

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-23-74	
Company Brunson & McKnight, Inc.				Connection None			
Pool Legg-Morrow				Formation Morrow Gas			
Completion Date 8-2-74		Total Depth 14983		Plug Back TD 14820		Elevation 3654 DF	
Form or Lease Name R. F. Loggett				Well No. 1			
Csg. Size 5	Wt. d	Set At 14983	Perforations: From 14184 To 14218		Unit 1		
Tub. Size 2 3/8	Wt. 4.7	d 1.995	Set At 13897	Perforations: Open ended From To		Unit Sec. Twp. R. 1/4 H 33 21s 33e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13897		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 198		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 14201	H -	Gg 0.59	% CO ₂ 0.54	% N ₂ 1.24	% H ₂ S 0.00	Prover 3	Meter Run F

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	
51							3594		Packer		41.0
1.	3	21/64	1.75	400	45	67	1614	80			2.5
2.	3	18/64	1.75	400	40	60	1942	79			1.0
3.	3	15/64	1.75	410	26	60	2227	74			1.0
4.	3	12/64	1.75	400	18	61	2519	77			1.0
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	15.87	136.4	413.2	0.9933	1.302	1.032	2889
2	15.87	128.6	413.2	1.0000	1.302	1.033	2744
3	15.87	104.9	423.2	1.0000	1.302	1.033	2239
4	15.87	86.2	413.2	0.9990	1.302	1.033	1838
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
					Dry Gas	
					A.P.I. Gravity of Liquid Hydrocarbons	-
1	0.61	527	1.52	0.939	Specific Gravity Separator Gas	0.59
2	0.61	520	1.50	0.937	Specific Gravity Flowing Fluid	XXXXXX
3	0.63	520	1.50	0.937	Critical Pressure	673
4	0.61	521	1.50	0.937	Critical Temperature	347
5.						

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} =$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$
1	-	4168.2	17373.9	16968.0	2.024	1.762
2	-	4334.2	18785.3	15556.6		
3	-	4611.2	21263.2	13078.7		
4	-	4960.2	24603.6	9738.3		
5						

Absolute Open Flow **5090** Mcfd @ 15.025 Angle of Slope @ **51° 12'** Slope, n **0.804**

Remarks: * **BHP @ 14201' (-10547) used for pressure calculations**

Approved by Commission 	Conducted By: Tom Hansen Co.	Calculated By: Richard Turner	Checked By:
----------------------------	--	---	-------------