

COPY

W 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 2-5-73		FEB 9 1973							
Company Monsanto Company		Connection None		O.C.C.							
Pool Burton Flat Morrow		Formation Morrow		Unit ARTESIA, OFFICE							
Completion Date 1-22-73		Total Depth 11,600		Plug Back TD 10,549							
Elevation 3208 KE		Farm or Lease Name Burton Flat Deep Unit		Well No. 2							
Csg. Size 5 1/2	Wt. 17#	Set At 10,595	Perforations: From 11,215 To 11,476		Unit Sec. Twp. Rge. F 2 21-S 27-E						
Tbg. Size 2 7/8 EUE	Wt. 6.5	Set At 11,016	Perforations: From To		County Eddy						
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 11,010		State New Mexico						
Producing Thru Tubing		Reservoir Temp. °F 176 @ 11,390	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2	Meter Run X						
L 11,346	H 11,346	Gg .593	% CO ₂ 0	% N ₂ 0	% H ₂ S 0						
FLOW DATA			TUBING DATA		CASING DATA						
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							3632	48°	Packer		SI 160 Hrs
1.	4		2.5	810	14	55°	2380	63°			60 Min
2.	4		2.5	810	18	60°	2210	64°			60 Min
3.	4		2.5	810	24	66°	2022	64°			60 Min
4.	4		2.5	810	40	75	1422	64°			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	32.64	107.35	823.2	1.005	1.299	1.074	4913				
2	32.64	121.72	823.2	1.000	1.299	1.070	5522				
3	32.64	140.55	823.2	.9943	1.299	1.068	6328				
4	32.64	181.46	823.2	.9859	1.299	1.068	8101				
5											
NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio 423 Mcf/bbl.						
					A.P.I. Gravity of Liquid Hydrocarbons 55° @ 60° Deg.						
1	1.22	515	1.45	.867	Specific Gravity Separator Gas .593 X X X X X X X X						
2	1.22	520	1.47	.873	Specific Gravity Flowing Fluid X X X X X						
3	1.22	526	1.48	.876	Critical Pressure 672 P.S.I.A. P.S.I.A.						
4	1.22	526	1.48	.876	Critical Temperature 354 R R						
5											
P _c 3645.2 P _c ² 13287					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{13287}{10736}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2376$						
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{13287}{10736}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2376$						
1		2434.5	5927	7360							
2		2285.1	5221	8066							
3		2107.2	4440	8847							
4		1597.2	2551	10736							
5											
Absolute Open Flow 10025 Mcfd @ 15.025					Angle of Slope 45°			Slope, n 1.0			
Remarks:											
Approved By Commission:			Conducted By: J. N. Casparis			Calculated By: H. L. Hagler			Checked By: H. L. Hagler		

WEST TEXAS ENGINEERING SERVICE, INC.