

Natural Resources Conservation Authority (NRCA)  
Guidelines for a Site Contamination Assessment Report/ Remedial Action  
Plan

**Introduction**

The guidelines serve to assist Permitted Facilities or Volunteer Facilities in developing their Site Remediation Plans which is required at the completion of a detailed site investigation. This contamination assessment report should be prepared and submitted for approval by NEPA.

The contents of the guidelines below should be incorporated in the report.

***Executive Summary.*** This section should discuss the purpose of the investigation, summarize the findings of the investigation and risk assessment, and present the conclusion and recommendations.

***Introduction.*** This section should detail the purpose of the site investigation and describe the site in detail. The site description should include a detailed history of the site including the location of any known or suspected petroleum hydrocarbon storage or use, or any other activities which may have posed a risk to human health or the environment.

***Background.*** This section should include information such as historical local and regional land uses, regional geology and hydrogeology, climatology, and a list of chemicals used on site. The regional hydrogeology section should include a discussion of the proximity of surface waters and other sensitive receptors.

***Field Investigation.*** This section should describe the sampling performed at the site including how the samples were collected, the location and number of samples collected, and the analyses performed.

***Field and Analytical Results.*** This section should summarize the information obtained during the field investigation including site-specific geology, hydrogeology and analytical results. The discussion of the site geology and hydrogeology should include physical characteristics of the soil (variation with depth) and groundwater (depth, flow rate, flow direction). Figures showing sample locations with analytical results are especially helpful.

***Conceptual Model.*** This section should detail the nature and extent of potential contamination, the potential migration pathways and should identify potential receptors. The conceptual model can be a simple site diagram in plan and cutaway views showing the potential sources of contamination (such as underground storage

tanks, fuel pumps and piping), general geology beneath the site including expected depth to groundwater, likely migration pathways (such as service trenches, migration to groundwater and migration to nearby surface waters), potential exposure points (such as nearby wells, surface water and basements), and potential receptors (such as children, site visitors, and workers). Analytical results from previous investigations should also be shown on the diagram, if available.

***Risk Assessment.*** An evaluation of the potential risks to human health and the environment should be presented in this section. Typically, a Tier 1 assessment would be performed. A Tier 1 assessment involves comparing site concentration data with the appropriate acceptance criteria (standards specified by NEPA).

***Site Management Plan.*** An evaluation of the appropriate site management strategies for mitigating the adverse risks to human health and the environment should be included in the contamination assessment report.

***Appendices.*** The following information should be included in the appendices:

- boring logs
- well detail diagrams
- laboratory reports
- copies of permits and/or resource consents.