

## Technical Guidance 33 Reformatted

December 17, 2009

Yesterday we released on our website a reformatted version of Technical Guidance 33, "[Applicability of Sodium and Chloride Ion Soil Relocation Standards to Dredged Marine and Estuarine Materials](#)". This new version synchronizes the format of the document with others in the Technical Guidance series. Please note that no substantive changes have been made.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

## Site Risk Classification and Linked Protocols Approved

December 9, 2009

The Director of Waste Management has approved three new protocols under Section 64 of the *Environmental Management Act* relating to site risk classification. Protocol 12, "[Site Risk Classification, Reclassification and Reporting](#)", Protocol 11, "[Upper Cap Concentrations for Substances Listed in the Contaminated Sites Regulation](#)" and Protocol 16, "[Determining the Presence and Mobility of Nonaqueous Phase Liquids and Odorous Substances](#)" all must be used when the risk classification of a site is being determined under the Act. Note that we have also provided responses to stakeholders' comments we received on the most recent drafts of the protocols, below the web links for each of these documents.

In addition to its role in classifying site risk, Protocol 16 clarifies the Director's requirements regarding the presence of nonaqueous phase liquids and odorous substances as provided in Schedule 4 (and footnotes 5 and 6) of the Contaminated Sites Regulation.

These protocols come into effect on June 1, 2010. The delay will provide time for our stakeholders to prepare to implement the site risk classification process for their sites and for the ministry to:

- finalize the definitions of several terms listed in these protocols which are not yet included in our new procedure document "Definitions and Acronyms for Contaminated Sites";
- clarify independent remediation reporting requirements by developing guidance relating to the duty to submit notifications of independent remediation; and
- amend our forms for notification of independent remediation and offsite migration and to formalize them in a new protocol.

We would like to acknowledge and thank our site risk classification stakeholder working group for the practical advice its members provided during the development of these documents.

As we have done with recent protocols, we continue to invite comments resulting from experience using our documents to help us further refine and improve their utility. If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### New and Updated Ministry Procedure Documents

December 9, 2009

We have just released the first version of our new procedure document containing definitions and acronyms used in B.C.'s contaminated sites legal regime. "[Definitions and Acronyms for Contaminated Sites](#)" consolidates all the definitions relating to contaminated sites in the *Environmental Management Act* and Contaminated Sites Regulation, various protocols issued under section 64 of the Act and a number of our procedure documents. In the future we will also include definitions from some of our guidance documents. As current versions of our protocols, procedures and guidance documents are amended, their definitions will be removed and replaced with a list of terms and a reference to this new procedure document as the source of the definition of each term.

We have also updated our "[Procedures for the Roster of Approved Professionals](#)". Version 5 adds insurance requirements for Approved Professionals and expands the scope of Approved Professional work upon which the ministry may rely, indicating which types of work must be done with an arm's length review.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### Request: To Submit Land Remediation Questions by e-mail

December 8, 2009

Over the past few years the Land Remediation Section has developed a number of tools to respond to stakeholders' questions about technical, administrative and regulatory contaminated sites issues. These include [fact sheets](#), [updates](#), [technical and administrative guidance](#), [FAQs](#) and [Q&As](#). We have relied on stakeholders sending their questions to us by e-mail through our [generic e-mail addresses and contact list](#) to help develop these tools.

Lately we have noticed a significant increase in telephone calls directly to our staff (and a corresponding decrease in the use of our e-mail system) with questions whose responses should be captured in writing for the benefit of all contaminated sites stakeholders.

We would appreciate your assistance by sending your questions using the [generic e-mail addresses and contact list](#) provided on our website. If you wish, you may propose answers for our review and comment.

Your following these procedures will be appreciated. If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [BCIT Brownfield Redevelopment Courses](#)

November 16, 2009

We have been requested to send the following message to our stakeholders:

The School of Construction and the Environment at the British Columbia Institute of Technology (BCIT) is continuing its series of courses in brownfield redevelopment in support of B.C.'s brownfield renewal strategy. The purpose of the program is to provide current and prospective practitioners in the brownfield redevelopment industry with the relevant knowledge and skills within an interdisciplinary framework. Starting in December 2009, the suite of part time studies courses will include an introduction to brownfield redevelopment, planning and environment, legal and finance, technical and environmental strategies, and land development and real estate of brownfield redevelopments.

For further information, contact Steve Finn, Program Head, BCIT Brownfield Redevelopment Program at [steve\\_finn@bcit.ca](mailto:steve_finn@bcit.ca) or visit <http://commons.bcit.ca/brownfield>.

Steve Finn M.F., R.P.F.  
Program Head

Brownfield Redevelopment Program  
<http://commons.bcit.ca/brownfield/>

Sustainable Energy Manager Program  
<http://commons.bcit.ca/energy/semac.html>

FSA Director  
604 432 8857 (o)

778 928 2372 (c)  
604 439 0791 (f)  
[steve\\_finn@bcit.ca](mailto:steve_finn@bcit.ca)

## Contaminated Sites Approved Professional (CSAP) Society Stakeholders Survey

November 9, 2009

The CSAP Board of Directors would like to invite you to participate in their first annual stakeholder survey. Stakeholder input is important to the Society and will be used to further refine their process and to provide better service to the contaminated sites community.

All Stakeholders are invited to complete this brief survey at: <http://www.csapsociety.bc.ca/csap-stakeholder-survey-2009.html>

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
Land Remediation Section

## Updates to Fact Sheet on Illegal Drug Manufacturing Sites

October 22, 2009

### **Fact Sheet 35 – Requirements for the Environmental Cleanup of Illegal Drug Manufacturing Sites**

Fact Sheet 35 has recently been revised to clarify site profile requirements during the decommissioning of illegal drug manufacturing sites. The fact sheet explains the administrative requirements involved during environmental cleanup associated with the manufacturing of illegal drugs. It also addresses key topics including the risk associated with these activities, identifying responsible parties and remediation options.

We encourage you to refer to this document for current information on this topic.

Fact Sheet 35 can be accessed on the Land Remediation website at:  
[http://www.env.gov.bc.ca/epd/remediation/fact\\_sheets/pdf/fs35.pdf](http://www.env.gov.bc.ca/epd/remediation/fact_sheets/pdf/fs35.pdf)

If you have any questions please send a message to [siteprofiles@gov.bc.ca](mailto:siteprofiles@gov.bc.ca)

## Innovation Remediation Solutions Workshop - Pacific

October 21, 2009

We have been requested to send the following message to our subscribers:

With less than a week to go Federal Custodians, Technology Vendors, Consultants and other Stakeholders should not miss this opportunity to learn about remediation issues facing federal custodians responsible for contaminated sites and innovative Canadian remediation solutions.

The workshop presented by OCETA in collaboration with Public Works and Government Services Canada (PWGSC) in the Pacific and Yukon Region, addresses current issues and barriers on contaminated sites. In this 1 day workshop, participants will develop synergies through networking breaks and sponsored reception.

Speakers and Panelists are finalized! This unique full day event takes place on October 28th, 2009 at the Westin Bayshore Hotel, Vancouver, B.C., in the Stanley Park Room 3 (2nd Floor).

Please visit our website for more details and register today! Spaces are limited!  
<http://www.oceta.on.ca/workshops/IRSWBC/Registration.asp>

## Canadian Brownfields 2009

September 17, 2009

We have been requested by the Canadian Urban Institute and Canadian Brownfields Network to send the following message to our subscribers.

### **GOING FOR GOLD: CANADIAN BROWNFIELDS 2009**

[www.canadianbrownfields.ca](http://www.canadianbrownfields.ca)

**October 26 - 27, 2009**  
**Workshops: October 28, 2009**

**The Westin Bayshore Hotel**  
**Vancouver, BC**

Redeveloping brownfields is one of the best ways to revitalize and regenerate your community, resulting in a stronger local economy and a cleaner environment. Do you have the information you need to make this happen? The in-depth workshops at this year's [Canadian Brownfields conference](#) are the perfect opportunity for you to ask questions, get how-to advice, and to share your experiences and insight with others.

