

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

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Form C-1-2  
JAN 3 1985  
O. C. D.  
ARTESIA, OFFICE

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Type Test [x] Initial [ ] Annual [ ] Special					Test Date 9/20/84												
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company												
Pool Pecos Slope					Formation Abo					Unit							
Completion Date 1/29/83			Total Depth 4100.0'			Plug Back TD 4029.0'			Elevation 3773.2'			Farm or Lease Name Albitus "TH" Fed					
Csg Size 4.500"		Wt. 9.500#		d 4.090"		Set At 4095.0'		Perforations: From 3751.0' To 3967.0'					Well No. 2				
Tbg Size 2.375"		Wt. 4.700#		d 1.995"		Set At 3702.0'		Perforations: From 0.0' To 0.0'					Unit Sec Twp Rge E 21 7S 25E				
Type Well Single					Packer Set At 3702.0'					County Chaves							
Producing Thru Tubing			Resv. Temp. °F 104 @ 3700'			Mean Temp. °F 62.0			Baro. Press. - Pa 13.2 psia.			State New Mexico					
L 3702.0'		H 3702.0'		Gg .657		%CO2 .04		%N2 7.65		%H2S 0.00		Prover 0.000"		Meter Run 2.000"		Taps Flange	

NO	FLOW DATA			TUBING DATA			CASING DATA			Duration of Flow
	Prover Size	Orifice 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	70	1000	0	0	0	0 hrs.
1.	2.067	X 1.250	200	13.9	70	838	62	0	0	24 hrs.
2.	2.067	X 1.250	220	22.8	70	745	62	0	0	24 hrs.
3.	2.067	X 1.250	230	26.8	70	675	62	0	0	24 hrs.
4.	2.067	X 1.250	280	41.0	70	480	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)	√hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	8.134	54.44	213.20	.991	1.234	1.016	550
2.	8.134	72.92	233.20	.991	1.234	1.017	737
3.	8.134	80.73	243.20	.991	1.234	1.018	817
4.	8.134	109.64	293.20	.991	1.234	1.022	1114
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	530	1.50	.970	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.35	530	1.50	.966	Specific Gravity Separator Gas	.657	xxxxxxx
3.	.37	530	1.50	.965	Specific Gravity Flowing Fluid	xxxxxx	.657
4.	.45	530	1.50	.957	Critical Pressure	657.4 PSIA	657.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	353.3°R	353.3°R

NO	Pt <sup>2</sup>	Pw	Pw <sup>2</sup>	Pc <sup>2</sup> -Pw <sup>2</sup> (1)	Pc <sup>2</sup> / (Pc <sup>2</sup> -Pw <sup>2</sup> )	(2)	[Pc <sup>2</sup> / (Pc <sup>2</sup> -Pw <sup>2</sup> )] <sup>n</sup>
1.	724.5	853.4	728.3	298.2	1.3362	(2)	1.2423
2.	574.9	762.8	581.8	444.8			
3.	473.6	694.4	482.2	544.3			
4.	243.2	509.7	259.8	766.8			
5.	0.0	0.0	0.0	0.0			

ROF = Q [Pc<sup>2</sup> / (Pc<sup>2</sup>-Pw<sup>2</sup>)]<sup>n</sup> = 1384 Mcfd

Absolute Open Flow 1384 Mcfd @ 15.025 Angle of Slope, θ 37 Slope, n .749  
Remarks:

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

Adopted 9-1-65

DATE 12/28/84

COMPANY Yates Petroleum Corporation LEASE Albitus "TH" Fed WELL NO. 2

LOCATION: Unit E Section 21 Township 7S Range 25E

L 3702.0 H 3702.0 L/H 1.000 G .657 %CO<sub>2</sub> .04 %N<sub>2</sub> 7.65 %H<sub>2</sub>S 0.00

d 1.995 Fr .017777 GH 2432.2 Pcr 657.4 Tcr 353.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.550	.737	.817	1.114	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.)	.882	.894	.903	.929	0.000
6 TZ	479.1	485.4	490.3	504.4	0.0
7 GH/TZ	5.077	5.010	4.960	4.822	0.000
8 e <sup>s</sup> (Table XIV)	1.210	1.207	1.204	1.198	0.000
9 1-e <sup>-s</sup> (Table XIV)	.173	.171	.170	.165	0.000
10 Pt	851.2	758.2	688.2	493.2	0.0
11 Pt <sup>2</sup> /1000	724.5	574.9	473.6	243.2	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.516	8.634	8.720	8.967	0.000
14 FcQm	4.680	6.365	7.124	9.989	0.000
15 L/H(FcQm) <sup>2</sup>	21.902	40.518	50.753	99.784	0.000
16 Fw=L/H(FcQm) <sup>2</sup> (1-e <sup>-s</sup> )	3.797	6.937	8.611	16.505	0.000
17 Pw <sup>2</sup> =Pt <sup>2</sup> +Fw	728.3	581.8	482.2	259.8	0.0
18 Ps <sup>2</sup> =e <sup>s</sup> Pw <sup>2</sup>	881.1	702.0	580.8	311.2	0.0
19 Ps	938.7	837.9	762.1	557.9	0.0
20 P=(Pt+Ps)/2	894.9	798.0	725.1	525.5	0.0
21 Pr=(P/Pcr)	1.36	1.21	1.10	.80	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.882	.894	.903	.929	0.000

Company	Yates Petroleum Corporation
Well	Albitus "TH" Fed No. 2
Location	E, 21-7S-25E
County	Chaves
Date	12/28/84

$P_c^2 - P_w^2$ , THOUSANDS

