

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☐ Initial ☐ Annual ☒ Special		Test Date 05/20/91	
Company Mewbourne Oil Company		Connection JUN 10 1991	
Pool Burton Flat Morrow		Formation C. C. D. MORROW	
Completion Date 01/19/91		Total Depth 11,206'	
Plug Back TD 11,044'		Elevation 3292 GL	
Form or Lease Name Federal "V"		Well No. #1	
Csg. Size 5-1/2"		Wt. 20#	
Set At 11,203'		Perforations: From 11,011' To 11,034'	
Tbg. Size 2-7/8"		Wt. 6.5#	
Set At 10,950'		Perforations: From Open To End	
Type Well - Single - Drdendhead - G.G. or G.O. Multiple Single gas		Packer Set At 10,950'	
Producing Thru Tbg.		Reservoir Temp. °F 171 BHT	
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico		County Eddy	
L 11,022		H 11,022	
Gg .613		% CO ₂ 1.99	
% N ₂ .64		% H ₂ S Prover	
Meter Run 3.068		Taps Flg.	
FLOW DATA			
NO.	Prover Line Size	X	Orifice Size
SI			
1.	3 x 1.000		396.8
2.	3 x 1.000		401.8
3.	3 x 1.000		406.8
4.	3 x 1.000		406.8
5.			
TUBING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	1930		72 Hrs.
1.	1780	70	1 Hr.
2.	1510	70	1 Hr.
3.	1280	70	1 Hr.
4.	940	70	1 Hr.
5.			
CASING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI			
1.	Pkr.		1 Hr.
2.	Pkr.		1 Hr.
3.	Pkr.		1 Hr.
4.	Pkr.		1 Hr.
5.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1	4.789	64.031	410
2	4.789	81.486	415
3	4.789	110.363	420
4	4.789	158.745	420
5			
NO.	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv
1	.9723	1.277	1.029
2	.9568	1.277	1.026
3	.9653	1.277	1.028
4	.9715	1.277	1.029
5			
NO.	R _g	Temp. °R	T _r
1	.605	550	1.545
2	.612	568	1.596
3	.619	558	1.567
4	.619	551	1.548
5			
Z			
1	.944		
2	.950		
3	.946		
4	.944		
5			
Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
Specific Gravity Separator Gas _____ .613			
Specific Gravity Flowing Fluid _____ X X X X X			
Critical Pressure _____ 678 P.S.I.A.			
Critical Temperature _____ 356 R			
P _c 2022.0 P _c ² 4088.5			
NO.	P _i ²	P _w	P _w ²
1	1803.4	3252.3	836.2
2	1615.9	2611.1	1477.4
3	1363.3	1857.8	2230.7
4	1028.0	1056.8	3031.7
5			
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.349$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.232$			
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1195$			
Absolute Open Flow _____ 1195 Mcfd @ 15.025			
Angle of Slope _____ 55.5°			
Slope, n _____ .699			
Remarks:			
Approved By Division			
Conducted By:			
Calculated By: Gregg Milner			
Checked By:			