

DATE IN 1/13/00	SUSPENSE 2/2/00	ENGINEER DC	LOGGED RV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

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

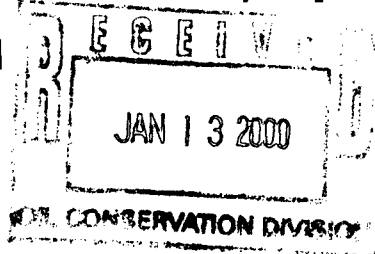
Check One Only for [B] and [C]

[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.

Kevin McCord
Print or Type Name

Kevin H. McCord
Signature

Petroleum Engineer
Title

1/12/00
Date

ROBERT L. BAYLESS, PRODUCER LLC

OIL & GAS PRODUCER

P. O. Box 168
FARMINGTON, NM 87499

FAX NO.
(505) 326-6911

OFFICE NO.
(505) 326-2659

January 12, 2000

Certified Mail - Return Receipt Requested

Mr. David Catanach
New Mexico Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Application for Downhole Commingling
Robert L. Bayless Producer, LLC
Krause #1
1190' FNL and 1450' FWL
Section 2, T26N R11W
San Juan County, New Mexico

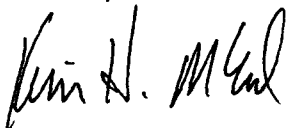
Gentlemen:

Robert L. Bayless Producer, LLC's hereby requests administrative approval of our attached Application for Downhole Commingling of the Pictured Cliffs and Fruitland Coal formations in the Krause #1 well referenced above. Included with this application are the following attachments:

1. Well Location and Acreage Dedication Plat (NMOCD Form C-102) for both the Fruitland Coal and Pictured Cliffs formation
2. Estimated Production and Allocation Method
 - a. Fruitland Coal estimated gas decline curve
 - b. Pictured Cliffs estimated gas decline curve
 - c. Offset Fruitland Coal well decline curves (3)
 - d. Offset Pictured Cliffs well decline curves (3)
3. Offsetting Operator and Area Map
4. Offset Operators Notification List

By certified mail, a copy of this application and request for administrative approval has been sent to all offset operators. Please contact me if you have any questions or require any additional information.

Sincerely,



Kevin H. McCord
Petroleum Engineer

Attachments

Robert L. Bayless, Producer LLC
Operator

P.O. Box 168, Farmington, New Mexico 87499
Address

E-4777
Lease

Krause #1
Well No.

C Sec 2, T26N R11W
Unit Ltr. - Sec - Twp - Rge

San Juan
County

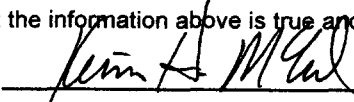
Spacing Unit Lease Type: (check 1 or more)
OGRID NO. 150182 Property Code 25033 API NO. 30-045-30024 Federal State ☒ (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Basin Fruitland Coal		West Kutz Pictured Cliffs
2. Top and Bottom of Pay Section (Perforations)	1780' - 1831'		1874' - 1889'
3. Type of Production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure			
Oil Zones - Artificial Lift:	(Current) a. 325 psi (estimate from offset wells)	a.	(Current) a. 450 psi (estimate from offset wells)
Gas & Oil - Flowing:			
Measured Current	(Original) b. 325 psi (estimate from offset wells)	b.	(Original) b. 450 psi (estimate from offset wells)
All Gas Zones:			
Estimated or Measured Original			
6. Oil Gravity (° API) or Gas BTU Content	1040 BTU		1080 BTU
7. Producing or Shut-in?	Not Completed Yet		Not Completed Yet
Production Marginal? (yes or no)	Yes		Yes
If Shut-in, give date and oil/gas/ water rates of last production	Date: Rates: N/A	Date: Rates:	Date: Rates: N/A
Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data			
If Producing, give date and oil/gas/ water rates of recent test (within 60 days)	Date: Not Producing Rates: Production Estimates Attached	Date: Rates:	Date: Not Producing Rates: Production Estimates Attached
8. Fixed Percentage Allocation Formula - % for each zone	Oil: N/A Gas: % 77 %	Oil: Gas: % %	Oil: Gas: N/A % 23 %

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?
If not, have all working, overriding, and royalty interests been notified by certified mail?
Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No
☒ Yes ☐ No
☒ 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 other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No
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 

TITLE Petroleum Engineer

DATE January 12, 2000

TYPE OR PRINT NAME Kevin H. McCord TELEPHONE NO. (505) 326-2659

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
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

1 API Number 30-045-30024		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal	
4 Property Code 25033		5 Property Name KRAUSE			6 Well Number 1
7 OGRID No. 150182		8 Operator Name ROBERT L. BAYLESS, PRODUCER LLC			9 Elevation 6376

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
3	2	26 N	11 W		1190	North	1450	West	San Juan

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 318.94	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

16 SURFACE LOCATION UL 3, SEC 2, T26N, R11W, LOT 1 1190' N, 1450' W		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: Price M. Bayless Printed Name: Price M. Bayless Title: Engineer Date: October 26, 1999	
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: 1999 Oct 19 Signature and Seal of Professional Surveyor: William J. Mahnkke II Certificate Number: 8466			

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 83211-0719
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

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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

1 API Number 30-045-30024		2 Pool Code 79680		3 Pool Name WEST KUTZ PICTURED CLIFFS	
4 Property Code 25033		5 Property Name KRAUSE			6 Well Number 1
7 OGRID No. 150182		8 Operator Name ROBERT L. BAYLESS, PRODUCER LLC			9 Elevation 6376

