MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised

RECEIVED

MAR 19 1982

O. C. D.
ARTESIA, OFFICE

C-122

Type Test: [X] Initial	[ ] Annual	[ ] Special	Test Date: 1/29/82			
Company: Yates Petroleum Corp.		Connection: Transwestern Pipeline			Unit	
Pool: Pecos Slope Abo		Formation: Abo				
Completion Date: 11/7/81	Total Depth: 4325		Plug Back TD: 4143	Elevation: 3921	Farm or Lease Name: Rowland "RN"	
Csg. Size: 4½	Wt.: 9.5#	d: 4.090	Set At: 4160	Perforations: From 3755 To 3782	Well No.: #1	
Tbg. Size: 2 3/8	Wt.: 4.7#	d: 1.995	Set At: 3756	Perforations: From	Unit: D	Sec. 13, Twp. 5S, Rge. 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single				Packer Set At: --	County: Chaves	
Producing Thru: Tubing	Reservoir Temp. °F: 96° @ 3769'		Mean Annual Temp. °F: 62	Baro. Press.: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3756	3756	.650	0.42	6.18	0	-	2	Flanged

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Temp. °F	Casing Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					1003				
1.	2.067 x 1.000	240	64.0	56	700	50	-	-	24 hrs.
2.	2.067 x 1.000	240	38.1	56	803	50			24 hrs.
3.	2.067 x 1.000	230	31.5	56	860	50			24 hrs.
4.	2.067 x 1.000	230	19.8	56	908	50			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	4.946	127.3	253.2	1.004	1.240	1.023	802
2	4.946	98.3	253.2	1.004	1.240	1.023	619
3	4.946	87.5	243.2	1.004	1.240	1.022	551
4	4.946	69.4	243.2	1.004	1.240	1.022	437
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.38	516	1.44	.956
2.	.38	516	1.44	.956
3.	.37	516	1.44	.958
4.	.37	516	1.44	.958
5.				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: - Deg.
Specific Gravity Separator Gas: .650 | XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX | .650
Critical Pressure: 659 P.S.I.A. | 659 P.S.I.A.
Critical Temperature: 358 R | 358 R

P_c 1016.2 P_c^2 1032.7

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	508.7	-	517.1	515.6
2	666.2	-	671.1	361.6
3	762.5	-	766.3	266.4
4	848.6	-	851.0	181.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 2.0029

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.5112

AOF = $Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1212 mcfpd

Absolute Open Flow: 1212 Mcfd @ 15.025 | Angle of Slope θ: | Slope, n: .594

Remarks:

Approved By Commission: | Conducted By: Davey ...ver | Calculated By: ... Springer | Checked By:

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (P_w)

