NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
DEC - 5 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 10-11-78
Company: Yates Petroleum Corp.		Connection: El Paso Natural Gas Co.		Unit
Pool: N. Burton Flats Wolfcamp		Formation: Wolfcamp		
Completion Date: 9-22-78	Total Depth: 11400	Plug Back TD: 9956 KB	Elevation: 3263' KB	Farm or Lease Name: MWJ State GW Com.
Csg. Size: 4 1/2 / Wt.: 11.6# / d: 4.000 / Set At: 10330		Perforations: From 9640 To 9664 KB		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.4# / d: 2.441 / Set At: 9540		Perforations: From To		Unit: K / Sec.: 36 / Twp.: 20S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 9540 KB		County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 154 @ 9652	Mean Annual Temp. °F: 62	Baro. Press. – P_a: 13.2	State: N. Mex.

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
9645	9645	0.625	0.62	0.42	Nil		4"	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					1967	66			9 days
1.	4.026 x 0.375	520	11	75	1053	65			1 hr
2.		520	20	75	902	64			1 hr
3.		520	29	75	748	64			1 hr
4.		520	31	75	530	64			1 hr
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	0.667	76.58	533.2	.9859	1.265	1.052	67
2	0.667	103.27	533.2	.9859	1.265	1.052	90
3	0.667	124.35	533.2	.9859	1.265	1.052	109
4	0.667	128.57	533.2	.9859	1.265	1.052	113
5							

NO.	P_t	Temp. °R	T_r	Z
1	0.793	535	1.415	.903
2	0.793	535	1.415	.903
3	0.793	535	1.415	.903
4	0.793	535	1.415	.903
5				

Gas Liquid Hydrocarbon Ratio: None Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: -- Deg.
Specific Gravity Separator Gas: 0.665 xxxxxxxxx
Specific Gravity Flowing Fluid: xxxxx
Critical Pressure: 672 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 378 R ____ R

P_c 3469.2 P_c^2 12035

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2241.1	5022	7013
2		2041.1	4166	7869
3		1838.4	3380	8655
4		1554.9	2418	9617
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2514$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2514$

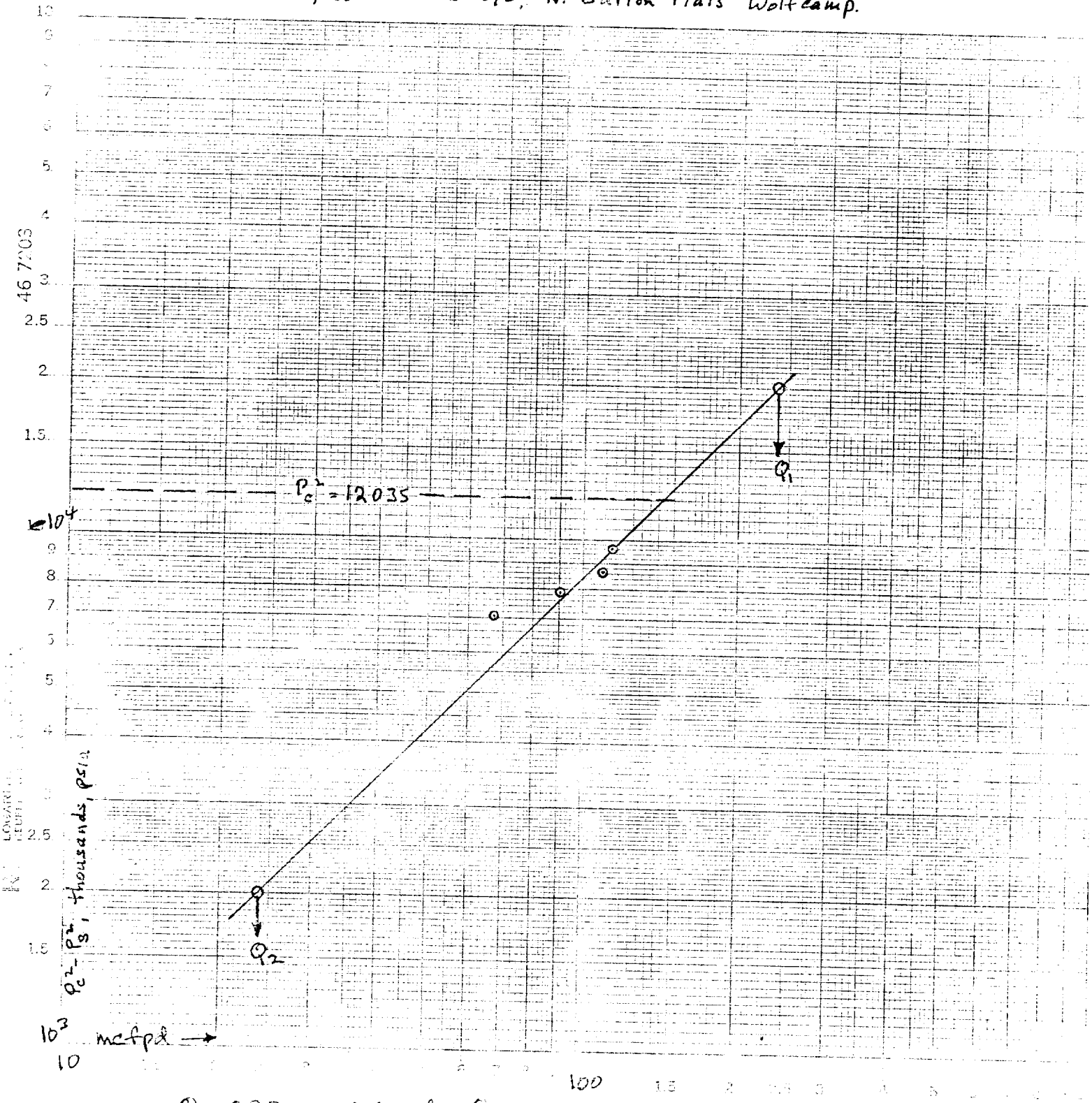
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 141$

