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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

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OCD - ARTESIA

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 "15" State				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-31-01				
Completion Date 4-10-01		Total Depth 4000		Plug Back TD 3942		Elevation 3810		Well No. 2	
Csg. Size 5-1/2		Wt. 15.5		Set At 4000		Perforations: From: 3725 To: 3889		Unit Ltr. - Sec. - TWP - Rge. F 15 4S 25E	
Thg. Size 2-3/8		Wt. 4.7		Set At 3844		Perforations: From: To:		County Chaves	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At NA		Formation Abo Sd		
Producing Thru Tbg		Reservoir Temp. °F 100°		Mean Annual Temp. °F 60°		Baro. Press - P _a -		Connection Sales	
L. 3777		H. 3777		Gg. .710		%CO ₂ 0		%N ₂ 19.16	
						%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.		Temp. °F
SI						95	89			72 hrs
1.	2.07 x .500		92	2.0	90.	92	89	-	-	72 hrs
2.										
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 HOUR)	h _w P _m	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	1.23	14.51	105.2	.9723	1.1871	1.0066	21.
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.17	550	1.61	.987	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas .710	XXXXXXXXXX
3.					Specific Gravity Flowing Fluid XXXXX	.710
4.					Critical Pressure 634. P.S.I.A.	P.S.I.A.
5.					Critical Temperature 341. R.	R

No.	P _c 108.2	P _c ² 12.	P _w	P _w ²	P _c ² - P _w ²
1.			105.	11.	1.
2.					
3.					
4.					
5.					

(1) $P_c^2 = 16.7634$

$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10.9827$

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

Absolute Open Flow 21	Mcf/d @ 15.025	Angle of Slope θ: 45	Slope, n: 1
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Remarks:

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