To: Florene Davidson

Please Set for Examiner Hearing:

PENDING APPLICATION OF ROBERT L. BAYLESS TO DOWNHOLE COMMINGLE PRODUCTION FROM THE FULCHER KUTZ PICTURED CLIFFS AND AZTEC FRUITLAND SAND POOLS IN THE HORN CANYON WELL NO.1 IN SAN JUAN COUNTY, NEW MEXICO.

Brief:

Robert L. Bayless made application for administrative authorization to downhole commingle Pictured Cliffs and Fruitland Sand production in the above referenced well.

The application does not qualify for administrative approval due to the Pictured Cliffs interval having less than 50 percent of the bottomhole pressure of the Fruitland Sand interval.

In a January 11, 1996 telephone conservation with Mr. Kevin McCord, petroleum engineer for the company, he stated that he thought we were working on addressing the 50 percent criteria as well as other items applicable to administrative approval of downhole commingling. I informed him that the key phrase was 'working on', and until the new rules were in effect, my hands were tied. During the same conversation, Mr. McCord revealed his discontent with the process and asked if Mr. LeMay could grant administrative approval without hearing, as all offset operators had consented to the commingling. I told him that to my knowledge, this wasn't done and the only appellate process for administrative denial was the examiner hearing process. I did however, furnish Mr. LeMay's direct phone number and Mr. McCord indicated that he would call Mr. LeMay but at the same time, requested that the application be placed on the next available docket. I informed him of the date, February 8, 1996.

The application did not conform to specific criteria contained in the Division Rules and Regulations, item 303 C.(1)(b)(vi); Segregation of Production from Pools, Downhole Commingling, For Wells Involving a Gas Zone. As the bottomhole pressure differential between zones is greater than 50 percent, administrative approval of the application was denied.

DHE 1.9.96

ROBERT L. BAYLESS

P. O. BOX 168 FARMINGTON, NM 87499

DEG 2 / 1995

OFFICE NO (505) 326-2659

FAX NO (505) 326-6911

December 20, 1995

William J. LeMay, Chairman New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505

RE:

Request for Administrative Approval to Downhole Commingle Robert L. Bayless, Horn Canyon #1 Unit D, Sec. 15, T28N R11W Fulcher Kutz Pictured Cliffs and Aztec Fruitland Sand Pools

San Juan County, New Mexico

I MINISTERVINE DENIED ON 1-11-96

Case 11463

Dear Mr. LeMay:

By this letter, Robert L. Bayless requests administrative approval to commingle production from the Pictured Cliffs and Fruitland Sand formations within the wellbore of the Horn Canyon #1. This well was drilled by Robert L. Bayless in July of 1995. Production casing, (5-1/2") was set and cemented at 1715 feet, with total depth of the well being 1745 feet.

The Pictured Cliffs interval (1562-1584 ft) was perforated and fracture stimulated with 35,000 gallons of 70-65 quality foam fluid containing 76,000 lbs of 12-20 sand. The Completion Report for the Pictured Cliffs zone in the Horn Canyon #1 is presented as Attachment #1. This zone was tested on October 16, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1286 MCFD. The 7 day pressure buildup preceding this test was only 120 psi, suggesting this Pictured Cliffs interval has been severely drained. This AOF test is presented as Attachment #2. The Pictured Cliffs formation was first produced in this well on October 16, 1995, with the aid of a compressor. Without the compressor, this well wouldn't produce against the 185 psi line pressure in this area. The Pictured Cliffs zone in this well averaged 330 MCFD for the 36 days it produced before being shutin for recompletion. The flow test and resulting actual gas production from the Pictured Cliffs zone in this well indicates marginal gas production capability considering this is the well's initial production month and that a compressor is needed for any gas production to take place at all.

Bayless set a bridgeplug above the Pictured Cliffs zone and recompleted the Horn Canyon #1 well in the Fruitland Sand formation in late November of 1995. The interval from 1322-1339 ft was perforated and fracture stimulated with 12,750

gallons of 70 Quality foam containing 16,250 lbs of 12-20 mesh sand. The Completion Report for the Fruitland Sand zone in the Horn Canyon #1 is presented as Attachment #3. The Fruitland Sand zone was tested on December 1, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1401 MCFD. The 7 day pressure buildup preceding this test was 380 psi, suggesting this interval is not drained. This AOF test on the Fruitland Sand is presented as Attachment #4. The Fruitland Sand formation was first produced in this well on December 1, 1995, without the aid of a compressor. To date, it has produced an average 327 MCFD for the 19 days it has produced, but this rate is rapidly dropping. A compressor has just been installed on this zone to keep production rates up. We expect this zone initially to produce approximately 500 MCFD with compression. The combined production from this new Fruitland Sand interval and the existing Pictured Cliffs interval should make the Horn Canyon #1 much more economic to produce compressed gas against the 185 psi line pressure in the area.

The quality of the gas produced from the Pictured Cliffs and Fruitland Sand formations is very similar in this area. The gas gravity for the Pictured Cliffs in the Horn Canyon #1 (Attachment #5) is 0.670 with an average BTU value of 1157, while the gas gravity for the Fruitland Sand interval in this well (Attachment #6) is 0.654, with a BTU of 1146. The small differences seen in gas gravity and BTU content from these two zones indicate that the gas produced from both zones is very similar and should not cause any damage should crossflow occur between zones. Both zones produce dry gas, so no condensate production is anticipated.

From the AOF tests presented in Attachment #2 and #4, the shutin pressures on the Pictured Cliffs zone and the Fruitland Sand zones in the Horn Canyon #1 well are 120 psi and 380 psi, respectfully. Even though the Pictured Cliffs shutin pressure is less than 50% of the Fruitland Sand shutin pressure, the gas from both zones is very similar. Any crossflow that may occur between zones will cause no damage to the formation.

Attachment #7 is an acreage plat showing the ownership of leases in the vicinity of the Horn Canyon #1 well. The ownership (working interest, royalty, and overriding royalty) of both the Pictured Cliffs and Fruitland Sand formations is common in the Horn Canyon #1 well. The leases surrounding this well are owned by Dugan Production Corp., Southland Royalty (Meridian Oil), Petrocorp, and Marathon Oil Company. These companies have been contacted by certified mail of this commingling application. An example of the letter sent to each of these companies is provided as Attachment #8. Copies of the Return Receipt slips are presented as Attachment #9. By copy of this application, we have also advised the BLM of our plans to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well.

The production from the Pictured Cliffs and Fruitland Sand zones can be allocated using the ratios of the rate of flow calculated during the AOF test on each formation. Based on these AOF's the allocation between zones will be approximately 48% of the commingled gas production allocated to the Pictured Cliffs formation, while 52% allocated to the Fruitland Sand formation. The ownership and value of the gas from each zone is the same, so the commingling of this natural gas will not decrease its sales value on the whole or to any one party.

The production test and actual gas production on the Pictured Cliffs formation in the Horn Canyon #1 indicate that gas production from this well will be low, resulting in marginal gas reserves and economics for the well. Further development and operational costs in this area will be substantially reduced by approval of downhole commingling of the production from the Pictured Cliffs and Fruitland Sand formations in this well. We would appreciate your administrative approval of this application.

Sincerely,

Kevin H. McCord Petroleum Engineer

Attachments

Form 3160-4 (July 1992)

UN. JED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN DUPL. IE.

FORM APPROVED OMB NO. 1004-0137 Expires: February 28, 1995

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structions on reverse side)	ļ

BUREAU OF LAND MANAGEMENT	NM-020498-A
WELL COMPLETION OR RECOMPLETION REP	
1a. TYPE OF WELL: OIL GAS WELL DRY DRY OLD	7. UNIT AGREEMENT NAME
L TYPE OF COMPLETION:	
WELL WORK DEEP DEEP DIG DEEP DESVE DESVE DESVE	
2. NAME OF OPERATOR	Horn Canyon #1
Robert L. Bayless	9. API WELL NO.
3. ADDRESS AND TELEPHONE NO. P.O. Box 168 Farmington, NM 87499	30-045-29266
4. LOCATION OF WELL (Report location clearly and in accordance with any Sta	
	Fulcher Kutz PC
1130, ENT & 1022, EMT	OR AREA
At top prod. interval reported below	Unit Letter D
At total depth Same	Sec. 15, T 28 N, R 11 W
14, PERMIT NO.	DATE ISSUED 12. COUNTY OR 13. STATE, PARISH
Same	San Juan New Mexico
15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to pro	13. EDEVATIONS (DF, RRB, RI, OE, EIC.)
7/26/95 7/31/95 10/09/95	5550 RKB 5550 RKB
20. TOTAL DEPTH, MD A TYD 21. PLUG, BACK T.D., MD A TYD 22. IF MULTIPLE HOW MANY*	Single XXX
24. PRODUCING INTERVAL(S), OF THIS COMPLETION-TOP, BOTTOM, NAME (MD AN	O TVD)* 25. WAS DIRECTIONAL SURVEY MADE
1562 - 1584 Pictured Cliffs	No
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL; SDL; DSN	27. WAS WELL CORED NO
28. CASING RECORD (Report of	strings set in well)
CASING SIZE, GRADE WEIGHT, LB./FT. DEPTH SET (MD) HOLE SI	
8 5/8" J55 24 #/ft. 125 ft. 12 1/	80sx (94ft)class B; circ none
	to surface
5 1/2" J55 15.5 #/ft. 1715 ft. 6 3/	
	2%gel, 10%salt-TOC @200ft from temp surve
29. LINER RECORD	30. TUBING RECORD
	EN (MD) SIZE DEPTH SET (MD) PACKER SET (MD)
None	2 3/8" 1582 None
11. PERFORATION RECORD (Interval, size and number) 32.	ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
	TH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED
l ——	562 - 1584 750 gal 7½% HCL; 35,000 gal
0.34" diameter	70-65 quality foam; 76,000 lbs.
	12/20 brady sand
3.° PRODUCTI	
ATE FIRST PRODUCTION PRODUCTION METHOD (Flowing, gas lift, pumping 10/09/95 FLowing	-size and type of pump) WELL STATUS (Producing or shut-in) Shut-in
TEST PERIOD (BBL. GAS-MCF. WATER-BBL. GAS-OIL RATIO
10/09/95 No flow	No flow
OW, TUBING PRESS, CASING PRESSURE CALCULATED OIL-BBL. 24-HOUR RATE	GAS-MCF. WATERHBL. OIL GRAVITY-APE (CORR.)
	No flow
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To be sold 5. LIST OF ATTACHMENTS	ACUERI
/ /	No flow ACCEPTED PORESES ST ULT 1 % 1995 Correct as determined from all available records OF TOE
B. I hereby certify hat the foregoind and attached information is complete an	correct as determined from all available records OFTISE
Mund 1111000	leum Engineer FARMINGTON DIST. 10/10/95
	The grant of the same of the s

