VOC Exposure Estimates

Chemical	Maximum Concentration (ppm)	Ingestion Rate Child (L/day)	Ingestion Rate Adult (L/day)	Exposure Factor	Estimated Dose Child (mg/kg/day)	Estimated Dose Adult (mg/kg/day)	Cancer Slope Factor (1/(mg/kg/day))	Exposure Duration	Cancer Risk Adult
Hadnot Point (1982-1985)									
TCE	1.4	1	2	0.57	0.099750	0.045600	0.011	0.043	2.16E-05
DCE	0.4	1	2	0.57	0.028500	0.013029	0.091	0.043	5.10E-05
Methylene Chloride	0.054	1	2	0.57	0.003848	0.001759	0.0075	0.043	5.67E-07
Vinyl Chloride	0.003	1	2	0.57	0.000214	0.000098	N/A	-	-
Tarawa Terrace (1982-1985)									
PCE	0.215	1	2	0.57	0.015319	0.007003	0.052	0.043	1.57E-05
TCE	0.008	1	2	0.57	0.000570	0.000261	0.011	0.043	1.23E-07
DCE	0.012	1	2	0.57	0.000855	0.000391	0.091	0.043	1.53E-06
Holcomb Blvd (1985)									
TCE	1.15	1	2	0.57	0.081937	0.037457	0.011	0.014	5.77E-06
DCE	0.407	1	2	0.57	0.028999	0.013257	0.091	0.014	1.69E-05

N/A = Not Available

Assumptions:

Body Weight
child = 16 kilograms
adult = 70 kilograms

Exposure Factor (unitless)
4 out of 7 days per week

Exposure Duration (unitless)
3 out of 70 years (Hadnot Pt. and Tarawa Terrace)
1 year out of 70 years (Holcomb Blvd)

Where: $\frac{\text{Max Conc} \times \text{Ing Rate} \times \text{Exp Fac}}{\text{Body Weight}}$ = Est Dose x Cancer Slope x Exp Duration = Cancer Risk (cancer risk is based on a lifetime exposure of 70 years)