1) a) She found some disease clusters

1) a) She found some disease clusters where incidences of a number of ailments were much above the National average.

b) There were 70% of children with asthma, there was a gender imbalance with 50 males to 100 females instead of 100 males to 105 females and there was a high miscarriage rate.

c) Deny, delay, divide, discredit

d) She joined with 2 researchers and published an article on their team in an international journal so that global attention was focused on the problem.

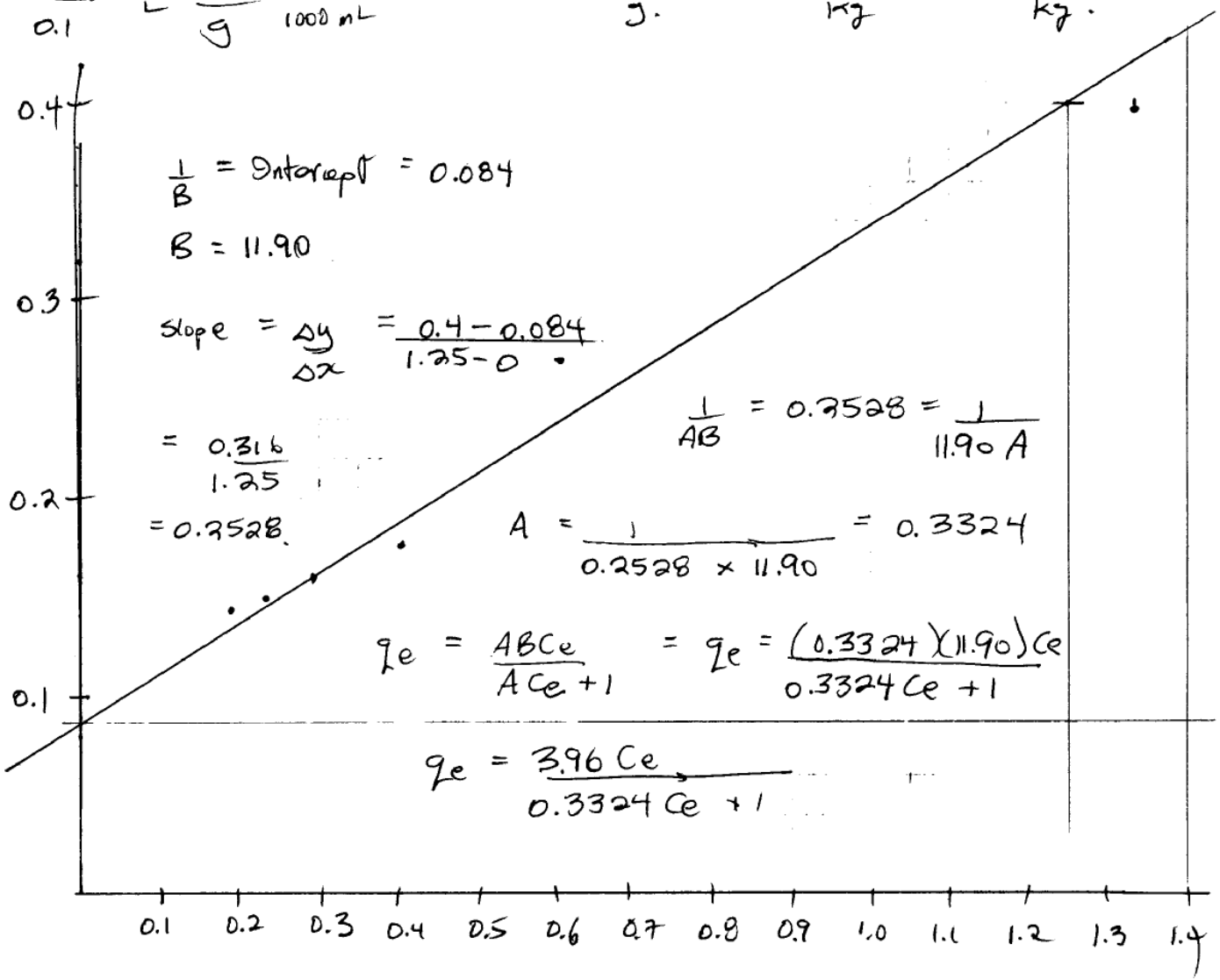
e) It means industry must proof a substance is safe, rather than releasing it into the environment and requiring the public to prove the substance is hazardous.

11:49
26 mins.

m soil g/mL	Co mmol/L Zn	Ce mmol/L	Co − Ce (X) mmol/L	qe = X/m. mmol/kg.	1/qe	1/Ce
0.1	1	0.749	0.251	2.51	0.398	1.335
0.1	2	1.63	0.37	3.70	0.270	0.613
0.1	3	2.44	0.56	5.60	0.178	0.410
0.1	4	3.38	0.62	6.20	0.161	0.296
0.1	5	4.33	0.67	6.70	0.149	0.231
0.1	6	5.31	0.69	6.90	0.145	0.188

2g/20 mL = 0.1 g/mL

$\frac{0.251}{0.1}\ \frac{\text{mmol}}{\text{L}}\ \frac{\text{mL}}{\text{g}}\ \frac{\text{L}}{1000\ \text{mL}} = 0.00251\ \frac{\text{mmol}}{\text{g}} \times 1000\ \frac{\text{mmol}}{\text{kg}} = 2.51\ \frac{\text{mmol}}{\text{kg}}$



