

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2/10/90			
Company Mercury Exploration Co.				Connection Transwestern					
Pool Wildcat				Formation Atoka				Unit	
Completion Date 2/13/90		Total Depth 15,119		Plug Back TD 14,200		Elevation GR 3728		Farm or Lease Name Connally Federal	
Csq. Size 5"	Wt. 23#	d	Set At 15,119	Perforations: From 13,814 To 13,636		Well No. 1			
Thg. Size 2-3/8"	Wt. 4.7#	d	Set At 13,558	Perforations: From To		Unit Sec. Twp. Rge. J 15 22S 32E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At 13,558		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 225°		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L	H	G _g .597	% CO ₂ .617	% N ₂ .523	% H ₂ S 0	Prover	Meter Run 2.00"	Taps Flange	

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.	
SI				--	--		6150			choke
1.	2.00"	x	.500	580	2	65°	750#	60°	0	4/64
2.	2.00"	x	.500	580	5	65°	690#	60°	0	6/64
3.	2.00"	x	.500	580	8	75°	630#	60°	0	8/64
4.	2.00"	x	.500	580	10	75°	600#	60°	0	10/64
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	1645	34	595	0.9952	1.0041	1.077	60,193
2	1645	54	595	0.9952	1.0041	1.077	95,601
3	1645	69	595	0.9859	1.0041	1.077	121,015
4	1645	77	595	0.9859	1.0041	1.077	135,046
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>dry gas</u> Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas <u>.597</u> XXXXXXXXXX
3					Specific Gravity Flowing Fluid <u>XXXXX</u>
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	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ _____ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____
1		7516	5649			
2		1230	151	5498		
3		1170	137	5512		
4		1110	123	5526		
5		1070	115	5534		

Absolute Open Flow <u>140</u> Mcfd @ 15.025	Angle of Slope <u>45</u>	Slope, n <u>1.000</u>
Remarks: _____		
Approved By Division	Conducted By:	Calculated By:
		Checked By: