

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

CISF

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Marathon Oil Company						Lease or Unit Name Indian Hills Unit					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-21-01		Well No. 25			
Completion Date 1-19-01		Total Depth 10,341'		Plug Back TD 10,152'		Elevation 4166		Unit Ltr. - Sec. - TWP - Rge. B 20-21-24			
Csg. Size 7"	Wt. 26#	d	Set At	Perforations: From: 9,964 To: 10,132				County Eddy			
Tbg. Size 3-1/2"	Wt. 9.3	d 2.992	Set At 9,899	Perforations: From: To:				Pool Indian Basin Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9,899				Formation Morrow			
Producing Thru Tbg		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press - P _a		Connection			
L 9,899	H 9,899	Gg .662	% CO ₂ 7.822	% N ₂ .215	% H ₂ S	Prover		Meter Run 4.026	Taps		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice X 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					74	2,000		PKR		48 Hrs.
1.					89	1,905		PKR		1 Hr.
2.					88	1,830		PKR		1 Hr.
3.					84	1,450		PKR		1 Hr.
4.					78	1,350		PKR		1 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, F _{pv}	Rate of Flow Q, Mcfd
1.							
2.			Measured By Total Flow				335
3.							1,165
4.							2,130
5.							3,005

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons	Dry	Deg.
2.					Specific Gravity Separator Gas	N/A	XXXXXXXXXX
3.		N/A			Specific Gravity Flowing Fluid	XXXXXX	
4.					Critical Pressure * 704	P.S.I.A.	P.S.I.A.
5.					Critical Temperature * 364	R	R

P_c 2,013.2 P_c² 4,053.0

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		1,918.3	3,679.9	373.1
2.		1,824.5	3,329.0	724.0
3.		1,468.9	2,157.8	1,875.2
4.		1,375.5	1,892.1	2,160.9
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.876$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.876$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.636$

Absolute Open Flow	5,636	Mcf/d @ 15.025	Angle of Slope θ	45	Slope, n	1.0
--------------------	-------	----------------	------------------	----	----------	-----

Remarks: * = Corrected to 7.822% CO₂
Well Produced 6.00 BBLS FRAC H₂O

Approved By Division	Conducted By: Metering & Testing	Calculated By: BM	Checked By: BM
----------------------	-------------------------------------	----------------------	-------------------