

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

Adopted 9-1-65

DATE 10/28/91

COMPANY Yates Petroleum Corporation LEASE Lusk AHB Federal WELL NO. 1

LOCATION: Unit B Section 35 Township 19S Range 32E

L 13538.0 H 13538.0 L/H 1.000 G .636 %CO₂ 6.86 %N₂ 5.61 %H₂S 0.00

d 2.441 Fr .010495 GH 8610.2 Pcr 691.1 Tcr 340.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.428	.497	.506	.597	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	649.0	649.0	649.0	649.0	0.0
4 T=(Tw+Ts)/2	585.5	585.5	585.5	585.5	0.0
5 Z(Est.)	.876	.876	.876	.876	0.000
6 TZ	512.6	512.7	512.8	512.9	0.0
7 GH/TZ	16.796	16.793	16.789	16.787	0.000
8 e ^s (Table XIV)	1.877	1.877	1.877	1.877	0.000
9 1-e ^{-s} (Table XIV)	.467	.467	.467	.467	0.000
10 Pt	1603.2	1597.2	1591.2	1587.2	0.0
11 Pt ² /1000	2570.3	2551.0	2531.9	2519.2	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	5.380	5.381	5.382	5.383	0.000
14 FcQm	2.304	2.675	2.721	3.216	0.000
15 L/H(FcQm) ²	5.311	7.157	7.405	10.344	0.000
16 Fw=L/H(FcQm) ² (1-e ^{-s})	2.482	3.344	3.459	4.832	0.000
17 Pw ² =Pt ² +Fw	2572.7	2554.4	2535.4	2524.0	0.0
18 Ps ² =e ^s Pw ²	4829.9	4794.8	4758.5	4736.7	0.0
19 Ps	2197.7	2189.7	2181.4	2176.4	0.0
20 P=(Pt+Ps)/2	1900.5	1893.5	1886.3	1881.8	0.0
21 Pr=(P/Pcr)	2.75	2.74	2.73	2.72	0.00
22 Tr=(T/Tcr)	1.72	1.72	1.72	1.72	0.00
23 Z(Table XI)	.876	.876	.876	.876	0.000

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