

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

RECEIVED BY
Form C-122
FEB 8 1985
O. C. D.
ARTESIA, OFFICE

45F
File

Type Test [x] Initial [] Annual [] Special					Test Date 10/28/84	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company			
Pool PECOS SLOPE <i>Alto</i>			Formation ABO		Unit	
Completion Date 2/16/83		Total Depth 4600.0'		Plug Back TD 4547.0'	Elevation 3593.9'	
Farm or Lease Name HUCKABAY "TJ" FED						
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4600.0'	Perforations: From 3962.0' To 4296.0'		
Well No. 2						
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3940.0'	Perforations: From 0.0' To 0.0'		
Unit Sec Twp Rge D 19 8S 26E						
Type Well Single				Packer Set At 3940.0'		
Producing Thru Tubing				County CHAVES		
Resv. Temp. °F 104 @ 3932'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia		
State New Mexico						
L 3940.0'	H 3940.0'	Gg .654	%CO2 .04	%N2 8.71	%H2S 0.00	
Prover 0.000"		Meter Run 2.000"		Taps Flange		

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover 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	65	1006	0	0	0	0 hrs.
1.	2.067 X 1.000	330	39.0	65	870	62	0	0	24 hrs.
2.	2.067 X 1.000	340	59.1	65	822	62	0	0	24 hrs.
3.	2.067 X 1.000	360	63.0	65	769	62	0	0	24 hrs.
4.	2.067 X 1.000	410	76.0	65	740	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.	4.947	115.69	343.20	.995	1.237	1.026	723
2.	4.947	144.48	353.20	.995	1.237	1.027	903
3.	4.947	153.33	373.20	.995	1.237	1.029	960
4.	4.947	179.34	423.20	.995	1.237	1.033	1128
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.	.52	525	1.50	.950	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.
2.	.54	525	1.50	.948	Specific Gravity Separator Gas .654
3.	.57	525	1.50	.945	Specific Gravity Flowing Fluid .654
4.	.65	525	1.50	.938	Critical Pressure 655.7 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature 349.4°R

Pc 1019.2	Pc2 1038.8				
NO	Pt2	Pw	Pw2	Pc2-Pw2 (1)	Pc2 = 2.3039 (2)
1.	780.0	887.1	787.0	251.8	
2.	697.6	841.7	708.5	330.3	
3.	611.8	790.1	624.2	414.5	
4.	567.3	764.5	584.5	454.3	
5.	0.0	0.0	0.0	0.0	

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 2112 \text{ Mcfd}$$

Absolute Open Flow 2112 Mcfd @ 15.025 Angle of Slope, 0 37 Slope, n .752
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-122D

Adopted 9-1-65

DATE 2/8/85

COMPANY Yates Petroleum Corporation LEASE HUCKABAY "TJ" FED WELL NO. 2

LOCATION: Unit D Section 19 Township 8S Range 26E

L 3940.0 H 3940.0 L/H 1.000 G .654 %CO₂ .04 %N₂ 8.71 %H₂S 0.00

d 1.995 Fr .017777 GH 2576.8 Pcr 655.7 Tcr 349.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.723	.903	.960	1.128	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.)	.883	.888	.895	.898	0.000
6 TZ	479.3	482.3	485.8	487.6	0.0
7 GH/TZ	5.376	5.342	5.304	5.285	0.000
8 e ^s (Table XIV)	1.223	1.222	1.220	1.219	0.000
9 1-e ^{-s} (Table XIV)	.182	.182	.180	.180	0.000
10 Pt	883.2	835.2	782.2	753.2	0.0
11 Pt ² /1000	780.0	697.6	611.8	567.3	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.527	8.574	8.640	8.672	0.000
14 FcQm	6.163	7.745	8.296	9.778	0.000
15 L/H(FcQm) ²	37.980	59.993	68.831	95.607	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	6.930	10.891	12.410	17.180	0.000
17 Pw ² =Pt ² +Fw	787.0	708.5	624.2	584.5	0.0
18 Ps ² =e ^s Pw ²	962.6	865.6	761.6	712.5	0.0
19 Ps	981.1	930.4	872.7	844.1	0.0
20 P=(Pt+Ps)/2	932.2	882.8	827.4	798.7	0.0
21 Pr=(P/Pcr)	1.42	1.35	1.26	1.22	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.883	.888	.895	.898	0.000

Company	Yates Petroleum Corporation
Well	HUCKABAY "TJ" FED No. 2
Location	D, 19-8S-26E
County	CHAVES
Date	2/8/85