10 Surface Location

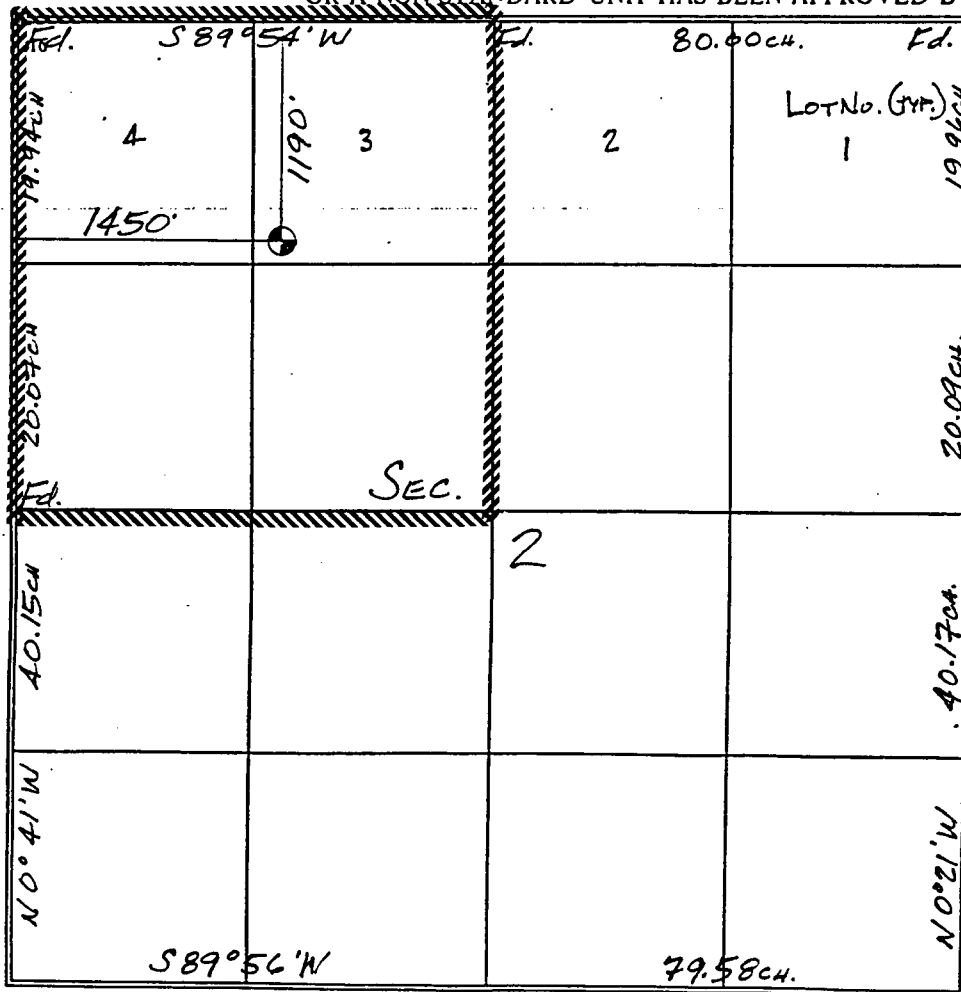
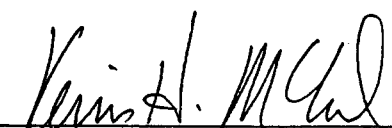
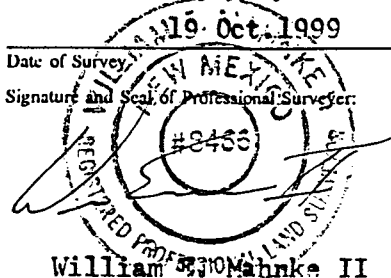
UL or lot no. 3	Section 2	Township 26 N	Range 11 W	Lot Idn	Feet from the 1190	North/South line North	Feet from the 1450	East/West line West	County San Juan
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres	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 KEVIN H. MCCORD Printed Name PETROLEUM ENGINEER Title JANUARY 5, 2000 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: 19. Oct. 1999 Signature and Seal of Professional Surveyor:  William J. Mahnke II Certificate Number 8466	

ROBERT L. BAYLESS PRODUCER, LLC

Downhole Commingle Application Krause #1

ESTIMATED PRODUCTION AND ALLOCATION METHOD

Robert L. Bayless Producer, LLC estimates the ultimate natural gas production from the Krause #1 well will be 1 BCF of gas, 770,000 MCF of this gas coming from the Fruitland Coal formation, and 230,000 MCF of gas coming from the Pictured Cliffs formation. Decline curves are provided which show the estimated gas production rates from both of these formations.