$\frac{1}{B}$ = Intercept = 0.084

B = 11.90

slope = $\frac{\Delta y}{\Delta x} = \frac{0.4 - 0.084}{1.25 - 0}$

$= \frac{0.316}{1.25}$

= 0.2528

$\frac{1}{AB} = 0.2528 = \frac{1}{11.90\,A}$

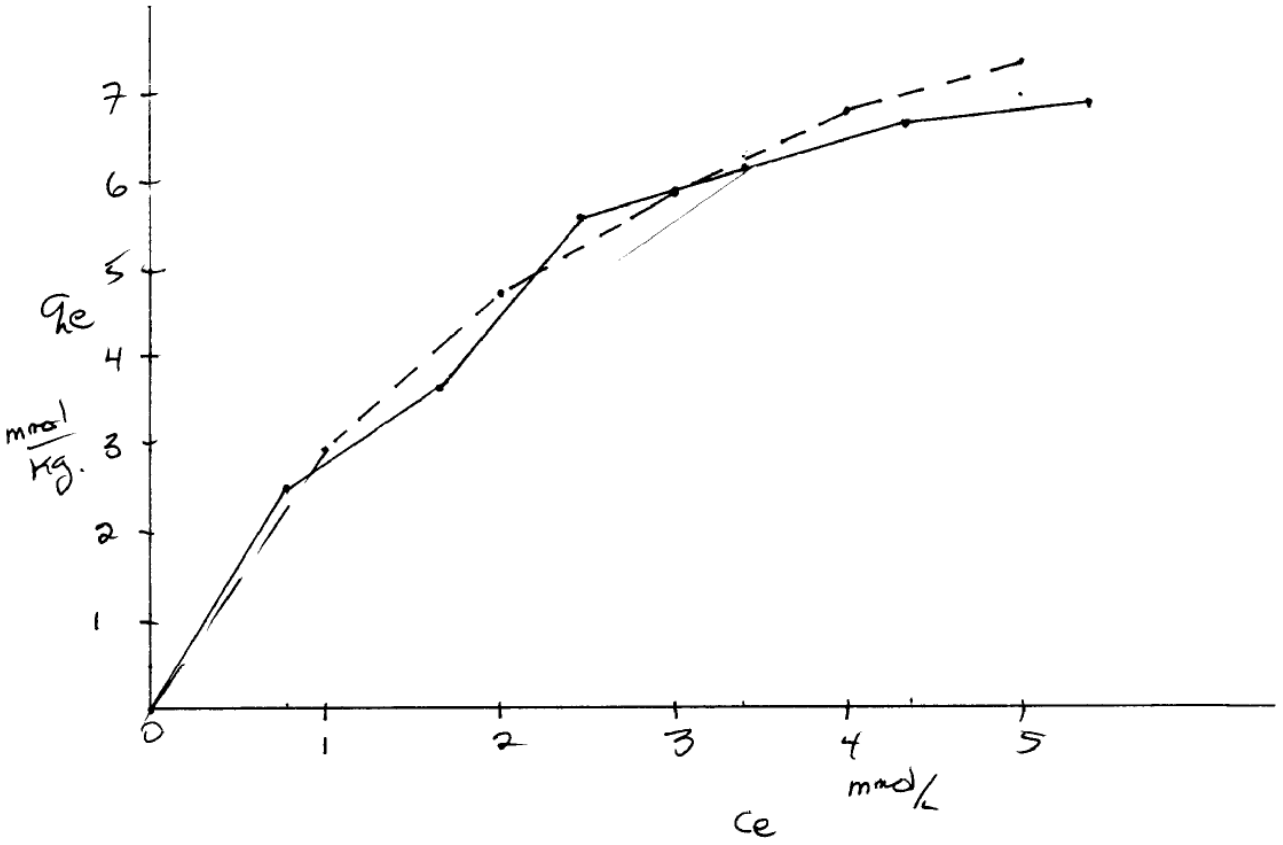
$A = \frac{1}{0.2528 \times 11.90} = 0.3324$

$q_e = \frac{ABC_e}{AC_e + 1} = q_e = \frac{(0.3324)(11.90)C_e}{0.3324\,C_e + 1}$

$q_e = \frac{3.96\,C_e}{0.3324\,C_e + 1}$

$$q_e = \frac{3.96\, C_e}{0.3324\, C_e + 1}$$

12.05
14 min. this page -



$C_e = 1 \quad q_e = \frac{3.96}{1.3324} = 2.972$

$C_e = 2 \quad q_e = \frac{7.92}{1.6648} = 4.76$

$C_e = 3 \quad q_e = \frac{11.88}{1.9972} = 5.95$

$C_e = 4 \quad q_e = \frac{15.84}{2.33} = 6.80$

$C_e = 5 \quad q_e = \frac{19.8}{2.662} = 7.44$

11.90 = maximum adsorption. = 11.9 mmol/kg

$C_e = 3.33 \quad q_e = \frac{13.187}{1.107 + 1} = 6.25$