Submit in duplicate to appropriate district office See Rule 401 & Rule 1122

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-122 Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator		D ONE POI	INT BACK		se or Unit Name	UK GAS WI		
Robert L. Bayl	ess			Tas	t Date	Horn Cany		
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Tog. Size Wi. d	Sa A	t Perfor	ances:			P∞I		
2 3/8" 4.7 1.9		1582 From:	none	To:			lcher K	utz PC
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'FD STATES

SUBMIT IN DUPL!

FORM APPROVED OMB NO. 1004-0137

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ROBERT L.										9. API WELL	NO.	
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5 1/2" J55	15.5	5 #/ft	1715	ft.	6.	3/4") 50/50 p from temp	1	x, 2% gel, 10%
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*(See Instructions and Spaces for Additional Data on Reverse Side)

State of New Mexico Energy, Minerals and Natural Resources Depai

Revised 4-1-91

Submit in duplicate to appropriate district office See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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Approved By Division	Conducted By:	lo	alculated By:		Checked By:	
· 	Albert Arano	1	Kevin M	cCord		

REPORT NO: CGME747 -01 Page No:		BTU Spec Grav GPH 1157 0.670 3.205
:: ': 5		8TU 1157
ELPASO MATURAL GAS COMPANY Volume Calculation & Distribution Department Monthly Volume and Analysis for November, 1995 thru November, 1995	>	5.830 2.570 0.530 0.820 0.360 0.260 0.640
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3/95 6:37	HORN CA!	286
Report Date: 11/03/99 Report Time: 12:56:31	Meter: 97949 - HORN CANYON Oper: 0538 - BAYLESS R L	Effective 11/01/95



1115 Parmington Avenue Farmington, N.M. 87401 (505) 325-6622

Analysis No. BAY50013 Cust. No. 14100-10240

WELL/LEASE INFORMATION

Company : ROBERT L. BAYLESS, INC.
Well Name : HORN CANYON 1

Source : Pressure : 375 PSIG Sample Temp. : N/A DEG.F

County State !:

: SAN JUAN : NM

Well Flowing: NO

Date Sampled : 11/28/95 Sampled By : ALBERT ARANDA

Fld/Formation : Cust.Stn.No. :

Location

Foreman/Engr :

Remarks: LEASE: NM-020498-A

ANALYSIS

COMPONENT	MOLE &	GPM**	B.T.U.*	SP.GR.*
nitrogen	1.060	0.0000	0.00	0.0103
CO2	0.096	0.0000	0.00	0.0015
METHANE	87.242	0.0000	883.15	0.4832
BTHANE	6.902	1.8463	122.42	0.0717
PROPANE	2.849	0.7852	71.85	0.0434
I-BUTANE	0.493	0.1613	16.07	0.0099
N-BUTANE	0.696	0.2194	22.76	0.0140
I-PENTANE	0.234	0.0856	9.38	0.0058
N-PBNTANE	0.166	0.0601	6.67	0.0041
HEXANES	0.262	0.1143	13.47	0.0084
TOTAL	100.000	3.2722	1145.77	0.6523

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

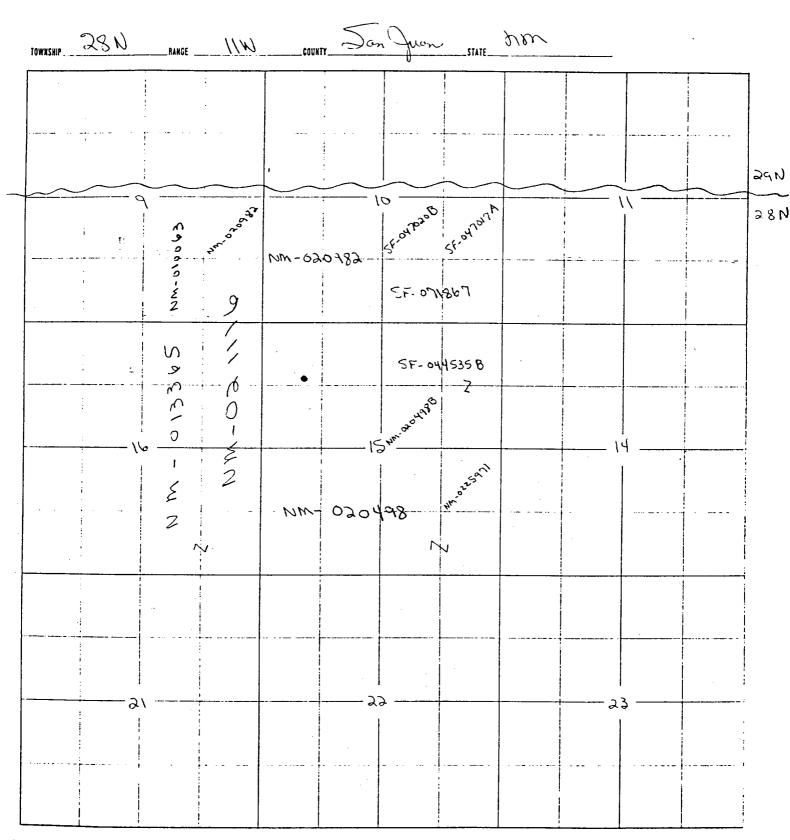
** 6 14.730 & 60 DEC. F

COMPRESSIBILITY FACTOR		(1/Z)
BTU/CU.FT. (DRY) CORRECTED	POR	(1/Z)
BTU/CU.FT. (WET) CORRECTED	FOR	(1/Z)
REAL SPECIFIC GRAVITY		

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES P

: A2T034 CYLINDER # CYLINDER PRESSURE : 384 PSIG DATE RUN : 11/28/95 ANALYSIS RUN BY : BOB DURBIN

1.0028 1149.0 1129.0 0.6539



Crescitors Sec. 9 = Dunger (Fr., Frag, PC.) Sic. 10: So. Ray. (Fr, Pc)
Therisian (Pc)
Potrocop (Pc)

Sec. 15 = Potrocerp (PC) Maration (PC)

Sic. 16 = Dugon (PC, Fmg.)

ROBERT L. BAYLESS

P. O. BOX 168
FARMINGTON, NM 87499

FAX NO (505) 326-6911 OFFICE NO (505) 326-2659

December 20, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P565392391

Dugan Production Company P.O. Box 420 Farmington, N.M. 87499

RE: Proposed Downhole Commingling Robert L. Bayless Horn Canyon #1 Unit D. Sec. 15, T28N, R11W San Juan County, New Mexico

Gentlemen:

Our records indicate your company owns offset acreage to our Horn Canyon #1 well. We plan to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well and have requested the New Mexico Oil Conservation Division to administratively approve this commingling of production. A copy of this application is enclosed.

In order to obtain approval from the Oil Conservation Division Director, we must obtain waivers of objection from offset lease holders. If you have no objection to our plans, please execute the waiver portion of this letter and return one copy to us at the above address and another copy to the Division Director, Oil Conservation Division, 2040 South Pacheco, Santa Fe, NM 87505.

If you require additional information, please advise.

Sincerely.