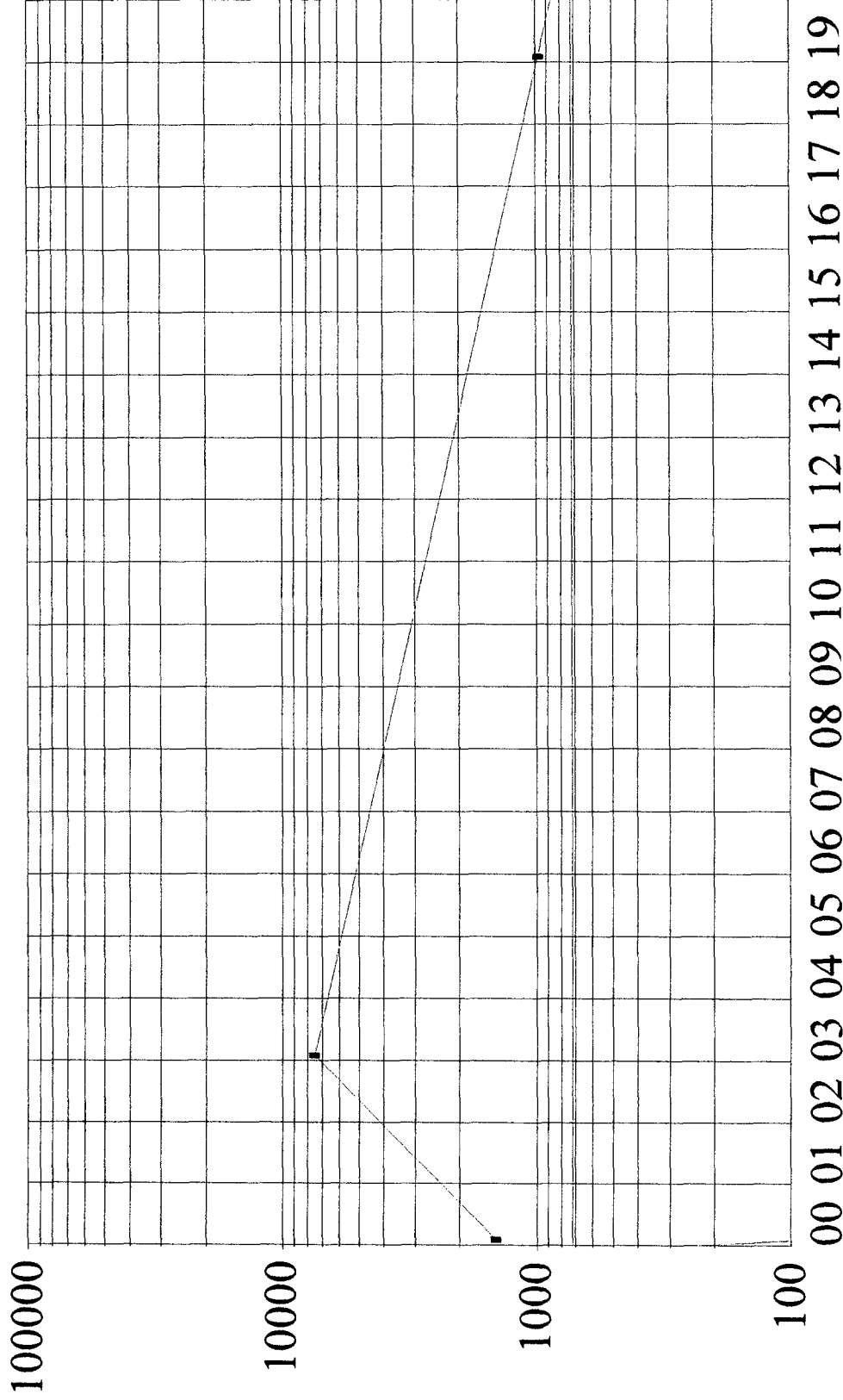
Bayless proposes to allocate production from the Krause #1 well using a fixed percentage allocation. Study has been made of offsetting wells' ultimate recovery from both the Fruitland Coal and Pictured Cliffs formations. The closest 3 offset wells producing from each the Fruitland Coal and the Pictured Cliffs formation were examined, and the average ultimate recovery from the three wells for each zone was decided to be the best estimate of ultimate recovery for the Krause #1 well.

Presented with this application are decline curves for the 3 closest Fruitland Coal formation wells to the Krause #1 well location. These wells are (1) Burlington's Douthit Fed #352 (SW, Sec 35, T27N R11W), (2) Burlington's Douthit Fed #351 (NE, Sec 35, T27N R11W), and (3) Conoco's Delhi Taylor D#1E (NW, Sec 3, T26N R11W). The ultimate gas recovery from these wells is calculated to be 1,034,777 MCF, 702,536 MCF, and 566,928 MCF, respectfully. The average ultimate recovery for these 3 wells is calculated to be 768,080 MCF.

Decline curves are also presented for the 3 closest Pictured Cliffs formation wells to the Krause #1 well location. These wells are (1) Benson-Montin-Greer's Winger State #1 (NE, Sec 2, T26N R11W), (2) Merrion's Mead #1 (NE, Sec 3, T26N R11W), and (3) Merrion's Navajo #1 (SW, Sec 3, T26N R11W). The ultimate gas recovery from these wells is calculated to be 317,942 MCF, 226,795 MCF, and 141,054 MCF, respectfully. The average ultimate recovery for these 3 wells is calculated to be 228,597 MCF.

From this information presented, the ultimate natural gas recoveries for the Krause #1 well are estimated to be 770,000 MCF of gas from the Fruitland Coal formation and 230,000 MCF from the Pictured Cliffs formation. Using these ultimate recovery values, the Fruitland Coal formation is expected to produce 77% and the Pictured Cliffs formation is expected to produce 22% of the total natural gas production from the Krause #1 well. These are the allocation values Bayless propose to use for downhole commingling in the Krause #1 well.

Krause FC (#1 - 100%), Basin Fruitland Coal



Krause FC (#1 - 100%)
Basin Fruitland Coal
Robert L. Bayless, LLC
San Juan, New Mexico

Cumulative:
Remaining:
Ultimate:

Oil (bbl)

Gas (mcf)

