

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-10-81					
Company Marathon Oil Company /				Connection Indian Basin Gas Plant							
Pool Indian Basin Upper Penn				Formation Indian Basin Upper Penn				Unit Indian Basin			
Completion Date 8-28-80		Total Depth 7500'		Plug Back TD 7250'		Elevation RKB 4085'		Farm or Lease Name Federal IBD Gas Com			
Coq. Size 5 1/2"	Wt. 15 1/2, 17	d 4.95	Set At 4.892	Perforations: From 7162 To 7214		Well No. 2					
Coq. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 7142'	Perforations: From None To		Unit A		Sec. Twp. Rgt. 30 21-S 23-E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 7145'		County Eddy			
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F 74		Baro. Press. - P _g 13.2 psia		State New Mexico			
L 7142	H 7142	G _g .625	% CO ₂ -	% N ₂ -	% H ₂ S -	Prover -	Meter Run 3"	Taps Flange			
FLOW DATA						TUBING DATA		CASING DATA			
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	Duration of Flow
1	3"		1"	6.6	5	75	875	75	0	-	24 hr
2.											
3.											
4.											
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	27.65	33.0	870	.9859	.9798		881				
2.											
3.											
4.											
5.											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 125.9 Mcf/tbl.						
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2					Specific Gravity Separator Gas .625 X X X X X X X X						
3					Specific Gravity Flowing Fluid X X X X X						
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.						
5					Critical Temperature _____ R _____ R						
NO.	P _c	P _w	P _c ²	P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \text{_____}$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \text{_____}$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \text{_____}$						
1											
2											
3											
4											
5											
Absolute Open Flow _____ Mcfd @ 15.025					Angle of Slope θ _____			Slope, n _____			
Remarks: Marathon received exemption from 4-point test on 3-3-81. Gas measurements were made from a 100 x 2000 L-10 chart.											
Approved by Division _____				Conducted By: _____				Calculated By: <i>Patricia N. Burton</i>		Checked By: <i>C.C. Easthoff</i>	