

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 10/24/85	
Company Herman V. Wallis				Connection None	
Pool <i>Santa Rosa Mts.</i>				Formation Gray Berg	
Completion Date 10-27-85		Total Depth 1853		Elevation 3600	
Casing Size 5 1/2		Set At 1818		Perforations: From 1846 To 1853	
Tub. Size 2 3/8		Set At 1853		Perforations: From OPEN To END	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tbg.		Reservoir Temp. °F 92 @ 1853		Baro. Press. - P _a 13.2	
L 1853		H 1853		C _g .779	
		% CO ₂ -0-		% N ₂ 20.351	
				% H ₂ S 2"	
				Prover 2"	
				Meter Run Taps	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover 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.	
SI							260	64	260	
1.	2 X 1/16			185		62	185		190	
2.	2 X 3/32			110		68	110		110	
3.	2 X 1/8			50		73	50		50	
4.	2 X 1/8			27		74	27		27	
5.										

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 _{pv}	Rate of Flow Q, Mcfd
1	.06405		198.2	.9981	1.133	1.019	14
2	.1410		123.2	.9924	1.133	NIL	20
3	.2648		63.2	.9877	1.133	NIL	19
4	.2648		40.2	.9868	1.133	NIL	12
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.
1	.31	522	1.44	.963	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.19	528	1.45	NIL	Specific Gravity Separator Gas .779
3	.10	533	1.47	NIL	Specific Gravity Flowing Fluid _____
4	.06	534	1.47	NIL	Critical Pressure 632
5					Critical Temperature 363

$P_c = 273.2$ $P_c^2 = 74.6$				
NO.	P _i ²	P _w ²	P _w ²	P _c ² - P _w ²
1		203.2	41.3	33.3
2		123.2	15.2	59.4
3		63.2	4.0	70.6
4		40.2	1.6	73.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.240$

AOF = 0 $\left[\frac{P_r^2}{P_c^2 - P_w^2} \right]^n = .21$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right] = 7904.497$

DEQ 27

1-24-86

CAMP + BK

Absolute Open Flow _____ 21 _____ Mcfd @ 15.025		Angle of Slope _____ 63.5 _____		Slope, n _____ 500 _____	
Remarks: _____ Well made no fluid during test					
Approved By Division		Conducted By Duke Services, Inc.		Calculated By R. Reston	
				Checked By:	

Q = MCF/DAY

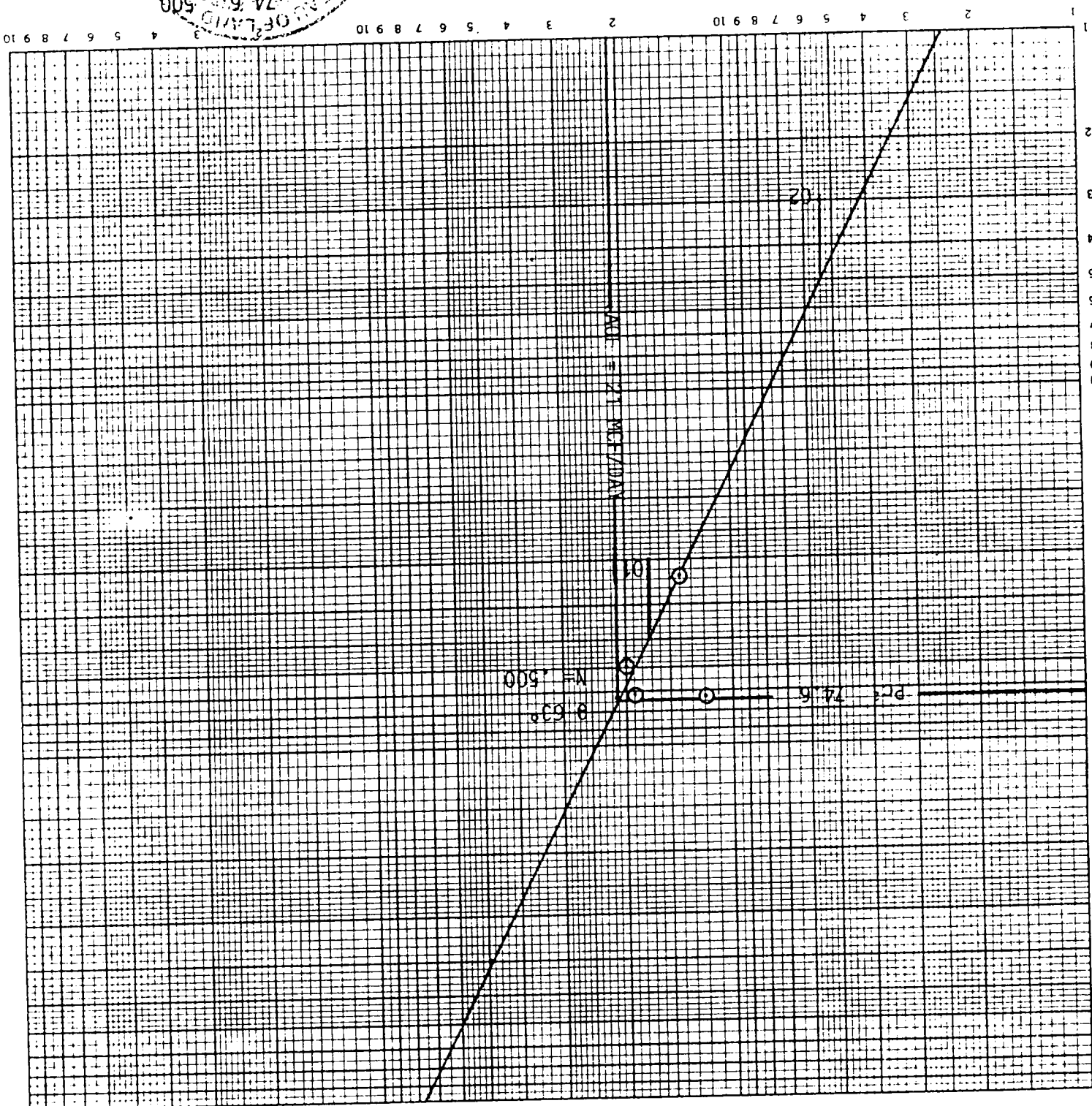
$$Q_1 = 17.2 = \log 1.235528$$

$$Q_2 = .54 = \log .735528$$

$$N = .500000$$

CAOF 14 (74.6) = 21 MCF/DAY

DEC 27 1985



COMPANY: HERMAN V. WALLIS
LEASE: FEDERAL 14
COUNTY: CHAVES
DATE: 10/24/85