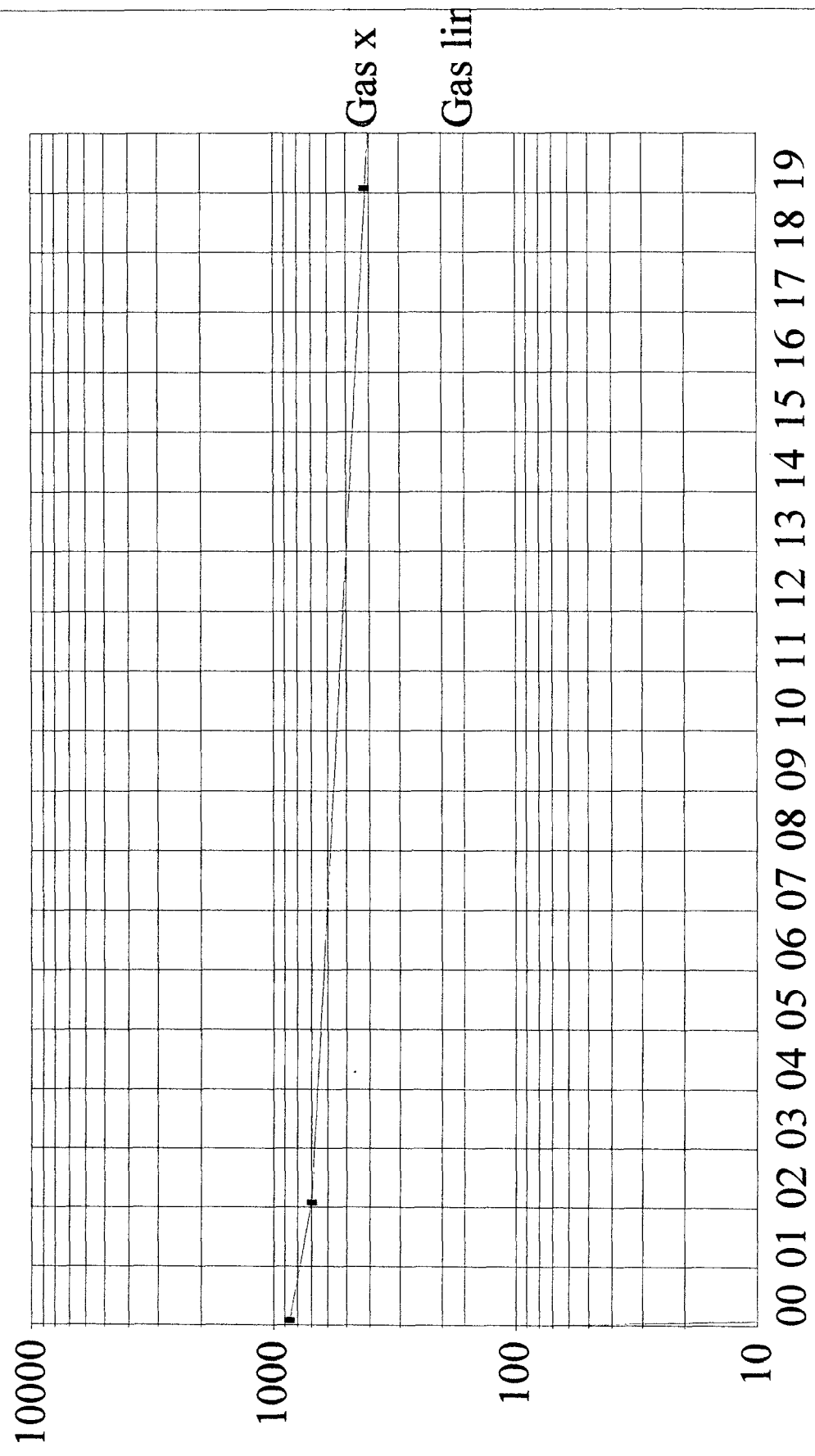
Water (bbl)

0
0
0

233
769,767
770,000

0
0
0

Krause PC (#1 - 100%), West Kutz Pictured Cliffs



Krause PC (#1 - 100%) West Kutz Pictured Cliffs Robert L. Bayless LLC San Juan County, New Mexico	□			Oil (bbl)	Gas (mcf)	Water (bbl)
		Cumulative:		0	79	0
		Remaining:		0	229,921	0
		Ultimate:		0	230,000	0

DOUTHIT FEDERAL (352 - 100%), BASIN (FRUITLAND COAL) FT

Effective Date

100000
10000
1000
100

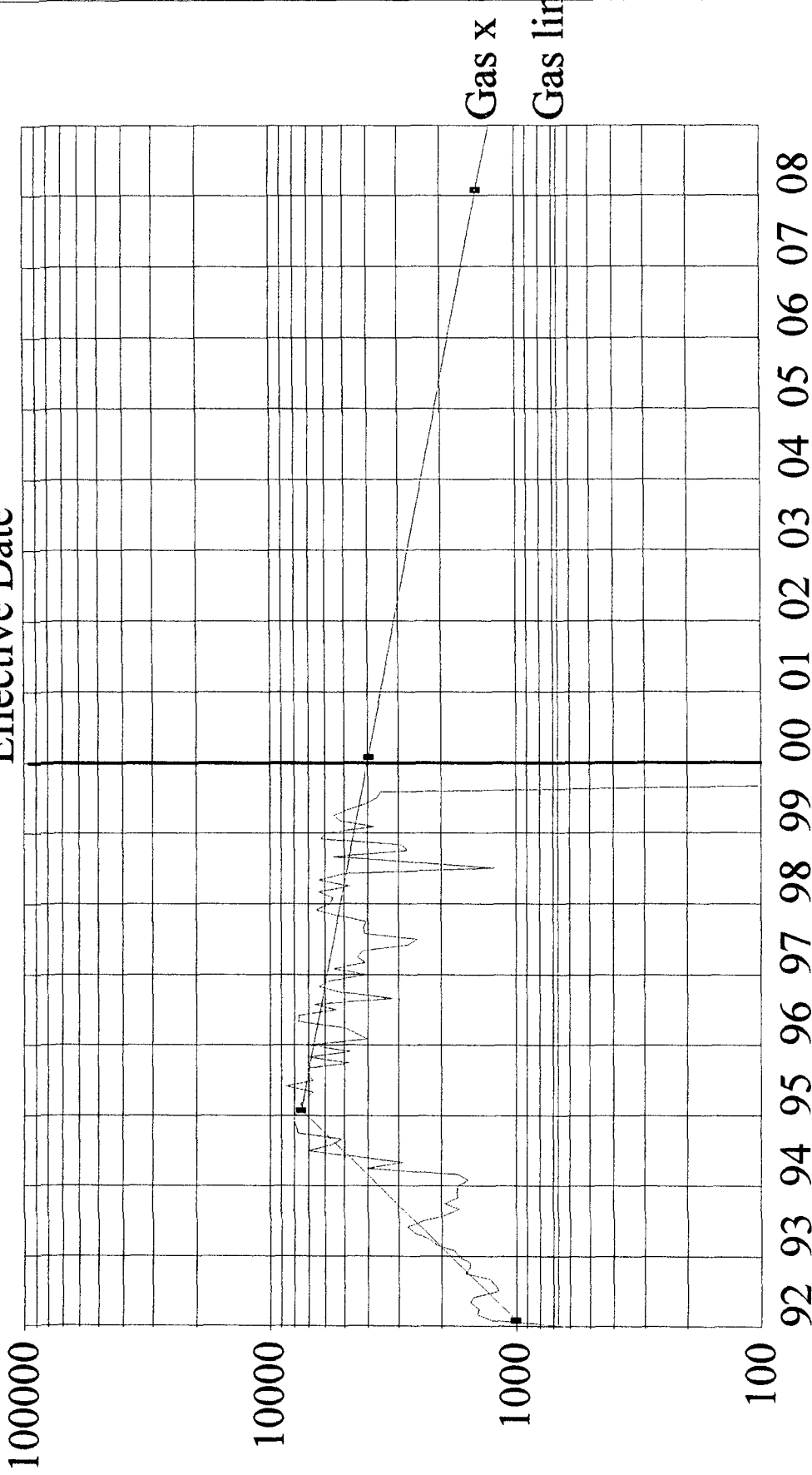
92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08