Kevin H. McCord Petroleum Engineer

By: _____ Date: ____ Date: ____

I have no objection to the above stated plans.
Dugan Production Company

P 565 392 391

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(See Hevelse)	
34-55	SenDUGAN PRODUCTION	CO.
1989-2	Street and No BOX 420	
U.S.G.P.O. 1989-234-555	PO State and ZIP Code FARMINGTON, NM	87499
U.3	Postage	3 .78
	Certified Fee	1.10
	Special Delivery Fee	
PS Form 3800, June 1985	Restricted Delivery Fee III.	
	Return Receipt showing " to whom and Date Delivered	1.10
	Return Receipt showing to whom, Date, and Appress of Delivery	
June	TOTAL Postage and Fees	⁵ 2.98
3800	Postmark or Date	
Orm	12/20/95	
PS F		

P 565 392 392

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(See neverse)	
. U.S.G.P.O. 1989-234-555	Sent :0 MARATHON OIL CO.	
. 1989-:	Street and No Box 552	
S.G.P.O	PO NIDLAND, CIX 7970	02-0522
. U.S	Postage	s .78
	Certified Fee	1.10
	Special Delivery Fee	
	Restricted Delivery Fee	
10	Return Receipt showing to whom and Date Delivered	110
1985	Return Receipt showing to whom, Date, and Address of Dervery	
June	TOTAL Postage and Fees	^{\$} 2.98
,008	Postmark or Date	
PS Form 3800, June 1985	12/20/95	

P 565 392 394

RECEIPT FOR CERTIFIED MAIL

MO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

34-555	Sent SOUTHLAND ROYALTY CO.							
1989-2	Stree Pand No. BOX 4289							
: U.S.G.P.O. 1989-234-555	PO SERATION, NM	87499						
. U.S	Postage	5 .78						
	Certified Fee	1.10						
	Special Delivery Fee							
	Restricted Delivery Fee							
10	Return Receipt showing to whom and Date Delivered	1.10						
198	Return Receipt showing to whom. Date, and Address of Delivery							
June.	TOTAL Postage and Fees	s 2.98						
3800	Postmark or Date							
PS Form 3800, June 1985	12/20/95							

P 565 392 393

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse) Sent to PETROCORP Stree210 %. PARK AVE., #2100 PO State and ZIP Code OKLAHOMA CITY, OK 73102 Postage .78 Certified Fee 1.10 Special Delivery Fee Restricted Delivery Fee Return Receipt showing to whom and Date Delivered 1.10 Return Receipt showing to whom, Date, and Address of Delivery TOTAL Postage and Fees 2.98 3800, Postmark or Date Form (12/20/95

1000

ROBERT L. BAYLESS

P. O. BOX 168 FARMINGTON, NM 87499

DEC 2 1

FAX NO (505) 326-6911 OFFICE NO (505) 326-2659

December 20, 1995

William J. LeMay, Chairman New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505 Case 11463

RE: Request for Administrative
Approval to Downhole Commingle
Robert L. Bayless, Horn Canyon #1

Unit D, Sec. 15, T28N R11W Fulcher Kutz Pictured Cliffs and Aztec Fruitland Sand Pools

San Juan County, New Mexico

Dear Mr. LeMay:

By this letter, Robert L. Bayless requests administrative approval to commingle production from the Pictured Cliffs and Fruitland Sand formations within the wellbore of the Horn Canyon #1. This well was drilled by Robert L. Bayless in July of 1995. Production casing, (5-1/2") was set and cemented at 1715 feet, with total depth of the well being 1745 feet.

The Pictured Cliffs interval (1562-1584 ft) was perforated and fracture stimulated with 35,000 gallons of 70-65 quality foam fluid containing 76,000 lbs of 12-20 sand. The Completion Report for the Pictured Cliffs zone in the Horn Canyon #1 is presented as Attachment #1. This zone was tested on October 16, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1286 MCFD. The 7 day pressure buildup preceding this test was only 120 psi, suggesting this Pictured Cliffs interval has been severely drained. This AOF test is presented as Attachment #2. The Pictured Cliffs formation was first produced in this well on October 16, 1995, with the aid of a compressor. Without the compressor, this well wouldn't produce against the 185 psi line pressure in this area. The Pictured Cliffs zone in this well averaged 330 MCFD for the 36 days it produced before being shutin for recompletion. The flow test and resulting actual gas production from the Pictured Cliffs zone in this well indicates marginal gas production capability considering this is the well's initial production month and that a compressor is needed for any gas production to take place at all.

Bayless set a bridgeplug above the Pictured Cliffs zone and recompleted the Horn Canyon #1 well in the Fruitland Sand formation in late November of 1995. The interval from 1322-1339 ft was perforated and fracture stimulated with 12,750

gallons of 70 Quality foam containing 16,250 lbs of 12-20 mesh sand. The Completion Report for the Fruitland Sand zone in the Horn Canyon #1 is presented as Attachment #3. The Fruitland Sand zone was tested on December 1, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1401 MCFD. The 7 day pressure buildup preceding this test was 380 psi, suggesting this interval is not drained. This AOF test on the Fruitland Sand is presented as Attachment #4. The Fruitland Sand formation was first produced in this well on December 1, 1995, without the aid of a compressor. To date, it has produced an average 327 MCFD for the 19 days it has produced, but this rate is rapidly dropping. A compressor has just been installed on this zone to keep production rates up. We expect this zone initially to produce approximately 500 MCFD with compression. The combined production from this new Fruitland Sand interval and the existing Pictured Cliffs interval should make the Horn Canyon #1 much more economic to produce compressed gas against the 185 psi line pressure in the area.

The quality of the gas produced from the Pictured Cliffs and Fruitland Sand formations is very similar in this area. The gas gravity for the Pictured Cliffs in the Horn Canyon #1 (Attachment #5) is 0.670 with an average BTU value of 1157, while the gas gravity for the Fruitland Sand interval in this well (Attachment #6) is 0.654, with a BTU of 1146. The small differences seen in gas gravity and BTU content from these two zones indicate that the gas produced from both zones is very similar and should not cause any damage should crossflow occur between zones. Both zones produce dry gas, so no condensate production is anticipated.

From the AOF tests presented in Attachment #2 and #4, the shutin pressures on the Pictured Cliffs zone and the Fruitland Sand zones in the Horn Canyon #1 well are 120 psi and 380 psi, respectfully. Even though the Pictured Cliffs shutin pressure is less than 50% of the Fruitland Sand shutin pressure, the gas from both zones is very similar. Any crossflow that may occur between zones will cause no damage to the formation.

Attachment #7 is an acreage plat showing the ownership of leases in the vicinity of the Horn Canyon #1 well. The ownership (working interest, royalty, and overriding royalty) of both the Pictured Cliffs and Fruitland Sand formations is common in the Horn Canyon #1 well. The leases surrounding this well are owned by Dugan Production Corp., Southland Royalty (Meridian Oil), Petrocorp, and Marathon Oil Company. These companies have been contacted by certified mail of this commingling application. An example of the letter sent to each of these companies is provided as Attachment #8. Copies of the Return Receipt slips are presented as Attachment #9. By copy of this application, we have also advised the BLM of our plans to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well.

The production from the Pictured Cliffs and Fruitland Sand zones can be allocated using the ratios of the rate of flow calculated during the AOF test on each formation. Based on these AOF's the allocation between zones will be approximately 48% of the commingled gas production allocated to the Pictured Cliffs formation, while 52% allocated to the Fruitland Sand formation. The ownership and value of the gas from each zone is the same, so the commingling of this natural gas will not decrease its sales value on the whole or to any one party.

The production test and actual gas production on the Pictured Cliffs formation in the Horn Canyon #1 indicate that gas production from this well will be low, resulting in marginal gas reserves and economics for the well. Further development and operational costs in this area will be substantially reduced by approval of downhole commingling of the production from the Pictured Cliffs and Fruitland Sand formations in this well. We would appreciate your administrative approval of this application.

Sincerely,

Kevin H. McCord Petroleum Engineer

Attachments

<u>:</u>

Form 3160-4 (July 1992)

UN. TED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN DUPL. ZE+

FORM APPROVED OMB NO. 1004-0137

(See other Instructions on 5. LEASE DESIGNATION AND BERIAL NO.

	501	KEAU UP LA	ND MANAGE	MENI -	CH 200	ì.I	NM-02	0498-A
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L TYPE OF COM	PLETION:				.,	, , , ,		
NEW X	WORK DEE	P- nyck	BIFF.	Qthre	<u> </u>	Post	- 1	LEASE NAME, WELL NO Canyon #1
Rober	t L. Bayles	S					9. API WELLN	
3. ADDRESS AND	TELEPHONE NO Box 168 Fa		NM 87/00	(505)326-26	5.0	I	5-29266
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	Same						San Juan	New Mexico
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O. TOTAL DEPTH, MD		BACK T.D., MD A	1 TYD 22. 15 M	MANY Sing	, 23.	INTERVAL.	Y	CABLE TOOLS
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. TYPE ELECTRIC A		'À	,				2	7. WAS WELL CORED
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				· · · · · ·			to surface	
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EIZE		OTTOM (MD)	SACKS CEMENT*	SCREEN (M	D) 30.	IZE	DEPTH SET (MD)	PACKER SET (MD)
						8/8"	1582	None
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None							_	
None		and number)		32.	ACID, SH	OT, FRA	CTURE, CEMENT S	
None	RD (Interval, size			DEPTH INT	ACID, SH	OT. FRAC	MOUNT AND KIND	QUEEZE, ETC.
None . PERPORATION RECO	ED (Interval, size) 4 22 ft.	88 hol	es	DEPTH INT	ACID, SH	750	gal 71/2% HCL	QUEEZE, ETC. OF MATERIAL USED ; 35,000 gal
None . PERPORATION RECO	RD (Interval, size	88 hol	es	DEPTH INT	ACID, SH	750 70-6	gal 7½% HCL 5 quality f	QUEEZE, ETC. OF MATERIAL CEED ; 35,000 gal oam; 76,000 lbs
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None	4 22 ft. 4" diameter	88 hol	PRO	DUCTION	ACID, SH	750 70-6 12/2	gal 7½% HCL 55 quality f 20 brady san	QUEEZE, ETC. OF MATERIAL CEED ; 35,000 gal oam; 76,000 lbs
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Submit in duplicate to appropriate district office See Rule 401 & Rule 1122

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-122 Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WEI

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Type Well - Single - Bradenhead - G.G. or G.O. Mu Single	Itiple Packer Set /	none			red Cliffs
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		-			
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Approved By Division Conducted	Qu:	dculated By:	···	Checked By:	
	ert Aranda	Kevin	McCord	Checked by:	

10 JED STATES DE

SUBMIT IN DUPL!

