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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

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OCD ARTESIA

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		Well No. 1		
Completion Date 4-08-01		Total Depth 4000'		Plug Back TD 3933		Elevation 3809 GR		Unit Ltr. - Sec. - TWP - Rge. N 15 4S 25E	
Csg. Size 5-1/2	Wt. 15.5	d 	Set At 3975	Perforations: From: 3680 To: 3880				County Chaves	
Thg. Size 2-3/8	Wt. 4.7	d 	Set At 3868	Perforations: From: To:				Pool Pecos Slope Abo	
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 3780	H 3780	G _g .710	%CO ₂ 0	%N ₂ 20.16	%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						130.	89			72 hrs.
1.	2.07 x	.500	90	5.0	90	100.	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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	1.23	22.72	103.2	.9723	1.1872	1.0063	33.
2.							
3.							
4.							
5.							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.16	550.	1.63	.988	A. P. I. Gravity of Liquid Hydrocarbons	Deg.
2.					Specific Gravity Separator Gas	710
3.					Specific Gravity Flowing Fluid	XXXXXX
4.					Critical Pressure	632 P.S.I.A.
5.					Critical Temperature	338 R

No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.	143.2	21	113.	13.
2.				
3.				
4.				
5.				

(1) $P_c^2 = \frac{2.6459}{P_c^2 - P_w^2}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.2866$

Absolute Open Flow 75	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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