

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 3-12-98

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Conoco Inc.

10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500

Jicarilla A

#14

Section 24, T-26-N, R-4-W, A

Rio Arriba

Lease

Well No

Unit Ltr Sec Twp Rge

County

OGRID NO. 005073

Property Code

18018

API NO

30-039-20629

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		Wild Horse Gallup 87360
2. TOP and Bottom of Pay Section (Perforations)	5584-6016'		7534-7550'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure	a. (Current)	a.	a.
Oil Zones - Artificial Lift Estimated Current	376		305
Gas & Oil - Flowing: Measured Current	b. (Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	1302 psi	1-19-98	696 psi
6. Oil Gravity (*API) or Gas BT Content	1304		1354
7. Producing or Shut-in?	Producing		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 10/98 264 MCFD, 0 BOPD, 1.5 BWPD	Date Rates	Date Rates 10/98 83 MCFD, 0 BOPD, 1.6 BWPD
8. Fixed Percentage Allocation Formula - % for each zone	14 % Gas 40 %	Gas %	86 % Gas 60 %

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. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).

16. ATTACHMENTS

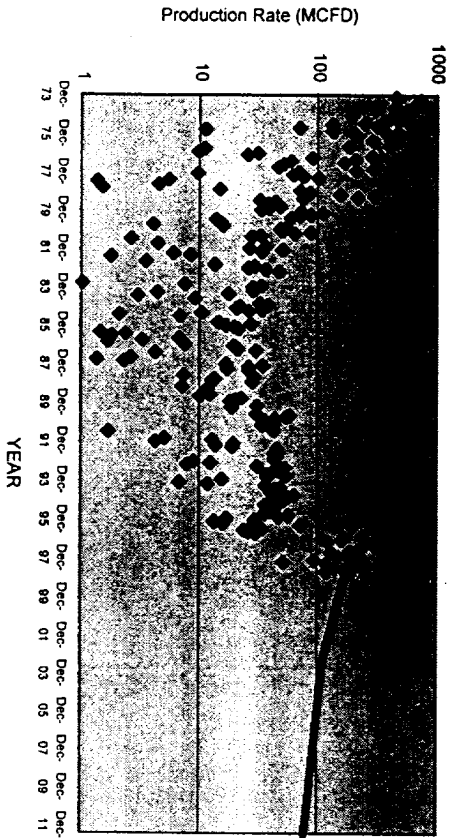
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation 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 December 7, 1998

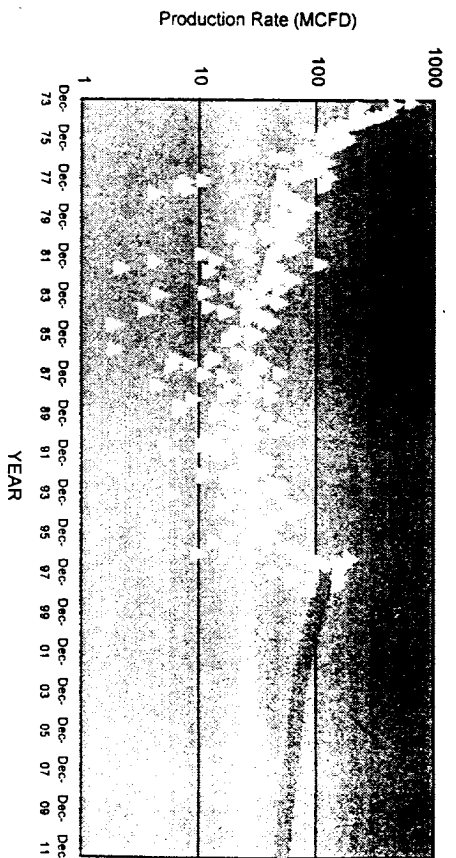
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

JICARILLA A 14 - GP / MV DHC
26N-4W-24A, Rio Arriba County, New Mexico



◆ GP - Actual = GP - Forecast

JICARILLA A 14 - GP / MV DHC
26N-4W-24A, Rio Arriba County, New Mexico



MV - Actual x MV - Forecast

GALLUP

Historical Data:	1st Prod - Dec-73	Projected Data:
Oil Cum:	5,258 Mbo	1/99 Qi:
Gas Cum:	776.5 MMcf	Decline Rate:
Oil Yield:	0.00677 Bbl/Mcf	10.0 %

