

# Gulf Oil Exploration and Production Company

R. C. Anderson  
PRODUCTION MANAGER, HOBBS AREA

P. O. Box 670  
Hobbs, NM 88240

Re: H. T. Mattern (NCT-D) No. 13  
Unit N, Section 6-T22S-R37E  
Lea County, New Mexico

Mr. Joe D. Ramey, Director  
New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey,

Your administrative approval is requested for an exception to Rule No. 303--C to permit down hole commingling of marginal Tubb and Drinkard production in the subject well.

The subject well was drilled and completed in 1975 in the Drinkard. In November, 1980, the Drinkard was temporarily abandoned with a bridge plug. Before abandonment, the well pumped 7 barrels of oil, 10 barrels of water and 83 MCF gas per day in November, 1980, on test. The well was recompleted in the Tubb and is currently producing 7 barrels of oil, 42 MCF of gas and 20 barrels of water per day.

Surface commingling of Tubb and Drinkard production was approved for the H. T. Mattern (NCT-D) lease per commingling order PLC-52, on September 26, 1980. Down hole commingling of Tubb and Drinkard production currently exists on the H. T. Mattern (NCT-D) No. 16 and No. 17.

There has been no evidence of incompatibility of fluids or reservoir damage from down hole commingling of Drinkard and Tubb production. Ownership in the two pools is common and correlative rights will not be violated.

If this application is approved, the Drinkard, which was temporarily abandoned with a bridge plug, will be commingled with the Tubb and both zones produced with existing pumping equipment.

All offset operators have been notified by copy of this proposal to down hole commingle the subject well. Should secondary operation become practical in the future, the two zones could be separated at that time without damage to either reservoir.

Yours very truly,

  
R. C. Anderson

RQH/tmd

Attachments cc: Oil Conservation Division-Hobbs  
C. F. Kalteyer-Midland  
All Offset Operators  
Division Director



Offset Operator--H. T. Mattern (NCT-D) No. 13  
Section 6-T22S-R36E

Texas Pacific Oil and Gas  
P. O. Box 4067  
Midland, Texas 79701

Arco  
P. O. Box 1710  
Hobbs, New Mexico 88240

Continental Oil Company  
P. O. Box 959  
Midland, Texas 79701

Amerada Hess  
P. O. Box 840  
Seminole, Texas 79360

El Paso Natural Gas Company  
One Petroleum Center  
Midland, Texas 79701

Sohio  
P. O. Box 3000  
Midland, Texas 79701

H. T. Mattern (NCT-D) No. 13

1. Operator  
Gulf Oil Corporation  
P. O. Box 670  
Hobbs, New Mexico 88240
2. Lease, Well and Location  
H. T. Mattern (NCT-D) No. 13  
Unit N, 810' FSL and 1930' FWL  
Section 6-T22S-R37E  
Lea County, New Mexico
3. Producing Zones  
Currently producing in the recently completed Tubb Pool, which is to be commingled with the temporarily abandoned Drinkard Pool, if approved. The Drinkard was temporarily abandoned November 14, 1980.
4. Decline Curves  
Recent tests for decline purposes are shown on the attached sheets for the recently completed Tubb Zone. Decline curves for the Drinkard are attached.
5. Bottom-hole Pressures  
The Tubb Zone was closed in for 24 hours. The surface pressure was recorded and several fluid levels were recorded. The surface pressure was 240 Psig. The calculated pressure at the midpoint of the perforations (6283') was 830 psi. From recent fluid level shots on the Drinkard Zone, the pressure at the midpoint of the perforations (6572') was estimated to be 700 psi.
6. Fluid Characteristics  
Drinkard and Tubb production are presently commingled in surface storage facilities on the H. T. Mattern (NCT-D) lease, per commingling order PLC-52, dated September 26, 1978. To date, there has been no evidence of fluid incompatibility.
7. Well History  
The well was spudded 7-10-75 and drilled to 6715' total depth. Production casing, 5½", was set at 6712' with the top of the cement 2230' from surface. Initial completion was in the Drinkard, 6484'-86', 6534'-36', 6562'-64', 6593'-95', 6616'-18', 6631'-34', 6658'-60' with (4) ½" JHPF. Each perforation set was straddle acidized with approximately 250 gallons 15% acid. August 13, 1975-the above zones were fracture treated with a 9.2 lbs./gallon gel, 25,000 gallons, with 1 to 2 lbs./gallon sand. May 12, 1976- the formation was treated with 3000 gallons 15% acid. November 14, 1980-the Drinkard was temporarily abandoned with a cast iron bridge

plug set at 6450'. The Tubb was perforated the same day, 6239'-42', 6276'-79', 6324'-27' with (2) ½" FHPF. November 17, 1980-the perforations were straddle acidized with approximately 250 gallons per set. The zone was then fracture treated with a 8.6 lbs./gallon gel, 40,500 gallons, 55,126 lbs. of sand and 1500 gallons 15% acid.

