

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

Form C-122
Revised 9-1-65

SEP 24 1970

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9/17/70			
Company Corinne Grace ✓				Connection None				O.C.C. ARTESIA, OFFICE	
Pool Indian Basin				Formation Morrow				Unit	
Completion Date 9/3/70		Total Depth 10,190		Plug Back TD 10,156		Elevation 4100.8 GL		Farm or Lease Name Indian Hills	
Csg. Size 4 1/2	Wt. 11.6	d 4.000	Set At 10,190	Perforations: From 9925 To 9984		Well No. 1			
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 9803	Perforations: From To		Unit Sec. Twp. Rge. J 8 21 S 24 E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9803		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 154 @ 9984		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 9803	H 9803	Gg .594	% CO ₂ 0.76	% N ₂ 0.06	% H ₂ S -	Prover	Meter Run X	Taps Flg	

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							2923		Choke		25
1.	3	X	1.25	255	6.1	74	2578	72	3/64		1.5
2.	3	X	1.25	490	9.2	73	2325	72	5/64		1.5
3.	3	X	1.25	605	14.2	71	2000	72	7/64		1.5
4.	3	X	1.25	540	23.8	69	1575	72	10/64		1.5
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	7.577	40.44	268.2 ✓	.9868	1.298	1.021 ✓	401 ✓
2	7.577	68.04	503.2 ✓	.9877	1.298	1.039 ✓	687
3	7.577	93.69	618.2 ✓	.9896	1.298	1.049 ✓	957
4	7.577	114.74	553.2 ✓	.9915	1.298	1.044 ✓	1168
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 294.67 Mcf/bbl.
1.	0.40	534	1.51 ✓	.960 ✓	A.P.I. Gravity of Liquid Hydrocarbons 58.0 Deg.
2.	0.75	533	1.51 ✓	.927	Specific Gravity Separator Gas .594 X X X X X X X X
3.	0.92	531	1.50 ✓	.909	Specific Gravity Flowing Fluid X X X X X .7467
4.	0.82	529	1.49 ✓	.917	Critical Pressure 672 ✓ P.S.I.A. P.S.I.A.
5.					Critical Temperature 354 ✓ R R

P _c 2936.2	P _c 8621.3	(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.422$	(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.325$
NO.	P _t ²	P _w	P _c ² - R _w ²
1	2592.1	6719 ✓	1902 ✓
2	2340.9	5480 ✓	3141 ✓
3	2019.3	4078 ✓	4543 ✓
4	1599.0	2557 ✓	6064 ✓
5			

AOF = Q $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1548$

Absolute Open Flow 1548 Mcfd @ 15.025	Angle of Slope θ _____	Slope, n .800
Remarks: _____		
Approved By Commission: _____	Conducted By: H. L. Smith	Calculated By: Deanna Keller
		Checked By: H. L. Smith