C15F

Submit in duplicate to appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-122
Revised October 1999

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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 "19" STATE						
Type Test: ☒ Initial ☐ Annual ☐ Special							Test Date: 6/22/01					Well No: 2	
Completion Date: 3/21/01		Total Depth: 4000'		Plug Back TD: 3954'			Elevation: 3919'					Unit Ltr - Sec - TWP - Rge: N 19 4S 25E	
Csg. Size: 5-1/2	Wt.: 15.5	d:	Set At: 3997	Perforations: From: 3615		To: 3918						County: CHAVES	
Thg. Size: 2-3/8	Wt.: 4.7	d:	Set At: 3534	Perforations: From:		To:						Pool: PECOS SLOPE ABO	
Type Well - Single - Bradenhead - G.G or G.O. Multiple: SINGLE				Packer Set At: 3534								Formation: ABO SAND	
Producing Thru: TBG	Reservoir Temp °F: 110		Mean Annual Temp. °F: 60°		Baro. Press - P_a: 13.2							Connection: SALES	
L: 3534	H: 3534	Gg: 0.661	%CO_2: 0.10	%N_2: 8.13	%H_2S: 0	Prover: N/A	Meter Run: 2.067	Taps: FLG					

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration Of Flow
SI					975	-	PKR	-	
1.	2.067 x 1.250	140	8	60	150	-	PKR	-	24 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, Fpv	Rate of Flow Q, Mcfd
1.	8.12	35	153.2	1.0	1.228	1.045	280
2.							
3.							
4.							
5.							

No.	P_r	Temp. °R	T_r	Z
1.	.077	520	1.46	0.916
2.				
3.				
4.				
5				

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl
A. P. I. Gravity of Liquid Hydrocarbons: N/A Deg
Specific Gravity Separator Gas: 0.661 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX N/A
Critical Pressure: 668 P.S.I.A. P.S.I.A.
Critical Temperature: 356 R R

P_c _____ P_c^2 _____

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1.				
2.				
3.				
4.				
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.029 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 0.288

Absolute Open Flow: 288 Mcfd @ 15.025 Angle of Slope θ: 45 Slope, n: 1

Remarks: NO LIQUIDS MADE DURING TEST

Approved By Division	Conducted By:	Calculated By	Checked By
	RELIANCE ENERGY, INC.	CARLTON WHEELER	