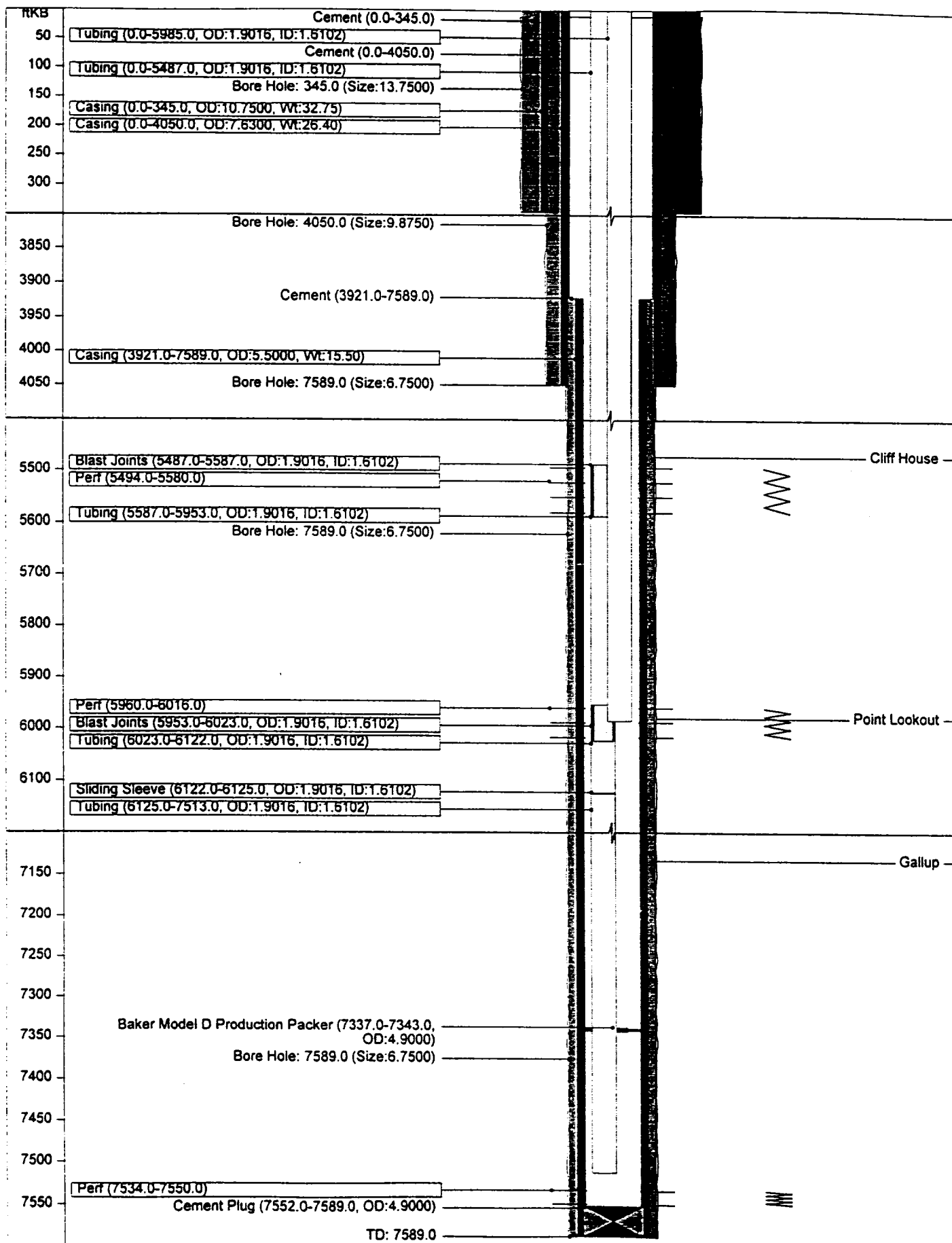
Fixed Commingle Allocation Factors:

