

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12-15-86	
Company Southland Royalty Company				Connection None		
Pool Turkey Track - Atoka				Formation Atoka		Unit 0
Completion Date 12-7-86		Total Depth 11,566'		Plug Back TD 11,069'		Elevation 3339.1' GR
Farm or Lease Name State "16A" Com						
Coq. Size 4 1/2	Wt. 11.6	d 11,566	Set At 11,566	Perforations: From 10,684 To 10,694'		Well No. 1
Thq. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10,684'	Perforations: From tbq Vann gun on end of		Unit Sec. Twp. Rge. 0 16 19S 29E
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single				Packer Set At 10,613'		County Eddy
Producing Thru tbq		Reservoir Temp. °F 181° 10,689		Mean Annual Temp. °F 60		State New Mexico
Baro. Press. - P _a 13.2						
L 10.689	H 10.689	G _g 709	% CO ₂ .33	% N ₂ .792	% H ₂ S	Prover 2"
Meter Run		Taps				

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover 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						4080				141 hrs
1.	2 x .500		26		70	3515				1 hr
2.	2 x .500		38		60	3272				1 hr
3.	2 x .500		68		70	2835				1 hr
4.	2 x .500		90		75	2315				1 hr
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	4.279		39.2	.9905	1.118	Ni1	186
2.	4.279		51.2	1.00	1.118	Ni1	245
3.	4.279		81.2	.9905	1.118	Ni1	385
4.	4.279		103.2	.9859	1.118	Ni1	487
5.							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	.06	530	1.34	Ni1	13.242	52.5 at 60	.709	X X X X X X X X	668	395
2.	.08	520	1.32	Ni1				X X X X X		
3.	.12	530	1.34	Ni1						
4.	.15	535	1.35	Ni1						
5.										

P _c 4738.3 P _c ² 22,451				
NO.	P _w	P _w ²	P _c ² - P _w ²	
1	5491.2	4251.3	18074	4377
2	5109.2	3916.8	15341	7110
3	4522.2	3415.0	11668	10783
4	3898.2	2897.3	8394	14057
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.597$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.466$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .714$

Absolute Open Flow 714 Mcfd @ 15.025		Angle of Slope @ 50.750		Slope, n 817
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Remarks: 4.1 Bbl of condensate - .5 Bbl water, calculated from known BHP. Static BHP 6036.2 at 10,689'. P_s = Flowing BHP. 93 hr buildup after test BHP 6065.2

Approved by Division	Conducted By: Reggie Reston	Calculated by: Reggie Reston	Checked By:
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