

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

Form O-122

RECEIVED

JAN 20 1982

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11/14/82	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company		O. C. D. ARTESIA OFFICE	
Pool Pecos Slope - Abo				Formation Abo		Unit	
Completion Date 6/10/82		Total Depth 4133.0'		Plug Back TD 4073.0'		Elevation 3942.0'	
Farm or Lease Name Sagebrush TY Com 1							
Csg Size 4.500"	Wt. 9.500#	d 4.050"	Set Rt 4128.0'	Perforations: From 3537.0' To 3822.0'		Well No. 1	
Tbg Size 2.075"	Wt. 4.700#	d 1.995"	Set Rt 3480.0'	Perforations: From 0.0' To 0.0'		Unit Sec Top Rge H 15 58 24E	
Type Well Single				Packer Set Rt 3480.0'		County Chaves	
Producing Thru Tubing 121 @ 3479'				Mean Temp. °F 62.0		State New Mexico	
L 3480.0'		H 3480.0'		Gg .644	NO2 .06	W-25 5.75	Probes 0.00
				Meter Run 2.000"	Taps Flange		

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Proven Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
1.	0.000 X 0.000	0	0.0	72	1304	0	0	0	0 hrs.
2.	2.067 X 1.375	125	9.8	72	351	62	0	0	24 hrs.
3.	2.067 X 1.375	130	13.3	72	336	62	0	0	24 hrs.
4.	2.067 X 1.375	135	24.8	72	393	62	0	0	24 hrs.
5.	2.067 X 1.375	140	35.0	72	345	62	0	0	24 hrs.
6.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 HOUR)	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd	
1.	10.204	36.80	133.20	.983	1.246	1.011	468
2.	10.204	43.64	143.20	.983	1.246	1.011	555
3.	10.204	60.62	143.20	.983	1.246	1.011	771
4.	10.204	74.26	153.20	.983	1.246	1.012	945
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Fr	Temp. °F	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry Mcf/bbl.	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	.21	532	1.50	.979	R.P.I. Gravity of Liquid Hydrocarbons 0.000 leg.		
2.	.22	532	1.50	.979	Specific Gravity Separator Gas .644	xxxxxxx	
3.	.22	532	1.50	.978	Specific Gravity Flowing Fluid xxxxxx		.644
4.	.23	532	1.50	.977	Critical Pressure 659.0 PSIA	659.0 PSIA	
5.	0.00	0	0.00	0.000	Critical Temperature 355.0°R	355.0°R	

Pc 1017.2 Pc² 1034.7

NO	Fr²	Pm	Fr²	Pc²-Pm² (1)	Pc²	=	5.0123	(2)	$\left[\frac{Pc²}{Pc²-Pm²} \right]^n$	=	3.1572
1.	829.7	965.5	932.3	102.4							
2.	961.0	951.1	904.6	130.1							
3.	821.2	910.1	823.2	206.5							
4.	736.5	864.4	747.2	287.5							
5.	0.0	0.0	0.0	0.0							

ROF = 0 $\left[\frac{Pc²}{Pc²-Pm²} \right]^n$ = 2433 Mcfd

Absolute Open Flow 2433 Mcfd @ 15.025 Angle of Slope, 0 35 Slope, n .713
Remarks:

