

NEW MEXICO OIL CONSERVATION COMMISSION

ELVIS A. UTZ
GAS ENGINEER
OK
an 545

Form C-122

HOBBS OFFICE OCC

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

1956 OCT 6 PM 2:22

Pool Eumont Formation Queens County Lea
 Initial X Annual _____ Special _____ Date of Test 6-28-56
7-5-56
 Company The Texas Company Lease State of N.M. "H" HUT-3 Well No. 25
 Unit D Sec. 19 Twp. 20-S Rge. 37-E Purchaser Permian Basin Pipe Line Co.
 Casing 5 1/2 Wt. 14.4 I.D. 5.012 Set at 3362 Perf. _____ To _____
 Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 3434 Perf. _____ To _____
 Gas Pay: From 3362 To 3550 L 3434 xG 0.675 -GL 2318 Bar. Press. _____
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: 2-2-54 Packer 3341 Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. _____

CO₂ = 2.17% H₂ = 1.30%

OBSERVED DATA

Tested Through (Known) (Choke) (Meter)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	A	1.50	458.2	13.1	61	944.9				71 1/2
2.	A	1.50	461.1	19.8	69	815.6				23 3/4
3.	A	1.50	461.2	24.0	68	774.0				21 1/4
4.	A	1.50	463.9	28.9	67	730.2				24
5.						679.2				23 3/4

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPF}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	15.26	78.58	471.4	.9990	.9427	1.050	1,186
2.	15.26	96.91	474.3	.9732	.9427	1.040	1,411
3.	15.26	106.7	474.4	.9924	.9427	1.047	1,595
4.	15.26	117.4	477.1	.9933	.9427	1.047	1,756

PRESSURE CALCULATIONS

Liquid Hydrocarbon Ratio _____ cf/bbl.
 Viscosity of Liquid Hydrocarbons _____ deg.
9.936 (1-e^{-s}) 0.147

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 958.1 P_c 918.0

P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
828.8	686.9	11.78	138.8	20.40	707.3	210.7	831.0	.87
787.2	619.7	14.02	196.6	28.90	618.6	269.4	805.4	.82
743.4	552.6	15.85	251.2	36.93	589.5	328.5	787.8	.78
692.4	479.4	17.45	304.5	44.76	524.2	393.8	724.0	.72

Plute Potential: 2,950 MCFPD; n .60

ANY The Texas Company
 ESS Box 1270, Midland, Texas
 T and TITLE L. I. Baker, District Gas Man
 ESSED H. E. Barrett
 ANY Permian Basin Pipe Line Company

REMARKS

Requirements

1. The well must be completed in a manner which permits tests on gas wells which are not subject to the same restrictions as oil wells. Three tests must be run on each well, one of which shall be filed with the Commission and two shall be retained by the operator.

2. The well must be equipped with a pressure gauge which will be of at least 1000 psi capacity and will be protected from damage.

Test Requirements

3. The test must be run at a constant flow rate at a constant pressure (P_w) of 1000 psi or less, and 60°F or less.

4. The test must be run at a constant flow rate at a constant pressure which is greater than the pressure at the wellbore.

P_w = The pressure at the wellbore as determined at the end of flow period. (The pressure at the wellbore is the pressure in the tubing, tubing if flowing into casing) psia

t = The time interval between the beginning and the end of the flow period, in hours.

q = The flow rate, in cubic feet per day.

P_{wf} = The pressure at the wellbore, in psia.

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Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_{wf} .

5. The test must be run at a constant flow rate at a constant pressure (P_w) of 1000 psi or less, and 60°F or less.