The four workshops focus on some of the most common challenges, including how to get started, how to partner with First Nations, the unique issues faced by small communities, and how to choose and apply remediation solutions. In addition, the 2009 conference features a packed conference program full of new exciting speakers, walking tours of local sites, and three full days of networking in the [Brownfields Marketplace](#). As well, you'll be inspired at the 9th annual [CUI Brownie Awards](#) gala dinner, which recognizes excellence in brownfields redevelopment across Canada.

### **TOP REASONS TO ATTEND:**

Learn **new knowledge** you can implement right away.

**Network** with potential partners, and get expert advice on all your most pressing challenges.

Find **solutions** for your remediation problems, and discover new technologies.

Gain **insight** into how developers, urban planners, municipal policy-makers, engineers, environmental groups, investors and construction companies approach brownfields.

### **Contact Information**

**Name:** Careesa Gee, Event Coordinator

**Phone:** 416-365-0816 (ext 221)

**Email:** [cgee@canurb.com](mailto:cgee@canurb.com)

**Organizer:** Canadian Urban Institute and the Canadian Brownfields Network

[Additional Information and Registration](#)

## [Contaminated Sites Approved Professional Society Fall Events Line-up](#)

September 2, 2009

The Contaminated Sites Approved Professional Society (CSAP Society) is sponsoring a workshop series on exam preparation and a workshop to review technical issues faced by Approved Professionals. The Society will also be offering an orientation session for Performance Assessment Panel members. More information about each session is shown below and all sessions are open to the public.

### **Exam 2009 Preparation and Refresher Workshop Series**

*Who should attend?*

- Current Society exam candidates, prospective members, other contaminated site consultants, and Approved Professionals who would like to refresh their understanding.

*Each of the four sessions will cover a specific area of practice.*

Session 1: Roster Review Process (morning October 8th)

Session 2: Regulatory Review (morning October 29th)

Session 3: Standards Review (morning November 5th)

Session 4: Risk Assessment (afternoon November 5th)

*Do I have to attend all the sessions?*

- No, you can attend one or any combination of sessions that interest you.

*Who will be delivering the workshops?*

- GeoEnviroLogic Professional Development has been contracted to deliver the workshops under the direction of the CSAP Society.

*Registration a must:* <http://www.geoenvirologic.ca>

**Technical Professional Development Workshop, October 15th 9:00 a.m. - 12:30 p.m.**

*Who should attend?*

- All CSAP Society members who want to stay current with technical issues and want a chance to ask technical and administrative questions of the Ministry of Environment.
- Non members are welcome — a \$50 registration fee applies.

*What can I expect to take away from the workshop?*

- A better understanding of how to complete an application for a contaminated sites legal instrument.
- How to be ready if your submission is randomly selected for a performance assessment.
- Ministry of Environment and CSAP Society clarification on the pressing issues of the day (ministry staff will co-panel rotating discussion groups with Society representatives on topics to be determined).

*Event Details:* <http://www.csapsociety.bc.ca/events-page.html>

*Registration a must:* <http://www.csapsociety.bc.ca/professional-development-workshop-registration-form.html>

**CSAP Society Performance Assessment Panel Orientation Session, October 15th 1:00 – 3:30 p.m.**

***Who should attend?***

- Performance Assessment Panel members.
- Those seeking to understand the performance assessment process.
- Non panel members are welcome — a \$50 registration fee applies.

***Orientation Objective:***

- Review the performance assessment process, reports templates and related documents.

***Registration a must:*** <http://www.csapsociety.bc.ca/registration-PA.html>

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
E-mail: [vincent.hanemayer@gov.bc.ca](mailto:vincent.hanemayer@gov.bc.ca)

**Comments on Draft Technical Guidance Requested**

September 1, 2009

The Land Remediation Section has just released for public comment draft Technical Guidance 6, "Groundwater Use Determination at Contaminated Sites" and draft Technical Guidance 15, "Compliance Points for the Protection of Aquatic Receiving Environments". They are available on our website at: [http://www.env.gov.bc.ca/epd/remediation/requests\\_for\\_comments/index.htm](http://www.env.gov.bc.ca/epd/remediation/requests_for_comments/index.htm).

Please send your comments no later than October 16, 2009 to [Lavinia Zanini](#).

John Ward  
Manager, Operations Management  
Land Remediation Section

**Clean Tech Funding Available**

August 25, 2009

We have been requested to send the following message to our subscribers.

**CLEAN TECH FUNDING AVAILABLE**

If you have a new, innovative technology that helps address **climate change** or promotes **clean water, land or air**, then Sustainable Development Technology Canada (SDTC) wants to hear from you.

## **SDTC's SD Tech Fund™ is accepting Statements of Interest**

**from September 2 to October 21, 2009**

The SD Tech Fund™ invests in late-stage development and pre-commercial demonstration of clean technologies by Canadian companies. For more information please visit:

<http://www.sdtec.ca/en/SOIinfo.htm>

On behalf of:

Patrice Breton  
Director, Communications  
Sustainable Development Technology Canada

[p.breton@sdtec.ca](mailto:p.breton@sdtec.ca)  
[www.sdtec.ca](http://www.sdtec.ca)

### **[New Technical Guidance 33 Has Been Approved for Immediate Use](#)**

August 10, 2009

#### **[Technical Guidance 33](#) – Applicability of Sodium (Na<sup>+</sup>) and Chloride (Cl<sup>-</sup>) Soil Relocation Standards to Marine and Estuarine Dredge Materials**

New [Technical Guidance 33](#) (TG 33) has been approved for immediate use. [Technical Guidance 33](#) provides enhanced flexibility in determining the need to obtain a Contaminated Soil Relocation Agreement (CSRA) to relocate soil of marine or estuarine origin, which is solely contaminated with salt.

Sediment deposited to land constitutes “soil” for the regulatory purposes of the Contaminated Sites Regulation (CSR).

Dredged sediments of marine or estuarine origin contain variable concentrations of salt. In some cases such material may exceed the CSR Schedule 7 sodium (Na<sup>+</sup>) and chloride (Cl<sup>-</sup>) soil relocation standards. Normally, in such circumstance a CSRA would be required to relocate the salty soil.

The standards of Schedule 7 were designed to be protective in the case where the only information known related to the proposed relocation is:

- the concentration of a scheduled substance in the soil to be relocated, and
- the CSR defined land use of the receiving site for the soil.

As a consequence, CSR Schedule 7 standards, by design, are inherently conservative (i.e. stringent). In the case of the Schedule 7 sodium and chloride standards, the standards are sufficiently stringent to in some circumstances jeopardize the beneficial re-use of dredged material of marine or estuarine origin.

TG 33 addresses this issue and provides more effective assessment related to the need to obtain a CSRA to relocate salty dredged soil while maintaining the high degree of environmental protection required when moving contaminated soil. The guidance allows consideration of additional information relevant to the receiving site for the dredged material. For example, TG 33 takes into account the “near-shore or upland” location of, and the presence or absence of engineered leachate collection works at, the receiving site. With such additional information it is possible to determine the need to obtain a CSRA using the more comprehensive risk-based CSR Schedule 5 matrix soil standards for sodium and chloride, rather than having to rely solely on consideration of the less site-specific and more conservative CSR Schedule 7 standards.

The guidance provides a simple question and answer checklist to determine if, and when, a CSRA is needed to relocate salty soil of marine or estuarine origin. The intent of TG 33 is to eliminate the need to universally require a CSRA to relocate dredged salty materials in every case that the CSR Schedule 7 standards are exceeded. The guidance has been specifically developed to both streamline the CSRA process and minimize to the maximum extent possible the likelihood of inadvertently creating a new contaminated site as a consequence of relocating dredged salty material. The ministry believes the likelihood of creating a contaminated site if relocating salty soil under the requirements of TG 33 to be negligible.

