DISTRICT

rO Box 1980, Hobbs, NM 88241 1980

State of New Mexico Energy, Minerals and Natural Rasources Department

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

OIL CONSERVATION DIVISION

<u>BITRICT II</u>

Conoco Inc.

811 Southl First St. Artesia NM 88210 2835

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

APPROVAL PROCESS

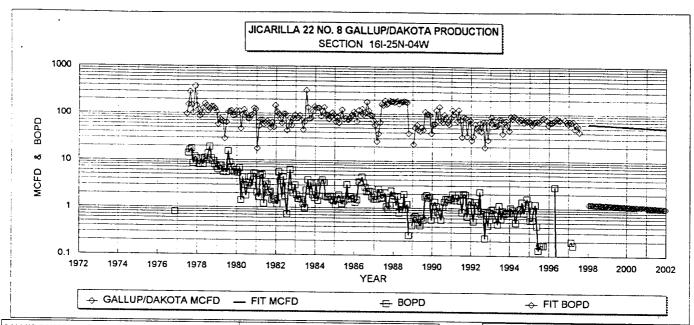
 \boxtimes

DISTRICT III 1000 Rio Brazos Rd Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

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Administrat	ive []Hea	ring
EXISTING	3 WEL	LBC	RE
\bowtie	YES		NO

Secretarian	Operator		10 Desta Dr. Ste 100W, Mic	dland, Tx. 79705-4500
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1. Tiped procusion (Clor Gas) Gas Gas Gas Gas Gas Gas Gas	TOP and Bottom of Pay Section (Perforations)			39 89
## Method of Production Flowing of Artificial Lift	Type of production (Oil or Gas)			6836-7947'
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All Gas Zones. Measured Current Estimated Or Measured Current Estimated Or Measured Original 1314 6. Oil Gravity (*Apr) or Gas BT Content 7. Producing or Shul-in? 1269 1269 7. Producing or Shul-in? To be Completed Producing Marginar? (yes on no) 4. Shul-in give date and nitigan/ waler tales of list production. Was far as a state of list production. See Attached table 1. If Producing date and oil/gas/ waler tales of list production. See Attached table 1. If Producing date and oil/gas/ was reasonable of the seed of the s	Oil Zones - Artilicial Lift:	a (Current)	Paris on the second	
6. Oil Gravity (API) or Gas BT Content 1269 7. Producing or Shutuin? To be Completed Production Marginal? (yes or no) ## Shut-in give itate and nitignal will not be production to be production, and the production of the proposed of the proposed of the proposed of the proposed downhole commingling? ### Production formula is based upon something other than current or past production, or is based upon some other method. BWPD 8. Fixed Percentage Altosaton Formula % to each rone 9. If allocation formula is based upon something other than current or past production, or is based upon some other method. BWPD 10. Are all working, overriding, and royally interests intentional in all commingled zones? #### Indication formula is passed upon something other than current or past production, or is based upon some other method. The production formula is passed upon some other method. BWPD 10. Are all working, overriding, and royally interests been notified by certified mail? #### Indication formula is passed upon something other than current or past production, or is based upon some other method. The proposed download and providing rate projections or other required data. If not, have all working, overriding, and royally interests been only interests. If the proposed download and providing rate projections or other required data. If not, have all working, overriding, and royally interests been only interests. If the proposed download by certified mail? 10. Will cross-flow occur? X yes No II yes, are fluids compatible, will the promations not be damaged, will any occurrent of the proposed download by certified mail? 11. Will cross-flow occur? X yes No II yes, are fluids compatible, will the promations not be damaged, will any occurrent of the proposed download ownload the production of the proposed download ownload ow	All Gas Zones: Measured Current		Distr 3	860
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Production Marginal? (yes or no) ### Shill-in give date and oil/gas/ water testes of last production **New Farmage Assessment and production of the state of the production of the suppression of the sup	7. Producing or Shut-In?			1269
Name for new 7 seas with no production Sec Attached table Date Retex Production to be Retex Allocated by subtraction Sec Attached table Sec Attached table Date Retex Sec Attached table Date Sec Attached table	14			Producing
well was rated mozet test with all outgass (within 60 days) 8. Fixed Percentage Allocation Formula -% of each zone 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? Have all offset operators been given written notice of the proposed downhole commingling? 11. Will cross-flow occur? 12. Are all produced fluids from all commingled zones compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. 13. Will the value of production be decreased by commingling? 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. 15. NMOCD Reference Cases for Rule 303(D) Exceptions: 16. ATTACHMENTS 17. C-102 for each zone to be commingled showing its spacing unit and acreage dedication. 18. Production curve for each zone for at least one year. (If not available, attach explanation.) 19. Data to support allocation method or formula. 19. Notification list of working, overriding and royalty interests for uncommon interest cases. 20. Any additional statements, data, or documents required to support commingling. 21. Figure 10. Page 11. In the production page 11. In the production method or formula. 22. Page 12.	Note For new zones with no production history applicant shad be required to attach production estimates and supporting dara	Rates		Date
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. If not, have all working, overriding, and royalty interests identical in all commingled zones? If not, have all working, overriding, and royalty interests been notified by certified mail? If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes No	water rates of recent test (within 60 days)	Rates allocated by subtraction -	, j	Raies 61 MCFD, 1.2 BOPD,O
If not, have all working, overriding, and royalty interests identical in all commingled zones? Have all offset operators been given written notice of the proposed downhole commingling? X Yes No X Yes No Yes No No X Yes No X Ye	8. Fixed Percentage Allocation Formula -% or each zone	Gas		0.1
• Notification list of working, overriding and royalty interests for uncommon interest cases. • Any additional statements, data, or documents required to support commingling. sereby certify that the information above is true and complete to the best of my knowledge and belief. GNATURE THE Regulatory Agent DATE Feb 16 1998 PE OR PRINT NAME Kay Maddox TELEPHONE NO. 1015.	If not, have all working, overriding Have all offset operators been go the second offset operators been go the second offset operators been go the second of	and royalty interests identical in all ing, and royalty interests been iven written notice of the proposed in the proposed interest in the proposed in the proposed in the proposed in the pro	Il commingled zones? In notified by certified mail? In notified by certified mail. In notifie	X Yes No Yes No Yes No attach explanation) blic Lands or the X Yes No
TELEPHONE NAME Kay Maddox	Notification list of worl Any additional statemes ereby certify that the information at	king, overriding and royalty in nts, data, or documents required to the complete to the comple	nterests for uncommon interest ed to support commingling.	cases.
	PE OR PRINT NAME Kay Maddox			



