

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

RECEIVED

MAR 17 1976

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-23-76		O. C. C. ARTESIA, OFFICE	
Company Burmah Oil & Gas Company				Connection none			
Pool <i>Willow Lake Atoka Gas</i> <i>W/L</i>				Formation Atoka		Unit Willow Lake Unit	
Completion Date 1-14-76		Total Depth 13,205		Plug Back TD/2023 12,680		Elevation GL = 3015	
Csg. Size 7 5/8"	Wt. 33.7	d 6.765	Set At 11,725	Perforations: From 11680 To 11700		Well No. 1	
Thq. Size 2 3/8	Wt. 5.95	d 1.867	Set At 11485	Perforations: From To		Unit Sec. Twp. Rge. C 22 24S 28E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11485		County Eddy	
Producing Thru 2 3/8" tbg		Reservoir Temp. °F 193 @ 11580		Mean Annual Temp. °F 60		Baro. Press. - P _g 13.2	
L 11580		H 11580		G _g .598		% CO ₂ % N ₂ % H ₂ S Prover Meter Run Taps 3.1 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.	
1.	3.068	1.750	540	6	90	7237	70	pk		
2.	3.068	1.750	540	20	46	7106	70	pk		30 min
3.	3.068	1.750	520	36	32	6956	70	pk		30 min
4.	3.068	1.750	520	65	0	6800	72	pk		30 min
5.						6558	72	pk		30 min

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, Mcfd
1.	20668.46	56.938	540	.9723	1.2932	1.0396	1175
2.	20668.46	103.883	540	1.0137	1.2932	1.0543	2269
3.	20668.46	136.800	520	1.0281	1.2932	1.0585	3043
4.	20668.46	210.205	680	1.0632	1.2932	1.1014	5017
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.	.82	550	1.54	.925	0	0	.598	X X X X X X X X	673	358
2.	.82	506	1.41	.900				X X X X X		
3.	.79	492	1.37	.893						
4.	1.03	460	1.29	.824						
5.										

NO.	P _t ²	P _w	P _w ²	P _t ² - P _w ²
1	50683	7119	50683	1793
2	48570	6990	48863	3613
3	46420	6855	46991	5485
4	43181	6705	44953	7523
5				

(1) $\frac{P_c^2}{P_t^2 - P_w^2} = 6.9752$

AGI = Q $\left[\frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 34997$

(2) $\left[\frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 6.9752$

Absolute Open Flow	34997	Mcfd @ 15.025	Angle of Slope	45	Slope, n	1.0
Remarks:						
Approved By Commission:						
Conducted By:		Calculated By:		Checked By:		
Tom Hanson CO INC		See attached Letter				