#### Notes:

1. TG 33 is specific and solely limited to, dredged marine/estuarine material contaminated with sodium (Na<sup>+</sup>) and chloride (Cl<sup>-</sup>). TG 33 is not authorized for use in determining the need to obtain a Contaminated Soil Relocation Agreement in the case that dredged marine/estuarine soil is contaminated with CSR Schedule 7 listed substances other than, or in addition to, sodium and chloride. The need to obtain a CSRA to relocate dredged materials, of whatever origin, contaminated with substances other than, or in addition to, sodium (Na<sup>+</sup>) and chloride (Cl<sup>-</sup>) must be determined strictly on the basis of the Schedule 7 standards.
2. Any checklist completed under TG 33 to determine if a Contaminated Soil Relocation Agreement is or is not, required to relocate dredged material of marine/estuarine origin becomes a requisite component of environmental documentation to support the relocation of the materials. Further, the completed checklist must be retained by the responsible person relocating the soil and must be provided if requested by the Director.
3. To provide time to obtain additional data to better characterize the concentration of salt in dredged material obtained from various marine/estuarine water-bodies, such as the Fraser River and to instigate research to determine the period of time needed for salt to naturally “wash-out” of dredged materials, TG 33 will initially remain in effect to June 2011. The period of effect of the guidance may or may not, be extended beyond June 2011 at the sole discretion of the Director.
4. Provided the salty soil of dredged marine/estuarine origin is appropriately tracked (i.e. remains a recognizable entity and is not mixed with other types of soil at a site such that identification of the salty soil becomes indistinguishable from other site soils) TG 33 may be used for subsequent relocation of the material up to and including the site of its final deposition.
5. TG 33 provides a number of new working definitions, including:

- near-shore,
- upland,
- single family residential, and
- high density residential.

These new definitions are specific to TG 33 and may or may not, be incorporated into the Contaminated Sites Regulation at a future date.

6. Appendix 1 of TG 33 provides a summary of controlling conditions which would require a CSRA under Checklist 1 to relocate salty soil of dredged marine/estuarine origin. Users of the guidance may wish to ensure ready reference to this Appendix when completing the Checklist.

If you have any questions related to the new guidance please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca)

Glyn Fox  
 Branch Science Advisor  
 Environmental Management Branch  
 Phone: (250-356-8374)  
 E-mail: [Glyn.Fox@gov.bc.ca](mailto:Glyn.Fox@gov.bc.ca)

### New 2009 BC Environmental Lab Manual

July 28, 2009

The British Columbia Environmental Laboratory Manual: 2007 – For the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete Ambient Air Samples, has been updated and revised. The new 2009 manual is available at:

[http://www.env.gov.bc.ca/epd/wamr/labsys/lab\\_meth\\_manual.html](http://www.env.gov.bc.ca/epd/wamr/labsys/lab_meth_manual.html)

The new 2009 edition now contains a number of recently approved analytical methods applicable to contaminated sites.

For example, the manual contains new or revised methods for:

- Calculation of Volatile Petroleum Hydrocarbons in Solids, Water or Air (Vapour) - VPH
- Chromium Hexavalent in Water – PBM
- Determination of Diquat and Paraquat – PBM
- Fluoride, Water Soluble, in Soils by 5:1 Aqueous Extraction – Prescribed
- Polycyclic Aromatic Hydrocarbons in Solids by GV/MS – PBM
- Sample Preservation and Hold Times
- Semi-Volatile Organics Screening Method in GC/MS for TCLP Leachates – PBM
- Strong Acid Leachable Metals (SALM) in Soil – Prescriptive
- Volatile Organic Compounds and Other Volatile Substances in Air by Charcoal Tubes and Miscellaneous Collection Media
- Volatile Organic Compounds in Air by Canister Sampling/GCMS – PBM
- Volatile Organic Compounds in Air by Thermal Desorption Tube/GCMS – PBM

- Volatile Organic Compounds (VOCs) in Water by Purge and Trap GC/MS – PBM

The methods in the 2009 manual have been approved for immediate use. However, a transition period will be allowed for laboratories, environmental consultants and responsible persons to become familiar with these methods prior to mandatory use. Consequently, use of the new and revised analytical methods for contaminated sites regulatory purposes will be required as of November 1, 2009.

If you have any questions related to the new BC laboratory manual please contact Steve Horvath, Ministry Laboratory Services Officer (604-582-5341) or me (250-356-8374, [Glyn.Fox@gov.bc.ca](mailto:Glyn.Fox@gov.bc.ca)).

Glyn Fox  
Branch Science Advisor  
Environmental Management Branch

### [Updated Vapour Guidance and Vapour Q&As Posted](#)

July 20, 2009

The ministry has just posted an updated version of [draft Technical Guidance 4, “ Vapour Investigation and Remediation”](#). The updates affect only paragraph b) of page 4 and footnote 1 of page 10. Specifically, default vapour attenuation factors can now be applied to vapour data to delineate vapour contamination at sites with shallow vapour sources, and the presence of free phase nonaqueous phase liquids is no longer a precluding condition for the use of default vapour attenuation factors at sites.

Please also be advised that the Ministry of Environment has posted a set of [Questions and Answers](#) related to draft Technical Guidance 4.

Please contact [Colm Condon](#) if you have any questions or comments about either of these documents.

Colm Condon, MRM, RPBio  
Risk Assessment Officer  
Land Remediation Section

## Call for Comments - Protocols 11, 12, 16 & Definitions

July 17, 2009

Four draft documents have just been released on our Land Remediation Section's website for public review and comment. We request your responses by September 18, 2009.

- [Protocol 11](#), "Upper Cap Concentrations for Substances Listed in the Contaminated Sites Regulation" (version 3 draft 4). This document will provide concentrations of substances with numerical standards in the regulation which, when present in the exposure zone of soil, water, sediment or vapour, could pose high risks to the environment or human health. This draft protocol is based on a section of draft 7 of Protocol 12 described below. Please send your comments to [Glyn Fox](#), Senior Science Officer by September 18, 2009.
- [Protocol 12](#), "Site Risk Classification, Reclassification and Reporting" (draft 8). This document streamlines and simplifies the provisions in draft 7 by focussing solely on the classification and reclassification of site risks and on related reporting requirements. In addition, we have provided separately our [Responses to Comments](#) received from stakeholders on various drafts of Protocol 12. Please send your comments on draft 8 to [Liliana Jerade](#), Senior Contaminated Sites Officer by September 18, 2009.
- [Protocol 16](#), "Determining the Presence and Mobility of Nonaqueous Phase Liquids and Odorous Substances" (version 1 draft 4). This document will provide a key link in the determination of the risk classification of a site. Sites which contain mobile nonaqueous phase liquids are considered to be high risk sites under draft 8 of Protocol 12. Please send your comments to [Liliana Jerade](#), Senior Contaminated Sites Officer by September 18, 2009.
- [Procedure document](#), "Definitions and Acronyms for Contaminated Sites" (version 1 draft 13). This document summarizes for easy reference all the definitions found in the contaminated sites provisions of the *Environmental Management Act*, the Contaminated Sites Regulation, protocols under Part 4 of that act, and several Land Remediation technical guidance documents. Please send your comments to [John Ward](#), Manager, Operations Management by September 18, 2009.

If you have any questions or comments please send them to the applicable member of the Land Remediation Section indicated above.

John Ward  
Manager, Operations Management  
Land Remediation Section

## New Q&As Released on Land Remediation Website

July 16, 2009

The Land Remediation Section has recently added a [Questions and Answers \(Q&As\)](#) section to our website. Q&As address less frequent, detailed questions regarding the interpretation of applicable contaminated sites legislation, policies, protocols and procedures. They are sorted into regulatory, administrative, technical and interim guidance for site vapour assessment categories.

In comparison, our FAQs section provides responses to questions we receive commonly and have relatively simple responses.

Please continue to send all your technical, administrative and policy questions on the investigation and remediation of sites to [remediation FAQs@gov.bc.ca](mailto:remediationFAQs@gov.bc.ca). They will be forwarded to the appropriate Land Remediation Section staff member for a reply and may be posted (anonymously) in the FAQs or Q&As section of our website.

In general, for a response to questions not included on the Q&As or FAQs pages, please forward your queries to the following e-mail addresses.

