

NEW MEXICO DEPARTMENT OF ENERGY
MULTIPOINT AND ONE POINT BACKFLOW TEST REPORT

Form G-112
Rev. 6-1-77

30-015-22475

Type Test ☒ Initial ☐ Annual		Date 8-24-78		SPUD DATE: 4-1-78							
Company Barnes Oil Company			El Paso Natural Gas Company								
Well Wellcat 10000			Formation Morrow								
Completion Date August 15, 1978		G.P.R. 12,745		Little Square Comm.							
Test Size 17-20	Well No. 12745	Perforations From 12198 to 12490	Well No.								
Test Size 2 3/8	Well No. 4.7	Perforations From open end	Unit E	Sec. 27	Twp. 22S						
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			County Eddy								
Producing Thru 12094	Reservoir Temp. °F 12094	Mean Annual Temp. °F 13.2	State New Mexico								
L 12094	H 12094	Gg 572	% CO ₂	% N ₂	Other						
FLOW DATA			TUBING DATA		CASING DATA						
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Flow Rate	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							4210				72 hrs.
1.	4 x	1.750		498	10.24	123	3801				1 hr.
2.	4 x	1.750		502	15.21	120	3669				1 hr.
3.	4 x	1.750		510	31.36	117	3297				1 hr.
4.	4 x	1.750		517	44.22	116	2995				1 hr.
5.											
B. C. C.											
RATE OF FLOW CALCULATION - ARTESIA, OFFICE											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Rate	Gravity	Barrel	Rate of Flow				
1	14.93	72.35	511.2	.9444	1.322	1.025	1382				
2	14.93	88.52	515.2	.9469	1.322	1.025	1696				
3	14.93	128.09	523.2	.9493	1.322	1.027	2465				
4	14.93	153.12	530.2	.9501	1.322	1.028	2952				
5											
NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio Dry						
1	.76	583	1.68	.951	A.P.I. Gravity of Liquid Hydrocarbon						
2	.77	580	1.68	.951	Specific Gravity Separator Gas .572						
3	.78	577	1.67	.949	Specific Gravity Flowing Fluid						
4	.79	576	1.66	.947	Critical Pressure 672						
5					Critical Temperature 346						
P _c 4223.2 P _c ² 17835.4					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.102$						
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.816$						
1	3856.2	14870.3	2965.1								
2	3697.7	13673.0	4162.4								
3	3344.6	11186.3	6649.1								
4	3058.0	9351.4	8484.0								
5											
Absolute Open Flow 5.360					Mold @ 15.00S		Angle of Dip @ 51.25				
Remarks: Well closed from August 15, 1978 to test date					Slope, n .803						
Well tested by El Paso Natural Gas Company											
Approved By Commission		Conducted By: Bob McMurrion		Calculated By: Bob McMurrion		El Paso Natural Gas Co					