

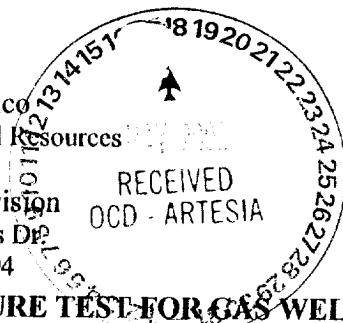
31-015-31459

Submit in duplicate to
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 87504



MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Gruy Petroleum				Lease or Unit Name North Shugart Fed							
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-21-01		Well No. 2					
Completion Date 3-22-01		Total Depth 11,919		Plug Back TD 11,872		Elevation					
Csg. Size 5 1/2		Wt. 17#		Set At 11919		Perforations From: 11630 To: 11812					
Hlg. Size 2 3/8		Wt. 4.7		Set At 1.995 11517		Perforations From: To:					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11517		Pool N Shugart Marrow					
Producing Thru Tbg		Reservoir Temp. °F 600		Mean Annual Temp. °F 600		Baro. Press - P _a 13.2					
L 11517		H 11517		Gg .669		%CO ₂ .522					
				%N ₂ .533		%H ₂ S					
				Prover		Meter Run 2.067					
						Faps F1g					
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						1317		Pkr		48 hrs	
1.	2 X 1.375		496		99	1118		Pkr		1 hr	
2.	2 X 1.375		502		92	1018		Pkr		1 hr	
3.	2 X 1.375		512		85	708		Pkr		1 hr	
4.	2 X 1.375		528		81	595		Pkr		1 hr	
5.											
RATE OF FLOW CALCULATIONS											
No.	COEFFICIENT (24 HOUR)				Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcf/d		
1.									161		
2.									311		
3.	Gas measured by total		flow meter						612		
4.									869		
5.											
No.	P _r	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio dry gas				Mcf/bbl.		
1.					A. P. I. Gravity of Liquid Hydrocarbons dry				Deg.		
2.					Specific Gravity Separator Gas .669				XXXXXXXXXX		
3.		N/A			Specific Gravity Flowing Fluid XXXXXX						
4.					Critical Pressure 670				P.S.I.A.		P.S.I.A.
5.					Critical Temperature 378				R.		R
P _c		1330.2		P _c ³		1769.4					
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) P _c ² = 1.291						
1.		1131.6	1280.5	488.9	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$						
2.		1032.9	1066.9	702.6							
3.		731.0	534.4	1235.0							
4.		631.8	399.2	1370.2							
5.											
Absolute Open Flow 1,122 Mcf/d @ 15.025					Angle of Slope θ: 45			Slope, n: 1.000			
Remarks: Well produced 9.00 BBL H2O											
Approved By Division			Conducted By: Signal Wireline			Calculated By: BM			Checked By: BM		