

MULTIPLE AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Revised 9-1-64

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-17-73		FEB 9 1973	
Company Midwest Oil Corp.,				Connection None		O.C.C.	
Pool So. Empire (Morrow Gas)				Formation Morrow Sand		Unit ARTESIA, OFFICE South Empire Deep	
Completion Date 1-17-73		Total Depth 10,925		Plug Back TD		Elevation 3651 ft.	
Csg. Size 5 1/2	Wt. 17	d	Set At 10,923	Perforations: From 10,817 To 830		Well No. 3	
Tbg. Size 2 3/8	Wt. 4.9	d	Set At 10,551	Perforations: From To		Unit Sec. Twp. Rge. 31 17-S 29-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,551		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 158 @ 10,500		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 10,824	H 10,824	Gg .650	% CO ₂ .40	% N ₂ .52	% H ₂ S Nil	Prover	Meter Run 4" Taps Flange

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							2790	60			
1.	4	1	3/4	760	1.5	70	2200	66			1 hr.
2.	4	1	3/4	760	5.5	74	2117	68			2 hrs.
3.	4	1	3/4	760	11	72	1910	72			1 hr.
4.	4	1	3/4	760	18	70	1610	72			1 hr.
5.											

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	15.01	34.052	773.2	.9905	1.240	1.079	677
2	"	65.210	773.2	.9868	"	1.077	1290
3	"	92.224	773.2	.9887	"	1.078	1828
4	"	117.969	773.2	.9905	"	1.079	2347
5							

NO.	P _t	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	Critical Temperature
1.					25.7	57.2	.650	XXXXXX		
2.										
3.										
4.									P.S.I.A.	P.S.I.A.
5.									R	R

P _c 4045.2 P _c ² 16,364				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		3691.2	13624	2740
2		3301.2	10898	5466
3		2872.2	8250	8114
4		2416.2	5838	10526
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ _____

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

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

Absolute Open Flow 3500 Mcfd @ 15.025		Angle of Slope 42.3	Slope, n .91027
Remarks:			

Approved By Commission:	Conducted By: <i>Allen H. Heston</i>	Calculated By: <i>Allen H. Heston</i>	Checked By:
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