

Denny L. Foust
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE

JUN 23 1998

ENVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

Approved
PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Conoco) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Jicarilla 17-14

Location: Unit: A Sec. 24 T. 26 N R. 4 W County Rio Arriba

Pit Type: Separator Dehydrator X Other

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 33' width 27' depth 7'

(Attach diagram) Reference: wellhead X other

Footage from reference: 81'

Direction from reference: Straight Degrees East North
West of South X

Depth to Ground Water:

(Vertical distance from contaminants to seasonal high water elevation of ground water)

Less than 50 feet	(20 points)	<u> </u>
50 feet to 99 feet	(10 points)	<u> </u>
Greater than 100 feet	(0 points)	<u> </u>

Wellhead Protection Area:

(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)

Yes	(20 points)	<u> </u>
No	(0 points)	<u> </u>

Distance to Surface Water:

(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)

Less than 200 feet	(20 points)	<u> </u>
200 feet to 1,000 feet	(10 points)	<u> </u>
Greater than 1,000 feet	(0 points)	<u> </u>

Distance to Ephemeral Stream (dry wash):

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet	(10 points)	<u> </u>
Greater than 100 feet	(0 points)	<u> </u>

Distance to Nearest Lake, Playa, or Watering Pond:

(Horizontal distance to all downgradient lakes, playas, and livestock or wildlife water ponds)

Less than or equal to 100 feet	(10 points)	<u> </u>
Greater than 100 feet	(0 points)	<u> </u>

RANKING SCORE (TOTAL POINTS):

10-11-1964
 10-11-1964
 10-11-1964

Date Remediation Started: 8/21/97 Date Completed: 10/16/97

Remediation Method: Excavation X Approx. Cubic Yards 231

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 231

Other _____

Remediation Location: Onsite X Offsite _____

(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action:

Removed contaminated soil from all four side walls as to get it below 100ppm head space pending R2 ALA is back

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling:

Sample Location North, East, South, and West side walls

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth 6'

Sample date 8/21/97 Sample time 0944

Sample Results

Soil: Benzene (ppm) ND Water: Benzene (ppb) _____

Total BTEX (ppm) 0.001 Toluene (ppb) _____

Field headspace (ppm) 3.4 Ethylbenzene (ppb) _____

TPH ND ppm Method 8015 Total Xylenes (ppb) _____

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE 8/28/97 PRINTED NAME Ronald A. Dedrick

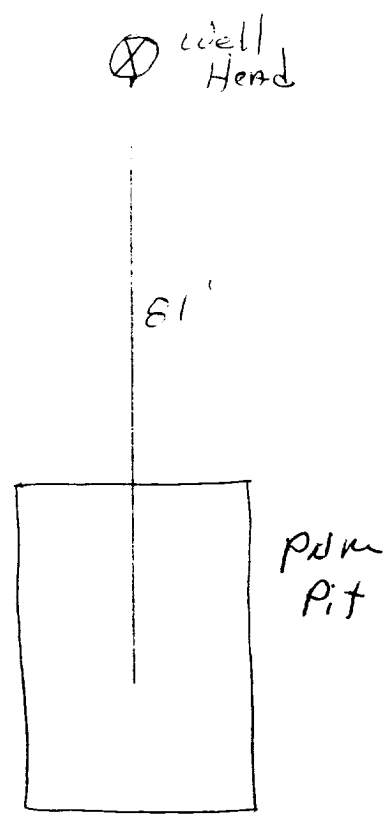
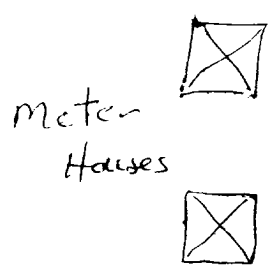
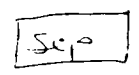
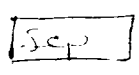
SIGNATURE Ronald A. Dedrick AND TITLE Environmental Technician II

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON): spray + close

SIGNED: Kurt C. Mann DATE: 9-3-97

Jicarilla A-14
Sec. 24 T26N R4W Unit A
Conoco



Jicarilla A-14
Sec. 24 T26N R4W Unit A
Conoco

33' x 27' x 7'

