

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

Form C-122
 Revised 9-1-65

JAN 16 1973

O. C. C.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12-21-72	
Company Robert N. Enfield		Connection NONE	
Pool Buffalo Valley		Formation Atoka Morrow	
Completion Date 12-18-72		Total Depth 8670'	Plug Back TD 8562'
Elevation 3533' KB		Farm or Lease Name Federal -11	
Csg. Size 4 1/2"	Wt. 10.5	d 4.052	Set At 8670'
Tbg. Size 2 3/8"	Wt. 4.7	d 1.995	Set At 8304'
Perforations: From 8441' To 8474'		Perforations: From Open To ended	
Well No. No. 1-11		Unit A 11 15 s 27 e	
Type Well - Single - Bradenhead - G.G. or G.Q. Multiple Single		Packer Set At 8115'	
Producing Thru Tubing		Reservoir Temp. °F 142° 8458'	Mean Annual Temp. °F 60
Baro. Press. - P _a 13.2		State New Mexico	
L 8458'	H -	G _g 0.649	% CO ₂ 0.23
% N ₂ 0.41		% H ₂ S 0.00	
Prover X		Meter Run Taps	

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. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
1.	2	23/64	1/2	480	-	50	985	67			PACKER 60.0 Hrs
2.	2	21/64	1/2	430	-	41	1187	66			
3.	2	19/64	1/2	380	-	37	1298	66			
4.	2	17/64	1/2	210	-	20	1535	64			
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mc/d
1.	4.279	-	493.2	1.010	1.241	1.051	2780.1
2.	4.279	-	443.2	1.019	1.241	1.050	2518.1
3.	4.279	-	393.2	1.023	1.241	1.032	2204.4
4.	4.279	-	223.2	1.041	1.241	1.028	1268.3
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	0.73	510	1.39	0.905	Dry Gas	
2.	0.66	501	1.36	0.907		
3.	0.42	497	1.35	0.939		
4.	0.33	480	1.30	0.946		
5.						

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas 0.649 Specific Gravity Flowing Fluid X X X X X Critical Pressure 673 P.S.I.A. Critical Temperature 368 °R				
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P _c 2301.2 P _c ² 5295.6	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.635$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.375$			
NO. P _r ² P _w * P _w ² P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3823$				
1	-	1434.2	2056.9	3238.7	
2	-	1621.2	2628.3	2667.3	
3	-	1735.2	3010.9	2284.7	
4	-	2075.2	4306.5	989.1	
5					

Absolute Open Flow 3823 Mc/d @ 15.025	Angle of Slope 57° 4'	0.648
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Remarks: * BHP @ (-4925') 8458' used for pressure calculations

Approved By Commission:	Conducted By: COLEMAN PET.ENG.CO.	Calculated By: JOE A. COLEMAN	Checked By: JOE A. COLEMAN
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