

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4/15/83							
Company Estoril Producing Corporation				Connection None							
Pool Antelope Ridge - Atoka				Formation Atoka							
Completion Date 4/15/83		Total Depth 13350'		Plug Back TD 12715'							
				Elevation 3401' AB-18'							
Csg. Size 5 1/2" Liner		Wt. 20.0	d 4.778	Set At 13350'							
Perforations: From 12016' To 12184'				Well No. 2							
Trg. Size 2 7/8"		Wt. 6.7	d 2.441	Set At 11493'							
Perforations: Open Ended				From To							
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 11493'							
Producing Thru		Reservoir Temp. °F 168° @ 11457'		Mean Annual Temp. °F 60							
				Baro. Press. - P _a 13.2							
L 12100		H -	Cg 0.6491	% CO ₂ 0.489	% N ₂ 1.299						
				% H ₂ S -	Prover -						
				Meter Run 2.900	Taps F						
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							5160	62	PACHER		31.0 hrs
1.	2.90	11/64	2.00	600	5	100	4970	62			1.0 hr
2.	2.90	11.5/64	2.00	615	13	82	4760	62			1.0 hr
3.	2.90	12/64	2.00	630	30	66	4535	62			1.0 hr
4.	2.90	13/64	2.00	630	59	59	4395	62			1.0 hr
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd				
1	21.90	55.37	613.2	0.9636	1.241	1.045	1515.32				
2	21.90	90.37	628.2	0.9795	1.241	1.052	2530.81				
3	21.90	138.91	643.2	0.9943	1.241	1.059	3975.24				
4	21.90	194.80	643.2	1.0080	1.241	1.066	5688.83				
5											
NO.		P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 16.322 Mcf/bbl.					
1		0.91	560	1.53	0.916	A.P.I. Gravity of Liquid Hydrocarbons 53					
2		0.94	542	1.48	0.903	Specific Gravity Separator Gas 0.6491					
3		0.96	526	1.44	0.891	Specific Gravity Flowing Fluid XXXXX					
4		0.96	512	1.40	0.880	Critical Pressure 671 P.S.I.A.					
5						Critical Temperature 365 °R					
P _c 7014.2		P _w 49199.0									
NO.	P _t	P _w *	P _w	P _c - P _w	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 27.61$						
1		6885.2	47406.0	1793.0	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8.14$						
2		6731.2	45309.1	3889.9							
3		6399.2	40949.8	8249.2							
4		6249.2	39052.5	10146.5	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 12334.7$						
5											
Absolute Open Flow 12334				Mcf/d @ 15.025		Angle of Slope 57° 43					
						Slope, n 0.632					
Remarks: * BOTTOM HOLE PRESSURE @ (-8699) 12100' USED FOR PRESSURE CALCULATIONS											
WELL PRODUCED 35.0 BBLS CONDESATE IN 4.0 HRS = 210 BC/D											
TOP OF 5 1/2" LINER @ 11485'											
Approved By Division		Conducted By:		Calculated By:		Checked By: PE #2208					
		JARREL WELL TESTING INC		Joe A. Coleman		Joe A. Coleman					

RECEIVED

APR 29 1983

O.C.D.
HOBBS OFFICE

RECEIVED

MAY 18 1983

O.C.D.
HOBBS OFFICE