STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

50 YEARS
1935 - 1985

August 1, 1986

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Silverridge Corp.
~~Dugan Production Corporation~~
P.O. Box 208
Farmington, New Mexico 87499-0208

Administrative Order No. DHC-621

Attention: Steve Folk

Re: Johnston-Shear No. 1
Unit H, Sec. 3, T-26N,
R-3W, Rio Arriba County, NM
Blanco Mesaverde Pool and
Undesignated Pictured Cliffs Oil
Pool

Gentlemen:

Reference is made to your recent application on behalf of Silverridge Corporation for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and which authorized the dual completion and required separation of the two zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 30 barrels per day, and total water production from the well shall not exceed 60 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the allowable for the respective prorated gas pool as printed in the Division's San Juan Basin Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Upper Pool: (Oil) 85%, Gas 0%
Lower Pool: (Condensate) 15%, Gas 100%

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Sincerely,

R. L. STAMETS,
Director

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501

DATE 2-14-86

RE: Proposed MC _____
Proposed DHC X
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 2-11-86

for the Silverridge Corp. Johnston-Stewart #1 K-3-26N-3W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approved

Yours truly,

Ernie Busch

dugan production corp.

July 10, 1986

Mr. Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: Request for Administrative Approval for Downhole Commingling
Silverridge Corporation
Johnston-Shear #1
Federal Lease Jicarilla Apache 09-000115
Unit H, Sec. 3, T26N, R3W
Rio Arriba County, New Mexico
Undesignated Pictured Cliffs Oil Pool and
Blanco Mesaverde Gas Pool

Dear Mr. Chavez:

Enclosed for your information is a copy of the application to downhole commingle the Silverridge Corporation's Johnston-Shear #1 well. The well is located on Federal Lease Jicarilla Apache 09-000115.

All offset operators, the Director of the New Mexico Oil Conservation Division and the Bureau of Land Management have been notified in writing of this application.

Please contact me at Dugan Production if you have any questions.

Sincerely,

Steve Folk

Steve Folk
Geologist

SF/cg

encs.

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87499-0208 • PHONE: (505) 325-1821

dugan production corp.

July 10, 1986

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Attn: Richard L. Stamets, Director

Re: Request for Administrative Approval for Downhole Commingling
Silverridge Corporation
Johnston-Shear #1
Federal Lease Jicarilla Apache 09-000115
Unit H, Sec. 3, T26N, R3W
Rio Arriba County, New Mexico
Undesignated Pictured Cliffs Oil Pool and
Blanco Mesaverde Gas Pool

Dear Sir:

We are writing to request administrative approval for downhole commingling of the above captioned well. The pools to be commingled are the Blanco Mesaverde gas pool and an Undesignated Pictured Cliffs oil pool. Please note that the Undesignated Pictured Cliffs pool is a single well pool.

The subject well was drilled in November 1958 and was dually completed in the aforementioned formations. The Mesaverde formation was initially perforated through the intervals 5870-5908', and stimulated with a sand-water fracture treatment. This interval was then abandoned with no production. The plug back total depth is 5607'. The Mesaverde was then perforated 5470 - 5486' and 5500 - 5512'. This zone was also treated with a sand-water frac job. The initial potential was 3478 MCFD.

The Pictured Cliffs was perforated 3706 - 3718', 3731 - 3733', 3754 - 3776' and 3796 - 3800', for a total of 40 feet of pay with 3 shots/ft. This zone was also treated with a sand-water frac job. Initial potential was given as 675 MCFD.

The Pictured Cliffs IP is misleading. Only a very minute amount of gas has been produced from this Undesignated Pictured Cliffs pool since at least 1967.

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The well was placed on production sometime in 1959. The Blanco Mesaverde cumulative production as of December 31, 1985 was 1,657,296 MCF gas and 7,376 bbls of condensate. The Pictured Cliffs formation had produced a total of 19,016 bbls of oil as of December 31, 1985. Currently, the well is capable of producing 115 MCFD from the Mesaverde on a 12 hour/day production schedule (see Enclosure #1). The Pictured Cliffs oil pool is capable of 3.49 BOPD with a small amount of water and very little gas (see Enclosure #2).

