

Abstract: Site Conditions Summary Report for Hydrocarbon Risk Calculations and Site Status Determination Technical Background Document and Recommendations

This document describes the elements of a proposed “site conditions summary report”, which is a single specific report prepared for the purpose of fully documenting the site conditions at a point in time, so that risk calculations can be performed and the status of the site can be determined (according to the proposed environmental site closeout concepts paper). The primary purposes of the site conditions summary report are to ensure:

1. A site conceptual model is developed and quantified.
2. The data needed for risk calculations are collected.
3. The field data are presented on maps and in tables in a consistent and meaningful way.
4. The human health risk calculations and ecological risk characterizations are complete and fully supported.
5. The proposed open or closed site status category can be determined.

The ADEC currently requires two reports in the contaminated sites regulations: a “site characterization report” and a “final cleanup report.” The site conditions summary report is proposed to fulfill the requirements of either or both of these required reports.

To fulfill its purpose, the site conditions summary report must contain certain critical data, and must clearly present those data so that the ADEC can confidently, accurately, and efficiently determine the site status. The site conditions summary report should include text, tables, and maps documenting the following:

1. The extent of the non-aqueous-phase liquid (NAPL) contaminated soil source area
2. The extent and thickness of the NAPL, if present, on the water table
3. The extent of the downgradient dissolved-phase plume
4. The concentration of petroleum hydrocarbons within the NAPL contaminated soil source area and dissolved-phase plume
5. Hydraulic conductivity
6. Seasonal changes in groundwater flow direction, gradient, and elevation
7. Soil texture, structure, and stratigraphy
8. Human health risk calculations for each compound and exposure route, and cumulative risk calculations
9. Documentation of the environmental/ecological risk posed by the contaminants
10. A completed “site status” form
11. Documentation of the landownership and a lot and block description of the involved properties
12. State Plane Latitude and Longitude Survey Coordinates for the source area and property corners