

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT PRESSURE TEST FOR GAS WELL

RECEIVED 2008

MAY 05 1986

Type Test ☒ Initial ☐ Annual		O. C. D. ☐ Special		Test Date 4-14-86	
Company SOUTHLAND ROYALTY		Connection (NONE) TO AIR			
Pool N. Illinois Camp, Morrow		Formation MORROW		Unit L	
Completion Date 4-6-86		Total Depth 10,650		Plug Back TD 10,595	
Elevation 36174L		Farm or Lease Name MIDSTREAM 16 ST. CO.		Well No. 1	
Csq. Size 5 1/2	Wt. 17#	Set At 10,650	Perforations: From 10434 To 10554		Unit L
Thq. Size 2 3/8	Wt. 47#	Set At 10,417	Perforations: From OPEN To END		Sec. 16
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 10,417		County Eddy
Producing Thru T84		Reservoir Temp. °F 178 @ 10,429		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State N.M.			
L 10,429	H 10,429	G _g .627	% CO ₂ 1.172	% N ₂ .375	% H ₂ S Prover
Meter Run 3,068		Taps 2 1/4			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Proser 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							2090				75 HRS
1.	3.068 x 1.00		230	3	88	1984					1 HR
2.	3.068 x 1.00		220	9	86	1911					1 HR
3.	3.068 x 1.00		230	22	68	1776					1 HR
4.	3.068 x 1.00		230	37	80	1569					1 HR
5.	3.068 x 1.00		230	66	94	1358					1 HR

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, Mc/d
1	4.789	27.01	243.2	.9741	1.263	1.020	162
2	4.789	45.81	233.2	.9759	1.263	1.019	276
3	4.789	73.15	243.2	.9924	1.263	1.022	449
4	4.789	94.86	243.2	.9813	1.263	1.021	575
5	4.789	126.69	243.2	.9688	1.263	1.019	756

NO.	R	Temp. °R	T _r	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	.36	548	1.49	.962			.627	XXXXXX	674	367
2	.35	546	1.49	.963				XXXXX		
3	.36	528	1.44	.957						
4	.36	540	1.47	.960						
5	.36	554	1.51	.964						

NO.	P _c	P _w	P _r ²	P _r ² - P _w ²
1	2680	2074.7	4304.4	404.5
2	2584	2000.9	4003.6	705.3
3	2402	1862.4	3468.5	1240.4
4	2122	1647.3	2720.2	1998.7
5	1848	1441.6	2018.2	2630.7

(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.790$

(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.616$

Post TD-2
5-9-86
Camp + BK

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.222$

Absolute Open Flow	1,222	Mc/d @ 15.025	Angle of Slope	50.5	Slope, n	224
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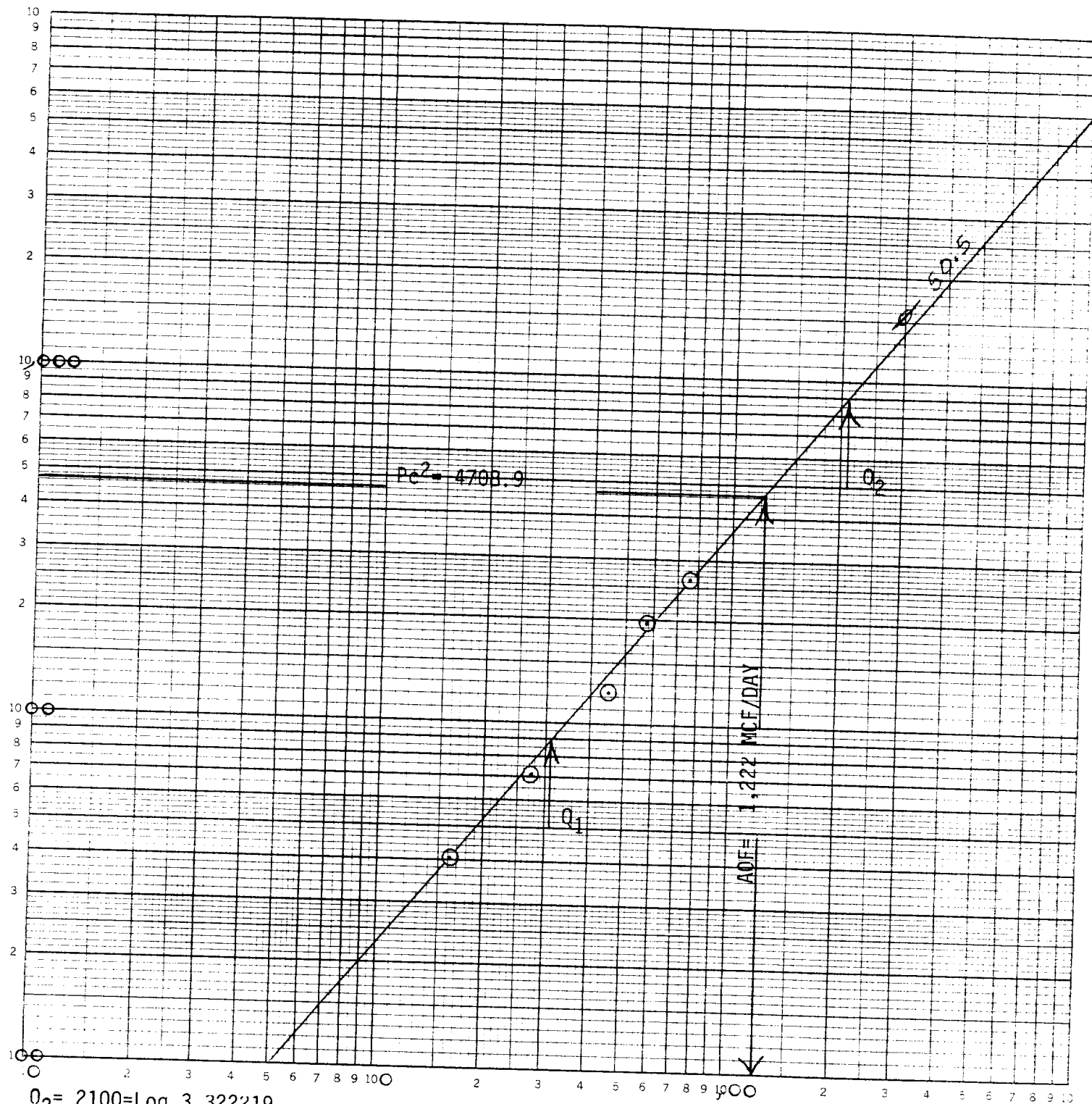
Remarks: CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES
P_s = Flowing Bottom Hole pressure

Approved By Division	Conducted By: Golden + Reston	Calculated By: L. Reston	Checked By:
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Midstream 16 St. Com. 1

PC--PW in lnsnd's
46 7400

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



$$Q_2 = 2100 = \text{Log } 3.322219$$

$$Q_1 = 315 = \text{Log } 2.498219$$

$$N = .824000$$

Q = Mcf/Day

