

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 6/19/78		JUL - 5 1978	
Company Flag-Redfern Oil Company ✓				Connection Natural Gas PL Co of America			
Pool Burton Flats <i>Menew</i>				Formation Morrow		Unit O.C.C. ARTESIA, OFFICE	
Completion Date 1-25-78		Total Depth 11600'		Perforations 11514'		Elevation 3212' GL	
Casing Size 4 1/2"		WT. 13.50 11.60		Set At 3.920 4.000		Perforations: From 11155' To 11490'	
Tub. Size 2 3/8"		WT. 4.7		Set At 1.995		Perforations: Open ended From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11080'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 193 @ 11000'		Mean Annual Temp. °F 60		Baro. Press. - P _b 13.2	
L 11323		H -		Gg 0.5958		% CO ₂ 0.960	
				% N ₂ 0.717		% H ₂ S 0.000	
				Prover		Meter Run X	
						Page 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	
SI							2990	78	PACKER		48.0
1.	3.0	4/64	1.00	510	0.5	74	2950				1.0
2.	3.0	6/64	1.00	510	2.0	74	2895				1.0
3.	3.0	8/64	1.00	510	4.5	66	2830				1.0
4.	3.0	10/64	1.00	510	6.1	63	2790				1.0
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	4.789	16.17	523.2	0.9868	1.295	1.039	102.82
2	4.789	32.34	523.2	0.9868	1.295	1.039	205.64
3	4.789	48.52	523.2	0.9943	1.295	1.040	311.16
4	4.789	56.50	523.2	0.9971	1.295	1.043	364.41
5							

NO.	P _t	Temp. °F	T _t	Z	Gas Liquid Hydrocarbon Ratio <u>Dry Gas</u>	Mcf/d
1.	0.78	534	1.53	0.927	A.P.L. Gravity of Liquid Hydrocarbons <u>-</u>	
2.	0.78	534	1.53	0.927	Specific Gravity Separator Gas <u>0.5958</u>	XXXXXXX
3.	0.78	526	1.51	0.924	Specific Gravity Flowing Fluid <u>XXXXX</u>	
4.	0.78	523	1.49	0.920	Critical Pressure <u>675</u> P.S.I.A.	- P.S.I.A.
5.					Critical Temperature <u>350</u> R	- R

P _c 3870.2 P _c ² 14978.4				
NO.	P _t	P _w *	P _w ²	P _c ² - P _w ²
1		3801.2	14449.1	529.3
2		3757.2	14116.6	861.8
3		3657.2	13375.1	1603.3
4		3597.2	12939.8	2038.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.347$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1343$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.685$

Absolute Open Flow <u>1343</u>	Mcf/d @ 15.025	Angle of Slope <u>56° 48'</u>	Slope, n <u>0.654</u>
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Remarks: * BHP @ (-8096) 11323' Used for Pressure Calculations

Approved By: <u>Conductor</u>	Conducted By: <u>JARREL SERVICES, INC.</u>	Calculated By: <u>Joe A. Coleman</u>	Checked By: <u>Joe A. Coleman</u>
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