Issue	E-mail Address
General information on contaminated sites	<a href="mailto:site@gov.bc.ca">site@gov.bc.ca</a>
Information on sites and our Site Information Advisor	<a href="mailto:Advisor.SiteInformation@gov.bc.ca">Advisor.SiteInformation@gov.bc.ca</a>
Information on site profiles	<a href="mailto:siteprofiles@gov.bc.ca">siteprofiles@gov.bc.ca</a>
Services applications and our Client Information Officer	<a href="mailto:csp_cio@Victoria1.gov.bc.ca">csp_cio@Victoria1.gov.bc.ca</a>
Technical, administrative and policy questions on the investigation and remediation of sites	<a href="mailto:remediationFAQs@gov.bc.ca">remediationFAQs@gov.bc.ca</a>

If you require further assistance, please view our [contact list](#) to direct your question to the appropriate ministry staff member — if you have any other questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [Court Ruling Confirms Need for LEPH/HEPH Analysis](#)

July 14, 2009

A recent Provincial court ruling has confirmed the need to use LEPH/HEPH analytical data, rather than EPH analytical data, to demonstrate compliance with the LEPH/HEPH standards of

the Contaminated Sites Regulation. This judicial decision upholds the ministry's long-standing advice that EPH results, while equivalent to LEPH/HEPH for use as a screening tool to delineate and characterize hydrocarbon contamination at a site, cannot be used to demonstrate legal compliance with the regulation's LEPH and HEPH standards. A decision by the ministry to issue a contaminated sites legal instrument (for example, a Certificate of Compliance or a Contaminated Soil Relocation Agreement) related to LEPH/HEPH contamination must be based on LEPH/HEPH and not EPH analytical results.

A summary of the recent court ruling is available at:

[http://www.provincialcourt.bc.ca/judgments/pc/2009/00/p09\\_0028.htm](http://www.provincialcourt.bc.ca/judgments/pc/2009/00/p09_0028.htm). Ministry guidance on EPH and LEPH/HEPH equivalency is contained in our May 23, 2003 [Update](#) clarifying hydrocarbon analytical methods and standards.

If you have any questions, please direct them to [Glyn.Fox@gov.bc.ca](mailto:Glyn.Fox@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [New Site Profile Fact Sheets and First Nations Update](#)

July 6, 2009

We have just released two new fact sheets on our website which deal with different aspects of the site profile system. [Fact Sheet 43](#), "Site Profile Requirements for Site Decommissioning" and [Fact Sheet 44](#), "Site Profiles and Foreclosure" explain the requirements for site profile submissions in the context of two less frequently encountered site profile submission triggers — site decommissioning and foreclosure. They address key questions such as when and to whom site profiles must be submitted and whether they must be submitted if a site is in an area where the local government has opted out of administering the site profile system.

As well, a new Update "[Treaty First Nations Amendments to the Contaminated Sites Provisions of the \*Environmental Management Act\*](#)" has also been released on our website. It summarizes amendments made on April 1 this year which affect the definition of "government body" and provisions for Determinations of Contaminated Site, Remediation Orders, and Contaminated Soil Relocation Agreements.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca)

John Ward  
Manager, Operations Management  
Land Remediation Section

## Canadian Brownfields 2009

July 2, 2009

The Canadian Urban Institute has requested that we send the following message to our subscribers.

### Going for Gold: Canadian Brownfields 2009

**October 26 - 27, 2009**

**Workshops: October 28, 2009**

**The Westin Bayshore Hotel  
Vancouver, BC**

Now in its 10th year, the Canadian Brownfields conference is Canada's national conference and trade show focusing on the redevelopment of under-utilized properties as a catalyst for sustainable, vibrant and liveable communities. The theme of this year's conference is particularly relevant to today's economic landscape, with a program geared towards critical issues of reinvestment and stimulation of the economy. The 2009 conference will feature workshops, tours, and three full days of networking in the [Brownfields Marketplace](#). The conference will also feature the 9th annual [CUI Brownie Awards](#), which recognizes excellence in brownfields redevelopment across Canada.

- [Additional Information and Registration](#)

**Organizer:** Canadian Urban Institute and the Canadian Brownfields Network

#### **Contact Information**

**Name:** Careesa Gee, Event Coordinator

**Phone:** 416-365-0816 (ext. 221)

**Email:** [cgee@canurb.com](mailto:cgee@canurb.com)

### Presentations from Spring Workshops on Internet

June 8, 2009

This spring the Land Remediation Section held consultation meetings in Vancouver and Fort St. John to provide updates on a number of key contaminated sites issues. Topics included items such as brownfields renewal; the Section's compliance strategy; protocols for bioremediation of

hydrocarbon contaminated soil and site risk classification; and guidance for groundwater and vapour investigations. In addition, these sessions provided information on the work of several of our key partners including the Contaminated Sites Approved Professionals Society, the B.C. Environment Industry Association, Health Canada and the Oil and Gas Commission.

The presentations are now on our website under the heading "Consultation Presentations" at <http://www.env.gov.bc.ca/epd/remediation/presentations/index.htm>.

The Land Remediation Section wishes to extend its thanks to our participating partners and presenters and to those who attended these meetings.

Mike Macfarlane  
Manager, Land Remediation Section  
Ministry of Environment

### Early Bird Deadline for GeoEnviroLogic Courses

May 13, 2009

We have been requested to send the following message to our subscribers:

Good morning.

The **early bird registration deadline for the following courses is ONE WEEK FROM TODAY. Go to [www.geoenvirologic.ca](http://www.geoenvirologic.ca) to register.** New details on the 4th Annual Risk Assessment Symposium are also posted.

#### **Contaminated Sites Investigation: Classroom and Field Course, May 27 and 28 at BCIT Burnaby**

This is a two-day program split **50-50 between the classroom and the field**. Register to attend one or both days. The program covers practical aspects of collecting soil, soil vapour, groundwater, surface water, and ambient air samples at contaminated sites. Topics include development of sampling plans, selection of appropriate field methods, field demonstrations of common sampling techniques, data QA/QC, and interpretation of results.

#### **4th Annual Risk Assessment Symposium, May 29 at SFU Harbour Center**

This annual symposium brings together professionals, regulators, and others from contaminated sites risk assessment to share ideas and discuss hot topics. Come discuss your burning questions, frustrations, and suggestions for moving forward. Last year's end-of-day **networking social** was a big hit. **This year's hot topics are now posted.**

Hoping to see you at these last sessions of the season.

The GeoEnviroLogic Professional Development Team.

Megan Begley  
Administration, GeoEnviroLogic Professional Development  
[mbegley@shaw.ca](mailto:mbegley@shaw.ca)  
[www.geoenvirologic.ca](http://www.geoenvirologic.ca)

### GEE 2009 Conference Cancellation Notice

May 12, 2009

The 2009 Geo-Environmental Engineering Conference planned for June 10-12 at the University of British Columbia has been cancelled. If you require additional information please refer to the conference website at: <http://gee2009.civil.ubc.ca>

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
Land Remediation Section

### Vapour Grandfathering Extended to June 30, 2009

April 30, 2009

In response to numerous stakeholder requests, please be advised that the ministry has extended the vapour grandfathering period described on pages 6 and 7 of draft Technical Guidance 4, "[Vapour Investigation and Remediation](#)" from April 30, 2009 to June 30, 2009. The particulars are as follows:

#### **Grandfathering for the transition from no vapour guidance to interim vapour guidance**

The grandfathering process for the transition from no vapour guidance to the [Interim Vapour Guidance](#), described in Section 6 of that guidance, has been extended to June 30, 2009. In order to qualify for grandfathering under the Interim Vapour Guidance, applications submitted under Protocol 6, "Eligibility of Applications for Review by Approved Professionals" must be received by the Contaminated Sites Approved Professionals Society (CSAP Society) before June 30, 2009. Applications submitted directly to the ministry (which are not eligible for submission by an Approved Professional under Protocol 6) must be received by the ministry on or before June 30, 2009. *Applications received by the CSAP Society or the ministry after June 30, 2009 will not be eligible for grandfathering under the Interim Vapour Guidance.*

#### **Grandfathering for the transition from the Interim Vapour Guidance to draft Technical Guidance 4, "Vapour Investigation and Remediation"**

Vapour assessments submitted under Protocol 6 and received by the CSAP Society on or before June 30, 2009 may be completed in accordance with either draft Technical Guidance 4 or the Interim Vapour Guidance, with Schedule 11 of the Contaminated Sites Regulation used in place

of the draft Air Concentration Criteria. Vapour assessments submitted directly to the ministry and received by the ministry on or before June 30, 2009 may also be completed in accordance with either draft Technical Guidance 4 or the Interim Vapour Guidance, with Schedule 11 used in place of the draft Air Concentration Criteria. *Vapour assessments received by the CSAP Society or the ministry after June 30, 2009 are expected to be completed in accordance with draft Technical Guidance 4.*

If you have any questions or comments please send them directly to me at [Colm.Condon@gov.bc.ca](mailto:Colm.Condon@gov.bc.ca).

