

well file

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

Form C-122
Revised 6-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-21-72		JAN 18 1973							
Company HORIZON OIL & GAS CO. OF TEXAS			Connection AIR		O. C. C. ARTESIA, OFFICE						
Pool GRAYBURG-MORROW			Formation MORROW		Unit						
Completion Date 10-23-72		Total Depth 10,870'		Plug Back TD 10,869'							
		Elevation 3589 K.B.		Farm or Lease Name STATE 28							
Coq. Size 4 1/2"	Wt. 11.6	d 4.082	Set At 10,869'	Perforations: From 10,762' To 10,784'							
Tag. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 10,784	Perforations: From PERF. NIPPLE 35' BELOW PACKER							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 10,672'		County EDDY						
Processing Temp TUBING		Reservoir Temp. °F 159 @ 10,750'		Mean Annual Temp. °F 60							
		Baro. Press. - P _a 13.2		State NEW MEXICO							
L 10,784	H 10,784	G _g 0.669	% CO ₂ 0.54	% N ₂ 1.230	% H ₂ S 0.00						
Prover			Meter Run 3.00"								
Taps											
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA Press. p.s.i.g.	Temp. °F	CASING DATA Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2046.0		PACKER		72.0
1.	3" x 1.750			528.0	7.0	82	1685.0	62			1.0
2.	3" x 1.750			540.0	12.0	82	1551.0	64			1.0
3.	3" x 1.750			545.0	18.0	80	1421.0	64			1.0
4.	3" x 1.750			550.0	25.0	80	1246.0	65			1.0
5.	3" x 1.750			560.0	29.0	81	1130.0	64			1.0
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1.	19.27	61.55	541.2	.9795	1.256	1.046	1526				
2.	19.27	81.47	553.2	.9795	1.256	1.048	2024				
3.	19.27	100.24	558.2	.9813	1.256	1.048	2495				
4.	19.27	118.66	563.2	.9813	1.256	1.048	2954				
5.	19.27	128.93	573.2	.9804	1.256	1.049	3209				
NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio 51.979 - 1 Mcf/bbl.						
1.	0.81	542	1.47	.914	A.P.I. Gravity of Liquid Hydrocarbons 61.4 Deg.						
2.	0.83	542	1.47	.911	Specific Gravity Separator Gas 0.669 XXXXXXXXXX						
3.	0.83	540	1.47	.911	Specific Gravity Flowing Fluid XXXXXX						
4.	0.84	540	1.47	.910	Critical Pressure 670 P.S.I.A. P.S.I.A.						
5.	0.86	541	1.47	.908	Critical Temperature 368 R R						
P _i 2628.2 P _s 28574.4											
NO.	P _i ²	P _s	P _s ²	P _i ² - P _s ²	(1) $\frac{P_c^2}{P_i^2 - P_s^2} = 1.5770$ (2) $\left[\frac{P_c^2}{P_i^2 - P_s^2} \right]^n = 1.5198$						
1.	2467.2	6087.1	2487.3		AOF = Q $\left[\frac{P_c^2}{P_i^2 - P_s^2} \right]^n = 4877$						
2.	2294.2	5263.4	3311.0								
3.	2113.2	4465.6	4108.8								
4.	1908.2	3641.2	4933.2								
5.	1771.2	3137.1	5437.3								
Absolute Open Flow 4877 Mcfd @ 15.025					Angle of Slope θ			Slope, n 0.919			
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 10,750'											
Approved By Commission:			Conducted By: M.C.T.			Calculated By: R.L.W.			Checked By: J.W.W.		