North Wall
Sample 6'
0.9 ppm

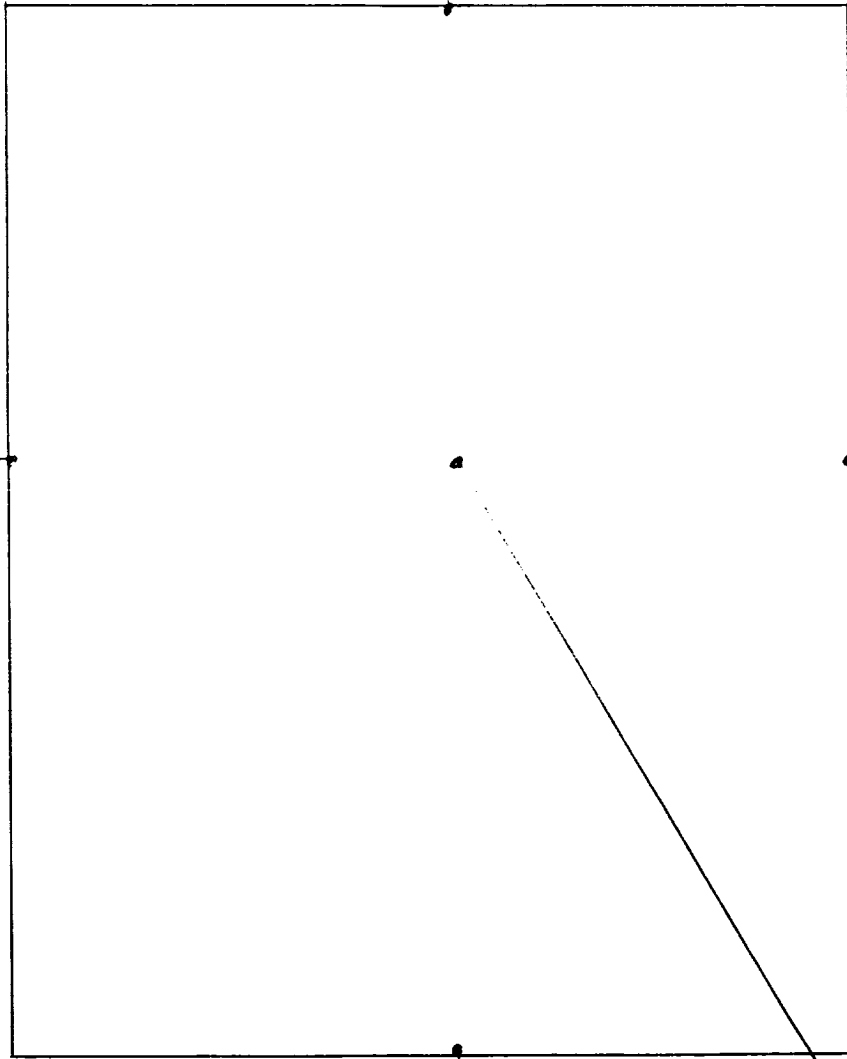
West Wall
Sample 6'
1.0 ppm

East Wall
Sample 6'
3.4 ppm

South Wall
Sample 6'
2.5 ppm

5' Sample - 349 ppm

Bottom 7'
Rock



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *28-Aug-97*
COC No.: *5570*
Sample No.: *15876*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla A-14*
Project Location: *9708210944; 4pt. Composite*
Sampled by: *TN* Date: *21-Aug-97* Time: *9:44*
Analyzed by: *HR/DC* Date: *27-Aug-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	198	1.0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	85	84	(70-130)	2	20%

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*
Date: *8/25/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNICAL BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *28-Aug-97*
COC No.: *5570*
Sample No.: *15876*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla A-14*
Project Location: *9708210944; 4pt. Composite*
Sampled by: *TN* Date: *21-Aug-97* Time: *9:44*
Analyzed by: *DC* Date: *26-Aug-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1	ug/kg
<i>Toluene</i>	ND	ug/kg	1	ug/kg
<i>Ethylbenzene</i>	ND	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	1	ug/kg	1	ug/kg
<i>o-Xylene</i>	ND	ug/kg	1	ug/kg
	<i>TOTAL</i>	1	ug/kg	

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *8/28/97*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

JICARILLA APACHE TRIBE
ENVIRONMENTAL
PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

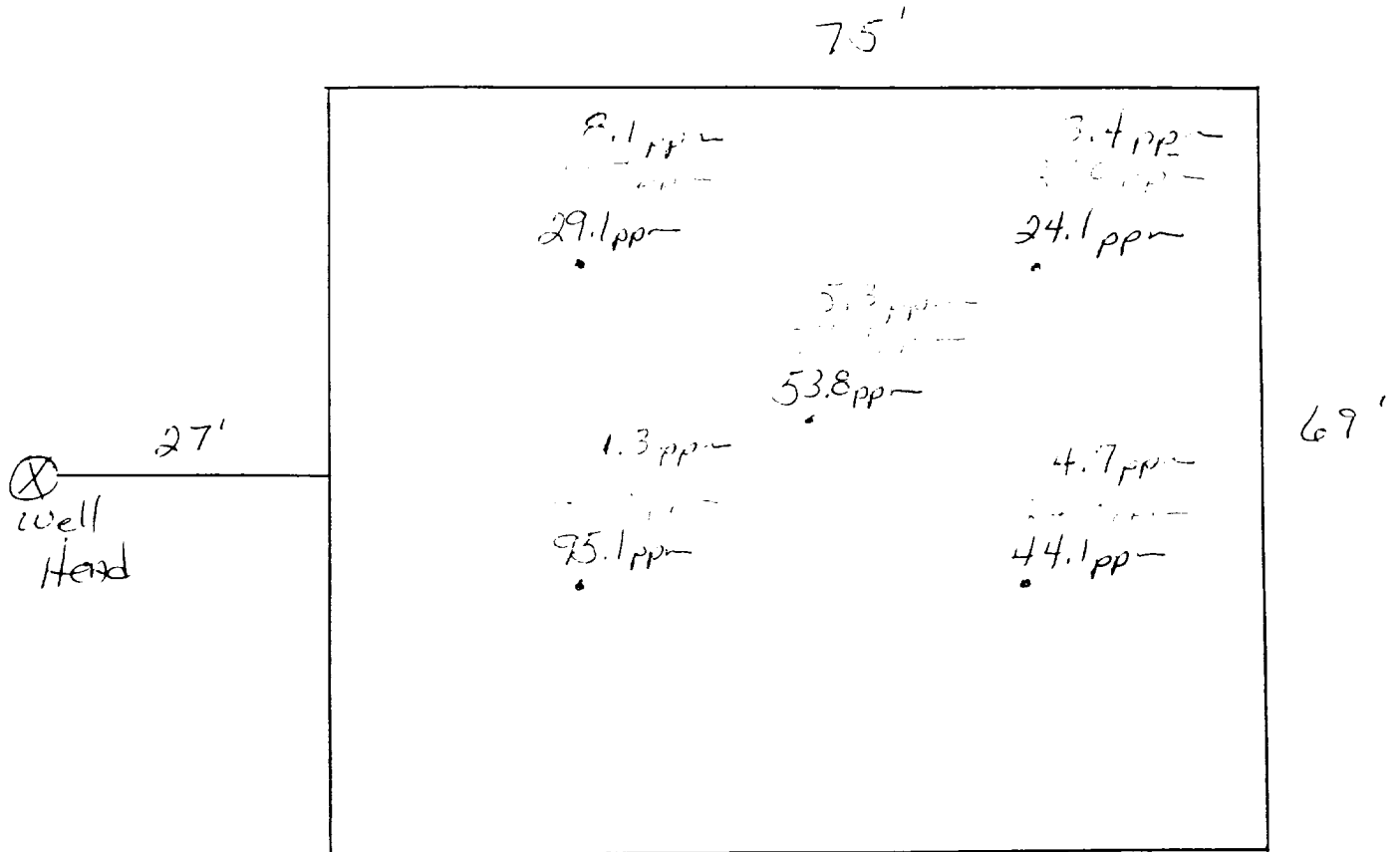
SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>PNM Gas Services (Conoco)</u> Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>	
Facility or Well Name: <u>Jicarilla A-14</u>	
Location: Unit: <u>A</u> Sec. <u>24</u> T. <u>26</u> N R. <u>4</u> W County <u>Rio Arriba</u>	
Land Type: <u>Jicarilla Apache</u>	
Date Remediation Started: <u>8/21/97</u> Date Completed: <u>10/9/97</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>231</u>	
Composted <u> </u>	
Other <u> </u>	
Depth to Ground Water: (pts.) <u>2</u>	<div style="text-align: right;">10/9/97 1231</div> Final Closure Sampling: Sampling Date: <u>9/4/97</u> Time <u>1117</u> Sampling Results: Field Headspace (ppm) <u>95.1</u> <u>8.1</u> TPH (ppm) <u>68</u> Method <u>8015</u> Other <u> </u>
Distance to an Ephemeral Stream: (pts.) <u>2</u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>2</u>	
Wellhead Protection Area: (pts.) <u>2</u>	
Distance to Surface Water: (pts.) <u>2</u>	
Ranking Score (Total Points): <u>2</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>10/11/97</u> PRINTED NAME <u>Ronald A. Dedrick</u>	
SIGNATURE <u>Ronald A. Dedrick</u> AND TITLE <u>Environmental Technician II</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES <u>X</u> NO <u> </u> (REASON) <u>use as Backfill</u>	
SIGNED: <u>Kent C. Marshall</u> DATE: <u>10-14-97</u>	

