

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-12-79	
Company Benson Mineral Group, Inc.				Connection None	
Pool Rusty Chacra Extension				Formation Chacra	
Completion Date 7-12-79		Total Depth 2010'		Plug Back TD 2002	
Elevation 6901 GR		Farm or Lease Name Federal 19-22-6			
Well No. 1		Unit Sec. Twp. Range			
Casing Size 4 1/2" Wt. 9.5#		Set At 2003'		Perforations: From 1816 To 1854	
Tubing Size 2 3/8" Wt. 4.7#		Set At 1908'		Perforations: Open ended From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At None	
Producing Thru Casing				Baro. Press. - P _a	
Reservoir Temp. °F		Mean Annual Temp. °F 60		State New Mexico	
L 1908		H		County Sandoval	
G _a .60		% CO ₂		% H ₂	
% H ₂ S		Prover		Meter Run	
Taps					

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
SI	1 month					60	0	60	370	60	30 days
1.	2" x 1/2"			4.9			0		4.9		24 hrs
2.							(pumping)				
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			4.9	1.0	1.0	1.0	77.4
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.										
2.										
3.										
4.										
5.										

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2}$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n$
1	382	16.9	145924	285.61	145638.39	1.002	1.002
2							
3							
4							
5							

Absolute Open Flow 77.5 Mcfd @ 15.025 Angle of Slope 85

Remarks: Well was pump tested

Approved by Commission: _____ Conducted by: Kurt Nelson Calculated by: Sue Johnson Checked by: [Signature]

U. S. GEOLOGICAL SURVEY
 SEP 17 1979