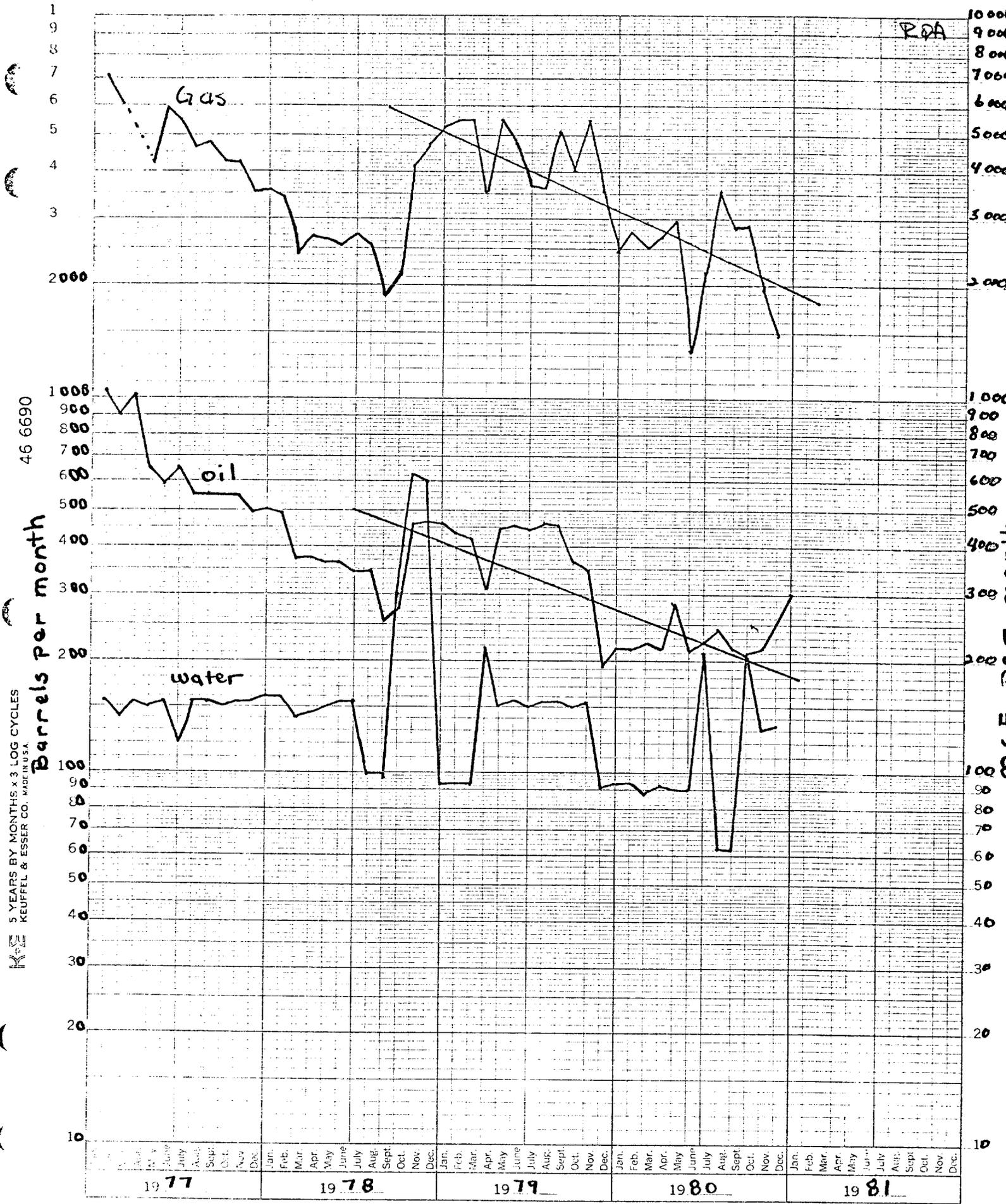
8. Value of Commingle Fluids

Drinkard and Tubb commingled production from the H. T. Mattern (NCT-D) No. 16 and 17 on the lease have not been found less in value than the sum of the individual production values.

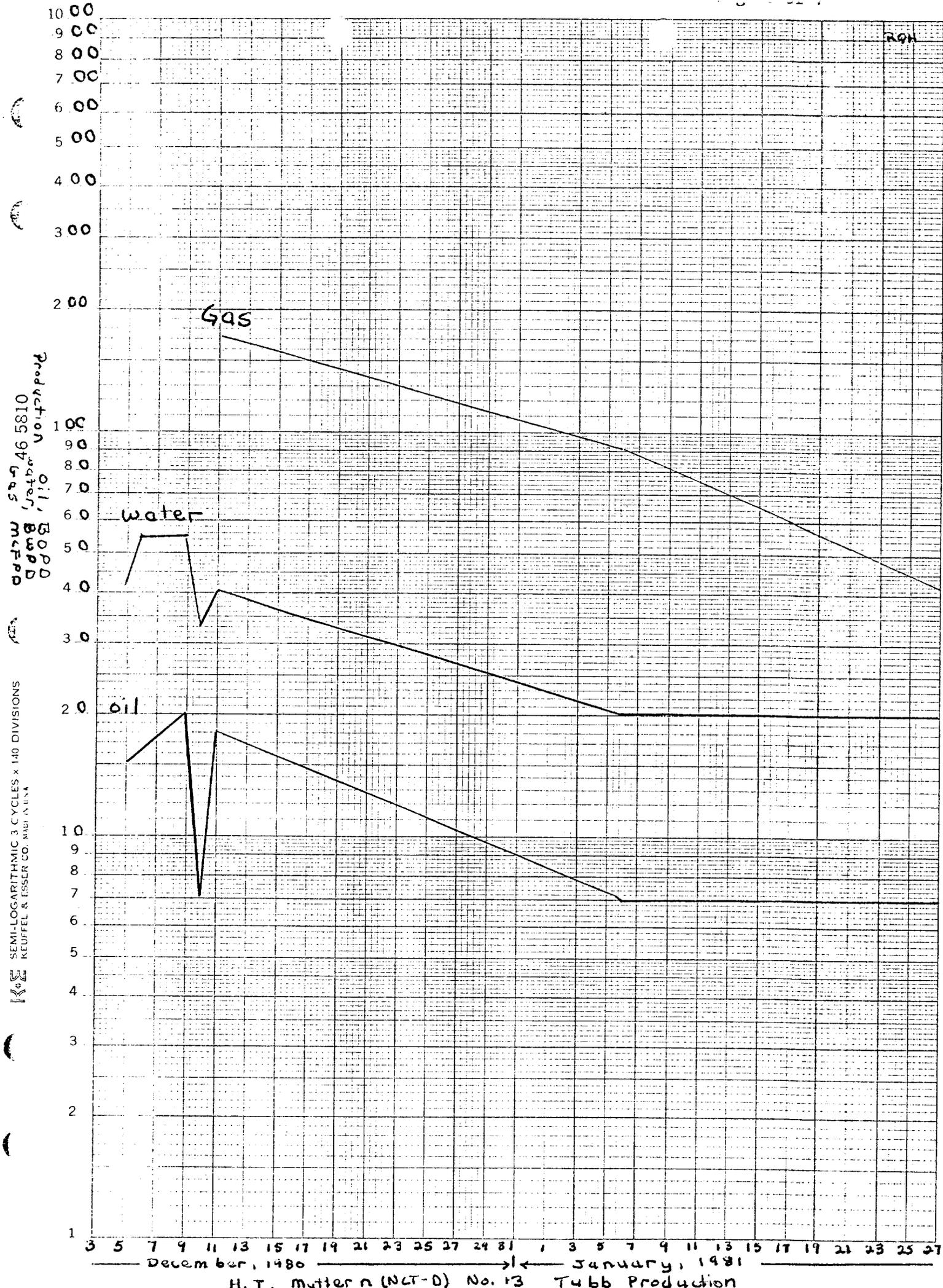
9. Current Production

See attached C-116.

10. All offset operators are being notified by copy of this application.



H. T. Mattern (NCT-D) No. 13 Drinkard Production



Production of Gas, Water, Oil, BOPD  
 MOPD  
 465810

SEMI-LOGARITHMIC 3 CYCLES x 140 DIVISIONS  
 KEUFFEL & ESSER CO. MADE IN U.S.A.

H.T. Mutter n (NCT-D) No. 13 Tubb Production  
 ← December, 1980 → January, 1981

GAS-OIL RATIO TESTS

Operator: **Gulf Oil Corporation** Pool: **Tubb Oil** County: **Lea**

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	TYPE OF TEST - (X)	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU. FT/BSL	
		U	S	T	R							WATER BLS.	GRAV. OIL BLS.	OIL BLS.		GAS M.C.F.
H. T. Mattem (NCT-D)	13	N	6	22	37	1-27-81	P	21"WO	50	18	24	20	39.0	7	42.0	6000

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 331 and appropriate pool rules.

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

*D. E. [Signature]*  
 Well Tester (Title)  
 (Signature)