Jicmilla A-14
Sec. 24 T26N R4W Unit A
Conoco

Land farm



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *10-Oct-97*
COC No.: *5608*
Sample No.: *16544*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla A-14 Landfarm*
Project Location: *9710091231; 5pt. Composite*
Sampled by: *RB* Date: *9-Oct-97* Time: *12:31*
Analyzed by: *DC/HR* Date: *9-Oct-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	68	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	202	1.0	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	103	104	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
Date: *10/10/97*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *23-Sep-97*
COC No.: *5597*
Sample No.: *16254*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Jicarilla A-14 Landfarm*
Project Location: *9709161347; 5pt. Composite*
Sampled by: *RB* Date: *16-Sep-97* Time: *13:47*
Analyzed by: *HR* Date: *19-Sep-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>250</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>176</i>	<i>12.7</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>80</i>	<i>86</i>	<i>(70-130)</i>	<i>8</i>	<i>20%</i>

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*
Date: *9/23/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Denver Bearden*
Company: *PNM Gas Services*
Address: *603 W. Elm*
City, State: *Farmington, NM 87401*

Date: *9-Sep-97*
COC No.: *5579*
Sample No.: *16056*
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Jicarilla A-14 Landfarm***
Project Location: ***9709041117; 5pt. Composite***
Sampled by: *RB* Date: *4-Sep-97* Time: *11:17*
Analyzed by: *DC/HR* Date: *8-Sep-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	375	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	206	2.7	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	95	85	(70-130)	10	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
Date: *9/9/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



LTR



Job separation sheet

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)		
Oil Zones - Artificial Lift	Estimated Current		
Gas & Oil - Flowing	Measured Current		
All Gas Zones:	Estimated Or Measured Original	b	d
	1302 psi		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

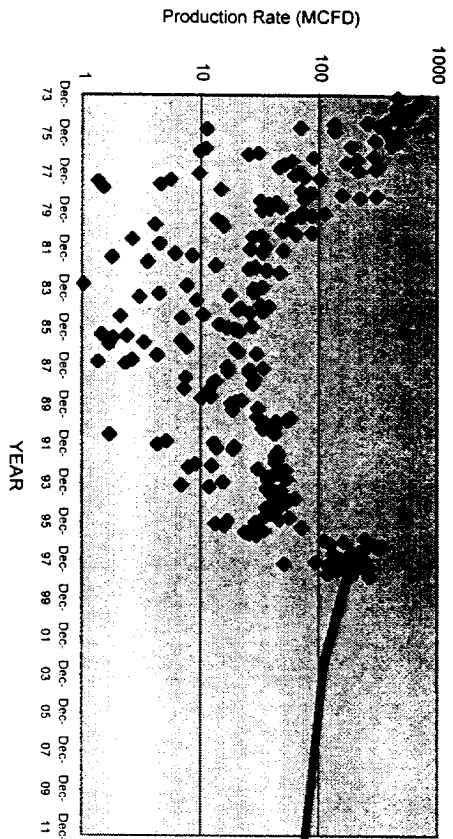
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation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

