

MAY 11 1983

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3/20/83		O. C. D.			
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company		ARTESIA, OFFICE			
Pool Pecos Slope Abo		Formation Abo		Unit			
Completion Date 4/18/82		Total Depth 4150.0'	Plug Back TD 3980.0'	Elevation 3746.0'	Farm or Lease Name George "QJ" Fed.		
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4052.0'	Perforations: From 3708.0' To 3854.0'	Well No. 5		
Tbg Size 2.875"	Wt. 6.400#	d 2.441"	Set At 3663.0'	Perforations: From 0.0' To 0.0'	Unit Sec Twp Rge C 34 6S 25E		
Type Well Single				Packer Set At 3664.0'	County Chaves		
Producing Thru Tubing	Resv. Temp. °F 101 @ 0'	Mean Temp. °F 62.0	Baro. Press. - Pa 13.2 psia.	State New Mexico			
L 3663.0'	H 3663.0'	Gg .667	%CO2 2.63	%N2 5.48	%H2S 0.00		
Prover 2.000"		Meter Run 2.000"	Taps Flange				
FLOW DATA			TUBING DATA		CASING DATA		
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Duration of Flow
SI	0.000 X 0.000	0	0.0	45	995	62	0 hrs.
1.	2.067 X .750	110	57.0	50	880	50	24 hrs.
2.	2.067 X .750	100	45.0	45	890	45	24 hrs.
3.	2.067 X .750	130	74.0	45	830	45	24 hrs.
4.	2.067 X .750	320	45.0	48	730	48	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0 hrs.
RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 HOUR)	/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	2.709	83.80	123.20	1.010	1.224	1.010	284
2.	2.709	71.37	113.20	1.015	1.224	1.010	243
3.	2.709	102.94	143.20	1.015	1.224	1.013	351
4.	2.709	122.45	333.20	1.012	1.224	1.031	424
5.	0.000	0.00	0.00	0.000	0.000	0.000	0
Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.							
NO	Pr	Temp. °R	Tr	Z	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.		
1.	.18	510	1.42	.980	Specific Gravity Separator Gas .667 xxxxxxxxxxxxxx		
2.	.17	505	1.41	.981	Specific Gravity Flowing Fluid xxxxxx .667		
3.	.21	505	1.41	.975	Critical Pressure 671.9 PSIA 671.9 PSIA		
4.	.50	508	1.42	.942	Critical Temperature 358.4°R 358.4°R		
5.	0.00	0	0.00	0.000			
Pc 1008.2 Pc2 1016.5							
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	$\frac{Pc2}{Pc2-Pw2} = 2.2368$ (2) $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1.5319$		
1.	797.8	893.4	798.1	218.3	ROF = Q $\left[\frac{Pc2}{Pc2-Pw2} \right]^n = 649$ Mcfd		
2.	815.8	903.3	816.0	200.5			
3.	711.0	843.5	711.5	305.0			
4.	552.3	743.7	553.1	463.3			
5.	0.0	0.0	0.0	0.0			
Absolute Open Flow				649 Mcfd @ 15.025	Angle of Slope, θ	28	Slope, n .530
Remarks:							

Approved By:	Conducted By: David Weaver	Calculated By: Jim Brown	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 5/11/83

COMPANY Yates Petroleum Corporation LEASE George "QJ" Fed. WELL NO. 5

LOCATION: Unit C Section 34 Township 6S Range 25E

L 3663.0 H 3663.0 L/H 1.000 G .667 %CO₂ 2.63 %N₂ 5.48 %H₂S 0.00

d 2.441 Fr .010495 GH 2443.2 Pcr 671.9 Tcr 358.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.284	.243	.351	.424	0.000
2 Tw(W.H.°R)	510.0	505.0	505.0	508.0	0.0
3 Ts(B.H.°R)	561.0	561.0	561.0	561.0	0.0
4 T=(Tw+Ts)/2	535.5	533.0	533.0	534.5	0.0
5 Z(Est.)	.866	.862	.871	.886	0.000
6 TZ	463.7	459.5	464.0	473.7	0.0
7 GH/TZ	5.269	5.317	5.265	5.158	0.000
8 e ^s (Table XIV)	1.218	1.221	1.218	1.213	0.000
9 1-e ^{-s} (Table XIV)	.179	.181	.179	.176	0.000
10 Pt	893.2	903.2	843.2	743.2	0.0
11 Pt ² /1000	797.8	815.8	711.0	552.3	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.866	4.822	4.874	4.971	0.000
14 FcQm	1.380	1.170	1.710	2.105	0.000
15 L/H(FcQm) ²	1.904	1.368	2.925	4.433	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.341	.247	.524	.780	0.000
17 Pw ² =Pt ² +Fw	798.1	816.0	711.5	553.1	0.0
18 Ps ² =e ^s Pw ²	972.5	996.1	866.7	671.2	0.0
19 Ps	986.2	998.0	931.0	819.2	0.0
20 P=(Pt+Ps)/2	939.7	950.6	887.1	781.2	0.0
21 Pr=(P/Pcr)	1.40	1.41	1.32	1.16	0.00
22 Tr=(T/Tcr)	1.49	1.49	1.49	1.49	0.00
23 Z(Table XI)	.866	.862	.871	.886	0.000

Company	Yates Petroleum Corporation
Well	George "QJ" Fed. No. 5
Location	C, 34-6S-25E
County	Chaves
Date	5/11/83

