

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Meridian Oil, Inc.						Lease or Unit Name Moberly Rhodes Waterflood						
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9-25-95						
Completion Date 9/15/95			Total Depth 3260'			Plug Back TD 3087'			Well No. 5			
Csg. Size 7"	Wt. 20#	d 	Set At 3097'	Perforations: From: 2856' To: 3072'			Unit Ltr. - Sec. - TWP - Rge. G 21 26 37			County Lea		
Tbg. Size 2-3/8	Wt. 4.7	d 1.995	Set At 2820	Perforations: From: To: 			Pool Rhodes Yates Seven Rivers			Formation Upper Yates Gas		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At None			Connection Vented			
Producing Thru Csg		Reservoir Temp. °F 91	Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2			Meter Run 2.067			Taps Flg	
L 2820	H 2820	Gg .793	% CO ₂ 15.63	% N ₂ 1.24	% H ₂ S 	Prover 						

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	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	
1.	2	X 1.250	22	4.00	60	0		264		24 Hours
2.	2	X 1.250	22	8.50	62	0		228		1 Hour
3.	2	X 1.250	22	12.00	64	0		195		1 Hour
4.	2	X 1.250	22	15.00	68	0		170		1 Hour
5.						0		140		1 Hour

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$h_w P_m$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	8.120	11.87	35.2	1.000	1.123	1.005	109
2.	8.120	17.30	35.2	.9981	1.123	1.005	158
3.	8.120	20.55	35.2	.9962	1.123	1.005	188
4.	8.120	22.98	35.2	.9924	1.123	1.005	209
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P. I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure *731	Critical Temperature *392
1.	.04	520	1.32	.990	Dry Gas	Dry	.793	XXXXXX		
2.	.04	522	1.33	.990						
3.	.04	524	1.33	.990						
4.	.04	528	1.34	.990						
5.										

P _c 277.2	P _c ² 76.8	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.440$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.283$
NO.	P _c ²	P _w	P _w ²
1.		241.2	58.2
2.		208.2	43.2
3.		183.2	33.6
4.		153.2	23.5
5.			

Absolute Open Flow 268 Mcfd @ 15.025	Angle of Slope θ 55.4	Slope, n .684
Remarks: *Corrected to 15.63% CO2 & 1.24% N2		

Approved By Division	Conducted By: West-Test, Inc.	Calculated By: B.M.	Checked By: B.M.
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