



## Professional Judgement

### ***Defined:***

*The process of utilizing one's accumulated technical and project knowledge to adapt overarching guidance to a specific project. Implicit in this is the ability to look at the conditions at a site along with the setting in combination to make "weight-of-evidence" arguments regarding variance from generic guidance. The key to the application of professional judgement is the provision of **a clear rationale** upon which the judgement is based.*

# The assessment and remediation of contamination can be straight forward or very complex.

- As the science upon which environmental contamination is based is relatively young and that no two sites that involve the natural environment are the same, there needs to be a mechanism to allow for professional judgement
- This has been recognized by the Ministry of Environment and is specifically stated in the preamble of many documents. eg:  
**“The procedures outlined here are not applicable to every site; others may also be used. (TG1)”.**

## From the Stakeholders point of view:

- the contaminated sites professional industry as a whole is not fully utilizing their professional judgement
- the BC Ministry of Environment fully supports increasing the use of professional judgement where it is warranted and backed by sound rationale.

*So – where do we go from here?*

The ability to apply professional judgement requires utilizing accumulated technical knowledge and work experience. This skillset will not be the same for any two individuals. Therefore, the amount of professional judgment that can be exercised by any one person will be different than another person. This difference in technical knowledge and work experience is magnified by contaminated sites in BC being practiced by engineers, geoscientists, biologists, agrologists, and chemists as well as other disciplines.

**Based on this understanding it is suggested that the use of Professional judgement be subject to the following three tenants:**

- documenting of when professional judgment is used;
- documenting the rationale behind the use; and ,
- approaching the review of professional judgement from the standpoint that you may not independently reach the same conclusion, but can follow the basis of the rational used and accept it.

The following is a list of the various documents under the British Columbia Ministry of Environment and the Contaminated Sites Approved Professionals and whether professional judgement is or is not appropriate.

<b>Not appropriate (contact MoE)</b>	<b>Appropriate</b>
Environmental Management Act	Administrative Guidance
Contaminated Sites Regulation	Technical Guidance
Approvals	External Guidance
Protocols (except Protocol 1 where overridden by Protocol 13 and Protocol 20)	Procedures
	Fact Sheets
	Bulletins
	Policies

## *If Appropriate:*

- Documentation of Rationale
- “**myth**” PA panel member won’t allow professional judgement
- “**fact**” documentation of rationale for professional judgement missing or inadequate

## *Documentation of Rationale*

Rational should be documented within the applicable report (Stage I PSI, Stage II PSI, DSI, RAP, COR, RA, etc.)

- in a manner that is clear **easy to find** and transparent.



## ***Documentation of Rationale***

A summary of the professional judgement used should be placed in the Summary of Site Condition;

- Section 4.8 for investigation
- Section 5.6 for remediation

# *Examples to illustrate the Use of Professional Judgement*

## **1. Deviation to TG1: Sampling Density**

- Spacing of Soil Samples for DSI: 10 to 20 m grid in larger areas.
- In assessing a large landfill it is known that there was the deposition of soil and debris within the landfill and the landfill will receive a risk based Certificate of Compliance. Soil will be investigated at 100 m grid spacing.

# *Examples to illustrate the Use of Professional Judgement*

## **1. Deviation to TG1: Sampling Density**

- Spacing of Soil Samples for DSI: 10 to 20 m grid in larger areas.

This will be augmented by groundwater and soil vapour analysis to understand the quality of the underlying soil. Areas of anomalous groundwater and vapour were further investigated. Delineation occurred and enough information was obtained to conduct a risk assessment.

# *Examples to illustrate the Use of Professional Judgement*

## **2. Deviation of TG4, Seasonal Sampling**

- TG4 allows for the use of guidance from other jurisdictions. ITRC has provided maximum ranges for seasonal variations. If measured concentrations are below the standards by these factors then there is no need for seasonal evaluation.

# *Examples to illustrate the Use of Professional Judgement*

## **3. Deviation to TG1: Stockpile Sampling**

- TG1 provides specific guidance for the sampling of soil stockpiles so that they may be characterized. Where a data set can be provided that shows the soil pile is homogeneous and the data is consistent across the stockpile, justification can be provided allowing for a lower number of samples to be used to characterize the stockpile.