N MEXICO OIL CONSERVATION COMM ON

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TES. FOR GAS WELL

RECEIVED

SEP [illegible]

O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 9-14-72	
Company: Yates Petroleum Corp.			Connection: Transwestern Pipeline		
Pool: Boyd Morrow			Formation: Morrow		Unit:
Completion Date: Sept. 7, 1972	Total Depth: 9222		Plug Back TD: 9061	Elevation: 3572 KB	Farm or Lease Name: Johnston BE
Csg. Size: 4-1/2 / Wt.: 10.5 / d: / Set At: 9097 KB			Perforations: From 8975 To 9001		Well No.: 1
Tbg. Size: 2-3/8 / Wt.: 4.6 / d: 1.995 / Set At: 8934 KB			Perforations: From To		Unit: A / Sec.: 8 / Twp.: 19S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 8934		County: Eddy
Producing Thru: 2-3/8" EUE	Reservoir Temp. °F: @ 152	Mean Annual Temp. °F:	Baro. Press. – P_a: 13.2		State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8934	8990	0.589	0.67	0.25	Nil		4"	

	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						2434				24 hrs
1.	4	1.375	730	18	74	754	61			days
2.	4	0.875	730	64	81	1461	68			24 hrs
3.	4	0.875	730	35	82	1797	70			24 hrs
4.	4	0.875	730	15	84	2058	73			24 hrs
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	12009.60	115.7	.97504	.9869	1.0091	1.056	1425
2.	4805.97	218.1	.97504	.9804	1.0091	1.053	1066
3.	4805.97	161.3	.97504	.9795	1.0091	1.053	787
4.	4805.97	105.6	.97504	.9777	1.0091	1.052	514
5.							

NO.	P_t	Temp. °R	T_f	Z
1.	1.279	556	1.576	0.897
2.	2.454	560	1.587	0.836
3.	3.010	562	1.593	0.822
4.	3.443	564	1.599	0.816
5.				

Gas Liquid Hydrocarbon Ratio 1826 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 58 Deg.
Specific Gravity Separator Gas 0.589 xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx 0.591
Critical Pressure 674.2 P.S.I.A. 674.1 P.S.I.A.
Critical Temperature 352.0 R 352.8 R

P_c 3002 P_c^2 9.012

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	588	958	0.917	8.095
2	2173	1834	3.363	5.649
3	3276	2249	5.059	3.953
4	4289	2571	6.611	2.401
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1133$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0875$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1550$ mcf

Absolute Open Flow 1.55 Mcfd @ 15.025 Angle of Slope θ Slope, n 0.838

Remarks: Testing witnessed by Jack Moore of Transwestern Pipeline Company.

Approved By Commission:	Conducted By: Don Weaver & Jack Moore, T.W.	Calculated By: Eddie Mahfood	Checked By: