

Minnesota Cleanup Standards for Hydrocarbon Contaminated Groundwater

Product	Parameter/ Constituent	Lab Test Protocol & Number	Notification Level	Action Level	Cleanup Level
Gasoline	TPH	Wisconsin DNR GRO	any amount	site specific**	site specific**
	VOCs	EPA 8260	any amount	site specific*	site specific*
Diesel Fuel Oil	TPH	Wisconsin DNR DRO	any amount	site specific**	site specific**
	VOCs	EPA 8260	any amount	site specific*	site specific*

* Action and Cleanup Levels are based on stability of the contaminant plume, occurrence of natural biodegradation, aquifer characterization & risk assessment. These levels are related to the Minnesota Department of Health's Health Risk Limits for drinking water when water supply wells are at risk and on a site specific basis for other receptors (e.g. discharge to surface water).

** Action and Cleanup Levels in groundwater are based on VOC concentrations and risk to receptors.

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Web Site: <http://www.pca.state.mn.us/index.php/waste/waste-and-cleanup/cleanup-programs-and-topics/cleanup-programs/petroleum-remediation-program/publications-guidance-documents-for-ust/ast-release-cleanup.html?menuid=&redirect=1>

Minnesota Cleanup Standards for Hydrocarbon Contaminated Soil

Product	Parameter/ Constituent	Lab Test Protocol & Number	Notification Level	Action Level*	Cleanup Level
Gasoline	Organic vapors	Field screening	any amount	10 ppm**	site specific****
	TPH	Wisconsin DNR GRO	any amount	100 mg/kg	site specific****
	VOCs	EPA 8260	any amount	site specific***	site specific****
Diesel Fuel Oil	Organic vapors	Field screening	any amount	10 ppm**	site specific****
	TPH	Wisconsin DNR DRO	any amount	100 mg/kg	site specific****
	VOCs	EPA 8260	any amount	site specific***	site specific****

* Action Level refers to the concentration remaining in soil above which additional investigation and/or risk evaluation is required.

** If soil vapor headspace analysis is >10 ppm or petroleum odors or visual evidence of contamination are present additional investigation is necessary.

*** Not determined by individual contaminants. At most sites, contaminated soil is left in place to naturally attenuate.

**** Investigation activities or source removal (i.e. remedial excavation) may be necessary depending upon the risk (e.g. vapors, dermal, run-off potential, groundwater/surface water protection) to receptors. Cleanup is not required if risks to human health and the environment are low.

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