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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources

Form C-122
Revised October, 1999

Oil Conservation Division
1220 South St. Francis Dr
Santa Fe, NM 87505

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Reliance Energy, Inc.					Lease or Unit Name Willow Spring "19" State				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-31-01		Well No. 1		
Completion Date 3-12-01		Total Depth 4000		Plug Back TD 3954		Elevation 3891		Unit Ltr. - Sec. - TWP - Rge. P 19 4S 25E	
Csg. Size 5-1/2	Wt. 15.5	d 	Set At 3996	Perforations: From: 3614 To: 3884			County Chaves		
Thg. Size 2-3/8	Wt. 4.7	d 	Set At 3846	Perforations: From: To: 			Pool Pecos Slope Abo		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 3737		Formation Abo Sd		
Producing Thru Tbg		Reservoir Temp. °F 100°		Mean Annual Temp. °F 60°		Baro. Press - P _a -		Connection Sales	
L 3625	H 3625	Gg .657	%CO ₂ 0	%N ₂ 7.09	%H ₂ S -	Prover -		Meter Run 2.1	Taps Pipe

FLOW DATA					TUBING DATA		CASING DATA		Duration Of Flow
No.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI						840	89	Pkr	
1.	2.07 x 1.250		92	24.0	60	150	89		72 hrs
2.									
3.									
4.									
5.									

RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F pv.	Rate of Flow Q, Mcfd
1.	10.31	50.25	105.2	1.0000	1.2335	1.0091	645.
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.16	520	1.46	.982	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas	.657 XXXXXXXXXX
3.					Specific Gravity Flowing Fluid	XXXXXX
4.					Critical Pressure	657. P.S.I.A. P.S.I.A.
5.					Critical Temperature	357. R. R

P _c 853.2 P _c ² 728.			
No.	P _i ²	P _w	P _w ²
1.		181.	33.
2.			
3.			
4.			
5.			

(1) $P_{c2} = 1.0469$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0397$

Absolute Open Flow 670	Mcf/d @ 15.025	Angle of Slope θ: 45	Slope, n: 1
Remarks: 			

Approved By Division	Conducted By: D. Shirley	Calculated By: Red Dog Testing	Checked By: G. Morgan
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