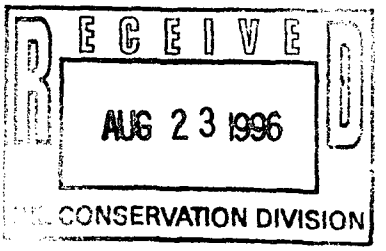
DHC 1367 9/12/96



Southern
Rockies
Business
Unit

August 20, 1996

Mr. William J. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505

Application for Exception to Rule 303-A
Downhole Commingling
GCU #312 Well
Unit B Section 16-T28N-R12W
Pinon Fruitland and West Kutz Pictured Cliffs Pools
San Juan County, New Mexico

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. Amoco is the only offset operator in both formations and interests are common between those formations so no notice is being made other than to the BLM and the Aztec District Office.

Should there be questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,

Pamela W. Staley

Enclosures
cc: Mark Yamasaki
Irina Mitselmakher
Patty Haefele
Wellfile & Proration File

Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410

Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401

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

APPLICATION FOR DOWNHOLE COMMINGLING

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

APPROVAL PROCESS:
X Administrative __ Hearing

EXISTING WELLBORE
x YES __ NO

Amoco Production Company		P.O. Box 800 Denver, CO 80201	
Operator		Address	
Gallegos Canyon Unit	312	B-16-28N-12W	San Juan
Lease	Well No.	Unit Ltr. - Sec Twp - Rge	County

OGRID NO. 000778 Property Code 0 00570 API NO. 3004524798 Spacing Unit Lease Types: (check 1 or more) Federal x 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	PINON FRUITLAND SAND GAS 82880		WEST KUTZ PICTURED CLIFFS GAS 79680
2. Top and Bottom of Pay Section (Perforations)	977' - 1017'		1278' - 1291'
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: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 280 PSI	a.	a. 277 PSI
	b. (Original) 579 PSI	b.	b. 506 PSI
6. Oil Gravity (° API) or Gas BTU Content	1000 BTU		1000 BTU
7. Producing or Shut-In?	PRODUCING		SHUT-IN
Production Marginal? (yes or no)	YES		YES
• If Shut-In, give data 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	Date: Rates: See attached for gas production. No water or oil production expected	Date Rates:	Date Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: 4/93 Rates: 17 MCFD 0 BCPD <1 BWPD
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? _X_ 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? _X_ Yes ___ No

11. Will cross-flow occur? ___ Yes _X_ 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? _X_ Yes ___ No

13. Will the value of production be decreased by commingling? ___ Yes _X_ No (If Yes, attach explanation)

15. 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. _X_ Yes ___ No

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. SEE ATTACHED
* 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 [signature] TITLE REGULATORY AFFAIRS ENGR DATE 8/20/96

TYPE OR PRINT NAME PAMELA W. STALEY TELEPHONE NO. (303) 830-5344

RECEIVED
AUG 3 1981
BLM CASPER

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Energy Reserves Group, Inc.	Gallegos Canyon Unit	312

Unit Letter	Section	Township	Range	County
B	16	28N	12W	San Juan

Actual Footage Location of Well:
790 feet from the North line and 2,480 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5,427'	Fruitland	Pinon Fruitland	160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

