

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test: ☒ Initial ☐ Annual ☐ Special						Test Date: 12-23-80		JAN 07 1981	
Company: MITCHELL ENERGY Corp.				Connection: AIR				O. C. D. ARTESIA, OFFICE	
Pool: WILDCAT <i>manawa</i>				Formation: MORROW				Unit: B	
Completion Date: 12-14-80		Total Length: 8,150		Plug Back TD: 8,087 8097		Elevation: 4,264 KB		Turn of Lease Name: STATE 36	
Coq. Size: 4 1/2	Wt.: 11.6	d: 4.000	Set At: 8,087	Perforations: From 7,830 To 7,838		Well No.: #1			
Tq. Size: 2 3/8	Wt.: 4.6	d: 1.995	Set At: 7,750	Perforations: From PERF. NIPPLE		Unit Sec. Twp. Rge.: B 36 19S 21E			
Type Well - Single - Prodenhead - G.G. or G.O. Multiple: SINGLE						Packer Set At: 7,750		County: EDDY	
Producing Thru: TUBING		Reservoir Temp. °F: 154 @ 7,730 F		Mean Annual Temp. °F: 60		Baro. Press. - P _a : 13.2		State: NEW MEXICO	
L: 7,750	H: 7,750	G _g : .6265	% CO ₂ : .42	% N ₂ : .40	% H ₂ S: 0	Prover: 4"	Meter Run: FLANGE	Page: 1	

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							2,251		PACKER		N.A.
1.	4" X 1"			430	2	87	2,971	70			1HR
2.	4" X 1"			430	1/2	76	1,946	70			1 HR
3.	4" X 1"			440	5	70	1,849	71			1 HR
4.	4" X 1"			450	30	69	1,513	70			1 HR
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	4.758	29.7725	443.2	.9750	1.263	1.035	180.5
2	4.758	14.8862	443.2	.9850	1.263	1.038	91.5
3	4.758	47.6025	453.2	.9905	1.263	1.039	294.4
4	4.758	117.8812	463.2	.9915	1.263	1.041	731.2
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.66	547	1.50	0.934	A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2.	.66	536	1.47	0.928	Specific Gravity Separator Gas: .6265	XXXXXXXXXX
3.	.67	530	1.46	0.926	Specific Gravity Flowing Fluid: XXXXXX	
4.	.69	529	1.45	0.922	Critical Pressure: 673 P.S.I.A.	673 P.S.I.A.
5.					Critical Temperature: 364 °R	364 °R

NO.	P _c	P _w	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	2,833.2	2,833.2	8,027.0	1786.0	1.8780	1.78
2	3937.0	2,498.2	6241.0	2077.3		
3	3838.5	2,439.2	5949.7	2503.9		
4	3467.8	2,350.2	5523.4	4274.3		
5	2329.3	1,937.2	3752.7			

Absolute Open Flow: 1,301.5 Mcfd @ 15,025		Angle of Slope ϕ : 46		Slope, n: 1.000	
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Remarks: **CALCULATED FROM KNOWN BOTTOMHOLE PRESSURES. MEASURED WITH AMERADA PRESSURE ELEMENT RPG3 #44631, 0-4,000 LB. RANGE**

Approved by Commission:	Conducted By: <i>Don Bennett</i>	Calculated By: <i>Don Bennett</i>	Checked By: <i>48</i>
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