

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Mitchell Energy Corporation						Lease or Unit Name Corral Fly "35" Fed Com					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11/18/93		Well No. 1			
Completion Date 11/17/93		Total Depth 14,000'		Plug Back TD 13,911'		Elevation 3074' KB		Unit Ltr. - Sec. - TWP - Rge. F 35 24S 29E			
Csg. Size 4.5"	Wt. 13.5#	d 3.920"	Set At 13,998'	Perforations: From: 13,466' To: 13,474'				County Eddy			
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995"	Set At 13,466'	Perforations: From: To:				Pool Owen Mesa Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single						Packer Set At 13,388'		Formation Morrow			
Producing Thru tbg		Reservoir Temp. °F 197		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection atmosphere			
L 13350	H 13350	G _g 0.573	% CO ₂ 0.87	% N ₂ 0.67	% H ₂ S 0-	Prover		Meter Run 4.026		Taps flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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						2560		Pkr		
1.	4.026 x 1.5		500	8	112	2320	58			1 hr
2.	4.026 x 1.5		500	22	100	2050	58			1 hr
3.	4.026 x 1.5		500	42	105	1650	58			1 hr
4.	4.026 x 1.75		550	38	105	1080	59			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.	10.84	64.08	513.2	.9535	1.321	1.028	899
2.	10.84	106.26	513.2	.9636	1.321	1.029	1509
3.	10.84	153.80	563.2	.9594	1.321	1.031	2179
4.	10.84	146.29	563.2	.9594	1.321	1.031	2854
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.76	572	1.65	.947	A.P. I. Gravity of Liquid Hydrocarbons	Deg.
2.	.76	560	1.62	.944	Specific Gravity Separator Gas 0.573	XXXXXXXXXX
3.	.84	565	1.63	.940	Specific Gravity Flowing Fluid	XXXXXX
4.	.84	565	1.63	.940	Critical Pressure 672 P.S.I.A.	P.S.I.A.
5.					Critical Temperature 346 R	R

NO.	P _t ²	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1.		2294.0	5262.44	1.34564	1.26108
2.		2089.4	4365.59		Post TD-2
3.		1748.2	3056.20		
4.		1286.4	1654.82		
5.					

AO = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ **3599**

Absolute Open Flow **3599** Mcfd @ 15.025 Angle of Slope θ **52°** Slope, n **.78137**

Remarks: **Made 1.5 bbls water during test.**

Approved By Division	Conducted By: Pro Well Testers	Calculated By: KS	Checked By: Greg Colburn
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