

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test		☒ Initial		☐ Annual		☐ Special		Test Date		8-9-82			
Company						Connection							
DUGAN PRODUCTION CORP.													
Pool						Formation							
Basin Dakota						Dakota							
Completion Date			Total Depth			Plug back TD			Elevation				
7-30-82			6040'			6000'			5575' GL				
Well No.			Set At			Perforations			Form or Lease Name				
2			6040' RKB			From 5799 To 5822'			Pole's Paradise				
Well No.			Set At			Perforations			Unit Soc. Twp. Rge.				
2			5812' RKB			From open end To			K 9 30N 14W				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At							
Single - gas						San Juan							
Producing Thru			Reservoir Temp. °F			Mean Annual Temp. °F			State				
tubing			P			Baro. Press. - P _g			New Mexico				
L		H		Cg		% CO ₂		% N ₂		% H ₂ S			
				.65									
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	2"						1340		1340		7 days		
1.	2"	X	1/2"				145	60	615		3 hrs		
2.													
3.													
4.													
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, Mcfd						
1	5.4315		157	1.0	.9608	1	819.3						
2.													
3.													
4.													
5.													
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio				Mcft/bbl.				
1					A.P.I. Gravity of Liquid Hydrocarbons				Deg.				
2.					Specific Gravity Separator Gas								
3.					Specific Gravity Flowing Fluid								
4.					Critical Pressure				P.S.I.A.				
5.					Critical Temperature				R				
$P_c = 1352$ $P_c^2 = 1,827,904$ $P_w = 627$ $P_w^2 = 393,129$ $P_c^2 - P_w^2 = 1,434,775$ $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.274$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.229$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1007$													
Absolute Open Flow						1007		Mcf/d @ 15.025		Angle of Slope 40°		Slope, n .85	
Remarks: spraying medium amounts of oily water throughout test.													
Approved by Division				Conducted By: Eckelberg				Calculated By: Eckelberg				Checked By:	

