

DATE 4/4/89

COMPANY Yates Petroleum Corporation LEASE Huckaby TJ Federal WELL NO. 5

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

L 4115.0 H 4115.0 L/H 1.000 G .662 %CO₂ .05 %N₂ 7.68 %H₂S 0.00

d 1.995 Fr .017777 GH 2724.1 Pcr 657.2 Tcr 354.9

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.216	.254	.305	.413	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	563.0	563.0	563.0	563.0	0.0
4 T=(Tw+Ts)/2	542.5	542.5	542.5	542.5	0.0
5 Z(Est.)	.885	.893	.916	.947	0.000
6 TZ	480.3	484.4	496.8	513.7	0.0
7 GH/TZ	5.672	5.623	5.484	5.302	0.000
8 e ^s (Table XIV)	1.237	1.235	1.228	1.220	0.000
9 1-e ^{-s} (Table XIV)	.192	.190	.186	.180	0.000
10 Pt	805.2	747.2	581.2	363.2	0.0
11 Pt ² /1000	648.3	558.3	337.8	131.9	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.538	8.612	8.835	9.134	0.000
14 FcQm	1.847	2.188	2.697	3.770	0.000
15 L/H(FcQm) ²	3.413	4.788	7.272	14.215	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	.654	.910	1.351	2.563	0.000
17 Pw ² =Pt ² +Fw	649.0	559.2	339.1	134.5	0.0
18 Ps ² =e ^s Pw ²	802.8	690.5	416.5	164.1	0.0
19 Ps	896.0	831.0	645.4	405.0	0.0
20 P=(Pt+Ps)/2	850.6	789.1	613.3	384.1	0.0
21 Pr=(P/Pcr)	1.29	1.20	.93	.58	0.00
22 Tr=(T/Tcr)	1.53	1.53	1.53	1.53	0.00
23 Z(Table XI)	.885	.893	.916	.947	0.000