Gas x
Gas lin

DOUTHIT FEDERAL (352 - 100%) BASIN (FRUITLAND COAL) FT BURLINGTON RES O&G CO SAN JUAN, NM	[30045284050000] FRUITLAND COAL 35M 27N 11W	Cumulative:		Oil (bbl)		Gas (mcf)		Water (bbl)	
		Remaining:		0		395,961		0	
		Ultimate:		0		638,816		0	
				0		1,034,777		0	

DOUTHIT FEDERAL (351 - 100%), BASIN (FRUITLAND COAL) FT

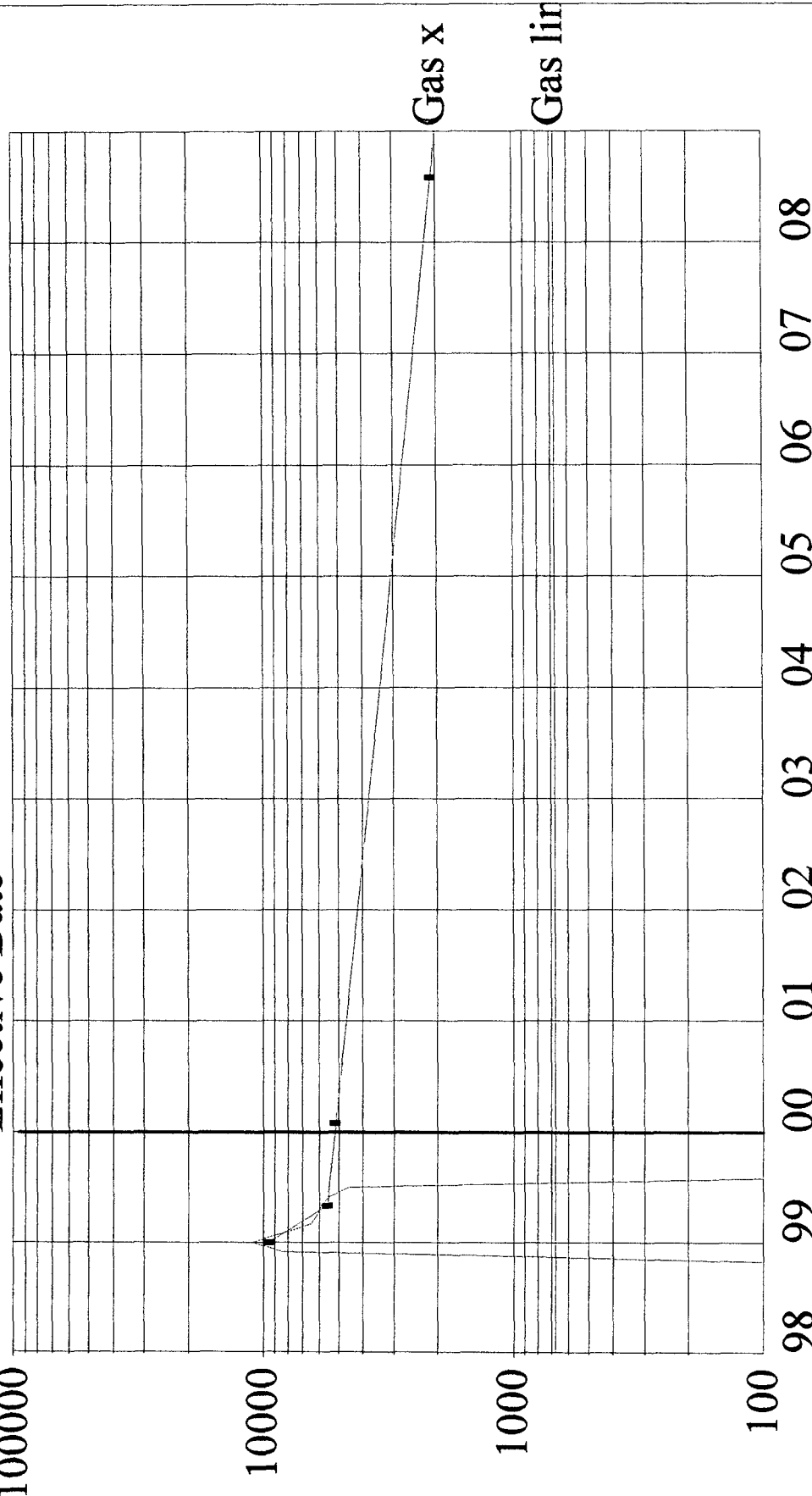
Effective Date



DOUTHIT FEDERAL (351 - 100%) BASIN (FRUITLAND COAL) FT BURLINGTON RES O&G CO SAN JUAN, NM	[30045284040000] FRUITLAND COAL 35A 27N 11W	Cumulative:		Oil (bbl)		Gas (mcf)		Water (bbl)	
		Remaining:		0		392,061		0	
		Ultimate:		0		310,475		0	
				0		702,536		0	

DELHI TAYLOR D (1E - 100%), BASIN (FRUITLAND COAL) FT

Effective Date



DELHI TAYLOR D (1E - 100%)
BASIN (FRUITLAND COAL) FT
CONOCO INC
SAN JUAN, NM

[30045237960000]
FRUITLAND COAL
3 26N 11W

Cumulative:
Remaining:
Ultimate:

Oil (bbl)

Gas (mcf)

