NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JUL 19 1979
O. C. C.
ARTESIA, OFFICE

Type Test: XX Initial ☐ Annual ☐ Special				Test Date: 5-16-79	
Company: Yates Petroleum Corp.		Connection: Transwestern Pipeline Company			
Pool: North Cemetery Atoka		Formation: Atoka			Unit: ~~LC 1529~~
Completion Date: 2-26-78	Total Depth: 9427'	Plug Back TD: 9034'	Elevation: 3618' KB		Farm or Lease Name: State "CO" Com
Csg. Size: 5-1/2" / Wt.: 17# / d: / Set At: 9190' KB		Perforations: From 8833 To 8845'			Well No.: 2
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 8781' KB		Perforations: From To			Unit: G / Sec.: 36 / Twp.: 19S / Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 8792' KB			County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 145 @ 8839	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2		State: New Mexico
L: 8832	H: 8832	Gg: .635	% CO_2: 1.66	% N_2: 1.04	% H_2S: Nil / Prover: / Meter Run: 2" / Taps: Flange

NO.	FLOW DATA: Prover Line Size x Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2654	53			days
1.	2.067 x 1.000	298	15	70	2426	59			1 hour
2.		300	33	70	2247	64			1 hour
3.		301	54	70	2043	68			1 hour
4.		302	87	70	1753	71			1 hour
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	4.946	68.32	311.2	.9905	1.280	1.025	439
2.	4.946	101.66	313.2	.9905	1.280	1.025	653
3.	4.946	130.26	314.2	.9905	1.280	1.025	837
4.	4.946	165.60	315.2	.9905	1.280	1.025	1064
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.460	530	1.485	.9518
2.	0.463	530	1.485	.9515
3.	0.465	530	1.485	.9513
4.	0.466	530	1.485	.9512
5.				

Gas Liquid Hydrocarbon Ratio	173.0 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	52.6 Deg.	
Specific Gravity Separator Gas	.610	xxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	.635
Critical Pressure	677 P.S.I.A.	676 P.S.I.A.
Critical Temperature	357 R	365 R

P_c 3374 P_c^2 11385

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			9530	1855
2			8189	3196
3			6762	4623
4			4970	6415
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7747$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.506$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1602$

Absolute Open Flow 1602 Mcfd @ 15.025 | Angle of Slope θ 54.5 deg | Slope, n .71385

Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT.
Calculations worksheet C-122D attached.

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