

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 8-2-76		RECEIVED					
Company Harvey E. Yates Co., Inc.						Connection None				AUG 12 1976			
Pool Willard McMillan Monow						Formation Morrow				Unit O. C. C.			
Completion Date 7-26-76			Total Depth 10440		Plug Back TD 10403		Elevation 3347 KB		Farm or Name Singer-Davis				
Csg. Size 4 1/2		Wt. 11.6	d 4.000	Set At 10440	Perforations: From 10276 To 10286				Well No. 1				
Tbg. Size 2 3/8		Wt. 4.7	d 1.995	Set At 10298	Perforations: From 10290 To 10294				Unit K	Sec. 7	Twp. 20S	Rge. 27E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 10247		County Eddy					
Producing Thru Tubing		Reservoir Temp. °F 179 @ 10185		Mean Annual Temp. °F 70		Baro. Press. - P _g 13.2		State New Mexico					
L 10285	H 10285	Gg 0.600	% CO ₂	% N ₂	% H ₂ S	Prover Pos. ck.	Meter Run	Taps					

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	72 hrs.										
1.	2"	X	8/64"	2643		69	2643	69	Pkr		60 min.
2.	2"	X	9/64"	2562		68	2562	68	"		60 min.
3.	2"	X	10/64"	2499		71	2499	71	"		60 min.
4.	2"	X	11/64"	2256		71	2256	71	"		60 min.
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, Mcfd
1	0.2618		2656.2	0.9915	1.291	1.145	1019.2
2	0.3346		2575.2	0.9924	1.291	1.152	1271.8
3	0.4173		2512.2	0.9896	1.291	1.147	1536.2
4	0.5090		2269.2	0.9896	1.291	1.149	1695.5
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	3.96	529	1.48	.763	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	3.84	528	1.47	.754	Specific Gravity Separator Gas		
3	3.74	531	1.48	.760	Specific Gravity Flowing Fluid	X X X X X	0.600
4	3.38	531	1.48	.758	Critical Pressure	P.S.I.A.	671
5					Critical Temperature	R	358

P_f 4278.2 P_f² 18303

NO.	P ₁ ²	P _s	P _s ²	P _f ² - P _s ²
1		3471.2	12049	6254
2		3378.2	11412	6891
3		3297.2	10872	7431
4		3001.2	9007	9296
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9689113$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9689113$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3338.3$

Absolute Open Flow 3338.3 Mcfd @ 15.025		Angle of Slope @ 45°		Slope, n 1.0000	
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Remarks: BHP measured with Amerada RPG-3 gauge Serial No. 93002 0-5000 psi

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: F. Tefteller	Checked By:
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