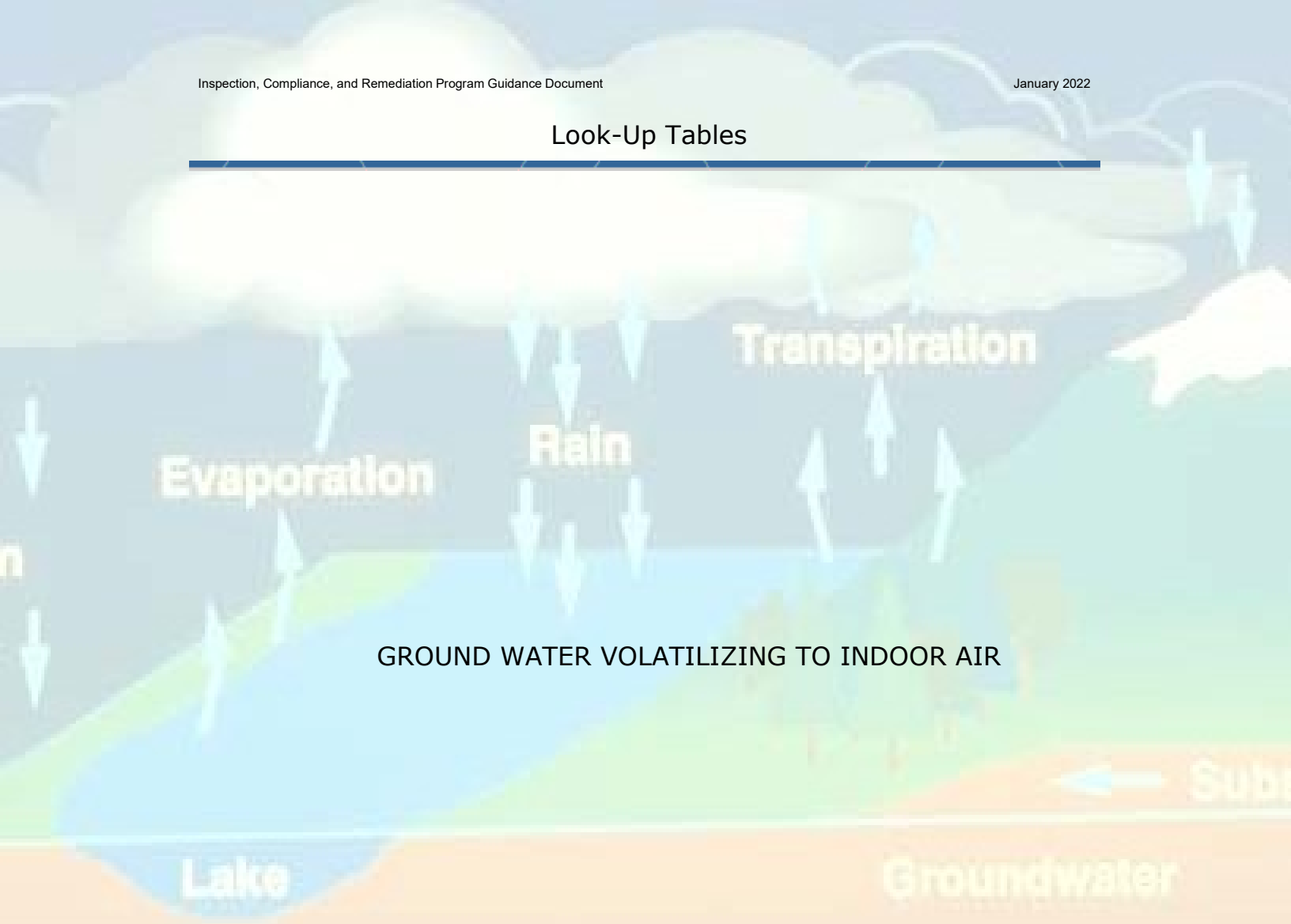
Look-Up Tables



GROUND WATER VOLATILIZING TO INDOOR AIR

South Dakota Department of Agriculture and Natural Resources
Inspection, Compliance, and Remediation Program
Pierre, SD 57501

GROUND WATER VOLATILIZING TO INDOOR AIR

*TABLE 1 - GROUND WATER SIX INCHES TO LESS THAN FIVE FEET BELOW GROUND SURFACE

Residential Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	1.8	1.8	2.1
Toluene (mg/L)	230	240	270
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	19,000	19,000	19,000

Residential Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	2.1	2.2	2.5
Toluene (mg/L)	280	290	320
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	23,000	23,000	23,000

Commercial Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	7.3	7.6	8.6
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

Commercial Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	8.9	9.3	10
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

* Values in this table are NOT to be used if both contaminated soil and contaminated ground water are present under a building
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GROUND WATER VOLATILIZING TO INDOOR AIR

*TABLE 2 - GROUND WATER FIVE FEET TO LESS THAN TEN FEET BELOW GROUND SURFACE

Residential Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	1.8	1.9	2.6
Toluene (mg/L)	230	240	340
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	19,000	19,000	20,000

Residential Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	2.2	2.3	3.0
Toluene (mg/L)	280	300	390
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	23,000	24,000	24,000

Commercial Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	7.3	7.8	11
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

Commercial Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	8.9	9.4	12
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

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GROUND WATER VOLATILIZING TO INDOOR AIR

*TABLE 3 - GROUND WATER TEN FEET TO LESS THAN FIFTEEN FEET BELOW GROUND SURFACE

Residential Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	1.8	1.9	3.2
Toluene (mg/L)	230	250	420
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	19,000	20,000	21,000

Residential Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	2.2	2.3	3.6
Toluene (mg/L)	280	300	470
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	24,000	24,000	25,000

Commercial Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	7.3	8.0	13
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

Commercial Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	8.9	9.6	15
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

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GROUND WATER VOLATILIZING TO INDOOR AIR

*TABLE 4 - GROUND WATER FIFTEEN FEET TO LESS THAN TWENTY FEET BELOW GROUND SURFACE

Residential Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	1.8	2.0	3.8
Toluene (mg/L)	230	260	490
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	19,000	20,000	22,000

Residential Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	2.2	2.4	4.2
Toluene (mg/L)	280	310	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	24,000	25,000	26,000

Commercial Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	7.3	8.1	16
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

Commercial Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	8.9	9.8	17
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

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GROUND WATER VOLATILIZING TO INDOOR AIR

*TABLE 5 - GROUND WATER TWENTY FEET BELOW GROUND SURFACE AND DEEPER

Residential Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	1.8	2.0	4.4
Toluene (mg/L)	230	260	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	19,000	21,000	22,000

Residential Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	2.2	2.4	4.8
Toluene (mg/L)	280	310	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	24,000	25,000	27,000

Commercial Building < 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	7.3	8.3	18
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

Commercial Building > 1,200 square feet	Sand to Clayey Sand	Sandy Silt to Clayey Silt	Sandy Clay to Clay
Benzene (mg/L)	9.0	9.9	20
Toluene (mg/L)	**>520	**>520	**>520
Ethyl Benzene (mg/L)	**>170	**>170	**>170
Xylenes (mg/L)	**>200	**>200	**>200
Naphthalene (mg/L)	**>31	**>31	**>31
Methyl Tertiary Butyl Ether (mg/L)	**>48,000	**>48,000	**>48,000

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