

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

9/1 F/e

RECEIVED BY C-122
JUL 09 1984
O. C. D.
ARTESIA, OFFICE

Type Test [X] Initial [] Annual [] Special				Test Date 5/19/84		O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company			
Pool Pecos Slope				Formation Abo		Unit	
Completion Date 5/23/83		Total Depth 4125.0'		Plug Back TD 4070.0'		Elevation 3771.1'	
Csg Size 4.500"		Wt. 9.500#		Set Rt 4125.0'		Perforations: From 3572.0' To 3661.0'	
Tbg Size 2.375"		Wt. 4.700#		Set Rt 3524.0'		Perforations: From 0.0' To 0.0'	
Type Well Single				Packer Set Rt 3524.0'		County Chaves	
Producing thru Tubing		Resv. Temp. °F 107 @ 3520'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
L 3524.0'		H 3524.0'		Gg .649		Prover 0.000"	
MCO2 .02		NH2 7.40		NH2S 0.00		Meter Run 2.000"	
Taps Flange		Taps Flange		Taps Flange		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	69	985	0	0	0	0 hrs.
1.	2.067	X 1.000	145	3.1	69	711	62	0	0	24 hrs.
2.	2.067	X 1.000	140	4.1	69	599	62	0	0	24 hrs.
3.	2.067	X 1.000	135	6.5	69	488	62	0	0	24 hrs.
4.	2.067	X 1.000	130	10.0	69	180	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)	ABOF	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	4.947	23.15	150.20	.991	1.241	1.012	136
2.	4.947	23.06	153.20	.991	1.241	1.012	154
3.	4.947	31.04	143.20	.991	1.241	1.011	191
4.	4.947	37.84	143.20	.991	1.241	1.011	233
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tn	Z	Gas Liquid Hydrocarbon Ratio Dry	Rate of Flow Q, Mcfd
1.	.24	529	1.51	.977	A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.
2.	.23	529	1.51	.977	Specific Gravity Separator Gas	.649
3.	.23	529	1.51	.978	Specific Gravity Flowing Fluid	.649
4.	.22	529	1.51	.979	Critical Pressure	658.0 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	351.4°R

Pc	998.2	Pc2	996.4
NO	Pt2	Pw	Pw2
1.	524.5	724.4	524.7
2.	374.8	612.4	375.1
3.	251.2	501.7	251.7
4.	37.3	195.1	38.0
5.	0.0	0.0	0.0

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 239 \text{ Mcfd}$$

Absolute Open Flow 239 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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Adopted 9-1-65

DATE 7/5/84

COMPANY Vates Petroleum Corporation LEASE Powers "OL" Federal WELL NO. 10-YLOCATION: Unit F Section 23 Township 6S Range 25EL 3524.0 H 3524.0 L/H 1.000 G .649 MOG .02 %N₂ 7.40 %H₂S 0.00d 1.995 Fr .017777 GH 2287.1 Pcr 658.0 Tcr 351.4

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.136	.154	.191	.233	0.000
2 Tw(W.H.%R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.%R)	567.0	567.0	567.0	567.0	0.0
4 T=(Tw+Ts)/2	544.5	544.5	544.5	544.5	0.0
5 Z(Est.)	.902	.916	.931	.973	0.000
6 TZ	491.2	499.0	507.0	529.7	0.0
7 GH/TZ	4.656	4.583	4.511	4.318	0.000
8 e ^s (Table XIV)	1.191	1.188	1.184	1.176	0.000
9 1-e ^s (Table XIV)	.160	.158	.156	.149	0.000
10 Pt	724.2	612.2	501.2	193.2	0.0
11 Pt ² /1000	524.5	374.8	251.2	37.3	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.735	8.871	9.015	9.417	0.000
14 FcQm	1.192	1.369	1.723	2.193	0.000
15 L/H(FcQm) ²	1.421	1.875	2.968	4.869	0.000
16 Fw=L/H(FcQm) ² (1-e ^s)	.238	.296	.462	.719	0.000
17 Pw ² =Pt ² +Fw	524.7	375.1	251.7	38.0	0.0
18 Ps ² =e ^s Pw ²	624.7	445.4	298.0	44.7	0.0
19 Ps	790.4	667.4	545.9	211.5	0.0
20 P=(Pt+Ps)/2	757.3	639.8	523.6	202.4	0.0
21 Pr=(P/Pcr)	1.15	.97	.80	.31	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.902	.916	.931	.973	0.000

Company	Yates Petroleum Corporation
Well	Powers "OL" Federal No. 10-
Location	F. 33-6S-25E
County	Chaves
Date	7/5/84

$P_c^2 - P_w^2$, THOUSANDS

