

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4 pt. ☒ Initial ☐ Annual ☐ Special		Test Date 5-13-81		MAY 25 1981	
Company DINERO OPERATING COMPANY		Connection EL PASO NATURAL GAS COMPANY		O. C. D. ARTESIA, OFFICE	
Pool Dublin Ranch Atoka		Formation Atoka			
Completion Date 3-16-81		Total Depth 12740		Plug Rock TD 12060	
Casing Size 5 1/2		Well 17#		Set At 4.892	
Perforations: From 11417 To 11769		Well No. 2			
Fig. Size 2 3/8		Well 4.7#		Set At 11292	
Perforations: From To		Unit N		Sec. 22 Twp. 22 Rge. 28	
Type Well - Single - Broadhead - G.C. or G.O. Multiple Single				Packer Set At 11292	
Producing thru Tbg.				County Eddy	
Reservoir Temp. °F 190		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico					
L *11593		H 11593		G _g .580	
% CO ₂ .49		% N ₂ .76		% H ₂ S .06	
Prover		Meter Run 4.0"		Taps Flg.	
**2.0013 FLOW DATA					
TUBING DATA					
CASING DATA					
Duration of Flow					
NO.	Press. Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w
SI					
1.	4.0 X 1.750			414	3.06
2.	4.0 X 1.750			427	8.41
3.	4.0 X 1.750			433	25.0
4.	4.0 X 1.750			438	47.61
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
1	14.93	36.16	427.2	.9777	1.313
2	14.93	60.84	440.2	.9887	1.313
3	14.93	105.62	446.2	1.004	1.313
4	14.93	146.57	451.2	1.017	1.313
5					
NO.	$\bar{r}$	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio
1	.64	544	1.54	.942	Mcf/bbl.
2	.66	532	1.50	.934	A.P.I. Gravity of Liquid Hydrocarbons
3	.66	516	1.46	.927	Specific Gravity Separator Gas
4	.67	503	1.42	.919	Specific Gravity Flowing Fluid
5					Critical Pressure
					Critical Temperature
$P_c = 3958.2$ $P_w^2 = 15667.3$					
NO.	P_w	P_c^2	P_w^2	$P_c^2 - P_w^2$	
1	3811.9	14530.6	1136.7		
2	3710.0	13764.1	1903.2		
3	3444.6	11865.3	3802.0		
4	3026.2	9158.9	6508.4		
5					
$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.4072$					
$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.939367$					
$AOI = 0 \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.911$					
Absolute Open Flow <u>5,911</u> Mcfd @ 15.025 Angle of Slope <u>53°</u> Slope, n <u>.754</u>					
Remarks <u>*Equivalent length</u> <u>**Effective Dia.</u>					
Made no fluid during test.					
Approved by Division		Conducted by		Calculated by	
		Rea & Townley		Rea	
				Checked by:	