

DATE IN 2/19/98	SUSPENSE 3/11/98	ENGINEER DC	LOGGED BY RV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1861

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

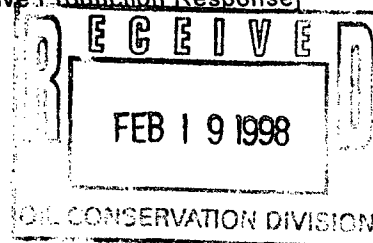
Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Kay Maddox
Print or Type Name

Kay Maddox
Signature

Regulatory Agent
Title

2/16/98
Date

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241 1980

State of New Mexico
Energy, Minerals and Natural Resources Department

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

DISTRICT II
811 South First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

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

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE

☒ YES ☐ NO

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

Lease Jicarilla K Well No 13 Section 11, T-25-N, R-5-W, E County Rio Arriba

OGRID NO. 005073 Property Code 18023 API NO. 30-039-20292 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 Pictured Cliffs South 72439	Otero Chacra 82329	Blanco Mesaverde 72319
2. TOP and Bottom of Pay Section (Perforations)	2970-3026'	3858-3884'	5180-5360'
3. Type of production (Oil or Gas)	Gas	Gas	Gas
4. Method of Production {Flowing or Artificial Lift}	Flowing	Flowing	To be completed
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a (Current) 378	a. 503	a. 560
	b(Original) 1140	b. 1012	b. 1317
6. Oil Gravity (°API) or Gas BT Content	1274	1204	1324
7. Producing or Shut-In?	Producing	Producing	To be completed
Production Marginal? (yes or no)	Yes	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 • If Producing, date and oil/gas/ water rates of recent test (within 60 days)	Date Rates	Date Rates	Date Rates
	Est 7/98 67 MCFD, 0 BOPD, 0 BWPD	Est 7/98 22 MCFD, 0 BOPD, 0 BWPD	Production to be allocated by subtraction - See attached table
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 ☐ 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

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241 1980

State of New Mexico
Energy, Minerals and Natural Resources Department

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

DISTRICT II
811 Southl First St. Artesia NM 88210 2835

OIL CONSERVATION DIVISION

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

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410 1693

APPLICATION FOR DOWNHOLE COMMINGLING

APPROVAL PROCESS:
☒ Administrative ☐ Hearing
EXISTING WELLBORE
☒ YES ☐ NO

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

Jicarilla K 13 Section 11, T-25-N, R-5-W, E Rio Arriba
Lease Well No Unit Ltr Sec Twp Rge County

OGRID NO. 005073 Property Code 18023 API NO. 30-039-20292 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ (and/or) Fee ☐

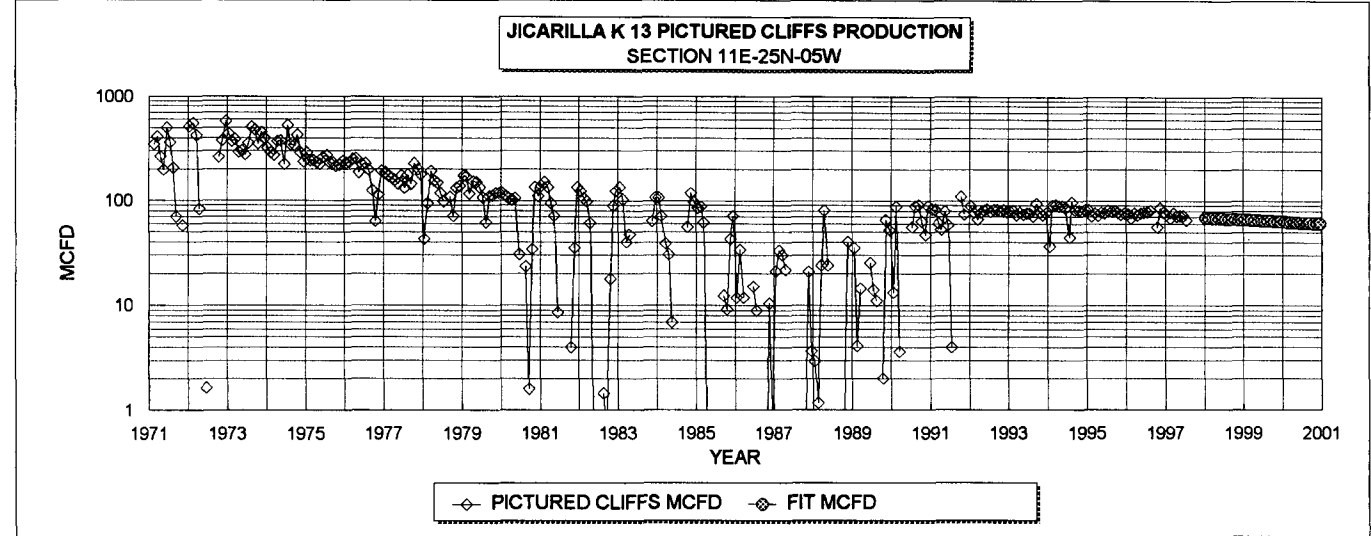
The following facts are submitted in support of downhole commingling:	lowest Upper Zone	intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Basin Dakota 71599		
2. TOP and Bottom of Pay Section (Perforations)	7184-7378'		
3. Type of production (Oil or Gas)	Gas		
4. Method of Production (Flowing or Artificial Lift)	Flowing		
5. Bottomhole Pressure	a (Current)	a.	a.
Oil Zones - Artificial Lift: Estimated Current	949		
Gas & Oil - Flowing: Measured Current	b(Original)	b.	b.
All Gas Zones: Estimated Or Measured Original	2804		
6. Oil Gravity (*API) or Gas BT Content	1275		
7. Producing or Shut-In?	Producing		
Production Marginal? (yes or no)	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 Est 7/98 44 MCFD, 1 BOPD, 0 BWPD	Date Rates	Date Rates
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 ☐ 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) _____
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 - * 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.

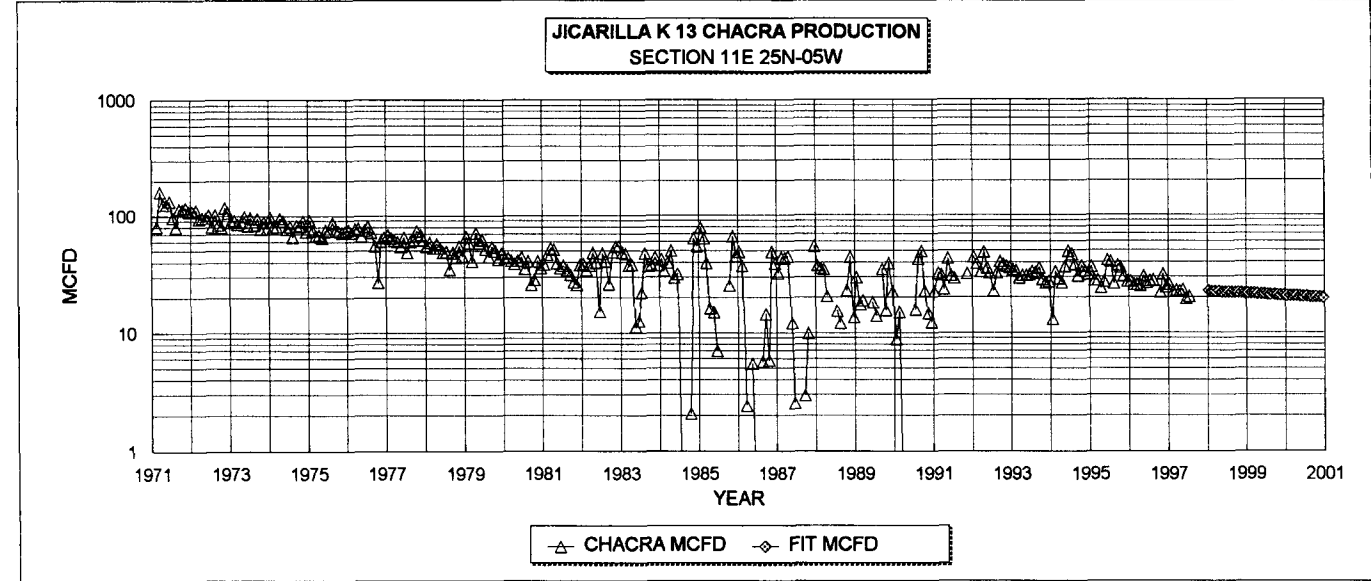
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE February 16, 1998