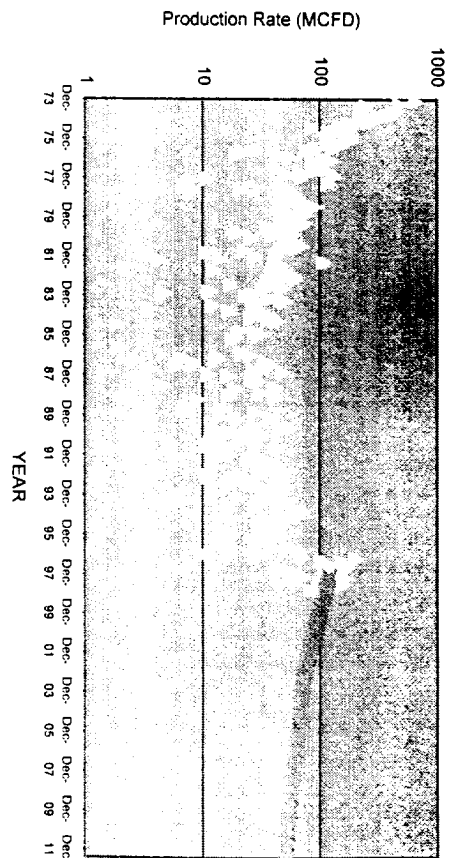
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

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



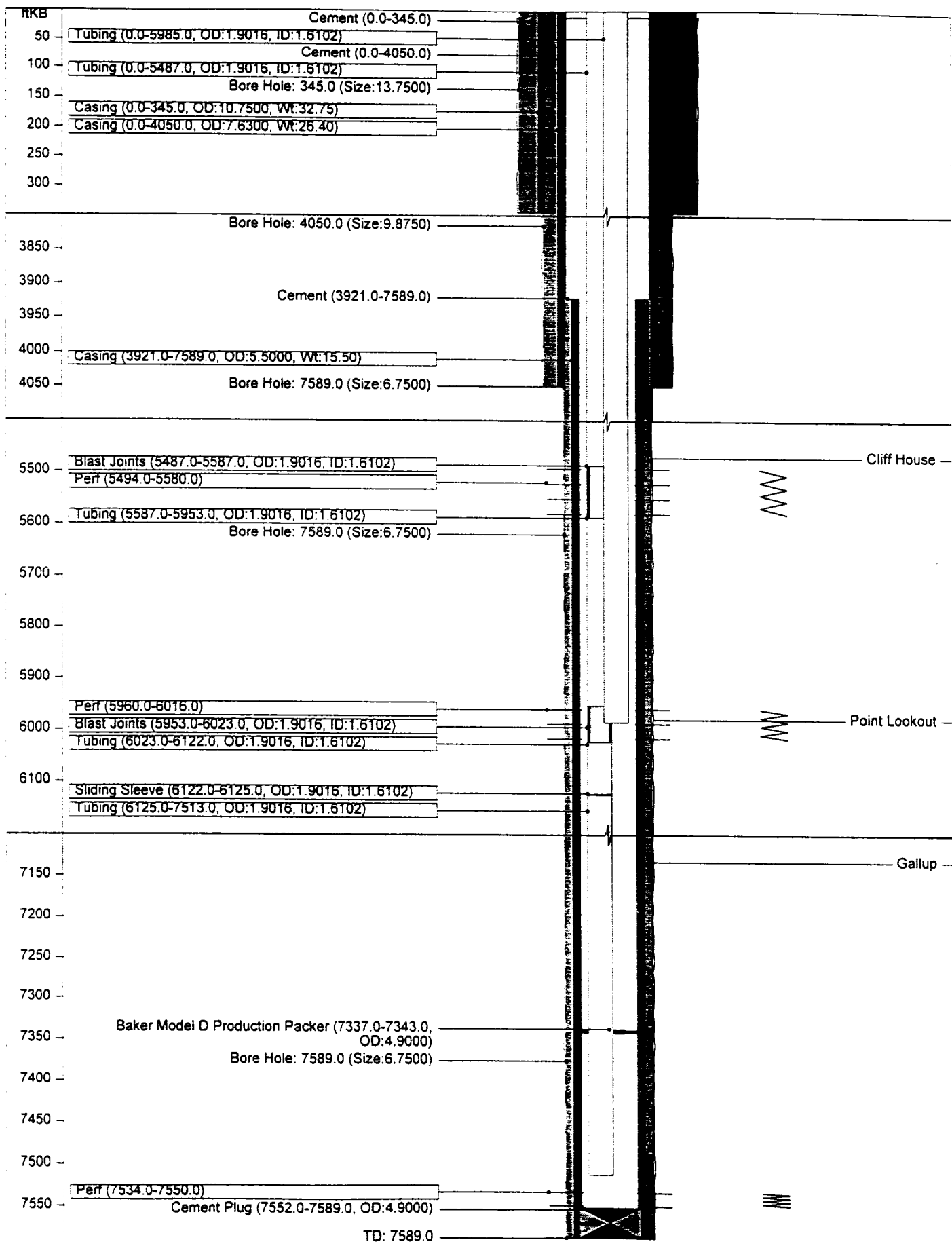
MV - Actual = MV - Forecast

GALLUP			
Historical Data:	1st Prod - Dec-73	Projected Data:	
Oil Cum:	5,258 Mbo	1/99 Qi:	166.4 Mcfd
Gas Cum:	776.5 MMcf	Decline Rate:	10.0 %
Oil Yield:	0.00677 Bbl/Mcf		