	GAS	OIL
Gallup	60.3%	86.2%
Mesaverde	39.7%	13.8%

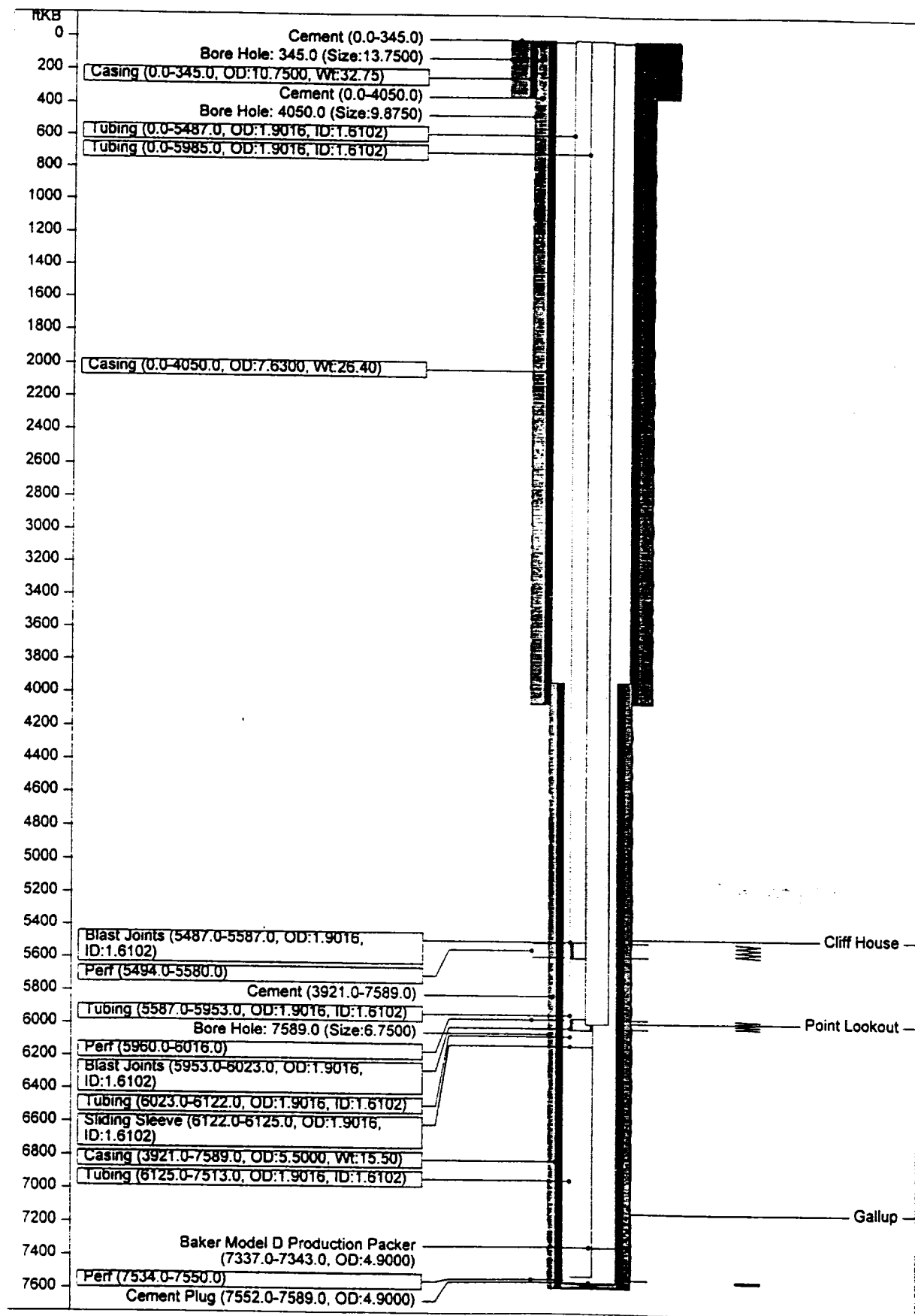
MESAVERDE

Historical Data:	1st Prod - Dec-73	Projected Data:
Oil Cum:	0.54 Mbo	1/99 Qi:
Gas Cum:	500.2 MMcf	Decline Rate:
Oil Yield:	0.00108 Bbl/Mcf	10.0 %

