

Keep it Simple Scientists: The Benefit of Applying Risk Principles to Simple Sites and the Data That Gets You There

Lori Vickerman, 360 Energy Liability Management

The use of Alberta's Tier 2 soil and groundwater remediation guidelines (Tier 2) can be as simple as excluding a pathway or receptor, or as complicated as conducting a detailed quantitative risk assessment using mathematical models, chemistry, toxicology and other scientific methods. Often in our industry we default to Alberta's Tier 1 guidelines or very simple Tier 2 approaches for sites that aren't considered overly expensive to remediate or complex in nature. The attitude may be that Tier 2 / Risk Assessment approaches are expensive or take too long to get a site to closure and are therefore not worth it for simple sites. As the costs to remediate contaminated sites continue to increase due to rising fuel prices, limited landfill capacity and many other factors, it will become increasingly more important to reduce the volume of soil transported to landfill. As remediation methods become more sophisticated, refining the calculation of remediation guidelines is another practical way to reduce costs while protecting relevant receptors.

Small, relatively inexpensive changes to data collection at the Phase 2 stage of a contaminated site's life cycle (such as collecting the appropriate background data, deeper drilling and soil texture analysis to characterize site specific lithology and groundwater conditions, and full delineation of impacts) can dramatically reduce the costs for future remediation even for small sites. Moderate savings on multiple sites add up quickly and can reduce a client's liability and free up budget to clean up more sites. This presentation will outline the benefits of looking at every site through a Tier 2 lens, thereby reducing the costs to remediate many sites that would end up on the list for a dig and dump without much thought for other options.

Lori Vickerman

Lori Vickerman, MSc, is a technical manager and risk assessment specialist with over 15 years of experience in research and industry. Lori specializes in Site Specific Risk Assessments (SSRAs) and remediation projects for contaminated sites throughout Western Canada for a variety of commercial and oil and gas sites. In her role as a Senior Program Manager/Technical Manager at 360, Lori provides planning and data gap analysis, senior review and professional sign off on assessment and remediation projects, SSRAs, Remediation Action Plans (RAPs) and Risk Management Plans (RMPs).