FORM APPROVED OMB NO. 1004-0137 E.

_					
PARTMENT	OF	THE	INTERIOR		
BUREAU OF L	AND	MANAG	EMENT		

(See ner In-tions on se side)

	<u>L</u> x	pires:	rebruar	y 28,	1995	
5.	LEASE	DESIG	NATION	AMD	SERIAL	NO.

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EAU OF	LAND	MANAGEMENT			

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ROBERT L.										9. API WELL	, NO.	
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			_									SURVEY MADE
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	-						1-0				-	
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5 1/2" J55	15.	5 #/ft.	1715		6	3/4"	31	5sx (4	28ft ³) 50/50 t		ix, 2% gel, l
							1			from temp	. ,	
)	_	LINER	RECORD					30.	7	CUBING RECO	RD	
SIZE	TOP (MD)	BOTTO	OM (MD) S.	ACKS CEME	YT.	SCREEN ()	(0)	SIZE		DEPTH SET (M	D)	PACKER BET (MD)
NONE						ļ		2 3	<u>/8'</u> '	1328	-	NONE
. PERFORATION REC	Oko (Interva	l. size and	number)			32.		TOHO TO	FRACT	URE, CEMENT	CSOLLE	FFTE ETC
1322-1324	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2ft	8 hol	es		DEPTH IN				OUNT AND KINI		
1332-1339		7ft	28 hol			1322			500			L: 12.750 ga
						1	·	2.2				16,250 lbs
		9 ft	36 hol							0 brady s		
		.34	" diamet									
TE FIRST PRODUCTION	nk	ADDITOR: OF	METHOD (Flor			DUCTION	0=4 1	une of au-	10)	1	RTAT!'E	(Producing or
	~" P			ving, gue ti	יע ניינ	=myiny—size	una i	урс ој рил	٠٧)	shut	-in)	
11/24/95	HOURS TEST	FLOWIN	G	PROD'N. FO	R	OIL-BBL.		GAS-MC	۴.	WATER-BBL.		UT IN
11/24/95				TEST PERI	OD •	ED FOR		ORIBO	FLOW			
OW. TUBING PRIME.	CASING PRES		LCULATED	011, BBI		-DEPR	a EC	Or the	WATER-	HBL.	OIL GR	AVITT-APT (CORR.)
		24	-HOUR BATE	AC.CE	PT	ED NO	FLO	ow		}		1) Out
. DISPOSITION OF GA	s (Bold, used	for fuel, ve	mted, etc.)	_ 		101 301	995			MA ZA	ज्यम	TED TO
TO BE SOLD					N	101 30				AS AM	FUL	Jul
. LIST OF ATTACHM	ENTE					ייי חופי	RICT	OFFICE) () 4(205
LIST OF ATTACHM	Var. 12-2	-ding	2160/24 1202	lastian ist	VBW	INCTONUIS	B	diamin	d from -	NOV	3 U 1:	<u> </u>
//				١	warp	THE RELL COLD		ene retimine	- 110mm	DISTRIC	a a f	NAGER
SIGNED	Mm /	1. /V/	Uh	TIPLE	-	PETROLE	UM E	ENGINE	ER	DISTRIC	TIMY	28/95

*(See Instructions and Spaces for Additional Data on Reverse Side)

State of New Mexico Energy, Minerals and Natural Resources Depai and

Submit in duplicate to appropriate district office See Rule 401 & Rule 1122

OM CONCERNAL TION DESCRION

Form C-122 Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Opermor Robert L. Bayl	less		Leas	e or Unit Name	Horn Canyon	
Type Test			Test	Date	Well No.	
X Iniasi An		· · · · · · · · · · · · · · · · · · ·		12/01,		1
Completion Days 11/24/95 Total De	1745 16	lug Back TD 70 (BP @ 1)	500¹) ∃555	icon 50 RKB	Unit Lir. • D	Scc TWP - Rge. 15 28N 11W
Csg. Size Wi. d	Sa At Po	mforsnons:			County	
5 1/2" 15.5 4.950)'' 1715 _F	rom: 1322	To:	1339	San	Juan
Tbg. Size Wi. d	(aforazons:			P∞l	
2 3/8" : 4.7 1.995	5" 1328 _{Fr}	None	То:		Azte	c Fruitland
Type Well - Single - Bradenhead - G.G. Single	or G.O. Multiple	Packer Sea		2		tland Sand
Producing Thru Reservour Temp. °F Tubing	Mean Annual Temp. F	Baro, Pres		est.	- Connection	EPFS -
I. H Ge	€ CO,	% N ₂	% H ₂ S	Prover	: Mac Run	Taps
0.6		1	TIMO!	CDATA	C. CD.C. D.	~
FLOW DA	Diff			G DATA	CASING DA	Daragon
NO. Line X	Press.	Temp.	Press.	Temp.		emp. : of %F : Flow
Size Size	p.su.g. "w	<u>-i</u> -	380		380	1104
1. 2 inch x .750"	- 	_ 	1 70	60°F	115	3 hrs.
1. 1. 2 inch x ./50" 2.		<u>:</u>	70	, 00 r	11	, 5 111.5.
3.				:		
4.	i i	· · · · · · · · · · · · · · · · · · ·		:		
5. :	!	i	j i			
	R.A	ATE OF FLOW C	ALCULATION	vs		
COEFFICIENT	Pressu	, ,,,,,,		Gravity Factor	Super Compress.	Rate of Flow
	P _m P _m		or Ft.	Fg.	Factor, F pv.	Q, Mcfd
1. 12-365	82	1.00	10	1.240	1.014	1275
3.					<u>:</u>	
4.						
5.					! :	
P Temp *P	T _e Z	Gas Liquid Hydro	andre Perio			Mcf/bbl.
NO.1	!	A.P. L Gravity of		h-n.		Deg.
	1.39 0.973	Specific Gravity S				XXXXXXXX
2.		Specific Gravity F	•		XXXXX	
3.		Critical Pressure_			P.S.I.A.l	P.S.I.A.
5.		Critical Temperate	ıre		R !	R ·
P _e 392 P _e 153,60	64_					
	P _c P _c P _c	$\begin{array}{c} 1) P_c^2 \\ \hline P_c^2 - P_c^2 \end{array}$	= 1.117	3 (2) r P, 2	a = 1.0988
	P ₂ ² P ₂ ² P ₂ ² 6,129 137,535	p2 - p2	•		P_{e}^{2} $\frac{P_{e}^{2}}{P_{e}^{2} \cdot P_{e}^{2}}$	
1. 127 16 2.	0,149 137,333					
3.		AOF = Q	f p²] =	401	•
4.			$\frac{P_e^2}{P^2 \cdot P^2}$.[
5.	i	: }	['c ' ' ']		
Absolute Open Flow 1401		Merd @ 15.025	Angle of Slope	: 0	Slope,	n0.85
Remarks:	·	-	· · · · · · · · · · · · · · · · · · ·	·····		
						
	·					
Approved By Division	Conducted By:	C	elculated By:		Checked By:	
	Albert Arand	a	Kevin Mo	Cord		

Report Date: 11/03/95 Report Time: 12:56:37	3/95 6:37		ELPASONATURALGAS COMPANY Volume Calculation & Distribution Department Monthly Volume and Analysis for November, 1995 thru November, 1995	P A S O	N A louletic	T U R A D1 an & D1 For No	stribut vember.	lon Dept	O M P L	A N Y ember, 19	56£	RE PORT Page	REPORT NO: CGNE747 -01 Page No: 2	-01
Meter: 97949 - HORN CANYON Oper: 0538 - BAYLESS R L	HORN CAN YLESS R	••		Repo	rting pa	grty:	ī	1 0 F	Report fo	- *** No Reporting Party ***	**			
Effective 11/01/95	0.900 0.900 0.900	428 0.000	H2S N2 C1 C2 IC4 NC4 IC5 NC5 C6P 0.000 0.860 87.230 5.830 2.570 0.530 0.820 0.360 0.260 0.640 0.000 0.000 0.000 1.560 0.708 0.173 0.259 0.132 0.094 0.279	5.830 5.830 5.830	2.570 2.570 0.708	104 0.530 0.173	NC4 0.820 0.259	1C5 0.360 0.132	60.260 0.260	C6P 0.640 0.279	BTU 1157	BTU Spec Grav GPH 1157 0.670 3.205	3,205	



1115 Farmington Avenue Farmington, N.M. 87401 (505) 325-6622

Analysis No. BAY50013 Cust. No. 14100-10240

WELL/LEASE INFORMATION

Company : ROBERT L. BAYLESS, INC.
Well Name : HORN CANYON 1
County : SAN JUAN

Source

Source : 375 PSIG Sample Temp. : N/A DEG.F

State !