Construction of decline curves for the individual pools shows the Mesaverde declining at the rate of 6%/year for the years 1967 through 1977. It is estimated that the decline has accelerated to 7%/year for the years 1978 through May 1986 (Figure #1). The decline estimate for the years 1978 through 1986 was based on the decline of the average monthly gas production for that period (Figure #2).

Figure #3 depicts the decline curve for the oil production from the Pictured Cliffs interval. The decline is estimated at 6%/year for the years 1967 through 1978 based on the annual oil production curve. The decline is estimated at 16%/year for the years 1981 through 1984.

A sporadic production schedule makes a decline estimate difficult for the recent years (1979-1986) of production for this pool. The zone has been shut-in for periods of time ranging from one month to seven months, and the days of production per month have also varied greatly.

From this data, and noting the long history of the well and the fact that the subject well is located on the Jicarilla Apache Indian Reservation resulting in a larger tax burden, it is Dugan Production Corp's opinion that the well is approaching its economic limit.

Recently this office received notification from the New Mexico Oil Conservation Division that the annual packer leakage test indicates communication between the producing horizons (Enclosure #3). Remedial operations needed to correct this situation would entail pulling both strings of tubing and setting a new packer to ensure separation of the subject horizons. It is Dugan Production's opinion that this work would not be economically justifiable due to current depressed oil and gas prices.

Due to the packer leakage, the latest reliable pressure data for the well indicated a shut-in wellhead pressure for the Pictured Cliffs of 660 psig and 700 psig for the Mesaverde. Static bottom hole pressures were then calculated to be 756 psia for the Pictured Cliffs and 820 psia for the Mesaverde. Both zones are currently capable of flowing.

Ownership of both zones is common, and correlative rights will not be violated. Offset operators will be notified of this proposed commingling (Figure #4) by letter. The latest oil run tickets indicate that the gravity of the produced fluids is 51° API. Both zones have been produced through and stored in the same surface equipment for a number of years without precipitates forming when combined.

The Pictured Cliffs oil production totaled 1203 bbls from January 1, 1984 through May 31, 1986. The Mesaverde produced 208 bbls of oil for the same time interval. The allocation factors that Dugan Production Corp. would propose to apply to the commingled production stream would be as follows:

	Gas	Oil
Pictured Cliffs	0%	85%
Mesaverde	100%	15%
Totals	100%	100%

There are four Pictured Cliffs completions offsetting the subject well. Three of the four have not produced any oil since January 1985. The fourth well produces oil sporadically and in small quantities. The cumulative oil production from these four wells totals 9,917 bbls through December 31, 1985, while the subject well had produced to that date 19,016 bbls oil. We, therefore, do not expect the commingled value of the production to be less than that of the individual streams.

In summation, we are requesting administrative approval to downhole commingle the Johnston-Shear #1. The pools proposed to be commingled are the Blanco Mesaverde Gas Pool and a one well Undesignated Pictured Cliffs Oil Pool. The ownership of the subject zones is common and correlative rights will not be violated. The produced fluids are compatible and have been surface commingled for some time. Each of the producing horizons were sand-water fracture treated and, therefore, are not fluid sensitive. Calculated bottom hole pressures indicate that cross-flow between zones will not occur.

Remedial operations on this well cannot be economically justified and in the event of this application not being approved, the Pictured Cliffs zone will most likely be abandoned, and possibly even the Mesaverde. The well has produced for 28 years and any incremental production realized from remedial operations would be insignificant at best.

All offset operators, the Bureau of Land Management and the Aztec district office of the New Mexico Oil Conservation Division have been notified in writing of the proposed commingling. Copies of these letters are attached.

If you need further information, or have questions regarding this matter, please feel free to contact me at this office.

Sincerely,

Steve Folk

Steve Folk
Geologist

SF/cg
encs.