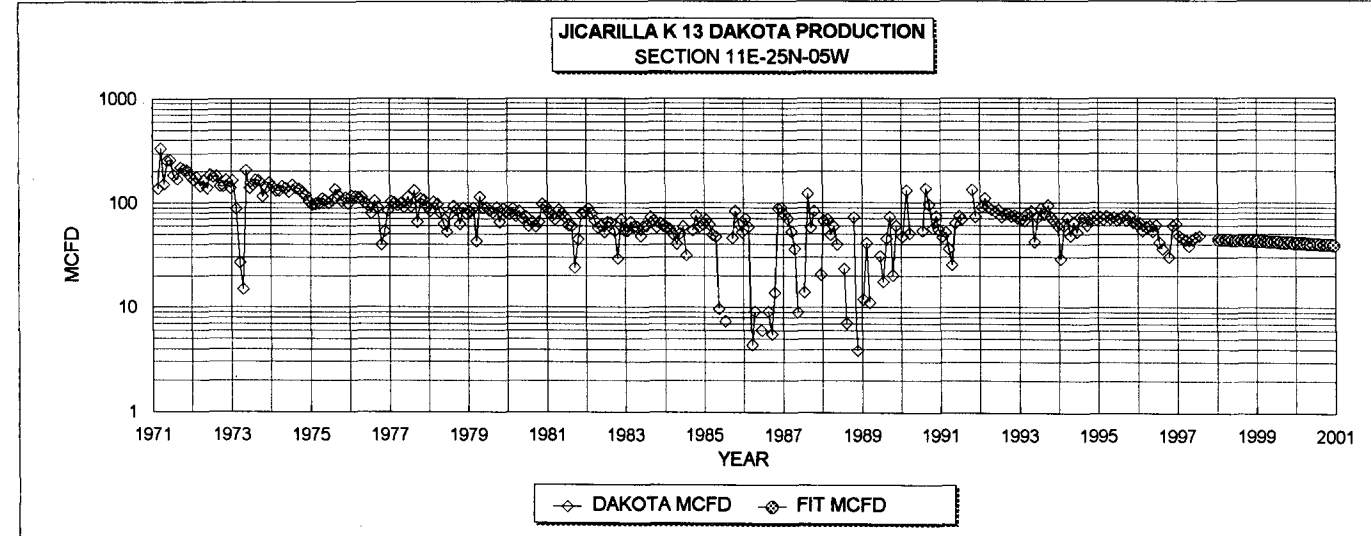
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798



PICTURED CLIFFS HISTORICAL DATA: 1ST PROD: 02/71		PIC. CLIFFS PROJECTED DATA	
OIL CUM:	0.00 MBO	7/1/88 Q1:	67 MCDF
GAS CUM:	1045.2 MMCF	DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0000 BBL/MCF		



CHACRA HISTORICAL DATA: 1ST PROD: 02/71		CHACRA PROJECTED DATA	
OIL CUM:	0.0 MBO	7/1/88 Q1:	22 MCDF
GAS CUM:	428.7 MMCF	DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0001 BBL/MCF		



DAKOTA HISTORICAL DATA: 1ST PROD: 02/71		DAKOTA PROJECTED DATA	
OIL CUM:	17.6 MBO	7/1/88 Q1:	44 MCDF
GAS CUM:	742.9 MMCF	DECLINE RATE:	4.3% (EXPONENTIAL)
OIL YIELD:	0.0237 BBL/MCF		