AVG. USED:

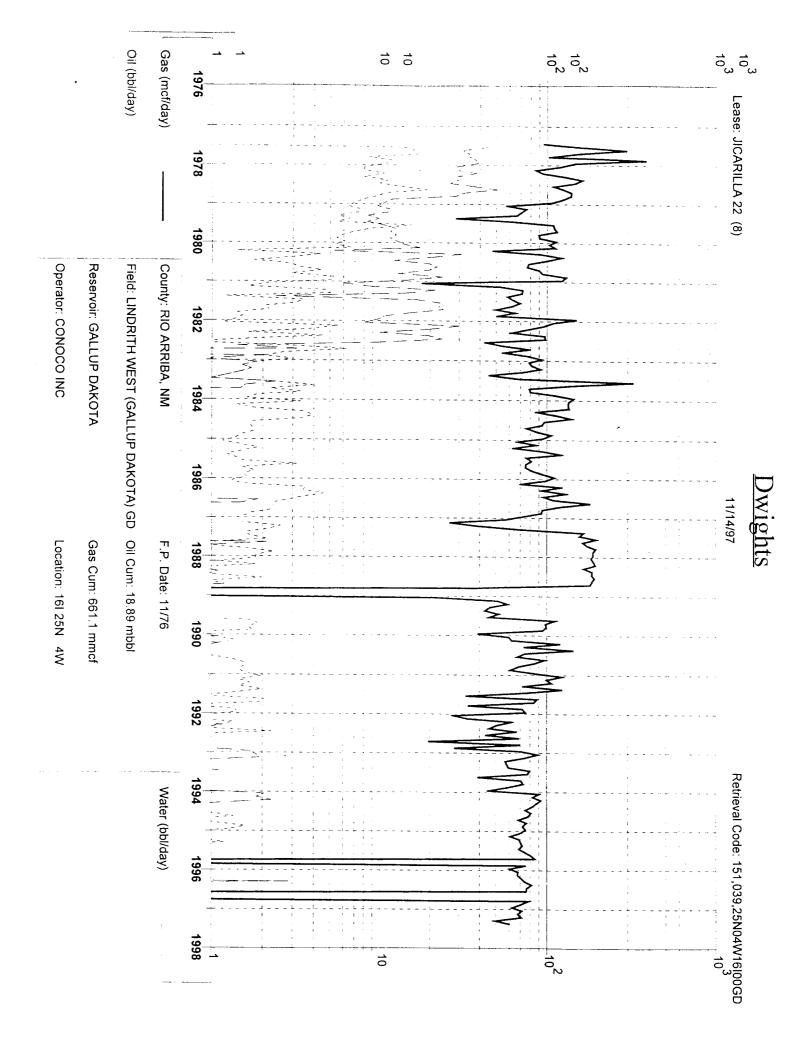
0.0195 BBL/MCF

PRODUCTION FORECAST FOR SUBTRACTION METHOD COMMINGLE ALLOCATION

YEAR	AVC NOES	A110 CORT
	AVG. MCFD	AVG. BOPD
1998 1997	58	1.2
1998		1.1
1998	- 55	1.1
2000	53	1.0
2000	50	1.0
	48	0.9
2002	46	0.9
2003	44	8.0
2004	42	8.0
2005		8.0
2006	38	0.7
2007	36	0.7
2009	34	0.7
	33	0.6
2010	31	0.6
2011	30	0.6
2012	28	0.6
2013	27	0.5
2014	26	0.5
2015	25	0.5
2016	24	0.5
2017	23	0.4
2018	21	0.4
2019	20	0.4
2020	20	0.4
2021	19	0.4
2022	18	0.3
2023	17	0.3
2024	16	0.3
2025	15	0.3
2026	15	0.3
2027	14	0.3
2028	13	0.3
2029	13	0.2
2030	12	0.2

MID-YEAR

MID-YEAR



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

District II PO Drawer DD, Artesia, NM 88211-0719 District III 1000 Rio Brazos Rd. Aztec, NM 87410

OIL CONSERVATION DIVISION PO Box 2088

State of New Mexico Energy, Minerals & Natural Resources Department

Revised February 21, 1994 instructions on back Submit to Appropriate District Office

State Lease - 4 Copies

RT

District IV				3 8	inta re, N	IM 8	37504-2088			Fee	Lease - 3 Cop		
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A	API Number				2 Pool Code 3 Pool Nam		3 Pool Name						
· · · · · · · · · · · · · · · · · · ·	30-039-21280			72319				Blanco Me	saverde				
4 Property	ŀ			5 Prope			y Name			6 We	II Number		
00320					Jica	arilla	22				#8		
7 OGRID No		0				•	or Name			9 E I	levation		
00507	3	Cond	oco Inc.,	, 10 Desta			0W, Midland, T	X 79705-4500)	7103' GL			
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UL or lot no.	Section	Township	II BO	ttom Ho	le Locati		f Different Fro		· · · · · · · · · · · · · · · · · · ·				
	000.1011	Township	Range	Lot lan	Feet from t	ne	North/South line	Feet from the	East/We	st line	County		
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320			00113011441	13	Order No.								
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NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator CONT	INENTAL OI	I. COMPANY		Lease .TT/	CARTLLA	22	Well No 8	
Unit Letter I	Section 16	Township	NORTH	Range 4 WEST	County	ARRIBA	8	
Actual Footage Loc 1795	ation of Well; feet from the	SOUTH	line and	1080	feet from the	EAST	line	
Ground Level Elev. 7103	Producing Fo	ormation	į l	Poci			Dedicated Avereage	: Acres
2. If more that interest and rog3. If more that	an one lease of di ation, unitization	edicated to the fferent owners , force-pooling	e well, outli hip is dedic etc?	ne each and ide	entify the ow	mership ther	reof (both as to	•
necessary.) No allowable w	no," list the owner will be assigned to envise) or until a	the well until o	all interests	have been cons	olidated (by	communitiza	ation unitization	•

16 +---1080' N

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
SOUND HOUSE
La Salana
I hereby certify that the well location shown on
this plat was plotted from field notable actual
surveys made by me or make my succession, and
that the same is true and pobject to the best of my
knowledge and belief.
1853 1869, W.
27 July 1976
Cate Surveyed
Tours & keen
Rojster d Professional Engineer Control Land Surveyor James P. Leese
Land Surveyor James P. Leese
1463

Certificate No.