: NM

Well Flowing: NO

Location :

Date Sampled: 11/28/95

Fld/Formation :

Sampled By : ALBERT ARANDA

Cust.Stn.No. :

Foreman/Engr :

Remarks: LEASE: NM-020498-A

ANALYSIS

COMPONENT	MOLE &	GPM**	B.T.U.*	SP.GR.*	
NITROGEN	1.060	0.0000	0.00	0.0103	
CO2	0.096	0.0000	0.00	0.0015	1
METHANE	87.242	0.0000	883.15	0.4832	
ETHANE	6.902	1.8463	122.42	0.0717	
PROPANE	2.849	0.7852	71.85	0.0434	
I-BUTANE	0.493	0.1613	16.07	0.0099	
N-BUTANE	0.696	0.2194	22.76	0.0140	
I-PENTANE	0.234	0.0856	9.38	0.0058	
N-PBNTANE	0.166	0.0601	6.67	0.0041	
HEXANES	0.262	0.1143	13.47	0.0084	
TOTAL	100.000	3.2722	1145.77	0.6523	

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

** @ 14.730 & 60 DEC. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0028
BTU/CU.FT. (DRY) CORRECTED FO	OR (1/Z)	1149.0
BTU/CU.FT. (WET) CORRECTED FO	OR (1/Z)	1129.0
REAL SPECIFIC GRAVITY		0.6539

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES P

CYLINDER # : AZT034 CYLINDER PRESSURE : 384 PSIG DATE RUN : 11/28/95 ANALYSIS RUN BY : BOB DURBIN

10 00 00 00 00 00 00 00 00 00 00 00 00 0		24
Nm-620482 St. or 1867 SF-0445358 Nm-620482 St. or 1867 SF-0445358 Nm-620482 St. or 1867		2.8
5F. 07/1867 SF-044535B SF-044535B SF-044535B		
16 1 Survivorage 7		
16 0 1 15 mr. 20 1938		
	14	
27	23	

Sec. 9 = Duyon (Fr, Fms, PC)

Sec. 10 = So. Pay. (Fr, PC)

Therisian (PC)

Potrocorp (PC)

Sec. 15 = Possocorp (PC) Marathon (PC) Sec. 16 = Dugan (PC, Fmg.)



ROBERT L. BAYLESS

P. O. BOX 168
FARMINGTON, NM 87499

FAX NO (505) 326-6911 OFFICE NO (505) 326-2659

December 20, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P565392391

Dugan Production Company P.O. Box 420 Farmington, N.M. 87499

RE: Proposed Downhole Commingling Robert L. Bayless Horn Canyon #1 Unit D. Sec. 15, T28N, R11W San Juan County, New Mexico

Gentlemen:

Our records indicate your company owns offset acreage to our Horn Canyon #1 well. We plan to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well and have requested the New Mexico Oil Conservation Division to administratively approve this commingling of production. A copy of this application is enclosed.

In order to obtain approval from the Oil Conservation Division Director, we must obtain waivers of objection from offset lease holders. If you have no objection to our plans, please execute the waiver portion of this letter and return one copy to us at the above address and another copy to the Division Director, Oil Conservation Division, 2040 South Pacheco, Santa Fe, NM 87505.

If you require additional information, please advise.

Sincerely.

Kevin H. McCord Petroleum Engineer

I have no objection to the above stated plans.

Dugan Production Company

By:	Title:	Date:

P 565 392 391

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(See Heverse)								
34-55	SenDUGAN PRODUCTION	CO.							
1989-2	Street and No. BOX 420								
U.S.G.P.O. 1989-234-555	PO State and ZIP Code FARMINGTON, NM	87499							
Ö,	Postage	⁵ .78							
	Cedified Fee	1.10							
	Special Delivery Fee								
	Restricted Delivery Fee IIII								
	Return Receipt showing in whom and Date Delivered	1.10							
PS Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery								
Junc	TOTAL Postage and Fees	³ 2.98							
3500,	Postmark or Date	*							
orm	12/ <u>2</u> 0/95								
PS F									

P 565 392 392

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(See Heverse)	
234-555	Sent to MARATHON OIL CO.	
1989-2	Street and No Box 552	
U.S.G.P.O. 1989-234-555	P.O. Sizia and ZIP Code 7970	02-0522
. U.S	Postage	s .78
	Certified Fee	1.10
	Special Delivery Fee	
	Restricted Delivery Fee	
10	Return Receipt showing to whom and Date Delivered	1.10
1985	Return Receipt showing to whom, Date, and Address of Delivery	
Junc	TOTAL Postage and Fees	s 2.98
3800,	Postmark or Date	
PS Form 3800, June 1985	12/20/95	

P 565 392 394

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

234-55	TY CO.									
1989-	Stree Pind No BOX 4289									
Sent SOUTHLAND ROYALTY CO										
. U.S	Postage	5 .78								
	Certified Fee	1.10								
	Special Delivery Fee									
	Restricted Delivery Fee									
10	Return Receipt showing to whom and Date Delivered	1.10								
198	Return Receipt showing to whom, Date, and Address of Delivery									
June,	TOTAL Postage and Fees	s 2.98								
3800	Postmark or Date									
PS Form 3800, June 1985	12/20/95									

P 565 392 393

RECEIPT FOR CERTIFIED MAIL

NO INSUPANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Roverse)

	(See Heverse)								
: U.S.G.P.O. 1989-234-555	Sent to PETROCORP								
1989-	Street 10 No. PARK AVE., #210								
.G.P.O.	PO. State and ZIP Code OKLAHOMA CITY, O	K	73102						
: U.S	Postage	S	.78						
	Certified Fee		1.10						
	Special Delivery Fee								
	Restricted Delivery Fee								
	Return Receipt showing to whom and Date Delivered		1.10						
1985	Return Receipt showing to whom, Date, and Address of Delivery								
June	TOTAL Postage and Fees	S	2.98						
3800,	Postmark or Date								
S Form 3800, June 1985	12/20/95								

1 1 Bulletin

ROBERT L. BAYLESS

P. O. BOX 168 FARMINGTON, NM 87499

FAX NO (505) 326-6911 DEC 2 | 1995

OFFICE NO (505) 326-2659

December 20, 1995

William J. LeMay, Chairman New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505

RE: Request for Administrative
Approval to Downhole Commingle
Robert L. Bayless, Horn Canyon #1
Unit D, Sec. 15, T28N R11W
Fulcher Kutz Pictured Cliffs and Aztec Fruitland Sand Pools
San Juan County, New Mexico

Dear Mr. LeMay:

By this letter, Robert L. Bayless requests administrative approval to commingle production from the Pictured Cliffs and Fruitland Sand formations within the wellbore of the Horn Canyon #1. This well was drilled by Robert L. Bayless in July of 1995. Production casing, (5-1/2") was set and cemented at 1715 feet, with total depth of the well being 1745 feet.

The Pictured Cliffs interval (1562-1584 ft) was perforated and fracture stimulated with 35,000 gallons of 70-65 quality foam fluid containing 76,000 lbs of 12-20 sand. The Completion Report for the Pictured Cliffs zone in the Horn Canyon #1 is presented as Attachment #1. This zone was tested on October 16, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1286 MCFD. The 7 day pressure buildup preceding this test was only 120 psi, suggesting this Pictured Cliffs interval has been severely drained. This AOF test is presented as Attachment #2. The Pictured Cliffs formation was first produced in this well on October 16, 1995, with the aid of a compressor. Without the compressor, this well wouldn't produce against the 185 psi line pressure in this area. The Pictured Cliffs zone in this well averaged 330 MCFD for the 36 days it produced before being shutin for recompletion. The flow test and resulting actual gas production from the Pictured Cliffs zone in this well indicates marginal gas production capability considering this is the well's initial production month and that a compressor is needed for any gas production to take place at all.

Bayless set a bridgeplug above the Pictured Cliffs zone and recompleted the Horn Canyon #1 well in the Fruitland Sand formation in late November of 1995. The interval from 1322-1339 ft was perforated and fracture stimulated with 12,750

gallons of 70 Quality foam containing 16,250 lbs of 12-20 mesh sand. The Completion Report for the Fruitland Sand zone in the Horn Canyon #1 is presented as Attachment #3. The Fruitland Sand zone was tested on December 1, 1995 by conducting a 3 hour flow test which resulted in an AOF of 1401 MCFD. The 7 day pressure buildup preceding this test was 380 psi, suggesting this interval is not drained. This AOF test on the Fruitland Sand is presented as Attachment #4. The Fruitland Sand formation was first produced in this well on December 1, 1995, without the aid of a compressor. To date, it has produced an average 327 MCFD for the 19 days it has produced, but this rate is rapidly dropping. A compressor has just been installed on this zone to keep production rates up. We expect this zone initially to produce approximately 500 MCFD with compression. The combined production from this new Fruitland Sand interval and the existing Pictured Cliffs interval should make the Horn Canyon #1 much more economic to produce compressed gas against the 185 psi line pressure in the area.

The quality of the gas produced from the Pictured Cliffs and Fruitland Sand formations is very similar in this area. The gas gravity for the Pictured Cliffs in the Horn Canyon #1 (Attachment #5) is 0.670 with an average BTU value of 1157, while the gas gravity for the Fruitland Sand interval in this well (Attachment #6) is 0.654, with a BTU of 1146. The small differences seen in gas gravity and BTU content from these two zones indicate that the gas produced from both zones is very similar and should not cause any damage should crossflow occur between zones. Both zones produce dry gas, so no condensate production is anticipated.

From the AOF tests presented in Attachment #2 and #4, the shutin pressures on the Pictured Cliffs zone and the Fruitland Sand zones in the Horn Canyon #1 well are 120 psi and 380 psi, respectfully. Even though the Pictured Cliffs shutin pressure is less than 50% of the Fruitland Sand shutin pressure, the gas from both zones is very similar. Any crossflow that may occur between zones will cause no damage to the formation.