June 1986

P. O. Box 208 • Farmington, New Mexico

POSITION #___

NW RUN # 07

SWITCHER REPORT

Operator SilverRidge Lease JOHNSTON SHEAR Well No. 1

Prod. Fm. Undes. P.C. H Sec. 3, T 26 N, R 3 W County Rio Arriba State NM

Run Size 4" Plate Size .750 Static Spring 500 # Range 100 " Coef. 7.00

DATE	STATIC	DIFF.	TEMP.	TBG. PRESS.	CSG. PRESS.	TANK 5-9½	TANK
93 1	67	40					
100 2	72	40				6-0	
81 3	78	30					
81 4	78	30				6-1	
107 5	77	40					
106 6	76	4.0				6-4	
147 7	7.0	6.0					
142 8	6.8	6.0					
140 9	6.7	6.0					
142 10	7.4	5.5				6-10	
103 11	7.4	4.0					
103 12	7.4	4.0					
103 13	7.4	4.0				7-0	
122 14	70	50					
120 15	6.9	50					
119 16	6.8	50					
119 17	6.8	50				7-6	
119 18	6.8	5.0					
120 19	6.9	50				7-8	
117 20	7.0	48					
117 21	70	48				7-10	
114 22	[illegible]	[illegible]					
117 23	67	50				7-11½	
117 24	67	50					
117 25	67	50				8-2	
117 26	67	50				8-3½	
117 27	67	50				8-5	
117 28	66	51					
120 29	[illegible]	[illegible]					
118 30	[illegible]	[illegible]				8-7½	

2455

12 Hrs./Day Intermitter ON 12 OFF

DAYS PROD. 30

DAYS ON 30

DAYS SI 0

ENCLOSURE #1

115 mcf daily ave.

CHART ON 5-31 CHART OFF 6-

AVG. STATIC 6.8

AVG. DIFF 5.0

GOR

GOR

WATER/MONTH = 0

2-OGACD, AZTEC
-Silverridge
-File

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

rator	Pool	County
Silverridge	Undesignated Picture Cliffs	Rio Arriba

•••	TYPE OF TEST - (X)	
P.O. Box 208 Farmington, NM 87499	Scheduled [X]	Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BB
Johnston Shear	1	H	3	26N	3W	6-26-86	F	- -	- -	3	24	¼	51.0	3.49	TSTM	TSTM

ENCLOSURE #2

RECEIVED
JUL 11 1986
OIL CON. DIV.
DIST. 3

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above informatio is true and complete to the best of my know ledge and belief.

