

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1/11/74		FEB 20 1974	
Company Penrod Oil Corporation				Connection None		O. C. C.	
Pool Winchester				Formation Wolfcamp		UNARTESIA, OFFICE	
Completion Date 1/16/74		Total Depth 11,252		Plug Back TD 11,252		Elevation 3311 KB	
Farm or Lease Name Dero Federal "A"				Well No. 1			
Csg. Size 4 1/2	Wt. 11.6#	d 4.000	Set At 11,252	Perforations: From 9031 To 7370			
Tbg. Size 2 3/8	Wt. 4.6#	d 1.995	Set At 9995	Perforations: From 8911* To		Unit Sec. Twp. Rge. N 35 19S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Gas-San Dual				Packer Set At 8910*		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 156° 9200		Mean Annual Temp. °F 60°		Baro. Press. - P _g 13.2	
State New Mexico							
L 8911	H 8911	Gg .685	% CO ₂ -	% N ₂ -	% H ₂ S -	Prover	Meter Run X
Taps Flange							

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							2345		ohoke		24
1.	3	x	1.5	375	12	85	2139	71	10/64		1
2.	3	x	1.5	375	16	72	1995	75	12/64		1
3.	3	x	1.5	480	20	78	1955	77	14/64		1
4.	3	x	1.5	580	24	90	1895	80	16/64		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	11.13	68.25	388.2	.9768	1.208	1.038	930
2	11.13	78.81	388.2	.9887	1.208	1.041	1090
3	11.13	99.32	493.2	.9741	1.208	1.051	1367
4	11.13	119.32	593.2	.9725	1.208	1.057	1634
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.58	545	1.42	.929	2.377 Mcf/bbl.	54.2 Deg.	.685	X X X X X X X X	669 P.S.I.A.	.7620 P.S.I.A.
2	0.58	532	1.38	.922					385 R	411 R
3	0.74	538	1.40	.906						
4	0.89	550	1.43	.895						
5										

$P_c = 2358.2$ $P_c^2 = 5561.1$				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 3.002$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.002$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q
1		2157.6	4655.2	905.9	$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4905$
2		2021.4	4086.1	1475.0	
3		1976.0	3904.6	1656.5	
4		1925.8	3708.7	1852.4	
5					

Absolute Open Flow 4905 Mcfd @ 15.025		Angle of Slope θ	Slope, n 1.00
Remarks: See sketch of completion method			
Approved By Commission:	Conducted By: Wallis & Cooper	Calculated By: <i>[Signature]</i>	Checked By: