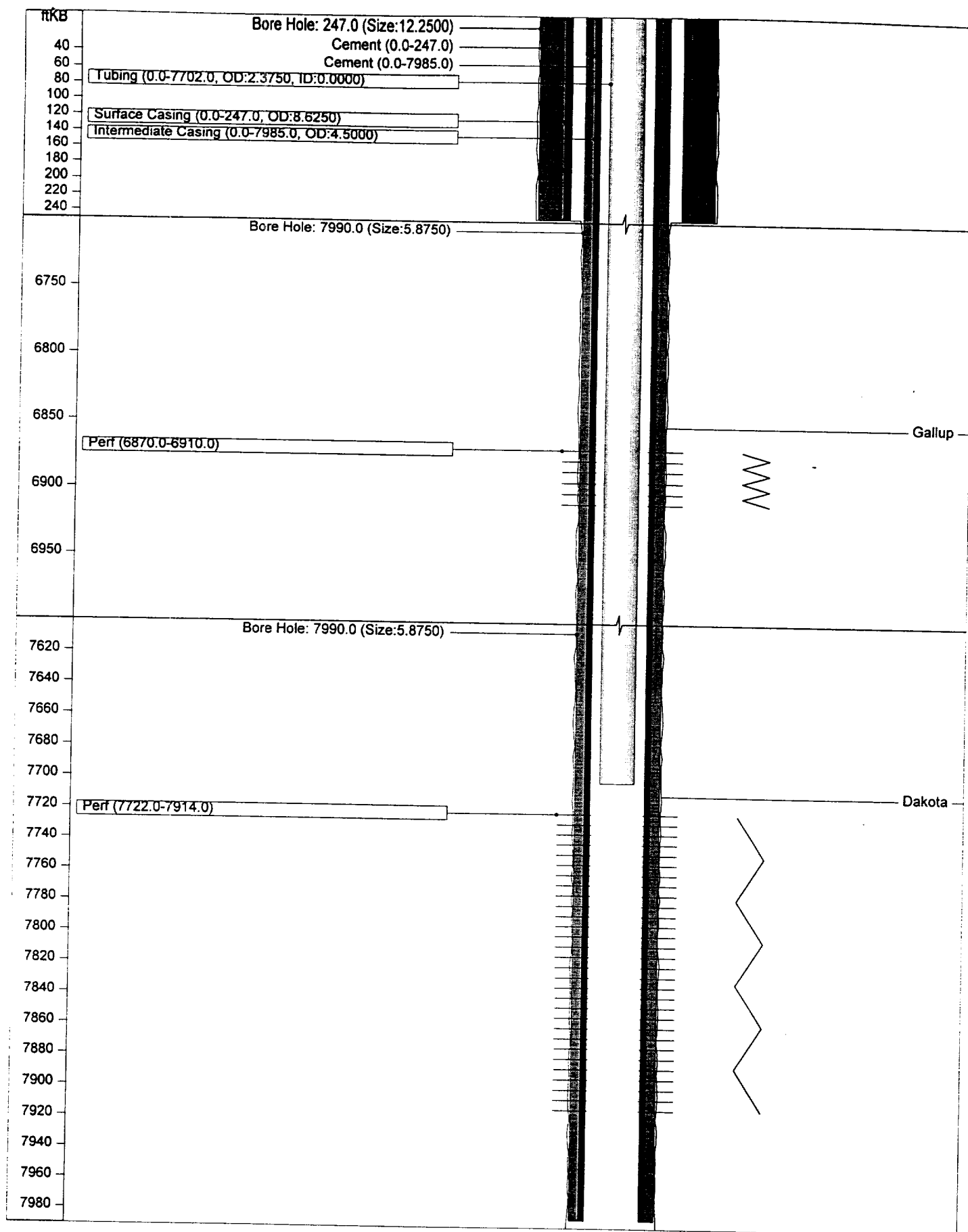
### **Economic Evaluation**

The subject wellbore has 4.5" casing (ID of 3.957"). It is physically impossible to install 2 strings of tubing in the wellbore to produce each zone separately.

