

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122

clsf
File

RECEIVED

Type Test [x] Initial [] Annual [] Special		Test Date 9/26/87			
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Company		MAY 04 '88	
Pool West Pecos Slope		Formation Abo		Unit O. C. D.	
Completion Date 9/14/87		Total Depth 3200.0'		ARTESIA, OFFICE	
Csg Size Wt. 4.500" 9.500#		Plug Back TD 3123.0'		Elevation 4161.3'	
Tbg Size Wt. 2.375" 4.700#		Perforations: From 2856.0' To 2986.0'		Farm or Lease Name China Draw AEP St.	
		Perforations: From 0.0' To 0.0'		Well No. 3	
Type Well Single		Packer Set At 2801.0'		Unit Sec Twp Rge H 36 6S 22E	
Producing Thru Tubing		Resv. Temp. °F 104 @ 2986'		County chaves	
		Mean Temp. °F 62.0		State New Mexico	
L 2801.0'		H 2801.0'		Baro. Press. - Pa 13.2 psia.	
Gg .616		%CO2 .01		Prover 0.000"	
		%N2 4.91		Meter Run 2.000"	
		%H2S 0.00		Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	57	620	0	0	0	0 hrs.
1.	2.067 X 1.125	200	3.2	57	573	62	0	0	24 hrs.
2.	2.067 X 1.125	200	11.6	57	483	62	0	0	24 hrs.
3.	2.067 X 1.125	205	24.1	57	407	62	0	0	24 hrs.
4.	2.067 X 1.125	205	34.0	57	335	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 HOUR)	1/hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	6.397	26.12	213.20	1.003	1.274	1.016	217
2.	6.397	49.73	213.20	1.003	1.274	1.016	413
3.	6.397	72.52	218.20	1.003	1.274	1.016	602
4.	6.397	86.13	218.20	1.003	1.274	1.016	716
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.
1.	.32	517	1.49	.969	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.32	517	1.49	.969	Specific Gravity Separator Gas .616
3.	.33	517	1.49	.968	Specific Gravity Flowing Fluid .616
4.	.33	517	1.49	.968	Critical Pressure 663.3 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 347.5°R

Pc 633.2 Pc2 400.9				
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)
1.	343.6	586.6	344.1	56.9
2.	246.2	497.9	247.9	153.1
3.	176.6	424.4	180.1	220.8
4.	121.2	355.4	126.3	274.6
5.	0.0	0.0	0.0	0.0

$\frac{Pc2}{Pc2-Pw2} = \frac{1.4537}{(2)} \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 1.3270$	
$AOF = Q \left[\frac{Pc2}{Pc2-Pw2} \right]^n = 949 \text{ Mcfd}$	

Absolute Open Flow	949 Mcfd @ 15.025	Angle of Slope, θ	37	Slope, n	.756
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Remarks:

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

Adopted 9-1-65

DATE 5/2/88

COMPANY Yates Petroleum Corporation LEASE China Draw AEP St. WELL NO. 3

LOCATION: Unit H Section 36 Township 6S Range 22E

L 2801.0 H 2801.0 L/H 1.000 G .616 %CO₂ .01 %N₂ 4.91 %H₂S 0.00

d 1.995 Fr .017777 GH 1725.4 Pcr 663.3 Tcr 347.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.217	.413	.602	.716	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	564.0	564.0	564.0	564.0	0.0
4 T=(Tw+Ts)/2	543.0	543.0	543.0	543.0	0.0
5 Z(Est.)	.924	.935	.945	.954	0.000
6 TZ	501.5	507.7	513.0	518.0	0.0
7 GH/TZ	3.440	3.398	3.364	3.331	0.000
8 e ^s (Table XIV)	1.138	1.136	1.134	1.133	0.000
9 1-e ^{-s} (Table XIV)	.121	.120	.118	.117	0.000
10 Pt	586.2	496.2	420.2	348.2	0.0
11 Pt ² /1000	343.6	246.2	176.6	121.2	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.918	9.027	9.120	9.210	0.000
14 FcQm	1.934	3.727	5.494	6.589	0.000
15 L/H(FcQm) ²	3.741	13.894	30.181	43.421	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.453	1.662	3.576	5.090	0.000
17 Pw ² =Pt ² +Fw	344.1	247.9	180.1	126.3	0.0
18 Ps ² =e ^s Pw ²	391.5	281.6	204.4	143.1	0.0
19 Ps	625.7	530.6	452.1	378.3	0.0
20 P=(Pt+Ps)/2	605.9	513.4	436.1	363.3	0.0
21 Pr=(P/Pcr)	.91	.77	.66	.55	0.00
22 Tr=(T/Tcr)	1.56	1.56	1.56	1.56	0.00
23 Z(Table XI)	.924	.935	.945	.954	0.000

Company	Yates Petroleum Corporation
Well	China Draw REP St. No. 3
Location	H, 36-6S-22E
County	chaves
Date	5/2/88

$P_c^2 - P_w^2$, THOUSANDS