Conoco, Inc. Jicarilla 22 #8 Section 16, T-25-N, R-4-W,I 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

DIRECTOR
JOE D. RAMEY

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE

87501

LAND COMMISSIONER
PHIL R. LUCERO

September 2, 1976

RECEIVED
HOBBS DIVISIONATE GEOLOGIST

SEP 7.76

Merry C. Arnold

Div. Manager
Div. Engr.
Cons'v. Coord.
Sup. Prod. Eng.
Sup. Resv. Eng.
Prod. Supt.
Adm. Supv.
Sys. Supv.
Coord Env. Afr
Div. O.f. Mgr.

Administrative Order NSL-790

Continental Oil Company P. O. Box 460 Hobbs, New Mexico 88240

Attention: Mr. L. P. Thompson

Gentlemen:

Reference is made to your application for approval of a non-standard location for your Jicarilla 22 Well No. 8, located 1795 feet from the South line and 1080 feet from the East line of Section 16, Township 25 North, Range 4 West, NMPM, West Lindrith-Dakota Pool, Rio Arriba County, New Mexico.

By authority granted me under the provisions of Rule 5 of Order No. R-4314, the above-described unorthodox location is hereby approved.

very crury yours

JOE D. RAMEY, Secretary-Director

JDR/JEK/dr

cc: Oil Conservation Commission - Aztec
Oil & Gas Engineering Committee - Hobbs

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator	Conoco Inc	 Well	Name	<u> Jicarilla</u>	22 #8