FIXED COMMINGLE ALLOCATION FACTORS:			GAS ALLOCATION BASED ON PROJECTED 1988 RATES OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS NOTE: ALL PRODUCTION DATA FROM DWIGHTS ENERGYDATA
	GAS	OIL	
PIC. CLIFFS	51%	0%	
CHACRA	17%	0%	
DAKOTA	33%	100%	

JICARILLA K 13: PICTURED CLIFFS, CHACRA, AND DAKOTA FORECAST FOR SUBTRACTION COMMINGLE WITH MESAVERDE
11E-25N-05W

(7-12/98 AVG)

YEAR	PICT. CLIFFS	CHACRA	DAKOTA	TOTAL
	MCFD	MCFD	MCFD	MCFD
1998	66	22	43	131
1999	65	21	42	128
2000	62	20	40	122
2001	59	19	38	117
2002	57	18	37	112
2003	54	18	35	107
2004	52	17	34	102
2005	50	16	32	98
2006	47	15	31	94
2007	45	15	30	90
2008	43	14	28	86
2009	42	14	27	82
2010	40	13	26	79
2011	38	12	25	75
2012	36	12	24	72
2013	35	11	23	69
2014	33	11	22	66
2015	32	10	21	63
2016	31	10	20	60
2017	29	10	19	58
2018	28	9	18	55
2019	27	9	17	53
2020	26	8	17	51
2021	25	8	16	49
2022	24	8	15	46
2023	22	7	15	44
2024	22	7	14	43
2025	21	7	13	41
2026	20	6	13	39
2027	19	6	12	37
2028	18	6	12	36
2029	17	6	11	34
2030	17	5	11	33
2031	16	5	10	31
2032	15	5	10	30
2033	14	5	9	29
2034	14	5	9	27
2035	13	4	9	26
2036	13	4	8	25
2037	12	4	8	24
2038	12	4	8	23
2039	11	4	7	22
2040	11	3	7	21
2041	10	3	7	20
2042	10	3	6	19
2043	9	3	6	18
2044	9	3	6	18
2045	9	3	6	17
2046	8	3	5	16
2047	8	3	5	15
2048	7	2	5	15
2049	7	2	5	14
2050	7	2	4	14

