

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-18-92	
Company Mitchell Energy Corporation				Connection	
Pool Hat Mesa-Morrow				Formation Morrow	
Completion Date 1-16-92		Total Depth 14,550'		Plug Back TD 14,470'	
		Elevation 3792'		Farm or Lease Name Comanche "17" State	
Coq. Size 5 1/2"	Wt. 17#	d 4.892	Set At 14,550'	Perforations: From 14,016' To 14,168'	
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 13,872'	Perforations: From To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 13,872'	
Producing Thru Tbg		Reservoir Temp. °F 213 @ 13,900'		Mean Annual Temp. °F 60	
		Baro. Press. - P _a 13.2		State NM	
L 14,550'	H 14,550'	G _g .689	% CO ₂ .85	% N ₂ .34	% H ₂ S -
Prover		Meter Run 3.068		Taps Flange	

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. BHP p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							6798				24 hrs.
1.	3	x	2.0	585	3.0	68	5555		pk		1 hr.
2.	3	x	2.0	600	6.0	72	4759		"		1 hr.
3.	3	x	2.0	585	11.0	69	3902		"		1 hr.
4.	3	x	2.0	590	16.0	70	3339		"		1 hr.
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.	21.32	42.36	598.2	.9924	1.205	1.071	1157
2.	21.32	60.66	613.2	.9887	1.205	1.073	1653
3.	21.32	81.12	598.2	.9915	1.205	1.071	2213
4.	21.32	98.24	603.2	.9905	1.205	1.072	2680
5.							

NO.	R _g	Temp. °R	T _g	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.	.89	528	1.38	.871	64.2	49.9	.689	X X X X X X X X	671	384
2.	.91	532	1.39	.869				X X X X X		
3.	.89	529	1.38	.871					P.S.I.A.	P.S.I.A.
4.	.90	530	1.38	.870					R	R
5.										

P _c 4922.2		P _c ² 24228		(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.236$		(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.236$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²			
1		3852	14835	9393			
2		3201	10244	13984			
3		2546	6483	17745			
4		2152	4629	19599			
5							

Absolute Open Flow	3313	Mcfd @ 15.025	Angle of Slope θ	45	Slope, n	1.00
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Remarks:

Approved By Division	Conducted By: Pro Well Testers	Calculated By: James Blount	Checked By:
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