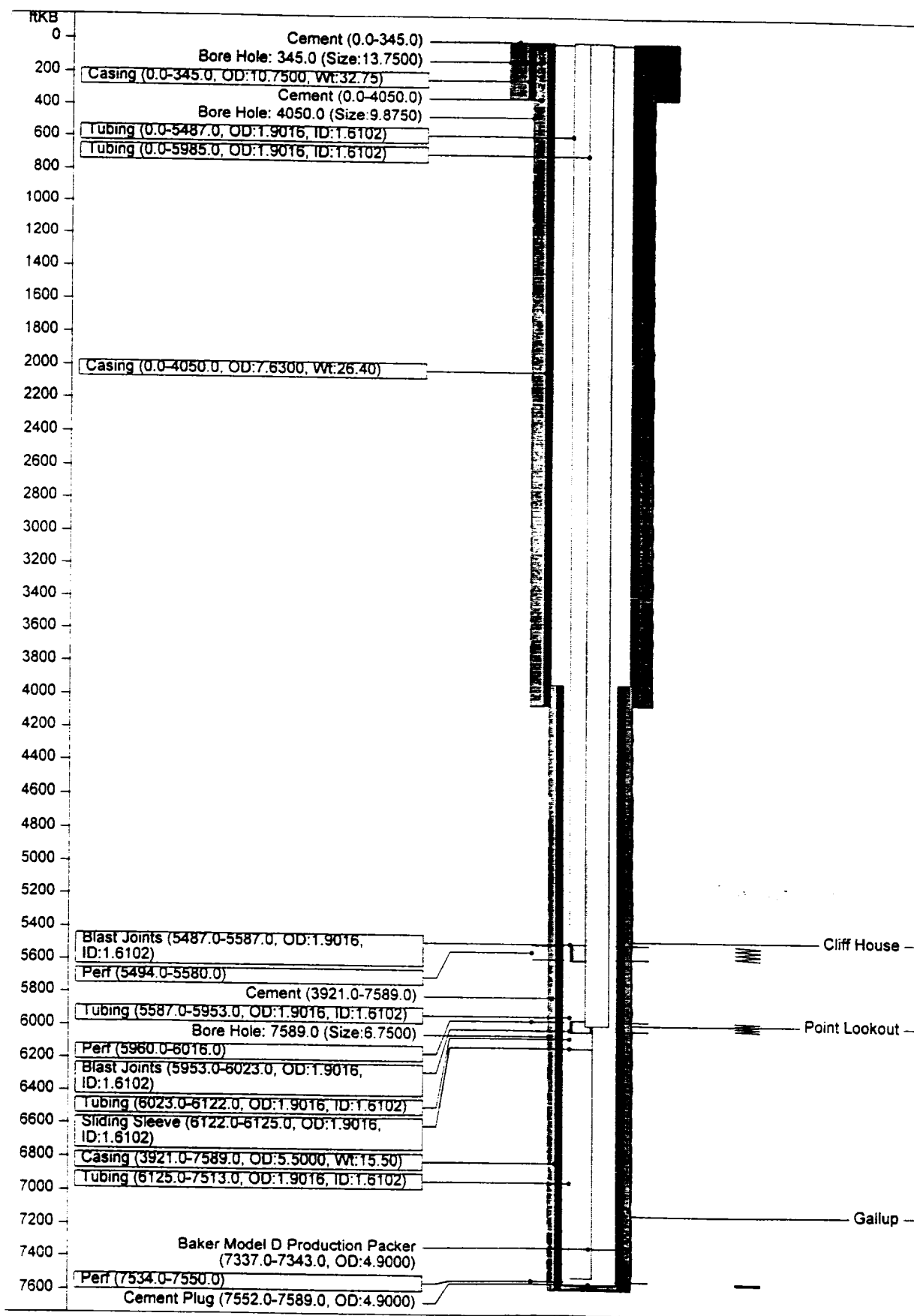
Fixed Commingle Allocation Factors:

