NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
MAY - 2 1978
O. C. C.
ARTESIA, OFFICE

R 5876

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 3-2-78	
Company: Yates Petroleum Corp.		Connection: El Paso Natural Gas Company			
Pool: Box Canyon (Permo Penn / Upper Penn)		Formation: Upper Penn		Unit: NM 8417	
Completion Date: 8-4-77	Total Depth: 8450'	Plug Back TD: 7954'	Elevation: 4608' KB	Farm or Lease Name: Box Canyon	
Csg. Size: 5½" / Wt.: 15.5# / d: 4.950 / Set At: 8230'		Perforations: From 6008 To 6034'		Well No.: 3	
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 6006'		Perforations: From 5956 To 5959'		Unit: J / Sec.: 14 / Twp.: 21S / Rge.: 21E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 5950'		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 117 @ 6017	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
6007	6007	.665	Nil	1.16	Nil		4"	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					1579	41			72 hrs.
1.	4.026 x 1.250	550	17.5	70	1500	62			1 hr.
2.		554	27	70	1456	69			1 hr.
3.		559	43	70	1385	76			1 hr.
4.		564	54	70	1337	82			1 hr.
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	99.26	563	.9905	1.258	1.0515	971
2	7.469	123.73	567	.9905	1.258	1.0518	1.211
3	7.469	156.83	572	.9905	1.258	1.0523	1.536
4	7.469	176.52	577	.9905	1.258	1.0526	1.729
5							

NO.	P_t	Temp. °R	T_r	Z
1	.840	530	1.444	.9045
2	.846	530	1.444	.9040
3	.854	530	1.444	.9030
4	.861	530	1.444	.9025
5				

Gas Liquid Hydrocarbon Ratio 101930 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 59.8 Deg.
Specific Gravity Separator Gas 0.637 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 0.656
Critical Pressure 670 P.S.I.A. 669 P.S.I.A.
Critical Temperature 367 R 373 R

P_c 1920 P_c^2 3687

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			3282	405
2			3089	598
3			2804	883
4			2619	1068
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.452$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.140$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3700$ mcfpd

Absolute Open Flow 3700 Mcfd @ 15.025 Angle of Slope θ 58.5 degree Slope, n 0.614

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 M. Mahfood	