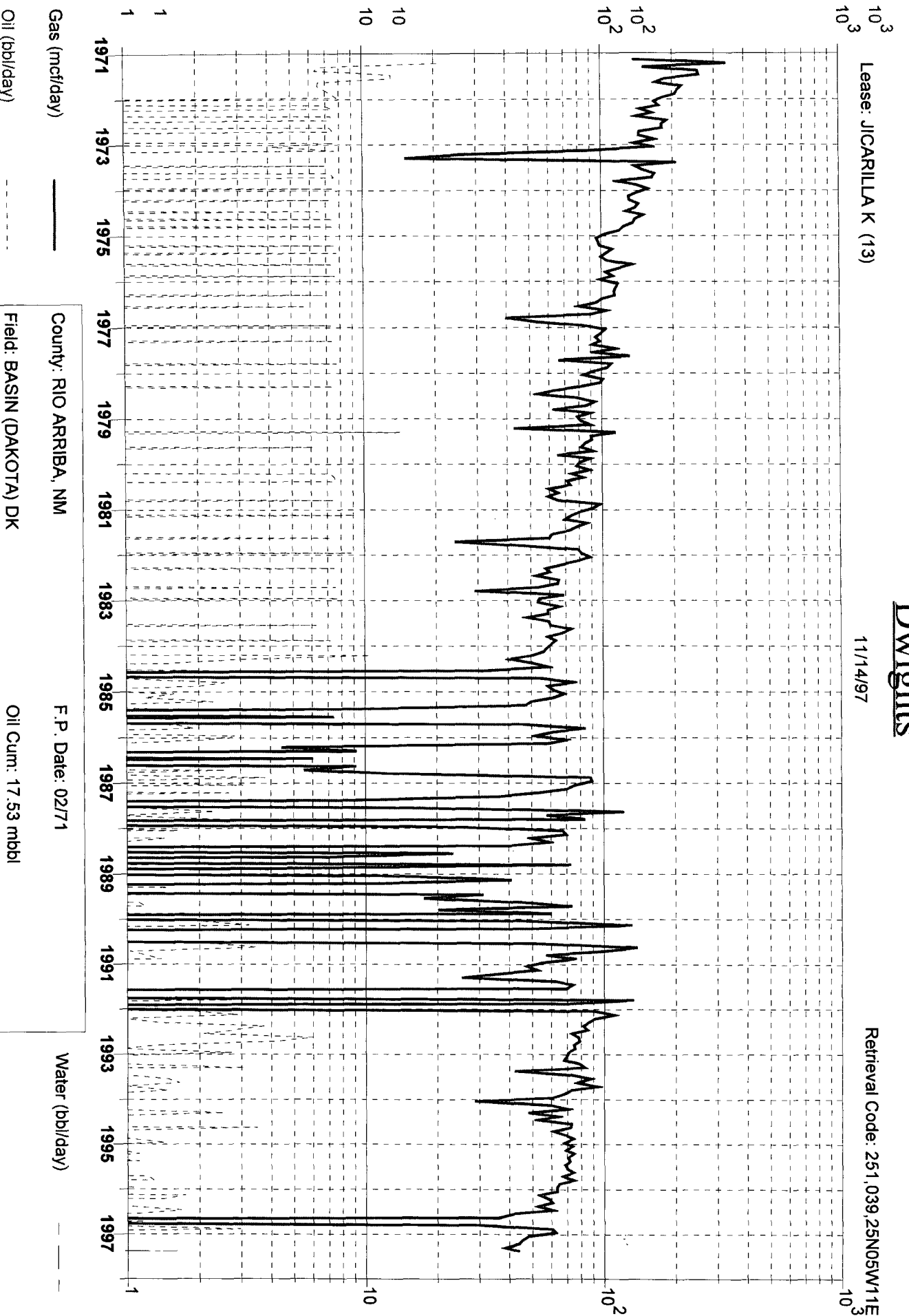
PICT. CLIFFS	CHACRA	DAKOTA
OIL; BOPD	OIL; BOPD	OIL; BOPD
0.0	0.0	1.0
0.0	0.0	1.0
0.0	0.0	1.0
0.0	0.0	0.9
0.0	0.0	0.9
0.0	0.0	0.8
0.0	0.0	0.8
0.0	0.0	0.8
0.0	0.0	0.7
0.0	0.0	0.7
0.0	0.0	0.7
0.0	0.0	0.6
0.0	0.0	0.6
0.0	0.0	0.6
0.0	0.0	0.5
0.0	0.0	0.5
0.0	0.0	0.5
0.0	0.0	0.5
0.0	0.0	0.5
0.0	0.0	0.4
0.0	0.0	0.4
0.0	0.0	0.4
0.0	0.0	0.4
0.0	0.0	0.4
0.0	0.0	0.3
0.0	0.0	0.3
0.0	0.0	0.3
0.0	0.0	0.3
0.0	0.0	0.3
0.0	0.0	0.3
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.2
0.0	0.0	0.1
0.0	0.0	0.1
0.0	0.0	0.1
0.0	0.0	0.1
0.0	0.0	0.1
0.0	0.0	0.1

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251.039.25N05W11E00DK



Gas (mcf/day)

Oil (bbl/day)