Colm Condon  
Risk Assessment Officer  
Land Remediation Section  
Ministry of Environment

### Registration Reminder for Fort St. John Workshop

April 28, 2009

In follow-up to our message of March 13 about registration for the Land Remediation Section's update and consultation session on May 20-21, 2009 in Fort St. John, links to the registration form and final agenda are provided below. Space is still available and registration will conclude at 4:30 pm on Thursday, May 14, 2009.

The [registration form](#) and [agenda](#) for the workshop are available on our website. If you have any questions about registration for the session, please contact [Michele Parker](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Environmental Management Branch

### Final Call for GEE 2009 Conference Abstracts Extended

April 23, 2009

The date for submission of abstracts for the 9th Canada-France-Japan-Korea Joint Conference on Geo-Environmental Engineering (GEE 2009) has been extended to May 1, 2009. The conference will take place at the University of British Columbia, in Vancouver, B.C. on June 10-12, 2009. The updated conference flyer is attached. For more information please e-mail [gee2009@civil.ubc.ca](mailto:gee2009@civil.ubc.ca) or view the conference website: <http://gee2009.civil.ubc.ca/Index.htm>.

Vincent C. Hanemayer  
Senior Contaminated Sites Officer

### Updated Information for Fort St. John Workshop

April 3, 2009

The ministry's Land Remediation Section is providing new links to registration information for our two-day contaminated sites stakeholder update and consultation session on May 20 and 21, 2009. The meetings will be held in the Banquet Room at the Quality Inn Northern Grand Hotel, 9830 100th Street, Fort St. John, B.C.

#### **Registration and Agenda**

The [registration form](#) and [draft agenda](#) are available on our website. Please note the ministry's two-day consultation will be limited to 130 attendees with a fee of \$250 per attendee for the entire session. Registration will be confirmed on a first-come first-serve basis.

#### **Questions**

If you have any questions about the registration for the consultation session, please contact [Michele Parker](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section

### Contaminated Sites Approved Professional Society Notice of 2009 Exam Schedule

April 1, 2009

#### **CSAP 2009 Examination Schedule**

The Contaminated Sites Approved Professional Society is now accepting applications for the November 2009 sitting of qualifying examinations. The application deadline is **July 1, 2009**. Candidates will be advised of their eligibility by August 31, 2009.

The examination schedule is as follows:

- Tuesday, November 17, 2009 - Standards Assessment Technical Part
- Wednesday, November 18, 2009 - Regulatory Part
- Thursday, November 19, 2009 - Risk Assessment Technical Part

Further details are provided at the CSAP Society website at: <http://www.csapsociety.bc.ca/roster-of-approved-professionals/2008-applicant-information.html>

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
Land Remediation Section

### 9th Canada-France-Japan-Korea Joint Conference on Geo-Environmental Engineering

March 18, 2009

Please note the important upcoming dates for the 9th Canada-France-Japan-Korea Joint Conference on Geo-Environmental Engineering (GEE 2009) to take place at the University of British Columbia, Vancouver, British Columbia, Canada, on June 10-12, 2009.

#### **2nd Call for Abstracts**

April 15, 2009 - Submission of Abstracts  
April 30, 2009 - Acceptance of Abstracts  
June 1, 2009 - Submission of PowerPoint Presentations

For more information please email [gee2009@civil.ubc.ca](mailto:gee2009@civil.ubc.ca)

Conference website: <http://gee2009.civil.ubc.ca/Index.htm>

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
Land Remediation Section

### Fort St. John Land Remediation Update and Consultation Session

March 13, 2009

The ministry's Land Remediation Section is pleased to advise we will be hosting a two-day contaminated sites stakeholder update and consultation session May 20 and 21, 2009.

#### **Location**

The meetings will be held in the Banquet Room at the Quality Inn Northern Grand Hotel, 9830 - 100th Street, Fort St. John, B.C. More information about the venue is available [here](#).

## Topics

Ministry representatives will bring stakeholders up to date on the progress of ongoing policy development initiatives including the following:

- Site vapour investigation guidance — draft Technical Guidance 4
- Vapour standards — Schedule 11 of the Contaminated Sites Regulation
- Requirements for determining barite sites — Protocol 14
- Salt and barium standards — Schedule 5 of the Contaminated Sites Regulation
- Site Risk Classification System — draft Protocol 12

Current plans for the session also include presentations and discussions regarding additional initiatives the Land Remediation Section has been working on, including those in the following areas:

- B.C. Brownfield Renewal Strategy
- Compliance and enforcement
- Groundwater guidance
- Wildlands land use

The session will also provide an overview of the Stage 6 amendments to the Contaminated Sites Regulation, the Section's proposed work plans and initiatives, and anticipated additional opportunities for stakeholder participation.

## Additional Speakers

The ministry has confirmed presentations from the following groups:

- Contaminated Sites Approved Professional Society
- Science Advisory Board for Contaminated Sites
- British Columbia Environment Industry Association
- Oil and Gas Commission
- Health Canada

The ministry has requested presentations from the following groups:

- Ministry of Agriculture and Lands, Crown Land Restoration Branch
- Ministry of Environment, Environmental Stewardship Division

## Registration and Agenda

The [registration form](#) and [draft agenda](#) are available on our website. Please note the ministry's two-day consultation will be limited to 130 attendees with a fee of \$250 per attendee for the entire session. Registration will be confirmed on a first-come first-serve basis.

## Questions

If you have any questions about the registration for the consultation session, please contact [Michele Parker](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section

### [SDTC Calls for Applications to its SD Tech Fund](#)

March 6, 2009

Sustainable Development Technology Canada (SDTC), the single largest funder of clean technology in Canada, is calling for Statements of Interest for its 15th round of funding. While applications across all clean technology industry sectors are encouraged, SDTC sees tremendous growth potential for technologies that address issues related to clean water and clean soil.

To date, SDTC has allocated \$342M to 144 clean technology projects. An additional \$800M has been leveraged from project consortia members, for a total portfolio value of \$1.14 billion.

SDTC is accepting applications until April 22, 2009. Please [click here](#) for information on the application process and funding requirements.

John Ward  
Manager, Operations Management  
Land Remediation Section

### [Joint Conference on Geo-Environmental Engineering](#)

February 18, 2009

#### **9th Canada-France-Japan-Korea Joint Conference on Geo-Environmental Engineering (GEE 2009)**

**The University of British Columbia, Vancouver, British Columbia, Canada, June 10-12, 2009**

The geotechnical and environmental professions have long been contributing to the understanding of contaminated site issues. This 3-day conference will bring together industry, regulatory, and academic professionals from the disciplines of geotechnical, geological, hydro-geological, mining, chemical and environmental engineering, biology, and toxicology to seek new solutions to technical and regulatory issues regarding geo-environmental engineering and contaminated sites.

For more information please visit the conference website at <http://gee2009.civil.ubc.ca> or contact Dr. Loretta Li at [lli@civil.ubc.ca](mailto:lli@civil.ubc.ca)

Vincent C. Hanemayer  
Senior Contaminated Sites Officer  
Land Remediation Section

### [New Profiles on Remediation Projects Released](#)

February 18, 2009

Five new [Remediation Project Profiles](#) have recently been released on our website. This series of documents describes the types of site remediation occurring in British Columbia, with an emphasis on cleanups which use innovative methods and on sites which have significant contamination issues or have common types of contamination requiring remediation. They also provide an opportunity for environmental consulting firms to showcase their work.

If you have any questions or comments, or would like the ministry to publish a profile for a site, please contact us at [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [New Documents on Soil Relocation](#)

February 18, 2009

The ministry has recently released two new administrative guidance documents on soil relocation.

