NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

DT File
122 file

RECEIVED
JAN 17 1977
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 12-27-76	
Company: Yates Petroleum Corp.			Connection: El Paso Natural Gas		
Pool: ~~Avalon~~ Burton Flat (Morrow)			Formation: Morrow		Unit: I
Completion Date: 10-17-75	Total Depth: 11,554'		Plug Back TD: 11,536'KB	Elevation: 3235'KB	Farm or Lease Name: ARCO "EI" Federal
Csg. Size: 5½" / Wt.: 17.0# / d: 4.892 / Set At: 11,536			Perforations: From 11,134 To 11,142		Well No.: 1
Thg. Size: 2-3/8" / Wt.: 4.7# / d: 1.995 / Set At: 11,100			Perforations: From To		Unit: I / Sec.: 13 / Twp.: 21S / Rge.: 26E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 11,100'		County: Eddy
Producing Thru: tubing	Reservoir Temp. °F: 175 @ 11,140	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2		State: New Mexico
L: 11,126 / H: 11,126 / Gg: 0.583	% CO_2: 0.68	% N_2: 0.21	% H_2S: Nil	Prover:	Meter Run: 4.026 / Taps: 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					3551	49			[illegible]
1.	4 X 1.500	450	12	70	2730	48			24 hrs.
2.	4 X 1.500	450	23	69	2248	46			24 hrs.
3.	4 X 1.500	455	36	68	1625	44			24 hrs.
4.	4 X 1.500	460	47	66	906	42			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	10.84	74.555	463.2	.9905	1.310	1.035	1085
2.		103.22	463.2	.9915	1.310	1.035	1504
3.		129.83	468.2	.9924	1.310	1.036	1895
4.		149.13	473.2	.9943	1.310	1.037	2184
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	.687	530	1.514	.934
2.	.687	529	1.511	.933
3.	.695	528	1.509	.932
4.	.702	526	1.503	.930
5.				

Gas Liquid Hydrocarbon Ratio: 271.4 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 60.2 Deg.
Specific Gravity Separator Gas: 0.583 / xxxxxxxxx
Specific Gravity Flowing Fluid: xxxxx / 0.595
Critical Pressure: 674 P.S.I.A. / 675 P.S.I.A.
Critical Temperature: 350 R / 355 R

P_c 4542.1 P_c^2 20630

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3565.4	12712	7918
2		2971.6	8830	11800
3		2175.4	4732	15898
4		1282.7	1645	18985
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0866$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.06833$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2333$

Absolute Open Flow: 2333 Mcfd @ 15.025 | Angle of Slope θ: 51.5 | Slope, n: 0.79588

Remarks: Rates varied on sales line daily for 4-pt, no bomb in hole, tubing pressures by dead weight tester, form C-122D attached.

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