

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

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C-1227
Form C-122
Revised 9-1-65

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Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12/11/77		DEC 19 1977	
Company Mesa Petroleum Co.				Connection Air				O.C.C. ARTESIA, OFFICE	
Pool Wildcat				Formation Lower Penn <i>atoka</i>				Unit I	
Completion Date 12/8/77		Total Depth 3780		Plug Back TD 8714		Elevation 3578GL		Farm or Lease Name Bogle St. Com	
Csg. Size 4 1/2	Wt. 11.6	d	Set At 3780	Perforations: From 8438 To 8602		Well No. 1			
Tbg. Size 2 3/8	Wt. 555	d	Set At 8403	Perforations: From To		Unit T 2 16 27			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 8398		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 159 @ 8520		Mean Annual Temp. °F		Baro. Press. - P _a		State New Mexico	
L 8520	H 8520	Gg .643	% CO ₂ .286	% N ₂ .483	% H ₂ S	Prover	Meter Run 4	Taps Flg.	

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							2521				72 hr.
1.	4 x 1.500			525	6.0	80	2330				1 hr.
2.	4 x 1.500			535	11.0	89	2250				1 hr.
3.	4 x 1.500			507	21.5	89	2110				1 hr.
4.	4 x 1.500			525	14.0	88	1743				1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	10.84	56.83	538.2	.9313	1.247	1.048	790
2	10.84	77.65	548.2	.9732	1.247	1.046	1069
3	10.84	105.76	520.2	.9732	1.247	1.044	1452
4	10.84	153.89	538.2	.9741	1.247	1.045	2117
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mscf/bbl.
1.	.80	540	1.45	.910	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.82	549	1.48	.914	Specific Gravity Separator Gas _____ X X X X X X X X
3.	.78	549	1.43	.918	Specific Gravity Flowing Fluid _____ X X X X X
4.	.80	548	1.47	.916	Critical Pressure _____ 670 _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ 372 _____ R _____ R

P _c 2521.2 P _c ² 6422.2				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.989$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.660$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1		2346.8	5507.5	914.7			
2		2269.2	5119.3	1272.9			
3		2135.5	4560.4	1861.8			
4		1786.9	3193.0	3229.2			
5							

Absolute Open Flow _____ 3,514 _____ Mscf @ 15.025				Angle of Slope @ _____ 53.5°		Slope, n _____ .737	
Remarks: _____							