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NEW MEXICO OIL CONSERVATION COMMISSION Form C-122
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test [x] Initial [] Annual [] Special					Test Date 9/2/88				
Company Yates Petroleum Corporation					Connection El Paso Natural Gas				
Pool Cisco					Formation Undesignated				
Completion Date 8/10/88		Total Depth 9345.0'		Plug Back TD 7115.0'		Elevation 4408.0'		Farm or Lease Name Loafer Draw Federal	
Csg Size 5.500"	Wt. 14.000#	d 5.012"	Set At 9325.0'	Perforations: From 6824.0' To 6864.0'				Well No. 1	
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 6743.0'	Perforations: From 0.0' To 0.0'				Unit Sec Twp Rge B 28 21S 22E	
Type Well Single					Packer Set At 6743.0'		County Eddy		
Producing Thru Tubing		Resv. Temp. °F 165 @ 8911'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.		State New Mexico	
L 6743.0'	H 6743.0'	Gg .596	%CO2 .63	%N2 .94	%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	63	2702	0	0	0	24 hrs.
1.	2.067 X 1.250	8	1.2	64	2002	62	0	0	24 hrs.
2.	2.067 X 1.250	8	2.0	63	1685	62	0	0	24 hrs.
3.	2.067 X 1.250	3	2.5	63	1630	62	0	0	24 hrs.
4.	2.067 X 1.250	7	3.0	63	1215	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)	√hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	8.134	5.04	21.20	.996	1.295	1.001	53
2.	8.134	6.51	21.20	.997	1.295	1.001	68
3.	8.134	6.26	15.70	.997	1.295	1.000	66
4.	8.134	7.78	20.20	.997	1.295	1.001	82
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio
1.	.03	524	1.49	.998	70.000 Mcf/bbl.
2.	.03	523	1.49	.998	A.P.I. Gravity of Liquid Hydrocarbons 51.600 Deg.
3.	.02	523	1.49	.999	Specific Gravity Separator Gas .596 xxxxxxxxxxxxxxx
4.	.03	523	1.49	.998	Specific Gravity Flowing Fluid xxxxxx .640
5.	0.00	0	0.00	0.000	Critical Pressure 673.3 PSIA 671.8 PSIA
					Critical Temperature 351.0°R 365.5°R

Pc 2715.2 Pc² 7372.3				
NO	Pt²	Pw	Pw²	Pc²-Pw² (1)
1.	4061.0	2015.2	4061.0	3311.3
2.	2883.9	1698.2	2883.9	4488.4
3.	2700.1	1643.2	2700.1	4672.2
4.	1508.5	1228.2	1508.5	5863.8
5.	0.0	0.0	0.0	0.0

$$\frac{Pc^2}{Pc^2 - Pw^2} = \frac{1.2719}{1.2014}$$

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 98 \text{ Mcfd}$$

$$\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.2014$$

Absolute Open Flow	98 Mcfd @ 15.025	Angle of Slope, 0	37	Slope, n .763
Remarks:				

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

Adopted 9-1-65

DATE 5/13/91

COMPANY Yates Petroleum Corporation LEASE Loafer Draw Federal WELL NO. 1

LOCATION: Unit B Section 28 Township 21S Range 22E

L 6743.0 H 6743.0 L/H 1.000 G .640 %O₂ .63 %N₂ .94 %H₂S 0.00

d 2.441 Fr .010495 GH 4315.7 Pcr 671.8 Tcr 365.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.053	.068	.066	.082	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	625.0	625.0	625.0	625.0	0.0
4 T=(Tw+Ts)/2	573.5	573.5	573.5	573.5	0.0
5 Z(Est.)	.809	.818	.821	.851	0.000
6 TZ	463.7	469.2	470.8	487.9	0.0
7 GH/TZ	9.308	9.198	9.167	8.845	0.000
8 e ^s (Table XIV)	1.417	1.412	1.410	1.393	0.000
9 1-e ^{-s} (Table XIV)	.294	.292	.291	.282	0.000
10 Pt	2015.2	1698.2	1643.2	1228.2	0.0
11 Pt ² /1000	4061.0	2883.9	2700.1	1508.5	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.870	4.924	4.941	5.121	0.000
14 FcQm	.258	.337	.325	.419	0.000
15 L/H(FcQm) ²	.067	.114	.106	.176	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.020	.033	.031	.050	0.000
17 Pw ² =Pt ² +Fw	4061.0	2883.9	2700.1	1508.5	0.0
18 Ps ² =e ^s Pw ²	5755.8	4071.7	3807.9	2101.8	0.0
19 Ps	2399.1	2017.8	1951.4	1449.8	0.0
20 P=(Pt+Ps)/2	2207.2	1858.0	1797.3	1339.0	0.0
21 Pr=(P/Pcr)	3.29	2.77	2.68	1.99	0.00
22 Tr=(T/Tcr)	1.57	1.57	1.57	1.57	0.00
23 Z(Table XI)	.809	.818	.821	.851	0.000

Company	Yates Petroleum Corporation
Well	Loafer Draw Federal No. 1
Location	B, 28-21S-22E
County	Eddy
Date	5/13/91