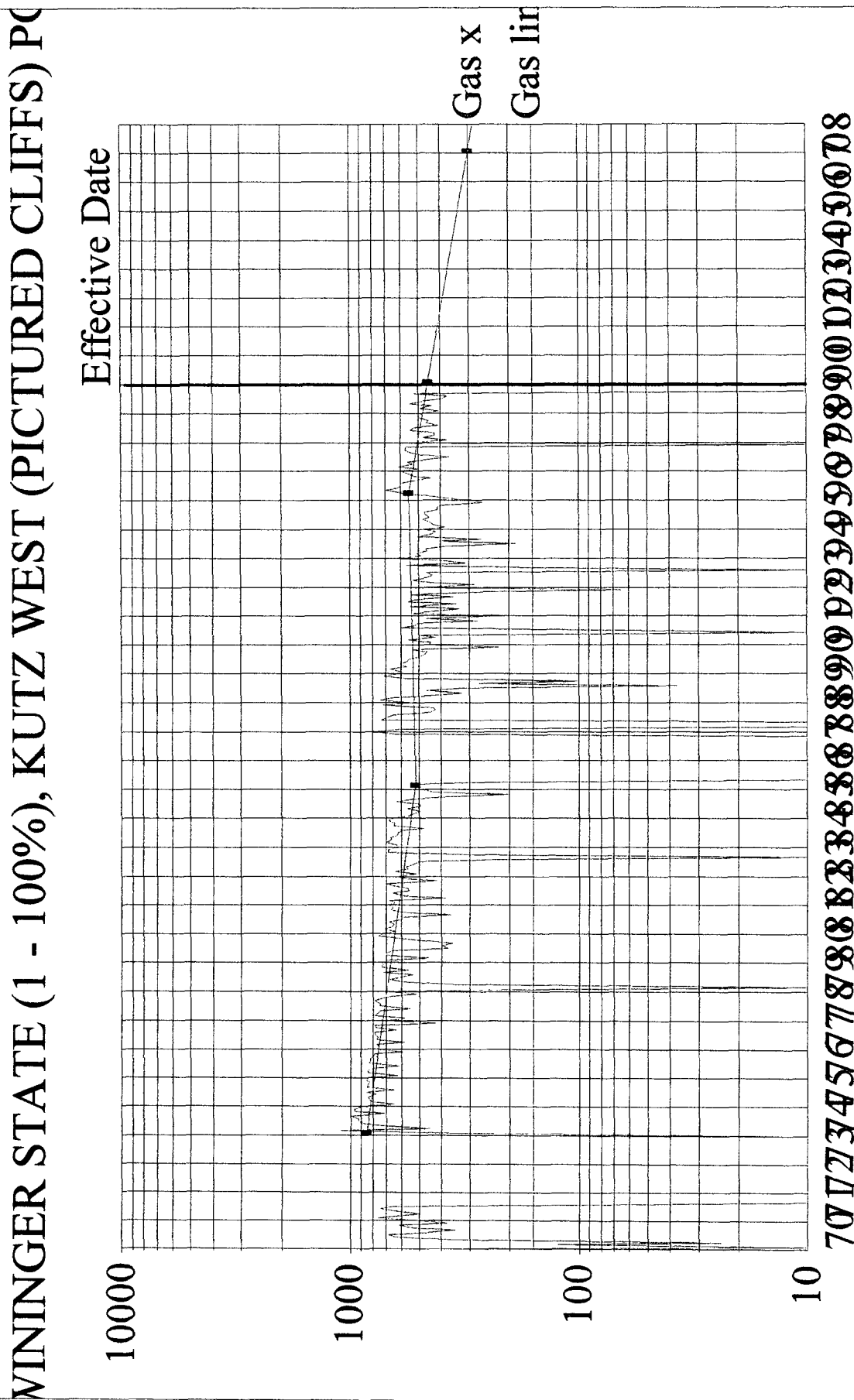
Water (bbl)