County: RIO ARRIBA, NM

Field: BASIN (DAKOTA) DK

Reservoir: DAKOTA

Operator: CONOCO INC

F.P. Date: 02/71

Oil Cum: 17.53 mbbl

Gas Cum: 740.0 mmcf

Location: 11E 25N 5W

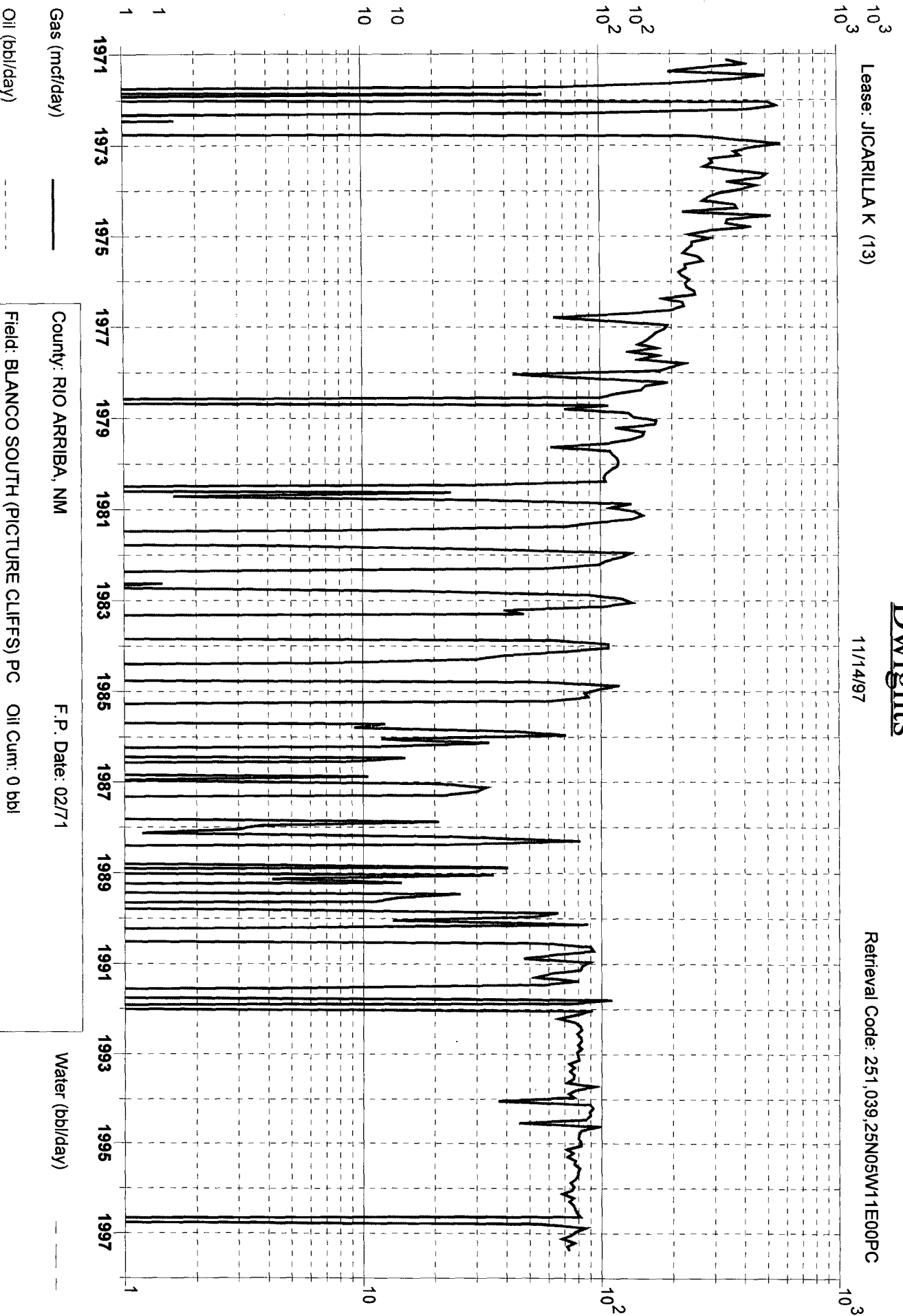
Water (bbl/day)

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251,039,25N05W11E00PC



Gas (mcf/day)

Oil (bbl/day)

