

APPENDIX C.4
QUEBEC SOIL CONTAMINATION GUIDELINES

Soil Contamination Indicators		Quebec		
Parameter	MDL	Level A	Level B	Level C
	(mg/kg)			
METALS				
Arsenic	0.1	10	30	50
Selenium	0.5	1	3	10
Mercury	0.05	0.2	2	10
Barium	1	200	500	2000
Beryllium	1	-	-	-
Cadmium	1	1.5	5	20
Chromium	1	75	250	800
Lead	10	50	200	600
Nickel	5	50	100	500
Silver	5	2	20	40
TPH	5	100	1000	5000
PCB	0.01	0.1	1	10
PESTICIDES		Total = 0.1	2	20
Aldrin	1.3			
a-BHC	1.3			
b-BHC	1.3			
g-BHC (Lindane)	1.3			
d-BHC	1.3			
Chlorodane	1.3			
p,p'-DDD	1.3			
p,p'-DDE	1.3			
p,p'-DDT	1.3			
Dieldrin	1.3			
a-Endosulfan	1.3			
b-Endosulfan	1.3			
Endosulfan Sulfate	1.3			
Endrin	1.3			
Endrin Aldehyde	1.3			
Heptachlor	1.3			
Heptachlor Epoxide	1.3			
Toxaphene	1.3			
VOLATILES				
Cl-Methane	0.011			
Vinyl Chloride	0.015			
Br-Methane	0.012			
Cl-Ethane	0.012			
Cl3F3-Methane	0.002			
1,1-Cl2-Ethylene	0.002			
Methylene Chloride	0.002			
trans 1,2-Cl2-Ethylene	0.002			
1,1 Cl2-Ethane	0.003			
Chloroform	0.002			
1,1,1-Cl3-Ethane	0.003			
1,2 Cl2-Ethane	0.002			
Carbon Tetrachloride	0.002			
Benzene	0.001	0.1	0.5	5
1,2-Cl2-Propane	0.003			
Cl3-Ethylene	0.002			
BrCl2-Methane	0.002			
2-Cl-Ethylvinyl ether	0.014			
cis-1,2-Cl2-Propylene	0.003			
Toluene	0.002	0.1	3	30
trans-1,2-Cl2-Propylene	0.008			
1,1,2-Cl3-Ethane	0.003			
ClBr2-Methane	0.002			
Cl4-Ethylene	0.001			
Cl-Benzene	0.003			
Ethyl Benzene	0.002	0.1	5	50
Bromoform	0.002			
1,1,2,2-Cl4-ethane	0.002			
d4-1,2-Dichloroethane	%			
d8-Toluene	%			
Bromofluorobenzene	%			

* Chlorophenols (total)

0.1 1 10

** PAH (total)

1 20 200

Soil Contamination Indicators		Quebec		
Parameter	MDL	Level A	Level B	Level C
ACID EXT				
* N-Nitrosodimethylamine				
phenol	0.11	0.1	1	10
Bis(2-chloroethyl)ether	0.18			
2-Chlorophenol	0.27	0.1*	0.5	5
1,3-Dichlorobenzene	0.20			
1,4-Dichlorobenzene	0.20			
1,2-Dichlorobenzene	0.20			
Bis(2-chloroisopropyl)ether	0.15			
Hexachloroethane	0.20			
N-Nitroso-N-Propylamine	0.21			
Nitrobenzene	0.20			
Isophrone	0.40			
2-Nitrophenol	0.14			
2,4-Dimethylphenol	0.17			
Bis(2-chloroethoxy)methane	0.13			
2,4-Dichlorophenol	0.12	0.1*	0.5	5
1,2,4-Trichlorobenzene	0.20			
Naphthalene	0.03	0.1**	5	50
Hexachlorobutadiene	0.20			
4-Chloro-3-Methylphenol	0.14	0.1*	0.5	5
Hexachlorocyclopentadiene	0.20			
2,4,6-Trichlorophenol	0.12	0.1*	0.5	5
BASE/NEUTRAL				
2-Chloronaphthalene	0.09			
Acenaphthylene	0.04	0.1**	10	100
Dimethyl phthalate	0.11			
2,6-Dinitrotoluene	0.06			
Acenaphthene	0.07	0.1**	10	100
2,4-Dinitrophenol	0.48			
2,4-Dinitrotoluene	0.05			
4-Nitrophenol	0.14			
Fluorene	0.03	0.1**	10	100
4-Chlorophenylphenylether	0.09			
Diethyl phthalate	0.11			
4,6-Dinitro-2-methylphenol	0.15			
N-Nitrosodiphenylamine	0.19			
4-Bromophenylphenylether	0.03			
Hexachlorobenzene	0.20			
Pentachlorophenol	0.11	0.1*	0.5	5
Phenanthrene	0.03	0.1**	5	50
Anthracene	0.02	0.1**	10	100
Di-n-butyl phthalate	0.11			
* Benzidine	0.40			
Fluoranthene	0.02	0.1**	10	100
Pyrene	0.03	0.1**	10	100
Benzyl butyl phthalate	0.06			
* 3,3'-Dichlorobenzidine	0.20			
Benzo(a)Anthracene	0.02	0.1**	1	10
Chrysene	0.03	0.1**	1	10
Bis(2-ethylhexyl)phthalate	0.14			
Di-n-octyl phthalate	0.11			
Benzo(b)fluoranthene	0.04	0.1**	1	10
Benzo(k)fluoranthene	0.04	0.1**	1	10
Benzo(a)pyrene	0.05	0.1**	1	10
Indeno(1,2,3-cd)pyrene	0.06	0.1**	1	10
Dibenzo(a,h)anthracene	0.04	0.1**	1	10
Benzo(ghi)perylene	0.04			
d5-Phenol	%			
d5-Nitrobenzene	%			
2-Fluorobiphenyl	%			
2,4,6-Tribromophenol	%			
d-14-p-Terphenyl	%			

* Chlorophenols (total)

** PAH (total)

0.1	1	10
1	20	200