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FileSTATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTOIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

OCT 24 '90

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS/WELL ID.

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-12/10-13-90		ARTESIA, OFFICE							
Company Meridian Oil Company		Connection Vented									
Pool <i>N. Shugart Morrow</i>		Formation Morrow		Unit							
Completion Date 9-23-90		Total Depth 11,925		Plug Back TD 11,730							
Elevation		Form or Lease Name North Shugart Federal		Well No.							
Csq. Size 4 1/2	Wt. d	Set At	Perforations: From 11,606 To 11,710		Unit						
Thq. Size 2 3/8	Wt. 4.7	1.995	Set At 11,550	Perforations: From Open To End	Sec. 17 Twp. 18S Rge. 31E						
Type Well - Single - Brackenhead - G.C. or G.O. Multiple Single			Packer Set At 11,550		County Eddy						
Producing Thru TBG		Reservoir Temp. °F 190 @ 11,550		Mean Annual Temp. °F 60							
Baro. Press. - P _a 13.2		State New Mexico									
L 11,550	H 11,550	C _g .735	% CO ₂ 4.45	% N ₂ .56	% H ₂ S ---						
Prover		Meter Run 2.067		Taps FLG							
FLOW DATA			TUBING DATA		CASING DATA						
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							1648		PKR		24 hrs.
1.	2	X	1.250	35	5.29	60	39		PKR		24 hrs.
2.											
3.											
4.											
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_{LPM}}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	8.120	15.97	48.2	1.000	1.166	1.008	152				
2.											
3.											
4.											
5.											
NO CONDENSATE											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1.	.05	520	1.31	.984	A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.						
2.					Specific Gravity Separator Gas .735 XXXXXXXXXX						
3.					Specific Gravity Flowing Fluid XXXXXX						
4.					Critical Pressure *685 P.S.I.A. _____ P.S.I.A.						
5.					Critical Temperature *394 R _____ R						
P _c 1661.2 P _c ² 2759.6					(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.001$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.001$						
NO	P _r ²	P _w	P _r ² - P _w ²	(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.001$ (2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.001$							
1			3.8	2755.8							
2											
3											
4											
5											
AOF = Q $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = .1522$					Post ID-2 11-9-90 Comp + BK						
Absolute Open Flow 152.2 Mcfd @ 15.025					Angle of Slope 45					Slope, n 1.000	
Remarks: *=corrected to 4.45 % CO ₂ Well made 10 BBLS N ₂ O in 24 hrs.											
Approved By Division			Conducted By: Pro Well Testers			Calculated By: BM			Checked By: BM		