

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

Form C-122

*CISF
File*

Type Test										Test Date		
☒ Initial ☐ Annual ☐ Special										11/03/1992		
Company					Connection							
Yates Petroleum Corp					Transwestern Pipeline Co							
Pool					Formation					Unit		
Abo					Pecos Slope							
Completion Date			Total Depth		Plug Back TD			Elevation		Farm or Lease Name		
10/15/1992			4100		4062			3763		Red Rock NB Federal		
Csg. Size	Wt.	d	Set At	Perforations:					Well No			
4.500	9.500	4.090	4100	From 3620 To 3951					6			
Tbg. Size	Wt.	d	Set At	Perforations:					Unit Sec. Twp Rge			
2.375	4.700	1.995	3580	From 3620 To 3951					B 28 6S 25E			
Type Well					Packer Set At					County		
Single					3580					Chaves		
Producing Thru			Resv. Temp. °F		Mean Temp. °F		Baro. Press. - Pa				State	
Tubing			100 @ 3786		62		13.2				New Mexico	
L	H	Gg	%CO ₂	%N ₂	%H ₂ S	Prover	Meter Run	Taps				
3580	3580	0.650	0.037	5.095	0.000	0.000	2.000	Flange				

FLOW DATA						TUBING DATA			CASING DATA		Duration of Flow
NO	Prover Line Size	X	Orifice Size	Press p.s.i.g.	Diff. hw	Temp °F	Press p.s.i.g.	Temp °F	Press p.s.i.g.	Temp °F	
SI	0.000	x	0.000	0	0.0	0	950	0			0
1	2.067	x	1.000	740	3.0	59	830	62			24
2	2.067	x	1.000	642	3.5	55	800	62			24
3	2.067	x	1.000	740	5.0	56	770	62			24
4	2.067	x	1.000	740	6.0	58	740	62			24
5		x									

NO	Coefficient (24 Hour)	hwPm	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress Factor, Fov	Rate of Flow Q, Mcfd
1	4.946	47.5	753.2	1.0010	1.240	1.070	312
2	4.946	47.7	655.1	1.0048	1.240	1.062	312
3	4.946	61.4	753.2	1.0039	1.240	1.072	405
4	4.946	67.2	753.2	1.0019	1.240	1.071	442
5							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.	1.14	519	1.45	0.873	0	
2.	0.99	515	1.44	0.886	0.000	
3.	1.14	516	1.44	0.871	0.650	XXXXXXXXXX
4.	1.14	518	1.44	0.873	0.650	XXXXXXXXXX
5.						

NO	Pc	Pw	Pw ²	Pc ² - Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} =$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n =$
1	711.0	843.9	712.1	215.6	2.970	2.117
2	661.3	813.9	662.5	265.3		
3	613.4	784.5	615.4	312.4		
4	567.3	754.8	569.7	358.1		
5						

AOF = Q $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n =$ 857

Gas Liquid Hydrocarbon Ratio: 0

A.P.I. Gravity of Liquid Hydrocarbons: 0.000

Specific Gravity Separator Gas: 0.650

Specific Gravity Flowing Fluid: XXXXXXXXXXXX

Critical Pressure: 662 P.S.I.A.

Critical Temperature: 358 °R

Absolute Open Flow	857	Mcf/d @ 15.025	Angle of Slope θ	35	Slope, n	0.689
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Remarks			

Approved By Commission	Conducted By	Calculated By	Checked By
	Dyke Dodson	Andrea Carpenter	

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 11/03/1992

COMPANY Yates Petroleum Corp LEASE Red Rock NB Federal WELL NO. 6

LOCATION: Unit B Section 28 Township 6S Range 25E

L 3580 H 3580 L/H 1.000 G 0.650 %CO₂ 0.037 %N₂ 5.095 %H₂S 0.000

d 1.995 Fr 0.017777 GH 2328.4 Pcr 661.9 Tcr 358.3

L N E	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.312	0.312	0.405	0.442	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	560	560	560	560	
4 T = (Tw+Ts) / 2	540.7	540.7	540.7	540.7	
5 Z (Est.)	0.875	0.879	0.883	0.887	
6 TZ	472.9	475.1	477.3	479.5	
7 GH / TZ	4.923	4.901	4.878	4.856	
8 e ^s (Table XIV)	1.203	1.202	1.201	1.200	
9 1-e ^s (Table XIV)	0.169	0.168	0.167	0.166	
10 Pt	843.2	813.2	783.2	753.2	
11 Pt ² / 1000	711.0	661.3	613.4	567.3	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	8.407	8.446	8.485	8.524	
14 FcQm	2.63	2.64	3.44	3.77	
15 L / H(FcQm) ²	6.9	7.0	11.8	14.2	
16 Fw = L / H(FcQm) ² (1-e ^s)	1.16	1.17	1.97	2.37	
17 Pw ² = Pt ² +Fw	712.1	662.5	615.4	569.7	
18 Ps ² = e ^s Pw ²	856.5	796.1	738.9	683.5	
19 Ps	925.5	892.2	859.6	826.7	
20 P = (Pt+Ps) / 2	884.3	852.7	821.4	790.0	
21 Pr = (P / Pcr)	1.34	1.29	1.24	1.19	
22 Tr = (T / Tcr)	1.51	1.51	1.51	1.51	
23 Z (Table XI)	0.875	0.879	0.883	0.887	

Company
Well
Location

Yates Petroleum Corp
Red Rock NB Federal #6
B 28-6S-25E

County
Date

Chaves
11-03-1992