0
0
0

56,220
510,708
566,928

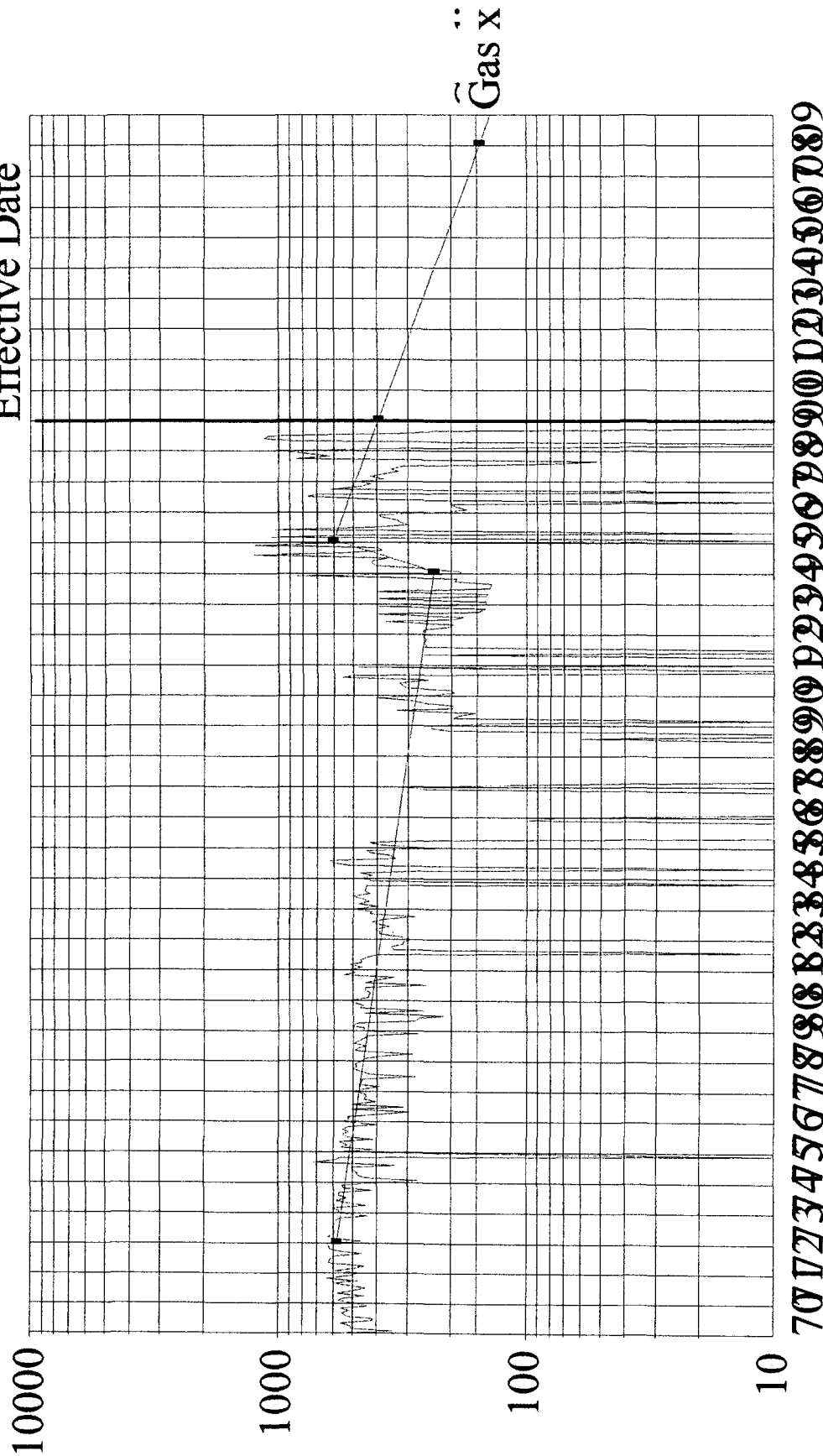
0
0
0

0
0
0



	[30045060750000]	Oil (bbl)	Gas (mcf)	Water (bbl)
WININGER STATE (1 - 100%)				
KUTZ WEST (PICTURED CLIFFS) PC		Cumulative:	248,840	0
BENSON MONTIN GREER DRLG	2A 26N 11W	Remaining:	69,102	0
SAN JUAN NM		Ultimate:	317,942	0

Effective Date



MEAD (1 - 100%)
KUTZ WEST (PICTURED CLIFFS) PC
MERRION OIL & GAS CORP
SAN JUAN, NM

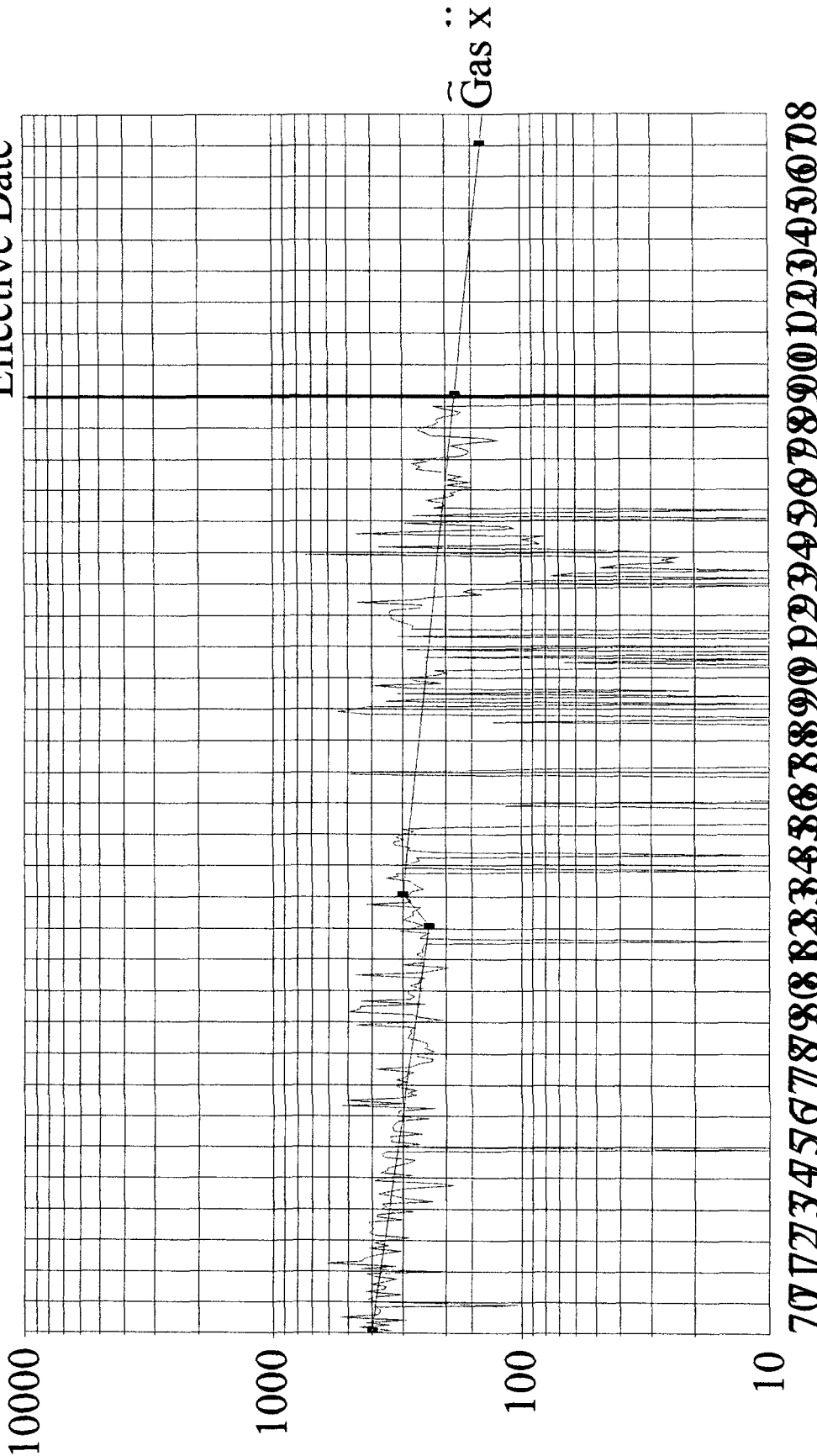
[30045060780000]
PICTURED CLIFFS
3A 26N 11W

Cumulative:
Remaining:
Ultimate:

