

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

Form C-122

RECEIVED

clerk file

Type Test [x] Initial [] Annual [] Special					Test Date 4/21/88		JUL 22 '88	
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE	
Pool Pecos Slope #2					Formation Abo		Unit	
Completion Date 10/28/82		Total Depth 4250.0'		Plug Back TD 4196.0'		Elevation 3671.7'		Farm or Lease Name Verbena UV Federal
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4249.0'	Perforations: From 3894.0' To 4035.0'		Well No. 1		
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 3748.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge H 26 7S 25E		
Type Well Single					Packer Set At 3748.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 96 @ 3744'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico
L 3748.0'	H 3748.0'	Gg .648	%CO2 .08	%N2 6.90	%H2S 0.00	Prover 0.000"	Meter Run 2.000"	Taps Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow	
NO	Prover Size X Size	Orifice Size 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	66	895	0	0	0	0 hrs.
1.	2.067 X 1.125		105	1.0	65	834	62	0	0	24 hrs.
2.	2.067 X 1.125		110	4.1	65	724	62	0	0	24 hrs.
3.	2.067 X 1.125		115	10.1	66	576	62	0	0	24 hrs.
4.	2.067 X 1.125		120	18.0	66	160	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.	6.397	10.87	118.20	.995	1.242	1.009	87
2.	6.397	22.47	123.20	.995	1.242	1.010	179
3.	6.397	35.98	128.20	.994	1.242	1.010	287
4.	6.397	48.97	133.20	.994	1.242	1.010	391
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.	.18	525	1.49	.982	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.19	525	1.49	.981	Specific Gravity Separator Gas	.648 xxxxxxxxxxxxxx
3.	.19	526	1.49	.981	Specific Gravity Flowing Fluid	xxxxxx .648
4.	.20	526	1.49	.980	Critical Pressure	659.1 PSIA 659.1 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	352.4°R 352.4°R

Pc	908.2	Pc2	824.8
NO	Pt2	Pw	Pw2
1.	717.7	847.2	717.8
2.	543.5	737.3	543.6
3.	347.2	589.5	347.5
4.	30.0	175.3	30.7
5.	0.0	0.0	0.0

$(1) \frac{P_{c2}}{P_{c2}-P_{w2}} = \frac{1.0392}{1.0293} \quad (2) \left[\frac{P_{c2}}{P_{c2}-P_{w2}} \right]^n = 1.0293$	
$AOF = Q \left[\frac{P_{c2}}{P_{c2}-P_{w2}} \right]^n = 402 \text{ Mcfd}$	

Absolute Open Flow	402 Mcfd @ 15.025	Angle of Slope, θ	37	Slope, n	.751
Remarks:					

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

Adopted 9-1-65

DATE 6/20/88

COMPANY Yates Petroleum Corporation LEASE Verbena UV Federal WELL NO. 1

LOCATION: Unit H Section 26 Township 7S Range 25E

L 3748.0 H 3748.0 L/H 1.000 G .648 %CO₂ .08 %N₂ 6.90 %H₂S 0.00

d 2.441 Fr .010495 GH 2428.7 Pcr 659.1 Tcr 352.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.087	.179	.287	.391	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	556.0	556.0	556.0	556.0	0.0
4 T=(Tw+Ts)/2	539.0	539.0	539.0	539.0	0.0
5 Z(Est.)	.881	.895	.916	.974	0.000
6 TZ	474.9	482.6	493.5	525.2	0.0
7 GH/TZ	5.114	5.032	4.922	4.624	0.000
8 e ^S (Table XIV)	1.211	1.208	1.203	1.189	0.000
9 1-e ^{-S} (Table XIV)	.175	.172	.168	.159	0.000
10 Pt	847.2	737.2	589.2	173.2	0.0
11 Pt ² /1000	717.7	543.5	347.2	30.0	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.984	5.065	5.181	5.512	0.000
14 FcQm	.432	.909	1.487	2.154	0.000
15 L/H(FcQm) ²	.187	.826	2.212	4.642	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-S})	.033	.142	.373	.739	0.000
17 Pw ² =Pt ² +Fw	717.8	543.6	347.5	30.7	0.0
18 Ps ² =e ^S Pw ²	869.5	656.5	417.9	36.6	0.0
19 Ps	932.5	810.3	646.5	191.2	0.0
20 P=(Pt+Ps)/2	889.8	773.7	617.8	182.2	0.0
21 Pr=(P/Pcr)	1.35	1.17	.94	.28	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.881	.895	.916	.974	0.000

Company	Yates Petroleum Corporation
Well	Verbena UV Federal No. 1
Location	H, 26-7S-25E
County	Chaves
Date	6/20/88

