

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

St
file ✓
172 Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-21-79		SEP 13 1979	
Company Southland Royalty Co. ✓				Connection Undesignated		O. C. C. ARTERIA, OFFICE		
Pool Turkey Track Morrow				Formation Morrow		Unit		
Completion Date 7-17-79		Total Depth 11,566.		Plug Back TD 11,515.		Elevation 3339.		Farm or Lease Name State 16 A Comm.
Csa. Size 4.500	Wt. 11.6	d 4.000	Set At 11,566	Perforations: From 11,384 To 11,460		Well No. 1		
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 11,113	Perforations: From 0 To 0		Unit 0	Sec. 16	Twp. 19
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11,113		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 178 @ 11,422		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico
L 11,422	H 11,422	Cq 0.618	% CO ₂ 0.67	% N ₂ 0.40	% H ₂ S 0	Prover 0	Meter Run 2.1	Tops Flange

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
SI							2770.	60.			72.0
1.	2.07 x 1.250			330	8.0	84	1960.	71.	0	0	1.0
2.	2.07 x 1.250			320	10.0	87	1460.	71.	0	0	1.0
3.	2.07 x 1.250			305	10.0	87	960.	72.	0	0	1.0
4.	2.07 x 1.250			360	13.0	87	940.	72.	0	0	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	8.12	52.40	343.2	0.9777	1.2721	1.0268	543.
2.	8.12	57.72	333.2	0.9750	1.2721	1.0255	596.
3.	8.12	56.41	318.2	0.9750	1.2721	1.0243	582.
4.	8.12	69.65	373.2	0.9750	1.2721	1.0285	722.
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.
1.	0.51	544	1.50	0.948	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	0.49	547	1.51	0.951	Specific Gravity Separator Gas _____
3.	0.47	547	1.51	0.953	Specific Gravity Flowing Fluid _____
4.	0.55	547	1.51	0.945	Critical Pressure _____ P.S.I.A.
5.					Critical Temperature _____ R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	3894	1966	3865	3881
2	2170	1470	2162	5584
3	947	974	949	6797
4	909	957	917	6830
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1342$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 769$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.065$

Absolute Open Flow _____ 769 _____ Mcfd @ 15.025	Angle of Slope @ _____ 63.3 _____	Slope, n _____ 0.502 _____
Remarks: _____		
Approved by Commission:	Conducted By: R. T. THETTING	Calculated By: D. CRAIG
		Checked By: D. CRAIG