

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
PRODUCTION ENGINEERING

MAY 12 1988

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date MAY 23 '88	
Company CNG PRODUCING CO. ✓		Connection Vented to Atmosphere	
Pool RUSTLER CREEK ATOKA Gerrall Draw		Formation Atoka	
Completion Date 4-29-88		Total Depth 13,827	
Plug Back TD 12510		Elevation 2943.7 G.L.	
Farm or Lease Name Bar 4 Fed.		Well No. 1	
Csg. Size 7 5/8		Wt. 39#	
Set At 12510		Perforations: From 12421 To 12428	
Thq. Size 2 3/8		Wt. 4.7	
Set At 12148		Perforations: From open To end	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 12148	
Producing Thru TBG		Reservoir Temp. °F 180 • 12428	
Mean Annual Temp. °F 60°		Baro. Press. - P _g 13.2	
State New Mexico		County Eddy	
L 1.2421		H 12421	
Cg .590		% CO ₂ .45	
% N ₂ .60		% H ₂ S 0	
Prover 4.026		Meter Run flg	
FLOW DATA			
NO.	Prover Line Size	X	Orifice Size
SI			
1.	4	x	1.250
2.	4	x	1.250
3.	4	x	1.250
4.	4	x	1.250
5.	4	x	1.250
TUBING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI			
1.	5635		108 hrs
2.	5200	66	1 hr
3.	5005	67	1 hr
4.	4665	64	1 hr
5.	3985	64	1 hr
5.	3000	64	1 hr
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1	7.469	43.19	233.2
2	7.469	64.30	243.2
3	7.469	86.83	243.2
4	7.469	120.80	243.2
5	7.469	181.97	613.2
Flow Temp. Factor Ft.			
1	.9804		
2	.9759		
3	.9777		
4	.9741		
5	.9741		
Gravity Factor Fg			
1	1.302		
2	1.302		
3	1.302		
4	1.302		
5	1.302		
Super Compress. Factor, Fpv			
1	1.019		
2	1.019		
3	1.019		
4	1.016		
5	1.016		
Rate of Flow O, Mcfd			
1	420		
2	493		
3	841		
4	1162		
5	1751		
NO. P _r Temp. °R T _r Z			
1	.35	541	1.53
2	.36	546	1.54
3	.36	544	1.54
4	.36	548	1.55
5	.91	548	1.55
Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
Specific Gravity Separator Gas .590			
Specific Gravity Flowing Fluid X X X X X			
Critical Pressure 672 P.S.I.A.			
Critical Temperature 354 R			
P _c 5950.0 P _c 35402.5			
NO.	P _i ²	P _w	P _w ²
1	5302.1	5302.1	28112.3
2	5085.1	5085.1	25858.2
3	4727.4	4727.4	22348.3
4	4043.3	4043.3	16348.3
5	3045.6	3045.6	9275.7
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.355$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.355$			
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.373$			
Absolute Open Flow 2373 Mcfd @ 15.025			
Angle of Slope @ 45			
Slope, n 1.000			
Remarks: * Flowing BNP's (PSIA) Static BNP = 7330.2 (PSIA)			
P _c & P _w were calculated from known BNP's			
Approved By Division		Conducted By: BAD Well Testers	
Calculated By: Joe Murray		Checked By: David Bump	