

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

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O. C. D.
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File

Type Test [x] Initial [] Annual [] Special					Test Date 9/20/84				
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company				
Pool Pecos Slope					Formation Abo				
Completion Date 1/20/83					Total Depth 4150.0'		Plug Back TD 4100.0'		Elevation 3771.9'
Farm or Lease Name Albitus "TH" Fed									
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4150.0'	Perforations: From 3864.0' To 3887.0'					Well No. 3
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3833.0'	Perforations: From 0.0' To 0.0'					Unit Sec Twp Rge N 21 7S 25E
Type Well Single					Packer Set At 3833.0'				
Producing Thru Tubing					Resv. Temp. °F 104 @ 3852'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.
State New Mexico									
L 3833.0'	H 3833.0'	Gg .657	%CO2 .04	%N2 7.65	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange	

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO	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 .875	200	4.3	70	948	62	0	0	24 hrs.
2.	2.067	X .875	250	10.1	70	875	62	0	0	24 hrs.
3.	2.067	X .875	320	35.3	70	654	62	0	0	24 hrs.
4.	2.067	X .875	390	43.0	70	510	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.	3.729	30.28	213.20	.991	1.234	1.016	143
2.	3.729	51.56	263.20	.991	1.234	1.020	243
3.	3.729	108.45	333.20	.991	1.234	1.025	507
4.	3.729	131.67	403.20	.991	1.234	1.031	619
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.	.40	530	1.50	.962	Specific Gravity Separator Gas	.657
3.	.51	530	1.50	.951	Specific Gravity Flowing Fluid	.657
4.	.61	530	1.50	.941	Critical Pressure	657.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	353.3°R

Pc 1013.2 Pc² 1026.6				
NO	Pt²	Pw	Pw²	Pc²-Pw²
1.	923.9	961.3	924.2	102.4
2.	788.9	888.6	789.6	236.9
3.	445.2	669.8	448.6	578.0
4.	273.7	528.2	279.0	747.6
5.	0.0	0.0	0.0	0.0

(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 1.3666$ (2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.2622$

AOF = $Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 781 \text{ Mcfd}$

Absolute Open Flow 781 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .746

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-1223

Adopted 9-1-65

DATE 12/28/84

COMPANY Yates Petroleum Corporation LEASE Albitus "TH" Fed WELL NO. 3

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

L 3833.0 H 3833.0 L/H 1.000 G .657 %CO₂ .04 %N₂ 7.65 %H₂S 0.00

d 1.995 Fr .017777 GH 2518.3 Pcr 657.4 Tcr 353.3

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.140	.240	.507	.619	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.)	.869	.878	.906	.925	0.000
6 TZ	471.8	476.5	491.9	502.5	0.0
7 GH/TZ	5.338	5.284	5.119	5.012	0.000
8 e ^s (Table XIV)	1.222	1.219	1.212	1.207	0.000
9 1-e ^{-s} (Table XIV)	.181	.180	.175	.171	0.000
10 Pt	961.2	888.2	667.2	523.2	0.0
11 Pt ² /1000	923.9	788.9	445.2	273.7	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.386	8.478	8.748	8.933	0.000
14 FcQm	1.175	2.031	4.434	5.527	0.000
15 L/H(FcQm) ²	1.381	4.126	19.659	30.548	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.251	.741	3.433	5.234	0.000
17 Pw ² =Pt ² +Fw	924.2	789.6	448.6	279.0	0.0
18 Ps ² =e ^s Pw ²	1129.0	962.6	543.5	336.7	0.0
19 Ps	1062.5	981.1	737.2	580.2	0.0
20 P=(Pt+Ps)/2	1011.9	934.6	702.2	551.7	0.0
21 Pr=(P/Pcr)	1.54	1.42	1.07	.84	0.00
22 Tr=(T/Tcr)	1.54	1.54	1.54	1.54	0.00
23 Z(Table XI)	.869	.878	.906	.925	0.000

Company	Yates Petroleum Corporation
Well	Albitus "TH" Fed No. 3
Location	N, 21-7S-25E
County	Chaves
Date	12/28/84

