

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		8/8/87	
Company				Connection							
MARATHON OIL COMPANY				AIR NEW WELL							
Pool				Formation							
N. Vacuum (Atoka)				GISEO atoka							
Completion Date				Total Depth		Plug Back TD		Elevation		Farm or Lease Name	
8-6-87						12396				Marathon Sec. 17	
Cq. Size		Wi.		d		Set At		Perforations:		STATE SEC 17 COM	
						12396		From 11962 To 12008		Well No.	
Thq. Size		Wi.		d		Set At		Perforations:		Unit	
2.875						11902		From To		#2	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple											
SINGLE											
Producing Thru				Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P _a		County	
TUBING				196 11985		60		13.2		IEA	
L		H		Cq		% CO ₂		% N ₂		State	
11985		11985		0.636		0.56		0.74		NEW MEXICO	
								Prover		Meter Run	
								0		4.0	
Tape											
FLANGE											
FLOW 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
Sl.											
1.	4.03 X 2.00			585	2.0	94	1672	80	2289	196	24
2.	4.03 X 2.00			600	6.0	95	1623	80	2214	196	1
3.	4.03 X 2.00			600	12.0	93	1560	81	2160	196	1
4.	4.03 X 2.00			600	24.0	90	1487	81	2093	196	1
5.							1357	80	1971	196	1
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	19.81	34.59	598.2	0.9688	1.2539	1.0458	871.				
2	19.81	60.66	613.2	0.9680	1.2539	1.0466	1527				
3	19.81	85.78	613.2	0.9697	1.2539	1.0473	2164				
4	19.81	121.31	613.2	0.9723	1.2539	1.0482	3072				
5											
NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio 150.230 Mcf/bbl.						
1	0.89	554.	1.51	.914	A.P.I. Gravity of Liquid Hydrocarbons 576.0						
2	0.91	555.	1.51	.913	Specific Gravity Separator Gas 0.636						
3	0.91	553.	1.51	.912	Specific Gravity Flowing Fluid X X X X X						
4	0.91	550.	1.50	.910	Critical Pressure 672. P.S.I.A.						
5					Critical Temperature 367. P.S.I.A.						
P _c 1706.6 P _c ² 2912.											
NO	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.0030$						
1		1653	2731	181	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.0756$						
2		1614	2604	308							
3		1566	2451	461							
4		1478	2185	728							
5					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9448.0$						
Absolute Open Flow 9448.0 Mcfd @ 15.025											
Angle of Slope 51.0											
Slope, n 0.810											
Remarks: BHP MEASURED BY AMERADA PRESSURE ELEMENTS											
AUG 20 1987											
Original Signature				Conducted By:				Calculated By:			
Paul Kautz				BENNETT & CATHEY				RICHARD TOWNLEY			
Geologist								Checked By:			
								Thomas F. Zapata			

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