

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-12-89			
Company ELK OIL COMPANY				Connection AIR				APR 28 '89	
Pool Four Ranch Wolfcamp				Formation Wolfcamp				Unit O. C. D.	
Completion Date 3-23-89		Total Depth 6200		Plug Back TD 6165		Elevation 3794' GA		Farm or Lease Name SE State	
Csg. Size 5 1/2		Wt. d		Set At 6199		Perforations: From To		Well No. 3	
Thq. Size 2 3/8		Wt. d		Set At 5222		Perforations: From 5282 To 5294		Unit Sec. Twp. Rye. 0 23 9 26	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 5220		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F #		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NM	
L		H		G _g .68		% CO ₂		% N ₂	
						% H ₂ S		Prover 2"	
								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							712		PACKER		
1.	2	x	1/8	680		66	680		"		1 Hr.
2.	2	x	3/16	632		66	632		"		"
3.	2	x	1/4	560		66	560		"		"
4.	2	x	3/8	408		66	408		"		"
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	.2648		693.2	.9943	1.2127	1.075	238
2	.6082		645.2	.9943	1.2127	1.070	506
3	1.0870		573.2	.9943	1.2127	1.061	797
4	2.3780		421.2	.9943	1.2127	1.043	1260
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

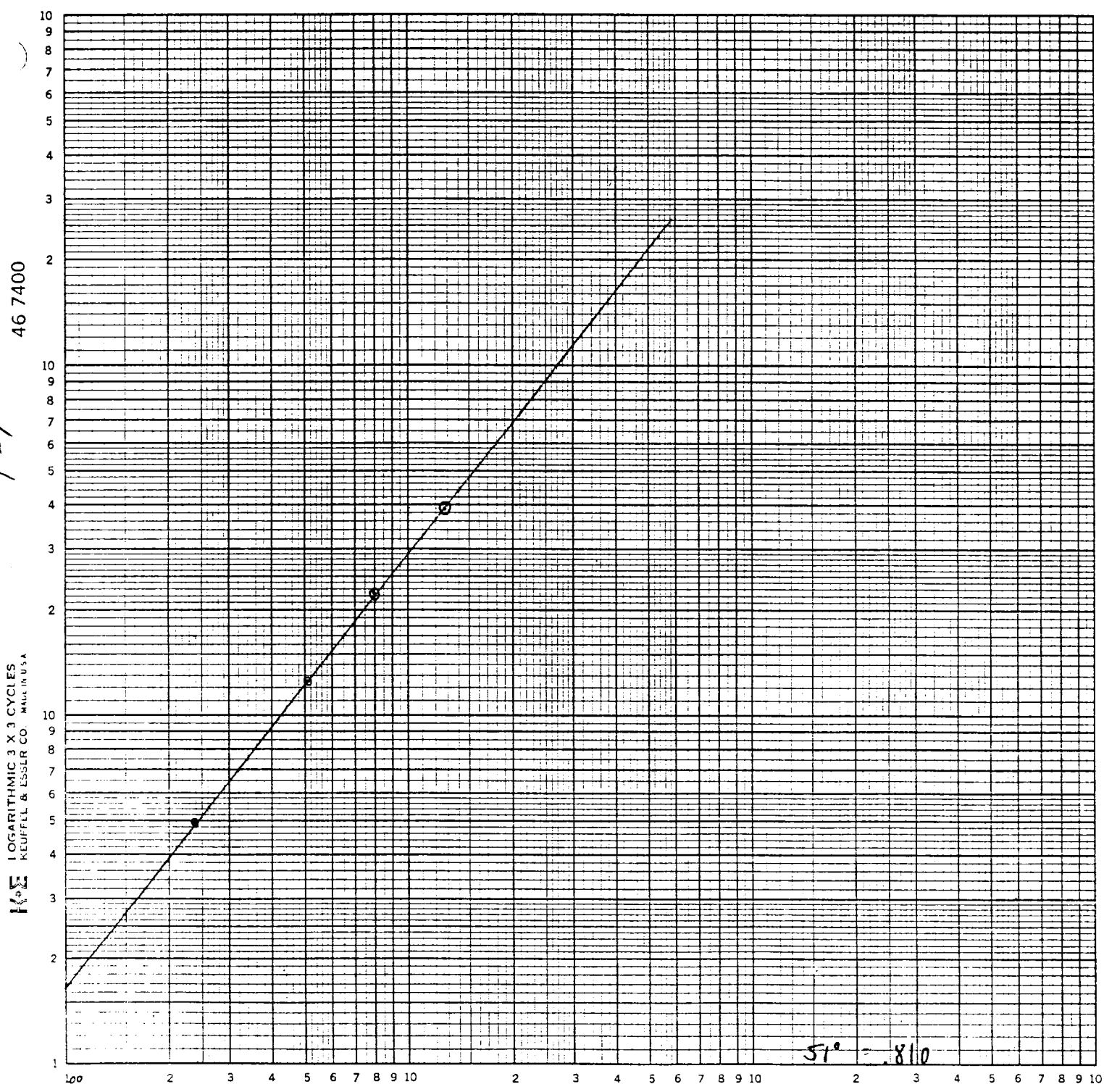
$P_c = 815.2$ $P_c^2 = 664$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.71$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.55$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		770.2	594	49				
2		721.2	520	124				
3		648.2	420	223				
4		505.2	255	388				
5								

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1947$					Absolute Open Flow _____ Mcfd @ 15.025		Angle of Slope @ _____ 51°		Slope, n _____ .81	
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Remarks: ALL BOTTOMHOLE PRESSURE TESTS DONE WITH AMERADA TYPE GAUGE			
Approved By Division	Conducted By: KELTIC SERVICES	Calculated By: MIKE KELLY	Checked By:

P²-P²

LOGARITHMIC 3 X 3 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.



51° = .810

Q
MSCF??