

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-4-67		AUG 17 1967	
Company Big Eddy Petroleum Corp.				Connection 6-19-67		L. C. C. ARTERIAL, CIPOLLO	
Pool Lower Hill Morrow Big Eddy Unit				Formation Morrow		Unit Big Eddy Unit	
Completion Date 2-24-67		Total Depth 12,913		Plug Back TD 12,870		Elevation 3387 DF	
Casing Size 5 1/2		Wt. 23-20 & 17		Set At 12,813		Perforations: From 12,676 To 12,800	
Thg. Size 2 3/8		Wt. 4.7		Set At 12,550		Perforations: From Open To Ended	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12,550		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 174 @ 12,700		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 12,550		H 12,550		G _g .686		% CO ₂ 1.0	
				N ₂ .31		% H ₂ S -	
				Prover Orifice		Meter Run 4	
						Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							2977	60	-	-
1.	4		2	323	3.2	161	2806	60	-	-
2.	4		2	327	11.4	87	2642	60	-	-
3.	4		2	339	39.8	75	2383	64	-	-
4.	4		2	360	77.5	64	1620	64	-	-
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	32.76	135.2	.9628	1.263	1.022	806.5
2	19.81	62.22	140.2	.9662	1.263	1.025	1546.7
3	19.81	118.42	152.2	.9859	1.263	1.026	2997.0
4	19.81	169.98	173.2	.9962	1.263	1.036	4389.3
5							

NO.	P _r	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	.497	561	1.54	.957	17	55°	625	XXXXXXX	675	385
2	.505	557	1.53	.951						
3	.523	535	1.47	.945						
4	.557	524	1.42	.931						
5										

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²
1	7836	2823.2	7970.5	970.3
2	6980	2671.2	7135.3	1806.7
3	5679	2456.2	6032.9	2908.1
4	2624	1814.2	3291.3	5750.7
5				

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.555$$

$$AOF = C \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 6663$$

$$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.518$$

Absolute Open Flow	6663	At 15.025	Angle of Slope	9.946
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Remarks: A B.H.P. taken showed the large pressure drop and also showed that there was no liquids in the hole.

Approved By Commission	Conducted By Sexton & Aylesworth	Calculated By Sexton & Aylesworth	Checked By
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