- 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

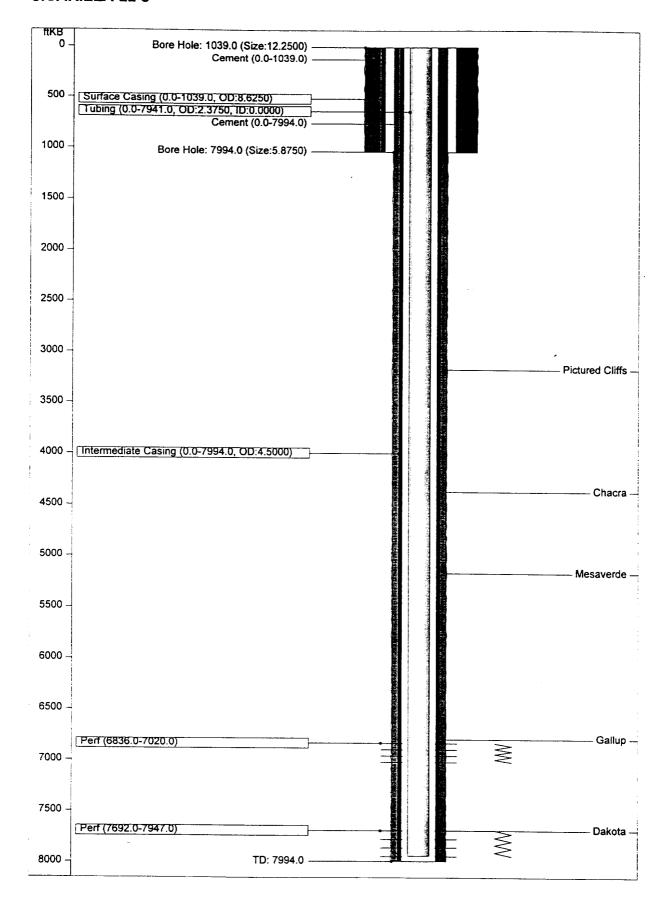
Jicarilla #22-8

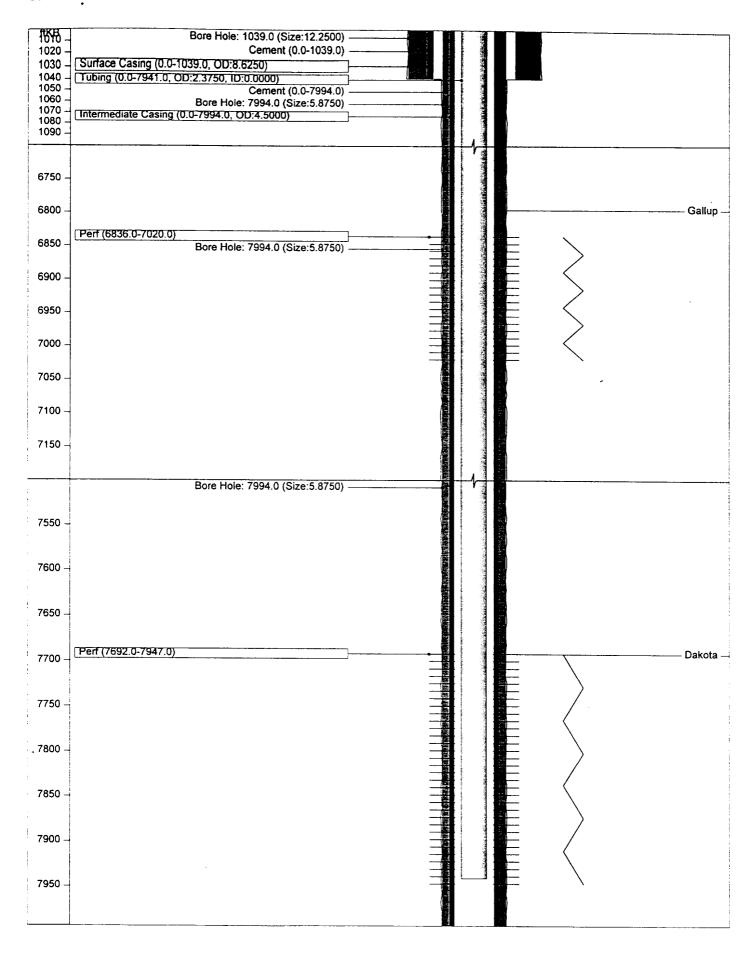
Economic Evaluation

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.

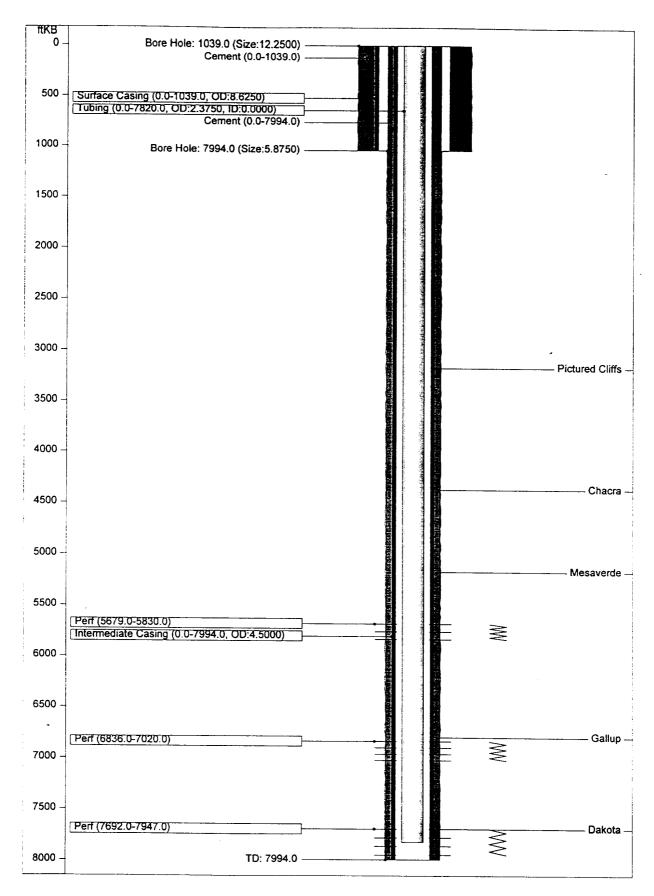
Production from each of the two zones (Gallup/Dakota & Mesa Verde) is marginal and artificial lift equipment (plunger lift) will be required to remove fluids from the wellbore in order to produce the well at the most efficient rate. The use of 2.375" tubing is the preferred size of tubing to install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