Administrative Guidance 7, "[Completing and Submitting an Application for a Contaminated Soil Relocation Agreement](#)" describes in detail the steps which should be followed in applying for a Contaminated Soil Relocation Agreement. Administrative Guidance 8, "[Contaminated Soil Relocation Agreement Processing Requirements for Approved Professionals](#)" provides instructions for Approved Professionals on the processing of applications for Contaminated Soil Relocation Agreements. As well, Fact Sheet 41, "[Relocation of Soils from Contaminated Sites](#)" has been updated to better reflect the new provisions in the Stage 6 amendments to the Contaminated Sites Regulation triggering the requirement for Contaminated Soil Relocation Agreements.

We encourage you to refer to these documents for current information on the relocation of soil from contaminated sites.

If you have any questions or comments please send them to [remediationFAQs@gov.bc.ca](mailto:remediationFAQs@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [Groundwater Investigation Guidance Released for Comment](#)

February 13, 2009

A new draft groundwater investigation and characterization guidance document, Technical Guidance 8, [Groundwater Investigation and Characterization](#), has been released by the ministry for public review and comment. Please submit your comments and any questions you might have to [Janet Barrett](#) by March 27, 2009.

John Ward  
Manager, Operations Management  
Land Remediation Section  
Ministry of Environment

### [Amendment to Draft Vapour Guidance](#)

February 12, 2009

Please be advised that the ministry has amended the grandfathering section of [draft Technical Guidance 4](#), Vapour Investigation and Remediation. If you are investigating or remediating vapours at a site, intend to comment on this draft document, or have any questions about this amendment, please contact [Colm Condon](#).

Please note that the comment period for draft Technical Guidance 4 ends on March 20, 2009 — comments should be sent to me.

Colm Condon  
Risk Assessment Officer  
Land Remediation Section  
Ministry of Environment

## Request for Expression of Interest in Fort St. John Workshop

February 12, 2009

The ministry's Land Remediation Section is requesting expressions of interest from stakeholders advising if they would attend a contaminated sites update and stakeholder consultation in Fort St. John in April or early May, 2009. Stakeholder feedback would be appreciated as it will assist the ministry in the selection of a venue of the appropriate size.

Ministry staff are currently making enquiries regarding the availability of presenters. Proposed topics include: site vapour investigation guidance; vapour standards; salt and barite standards; Protocol 14 Requirements for Determining Barite Sites; the B.C. Brownfield Renewal Strategy; contaminated sites compliance and enforcement; groundwater guidance; and wildlands land use.

The ministry has also requested presentations from the following groups:

- Contaminated Sites Approved Professional Society
- Science Advisory Board for Contaminated Sites
- Ministry of Agriculture and Lands, Crown Land Restoration Branch
- Health Canada
- Environment Canada
- Oil and Gas Commission

Please email [Emily Fairholm](mailto:emily.fairholm@ec.gc.ca) identifying the name of your firm and the number of people expected to attend the session in Fort St. John.

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Ministry of Environment

## Registration Full for Update and Consultation Session

February 11, 2009

The February 16-17 Land Remediation Section update and consultation session in Vancouver is now full and we will be contacting those who sent us registration applications which cannot be accommodated.

If you have any questions about the meeting, please contact [Emily Fairholm](mailto:emily.fairholm@ec.gc.ca).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Environmental Management Branch

## New Notification of Offsite Migration Form

February 11, 2009

Version 4.0 of the [Notification of Offsite Migration](#) form has been released on our website for immediate use. Changes to the form were required in response to new provisions for generic numerical vapour standards in the Stage 6 amendments to the Contaminated Sites Regulation. Please use this new version.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

## Final Registration Reminder for Update and Consultation

February 9, 2009

In follow-up to our message of January 29 about registration for the Land Remediation Section's update and consultation session on February 16-17, 2009 in Vancouver, please note that the registration limit of 3 people per firm was removed as of February 4, 2009. Registration will conclude at 1:00 pm on February 13, 2009.

The [registration form](#) and [agenda](#) for the consultation session are available on our website. If you have any questions about registration for the consultation session, please contact [Emily Fairholm](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Environmental Management Branch

## New Vapour Guidance Released for Use and Comment

February 6, 2009

A new vapour guidance document, [draft Technical Guidance 4](#), Vapour Investigation and Remediation, is now available. It provides responsible parties and environmental consultants with guidance on site vapour investigation and remediation in light of Schedule 11 of the Contaminated Sites Regulation, the generic numerical vapour standards.

Though in draft form, this document may be used immediately in place of the interim guidance for site vapour assessment which currently appears on our internet site. Details on grandfathering from the interim to the new draft guidance can be found at the end of draft Technical Guidance 4.

Please note that the comment period for draft Technical Guidance 4 ends on March 20, 2009. Please submit your comments and questions to [colm.condon@gov.bc.ca](mailto:colm.condon@gov.bc.ca).

Colm Condon  
Risk Assessment Officer  
Land Remediation Section  
Ministry of Environment

### Two Errors in the Contaminated Sites Regulation

February 6, 2009

The British Columbia Environmental Laboratory Quality Assurance Advisory Committee has advised us of two errors in Schedule 11 of the Contaminated Sites Regulation.

#### **Error 1. Error in nomenclature – Freon 113**

The chemical name for Freon 113 in Schedule 11 is incorrectly listed as 1,2,2-trichloro-1,2,2-trifluoroethane. The correct chemical name for Freon 113 is 1,1,2-trichloro-1,2,2-trifluoroethane. The Chemical Abstracts Service (CAS) registry number (76-13-1) listed in Schedule 11 for Freon 113 is correct.

#### **Error 2. Incorrect inclusion of substance – 4-chloronitrobenzene**

Schedule 11 provides generic numerical vapour standards for 4-chloronitrobenzene. This substance does not meet the ministry's criteria for defining a "volatile substance" because its vapour pressure (0.022 Torr) is less than 0.05 Torr and its Henry's Law constant (4.9 E-06) is less than 1 E-05. It should not have been included as a prescribed substance in Schedule 11.

The ministry will recommend that 4-chloronitrobenzene be deleted from Schedule 11 in a future amendment to the Contaminated Sites Regulation. In the meantime the ministry will not enforce any requirement to assess or remediate a site for the presence of 4-chloronitrobenzene vapours under the contaminated sites provisions of the *Environmental Management Act*.

If you have any questions or comments please send them to me at [Glyn.Fox@gov.bc.ca](mailto:Glyn.Fox@gov.bc.ca)

Glyn Fox  
Branch Science Advisor  
Environmental Management Branch  
Ministry of Environment

## Sample Preservation Requirements Posted for Comment

February 5, 2009

A new draft table summarizing analytical sample preservation and hold time requirements for waters, soils, biota, and air (vapour) samples has been posted to the "Current Draft Methods for Review" section of the ministry's Laboratory Services website at [http://www.env.gov.bc.ca/epd/wamr/labsys/lab\\_meth\\_manual.html](http://www.env.gov.bc.ca/epd/wamr/labsys/lab_meth_manual.html).

The 30-day public comment period for these new analytical methods closes on February 27, 2009.

Once approved by the Director, this table will be incorporated into the British Columbia Environmental Laboratory Manual. The table includes ministry requirements for sample container types, storage temperatures, preservatives and hold times. Contaminated Sites Approved Professionals, environmental laboratories, and other stakeholders are encouraged to review this document.

John Ward  
Manager, Operations Management  
Land Remediation Section

## Draft Vapour Analytical Methods Posted for Comment

February 5, 2009

The following five new draft analytical methods have been developed with the assistance of the British Columbia Environmental Laboratory Quality Assurance Advisory Committee (BCELQAAC) Technical Subcommittee. They support the Contaminated Sites Regulation Schedule 11 generic numerical vapour standards and have been posted to the "Current Draft Methods for Review" section of the ministry's Laboratory Services website at [http://www.env.gov.bc.ca/epd/wamr/labsys/lab\\_meth\\_manual.html](http://www.env.gov.bc.ca/epd/wamr/labsys/lab_meth_manual.html):

Volatile Organic Compounds in Air by Canister Sampling/GCMS - PBM  
Volatile Organic Compounds and Other Volatile Substances in Air by Charcoal Tubes and Miscellaneous Collection Media - PBM  
Volatile Organic Compounds in Air by Thermal Desorption Tube/GCMS - PBM  
Calculation of Volatile Petroleum Hydrocarbons in Solids, Water or Air (Vapour) - VPHv  
Volatile Hydrocarbons in Air by GC-FID/GCMS

The 30-day public comment period for these new analytical methods closes on February 27, 2009.

