

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

Form C-22
Revised 7-78

RECEIVED

Type Test: ☒ Initial 4 POINT ☐ Annual ☐ Special				Test Date: 2-25-83		MAR 07 1983	
Company: STEVENS OPERATING				Connection: AIR NEW WELL		O.C.D.	
Pool: PECOS SLOPE U.D. <i>W.D.</i>				Formation: ABO		ARTESIA OFFICE	
Completion Date: 2-16-83		Total Depth: 4280.		Plug Back To: 4232.		Elevation: 3566.8	
Casing Size: 4.500		ID: 11.6		Set At: 4280.		Perforations: From 3919.4019 To 4110.	
Tubing Size: 2.375		ID: 4.7		Set At: 3926.		Perforations: From 0. To 0.	
Type Well - Single - Production - G.G. or G.O. Multiple				Factor Set At: 0.		County: CHAVES	
Producing thru: TUBING		Reservoir Temp. °F: 111@ 4014.		Mean Annual Temp. °F: 60.0		Baro. Press. - P _a : 13.2	
L: 4014.		H: 4014.		G _g : 0.641		% CO ₂ : 0.04	
				% N ₂ : 6.00		% H ₂ S: 0.	
				Prover: 2.0		Meter Run: 0.	
						State: NEW MEXICO	

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
5.							850.	49.	833.		76.0
1.	2.00 X 0.125			813.	0.	50.	813.	46.	800.	0.	1.0
2.	2.00 X 0.188			750.	0.	47.	750.	45.	737.	0.	1.0
3.	2.00 X 0.219			708.	0.	46.	708.	45.	700.	0.	1.0
4.	2.00 X 0.250			580.	0.	44.	580.	44.	627.	0.	1.0

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor F _{sp}	Rate of Flow Q, Mgd
1	0.26	0.	826.2	1.0098	1.2490	1.0784	297.
2	0.61	0.	763.2	1.0127	1.2490	1.0742	630.
3	0.84	0.	721.2	1.0137	1.2490	1.0702	821.
4	1.09	0.	593.2	1.0157	1.2490	1.0587	866.

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.L. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.25	510.	1.44	0.860	0.	0.641	0.641	660.	355.	355.
2	1.16	507.	1.43	0.867						
3	1.09	506.	1.43	0.872						
4	0.90	504.	1.42	0.892						

NO.	P _t	P _w	P _w ²	P _t ² - P _w ²
1	683.	829.	687.	61.
2	582.	768.	590.	158.
3	520.	729.	531.	217.
4	352.	603.	363.	385.

(1) $\frac{P_t^2}{P_t^2 - P_w^2} = 3.4470$

AND $Q = \left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 2218.$

(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 2.7013$

*Post ID. 2
3-11-83
Camp + BK*

Absolute Open Flow: 2218.		Mgd @ 15.025		Angle of Slope: 51.25		Slope, n: .803	
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Approved By: _____	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT & CATHEY	Checked By: _____
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SUN DIAMOND #1

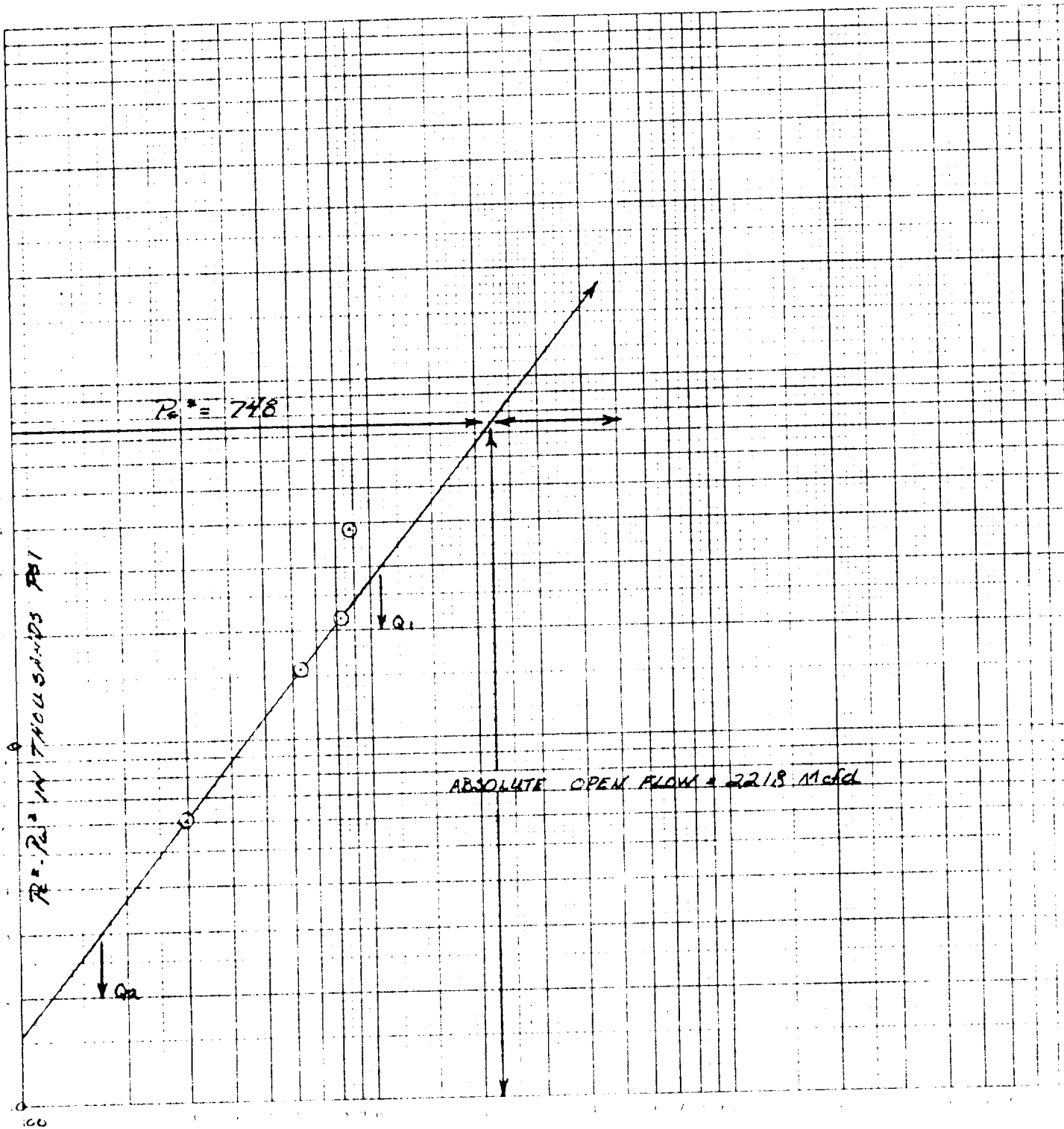
20 75 26E

CHIVES

2-25-83

46 7400

LOGARITHMIC CYCLES



$$\Delta P: P_0^2 - P_w^2 = 600$$

$$\Delta P: P_0^2 - P_w^2 = 60$$

$$Q_1 = 150$$

$$Q_2 = 170$$

Q, Mcfd

$$\log Q_1 = 3.0334$$

$$\log Q_2 = 2.2304$$

$$\lambda = 0.803$$