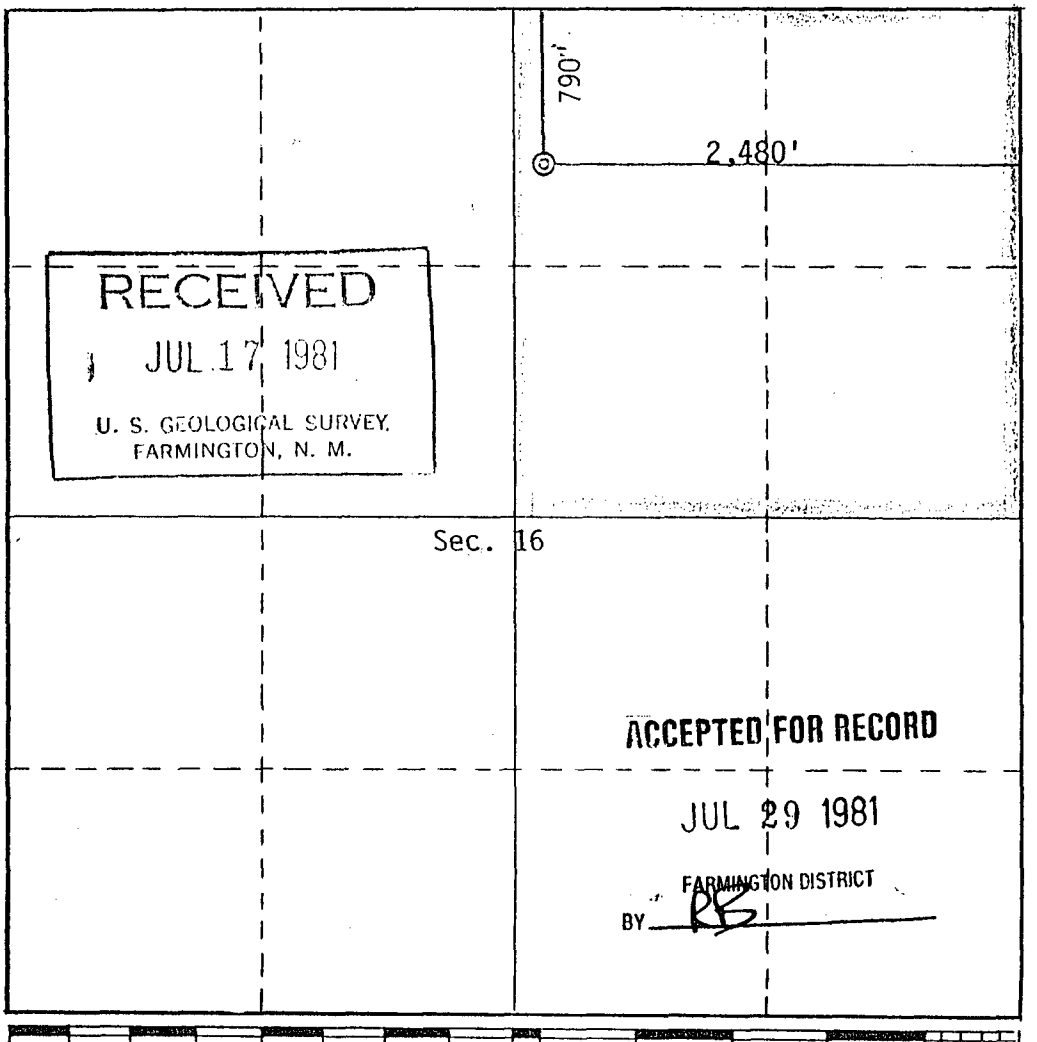
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 been 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.



RECEIVED
JUL 17 1981
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

ACCEPTED FOR RECORD
JUL 29 1981
FARMINGTON DISTRICT
BY RB

OPERATOR

CERTIFICATION

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

P. Wagner

Name: Phil Wagner

Position: Production Engineer

Company: Energy Reserves Group, Inc.

Date: July 15, 1981

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

Certificate No.

C _ CONSERVATION DIVISIC

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-7

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
ENERGY RESERVES GROUP	GALLEGOS CANYON UNIT	312

Unit Letter	Section	Township	Range	County
B	16	28N	12W	San Juan

Actual Footage Location of Well:
790 feet from the North line and 2480 feet from the East line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
5427	Pictured Cliffs	West Kutz Pictured Cliffs	160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

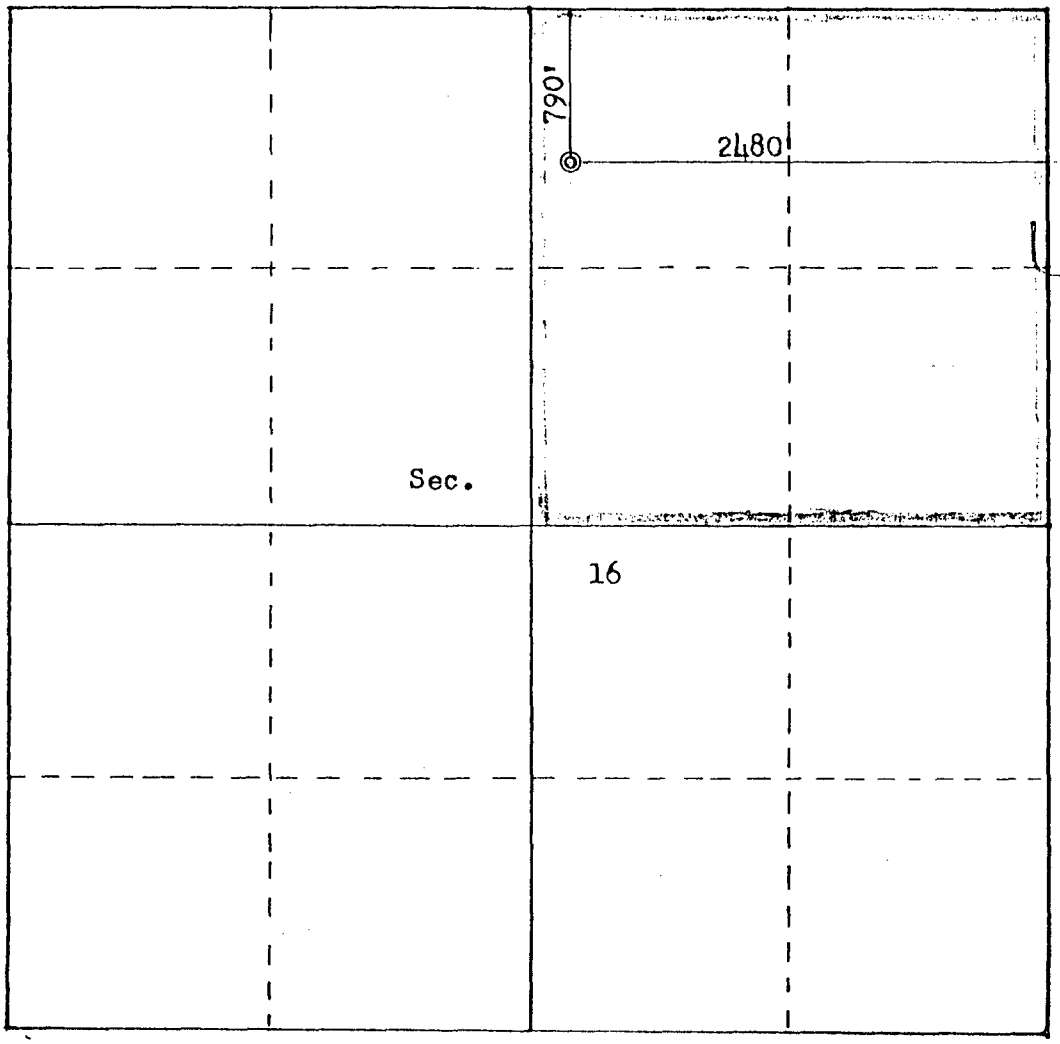
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 been 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.



Scale: 1"=1000'

CERTIFICATION

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

Name: William J. Tuan

Position: Field Services Administrator

Company: Energy Reserves Group, Inc.