Maxine Thurber 7-2-86
(Signature)
Production Report Supervisor

Figure #1 Application for Downhole Commingle

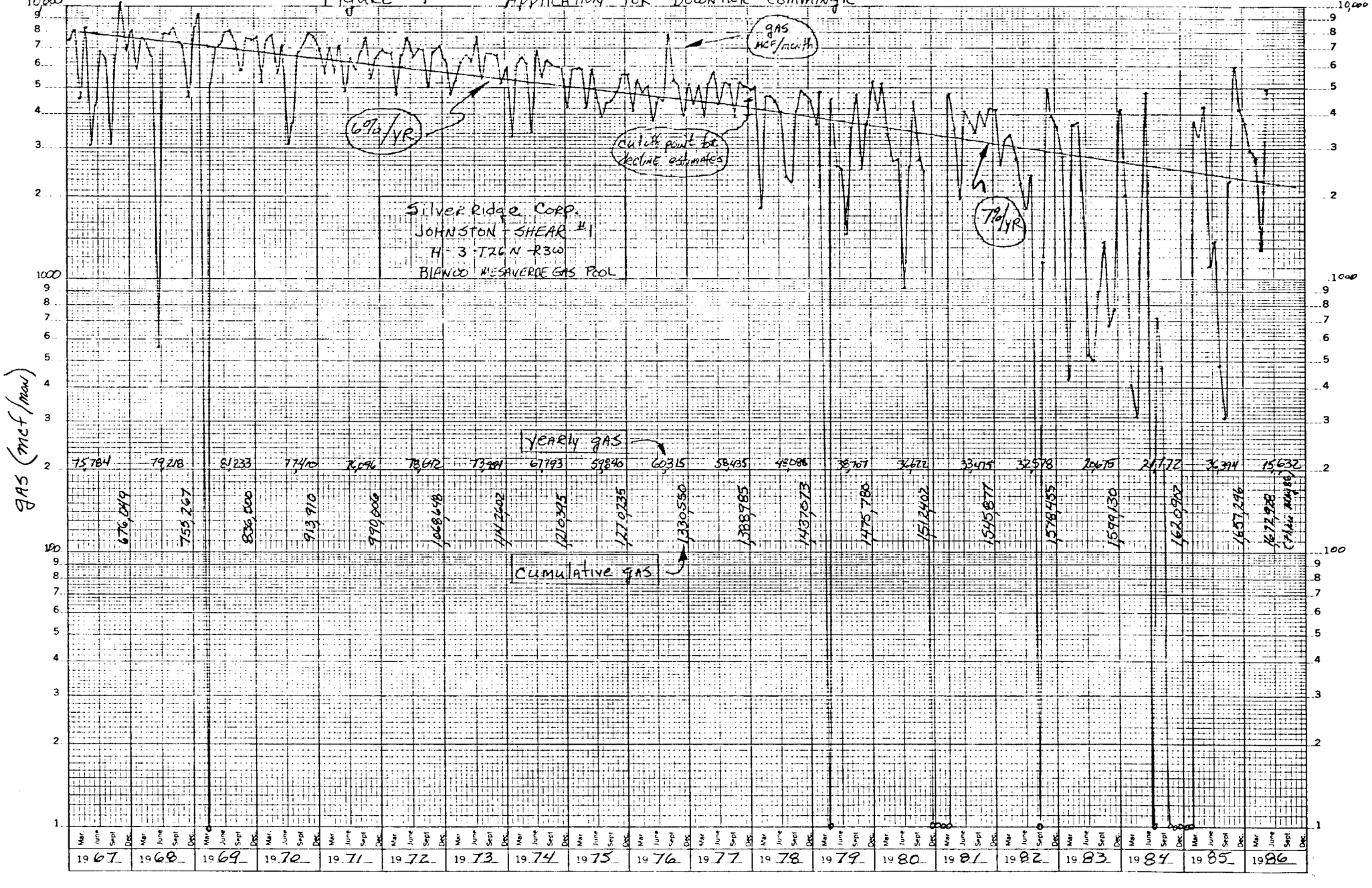