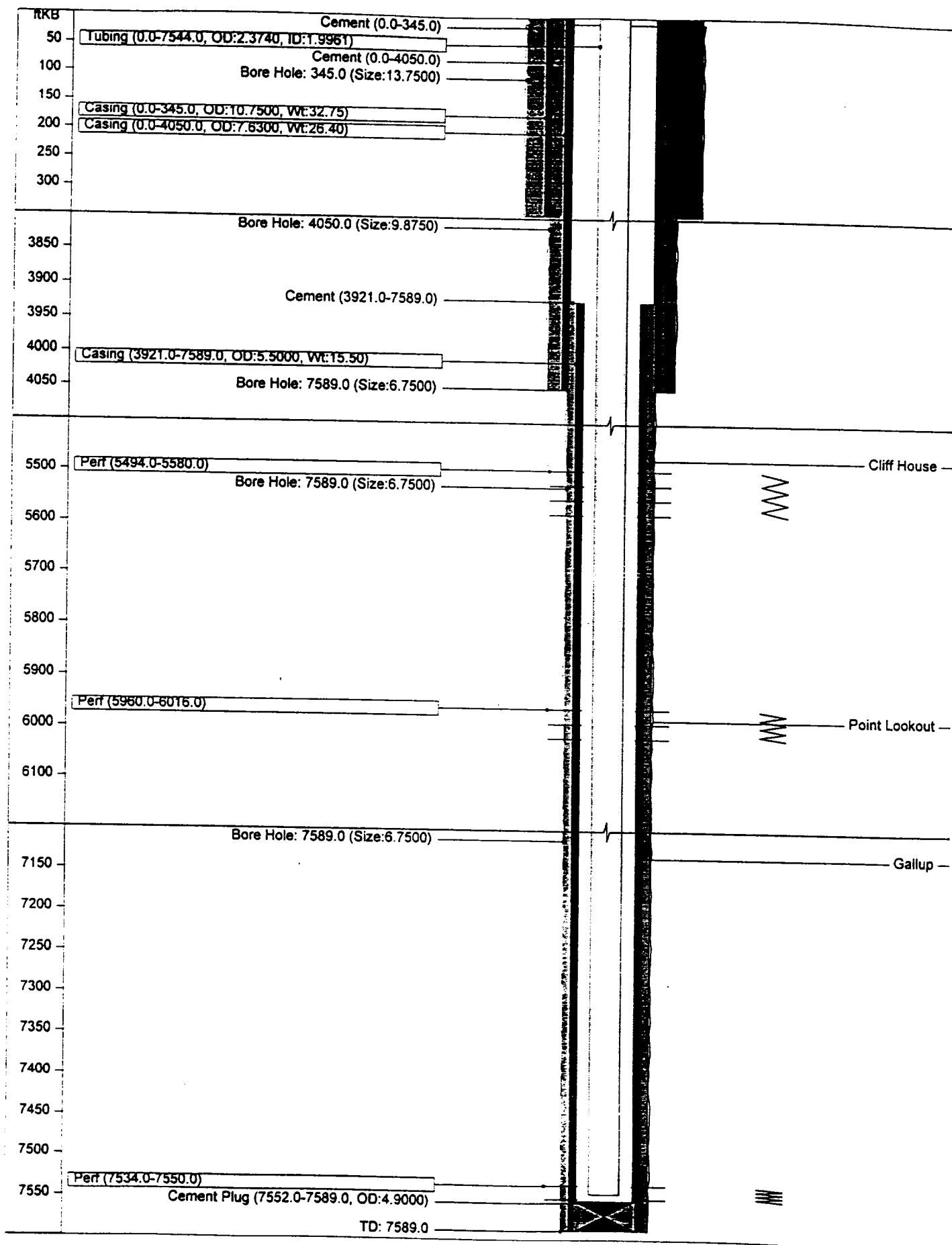
Jicarilla A #14 (Current Configuration)