Once finalized, these methods will initially be approved by the Director for use as "Analytical Methods for Contaminated Sites" under the Contaminated Sites Regulation. At a later date, these methods will be incorporated into the B.C. Environmental Laboratory Manual to facilitate more general use under the *Environmental Management Act*. The methods include requirements and guidelines for field sampling and laboratory analysis of air (vapour) samples.

John Ward  
Manager, Operations Management  
Land Remediation Section

### [New Notification of Independent Remediation Form](#)

February 4, 2009

New version 2.0 of the [Notification of Independent Remediation](#) form has been released on our website for immediate use. Changes to the form were required in response to new provisions for wildlands and generic numerical vapour standards in the Stage 6 amendments to the Contaminated Sites Regulation.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

### [Prince George Update on Contaminated Sites Cancelled](#)

February 4, 2009

The ministry's Land Remediation Section has cancelled the contaminated sites stakeholder update and consultation session scheduled for March 3 and 4, 2009 in Prince George.

Registration space is still available for the session scheduled to proceed at Robson Square in Vancouver on February 16 and 17. If you have already submitted registration for the Prince George session, please contact [Emily Fairholm](#) to advise if you would like to cancel your registration or transfer your registration to the Vancouver Session.

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Environmental Management Branch

## Consolidated Contaminated Sites Regulation Now Available

February 3, 2009

The [Contaminated Sites Regulation](#) has now been updated on our website to incorporate the Stage 6 amendments to the regulation which came into effect on January 1, 2009. The [Environmental Management Act](#) has also been updated on our website and is current as of January 21, 2009. Both of these documents are accessible on our [home page](#) at the bottom of the left hand column.

If you have any questions or comments please send them to [site@gov.bc.ca](mailto:site@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

## Registration Reminder for Vancouver Update and Consultation

January 29, 2009

In follow-up to our message of January 15 about registration for the Land Remediation Section's update and consultation session on February 16-17, 2009 in Vancouver, the registration information and form for this event is provided with a reminder to register as soon as possible. As of Wednesday, February 4, we will be removing the stakeholder registration limit of 3 people per firm. If you plan to register, please do so by February 4 to ensure space is available.

### Registration

The [registration form](#) is available on our website. Please note the ministry's two-day consultation in Vancouver is limited to 130 attendees and space may become limited. A fee of \$250 per attendee is applicable for the entire session. Registration will be confirmed on a first-come first-serve basis.

### Agenda

A final [agenda](#) for the consultation is now posted on the ministry's website. As indicated in our CS e-Link message dated January 14, 2009, the sessions will provide an update on the progress of on-going policy development initiatives and will include presentations from a number of groups external to the ministry including the Science Advisory Board, National Collaborating Centre for Environmental Health, Contaminated Sites Approved Professionals Society, Health Canada, Environment Canada, and the Crown Land Restoration Branch in the Ministry of Agriculture and Lands.

The GeoEnviroLogic Soil Vapour Workshop follows the ministry session on February 17 and will continue on February 18 at another venue. Attendees to the ministry session are invited to stay for the soil vapour presentations on February 17.

## Questions

If you have any questions about registration for the consultation session, please contact [Emily Fairholm](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section  
Environmental Management Branch

## New Site Profiles e-Link System

January 22, 2009

Our new site profiles e-mail service (SPe-Link) is now in operation.

This system is used to notify subscribers when and where to find ministry information, on-line documents, news and announcements dealing with site profiles. Also it is a rapid message system to inform subscribers of developments in site profile administration. It will be especially useful in assisting local government officials and approving officers in performing their duties in administering site profiles under the provincial *Environmental Management Act*.

As we have provided with the CS e-Link system, the What's New section on our internet [home page](#) has an archive for all messages sent by SP e-Link.

To subscribe, please follow the instructions at <http://www.env.gov.bc.ca/epd/remediation/spelink/index.htm>

John Ward  
Manager, Operations Management  
Land Remediation Section  
Ministry of Environment

## Prince George Land Remediation Update and Consultation Session

January 21, 2009

The ministry's Land Remediation Section is pleased to advise we will be hosting a two-day contaminated sites stakeholder update and consultation session March 3 and 4, 2009.

### Location

The meetings will be held at the Ramada Hotel (Room: Cranbrook South) located at 444 George Street, Prince George, B.C. More information about the venue is available [here](#).

## Topics

Ministry representatives will bring stakeholders up to date on the progress of on-going policy development initiatives including the following:

- Site vapour investigation guidance
- Vapour standards
- Salt and barite standards
- Protocol 14. Requirements for Determining Barite Sites

Current plans for the session also include presentations and discussions regarding additional initiatives the Land Remediation Section has been working on, including those in the following areas:

- BC Brownfield Renewal Strategy
- Compliance and enforcement
- Groundwater guidance
- Wildlands land use

The session will also provide an overview of the Stage 6 amendments to the Contaminated Sites Regulation, the section's proposed work plans for 2009 - 2010, and anticipated additional opportunities for stakeholder participation.

## Additional Speakers

The ministry has confirmed presentations from the following groups:

- Contaminated Sites Approved Professional Society
- Science Advisory Board for Contaminated Sites
- Ministry of Agriculture and Lands, Crown Restoration Branch
- Health Canada
- Oil and Gas Commission

## Agenda and Registration

The [draft agenda](#) and [registration form](#) are available on our website. Please note that the ministry's consultation session in Prince George will be restricted to 135 attendees with a fee of \$250 per attendee for the entire session. Registration will be confirmed on a first-come first-serve basis. Please make your cheques payable to the "Minister of Finance". Registration will not be confirmed until payment is received.

## Questions

If you have any questions about registration for the consultation session, please contact [Emily Fairholm](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section

## Registration for Vancouver Land Remediation Update Session

January 15, 2009

In follow-up to our message yesterday about the February 16 - 17, 2009 Land Remediation Update and Consultation Session in Vancouver, we are providing information on registration below.

### Registration

The [registration form](#) is available on our website. Please note the ministry's two-day session will be restricted to 130 attendees and space may become limited. A fee of \$250 per attendee is applicable for the entire session. Registration will be confirmed on a first-come first-serve basis and we ask that stakeholders limit registration to three spaces per firm. Please make your cheque payable to the "Minister of Finance". Registration will not be confirmed until payment is received.

### Agenda

A [draft agenda](#) for the consultation is also posted on the ministry's website.

### Questions

If you have any questions about registration for the consultation session, please contact [Emily Fairholm](#).

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section

## GeoEnviroLogic Soil Vapour Workshop

January 15, 2009

We have been requested to send the following message to our subscribers:

GeoEnviroLogic Professional Development is pleased to open registration for a Soil Vapour Workshop, February 17 and 18 in Vancouver. Take advantage of early bird pricing (until February 9) and group registration discounts. Visit [www.geoenvirologic.ca](http://www.geoenvirologic.ca) for full details and to register.

### Synopsis

The Soil Vapour workshop will provide more detailed information on the new vapour standards and guidance for soil vapour investigation and remediation. The Soil Vapour Workshop is paired with Ministry of Environment information sessions taking place on February 16 and 17 (until 2:45 p.m.). GeoEnviroLogic's Soil Vapour Workshop starts where the ministry information

sessions leave off at 2:45 p.m. The Tuesday afternoon session will provide information on regulatory aspects, selection of COPCs, and use of available models and spreadsheets. Wednesday's presentations will focus on "how-to" in terms of investigation layout, sampling methods, analytical methods, and soil vapour mitigation.

