NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT [illegible] ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
DEC 1 [illegible] 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 10-13-81

Company: Yates Petroleum Corporation	Connection: Transwestern Pipeline Co.	Unit	
Pool: [illegible] Morrow	Formation: Morrow		
Completion Date: 8-31-81	Total Depth: 8250 KB	Plug Back TD: 8035 KB	Elevation:
Farm or Lease Name: Sharp QS Com			
Csg. Size: 4½" / Wt.: 11.6# / d: 4.000 / Set At: 8350 KB	Perforations: From 8027 To 8031 KB	Well No.: 1	
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: 1.995 / Set At: 7982 KB	Perforations: From — To —	Unit: P / Sec.: 4 / Twp.: 17s / Rge.: 26e	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: single	Packer Set At: 7982	County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 140 @ 8029	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
8021	8021	0.7063	4.61	1.24	Nil	--	2"	Flanged

FLOW DATA

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							2499				Days
1.	2.067	X	0.875	596	10	75	2060				15 hrs.
2.	2.067	X	0.875	580	18	74	1792				24 hrs.
3	2.067	X	0.875	590	35	75	1538				24 hrs.
4.	2.067	X	0.875	566	67	73	1245				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	3.729	78.05	609.2	.9859	1.206	1.057	366
2	3.729	103.33	593.2	.9868	1.206	1.056	485
3	3.729	145.30	603.2	.9859	1.206	1.057	681
4	3.729	196.99	579.2	.9877	1.206	1.055	923
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.887	535	1.427	.8948
2	0.863	534	1.424	.8975
3	0.878	535	1.427	.8950
4	0.843	533	1.421	.8997
5				

P_c 3233.2 P_c^2 10455

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1			7111	3344
2			5376	5079
3			3934	6521
4			2556	7899
5				

Gas Liquid Hydrocarbon Ratio: 145.39 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 60.8 Deg.
Specific Gravity Separator Gas: 0.687 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX 0.7063
Critical Pressure: 687 P.S.I.A. 708.5 P.S.I.A.
Critical Temperature: 375 R 390 R

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6033$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5610$

Absolute Open Flow: 1063 Mcfd @ 15.025
Angle of Slope θ: 46.67 deg.
Slope, n: 0.9434

$\text{A.O.F.} = \left[\frac{P_t^2}{P_c^2 - P_w^2}\right]^n = 1063$

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

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Bob Cary	Eddie Mahfood	