Attachment #7 is an acreage plat showing the ownership of leases in the vicinity of the Horn Canyon #1 well. The ownership (working interest, royalty, and overriding royalty) of both the Pictured Cliffs and Fruitland Sand formations is common in the Horn Canyon #1 well. The leases surrounding this well are owned by Dugan Production Corp., Southland Royalty (Meridian Oil), Petrocorp, and Marathon Oil Company. These companies have been contacted by certified mail of this commingling application. An example of the letter sent to each of these companies is provided as Attachment #8. Copies of the Return Receipt slips are presented as Attachment #9. By copy of this application, we have also advised the BLM of our plans to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well.

The production from the Pictured Cliffs and Fruitland Sand zones can be allocated using the ratios of the rate of flow calculated during the AOF test on each formation. Based on these AOF's the allocation between zones will be approximately 48% of the commingled gas production allocated to the Pictured Cliffs formation, while 52% allocated to the Fruitland Sand formation. The ownership and value of the gas from each zone is the same, so the commingling of this natural gas will not decrease its sales value on the whole or to any one party.

The production test and actual gas production on the Pictured Cliffs formation in the Horn Canyon #1 indicate that gas production from this well will be low, resulting in marginal gas reserves and economics for the well. Further development and operational costs in this area will be substantially reduced by approval of downhole commingling of the production from the Pictured Cliffs and Fruitland Sand formations in this well. We would appreciate your administrative approval of this application.

Sincerely,

Kevin H. McCord Petroleum Engineer

Kim N. M. Cal

Attachments

Form 3160-4 (July 1992)

UN. IED STATES SUBMIT IN DUPL. ZE*

FORM APPROVED OMB NO. 1004-0137 Expires: February 28, 1995 (Secother in-

		JREAU OF LA		EMENT SERIO	\mathbb{N}^{ε}		ctions crae aid	e) ii. i.x.aar i	02049	TIUN AND BERIAL NO.
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L TYPE OF CO		วยา- า กะบูล				1 835	•			
WELL.	OVER L EX	EP- DYCK	nesyn.	ال ¡Qihre		بندار إيد	1			ASE NAME, WELL NO.
2. NAME OF OPERA	rt L. Bayle	ss						9. API WEL		iyon #1
3. ADDRESS ANI										29266
	Box 168 F		NM 8749	9 (505)	326	-2659		10. FIELD	AND PO	DL, OR WILDCAT
4. LOCATION OF WI	ELL (Report locati	ion clearly and in	accordance wit	th any State requi	remen	ita)*		1		Kutz PC
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At total depth	Sam	e						Sec. 1	15, 1	28 N, R 11 W
	Sam		14. PERMIT	NO.	DATE	ISSUED		12. COUNTY		13. STATE
								San Jua		New Mexico
7/26/95	16. DATE T.D. F	i i	TE COMPL. (Rea 10/09/95	ay to proa.) 18		550 RE		3, RT, GB, ETC.)*		550 RKB
O. TOTAL DEPTH. MD		IG, BACK T.D., MD	8 TVD 22. 1F	MULTIPLE COMPL.		1 23. INT	ERVALS			CABLE TOOLS
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. PRODUCING INTE	RVAL(S). OF THIS	COMPLETION-TO	P. BOTTOM, NAM	E (MD AND TVD)		·		<u>. ·</u>	2	5. WAS DIRECTIONAL SURVEY MADE
1562 - 15	84 Pict	ured Cliff	s							No
	AND OTHER LOGS	RUŃ						 	27. ₹	AS WELL CORED
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CASING SIZE, GRADE	WEIGHT, LB./		RING RECORD	(Report all etrings	s set i		MEST	EMENTING RECOR	D	AMOUNT PULLED
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				<u>·</u>				o surface		
5 1/2" J5	5 15.5 #/fi	t. 171	5 ft.	6 3/4")50/50 pc		
					2%g)%sa]			from temp surv
. gizt	TOP (MD)	BOTTOM (MD)	SACKS CEMEN	T* SCREEN (MI		30.		TUBING REC		PACKER SET (MD)
None	TOP (AB)	BOTTOM (MD)	SACKS CEMEN	I SCREEN (R)		2 3/8	 -	1582	4D)	None None
							<u> </u>	1502		
PERFORATION REC	ORD (Interval, siz	re and number)		32.	AC	D, SHOT	FRAC	TURE, CEMEN	T SQU	EEZE, ETC.
			_	DEPTH INT				MOUNT AND KI		
1562 - 15	84 22 ft. 34" diamete		les	1562	<u>- 1</u>	<u>584</u>				35,000 gal
0.	34 diamete	er						0 brady s		m; 76,000 lbs.
							12/2	o brady s	and_	
•				RODUCTION						
TH FIRST PRODUCTS	ON PRODU			t, pumping—size	and ty	ipe of pun	(p)	WELL	STATU	Nut-in
10/09/95	HOURS TESTED	CHOKE SIZE	Owing	R OILBBL.		GASMC		WATER-BB		GAS-OIL RATIO
10/09/95	No flow		TEST PERIO			No f				VAC 015 =====
W. TUBING PRING.	CASING PRESSURE	E CALCULATED 24-HOUR RAT	OII	GAS-3	f 10	w 1	WATER	HBL.	OIL G	ANTITY-API (CORR.)
DISPOSITION OF GA	s (Sold, used for	fuel, vented, etc.)	<u> </u>	!				LEH FOR	nF.	<u>, () </u>
To be sol						Δ	CCE	PILED.		
LIST OF ATTACHN	IRNTS					F\		ULT 1%	1995	
I bereby certify	that the foregoing	dara Atached I	nformation is co	omplete and corre	ct as	determine	d from	UU I	ecorde	OFFICE -
SIGNED	amd.	Men	TITLE	Petroleum	En	gineer	E	RMINGTON DIS	2 <u>1</u> 1	0/10/95

Submit in duplicate to appropriate district office
See Rule 401 & Rule 1122

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-122 Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

	OINT AND ONL!	OINT DACK		e or Unit Name	N OAS WELL	
Robert L. Bayl	ess		:		Horn Canyon	
Type Test A	Annual Special		Test	Date 10/16/9	Well No.	1
Completion Date 10/09/95 Total I	Дерин 1745 ^Р	lug Back TD 1670	Elev:	5550 RKB	Unit Lir. + S	15 28N 11W
Csg. Size Wt. d	Set At Pe	erforations:	· · · · · · · · · · · · · · · · · · ·		County	
5 1/2" 15.5 4.9	50" 1715 F	rom: 1562	To:	1584	San	Juan
Tog. Size Wt. d		erforstions:			Pool	
2 3/8" 4.7 1.9		rom: none	To:			er Kutz PC
Type Well - Single - Bradenhead - G. Single	G. or G.O. Multiple	Packer Set A	none		Formation Pictu	red Cliffs
Producing Thru Reservoir Temp. Tubing	F Mean Annual Temp. F	Baro, Press	P ₄ 12.0 p	sia, est.	Connection	PFS
L H Gg est	0.65 5 CO,	% N ₂	% H ₂ S	Prover	Meter Run	Taps
FLOW D			TUBIN	G DATA	CASING DAT	A Duragon
NO. Prover Orifice	Press. Diff.	Temp.	Press.	Temp.		mp. of
Size Size	p.s.i.g. h _w	a.t.	p.s.a.g.	•F		F Flow
SI : 2 inch x .750"	·		120 35	60°F	120 80	3 hrs.
2.						3
3.						
4.	<u> </u>					
5.		ATE OF FLOW CA	L CUIL ATTO) i	 	
COEFFICIENT	Press	ure Flow T		Gravity Factor	Super Compress.	Rate of Flow
NO. (24 HOUR)	h P P	Factor	r FL	₽g.	Factor, F pv.	Q, Mcfd
1. 12.365	. 47	1.000	<u>,</u>	1.240	1.014	731
2. 3.	· 		i		<u>: </u>	
4,		· · · · · · · · · · · · · · · · · · ·			 	
5.			1			·- ·- · · · · · · · · · · · · · · · · ·
NO. P, Temp. * R	T _r Z	Gas Liquid Hydroc	arbon Ratio			Mcf/bbl.
1. 0.07	1.39 0.973	A.P. L Gravity of L	iquid Hydroca	rbons		Deg.
2.		Specific Gravity Se			,	XXXXXXXX
3.		Specific Gravity Fl Critical Pressure			LALZ.4	P.S.I.A.
4.		Critical Temperatur			R	R
5. P _c 132 P _c 17,4	24	:				
		1) P.2	<u>= 1.944</u>	6 (2) F P. ² 1	• <u>= 1.7600</u>
NO. P _t ² P _w	P ² P ² -P ¹ 8,464 8,960	$\frac{1}{p^2 \cdot p^2}$	= 1.944		$ \begin{bmatrix} \frac{P_c^2}{P_c^2 + P_c^2} \end{bmatrix} $	
2.	0,404 0,900				[]	
3.		AOF = Q	P.2	1 1	286	
4.			$\frac{P_c^2}{P_c^2 \cdot P_c^2}$	F		
5.		1				
Absolute Open Flow 1286		_Mcfd @ 15.025	Angle of Slo	ре Ө	Slope.	n0.85
Remarks:						
Approved By Division	Conducted By:	10	ulculated By:		Checked By:	
	Albert Arai	j i	Kevin	McCord	Circuit by:	

SUBMIT IN DUPL! UN JED STATES DEPARTMENT OF THE INTERIOR

(Sec...ner In-structions on reverse side)

E.

