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

Form C-122
Revised 9-1-65

RECEIVED
NOV - 6 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 10-13-78
Company: Yates Petroleum Corporation	Connection: Transwestern Pipeline Co.		Unit
Pool: ~~Wildcat~~ Cottonwood Creek Atoka Gas	Formation: Atoka		
Completion Date: 4-13-77	Total Depth: 7407' KB	Plug Back TD: 7404' KB	Elevation: 3445' KB
Csg. Size: 4½" / Wt.: 10.5# / d: 4.052 / Set At: 7407' KB	Perforations: From 7178 To 7184' KB		Farm Name: Lizzie Howard "HK" / Well No.: 1
Tbg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 7121' KB	Perforations: From To		Unit: K / Sec.: 13 / Twp.: 16S / Rge.: 25E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 7121' KB		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 128@7170	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2 / State: New Mexico
L: 7170 / H: 7170 / Gg: 0.639	% CO_2: 1.22	% N_2: 0.59	% H_2S: Nil / Prover: / Meter Run: 2" / Taps: Flange

NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI					2268	44			weeks
1.	2.067 x 0.750	170	9	70	2132	62			1 hour
2.		170	18	70	2009	66			1 hour
3.		170	30	70	1885	69			1 hour
4.		170	58	70	1621	72			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	2.709	40.60	183.2	.9905	1.251	1.0164	139
2.	2.709	57.42	183.2	.9905	1.251	1.0164	196
3.	2.709	74.14	183.2	.9905	1.251	1.0164	253
4.	2.709	103.08	183.2	.9905	1.251	1.0164	352
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.271	530	1.436	.968
2.	.271	530	1.436	.968
3.	.271	530	1.436	.968
4.	.271	530	1.436	.968
5.				

Gas Liquid Hydrocarbon Ratio 263.7 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 52.2 Deg.

Specific Gravity Separator Gas	0.639	xxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	.651
Critical Pressure	675 P.S.I.A.	674.5 P.S.I.A.
Critical Temperature	369 R	372 R

P_c 2823.2 P_c^2 7970

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			6947	1023
2			6154	1816
3			5406	2564
4			3775	4195
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.8999$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.6115$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 567$

Absolute Open Flow 567 Mcfd @ 15.025 Angle of Slope θ 53° 22' Slope, n 0.7435

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

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Bill Trembley, Jr.	Eddie M. Mahfood	