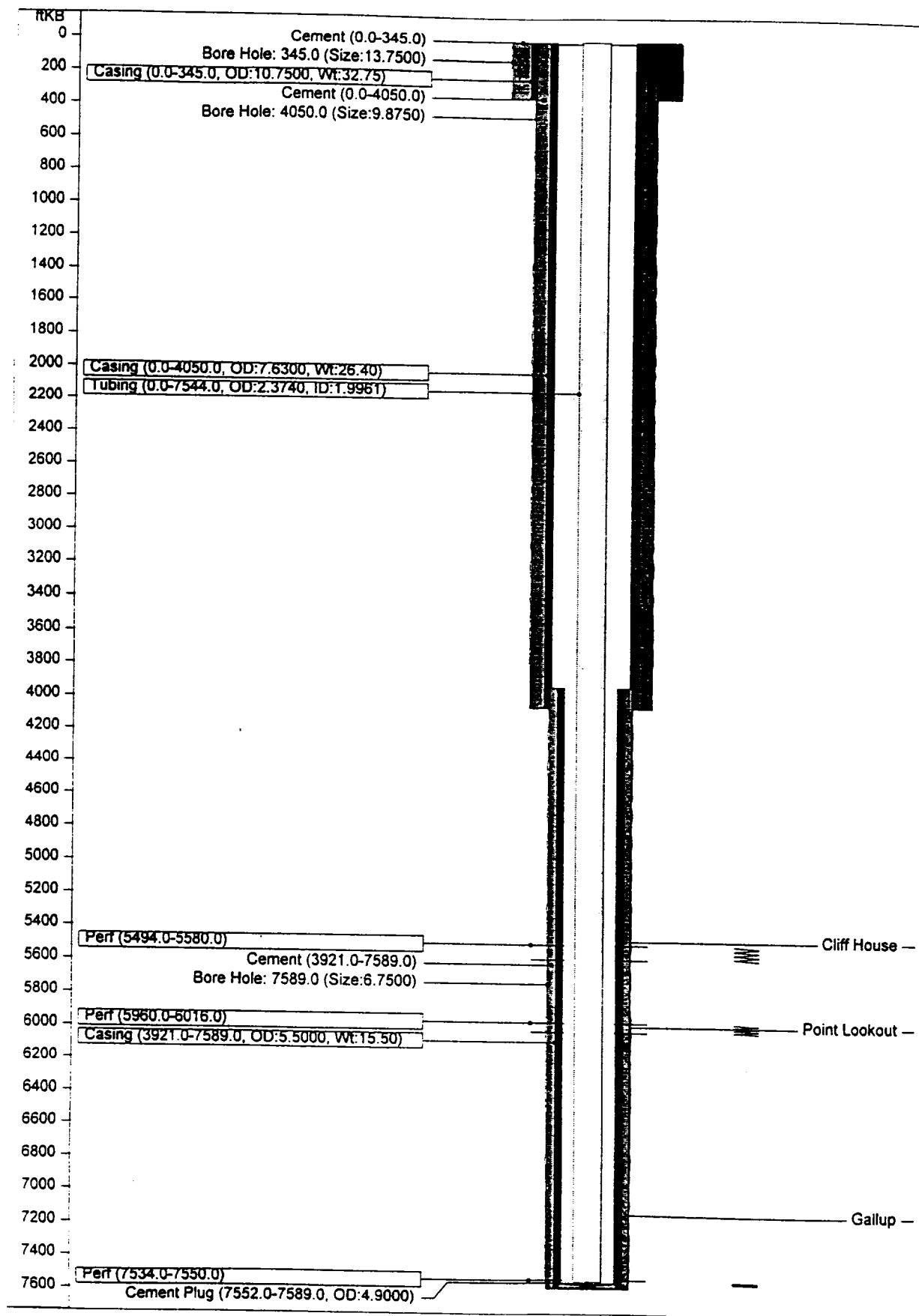
Jicarilla A #14 (Current Configuration)



Jicarilla A #14 (Proposed Configuration)



Jicarilla A #14 (Proposed Configuration)

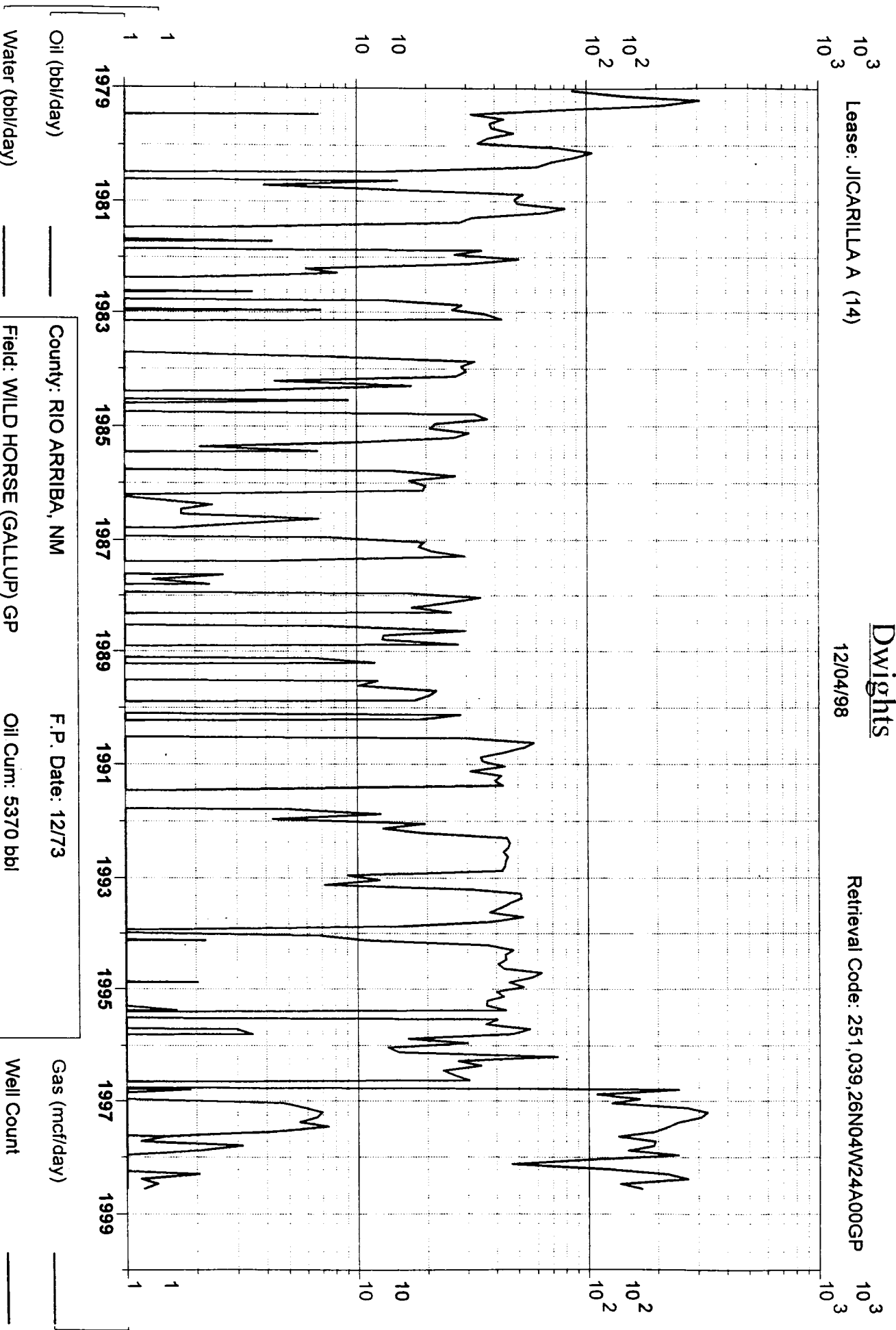


Dwights

Lease: JICARILLA A (14)

12/04/98

Retrieval Code: 251,039,26N04W24A00GP



Oil (bbl/day)

Water (bbl/day)

County: RIO ARRIBA, NM

Field: WILD HORSE (GALLUP) GP

Reservoir: GALLUP

Operator: CONOCO INC

F.P. Date: 12/73

Oil Cum: 5370 bbl

Gas Cum: 759.0 mmcf

Location: 24A 26N 4W

Gas (mcf/day)

