

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

Form C-122

clsp
File

Type Test [x] Initial [] Annual [] Special						Test Date 3/9/88		RECEIVED	
Company Yates Petroleum Corporation						Connection Transwestern Pipeline Company			
Pool East Eagle Creek <i>(Hika Morrow)</i>						Formation Atoka Morrow		Unit MAY 04 '88	
Completion Date 5/12/82		Total Depth 8450.0'		Plug Back TD 8340.0'		Elevation 3529.0'		Farm or Lease Name Federales 50 Com	
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 8392.0'	Perforations: From 7850.0' To 7915.0'		Well No. 10		O.C.D. ARTESIA OFFICE	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 7802.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge B 22 17S 25E			
Type Well Single						Packer Set At 7805.0'		County Eddy	
Producing Thru Tubing		Resv. Temp. °F 139 @ 7800'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 7802.0'	H 7802.0'	Gg .686	%CO2 .56	%N2 .91	%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	44	2040	0	0	0	0 hrs.
1.	2.067	X .750	245	8.4	44	1661	62	0	0	24 hrs.
2.	2.067	X .750	240	12.6	44	1464	62	0	0	24 hrs.
3.	2.067	X .750	235	22.7	44	1227	62	0	0	24 hrs.
4.	2.067	X .750	230	33.0	44	910	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.	2.709	46.57	258.20	1.016	1.207	1.030	159
2.	2.709	56.48	253.20	1.016	1.207	1.029	193
3.	2.709	75.06	248.20	1.016	1.207	1.029	257
4.	2.709	89.59	243.20	1.016	1.207	1.028	306
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.39	504	1.32	.942	53.030 Mcf/bbl.	52.400 Deg.	.686	xxxxxxx	669.9 PSIA	380.9°R
2.	.38	504	1.32	.944				xxxxxxx	667.9 PSIA	399.5°R
3.	.37	504	1.32	.945				xxxxxxx		
4.	.36	504	1.32	.946				xxxxxxx		
5.	0.00	0	0.00	0.000				xxxxxxx		

Pc 2053.2 Pc2 4215.6				$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 362 \text{ Mcfd}$	
NO	Pt2	Pw	Pw2	Pc2 - Pw2	
1.	2802.9	1674.4	2803.5	1412.2	$\frac{P_c^2}{P_c^2 - P_w^2} = 1.2506 \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1828$
2.	2182.1	1477.5	2182.9	2032.7	
3.	1538.1	1240.8	1539.6	2676.1	
4.	852.3	924.5	854.6	3361.0	
5.	0.0	0.0	0.0	0.0	

Absolute Open Flow		362 Mcfd @ 15.025		Angle of Slope, 0		37		Slope, n .751	
Remarks:									

Approved By:	Conducted By: Tracy Richardson	Calculated By: Andrea Carpenter	Checked By:
--------------	-----------------------------------	------------------------------------	-------------

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

Adopted 9-1-65

DATE 5/4/88

COMPANY Yates Petroleum Corporation LEASE Federales B0 Com WELL NO. 10

LOCATION: Unit B Section 22 Township 17S Range 25E

L 7802.0 H 7802.0 L/H 1.000 G .742 %CO₂ .56 %H₂ .91 %H₂S 0.00

d 1.995 Fr .017777 GH 5791.4 Pcr 667.9 Tcr 399.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.159	.193	.257	.306	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	599.0	599.0	599.0	599.0	0.0
4 T=(Tw+Ts)/2	560.5	560.5	560.5	560.5	0.0
5 Z(Est.)	.714	.728	.756	.811	0.000
6 TZ	400.3	408.0	423.9	454.4	0.0
7 GH/TZ	14.468	14.194	13.661	12.746	0.000
8 e ^s (Table XIV)	1.720	1.703	1.669	1.613	0.000
9 1-e ^{-s} (Table XIV)	.419	.413	.401	.380	0.000
10 Pt	1674.2	1477.2	1240.2	923.2	0.0
11 Pt ² /1000	2802.9	2182.1	1538.1	852.3	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	7.116	7.255	7.536	8.078	0.000
14 FcQm	1.134	1.401	1.934	2.472	0.000
15 L/H(FcQm) ²	1.286	1.964	3.739	6.112	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.539	.811	1.499	2.322	0.000
17 Pw ² =Pt ² +Fw	2803.5	2182.9	1539.6	854.6	0.0
18 Ps ² =e ^s Pw ²	4822.9	3716.7	2569.7	1378.3	0.0
19 Ps	2196.1	1927.9	1603.0	1174.0	0.0
20 P=(Pt+Ps)/2	1935.2	1702.5	1421.6	1048.6	0.0
21 Pr=(P/Pcr)	2.90	2.55	2.13	1.57	0.00
22 Tr=(T/Tcr)	1.40	1.40	1.40	1.40	0.00
23 Z(Table XI)	.714	.728	.756	.811	0.000

Company	Yates Petroleum Corporation
Well	Federales B0 Com No. 10
Location	B, 22-17S-25E
County	Eddy
Date	5/4/88

