

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 6/16/78		JUL 17 1978									
Company Dorchester Exploration Inc.			Connection Air												
Pool W. Four Mile Draw Morrow			Formation Morrow			Unit J O.C.C. ARTESIA, OFFICE									
Completion Date 5/23/78		Total Depth 9308		Plug Back TD 9308		Elevation 3376		Farm or Lease Name Liggett et al							
Csg. Size 4 1/2	Wt. 11.6	d	Set At 9318	Perforations: From 9166 To 9181 ⁹²⁴⁶		Well No. # 1									
Trq. Size 2 3/8	Wt. 4.7	d	Set At 9218	Perforations: From 9238 To 9246		Unit Sec. Twp. Rye. J 6 19 2636									
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9152		County Eddy									
Producing Thru Tubing		Reservoir Temp. °F 166 @ 9218		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico							
L 9218	H 9218	Gg .595	% CO ₂ .55	% N ₂ 1.15	% H ₂ S -	Prover	Meter Run 3"	Taps Flange							
FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow					
NO.	Prover Line Size	X	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	Duration of Flow				
SI							2660				72 hrs.				
1.	3	X	1.750	360	5.4	96	2475				1 hr				
2.	3	X	1.750	370	10.0	107	2270				1 hr				
3.	3	X	1.750	375	20.0	86	2075				1 hr				
4.	3	X	1.750	380	40.0	81	1810				1 hr				
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, Fpv	Rate of Flow Q, Mcfd								
1	15.61	44.89	373.2	.9671	1.296	1.027	902								
2	15.61	61.90	333.2	.9577	1.296	1.025	1229								
3	15.61	38.11	388.2	.9759	1.296	1.029	1790								
4	15.61	125.41	393.2	.9804	1.296	1.031	2565								
5.															
NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.										
1.	.56	556	1.55	.949	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.										
2.	.57	567	1.58	.952	Specific Gravity Separator Gas .595 XXXXX.XXX.XX										
3.	.58	546	1.53	.945	Specific Gravity Flowing Fluid XXXXX										
4.	.59	541	1.51	.941	Critical Pressure 671 P.S.I.A. P.S.I.A.										
5.					Critical Temperature 358 R R										
P _c 2673.2 P _c ² 7146.0															
NO.	F _e ²	P _w	F _e ²	F _e ² - P _w ²	(1) $\frac{P_c^2}{P_e^2 - P_w^2} = 3.021$ (2) $\left[\frac{P_c^2}{P_e^2 - P_w^2} \right]^n = 1.795$										
1		2618.3	6855.3	290.7	ACF = Q $\left[\frac{P_c^2}{P_e^2 - P_w^2} \right]^n = 4.604$										
2		2562.1	6564.1	581.9											
3		2421.8	5865.0	1221.0											
4		2136.5	4780.8	2365.2											
5															
Absolute Open Flow 4,604 Mcfd @ 15.025					Angle of Slope @ 62.25°			Slope, n .529							
Remarks:															
Approved By Commission:				Conducted By: John Davis				Calculated By: Larry Davis				Checked By:			