



CSAP FALL 2014 PROFESSIONAL DEVELOPMENT WORKSHOP

Evolving with Policy and Technology

Agenda

Date: Oct 23, 2014

Time: 8:30 check-in, 9 am start

Location: 1055 Canada Place, West Meeting Room, Level Two

Morning Session:

9:00 – 9:05	Introduction: morning session	Greg Sutherland
9:05 – 9:20 (20 minutes)	CSAP updates – thank you to retiring board members <ul style="list-style-type: none"> • Tech Review Committee – 5 minutes • Performance Assessment Committee – 15 minutes 	Catherine Schachtel Guy Patrick Reidar Zapf Gilje
9:20 – 9:35	PVP / Risk Assessment Update	Mike Rankin Sam Reimer
9:35 – 9:50	Soil Vapour Mitigation is now the Critical Path Item to Achieve a CoC If a soil vapour protection system is required, then verification that it is operating as designed must be provided. For verification the soil vapour system must be installed and a letter of assurance submitted from a professional engineer who (1) confirms that the system has been installed as designed, and (2) describes the QA/QC tests conducted to confirm that the system operates as designed. Until verification is complete the site is only eligible for an Approval in Principle. Q&A (last 5 min of the presentation)	Keith Gagne P.Eng. Senior Consultant and Business Team Leader Pottinger Gaherty Environmental Consultants. Bob Symington
9:55 – 10:10	Vapour Intrusion in High Density Development This session provides an update on the work initiated by Science Advisory Board for Contaminated Sites in 2011. The intent is to differentiate between residential developments styles when assessing vapour intrusion risk. The session will highlight recent approaches to developing attenuation factors applicable to high density development.” Q&A (last 5 min of the presentation)	Mark Adamson Andrew Sorensen
10:10-10:35	<i>Coffee Break</i>	
	Innovative Solutions	
10:35 -11:05 (30 min)	Definitive Vapor Intrusion Investigations Using On-site GC/MS Analysis and Building Pressure Control Distinguishing between Vapour Intrusion (VI) and indoor sources of VOC is a significant challenge in site assessments, greatly increasing the cost and complexity of investigations. Rapid on-site analysis of indoor air samples using a GC/MS allows the users to understand the distribution of VOC in real-time, supporting a real-time identification of the source. For this project, we have developed a protocol for using on-site GC/MS analysis to distinguish between VI and indoor sources of VOC. The overall objective of the demonstration is to validate the accuracy and utility of the protocol for the evaluation of VI. Q&A (last 5 min of the presentation)	ESTCP Thomas McHugh Mike Rankin



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Afternoon Session

	Introduction: afternoon session	Michael Rankin
1:30 -2:15	<p>Recent discussion papers (Teeing up Regulatory Review)</p> <p>The Ministry of Environment is reviewing aspects of British Columbia’s site remediation legal regime. Discussion papers have been developed that focus on the prevention of site contamination from soil relocation and the mechanism for identifying potentially contaminated sites (the site profile process) Regulatory Changes (status of omnibus bill)</p>	<p>Kelli Larsen Kerri Skelly</p> <p>Mike Macfarlane</p>
2:15- 3:00	<p>Recent ministry document report out:</p> <p>Earlier this year, the ministry updated 14 documents and provided CSAP an opportunity to comment on document drafts. These documents will be released to the public shortly for further comment or as finalized documents.</p> <ul style="list-style-type: none"> • P5 and TG#22 • AG#15 <p>Database Project:</p> <p>The Land remediation sections have embarked on a project to plot representative borehole logs for sites around the province. Our co-op student, Russell Prentice will be presenting on his progress on this project</p>	<p>Steve Dankev Peter Kickham Peggy Evans</p> <p>Russell Prentice (Coop Student)</p>
3:00 – 3:15	<i>Coffee Break</i>	
<p>OPTION B</p> <p>3:15 –4:00 (45 minutes)</p>	<p style="text-align: center;">Panel discussion:</p> <p style="text-align: center;">MOE CSR Vision: To Transfer More CSR Tasks to CSAP Why? How? Implications?</p> <p>The Ministry will start the discussion by providing a brief overview of their proposed future plans and the Panel with Audience will debate the ensuing questions.</p> <p>Potential panel participants:</p> <ul style="list-style-type: none"> • MoE: Mike MacFarlane • CSAP: Guy Patrick • UBCM: Carrie Baron, • UDI: Bruno Thielmann • BCBC: Kristi Thornhill (CFA) 	<p>Moderator Paul Cassidy</p>
	<i>Closing Remarks</i>	

JOIN US FOR A “NO HOST” HAPPY HOUR – MAHONY & SONS, PROMANADE LEVEL FOLLOWING THE WORKSHOP

CSAP PD Workshops qualify as professional development hours (Fall PD workshop 6 hours)



Guest Presenter BIOs

Thomas McHugh, Ph.D

Dr. McHugh is a toxicologist with GSI Environmental Inc., in Houston, Texas. He is a Diplomat of the American Board of Toxicology and has over 20 years of experience in the environmental industry. He received a B.A. in Biochemistry and Environmental Science from Rice University (1990), an M.S. in Environmental Engineering from Stanford University (1993), and a Ph.D. in Toxicology from the University of Washington (1997). Dr. McHugh has conducted and managed a variety of projects related to vapor intrusion including large field investigations and model development. He was the principal investigator (PI) for three vapor intrusion research projects funded by the Department of Defense through their Environmental Security Technology Certification Program (ESTCP) research program. Through these projects, he has developed improved methods for to distinguish between vapor intrusion and indoor sources of VOCs. He is the lead author on several peer-reviewed journal articles, peer-reviewed conference proceedings, and technical documents on vapor intrusion. Dr. McHugh has developed and taught training classes on a number of topics including vapor intrusion.