County: RIO ARriba, NM

Field: BLANCO SOUTH (PICTURE CLIFFS) PC

Reservoir: PICTURE CLIFFS

Operator: CONOCO INC

F.P. Date: 02/71

Oil Cum: 0 bbl

Gas Cum: 1041 mmcf

Location: 11E 25N 5W

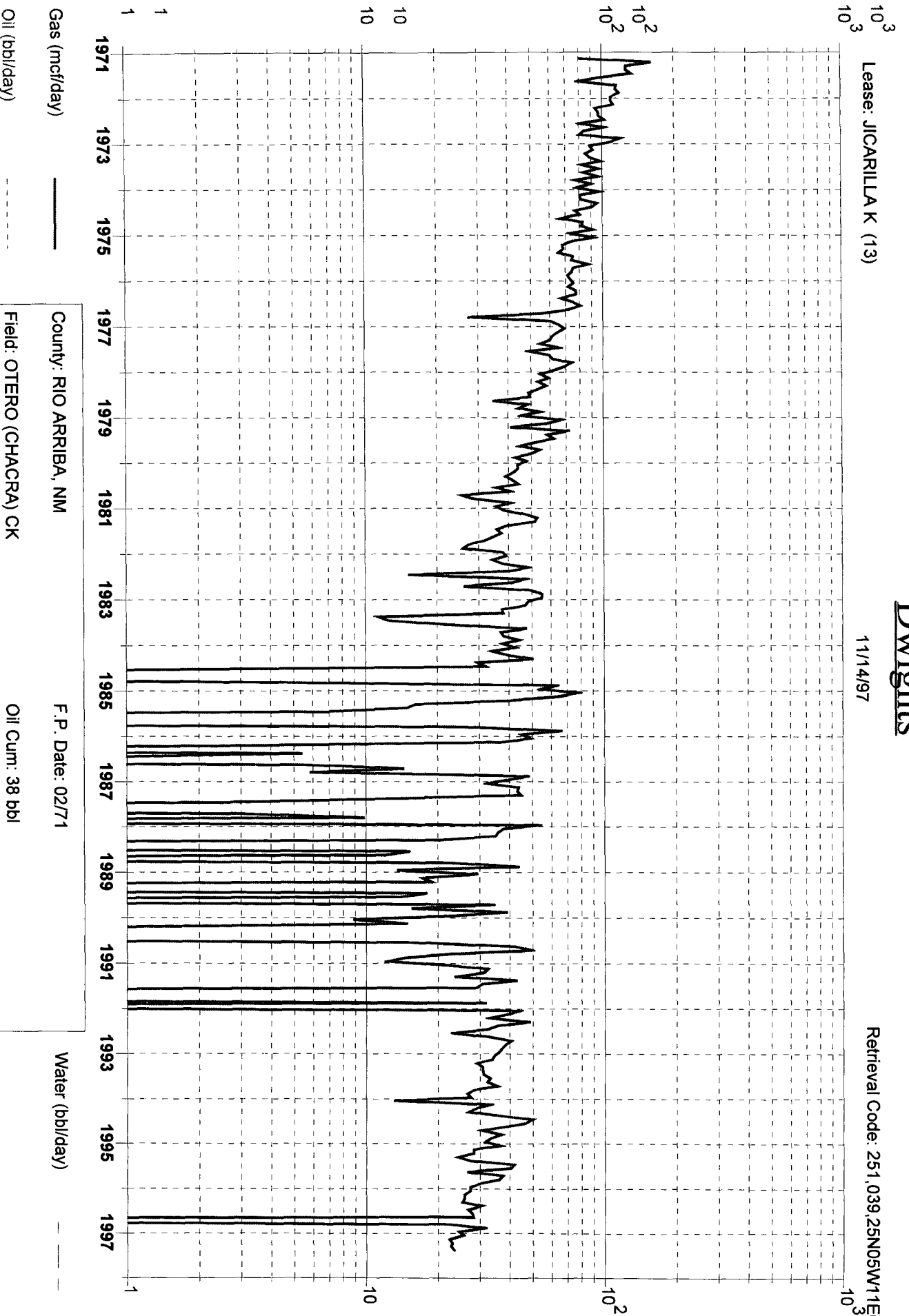
Water (bbl/day)

Dwights

Lease: JICARILLA K (13)

11/14/97

Retrieval Code: 251,039,25N05W11E00CK



Gas (mcf/day)

Oil (bbl/day)

County: RIO ARriba, NM

Field: OTERO (CHACRA) CK

Reservoir: CHACRA

Operator: CONOCO INC

F.P. Date: 02/71

Oil Cum: 38 bbl

Gas Cum: 427.5 mmcf

Location: 11E 25N 5W

Water (bbl/day)