Date: 9-18-80

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: August 20, 1980

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

REGISTERED LAND SURVEYOR

ESTIMATED BOTTOMHOLE PRESSURES
GCU#312

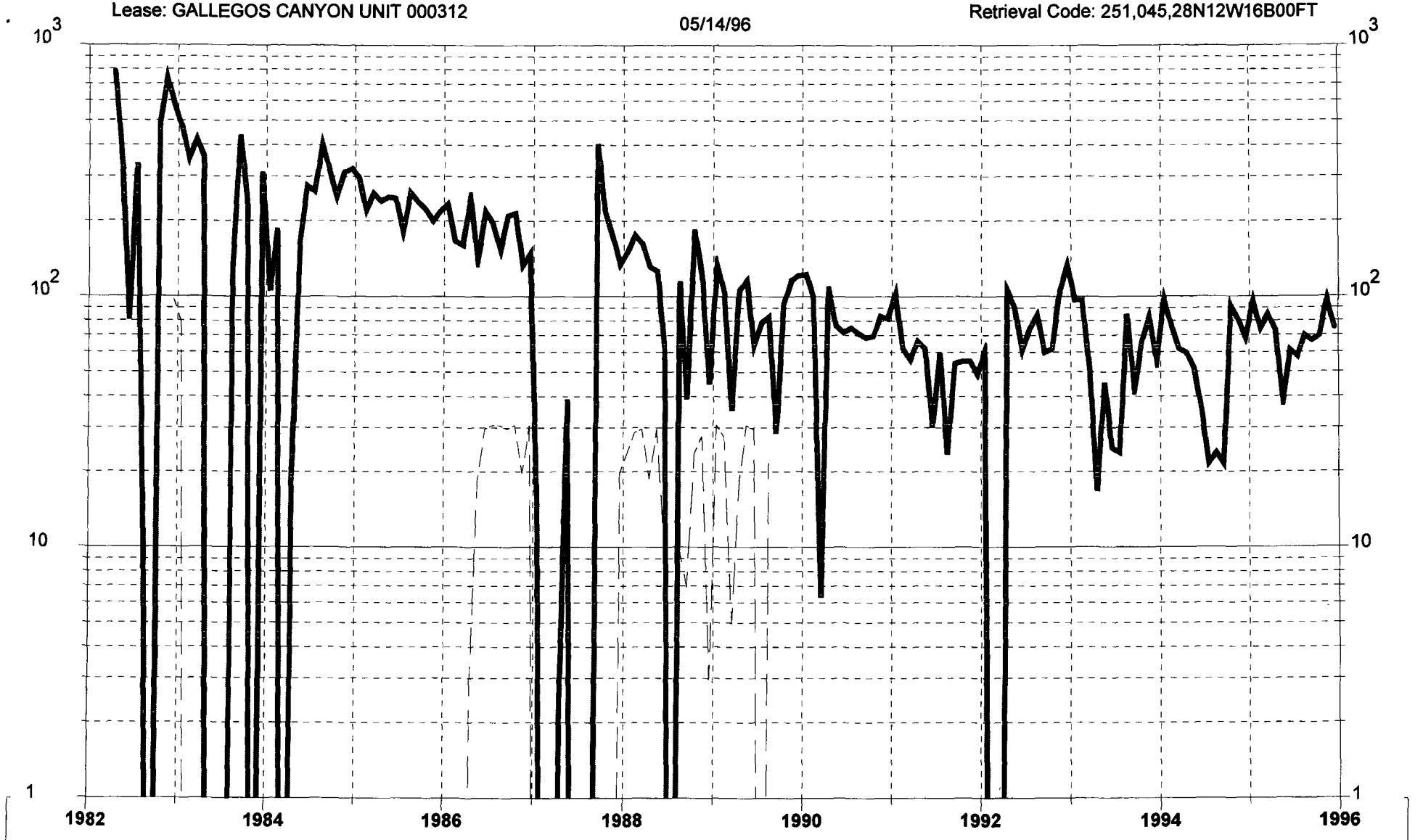
FT	PERFORATIONS		TOP	977	BOTTOM	1017	MIDPERF	997		
PC	PERFORATIONS		TOP	1278	BOTTOM	1304	MIDPERF	1291		
		SHUT-IN PRESSURES								
		FT	=	250	PSIG					
		PC	=	238	PSIG					
	GRADIEN	= 0.8 PSI/FT								
	FT	BHP =	250	PSIG +	997	X 0.08 PSIG				
		=	280	PSI						
	PC	BHP =	238	PSIG +	1291	X 0.08 PSIG				
		=	277	PSI						

