

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

SP. File # 122
Form O-122
Revised 9-1-75

RECEIVED

Type Test ☒ Initial				Test Date 10-8-79				OCT 10 1979			
Company HING OIL COMPANY				To Air				O.C.C.			
Pool SOUTH CULEBRA BLUFF <i>Atoka</i>				ATOKA				ARTESIA, OFFICE			
Completion Date 9-29-79		Depth, ft. 13,100		Elevation 13,050		Elevation 3040 KB		WILLIAMS 35 COM.			
Ort. Size 4 1/2	Wt. 13.5	d 4,494	Set At 13,097	Temperature From 11,812 To 11,825		Well No. 2					
Tbg. Size 2 7/8	Wt. 6.5	d 2,441	Set At 10,975	Temperature From OPEN To END		Unit K 35 23S 28E					
Type Well - Single - Brazenhead - G.G. or G.O. Multiple SINGLE				Backer Set At 10,953		County EDDY					
Producing Thru TUBING		Reservoir Temp. °F 188° 11,431		Mean Ambient Temp. °F 60°		Baro. Press. - P _b 13.2		State NEW MEXICO			
L *11,431	H 11,431	G ₁ .582	G ₂ .524	% CO ₂ 1.242	% H ₂ S	Prover	Mat. Han	6" FLG.			

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Flow Line Size	X	Orifice Size	Press. psia	Orif. In.	Temp. °F	Press. psia	Temp. °F	Press. psia		Temp. °F
51	FLG TAP						4167				72 HRS.
1.	6 x 2.500			510	5"	92°	4032	84°			1 HR.
2.	6 x 2.500			510	10"	76°	3982	83°			1 HR.
3.	6 x 2.500			510	20"	70°	3847	82°			1 HR.
4.	6 x 2.500			510	40"	69°	3635	82°			1 HR.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor Fg	Super. Compens. Factor, F _{cv}	Rate of Flow Q, Mscf
1	30.31	51.15	523.2	.9706	1.311	1.034	2040
2	30.31	72.33	523.2	.9850	1.311	1.039	2941
3	30.31	102.29	523.2	.9905	1.311	1.041	4191
4	30.31	144.67	523.2	.9915	1.311	1.041	5933
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas-Liquid Hydrocarbon Ratio	DRY	Mcf/bbl.
1	.79	552	1.58	.935	A.P.G. Gravity of Liquid Hydrocarbons		
2	.79	536	1.53	.926	Specific Gravity Separator Gas	.582	X X X X X X X X
3	.79	530	1.51	.923	Specific Gravity Flowing Fluid	X X X X X	
4	.79	529	1.51	.923	Critical Pressure	622	P.S.I.A.
5					Critical Temperature	350	°R

P _r 4180.2 P ₂ 17474.1		$\frac{P_r^2}{P_2^2 - P_r^2} = 4.714$		$\left[\frac{P_r^2}{P_2^2 - P_r^2} \right]^n = 3.718$	
NO.	P _r	P ₂	P ₂ - P _r	P ₂ - P _r	
1		4052.5	16,422.8	1051.3	
2		4010.6	16,084.9	1389.2	
3		3889.9	15,151.3	2342.8	
4		3710.4	13,767.1	3707.0	
5					

Absolute Open Flow 22,061		Angle of Slope θ 49.75		Slope, n 847	
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Remarks: * EQUIVALENT LENGTH; MADE NO FLUID DURING TEST

Approved By Commission:	Conducted By: B.D.	Calculated By: R.R.	Checked By: J.W.
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