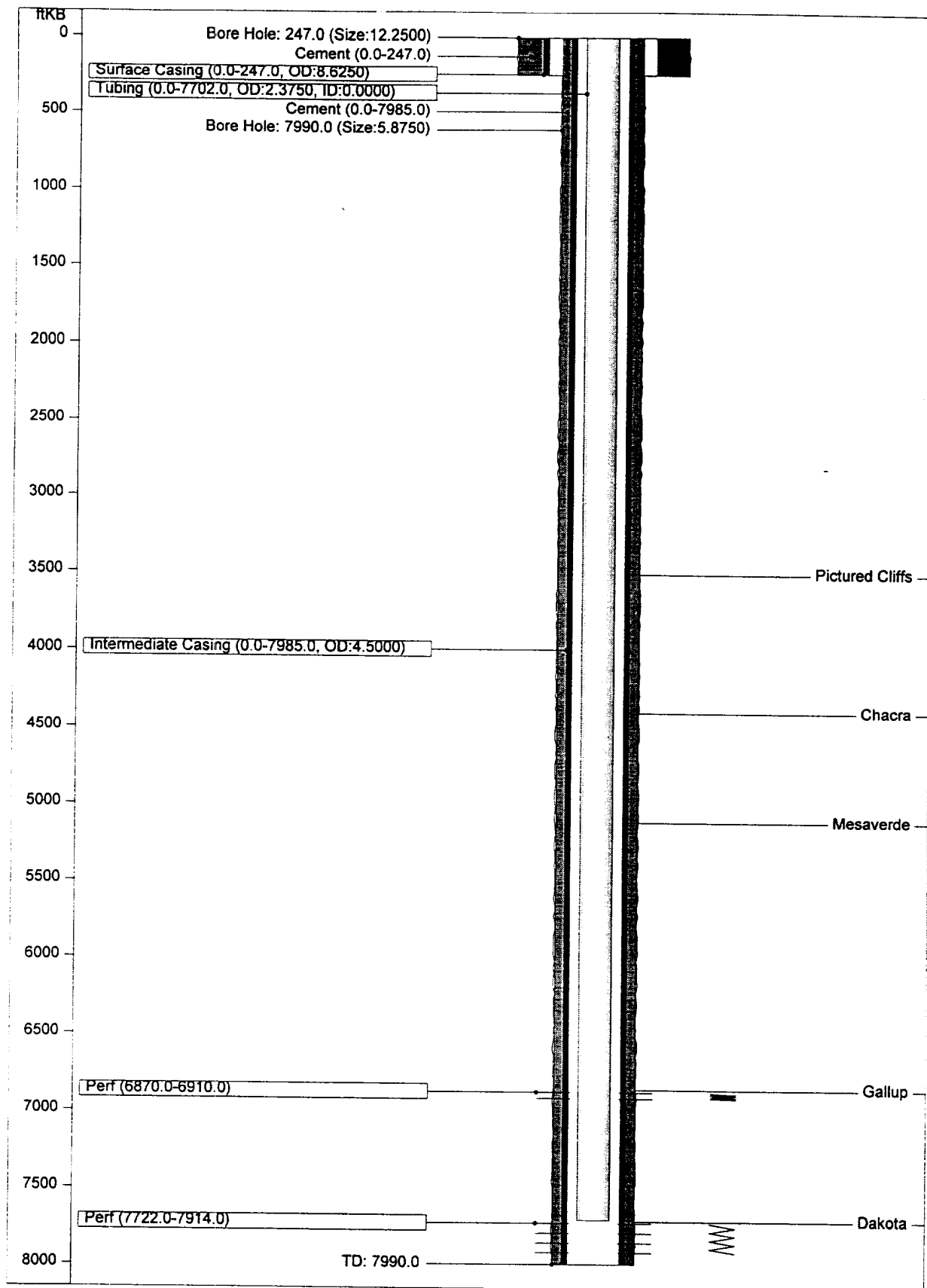
Production from each of the two zones (Gallup/Dakota & Mesa Verde) is marginal and artificial lift equipment (plunger lift) will be required to remove fluids from the wellbore in order to produce the well at the most efficient rate. The use of 2.375" tubing is the preferred size of tubing to install and operate plunger lift systems in.