Dwights

Lease: GALLEGOS CANYON UNIT 000312

05/14/96

Retrieval Code: 251,045,28N12W16B00FT



Gas (mcf/day) ——— Water (bbl/day) — — —

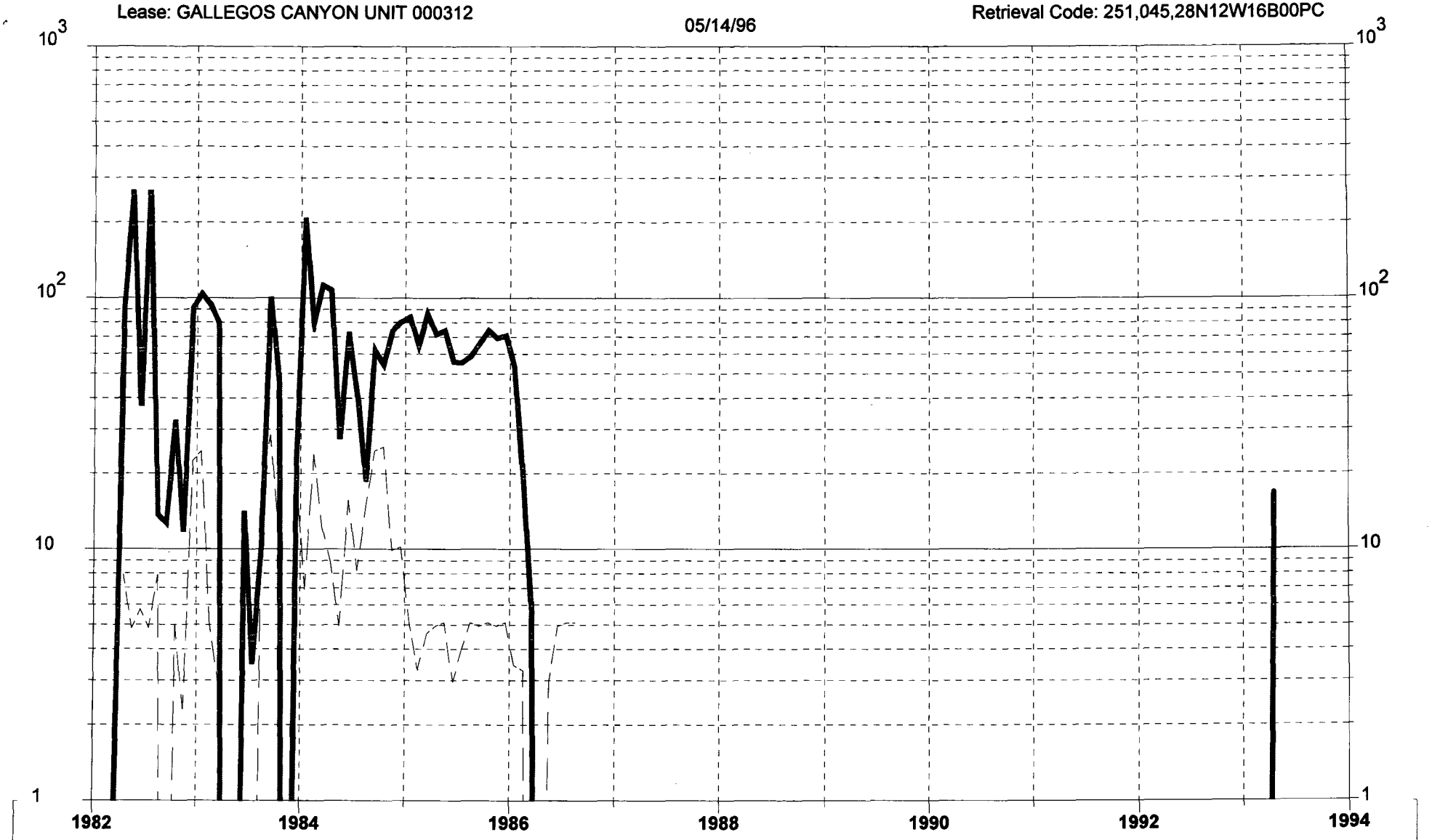
County: SAN JUAN, NM	F.P. Date: 04/82
Field: PINON NORTH (FRUITLAND) FT	Oil Cum: 0 bbl
Reservoir: FRUITLAND	Gas Cum: 661.5 mmcf
Operator: B H P PETR AMERICAS INC	Location: 16B 28N 12W

