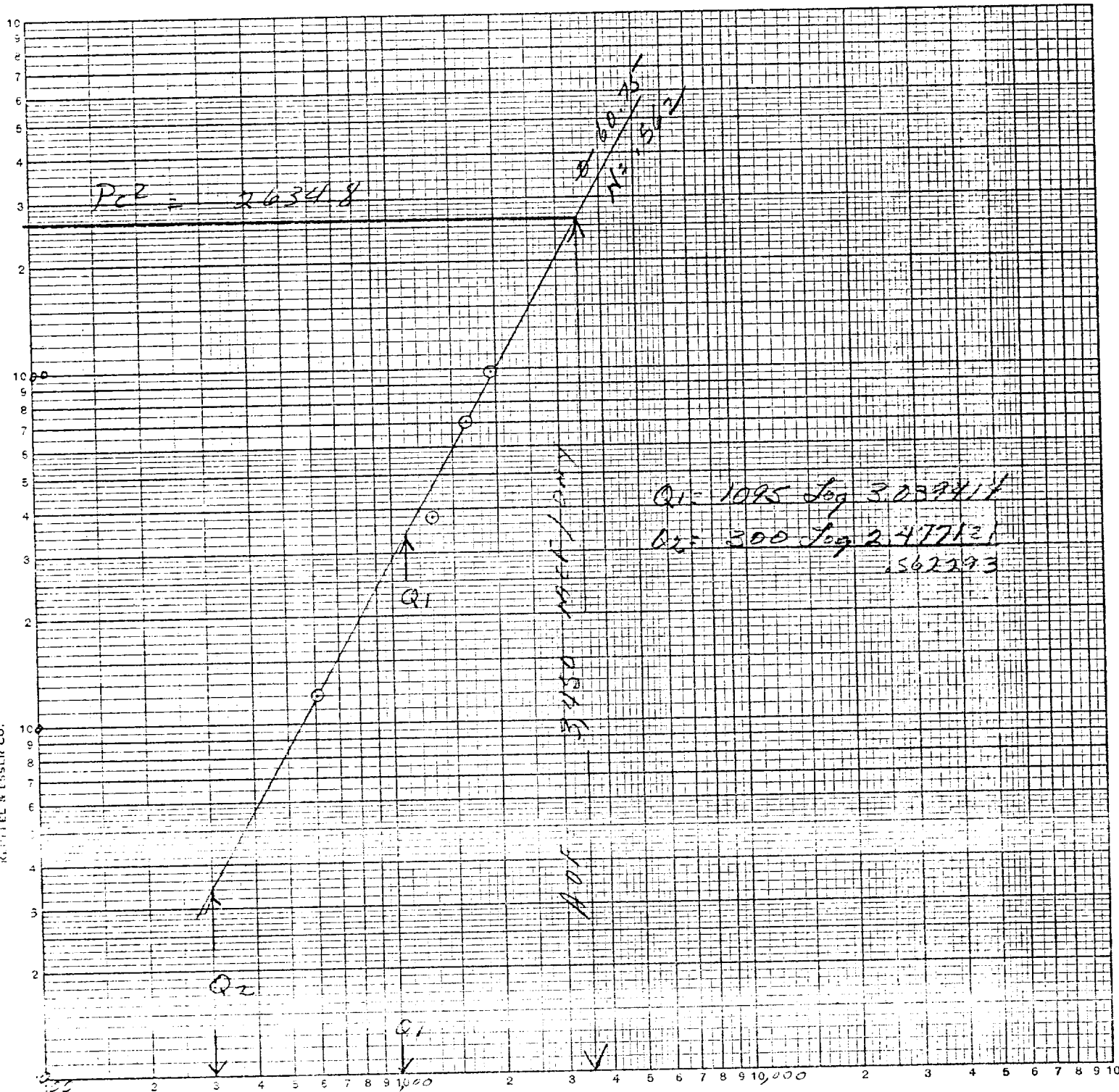


CORINNE GRACE
 Livingston Ridge No. 1-Y
 L-36-21S-30E
 December 20, 1975

$P_{02} - P_{02} \text{ in } (000's)$

LOG LOG ARITHMIC 46 7400
 MADE IN U.S.A.
 KATHIEL & ESSER CO.



$Q = \text{MCF/DAY}$

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

Copy 631-
4188
Form C-122
Revised 9-1-65

RECEIVED

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 12/20/75		JAN 5 1976	
Company: Corinne Grace				Connection: None		O. C. C.	
Pool: Cabin Lake				Formation: Atoka		Unit: ARTESIA, OFFICE L	
Completion Date: 12-20-75		Total Depth: 13,785		Plug Back ID: 13,740		Elevation: 3238.79	
Csg. Size: 5 1/2		Wt.: 17#		Set At: 13,740		Perforations: From 12,826 To 12874	
Tbg. Size: 2 7/8		Wt.: 6.5		Set At: 12,783		Perforations: From open end To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple				Packer Set At: 12,777		Farm or Lease Name: Livingston Ridge	
G. G. Dual				Baro. Press. - P _a : 13.2		Well No.: 1-Y	
Producing Thru: Tbg.		Reservoir Temp. °F: 203 ^a 12,850		Mean Annual Temp. °F: 12,777		Unit Sec. Twp. Rge.: L 36 21S 30E	
L: 12,783		H: 12,783		G _g : .599		County: Eddy	
				% CO ₂		State: New Mexico	
				% N ₂		Prover: 2"	
				% H ₂ S		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.	Temp. °F	
SI							1610				72 hr.
1.	2 x 1/8				1571	64	1571				1 hr.
2.	2 x 3/16				1481	65	1481				1 hr.
3.	2 x 7/32				1362	65	1362				1 hr.
4.	2 x 1/4				1250	65	1250				1 hr.
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	.2648		1584.2	.9962	1.292	1.124	607
2	.6082		1494.2	.9952	1.292	1.119	1308
3	.8393		1375.2	.9952	1.292	1.110	1647
4	1.087		1263.2	.9952	1.292	1.103	1947
5							

NO.	P ₁	Temp. °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	2.36	524	1.48	.791		.599	X X X X X X X X	672	354
2	2.22	525	1.48	.799			X X X X X		
3	2.05	525	1.48	.811					
4	1.88	525	1.48	.822					
5									

NO.	P ₁	P ₂	P ₁ ²	P ₂ ²	P ₁ ² - P ₂ ²	Q
1	1623.2	2634.8				
1			1585.7	2514.6	120.2	
2			1501.8	2255.5	379.3	
3			1388.5	1927.8	707.0	
4			1283.4	1647.2	987.6	
5						

$P_1 = 1623.2$ $P_2 = 2634.8$ $P_1^2 = 1585.7$ $P_2^2 = 2514.6$ $P_1^2 - P_2^2 = 120.2$
 $Q = \frac{P_1^2 - P_2^2}{P_2^2 - P_1^2} = 3.727$ $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 2.095$
 $Q = \frac{P_1^2 - P_2^2}{P_2^2 - P_1^2} = 3.450$

Absolute Open Flow: 3.450	Mcfd @ 15.025	Angle of Slope: 60.75	Slope, n: .562
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Remarks: No fluid made during test.
* Data From third rate of flow.

Reggie Reston