

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURES (P_c or P_w)
FROM KNOWN BOTTOM HOLE PRESSURE (P_f or P_s)

Form C-122F
Adopted 9-1-63

COMPANY Balco Petroleum Corp LEASE Lakay Com WELL NO. 1 DATE 1-8-81

LOCATION: Unit L Section 20 Township 23 South Range 28 East
L 12, 456 H 12, 456 L/H 1 G 5157 % CO₂ 1.25 % N₂ 309 % H₂S -0-

GH 7171 P_{CT} 676 T_{CT} 344
TABLE IX & X
RATE 1 RATE 2 RATE 3 RATE 4

LINE	1	2	3	4	5	6	7	8
1	T_w (W.H. °R)	512	512	514	514	515	515	515
2	T_s (B.H. °R)	655	655	655	655	655	655	655
3	$T = (\frac{T_w + T_s}{2})$	584	584	585	585	585	585	585
4	Z (Est.)	.830	.878	.880	.867	.857	.842	.857
5	TZ	485	512.8	515	507	501	493	501
6	GH/TZ	14.79	13.98	13.92	14.14	14.30	14.55	14.31
7	e^s (Table XIV)	1.74	1.69	1.68	1.70	1.71	1.73	1.71
8	P_f or P_s	3828.2	3828.2	3513.2	3513.2	3150.2	2744.2	2744.2
9	P_f^2 or P_s^2	14,655	14,655	12,343	12,343	9924	7531	7531
10	$P_c^2 = P_f^2/e^s$ or $P_w^2 = P_s^2/e^s$	8422.5	8671.6	7347	7262	5803	4353	4403
11	P_c or P_w	2902.1	2945	2710.5	2695	2409	2086	2098
12	$P = (\frac{P_w + P_s}{2})$ or $(\frac{P_c + P_f}{2})$	3365.2	3386.5	3111.8	3104	2780	2415	2421
13	$P_f = (P/P_{cr})$	4.978	5.009	4.603	4.59	4.11	3.57	3.58
14	$T_f = (T/T_{cr})$	1.70	1.70	1.70	1.70	1.70	1.70	1.70
15	Z (Table XI)	.878	.880	.867	.867	.857	.857	.857

2.71828

Belco Petroleum Corp.

LaKey Com No. 1

Jan. 8, 1981

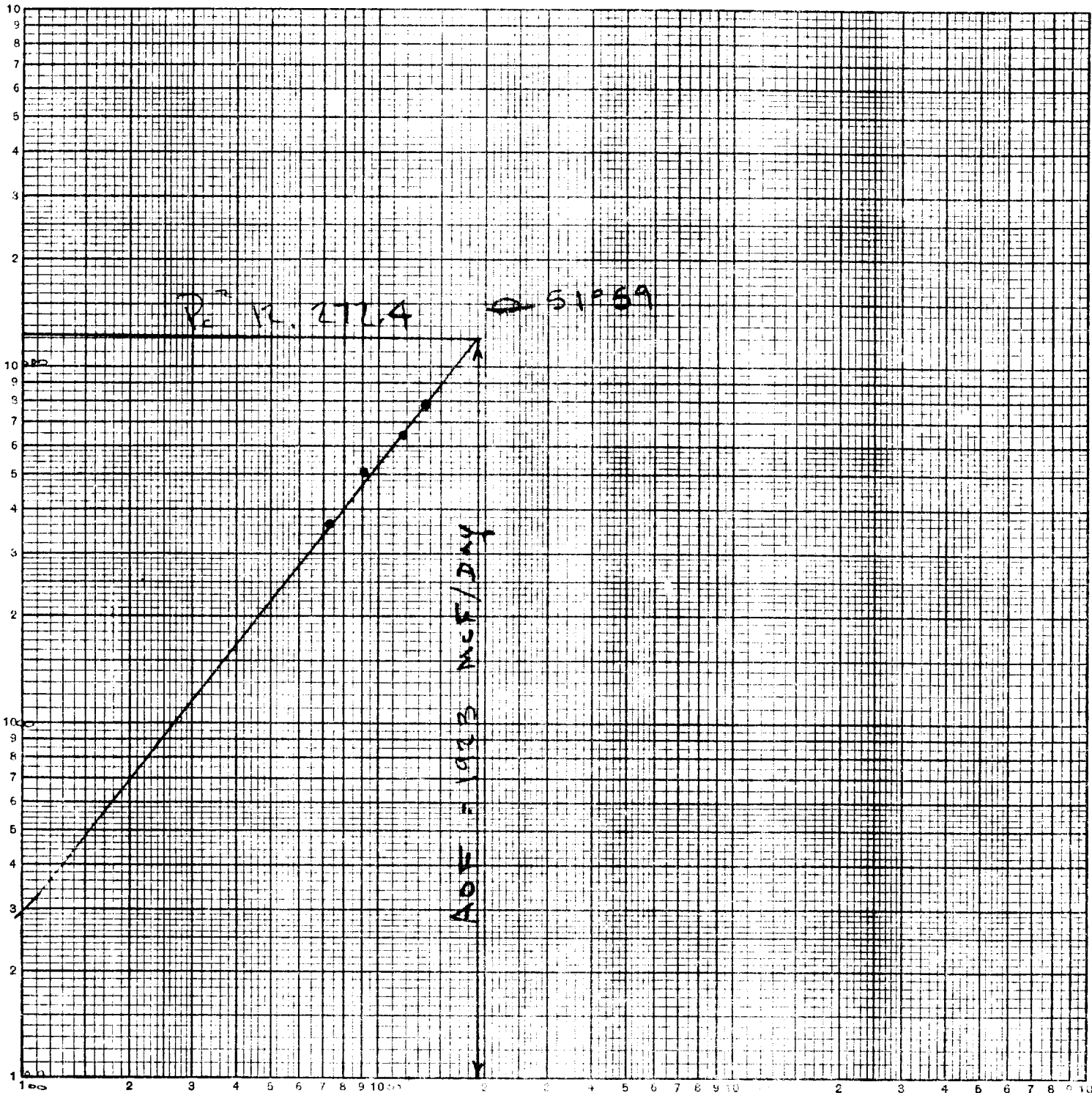
$$ABS N = 0.1210 \cdot 3.0825$$

$$Q_{200} = \frac{2.3010}{N = .7818}$$

$$1359.02 \left(\frac{12,272.4}{7871} \right)^{.7818} = 1923 \text{ mcf/day}$$

R₂ P₂ = Thousands

LOG LOG ARITHMIC
667400
MADE IN U.S.A.
KEUFFEL & ESSER CO.



$$Q = \text{mcf/day}$$