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1994

District II
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

instructions on back

District III
1000 Rio Brazos Rd. Aztec, NM 87410

PO Box 2088

Submit to Appropriate District Office

State Lease - 4 Copies

District IV
PO Box 2088, Santa Fe, NM 87504-2088

Santa Fe, NM 87504-2088

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20292		2 Pool Code 72319		3 Pool Name Blanco Mesaverde	
4 Property Code 18023		5 Property Name Jicarilla K			6 Well Number #13
7 OGRID No. 005073		8 Operator Name Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500			9 Elevation 6684 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
E	11	25N	5W		1450	North	1070	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

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

	17 OPERATOR CERTIFICATION		
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief		
	Signature Kay Maddox Printed Name Regulatory Agent Title 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:			
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: **SOUTHERN UNION PRODUCTION COMPANY** JICARILLA "K" 13

Section: **E 11 25 NORTH 5 WEST RIO ARriba**

Section: **1450** NORTH 1070 WEST

Ground Level: **6624.0** **DAKOTA** **BASIN DAKOTA** **W/2 319.5**

PICTURED CLIFFS **SOUTH BLANCO PICTURED CLIFFS** **NW/4 160**

- Outline the acreage dedicated to the subject well by color, pencil or machine mark 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 communization, 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 communization, unitization, forced-pooling, or otherwise) or until a non standard unit, eliminating such interests, has been approved by the Commission.

____ **Dedicated Dakota Acreage**
____ **Dedicated Pictured Cliffs Acreage**

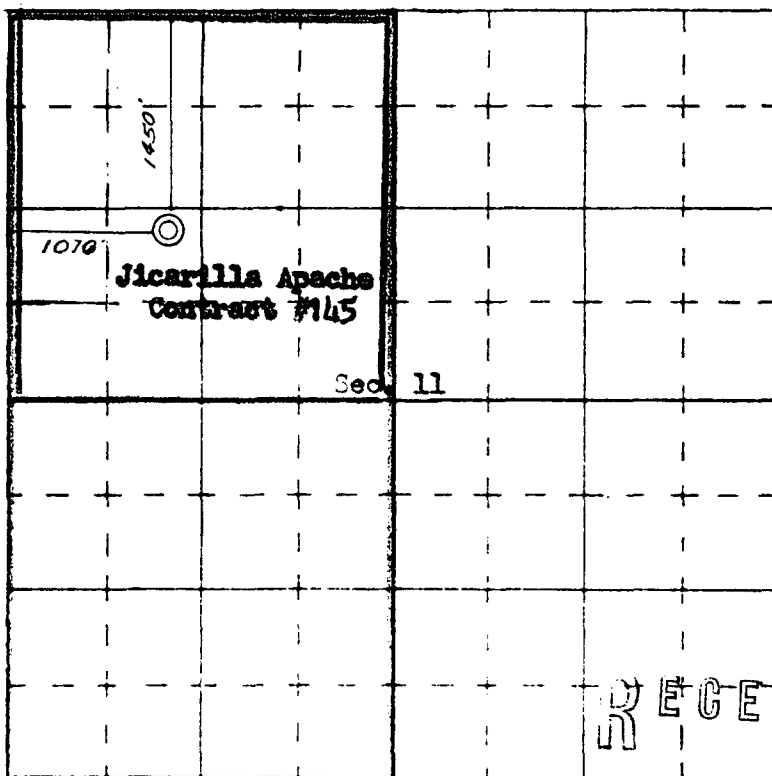
CERTIFICATION

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

Don Collier
Name: **Don Collier**
Position: **Office Manager**
Company: **Southern Union Production**
Date: **November 10, 1969**

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.

5 November 1969
James L. Luecke
JAMES L. LUECKE



SCALE—4 INCHES EQUALS 1 MILE

RECEIVED

Conoco, Inc.
Jicarilla K #13
Section 11, T-25-N, R-5-W, E
Rio Arriba County, New Mexico

Re: Application for Downhole Commingling

Offset Operators:

Amoco Production Co.
PO Box 800
Denver, Co 80201