

Copy 421
C-122

WELL POINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

☒ Normal ☐ Special		NOV 1 1974
10-24-74		O. C. C. ARTESIA, OFFICE
Connection: None		Well No.: 8
Formation: Morrow		Date: 10-24-74
Total Depth: 10,785		Plug Back TD: 10,735
Elevation: 3528 Gr		Form or Lease Name: Round Mountain
Perforations: From 10,358 To 10,359		Well No.: 1
Perforations: From To		Well No.: 28. 21-S 25-E
Packer Set At: 10,150		County: Eddy
State: New Mexico		State: New Mexico
Mean Annual Temp. °F: 60		Zero. Press. - P ₂ : 13.2
Reservoir Temp. °F: 154 @ 10,785		State: New Mexico
Tubing: 10,359 10,359 .588		Meter Run: X

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
No.	Press. p.s.i.g.	X	Casing Size	Press. p.s.i.g.	Dim. in.	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
1							2957	60			
2	4.0	1.75	408		7"	89	1990	68			1 Hr
3	4.0	1.75	458		14"	89	1754	69			1 Hr
4	4.0	1.75	486		19	93	1460	70			1 Hr
5	4.0	1.75	390		32	94	645	70			1 Hr
6											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient	$\sqrt{P_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compress. Factor, F _{sc}	Rate of Flow Q, Mscf/d
1	14.56	54.10	418.2	.9732	1.0102	1.028	816
2	14.56	81.22	471.2	.9732	1.0102	1.032	1236
3	14.56	97.63	501.2	.9697	1.0102	1.034	1476
4	14.56	113.59	403.2	.9688	1.0102	1.027	1705

NO.	P	Temp. °F	Q	Z	Gas Liquid Hydrocarbon Ratio			None Produced		
1	.82	548	1.56	.946	A.P.L. Gravity of Liquid Hydrocarbons			XXXXXX		
2	.76	548	1.56	.939	Specific Gravity Separator Gas			XXXXXX		
3	.78	553	1.57	.938	Specific Gravity Flowing Field			XXXXXX		
4	.83	554	1.57	.948	Critical Pressure			672		
					Critical Temperature			352		

$$1875.2 \text{ } \sqrt{P_w P_m} = 8822$$

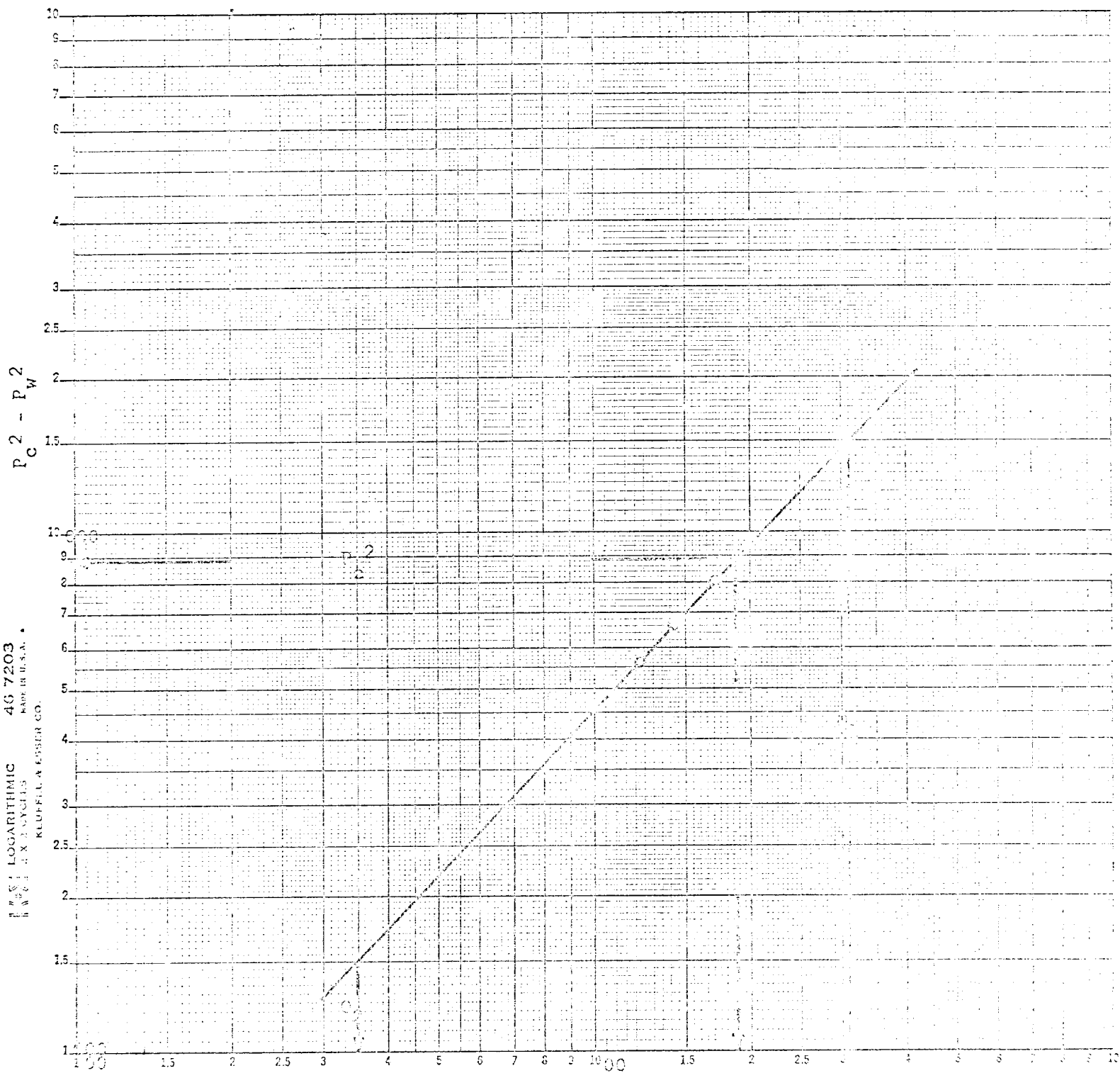
P	Temp. °F	Q	Z	P ₂	P ₂ ² - P ₁ ²
2824.7	4017	4805			
1771.2	3136	5886			
1480.1	2150	5532			
878.4	758	3054			

$$(1) \frac{P_2^2}{P_2^2 - P_1^2} = \frac{8822}{8054}$$

$$(2) \left[\frac{P_2^2}{P_2^2 - P_1^2} \right]^n = 1.0901$$

$$AOP = Q \left[\frac{P_2^2}{P_2^2 - P_1^2} \right]^n = 1859$$

OPERATOR	Monsanto Company
LEASE	Round Mountain
WELL NO.	1
FIELD	Wildcat
COUNTY	Eddy, New Mexico
DATE	10-24-74



	Q in Mcf/Day	
Q ₁ = 3100 Mcf/Day		Log Q ₁ = 3.49136
Q ₂ = 350 Mcf/Day		Log Q ₂ = 2.54406

$$\theta = 46^{\circ} 34' \quad n = .947$$

Absolute Open Flow = 1859 Mcf/Day