Figure # 2 Application for Downhole Commingle

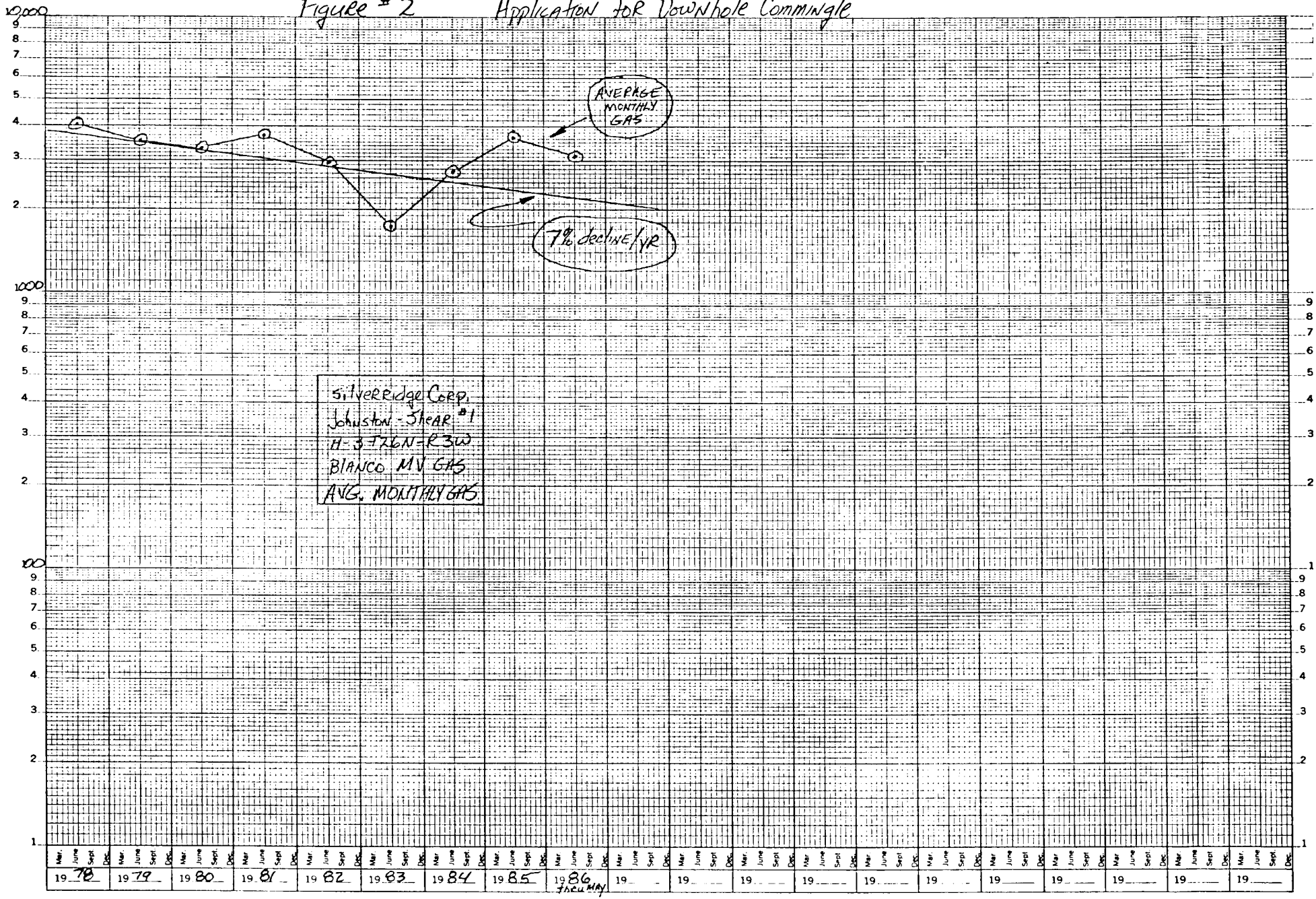
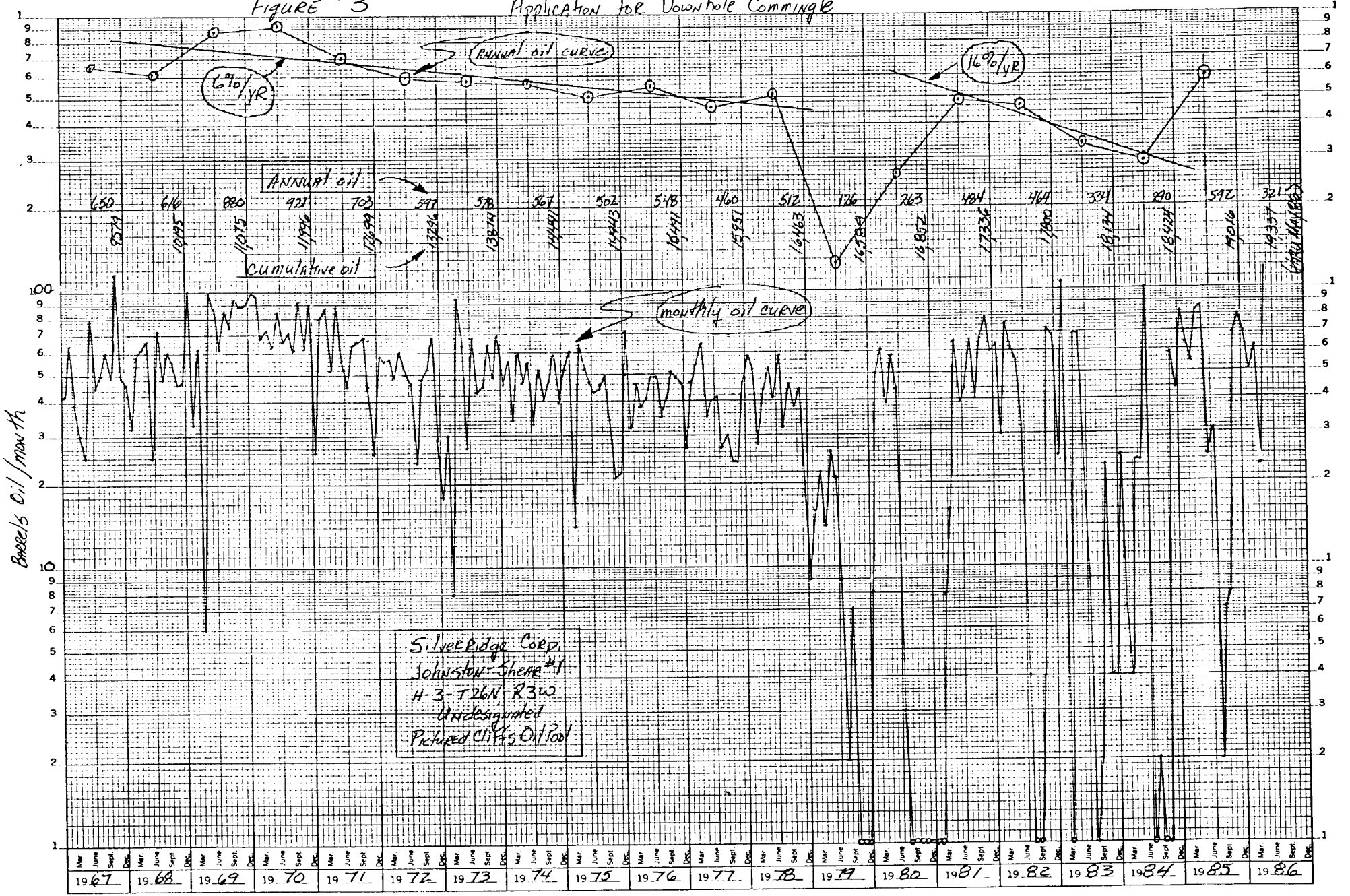