JICARILLA 228

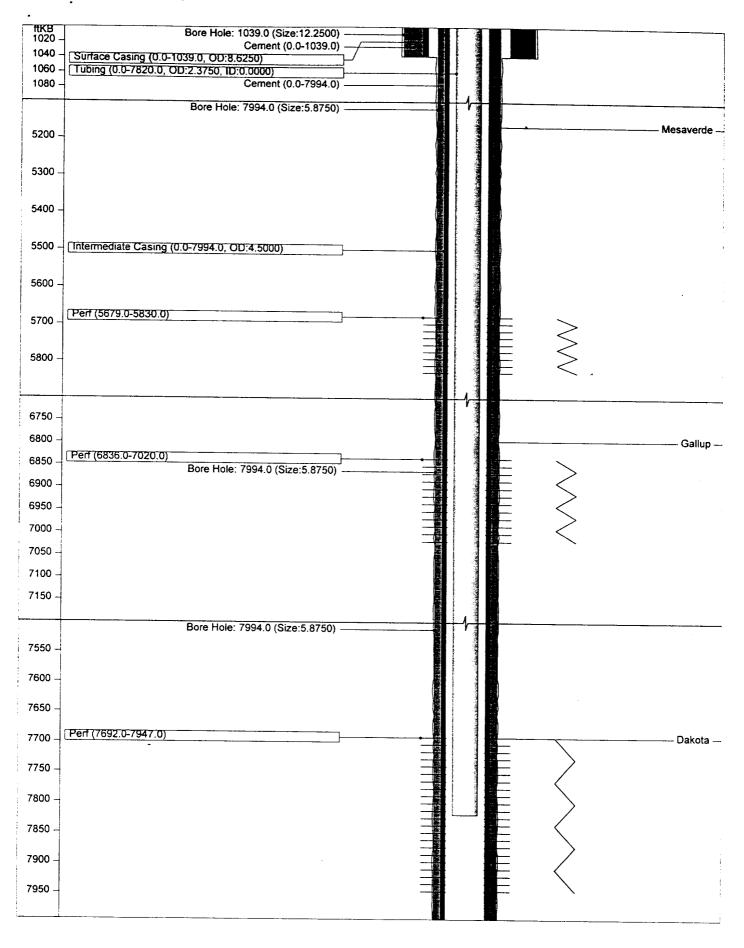


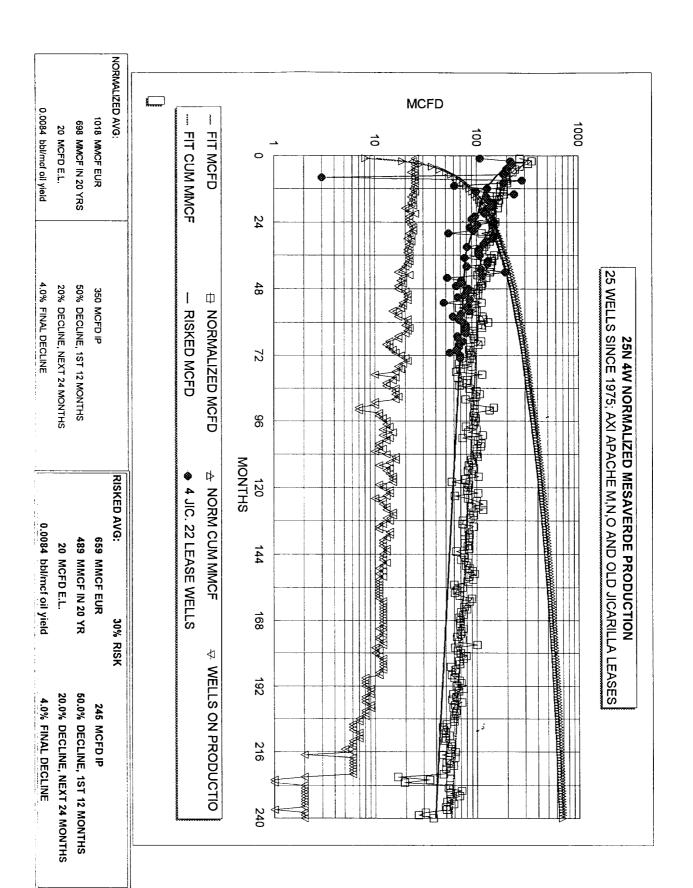


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JICARILLA 22 8 - Proposed





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).