## **Confirmed Speakers**

### ***Ministry of Environment Session - Tuesday from 1:00 p.m. to 2:45 p.m.***

- Glyn Fox, Ministry of Environment
- Colm Condon, Ministry of Environment
- Sanya Petrovic, Health Canada

### ***GeoEnviroLogic Soil Vapour Workshop***

- Greg Sutherland, O'Connor Associates
- Dave Williams, Meridian Strategies
- Ross Wilson, Wilson Scientific
- Ian Hers, Golder Associates
- Reidar Zapf-Gilje, RZG Consulting and GeoEnviroLogic Professional Development
- ALS Laboratory Group
- Maxxam Analytics

## **Topics**

### ***Tuesday Afternoon (2:45 p.m. to 4:30 p.m.)***

- CSAP Soil Vapour Panel - Selection of COPC
- Soil Vapour Modeling
- Wrap-up and Flowchart Hand-out Showing the Soil Vapour Investigation Process (to be discussed the following day)

### ***Wednesday Morning (8:15 a.m. to 12:00 p.m.)***

- Soil Vapour Science: Keynote Topic and Conceptual Models
- "Risk" Aspects of Soil Vapour: Background Concentrations in Homes and Use of Alternate Models, Adjustment of "Tox" Values and Exposure Assumptions
- Soil Vapour Sampling: Design of Soil Vapour Investigations and Overview of Methods

### ***Networking Lunch and Demonstration (lunch provided)***

### ***Wednesday Afternoon (1:00 p.m. to 4:30 p.m.)***

- Analytical Methods for Soil Vapour
- Soil Vapour Mitigation Solutions

Visit [www.geoenvirologic.ca](http://www.geoenvirologic.ca) for full details and to register.

Hope to see you there,

The GeoEnviroLogic Professional Development Team

### Vancouver Land Remediation Update and Consultation Session

January 14, 2009

The ministry's Land Remediation Section is pleased to advise that we will be hosting a two-day contaminated sites stakeholder update and consultation session February 16 and 17, 2009.

#### **Location**

The meetings will be held in the Theatre (Room C.300) at UBC Robson Square, 800 Robson Street, Vancouver, B.C. More information about the venue is available [here](#).

#### **Topics**

Ministry representatives will bring stakeholders up to date on the progress of ongoing policy development initiatives including the following:

- Site vapour investigation guidance
- Vapour standards - Schedule 11
- Salt standards

Current plans for the session also include presentations and discussions regarding additional initiatives the Land Remediation Section has been working on, including those in the following areas:

- BC Brownfield Renewal Strategy
- Compliance and enforcement
- Groundwater guidance

The session will also provide an overview of the Stage 6 amendments to the Contaminated Sites Regulation, the Section's proposed work plan for 2009-10, and anticipated additional opportunities for stakeholder participation. The topics on the afternoon of February 17 will be dedicated to soil vapours. The GeoEnviroLogic Soil Vapour Workshop follows the ministry session.

#### **Additional Speakers**

The ministry has confirmed presentations from the following groups:

- Contaminated Sites Approved Professional Society
- Science Advisory Board for Contaminated Sites
- Ministry of Agriculture and Lands, Crown Lands Restoration Branch
- Health Canada
- Environment Canada

The [draft agenda](#) is available on our website. Please note the ministry's two-day consultation will be limited to 130 attendees with a fee of \$250 per attendee for the entire session. Registration will be confirmed on a first-come first-serve basis. We ask that stakeholders limit registration to 3 spaces per firm. Additional details regarding session registration will be sent shortly.

Also note the ministry plans to hold a stakeholder consultation session in Prince George on March 3 and 4, 2009, which will include presentations related to the oil and gas sector. Details regarding the session in Prince George will be sent soon.

Ardith Gingell  
Senior Contaminated Sites Officer  
Land Remediation Section

### Esquimalt Opt Back Into Site Profile Administration

January 12, 2009

Under section 4(4) of the Contaminated Sites Regulation, local governments are provided the option of opting out of their duty to administer site profiles under section 40 of the *Environmental Management Act*.

Having previously opted out, on January 2, 2009, the Corporation of the Township of Esquimalt informed the Minister of Environment that it had decided to opt back in. Thus as of that date, persons under the jurisdiction of Esquimalt can no longer use the provision in section 4(4) of the Contaminated Sites Regulation to be exempted from the duty to submit a site profile.

Fact Sheet 6, "Site Profile Administration: Local Government Opt Out Option" has been amended to reflect this change. It is available on our website at:  
[http://www.env.gov.bc.ca/epd/remediation/fact\\_sheets/index.htm](http://www.env.gov.bc.ca/epd/remediation/fact_sheets/index.htm).

Additional information on site profiles is provided at:  
[http://www.env.gov.bc.ca/epd/remediation/site\\_profiles/index.htm](http://www.env.gov.bc.ca/epd/remediation/site_profiles/index.htm).

If you have any questions please send a message to [siteprofiles@gov.bc.ca](mailto:siteprofiles@gov.bc.ca).

John Ward  
Manager, Operations Management  
Land Remediation Section

## Comments Requested on Draft Bioremediation Protocol

January 7, 2009

The Land Remediation Section has just released for public comment draft Protocol 15, "Soil Treatment Facility Design and Operation for Bioremediation of Hydrocarbon Contaminated Soil". It was developed after a review of similar requirements in other jurisdictions and is available on our website at:

[http://www.env.gov.bc.ca/epd/remediation/requests\\_for\\_comments/index.htm](http://www.env.gov.bc.ca/epd/remediation/requests_for_comments/index.htm)

Please send your comments in MS Word format no later than February 27, 2009 to:

Tyler O'Grady  
Senior Contaminated Sites Officer  
Land Remediation Section  
Ministry of Environment  
e-mail: [Tyler.OGrady@gov.bc.ca](mailto:Tyler.OGrady@gov.bc.ca)

## Service Application Change in Effect January 1

January 1, 2009

Effective January 1, 2009, Summaries of Site Condition and their associated fees must be submitted as part of most contaminated site service applications made to the ministry. Previously a Summary of Site Condition submission was required only for those service applications which were required to be submitted with the recommendation of an Approved Professional under Protocol 6, "Eligibility of Applications for Review by Approved Professionals".

Section 7.1 of the Contaminated Sites Regulation has now been amended so that Summaries of Site Condition must be submitted to the ministry for service applications for sites with all site risk classifications. Those applications which must be directly submitted to the ministry (and which are not eligible for submission with the recommendation of an Approved Professional under Protocol 6) now must include a Summary of Site Condition.

For further information please contact our Client Information Officer at [csp\\_cio@Victoria1.gov.bc.ca](mailto:csp_cio@Victoria1.gov.bc.ca).

John Ward  
Manager, Operations Management Unit  
Land Remediation Section  
Ministry of Environment

## Stage 6 Regulation Amendments Now in Effect

January 1, 2009

The Stage 6 amendments to the Contaminated Sites Regulation came into effect on January 1, 2009.

Many of the amendments expand or amend the environmental quality standards in the Regulation. Key changes to the standards include new Schedule 5 matrices for barium, chloride ion and sodium ion, and new standards for wildlands and vapours. As well, a number of clarifications have been made to the site profile regime (including a new version of the site profile form) and an updated Summary of Site Condition form has been added as Schedule 1.1.

For a summary of the amendments, please review our December 12, 2008 update “Stage 6 Amendments to the Contaminated Sites Regulation” available at the following web address: <http://www.env.gov.bc.ca/epd/remediation/updates/index.htm>. The actual amendments were posted last month on our Internet site at [http://www.env.gov.bc.ca/epd/remediation/leg\\_regs/csr.htm](http://www.env.gov.bc.ca/epd/remediation/leg_regs/csr.htm). We anticipate that a consolidated version of the Regulation will be available on our web site within a few weeks.

In response to these amendments our fact sheets 1, 3, 13, 15, 35, and 41 have been updated as well as administrative and technical guidance documents 1 and 2, and 1 – 3 and 18, respectively. Several items which were released on our web site last month, including Protocol 14, “Requirements for Determining Barite Sites,” and the new site profile and Summary of Site Condition forms, are now in effect.

If you have any questions, please contact us at [site@gov.bc.ca](mailto:site@gov.bc.ca)

John Ward  
Manager, Operations Management  
Land Remediation Section  
Ministry of Environment