

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-15-77		Spud Date: 9-27-77												
Company DOYLE HARTMAN				Orientation TO AIR														
Pool JAL				Landowner LANGLIE-MATTIX														
Completion Date 10-14-77		Total Length 3564'		Perforations 3527'		Elevation 3254' KB												
Csg. Size 4 1/2"		Wt. 10.5		Set At 4.052		Well No. 1												
Tbg. Size 2 3/8"		Wt. 4.7		Set At 1.995		Perforations From 3211' To 3296'												
						Unit K 16 24s 37E												
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County LEA												
Producing Thru TUBING		Reservoir Temp. °F 100° @ 3564'		Mean Annual Temp. °F 60°		Baro. Press. - P _g 13.2												
L 3254'		H 3254'		Gg 0.650		% CO ₂ NA												
						% N ₂ NA												
						% H ₂ S NA												
						Prover 2" ORIFICE WELL TESTER												
						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	2" ORIFICE W.T.				0-50" MERCURY		205.0		203.0	CHOKE		24 HRS						
1.	3/8"				19.0	66	204.0		202.0	4/64	60 MIN							
2.	1/2"				37.0	65	202.0		201.0	8/64	60 MIN							
3.	3/4"				28.0	68	200.0		199.0	12/64	60 MIN							
4.	1"				22.0	69	195.0		198.0	16/64	60 MIN							
5.																		
RATE OF FLOW CALCULATIONS																		
NO.	VOLUME FROM GOR MANUAL	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd											
1	58.93	-	-	.9943	.9608	1.000	56.3											
2	156.0	-	-	.9952	.9608	1.000	149.2											
3	295.0	-	-	.9924	.9608	1.000	281.6											
4	464.9	-	-	.9915	.9608	1.000	442.9											
5																		
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio NONE Mcf/bbl.													
1	NOT APPLICABLE				A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.													
2.					Specific Gravity Separator Gas 0.650 XXXXXXXXXX													
3.					Specific Gravity Flowing Fluid XXXXX													
4.					Critical Pressure MEASURED P.S.I.A. _____ P.S.I.A.													
5.					Critical Temperature FRICTION _____ R _____ R													
P _c 218.2		P _c ² 47.61																
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 11.176$					(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8.032$								
1		217.2	47.18	0.43														
2		215.1	46.27	1.34														
3		213.2	45.45	2.16														
4		208.2	43.35	4.26														
5																		
Absolute Open Flow 3557 Mcfd @ 15.025															Angle of Slope θ 49.2°		Slope, n 0.863	
Remarks: NOTE: VOLUMES AND CORRECTION FACTORS OBTAINED FROM GOR MANUAL. USED 0-50" MERCURY RECORDER TO MEASURE VOLUME-AVERAGE SLOPE DRAWN THROUGH 3 HIGHEST RATES OF FLOW. NOT ENOUGH DRAW-DOWN (ONLY 5%)																		
Approved By Commission:				Conducted By: M.C. THOMASON				Calculated By: R. WEST				Checked By: M.C.T.						

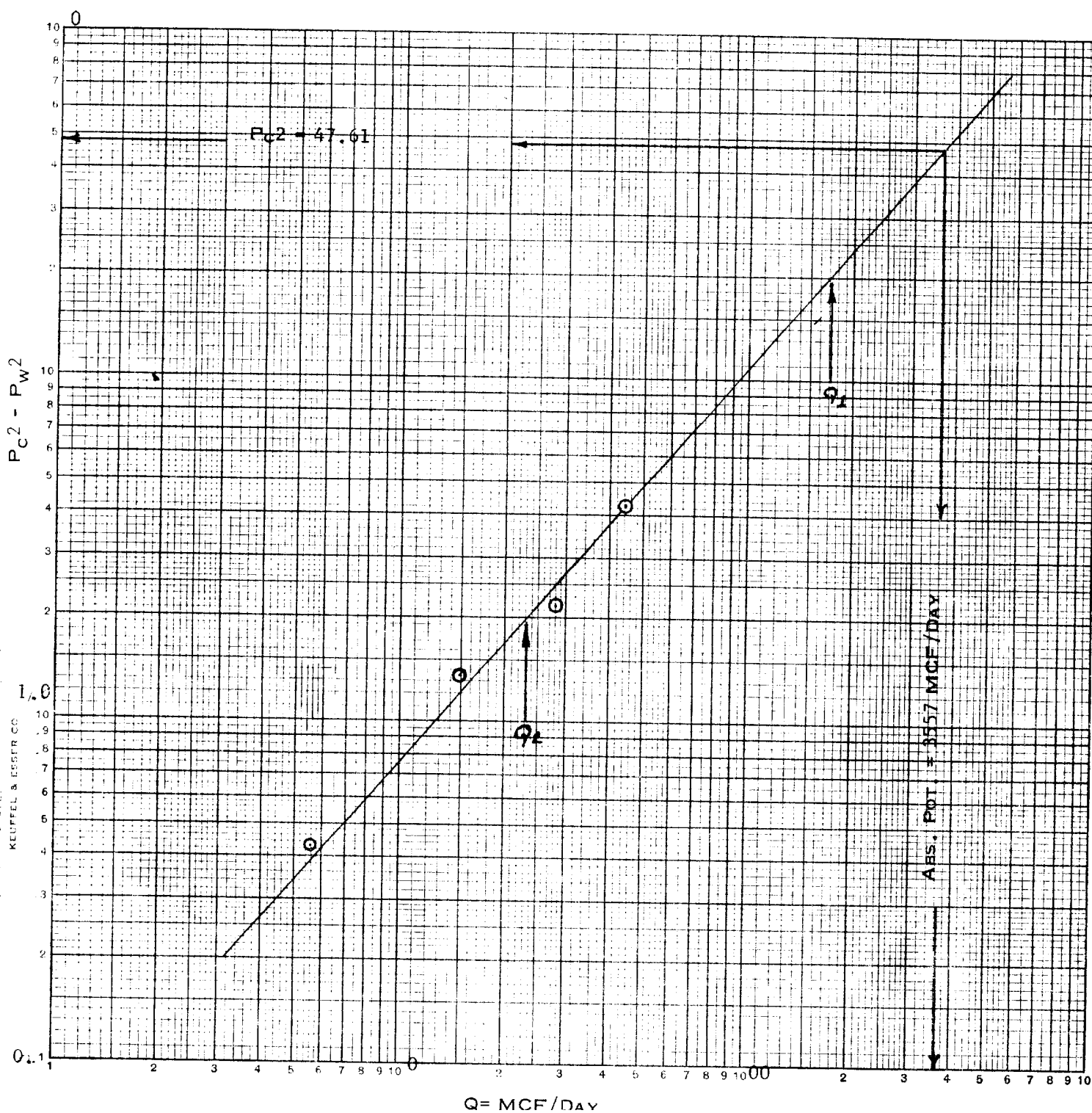
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HOBBS, N. M.

OCTOBER 15, 1977

$$ABS. POT. = 442.9 \left(\frac{47.61}{4.26} \right)^{.863} = 3557 \text{ MCF/DAY}$$



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