

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 <u>7-3</u> 6-19-23		JUN 25 1973	
Company C & K PETROLEUM, INC.				Connection TRANSWESTERN P. L. Co.			
Pool W ATOKA WEST				Formation MORROW		Unit O.C.B. ARTESIAN OFFICE	
Completion Date 3-3-73		Total Depth 8938		Plug Back TD 8931		Elevation 3430	
Csg. Size 4 1/2" O.D.		Wt. 9.50		Set At 8938'		Perforations: From 8717 To 8803	
Tbg. Size 2-7/8"		Wt. 6.50		Set At 8664'		Perforations: From OPEN END To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 8664'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 146 @ 8700'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 8700'		H 8700'		G _g .642		% CO ₂ 2.65	
				% N ₂ 0.53		% H ₂ S -	
				Prover		Meter Run X	
						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							2223		PACKER		S.I. 24 HRS.
1.	4,000	x	2.75	470	3.00	105	2149	68			1 1/2 HRS
2.			DITTO	475	9.00	105	2070	70			1 1/2 HRS
3.			"	485	24.25	87	1882	72			2 HRS.
4.			"	515	40.00	78	1668	75			2 HRS.
5.											

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	41.10	38.07	483.2	.9594	1.248	1.036	1941
2	41.10	66.29	488.2	.9594	1.248	1.034	3373
3	41.10	109.91	498.2	.9750	1.248	1.039	5711
4	41.10	145.35	528.2	.9831	1.248	1.044	7652
5							

NO.	P _t	Temp. °R	T _t	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	0.71	565	1.55	0.931	91.43 Mcf/bbl.	57 Deg.	0.642	XXXXXXX	681 P.S.I.A.	364 R
2	0.72	565	1.55	0.936				XXXXX		
3	0.73	547	1.50	0.927						
4	0.78	538	1.48	0.918						
5										

P _c * 2846.2 P _c ² * 8101			
NO.	P _t ²	P _w ²	P _c ² - P _w ²
1	2765.2	7646	455
2	2691.2	7243	858
3	2517.2	6336	1765
4	2342.2	5486	2615
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{8101}{2615}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 17,607$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 230.1$

Absolute Open Flow	17,607 Mcfd @ 15.025	Angle of Slope @	53.5°	Slope, n	0.737
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Remarks: *USED AMERADA BOTTOM HOLE PRESSURE BOMB.

CHOKE SIZES: RATE #1 - 11.25/64; RATE #2 - 16/64; RATE #3 - 21.5/64; RATE #4 - 28/64

Approved By Commission:	Conducted By: <i>Harry E. Legendre</i>	Calculated By:	Checked By:
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