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

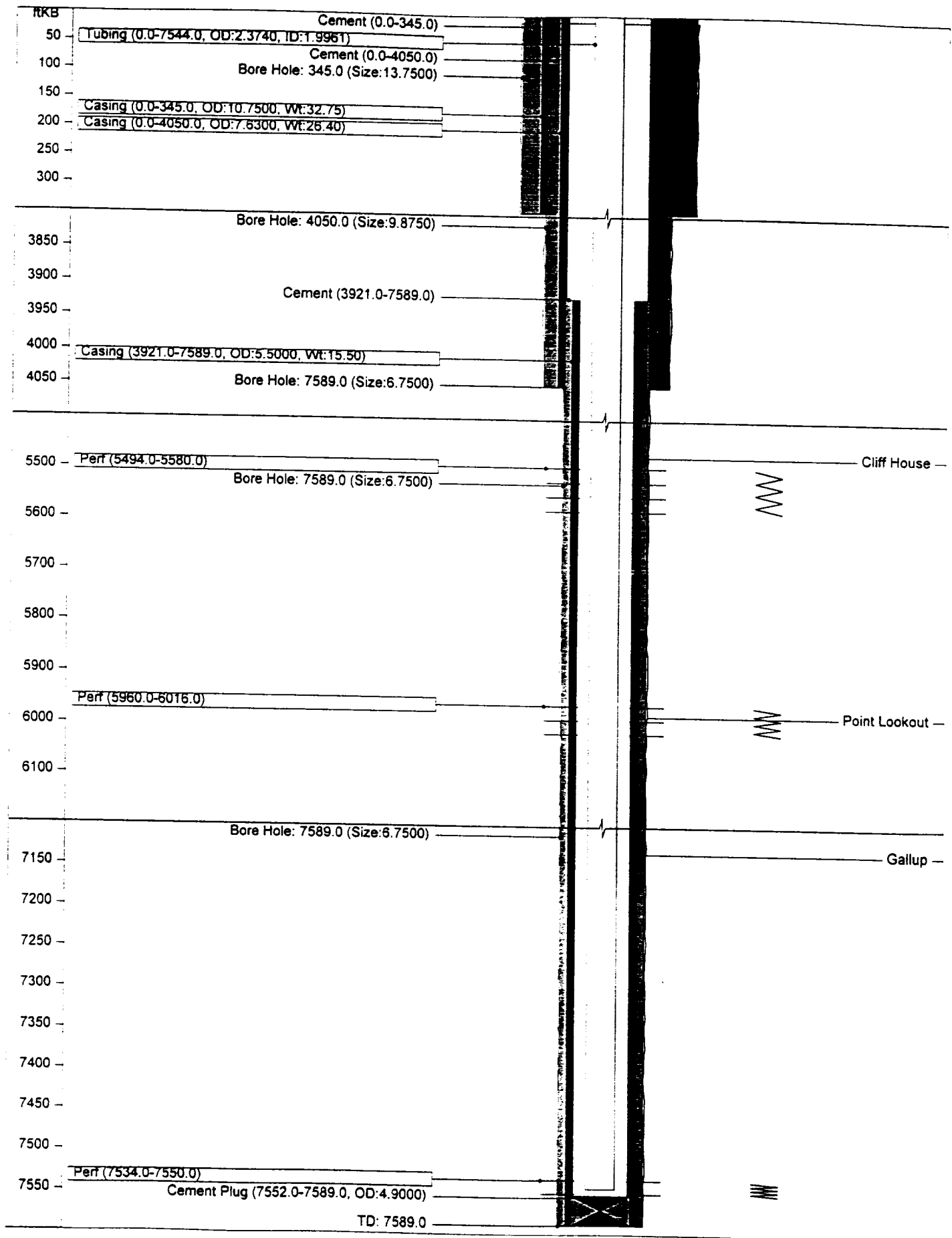
Jicarilla A #14 (Current Configuration)



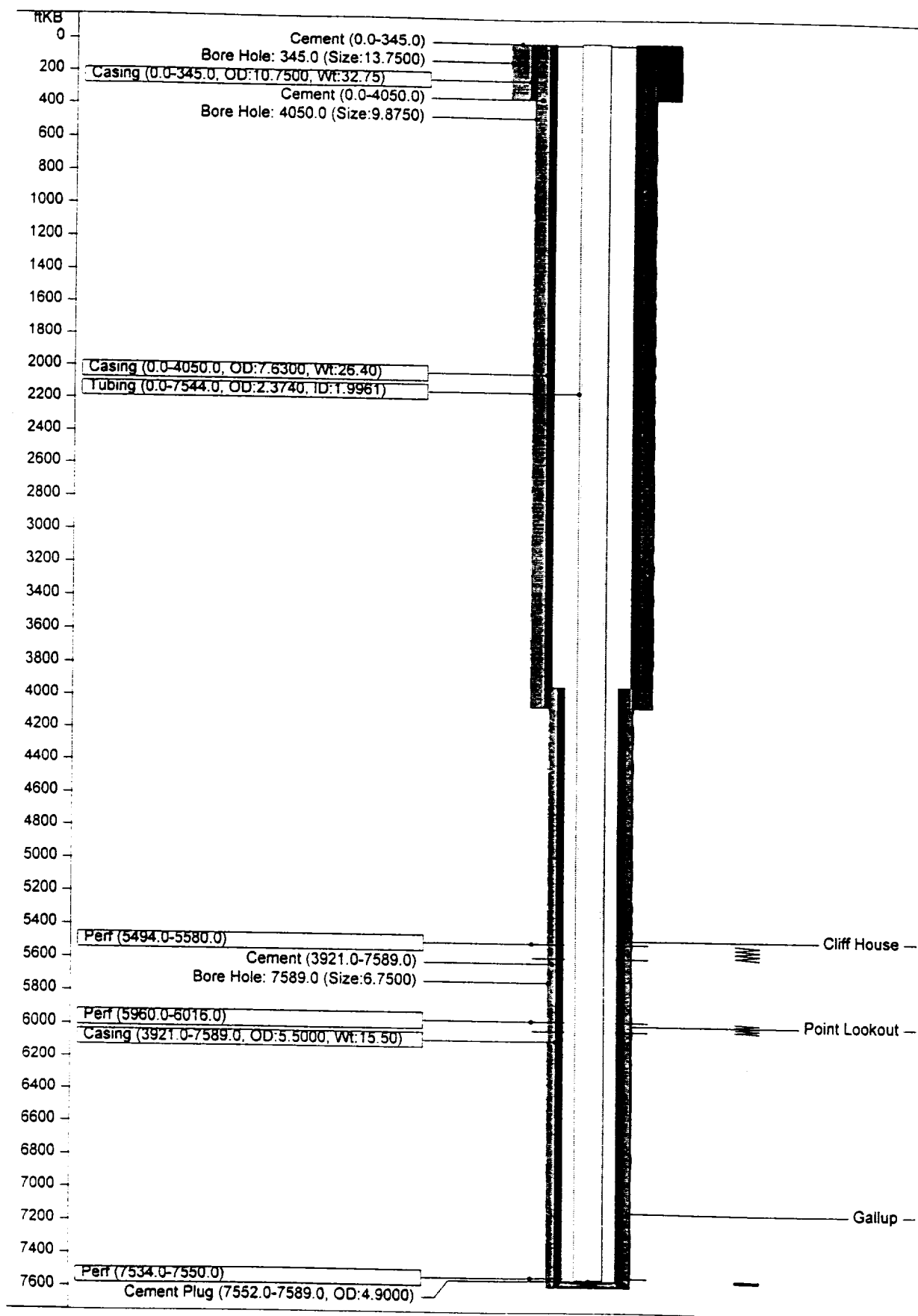
Jicarilla A #14 (Current Configuration)



