

Appendix D

Calculation Spreadsheets for Derivation of RBC

Summary of Calculated Risk Based Soil Concentrations

Protection of Health for Indoor Air by Depth to Impact - RBC (mg/kg)

Chemical	Surface	1m	2m	3m
1,2-dichloroethane	3.2	3.3	3.4	3.5
cis-1,2-dichloroethene	6.5	6.8	6.8	6.8
hexachlorobenzene	55	5000	5000	5000
1,2-hexachlorobutadiene	4.5	5	5	5
hexachlorobutadiene	4.5	5	5	5
methylene chloride	130	135	135	135
octachlorostyrene	110	5000	5000	5000
pentachlorobutadiene	4.2	4.5	4.5	4.5
tetrachlorobutadiene	4.2	4.5	4.5	4.5
tetrachloroethene	16	16	16	17
1,1,2-trichloroethane	15	16	16	16
trichloroethene	1	1	1	1.1
1,1,1,2-tetrachloroethane	100	100	110	110
1,2-dibromo-3-chloropropane	9.5	9.5	10	10

Note:

Vapour migration indoors based on diffusion and advection with advection (not sensitive to depth) dominating

Values in blue text set equal to outdoor value as saturated vapour phase concentrations are exceeded

Values in red text arbitrarily set at 5000 mg/kg - essentially not limiting as saturated vapour concentration reached and exceeded

Protection of Health for Outdoor Exposures by Depth to Impact - RBC (mg/kg)

Chemical	Surface*	1m	2m	3m
1,2-dichloroethane	52	110	230	330
cis-1,2-dichloroethene	110	230	450	660
hexachlorobenzene	55	5000	5000	5000
1,2-hexachlorobutadiene	38	5000	5000	5000
hexachlorobutadiene	38	5000	5000	5000
methylene chloride	280	5000	5000	5000
octachlorostyrene	110	5000	5000	5000
pentachlorobutadiene	35	5000	5000	5000
tetrachlorobutadiene	35	5000	5000	5000
tetrachloroethene	1500	5000	5000	5000
1,1,2-trichloroethane	210	500	1000	5000
trichloroethene	17	36	70	100
1,1,1,2-tetrachloroethane	7500	5000	5000	5000
1,2-dibromo-3-chloropropane	21	300	600	5000

Note:

* Surface soil exposures include ingestion and dermal contact

Vapour migration outdoors dominated by diffusion (which is sensitive to depth of impacts)

Values in red text arbitrarily set at 5000 mg/kg - essentially not limiting as saturated vapour concentration reached and exceeded