

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

Form C-122

clst
File

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12/21/92			
Company Yates Petroleum Corp				Connection Transwestern Pipeline				JAN 06 '95	
Pool Abo				Formation Pecos Slope				Unit O. C. D.	
Completion Date 12/12/1992		Total Depth 4300		Plug Back TD 4250		Elevation 3968		Farm or Lease Name ARTESIA, OFFICE	
Csg. Size 4.500		Wt. 10.500		d 4.052		Set At 4300		Perforations: From 3706 To 4028	
Tbg. Size 2.375		Wt. 4.700		d 1.995		Set At 3659		Perforations: From 3706 To 4028	
Type Well Single						Packer Set At 3659		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 106 @ 3773		Mean Temp. °F 62		Baro. Press. - Pa 13.2		State New Mexico	
L 3659		H 3659		Gg 0.650		%CO ₂ 0.026		%N ₂ 6.879	
				%H ₂ S 0.000		Prover 0.000		Meter Run 2.000	
								Taps Flange	

FLOW DATA						TUBING DATA		CASING DATA		Duration	
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	of Flow
Sl.	0.000	x	0.000	0	0.0	0	980	0			0
1	2.067	x	0.750	300	17.0	47	800	62			24
2	2.067	x	0.750	275	35.8	44	633	62			24
3	2.067	x	0.750	300	60.0	45	467	62			24
4	2.067	x	0.750	300	76.0	46	300	62			24
5		x									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft.	Gravity Factor Fg	Super. Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	2.709	73.0	313.2	1.0127	1.240	1.029	256
2.	2.709	101.5	288.2	1.0158	1.240	1.027	356
3.	2.709	137.1	313.2	1.0148	1.240	1.030	481
4.	2.709	154.3	313.2	1.0137	1.240	1.029	541
5.							

NO.	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl
1.	0.48	507	1.43	0.944	0	
2.	0.44	504	1.43	0.947	0.000	
3.	0.48	505	1.43	0.943	0.650	XXXXXXXXXX
4.	0.48	506	1.43	0.944	0.650	0.650
5.						

NO.	Pc	Pw	Pwf	Pc ² - Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} =$	(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n =$
1	661.3	813.7	662.1	324.3	1.310	1.224
2	417.6	647.4	419.2	567.3		
3	230.6	483.3	233.6	752.8		
4	98.1	319.4	102.0	884.4		
5						

Absolute Open Flow		589		Mcf/d @ 15.025		Angle of Slope		0 37		Slope, n		0.749	
Remarks													
Approved By Commission				Conducted By David Weaver				Calculated By Andrea Carpenter				Checked By	

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

DATE 12/21/92

COMPANY Yates Petroleum Corp LEASE Sparrow SP State WELL NO. 3

LOCATION: Unit M Section 32 Township 6S Range 25E

L 3659 H 3659 L / H 1.000 G 0.650 %CO₂ 0.026 %N₂ 6.879 %H₂S 0.000

d 1.995 Fr 0.017777 GH 2378.3 Pcr 658.9 Tcr 353.2

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.256	0.356	0.481	0.541	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	566	566	566	566	
4 T = (Tw+Ts) / 2	543.7	543.7	543.7	543.7	
5 Z (Est.)	0.887	0.909	0.931	0.954	
6 TZ	482.3	493.9	506.0	518.6	
7 GH / TZ	4.931	4.815	4.700	4.586	
8 e ^s (Table XIV)	1.203	1.198	1.193	1.188	
9 1-e ^s (Table XIV)	0.169	0.165	0.162	0.158	
10 Pt	813.2	646.2	480.2	313.2	
11 Pt ² / 1000	661.3	417.6	230.6	98.1	
12 Fr (Table XV)	0.017777	0.017777	0.017777	0.017777	
13 Fc = FrTZ	8.574	8.781	8.996	9.220	
14 FcQm	2.19	3.13	4.33	4.99	
15 L / H(FcQm) ²	4.8	9.8	18.7	24.9	
16 Fw = L / H(FcQm) ² (1-e ^s)	0.81	1.61	3.03	3.93	
17 Pw ² = Pt ² +Fw	662.1	419.2	233.6	102.0	
18 Ps ² = e ^s Pw ²	796.5	502.1	278.6	121.2	
19 Ps	892.5	708.6	527.9	348.1	
20 P = (Pt+Ps) / 2	852.8	677.4	504.0	330.6	
21 Pr = (P / Pcr)	1.29	1.03	0.77	0.50	
22 Tr = (T / Tcr)	1.54	1.54	1.54	1.54	
23 Z (Table XI)	0.887	0.909	0.931	0.954	

Company
Well
Location

Yates Petroleum Corp
Sparrow SP State #3
M 32-6S-25E

County
Date

Chaves
12-21-92

Q, Mcfd