Jicarilla A #14 (Proposed Configuration)



Jicarilla A #14 (Proposed Configuration)



10³
10²
10¹
10⁰

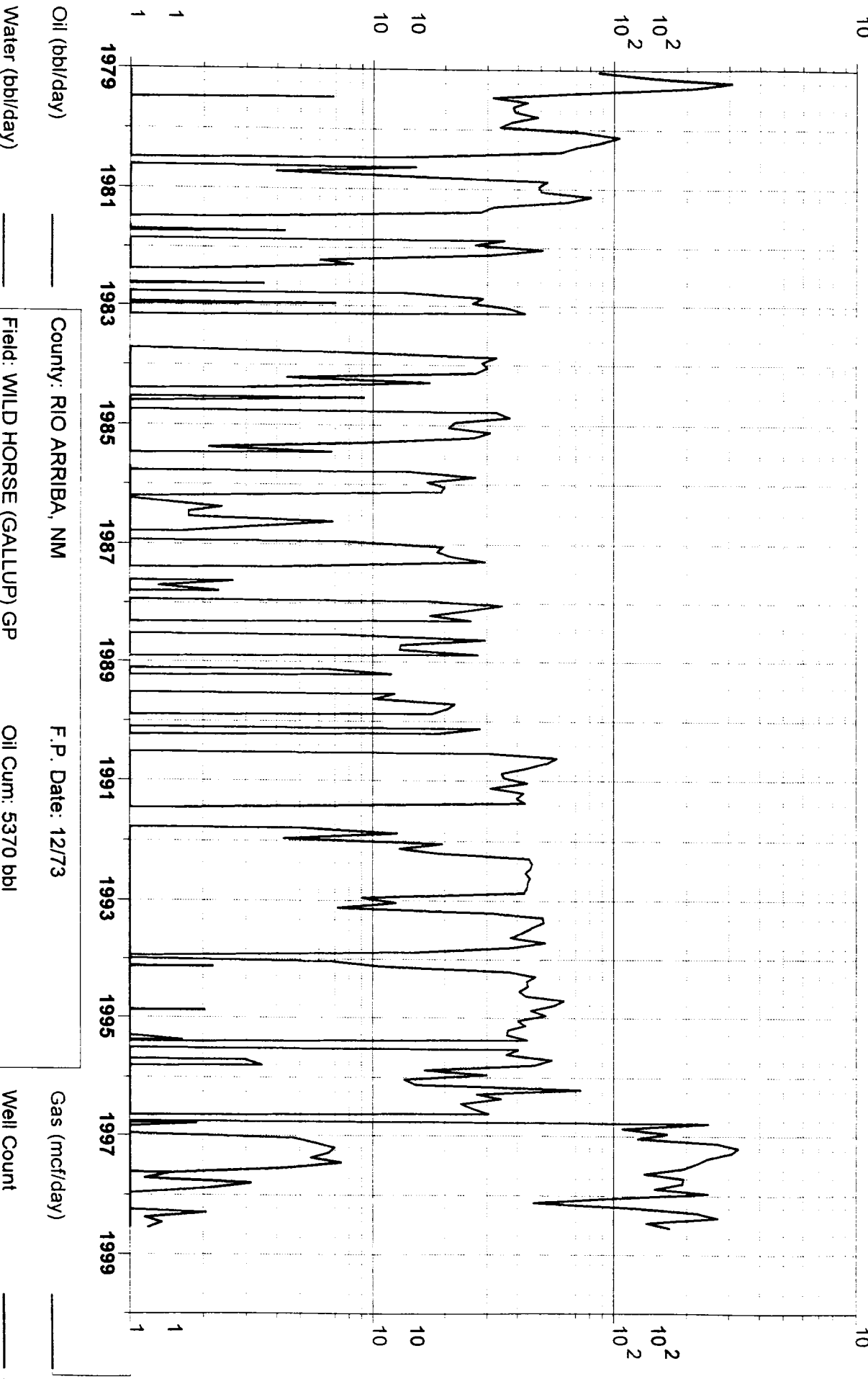
Lease: JICARILLA A (14)

Dwights

12/04/98

Retrieval Code: 251,039,26N04W24A00GP

10³
10²
10¹
10⁰



County: RIO ARriba, NM
Field: WILD HORSE (GALLUP) GP
Reservoir: GALLUP
Operator: CONOCO INC