C-122D
[illegible] 9-1-65

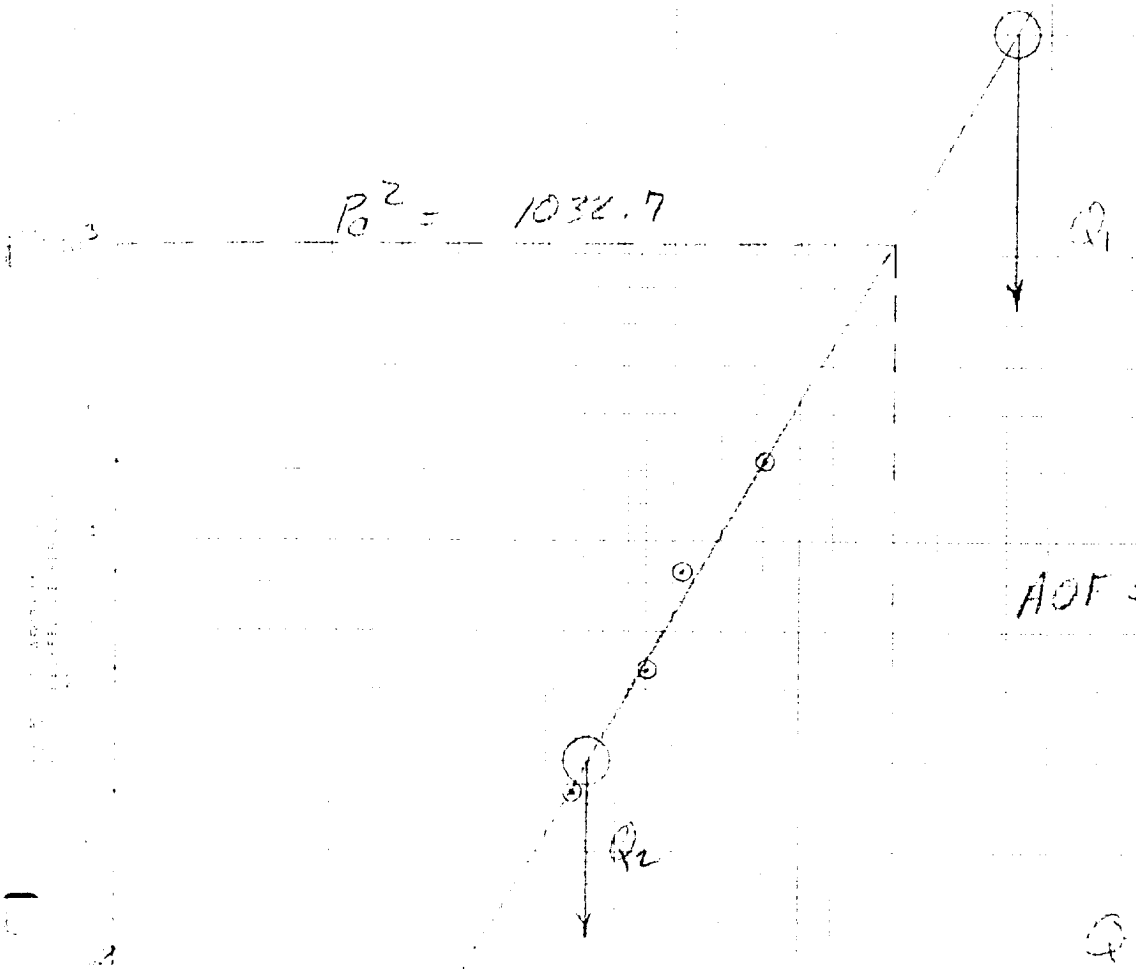
COMPANY [illegible] LEASE [illegible] WELL NO. #1 DATE 3/[illegible]/82

LOCATION: Unit D Section 13 Township 5S Range 34E

[illegible] 3956 [illegible] 3956 [illegible] 2.0[illegible] G .650 % CO_2 0.42 % N_2 6.18 % H_2S 0

[illegible] 1.3[illegible] [illegible] .50[illegible] [illegible] 1441 [illegible] [illegible]9 (TABLE IX & X) T_{cr} [illegible]8 (TABLE IX & X)

LINE	1st hole	2nd hole	3rd hole	4th hole	
1 [illegible]	.302	.414	.397	.434	
2	510	510	[illegible]	510	
3	556	556	[illegible]	[illegible]	
4	[illegible]33	[illegible]33	[illegible]33	[illegible]33	
5	[illegible]	.873	[illegible]4	.858	
6	492.[illegible]	465.31	460.51	457.31	
7	[illegible]	5.346	[illegible]01	[illegible]33	
8 [illegible]	[illegible]4	1.319	1.270	1.238	
9 [illegible]	[illegible]	.118	.150	[illegible]	
10 [illegible]	[illegible]	[illegible].2	393.2	921.2	
11 [illegible]	508.9	666.2	762.5	840.[illegible]	
12 [illegible]	.	.	[illegible]	[illegible]	
13 [illegible]	8.619	8.483	8.345	8.339	
14 [illegible]	6.912	5.251	4.624	3.643	
15 L H (F_c [illegible])^2	41.448	27.590	21.397	13.213	
16 P_w=L H(F_c Q$_m$)^2(1-e^{-s})	8.409	4.909	3.852	2.416	
17 $P_w^2 = P_t^2 + P_w$	510.1	671.1	766.3	851.0	
18 $P_s^2 = e^s P_w^2$	627.7	816.7	934.9	1040.0	
19 P_s	792.3	903.7	966.7	1019.3	
20 $P = (\frac{P_t + P_s}{2})$	752.7	860.0	920.1	970.5	
21 $P_r = (P/P_{cr})$	[illegible]	1.30	1.40	1.47	
22 $T_r = (T/T_{cr})$	1.49	1.49	1.49	1.49	
23 [illegible]	.887	.873	.864	.858	



AOF = 1212 mcfpd

? mcfpd