

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

Form C-122
Revised 9-1-65

RECEIVED

*R-4861
10-9-74*

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-23-74		MAY 31 1974	
Company Atlantic Richfield Co.		Connection NONE		O.C.C. ARTESIA, OFFICE	
Pool <i>Arden McNew</i> Undesignated		Formation Morrow		Unit -	
Completion Date 5-10-74		Total Depth 11050'		Plug Back TD 10995'	
Elevation 3224' DF		Farm or Lease Name Conley Federal		Well No. 1	
Csq. Size 5 1/2"	Wt. 20	d 4.778	Set At 11090'	Perforations: From 10672' To 10897'	
Tbg. Size 2"	Wt. 4.7	d 1.995	Set At 10544'	Perforations: From - To -	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 10535'		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 176° 10500'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico			
L 10785'	H -	G _g 0.605	% CO ₂ 0.650	% N ₂ 1.037	% H ₂ S 0.00
Prover X		Meter Run F		Taps F	

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
SI							3647		PACKER		
1.	4	13/64	2.0	620	14	80	2320	92			1.0
2.	4	11/64	2.0	600	8	70	2628	92			1.0
3.	4	9/64	2.0	450	7	68	2988	97			1.0
4.	4	7/64	2.0	450	5	76	3150	96			1.0
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	19.81	94.16	633.2	0.9813	1.286	1.047	2464.5
2	19.81	70.03	613.2	0.9905	1.286	1.047	1850.2
3	19.81	56.99	463.2	0.9925	1.286	1.036	1492.9
4	19.81	48.12	463.2	0.9850	1.286	1.034	1248.7
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	0.94	540	1.54	0.913	A.P.I. Gravity of Liquid Hydrocarbons	-	Deg.
2	0.91	530	1.51	0.912	Specific Gravity Separator Gas	0.6048	XXXXXXX
3	0.69	528	1.50	0.931	Specific Gravity Flowing Fluid	XXXXXX	
4	0.69	536	1.53	0.936	Critical Pressure	672	P.S.I.A.
5					Critical Temperature	351	R

NO.	P _r ²	P _w *	R _w ²	P _r ² - R _w ²
1	-	3207.2	10236.1	11366.2
2	-	3725.2	13877.1	7775.2
3	-	3990.2	15921.7	5730.6
4	-	4142.2	17157.8	4494.5
5				

(1) $\frac{P_r^2}{P_r^2 - R_w^2} = 1.905$ (2) $\left[\frac{P_r^2}{P_r^2 - R_w^2} \right]^n = 1.602$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - R_w^2} \right]^n = 3948$

Absolute Open Flow	3948	Mcf/d @ 15.025	Angle of Slope @	53° 52'	Slope, n	0.730
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Remarks: * BHP @ (-7561') 10785' used for pressure calculations

Approved By Commission:	Conducted By: Coleman Pet.Eng.Co.	Calculated By: Joe A. Coleman	Checked By: <i>Joe A. Coleman</i>
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