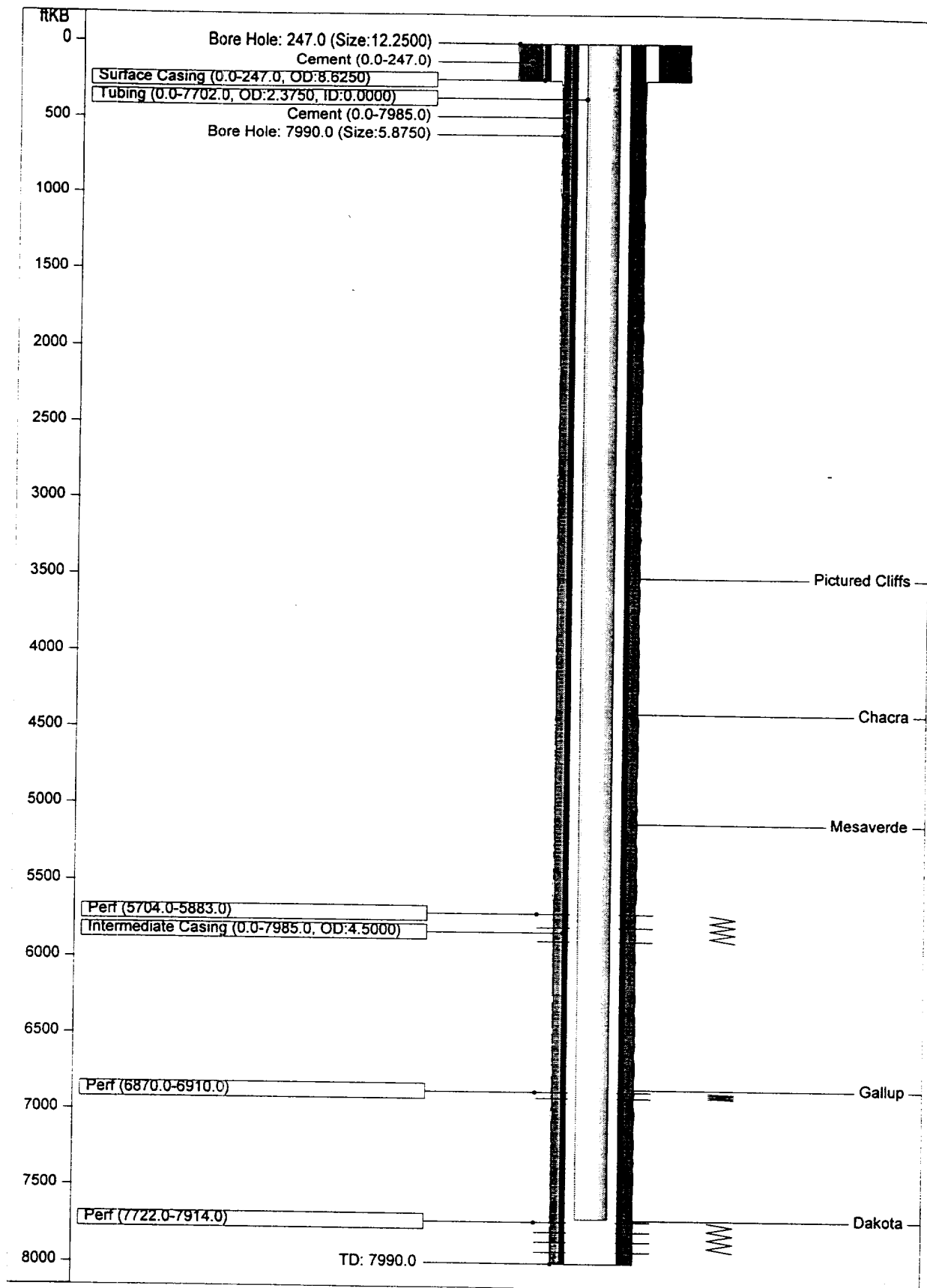
# JICARILLA 22 6



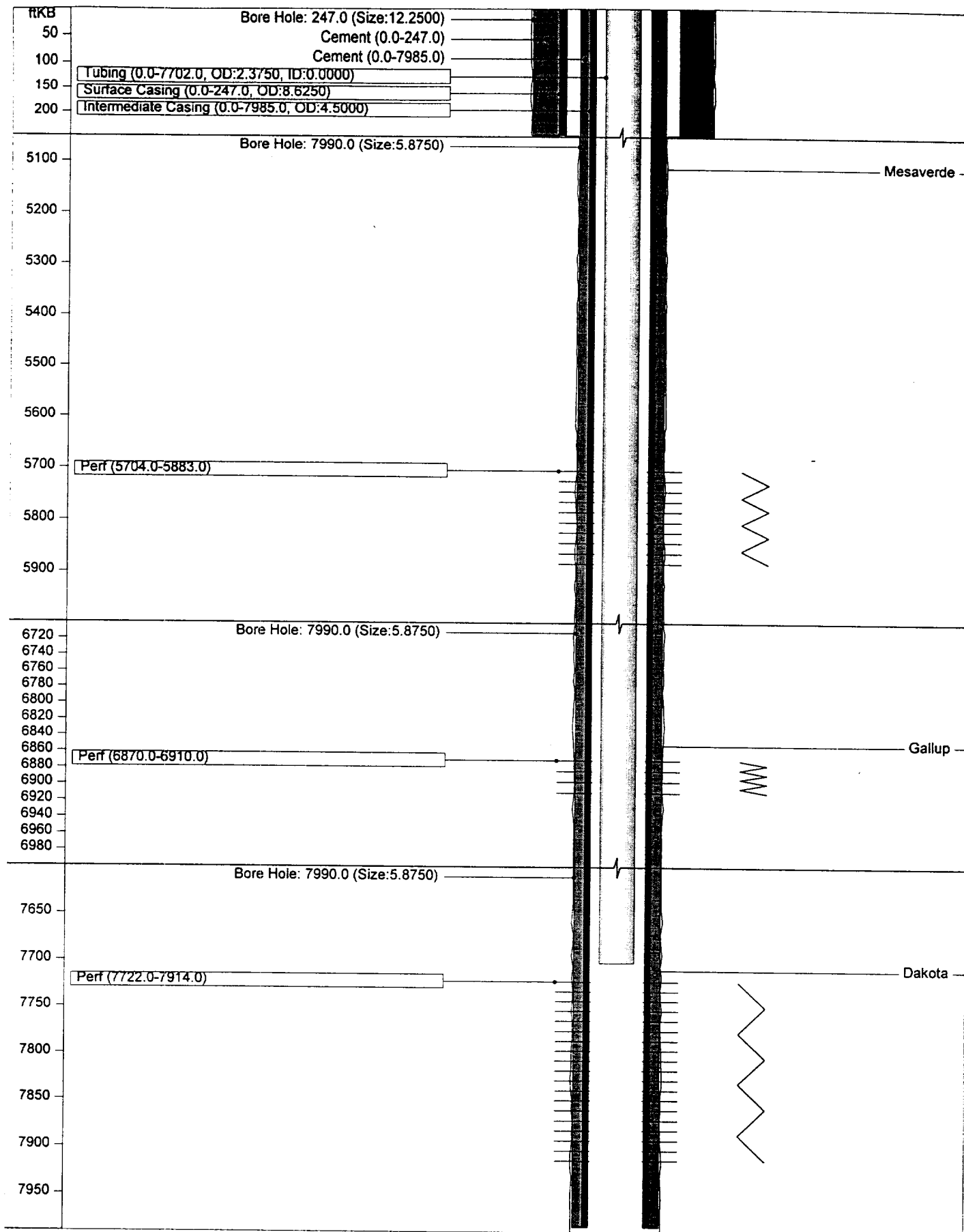
# JICARILLA 22 6



# JICARILLA 22 6 - Proposed



# JICARILLA 22 6 - Proposed

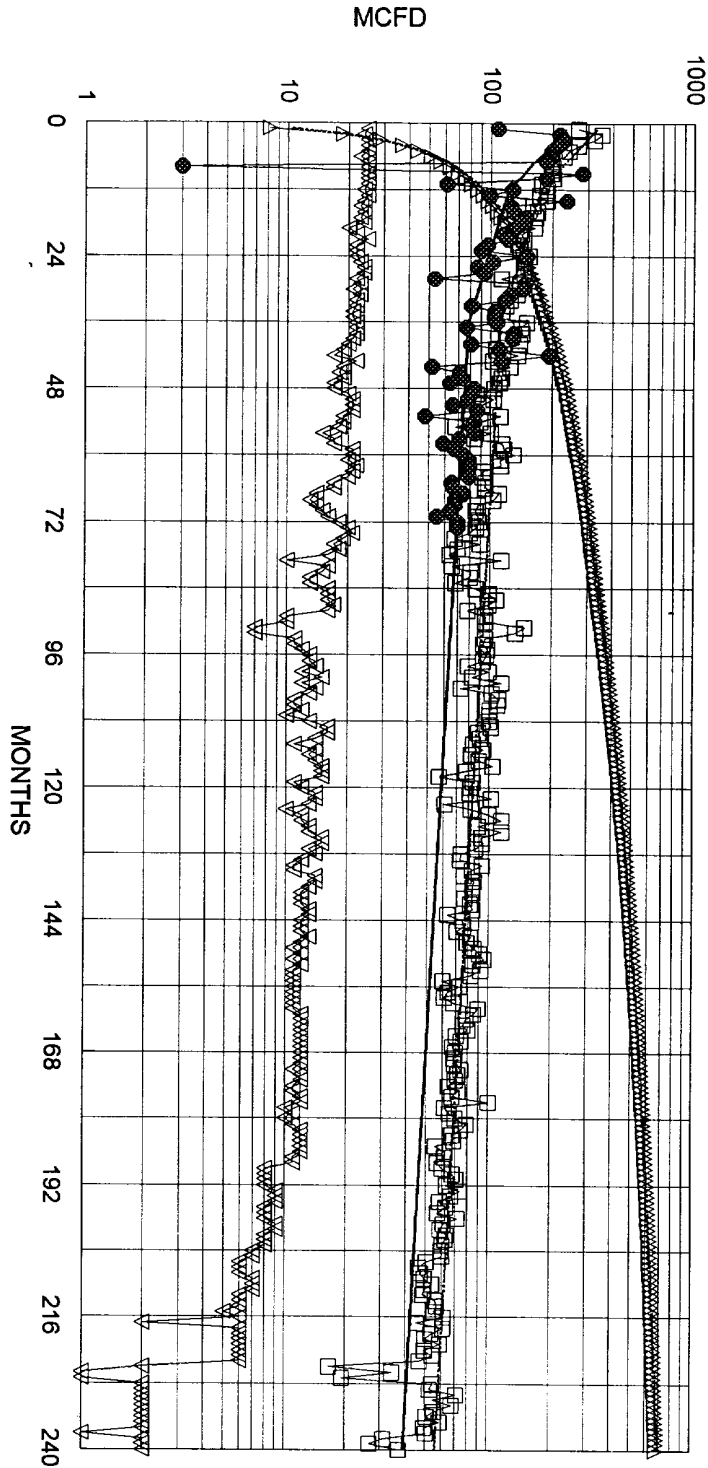


## **Economic/Rate Justification (Generic)**

Approval is requested to recomplete the subject well to the Blanco Mesaverde and commingle with existing producing horizons. Expected rate and recovery from the Mesaverde is illustrated on the attached "Normalized Mesaverde Production" plot. This plot (attached to C107A form) is constructed from the more recent offset Mesaverde production data and provides a good estimate of the performance of the subject well. Clearly, the expected