WORKED LINE OF BEST FIT CALCULATION

x 1000/Tboil (K^-1)	y ln(P*/P)	x^2	y^2	xy	(y - (mx+c))^2	y best fit	y steepest	y shallow		
3.188	2.747	10.16	7.54	8.76	0.018796994	2.61	2.75	2.47	xbar	2.894
3.141							2.50	2.23	ybar	1.101
3.101							2.30	2.03	xybar	3.277
3.040							1.98	1.73	x^2 bar	8.393
3.018							1.86	1.61	y^2 bar	1.676
3.007							1.80	1.56		
2.963							1.58	1.34	V[x]	0.017
2.951							1.51	1.27	V[y]	0.463
2.916							1.33	1.10	cov[x,y]	0.090
2.902							1.26	1.03		
2.877							1.12	0.90	m	5.13
2.851							0.99	0.77	c	-13.76
2.849							0.98	0.76		
2.830							0.88	0.66	Lvap	42.69
2.825							0.85	0.64		
2.795							0.70	0.49	s	0.06
2.789							0.67	0.46	dm	0.10
2.769							0.56	0.36	dc	0.16
2.765	0.463	7.65	0.21	1.28	0.000454047	0.44	0.54	0.34	d Lvap	0.79
2.764	0.432						.53	0.33		
2.751	0.391						.47	0.27		
2.742	0.351						.42	0.22		
2.731	0.298						.36	0.17		

ln(P*/P) vs 1/T

y = 5.1345x - 13.758
R² = 0.9928
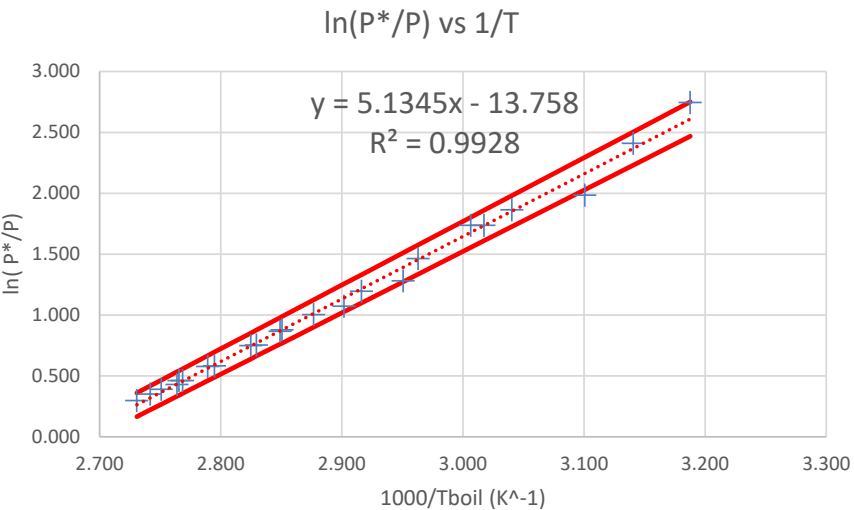
$$\Delta m = \frac{s}{\sqrt{N}}\frac{1}{\sqrt{V[x]}}$$

$$\Delta c = \frac{s}{\sqrt{N}}\sqrt{1+\frac{\bar{x}^2}{V[x]}}$$

$$s = \sqrt{\frac{1}{N-2}\sum_{i=1}^{N}(y_i - mx_i - c)^2}$$

← Errors in gradient and y intercept