FORM APPROVED OMB NO. 1004-0137 Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.

	1	BUREA	U OF LA	'ND M	MANAGEME	ENT				NM-02	0498	-A
WELL CO	MPLETIC	N OF	RECC	MPI	LETION	REPOR	T A	ND LO	G*	6. IF INDIA	I, ALI.O	TTEE OR TRIDE NAME
. TYPE OF WE	LL:	OIL WELL	GAS WELL		DRY .	Other		3 11	1	7. UNIT AGR	EEMENT	BMAN 1
NEW WELL	(PLETION: WORK (X)	DEEL-] PLBA	П	DIFF.	Other				8. FARM O	R LEA	SE NAME, WELL NO
NAME OF OPERA						- Vill	,					NYON #1
ROBERT L.						· · · · · · · · · · · · · · · · · · ·				9. API WELL	NO.	14 100 21
3. ADDRESS AND										!		29266
PO BOX 16 1. LOCATION OF WE At surface								nto)*		AZT	EC_F	RUITLAND
1190' FNL	and 1055	FWL								OR AREA		OR SLOCK AND SURVEY
SAME At total depth										4		TTER D , T28N, R11W
-				1 14	PERMIT NO.		DATE	ISSUED		12. COUNTY		13. STATE
SAME										SAN J	IIAN	NEW MEXIC
ATE SPUDDED	16. DATE T.D	. REACHE	D 17. DAT	TE COM	IPL. (Ready t	o prod.)	18. ELI	EVATIONS (DF. RKB.	RT, GR, ETC.)*		LEV. CABINGHEAD
7/26/95	7/3	31/95	11,	/24/	95			555 0 E	RKB	_		
O, TOTAL DEPTH, MD	A TVD 21.		K T.D., MD 4		22. IF MUL HOW M		PL.,		ERVALS LLED BY	ROTARY TOO	LS	CABLE TOOLS
1745 FT.					1500ft)	sin		<u> </u>	->	XXX		
. PRODUCING INTE	RVAL(8), OF TH					MD AND TV	D) •			,,	25	. WAS DESCTIONAL SURVEY MADE
1322-1339	FRUITLAN	D SAN	D								1	NO
TYPE ELECTRIC	AND OTHER LOG	B RUÑ								 1	27. W	AS WELL CORED
DIL: SDL:	DSN											- N O
DIE: SDE:	J U.1		CAS	ING R	ECORD (Rep	ort all stri	ings set	in soell)				
CASING SIZE/GRADE	WEIGHT, L	.B./FT.	DEPTH 8	ET (MI	D) HO	I.E SIZE		10P OF CE	MENT, C	EMENTING RECORD		AMOUNT PULLED
8 5/8" J5	5 24 #	/ft.	125	ft.		1/4"	80) sx (9	4ft ³) class R	_ci r	c to surface
5 1/2" J5	15.5	#/ft	1715	ft	. 6	3/4"	31	5sx (4	28ft	³) 50/50 j	oozmi	x, 2% gel, l
						<u></u>		OC @20		from temp	_ <u>su</u> r	
	TOP (MD)	_,	R RECORD		8 CEMENT®	SCREEN	(MD)	30. SIZE		TUBING RECO		PACKER BET (MD)
NONE		-		-				I	- 1/8''	1328		NONE
		-		-		-			 -		-	NUME.
PERFORATION REC					··· ····	32.	A	CID. SHOT	, FRAC	TURE, CEMENT	SQUE	EZE, ETC.
1322-1324		2ft		olea		DEPTH	INTERVA	L (MD)		MOUNT AND KIN	OP M	ATERIAL USED
1332-1339		7ft	28 h	oles	3	13	<u> 22-13</u>	39		-		L: 12 ,750 ga
		9 ft	36 h	ınles		<u></u>			,	-		16,250 lbs
			diam'						12/	20 brady s	and	
•		. 34	ulam	erer		OUCTION			<u> </u>			
TR FIRST PRODUCTS				Flowin	g, gas lift, pu		ze and t	ype of pur	np)	WELL		(Producing or
11/24/95	HOURS TESTE	FLOWIN	G HOKE BIZE	l Pr	ROD'N. FOR	OILBBI		GAS-N	CV	WATER-BBL		UT IN
11/24/95	NOUNG INGIN	"	1025 8125	T	ST PERIOD			habo	FLO	J		AGOID MAIO
W. TUBING PRIME.	CABING PRESS		LCULATED	C1	IBBI	ED FOR	A BE	3000°	WATER-	HBL.		AVITY-MFF (CORR.)
Die Poeter of		ļ	→		ACCEPT	N	VO FL	OW		1 made assessmin	vet	ED BUS
TO DE COLD		or juel, v	ENTEG, elc.)			0130	1995	ı		אישוא	CNI	DED
TO BE SOLD	ENTE				N	טייט ייט		OCEIPE		AS AM	CIAL	
LIST OF ATTACHE		1			للامم	INGTON D	ISTRICT	UFFICE		YOU	30 1	395
I bereby certify	that the foreg	ing app	nesticated in	1forma	tion is to the large	lete and co	TELE	determin	ed from	all available re	cords	MAGER
archen //	Mun N	. <i>[W</i>	Ch	ノヽ	BY	PETROI	EIIM	ENGINE	ER	- LOTIDIC	TIM	NAGER

State of New Mexico Energy, Minerals and Natural Resources Depai ant

Submit in duplicate to appropriate district office See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-122 Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Robert L. Bayless			L	ease or Unit Name	Horn Cany	on	
Type Test Annual	Special		: 1	12/01	/95 Well!	No.	
Completion Date Total Depth 174	Plug Bac	RP @ 15	(101) E	levanon 5550 RKB	Unit I	_tr Sec	IWP - Rgc. 28N 11W
Cig. Size Wt. d Sa			00) . 3	7550 100	Count		ON TIW
5 1/2" 15.5 4.950" 1	.715 From:	1322	To	o: 1339	S	an Juan	
Tog. Size Wi. d Sea	i				, P∞l		
	328 From:	None	T	o:	A	ztec Fru	i itla nd
Type Well - Single - Bradenhead - G.G. or G.O. M Single		Packer Set	No	ne		ruitland	Sand
Producing Thru Reservoir Temp. °F Mesn An Tubing	nual Temp. F	Baro, Press	2.0 PSI	A, est.	Conn	ection EPF	'S
L Н G 0.65 % С	30 ₂ % >	1	% H ₂ S	Prover	: Macr	Run	Тарз
FLOW DATA			TUB	ING DATA	CASINO	G DATA	- Duragon
NO. Prover Orifice Press.	Diff.	Temp.	Press. p.s.i.g.	Temp.	Press. p.s.i.g.	Temp.	of Flow
SI			380		380		
1. 2 inch x .750"	-		70	60°F	115		· 3 hrs.
3.		<u> </u>			: :		
4.	 						
5.	! :	<u> </u>					
	RATE O	F FLOW CA					
NO. (24 HOLR)	P	Flow T	• •	Gravity Factor Fg.	Super Compre Factor, F.pv.		te of Flow Q. Mcfd
1. 12–365	82	1.000	0 .	1,240	1.014		75
2.		!					
: 3. - 4. ;		<u>.</u>		·	<u>·</u>		
5.	_ i	<u> </u>			-		
P T T	Z Gus	iquid Hydroc	carbon Ratio				Mcf/bbl.
NO. 1 1.39	1			ocarbons			Deg.
2.	Speci			 		XXX	XXXXX
3.	!	fic Gravity Fl al Pressure	lowing Fluid			LA.	P.S.I.A.
4.	; !	al Temperani	re			R I	R
5. P _c 392 P _c 153,664	<u>: </u>						
	P2-P2 1)	P_2	= 1.1	173	(2) p P 2	¶ ° =_	1.0988
NO. P: P. P. 16,129	137,535	P. 2 P. 2	•		$(2) \left[\frac{P_c^2}{P_c^2 + P_c} \right]$	2	
2.	137,333	•			<u> </u>	3	
3. 4.	AO	F = Q	F P. 2] =	401		
4.			P. 2 - P	2			
5.	<u> </u>	 -		-			
Absolute Open Flow 1401	Mcfd @	15.025	Angle of S	ilope O		Slope, n 0	.85
Remarks:							
Approved By Division Conducted	By:	C	doubted By:		Checked	d By:	
•	ert Aranda			McCord	<u> </u>		

REPORT NO: CGNE747 -01 Page No:		Spec Grav GPM 0.670 3.205
962	ŧ	8TU 1157
ASO MATURAL GAS COMPANY use Calculation & Distribution Department and Analysis for November, 1995 thru November, 1995	and No Reporting Party and	1C5 NC5 C6P 0.360 0.260 0.640 0.132 0.094 0.279
O M P	lepart1	ACS 0.260 0.994
03 Dept 1995 C	. Ož	1C5 0.360 0.132
tributi	1	NC4 0.820 0.259
T U R A on & D1: for No	rty:	5.830 2.570 0.530 1.560 0.708 0.173
N A A loulati	rt109.5	2.570 0.570
MA CA	Report of	5.820 1.860 1.860
E L P Yoll Monthly Volume		C1 87.230 6.000
Month		M2 C1 0.860 87.230 0.000 0.000
	NYON 1	6.00 .000 .000 .000
3/95	HORN CA	CO2 H2S 0.900 0.000 0.000 0.000
Report Date: 11/03/95 Report Time: 12:56:37	Meter: 97949 - HORN CANYON Oper: 0538 - BAYLESS R L	Effective 11/01/95