	Oil (bbl)	Gas (mcf)	Water (bbl)
1	0	199,618	0
2	0	27,177	0
3	0	226,795	0

NAVAJO (1 - 100%), KUTZ WEST (PICTURED CLIFFS) PC

Effective Date



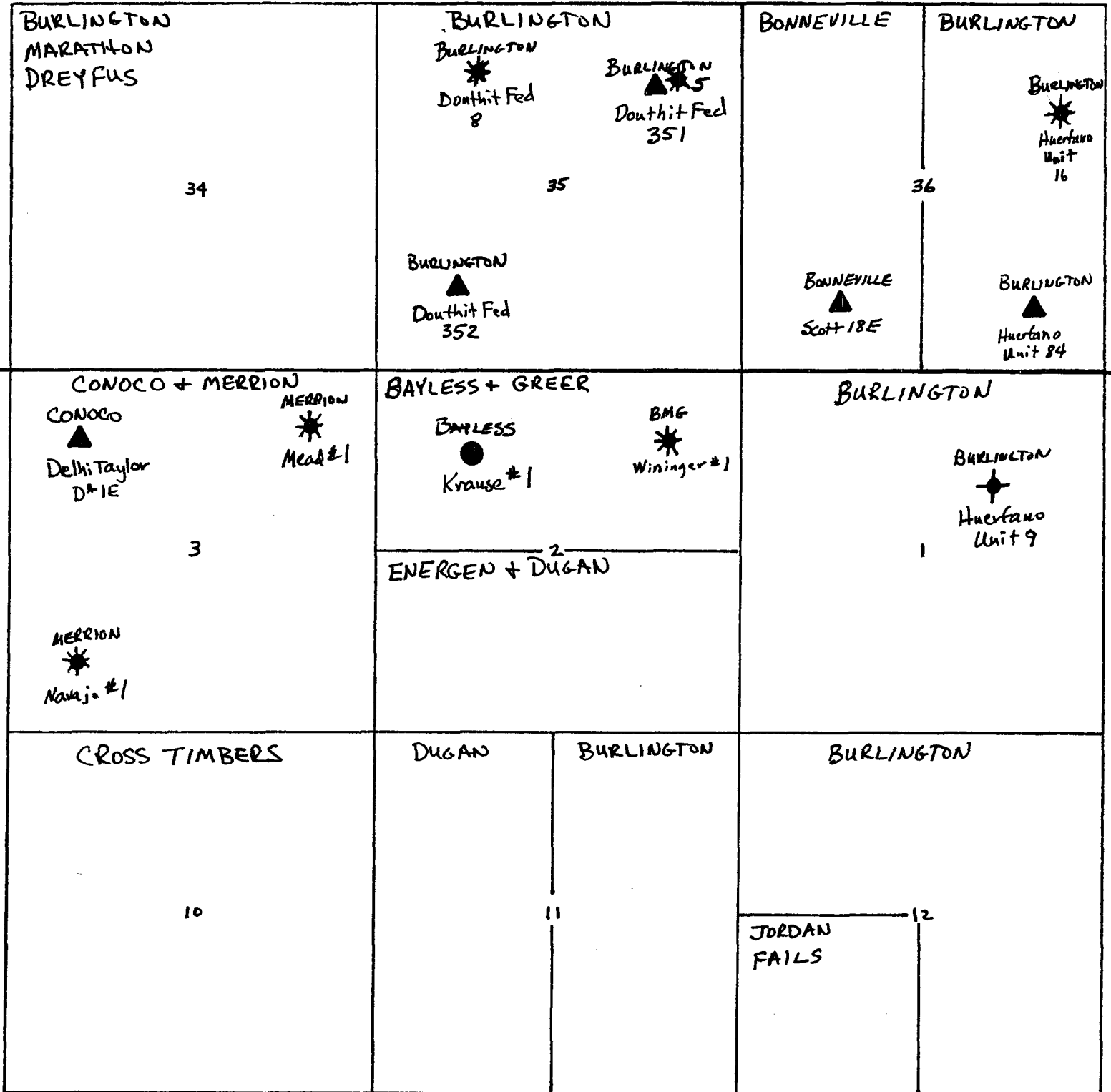
NAVAJO (1 - 100%) KUTZ WEST (PICTURED CLIFFS) PC MERRION OIL & GAS CORP SAN JUAN, NM		[300450600100001] PICTURED CLIFFS 3M 26N 11W		Cumulative: Remaining: Ultimate:		Oil (bbl)	Gas (mcf)	Water (bbl)
						0	130,485	0
						0	10,569	0
						0	141,054	0

ROBERT L. BAYLESS PRODUCER, LLC

Downhole Commingle Application
Krause #1

OFFSETTING OPERATOR AND AREA MAP

T27N R11W



T26N R11W

ROBERT L. BAYLESS PRODUCER, LLC

**Downhole Commingle Application
Krause #1**

Offset Operators Notification List

NAME	ADDRESS	CITY & STATE	ZIP CODE
1 . Benson-Montin-Greer Drilling Corporation	4900 College Blvd.	Farmington, NM	87402
2 . Bonneville Fuels Corporation	1660 Lincoln, Suite 1800	Denver, CO	80264
3 . Burlington Resources Oil and Gas Company	P.O. Box 4289	Farmington, NM	87499-4289
4 . Conoco Inc.	10 Desta Drive, Suite 100W	Midland, TX	79705-4500
5 . Cross Timbers Oil Company	810 Houston St., Suite 2000	Fort Worth, TX	76102-6298
6 . Dugan Production Corp.	P.O. Box 420	Farmington, NM	87499-0420
7 . Energen Resources Corporation	2198 Bloomfield Highway	Farmington, NM	87401
8 . Thomas G. Fails	1777 Larimer #1203	Denver, CO	80202
9 . Jordan Oil & Gas Co.	P.O. Box 1919	Healdsburg, CA	95448-1919
10 . Louis Dreyfus Natural Gas	14000 Quail Springs, #600	Oklahoma City, OK	73134-2600
11 . Marathon Oil Co.	P.O. Box 3128	Houston, TX	77253-3128
12 . Merrion Oil & Gas Corporation	610 Reilly Avenue	Farmington, NM	87401