Dwights

Lease: GALLEGOS CANYON UNIT 000312

05/14/96

Retrieval Code: 251,045,28N12W16B00PC

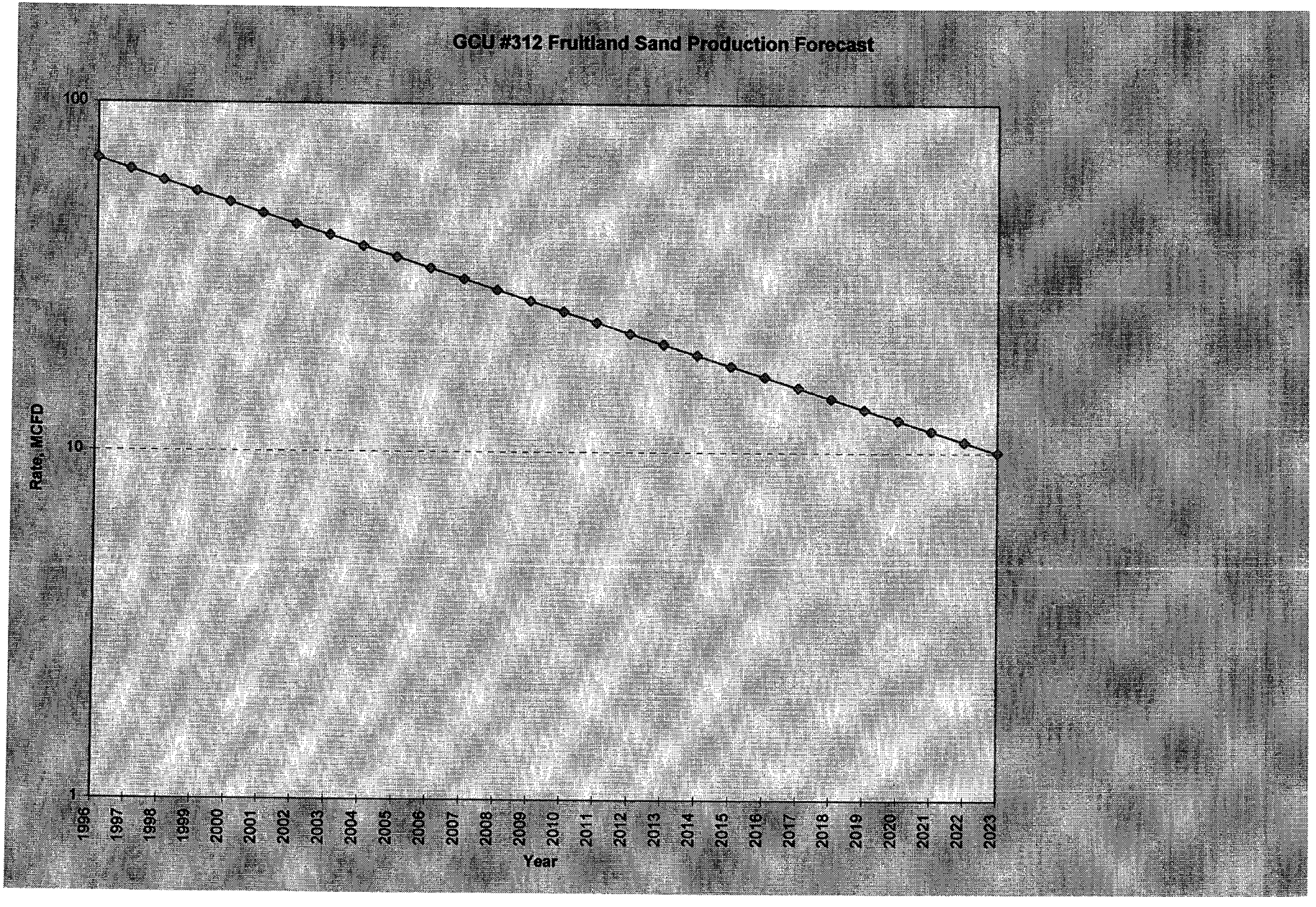


Gas (mcf/day) ——— Water (bbl/day) — — —

County: SAN JUAN, NM	F.P. Date: 03/82
Field: KUTZ WEST (PICTURED CLIFFS) PC	Oil Cum: 0 bbl
Reservoir: PICTURED CLIFFS	Gas Cum: 96.14 mmcf
Operator: B H P PETR AMERICAS INC	Location: 16B 28N 12W

ALLOCATION METHOD
GCU #312

The preferred allocation method for this well is to use the subtraction method. The Fruitland Sand has been on production since 1982 and provided herein is a future production profile for gas production from that formation. Production would be allocated using this schedule for the Fruitland Sand with the remaining production being attributed to the Pictured Cliffs formation. The Fruitland has historically recorded only dry gas so no forecast is being made for condensate.


