

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

Form C-122
Revised 9-1-65

JUL 19 1977

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-23-77	
Company Yates Petroleum Corporation El Paso Natural Pipeline Co.			
Pool Little Box Canyon		Formation Morrow	
Completion Date 2-18-77		Total Depth 8595' KB	Plug Back TD 8412' KB
		Elevation 4475' KB	Farm or Lease Name Box Canyon Unit
Csg. Size 5 1/2"	Wt. 17#	Set At 4.892	Perforations: From 8110 To 8238' KB
Tbg. Size 2-7/8"	Wt. 6.5#	Set At 2.441	Perforations: From 8053 To 8055' KB
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 8047-53	County Eddy
Producing Thru Tubing	Reservoir Temp. °F 140°	Mean Annual Temp. °F 8117	Baro. Press. - P _a 62
		13.2	State New Mexico
L 8162	H 8162	Gg 0.60	% CO ₂ 0.30
		% H ₂ S Nil	Prover 4"
		Meter Run Flange	Taps

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	of Flow
SI							2344	79			Months
1.	4.026 x 2.500			606	10	56	2122	81			1 hour
2.				608	18	56	1978	83			1 hour
3.				610	32	56	1735	84			1 hour
4.				612	55	56	1263	85			1 hour
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	32.64	78.69	619.2	1.004	1.293	1.0559	3520
2		105.74	621.2	1.004	1.293	1.0559	4731
3		141.22	623.2	1.004	1.293	1.0559	6318
4		185.43	625.2	1.004	1.293	1.0559	8296
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	166.9 Mcf/bbl.
1	.919	516	1.45	.897	A.P.I. Gravity of Liquid Hydrocarbons	58.4 Deg.
2	.922	516	1.45	.897	Specific Gravity Separator Gas	0.598
3	.925	516	1.45	.897	Specific Gravity Flowing Fluid	.616
4	.928	516	1.45	.897	Critical Pressure	673.5 P.S.I.A.
5					Critical Temperature	356 R

P _c 2914.2 P _c ² 8493				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1			7106	1387
2			6303	2190
3			5094	3399
4			3223	5270
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6116$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 11245$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3555$

Absolute Open Flow	11245 Mcfd @ 15.025	Angle of Slope	57.5 deg.	Slope, n	0.6374
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Remarks: Static pressures by Bennett Wireline. Flowing pressures by DWT. Calculations worksheet attached.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Don Weaver	Eddie Mahfood	