Dawn A. Zemo, P.G., C.E.G.

Ms. Zemo's extensive professional experience as a practicing consultant includes management or technical/strategic direction of hundreds of site investigation and remediation projects. Constituents of concern include chlorinated solvents, petroleum hydrocarbons (crude oil, refined products, and residuals), fuel oxygenates (MTBE, TBA etc.), tars, and metals in soil and groundwater. Types of facilities include rail yards, refineries, pipelines, bulk storage facilities (petroleum and chlorinated solvent), retail service stations, manufacturing facilities, dry cleaners, and manufactured gas plants. Ms. Zemo was among the first in the consulting community to integrate risk-based decision-making into project strategy. She has been an industry leader in developing and implementing innovative screening methods for cost-effective site characterization. Ms. Zemo continues to advance the state-of-the-practice by developing improved sample handling techniques for groundwater samples. From 1997 to 1999, she managed Geomatrix's Bay Area environmental practice group. In 2004, Ms. Zemo was an invited member of the National Water Research Institute's working group on "Subsurface Monitoring Strategies for Fuel Hydrocarbons and Oxygenates". From 2009 into 2012, Ms. Zemo served in the editorial group, contributed original content to several chapters and was the primary author of three chapters for the California State Water Resources Control Board's (SWRCB) LUFT Manual revision; she also served on the California SWRCB's UST Program Task Force in 2009 and 2010.

Mark Lyverse, M.S.

Mark Lyverse is a senior staff hydrogeologist with Chevron's Energy Technology Company. He is a member of the Site Assessment and Remediation Team in San Ramon, California and is a subject matter expert in LNAPL. Since 1990, he has provided technical advice both domestically and internationally to project managers and consultants in the areas of developing site strategies, site characterization, assessment, and remediation. His experience prior to Chevron includes 10 years with the U.S.G.S and 2 years in private consulting. Mark has been a member of the American Petroleum Institute's soil and groundwater technical group since 2002 and was industry co-chair the former RTDF LNAPL group from 2001-2005. In that role he made technical presentations to over hundreds of attendees from various regulatory and stakeholder groups. In addition, he routinely provides technical transfer workshops and seminars to project managers engaged in site assessment and remediation activities at numerous Chevron sites. His current research interests include collaboration with Colorado State University (CSU) investigating LNAPL stability/ mobility/ recoverability, natural source zone (LNAPL) depletion, and developing innovative techniques to better understand and manage petroleum sheens. He is a co-inventor on three patents with CSU related to these topics. Mark earned a Bachelor of Science degree from Utah State in Logan in 1977 and a master's degree in Water Resources (specialization in hydrology) from the University of Wyoming in Laramie in 1981.



Ministry of Environment Presenter BIOs

Kelli Larsen, A.Sc.T.

Kelli Larsen is a Senior Contaminated Sites Officer with the ministry's Land Remediation Section. Over the past 8 years she has been one of the main statutory decision makers for site profiles and she is currently the lead for Site Profiles for the Province. Kelli's other work duties include processing discharge authorizations and writing ministry documents including fact sheets, administrative guidance and protocols. Prior to joining the ministry, Kelli spent several years working in environmental consulting.

Kerri Skelly, P.Ag.

Kerri Skelly is a Senior Contaminated Sites Officer with the ministry's Land Remediation Section. Over the past 15 years she has been responsible for a number of business areas in the Ministry of Environment including agricultural waste control, hazardous waste, and site profile administration. Currently Kerri's duties include compliance promotion (education and outreach), verification (follow up with reporting requirements) and enforcement, as well as managing soil relocation issues and processing discharge authorizations. Over her career in government, she has authored a number of fact sheets, guidance documents and procedures.

Mike Macfarlane

Mike is the Director of the Land Remediation Section with Ministry of Environment in Victoria. He has a degree in Biological Sciences from Simon Fraser University. He hired by the Ministry in 1987 as part of the Ministry's involvement with the assessment and redevelopment of the Pacific Place site. Mike has been with the ministry for more than 27 years, most working in the field of contaminated sites.

Steve Dankev, PGeo

Steve is a member of the Land Remediation Section in the Surrey Office as a senior hydrogeologist. He has degrees from the University of Toronto and Waterloo and spent many years as an environmental consultant prior to joining the ministry 17 years ago. He is a licensed geoscientist with APEGBC. His work at the ministry is focussed on the review of high risk contaminated sites and groundwater policy development. He is currently the technical lead of the ministry's Groundwater Group.

Peter Kickham, MET, RPBio

Peter Kickham has over 10 years of contaminated sites experience working in both environmental consulting and for the BC Ministry of Environment. In his current role, Peter is responsible for review of risk assessments submitted in support of high risk contaminated site legal instrument applications. He is also the technical lead for development of soil vapour investigation and remediation guidance.

Peggy Evans

Peggy Evans is Manager of Risk Assessment and Remediation with the Land Remediation Section of the BC Ministry of Environment. She is a hydrogeologist by training and has been working on contaminated sites for 25 years, 19 of which have been with the province. Peggy currently divides her time between overseeing the regulatory review of several large high risk contaminated sites, decision-making on approval and preapproval applications related to site investigation and remediation and development and review of policy and guidance, primarily groundwater related but also administrative guidance to support the Approved Professional review process under Protocol 6.