

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 06/11/75				
Company Atlantic Richfield Company				Connection El Paso Natural Gas Company					
Pool Jalmat				Formation Yates				Unit I	
Completion Date 05/29/75		Total Depth 3553		Plug Back TD 3520		Elevation 3319 GL		Farm or Lease Name G. W. Toby	
Cas. Size 4-1/2	Wt. 9.5	d 4.090	Set At 3551	Perforations: From 2945 To 3401			Well No. #4		
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 3378	Perforations: From Pen To Ended			Unit Sec. Twp. Rge. I 12 24 36		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At None		County Lea		
Producing Thru Tbg.		Reservoir Temp. °F 90 @ 3550 (EST)		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 3378	H 3378	Gg .682	% CO ₂ 1.93	% N ₂ 1.92	% H ₂ S ---	Prover	Meter Run 4"	Taps Flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover 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							226		226		72 Hour
1.	4 x 1.500			31	5.76	57	203		208		1 Hour
2.	4 x 1.500			32	19.36	58	180		191		45 Min.
3.	4 x 1.500			33	32.49	58	160		175		45 Min.
4.	4 x 1.500			34	54.02	58	119		150		45 Min.
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	10.84	15.96	44.2	1.003	1.211	Nil	210
2	10.84	29.58	45.2	1.002	1.211	Nil	389
3	10.84	38.74	46.2	1.002	1.211	Nil	510
4	10.84	50.49	47.2	1.002	1.211	Nil	664
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
1	.07	517	1.34	Nil	Specific Gravity Separator Gas .682	XXXXXXX
2	.07	518	1.35	Nil	Specific Gravity Flowing Fluid XXXXX	.682
3	.07	518	1.35	Nil	Critical Pressure 669 P.S.I.A.	669 P.S.I.A.
4	.07	518	1.35	Nil	Critical Temperature 385 R	385 R
5						

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.871$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.653$
1		221.2	48.929	8.3	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.097$	
2		204.2	41.698	15.5		
3		188.2	35.419	21.8		
4		163.2	26.634	30.6		
5						

Absolute Open Flow 1,097 Mcfd @ 15.025		Angle of Slope θ 51.25	Slope, n .802
Remarks: No fluid made.			

Approved By Commission <i>John W. Ryan</i>	Conducted By: Rick Pagan	Calculated By: Rick Pagan	Checked By: James Cogburn
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