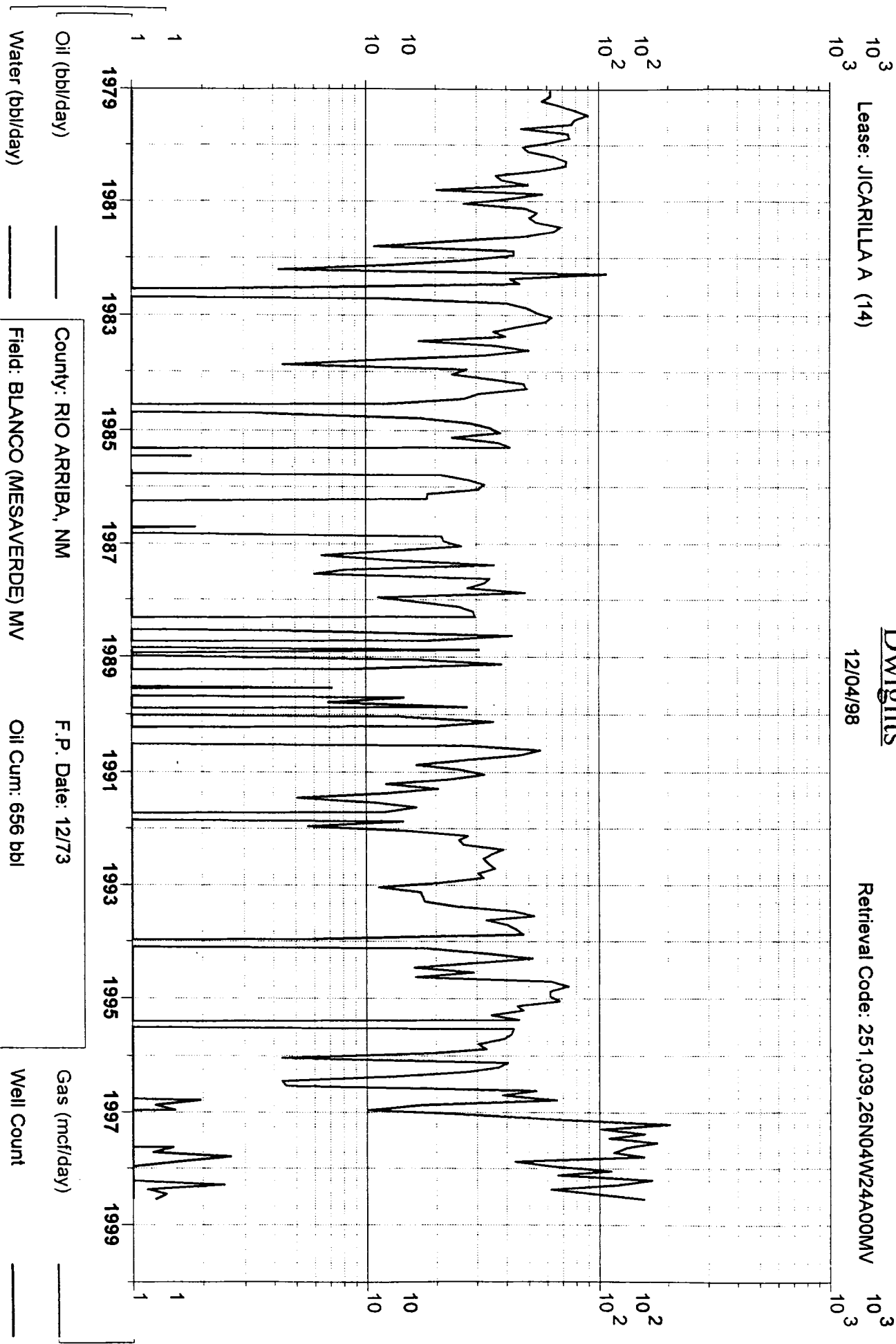
Well Count

Dwights

Lease: JICARILLA A (14)

12/04/98

Retrieval Code: 251,039,26N04W24A00MV



Oil (bbl/day)

Water (bbl/day)

County: RIO ARriba, NM

Field: BLANCO (MESAVERDE) MV

Reservoir: MESAVERDE

Operator: CONOCO INC

F.P. Date: 12/73

Oil Cum: 656 bbl

Gas Cum: 491.2 mmcf

Location: 24A 26N 4W

Gas (mcf/day)

Well Count

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

All distances must be from the outer boundaries of the Section

Operator SOUTHERN UNION PRODUCTION CO.		Lease JORNILLA A		Well No. 14
Unit Letter A	Section 24	Township 26 NORTH	Range 4 WEST	County RIO ARriba
Actual Footage Location of Well: 1186 feet from the NORTH line and 1160 feet from the EAST line				
Ground Level Elev. 7128.0	Producing Formation UNCONSOLIDATED GALLUP	Pool BLANCO MOUNTAIN UNCONSOLIDATED GALLUP	Dedicated Acreage: NE 1/4 160 N 1/2 320	