Figure #3 Application for Downhole Commingle



ENCLOSURE #3

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Silverridge Corp. Lease Johnston Shear Well No. 1

Location of Well: Unit H Sec. 3 Twp. 26N Rge. 3W County Rio Arriba

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	Pictured Cliffs	Oil	Flow	Tbg.
Lower Completion	Mesaverde	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (~~Yes or~~ No)
Upper Compl	———	Always	590	
Lower Compl	3:00 PM 5-12-86	3 days	600	

FLOW TEST NO. 1

Commenced at (hour, date)* 5-15-86 3:30 PM Zone producing (~~Upper or~~ Lower):

Time (hour, date)	Lapsed time since*	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
10:00 AM 5-16-86	1 day	465	380		
11:00 AM 5-17-86	2 days	440	280		

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: 201 MCFPD; Tested thru (~~Orifice or~~ Meter): _____

MID-TEST SHUT-IN PRESSURE DATA

	Hour, date Shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Compl				
Lower Compl				

FLOW TEST NO. 2

Commenced at (hour, date)** Zone producing (Upper or Lower):

Time (hour, date)	Lapsed time since **	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks

RECEIVED
JUL 11 1986
OIL CON. DIV.

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): _____

REMARKS: Pictured Cliffs does NOT produce GAS, only oil

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

Approved: _____ 19____
Oil Conservation Division

By _____

Title _____

Operator Silverridge Corp.

By Melissa Thacker

Title Agent

Date 5-28-86

FIGURE #4

Application for Downhole Commingle

Plat showing dedicated acreage and offsetting lease ownership.
Compiled from Minerals Managment Lease Files Farmington, New Mexico