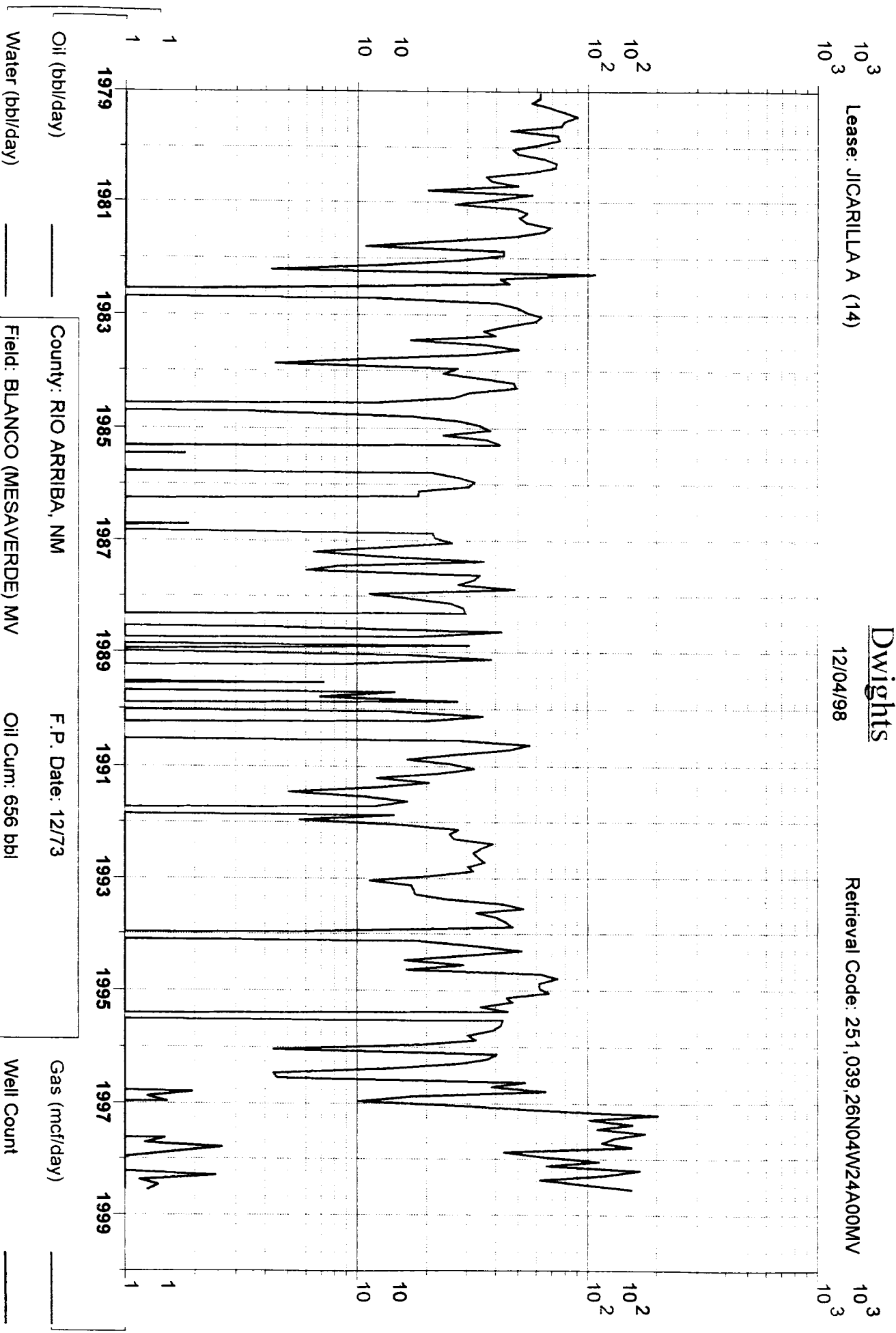
F.P. Date: 12/73
Oil Cum: 5370 bbl
Gas Cum: 759.0 mmcf
Location: 24A 26N 4W

Lease: JICARILLA A (14)

Dwights

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 Galup	Pool Galup	Dedicated Acreage: 5/8 - 320 NE 1/4 160	

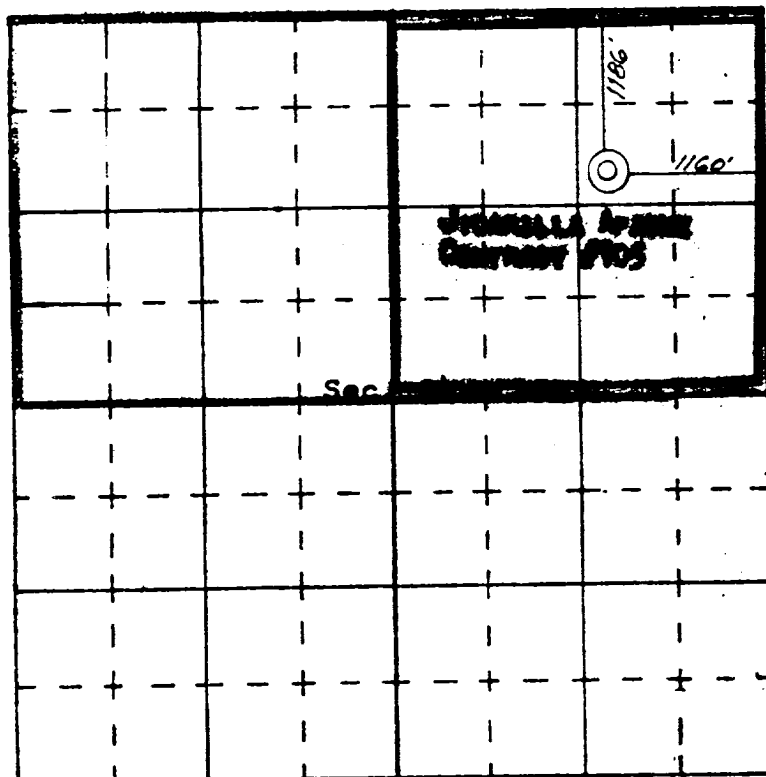
- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated 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 GALUP ACREAGE**
 ——— **DEDICATED NORMAN 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

DEPUTY SUPERINTENDENT

Company

SOUTHERN UNION PRODUCTION

Date

May 8, 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
 Registered Professional Engineer
 and/or Land Surveyor
JAMES D. LEESE
 1463
 NEW MEXICO
 1463
 Licensee
 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 7⅝" 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 2⅝" 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 2⅝" 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.).