(Eumelly - 505-326-6911



1115 Parmington Avenue Farmington, N.M. 87401

(505) 325-6622

Analysis No. BAY50013 Cust. No. 14100-10240

WELL/LEASE INFORMATION

Company : ROBERT L. BAYLESS, INC. Source
Well Name : HORN CANYON 1 Pressure
County : SAN JUAN Sample Ten
State : NM Well Flows Source : Pressure : 375 PSIG Sample Temp. : N/A DEG.F

Well Flowing: NO

State : NM Location : Date Sampled : 11/28/95

Sampled By : ALBERT ARANDA Fld/Formation :

Foreman/Engr : Cust.Stn.No. :

Remarks: LEASE: NM-020498-A

ANALYSIS

COMPONENT	MOLE %	GPM**	B.T.U.*	SP.GR.*
NITROGBN	1.060	0.0000	0.00	0.0103
CO2	0.096	0.0000	0.00	0.0015
METHANE	87,242	0.0000	883.15	0.4832
ETHANE	6.902	1.8463	122.42	0.0717
PROPANE	2.849	0.7852	71.85	0.0434
I-BUTANE	0.493	0.1613	16.07	0.0099
N-BUTANE	0.696	0.2194	22.76	0.0140
I-PENTANE	0.234	0.0856	9.38	0.0058
N-PENTANE	0.166	0.0601	6.67	0.0041
HEXANES	0.262	0.1143	13.47	0.0084
TOTAL	100.000	3.2722	1145.77	0.6523

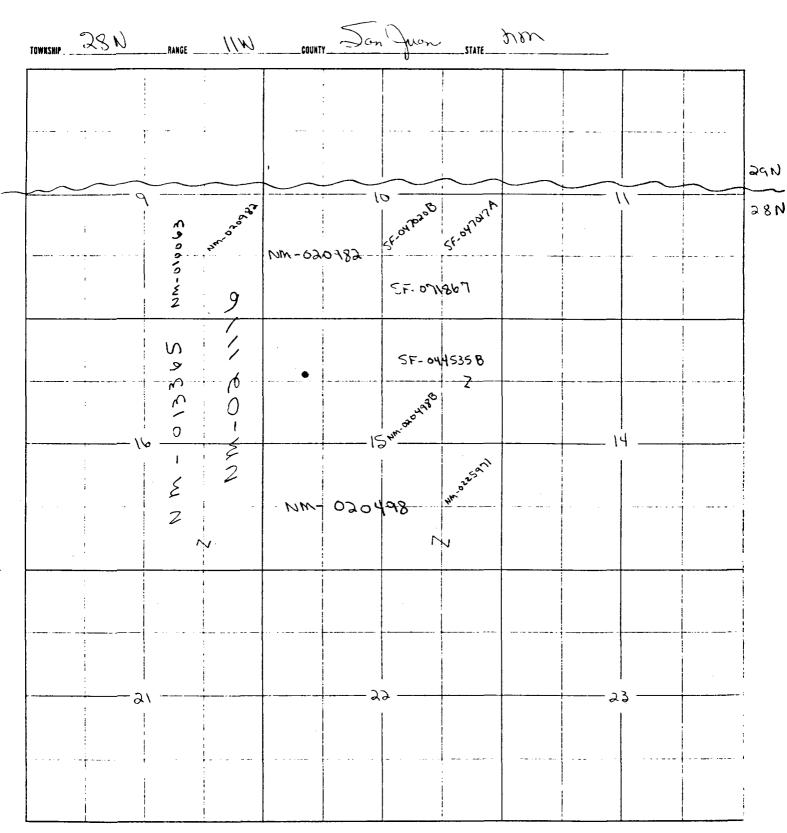
* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

** 6 14.730 & 60 DEC. F

COMPRESSIBILITY FACTOR	(1/Z)	1.0028
BTU/CU.FT. (DRY) CORRECTED	FOR (1/Z)	1149.0
BTU/CU.FT. (WET) CORRECTED	FOR (1/Z)	1129.0
REAL SPECIFIC GRAVITY		0.6539

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES P

: AZT034 CYLINDER # CYLINDER PRESSURE : 384 PSIG DATE RUN : 11/28/95 ANALYSIS RUN BY BOB DURBIN



Sec. 9: Duyon (Fr, Fmg, PC.)

Sic. 10: Solay. (Fr, PC)

Therisin (PC)

Goroca p (PC)

Sic. 15: Potroce p (PC)
Morathon (PC)

Sec. 16 = Dugon (PC, Fmg.)



ROBERT L. BAYLESS

P. O. BOX 168 FARMINGTON, NM 87499

FAX NO (505) 326-6911 OFFICE NO (505) 326-2659

December 20, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P565392391

Dugan Production Company P.O. Box 420 Farmington, N.M. 87499

RE: Proposed Downhole Commingling Robert L. Bayless Horn Canyon #1 Unit D, Sec. 15, T28N, R11W San Juan County, New Mexico

Gentlemen:

Our records indicate your company owns offset acreage to our Horn Canyon #1 well. We plan to downhole commingle the Pictured Cliffs and Fruitland Sand formations in this well and have requested the New Mexico Oil Conservation Division to administratively approve this commingling of production. A copy of this application is enclosed.

In order to obtain approval from the Oil Conservation Division Director, we must obtain waivers of objection from offset lease holders. If you have no objection to our plans, please execute the waiver portion of this letter and return one copy to us at the above address and another copy to the Division Director, Oil Conservation Division, 2040 South Pacheco, Santa Fe, NM 87505.

If you require additional information, please advise.

Sincerely.

Kevin H. McCord Petroleum Engineer

I have no objection to the above stated plans.

Dugan Production Company

by Date, title

P 565 392 391

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

10		
234-55	SenDUGAN PRODUCTION	co.
1989-2	Street and No. BOX 420	
U.S.G.P.O. 1989-234-555	PO State and ZIP Code FARMINGTON, NM 8	37499
U.S	Postage	⁵ .78
	Certified Fee	1.10
	Special Delivery Fee	
	Restricted Delivery Fee [1]	
10	Return Receipt showing to whom and Date Delivered	1.10
198	Return Receipt showing to whom, Date, and Address of Delivery	
PS Form 3800, June 1985	TOTAL Postage and Fees	³ 2.98
3800,	Postmark or Date	
orm	12/20/95	
PS F		

P 565 392 392

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

	(See neverse)	
U.S.G.P.O. 1989-234-555	Sent to MARATHON OIL CO.	
1989-	Street and No Box 552	
3.G.P.O	PO State and ZIP Code 7970	02-0522
Ü	Postage	s .78
	Certified Fee	1.10
	Special Delivery Fee	
10	Restricted Delivery Fee	
	Return Receipt showing to whom and Date Delivered	-110
198	Return Receipt showing to whom, Date, and Address of Delivery	
June	TOTAL Postage and Fees	\$ 2.98
800,	Postmark or Date	
PS Form 3800, June 1985	12/20/95	

P 565 392 394

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

234-55	Sent SOUTHLAND ROYALTY CO.				
1989-2	Stree P. O. BOX 4289				
U.S.G.P.O. 1989-234-558	PO STAR AND ZIP Code, NM	87499			
.U.S	Postage	5 .78			
	Certified Fee	1.10			
5	Special Delivery Fee				
	Restricted Delivery Fee				
	Return Receipt showing to whom and Date Delivered	1.10			
e 198	Return Receipt showing to whom. Date, and Address of Delivery				
Jun,	TOTAL Postage and Fees	5 2.98			
3800	Postmark or Date				
S Form 3800, June 1985	12/20/95				

P 565 392 393

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

10			
234-555	Sent to PETROCORP		
1989-	Street 16 No. PARK AVE.	,	#2100
U.S.G.P.O. 1989-234-555	PO State and ZIP Code OKLAHOMA CITY, O	K	73102
ि U.S	Postage	S	.78
	Certified Fee		1.10
	Special Delivery Fee		
	Restricted Delivery Fee		
	Return Receipt showing to whom and Date Delivered		1.10
PS Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery		
	TOTAL Postage and Fees	S	2.98
3800,	Postmark or Date		
PS Form	12/20/95		
			

...

ROBERT L. BAYLESS

P. O. BOX 168
FARMINGTON, NM 87499

FAX NO. (505) 326-6911 (605) 326-2659

December 20, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P565392391

Dugan Production Company P.O. Box 420 Farmington, N.M. 87499

RE: Proposed Downhole Commingling Robert L. Bayless Horn Canyon #1 Unit D, Sec. 15, T28N, R11W San Juan County, New Mexico

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If you require additional information, please advise.

Sincerely.

Kevin H. McCord Petroleum Engineer

I have no objection to the above stated plans.

Dugan Production Company

By: Thanks A. Muga. Title: President Date: 12-28-95

ROBERT L. BAYLESS

P. O. BOX 168 FARMINGTON, NM 87499

FAX NO 15051 326-6911 OFFICE NO 126-2659

December 20, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED #P565392394

Southland Royalty Company P.O. Box 4289 Farmington, N.M. 87499

RE: Proposed Downhole Commingling Robert L. Bayless Horn Canyon #1 Unit D, Sec. 15, T28N, R11W San Juan County, New Mexico

Gentlemen:

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If you require additional information, please advise.

Sincerely,

Kevin H. McCord Petroleum Engineer

I have no objection to the above stated plans.

Southland Royalty Company

By: Dean Free Title: Server Landow Date: 1/4/96