

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

FEB 9 1973 Form C-122
Revised 9-1-65

O. C. C.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-1-73			
Company Phillips Petroleum Company				Connection					
Pool Undesignated - Morrow				Formation Morrow				Unit	
Completion Date 1-25-73		Total Depth 14923		Plug Back TD 13530		Elevation 3191 DF		Farm or Lease Name James "A"	
Csg. Size 5 1/2	Wt. 4.670	d 14570	Set At 14570	Perforations: From 13246 To 13424		Well No. 1			
Tub. Size 2-3/8	Wt. 4.7	d 1.995	Set At 12547	Perforations: From To		Unit Sec. Twp. Rge. 0 2 225 30E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 12545		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 197 @ 13550		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 13246	H 13246	Gg .590	% CO ₂	% N ₂	% H ₂ S	Prover 2"		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							4696	40	Packer		40
1.	2.00 x .0625			4126		58	4126	58			1
2.	2.00 x .1250			2910		60	2910	60			1
3.	2.00 x .1875			1779		63	1779	63			1
4.	2.00 x .250			1110		64	1110	64			1
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	.06405		4139.2	1.002	1.302	1.079	373
2	.2648		2923.2	1.000	1.302	1.141	1,150
3	.6082		1792.2	.9971	1.302	1.135	1,606
4	1.087		1123.2	.9962	1.302	1.093	1,731
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	6.16	518	1.46	.859	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	4.35	520	1.47	.768	Specific Gravity Separator Gas .590
3.	2.67	523	1.48	.776	Specific Gravity Flowing Fluid _____
4.	1.67	524	1.48	.837	Critical Pressure 672 P.S.I.A.
5.					Critical Temperature 354 R

$P_c = 4709.2$ $P_c^2 = 22,177$				
NO.	P_t^2	P_w	R_w^2	$P_c^2 - R_w^2$
1	17.133	4139.8	17.138	5039
2	8.545	2930.9	8.590	13,587
3	3.212	1816.2	3.299	18,878
4	1.262	1167.9	1.364	20,813
5				

$$(1) \frac{P_c^2}{P_c^2 - R_w^2} = \frac{22,177}{20,813}$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1,845$$

$$(2) \left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.066$$

Posted 2-12-73

Absolute Open Flow <u>1,845</u> Mcfd @ 15.025		Angle of Slope Θ <u>45°</u>	Slope, n <u>1.00</u>
Remarks: <u>Calculations made by electronic calculator</u>			
Approved By Commission:	Conducted By:	Calculated By: D.E. Simpson	Checked By: