

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-122
Revised 4-1-91

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Mewbourne Oil Company					Lease or Unit Name Ranch Hand "18" Fed Cont				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2/1/00		Well No. 1		
Completion Date 1/15/00		Total Depth 12,120'		Plug Back TD 11,567'		Elevation 3194'		Unit Lr. - Sec. - TWP - Rge. I-18-23S-27E	
Csg. Size 5-1/2"	Wt. 17#	d 4.892"	Set At 12,120'	Perforations: From: 10,782' To: 10,787'			County Eddy		
Tbg. Size 2-7/8"	Wt. 6.5#	d 2.441"	Set At 10,679'	Perforations: From: To:			Pool Carlsbad, South Strawn		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,667'			Formation Strawn		
Producing Thru Tbg	Reservoir Temp. °F 186	Mean Annual Temp. °F 70		Baro. Press - P _a 13.9			Connection Sales		
L	II	Gg 0.591	% CO ₂ 9.824	% N ₂ 0.448	% H ₂ S 0	Prover 0	Meter Run 3.068"	Taps Flg	

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	
SI	3.068	X 2.250"				3008	40	Pkr		29 hrs
1.	3.068	X 2.250"				2645	42			24 hrs
2.	3.068	X 2.250"				2510	43			20 hrs
3.	3.068	X 2.250"				2260	43			24 hrs
4.	3.068	X 2.250"				1875	46			24 hrs
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.							4,233
2.	Volumes measured by total flow meter						5,217
3.							6,027
4.							6,833
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	NA	Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons	NA	Deg.
2.					Specific Gravity Separator Gas	0.591	XXXXXXXXXX
3.					Specific Gravity Flowing Fluid	XXXXXX	
4.					Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	355	R

P _c 3817 P _c ² 14,569	
NO.	P _i ²
1.	3374
2.	3286
3.	2999
4.	2550
5.	

P _w	P _w ²	P _c ² - P _w ²	1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.79$	2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.23$
3374	11,384	3185		
3286	10,789	3833		
2999	8,994	5637		
2550	6,503	8128		
			AOF = Q	$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8426$

Absolute Open Flow	8,426	Mcf @ 15.025	Angle of Slope θ	70.3	Slope, n	0.359
Remarks: No liquids produced during test						

Approved By Division	Conducted By:	Calculated By:	Checked By:
	MOC	JE	JE