risked reserves are not sufficient to justify drilling a new, grass roots well. To prevent waste, these reserves must be accessed by the subject wellbore.

Production from the existing zones is established by ample production history. A production plot is attached that shows past and best-fit projections of future production for the existing zones. A table showing estimated future production for each existing zone is attached. This table (attached to C107A form) will be used to allocate commingled production to the new Mesaverde zone by the subtraction method (existing production shown on the table attached to the C107A will be subtracted from total metered production after adding the Mesaverde zone; the balance will be reported as Mesaverde production).

**25N 4W NORMALIZED MESAVERDE PRODUCTION**  
**25 WELLS SINCE 1975; AXI APACHE M.N.O AND OLD JICARILLA LEASES**



— FIT MCFD      □ NORMALIZED MCFD      ▲ NORM CUM MMCF      ▼ WELLS ON PRODUCTION  
--- FIT CUM MMCF      — RISKED MCFD      ◆ 4 JIC. 22 LEASE WELLS

NORMALIZED AVG:

1018 MMCF EUR  
698 MMCF IN 20 YRS  
20 MCFD E.L.  
0.0084 bbl/mcf oil yield

RISKED AVG:

350 MCFD IP  
50% DECLINE, 1ST 12 MONTHS  
20% DECLINE, NEXT 24 MONTHS  
4.0% FINAL DECLINE

30% RISK

659 MMCF EUR      245 MCFD IP  
489 MMCF IN 20 YR      50.0% DECLINE, 1ST 12 MONTHS  
20 MCFD E.L.      20.0% DECLINE, NEXT 24 MONTHS  
0.0084 bbl/mcf oil yield      4.0% FINAL DECLINE