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C-5F

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

MAY 20 1980

Form C-122
Revised 9-1-65

Type Test O.C.D.		ARTESIAL OFFICE ☒ Annual ☐ Special		Test Date 5-1-80							
Company Harvey E. Yates Company		Connection El Paso Nat. Gas									
Pool South E. Pioneer		Formation Morrow		Unit							
Completion Date 2-2-80		Total Depth 11300		Plug Back TD 11260							
Elevation 3511.1 GR		Farm or Lease Name East Travis									
Csg. Size 5.5	Wt. 17	Set At 4.892	Perforations: 11300		Well No. 1						
Tbg. Size 2 7/8	Wt. 6.5	Set At 10988	Perforations: 10978 To 10988		Unit F Sec. 17 Twp. 18S Rge. 29E						
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single											
Producing Thru Tubing		Reservoir Temp. °F 168 @ 10883		Mean Annual Temp. °F 60							
Baro. Press. - P _a 13.2		County Eddy									
State New Mexico		Packer Set At 10945									
L 10983	H 10983	G _g 0.632	% CO ₂ 0.64	% N ₂ 0.39	% H ₂ S 0.10						
Prover		Meter Run X		Taps Flange							
FLOW DATA											
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	Duration of Flow
1.	4" X 1.250"			5.90	1.7	85	2605	85	Pkr.	-	60 mins.
2.	4" X 1.250"			5.95	1.8	84	2447	84	Pkr.	-	60 mins.
3.	4" X 1.250"			6.20	4.1	80	2443	80	Pkr.	-	60 mins.
4.	4" X 1.250"			6.50	5.9	74	2237	74	Pkr.	-	60 mins.
5.							2022	74	Pkr.	-	60 mins.
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{\frac{h_w P_m}{h_w \times P_m}}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1.	7.469	10.03	3.162	0.9768	1.258	1.028	299.3				
2.	7.469	10.71	3.162	0.9777	1.258	1.029	320.1				
3.	7.469	25.42	3.162	0.9813	1.258	1.031	764.1				
4.	7.469	38.35	3.162	0.9868	1.258	1.037	1165.9				
5.											
1-10 FACTOR											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 51.337 Mcf/bbl.						
1.					A.P.I. Gravity of Liquid Hydrocarbons 58.0 Deg.						
2.					Specific Gravity Separator Gas .632 X X X X X X X X						
3.					Specific Gravity Flowing Fluid X X X X X						
4.					Critical Pressure 670 P.S.I.A.						
5.					Critical Temperature 368 °R						
$P_f = 3833.2$ $P_f^2 = 14693$											
NO.	P _i ²	P _s	P _s ²	P _f ² - P _s ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.65169$			(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.45622$			
1.	6053	3587.2	12868	1825	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2863.710$						
2.	6033	3591.2	12897	1796							
3.	5063	3345.2	11190	3503							
4.	4142	3025.2	9152	5541							
5.											
Absolute Open Flow 2863.710 2864 Mcfd @ 15.025					Angle of Slope 47.34°		Slope, n 0.92148				
Remarks: BHP measured with Amerada RPG-3 Gauge No. 9383, 0-6000 PSI Range											
Approved By Commission:		Conducted By: Tefteller, Inc.		Calculated By: D. A. Warren, Jr.		Checked By:					