

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-3-78		MAR 14 1978	
Company Southland Royalty Company				Connection El Paso Natural Gas Company		J. C. C. ANTESIA, OFFICE	
Pool Turkey Track, N. (Morrow)				Formation Morrow		Unit G	
Completion Date 11/21/77		Total Length 11303		Plug back TD 11233		Elevation	
Crg. Size 4 1/2		Set At 11303		Perforations: From 11003 To 11066		Well No. 1	
Trq. Size 2 3/8		Set At 10685		Perforations: From To		Unit Sec. Twp. Rge. G 32 18 29	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. O. Dual				Packer Set At 10648		County Eddy	
Producing Thru Csg. L		Reservoir Temp. °F 160 8550		Mean Annual Temp. °F		State New Mexico	
H 8550		Gg 643		% CO ₂		Prover 4"	
G 8550		Gg 643		% H ₂		Meter Run 4"	
G 8550		Gg 643		% H ₂ S		Flag 4"	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
51									2815		72 hrs
1.	4	x	1.500	577	4.00	44			2625		1 hr.
2.	4	x	1.500	610	10.89	47			2552		1 hr.
3.	4	x	1.500	630	25.00	48			2407		1 hr.
4.	4	x	1.500	660	42.25	48			2367		1 hr.
5.	4	x	1.500	680	73.96	44			2200		1 hr.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compens. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	10.84	48.59	590.2	1.016	1.247	1.071	715
2	10.84	82.38	623.2	1.013	1.247	1.073	1210
3	10.84	126.81	643.2	1.012	1.247	1.073	1861
4	10.84	168.65	673.2	1.012	1.247	1.076	2482
5	10.84	226.43	693.2	1.016	1.247	1.083	3368

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.88	504	1.35	.872	27.690	57 @ 60°	.643	.746	667	408
2	.93	507	1.36	.869						
3	.96	508	1.37	.869						
4	1.00	508	1.37	.864						
5	1.03	504	1.35	.852						

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²
1	2647.7	7010.3	988.4	
2	2566.7	6587.9	1410.8	
3	2423.2	5871.9	2126.8	
4	2385.4	5690.1	2308.6	
5	2223.2	4942.6	3056.1	

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.617$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.617$

ACT = 0 $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 8.815$

Absolute Open Flow	8,815	Mcfd @ 15.025	Angle of Slope	45°	Slope, n	1.000
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Remarks: The flow length (L) was taken from the crossover from tubing to annulus at 8550 feet. The well produced 14.5 Bbls. of distillate during the test.

Approved By	Computation	Conducted By	Calculated By	Checked By
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