

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

1-81
1-File
Revised 9-1-01

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-26-79		SPUD Date: 1-21-79	
Company McClellan Oil Company				Connection To Air			
Loc. Sims Ranch				Formation Grayburg		Unit G	
Completion Date 3-2-79		Total Depth 1850		Plug Back TD		Elevation	
Farm or Lease Name McClellan Federal				Well No. 2			
Casing Size 1 1/2"		Set At 1798		Perforations: From open hole		Unit Sec. Twp. Rge. G 11 14 28	
Casing Size 2 1/2"		Set At 1811		Perforations: From open hole			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Chaves	
Pressure Temp. None		Reservoir Temp. °F @		Mean Annual Temp. °F		State New Mexico	
Prover 6"		H Gg		Baro. Press. - P _a 13.2		Meter Run 6" Positive Choke	
		Gg .733		% CO ₂ Nil		% N ₂ 24.5	
				% H ₂ S Nil		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
5.	6" Positive Choke							1113		1113	
1.			8/64	760		71	760		760		
2.			9/64	638		72	638		637		
3.			10/64	511		72	511		510		
4.			11/64	460		72	460		458		
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.	2618		773.2	.9896	1.168	1.052	246
	2446		651.2	.9887	1.168	1.042	262
	4173		524.2	.9887	1.168	1.034	261
	5090		473.2	.9887	1.168	1.030	286
5.							

NO.	T	Temp. °R	T _f	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.	1.22	531	1.59	.904						
2.	1.04	532	1.60	.921						
3.	.75	532	1.60	.936						
4.	.75	532	1.60	.942						
5.										

RECEIVED

$P_c = 1186.2 P_c^2 = 1268.3$

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1		773.2	597.8	670.5
2		650.2	422.8	845.5
3		523.2	273.7	994.6
4		471.2	222.0	1046.3
5				

$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.892$

$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.375$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 338$

Absolute Open Flow	338 Mcfd @ 15.025	Angle of Slope	63.5	Slope, n	.500
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Remarks:

Approved by Commission:	Conducted By: Marshall Morris	Calculated By: R. Reston	Checked By: El Paso Natural Gas Co.
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