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

Adopted 9-1-65

DATE 1/19/83

COMPANY Yates Petroleum Corporation LEASE Sagebrush TY Com 1 WELL NO. 1

LOCATION: Unit N Section 15 Township 5S Range 24E

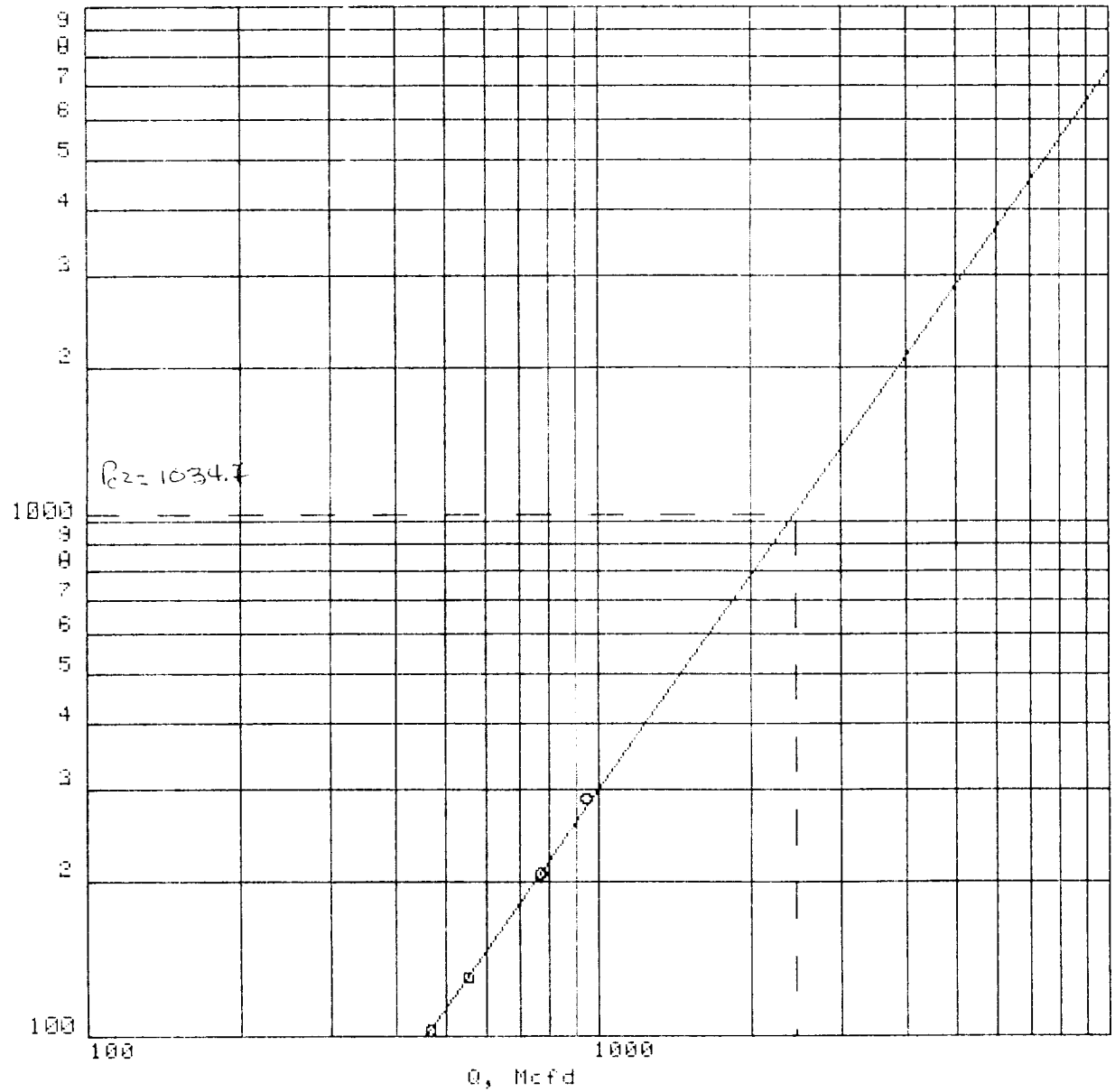
L 3480.0 H 3480.0 L/H 1.000 G .644 MOG .06 %H2 5.75 %H2S 0.00

d 1.995 Fr .017777 GH 2241.1 Pcr 659.0 Tcr 355.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.468	.555	.771	.945	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	581.0	581.0	581.0	581.0	0.0
4 T=(Tw+Ts)/2	551.5	551.5	551.5	551.5	0.0
5 Z(Est.)	.875	.876	.881	.887	0.000
6 TZ	482.4	483.3	486.0	489.0	0.0
7 GH/TZ	4.646	4.637	4.612	4.583	0.000
8 e ² (Table XIV)	1.190	1.190	1.189	1.187	0.000
9 1-e ⁻² (Table XIV)	.160	.160	.159	.158	0.000
10 Pt	964.2	949.2	906.2	858.2	0.0
11 Pt ² /1000	929.7	901.0	821.2	736.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.581	8.592	8.639	8.697	0.000
14 FcQm	4.012	4.765	6.658	8.214	0.000
15 L/H(FcQm) ²	16.095	22.706	44.334	67.476	0.000
16 Fw=L/H(FcQm) ² (1-e ⁻²)	2.572	3.624	7.041	10.650	0.000
17 Pw ² =Pt ² +Fw	932.3	904.6	828.2	747.2	0.0
18 Ps ² =e ² Pw ²	1109.5	1076.4	984.6	887.2	0.0
19 Ps	1053.4	1037.5	992.3	941.9	0.0
20 P=(Pt+Ps)/2	1008.8	993.4	949.2	900.1	0.0
21 Pr=(P/Pcr)	1.53	1.51	1.44	1.37	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.875	.876	.881	.887	0.000

Company	Yates Petroleum Corporation
Well	Sagebrush TY Dom 1 No. 1
Location	N, 15-58-24E
County	Chaves
Date	1/19/83

$P_0^2 - P_w^2$, THOUSANDS



ADP = 2433