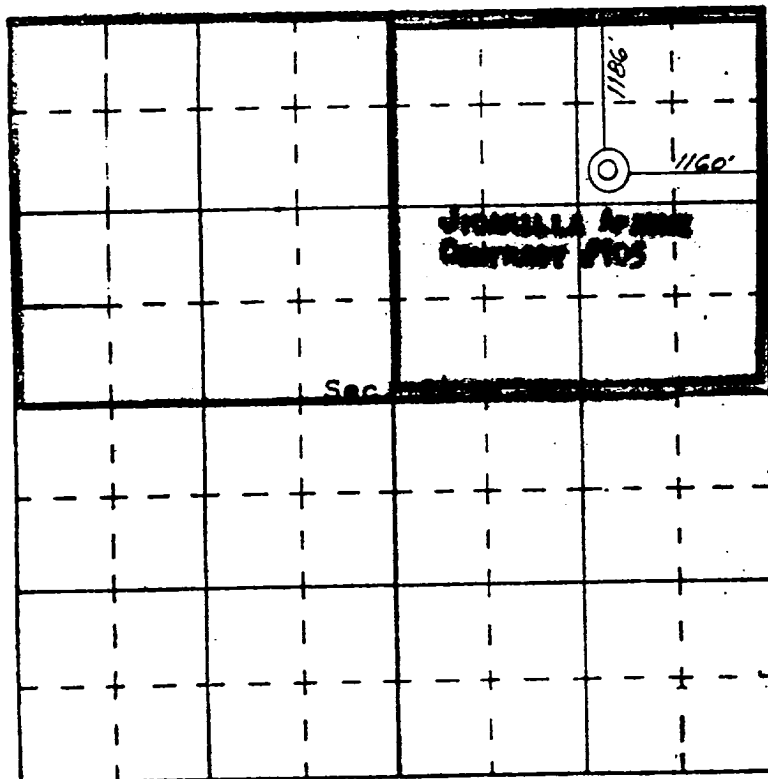
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty),
3. If more than one lease of different ownership is 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.

——— **DEDICATED GALLUP ACREAGE**
 ——— **DEDICATED BLANCO MOUNTAIN ACREAGE**



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

CERTIFICATION

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

Original signed by
GILBERT D. NOLAND, JR.
 Name
GILBERT D. NOLAND, JR.
 Position
DRILLING SUPERVISOR
 Company
SOUTHERN UNION PRODUCTION
 Date
May 6, 1973

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.

Date Surveyed
5/10/73
 Registered Professional Engineer
 and/or Land Surveyor
JAMES E. LEBES
1463
 Certificate No.

Jicarilla A #14
Section 24, T-26-N, R-4-W, A
API # 30-039-20629
1186' FNL & 1160' FEL
Rio Arriba County, NM

RE: Application fo Downhole Commingle (C107A)

NOTIFICATION OF OFFSET OPERATORS:

Taurus Exploration, Inc
2101 6th Avenue N
Birmingham, AL 35203-2784

Chateau Oil & Gas
5802 US HWY 64
Farmington, NM 87401

The above listed parties have been sent a copy of the C107A application.

Jicarilla A #14

Economic Justification for Downhole Co-mingling

The subject well has a 5½" production liner (drift ID of 4.825") and 7½" intermediate casing.

Production from each of the two current production zones (Mesa Verde and Gallup) is produced up two separate 1.9" IJ tubing strings. The Gallup zone currently has sand fill that is limiting the production to less than 50 mcf/d (production from the Gallup has averaged approximately 250 mcf/d for the last year). The Mesa Verde zone is produced up the 1.9" tubing string and is plunger lifted. To clean out the wellbore, it will be necessary to drill up the Model "D" permanent production packer. Since the packer will be removed from the well, Conoco recommends that 2¾" EUE tubing be installed in the well. The larger tubing will allow the Gallup formation to produce at higher flowrates (less friction pressure up the larger tubing ID) and the Gallup/Mesa Verde co-mingled production rates will be high enough that artificial lift will no longer be necessary at this time.

The installation of the larger 2¾" tubing will increase production from the wellbore by approximately 50 mcf/d over the previously established rates. Co-mingling of the producing horizons will allow the removal and reuse of one of the surface production facilities while also saving approximately \$2,000 per year in plunger lift expenses (replacement plungers, maintenance, etc.).

CONDITIONS OF APPROVAL FOR DOWNHOLE COMMINGLING

Operator Conoco Inc. Well Name Jic. 105 A #14

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