GCU #312 Fruitland Sand Production Forecast
Rate, MCFD
100
10
1
Year
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023

GCU # 312 Fruitland Sand Production Forecast - Monthly												
Initial Rate = 69 MCFD												
Annual Decline = 6.9 % (Monthly Decline = 0.594 %)												
Year			*Production Rate, MCFD*									
	Jan	**Feb**	**March**	**April**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
1996								69.0	68.6	68.2	67.8	67.4
1997	67.0	66.6	66.2	65.8	65.4	65.0	64.6	64.2	63.9	63.5	63.1	62.7
1998	62.4	62.0	61.6	61.2	60.9	60.5	60.2	59.8	59.5	59.1	58.7	58.4
1999	58.1	57.7	57.4	57.0	56.7	56.3	56.0	55.7	55.3	55.0	54.7	54.4
2000	54.0	53.7	53.4	53.1	52.8	52.5	52.1	51.8	51.5	51.2	50.9	50.6
2001	50.3	50.0	49.7	49.4	49.1	48.8	48.6	48.3	48.0	47.7	47.4	47.1
2002	46.8	46.6	46.3	46.0	45.7	45.5	45.2	44.9	44.7	44.4	44.1	43.9
2003	43.6	43.4	43.1	42.8	42.6	42.3	42.1	41.8	41.6	41.3	41.1	40.8
2004	40.6	40.4	40.1	39.9	39.6	39.4	39.2	38.9	38.7	38.5	38.3	38.0
2005	37.8	37.6	37.4	37.1	36.9	36.7	36.5	36.3	36.0	35.8	35.6	35.4
2006	35.2	35.0	34.8	34.6	34.4	34.2	34.0	33.8	33.6	33.4	33.2	33.0
2007	32.8	32.6	32.4	32.2	32.0	31.8	31.6	31.4	31.2	31.1	30.9	30.7
2008	30.5	30.3	30.1	30.0	29.8	29.6	29.4	29.3	29.1	28.9	28.7	28.6
2009	28.4	28.2	28.1	27.9	27.7	27.6	27.4	27.2	27.1	26.9	26.8	26.6
2010	26.4	26.3	26.1	26.0	25.8	25.7	25.5	25.4	25.2	25.1	24.9	24.8
2011	24.6	24.5	24.3	24.2	24.0	23.9	23.8	23.6	23.5	23.3	23.2	23.1
2012	22.9	22.8	22.6	22.5	22.4	22.2	22.1	22.0	21.9	21.7	21.6	21.5
2013	21.3	21.2	21.1	21.0	20.8	20.7	20.6	20.5	20.3	20.2	20.1	20.0
2014	19.9	19.7	19.6	19.5	19.4	19.3	19.2	19.1	18.9	18.8	18.7	18.6
2015	18.5	18.4	18.3	18.2	18.1	18.0	17.8	17.7	17.6	17.5	17.4	17.3
2016	17.2	17.1	17.0	16.9	16.8	16.7	16.6	16.5	16.4	16.3	16.2	16.1
2017	16.0	15.9	15.8	15.7	15.7	15.6	15.5	15.4	15.3	15.2	15.1	15.0
2018	14.9	14.8	14.7	14.7	14.6	14.5	14.4	14.3	14.2	14.1	14.1	14.0
2019	13.9	13.8	13.7	13.6	13.6	13.5	13.4	13.3	13.2	13.2	13.1	13.0
2020	12.9	12.9	12.8	12.7	12.6	12.6	12.5	12.4	12.3	12.3	12.2	12.1
2021	12.0	12.0	11.9	11.8	11.8	11.7	11.6	11.6	11.5	11.4	11.3	11.3
2022	11.2	11.1	11.1	11.0	10.9	10.9	10.8	10.8	10.7	10.6	10.6	10.5
2023	10.4	10.4	10.3	10.3	10.2	10.1	10.1	10.0				