Absolute Open Flow: 141 Mcfd @ 15.025 Angle of Slope θ: 45 Slope, n: 1.000

Remarks: Static Pressures by Bennett Wireline, flowing pressures by DWT
Note: BHP showed 1800' load water and gas flow was too small to unload this fluid. Calculations worksheet form C-122D attached.

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

YPC- MWJ State GW Com
Unit K, Sec 36-20s-27E, N. Burton Flats Wolfcamp.



$Q_1 = 237$ mcfpd $\log Q_1 = 2.375$

$Q_2 = 23.7$ mcfpd $\log Q_2 = 1.375$

$n = 1.000$

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
Adopted 9-1-65

COMPANY YPC LEASE MWJ State Gas Com WELL NO. 1 DATE 10-11-78

LOCATION: Unit K Section 36 Township 22S Range 27E

L 9645 H 9645 L/H 1.000 G 0.665 % CO_2 0.62 % N_2 0.42 % H_2S Nil

9539 (5.45) 5.675; 106 (1.6) 1.696; 9645 (6.0) [illegible]

d 2.4618 F_r 0.010262 GH 6414 P_{cr} 672 (TABLE IX & X) T_{cr} 378 (TABLE IX & X)

LINE	S1	1	2	3	4	S1	1	2	[illegible]	[illegible]
1 Q_m	—	0.067	0.090	0.109	0.113	—	.067	.090	.109	.113
2 T_w (W.H. °R)	526	525	524	524	524					
3 T_s (B.H. °R)	614	613	612	611	610					
4 $T = (\frac{T_w + T_s}{2})$	[illegible]	569	568	567.5	567		569	568	567.5	[illegible]
5 Z (Est.)	.975	.835	.855	.877	.911		.838	.856		.910
6 TZ	[illegible]	475.12	485.64	499.70	516.54		476.822	486.21		515.97
7 GH/TZ	11.520	13.500	13.207	12.887	12.417		13.452	13.192		12.431
8 e^s (Table XIV)	1.7238	1.6591	1.6409	1.6214	1.5950		1.6560	1.6400		1.5939
9 $1-e^{-s}$ (Table XIV)		0.3972	0.3906	[illegible]	0.3723		0.3962	.3902		[illegible]
10 P_t	1920.2	1066.2	915.2	761.2	540.2		1066.2	915.2		540.2
11 $P_t{}^2/1000$		1136.78	837.59	579.43	295.07		1136.78	837.57		295.07
12 ~~F (Table XV)~~ S=.0375 $\frac{GL}{T_z}$	.54450	.50625	.49527	.48327	.46[illegible]		.5044[illegible]	.49170		.4661[illegible]
13 $F_c = F_r$ TZ		4.878	4.986	5.1099	[illegible]		4.89[illegible]	4.9919		5.2975
14 $F_c Q_m$		.327	.449	.557	[illegible]		.328	.449		.599
15 L/H $(F_c Q_m)^2$		.107	.201	.310	[illegible]		.108	.202		.359
16 F_w=L/H$(F_cQ_m)^2(1-e^{-s})$		.04	.08	.12	.13		.04	.08		.13
17 $P_w{}^2 = P_t{}^2 + F_w$		1136.82	837.67	579.55	295.20		1136.82	839.67		[illegible]
18 $P_s{}^2 = e^s P_w{}^2$		1886.1	1374.5	939.7	470.25		1882.6	1377.8		470.52
19 P_s [illegible]	2600.2	1373.4	1172.4	969.4	685.8		1372.1	1172.1		685.9
20 $P = (\frac{P_t + P_s}{2})$	2290.2	1219.8	1043.8	865.3	614.5		1219.1	1043.6		614.[illegible]
21 $P_r = (P/P_{cr})$	3.408	1.815	1.553	1.288	0.914		1.814	1.553		0.914
22 $T_r = (T/T_{cr})$	1.508	1.505	1.503	1.501	[illegible]		1.505	1.503	[illegible]	[illegible]
23 Z (Table XI)	[illegible]	.839	.856	.899	.915		[illegible]	.856		[illegible]

One copy to be filed in District Office (Work copy acceptable)