

The British Columbia Technical and Research Committee on Reclamation presents

**B.C.'s 33rd Annual Mine Reclamation Symposium**

*“Selenium, Reclamation of Coal Mines and General Aspects of Mine Reclamation”*

September 14 - 17, 2009

Cranbrook, British Columbia

**Note:** All functions take place at the Prestige Rocky Mountain Resort

**Monday, September 14, 2009** – Tour of the historic Sullivan Mine

**9:00 am - 10:00 am** Prestige Rocky Mountain Resort – Van Horne Room  
Presentation by Bruce Dawson, Teck Metals Limited

**10:15 am - 4:30 pm** Bus leaves hotel for Sullivan Mine tour, lunch and Underground Interpretive Centre.

**7:30 - 8:30 pm** **Symposium Registration** – outside Van Horne Room

**7:30 - 10:00 pm** Wine & Cheese Reception – Van Horne/Baker Rooms

**Tuesday, September 15, 2009**

**7:00 am - 8:00 pm** Depart hotel for tour of Line Creek and Greenhills mines. A bag lunch and supper will be provided. Proper footwear and outdoor clothing are required. Rain gear is recommended

**Wednesday, September 16, 2009**

**7:45 am - 10:00 am - Registration**

**8:25 am - 8:30am** **Introduction/Welcome**

Chairs: Wendy Gardiner (Thompson Rivers University) and Graeme McLaren (B.C. Environmental Assessment Office)

**8:30 am** Habitat Use, Seasonal Movements, and Population Dynamics of Bighorn Sheep in the Elk Valley. Kevin Podrasky, Teck Coal Limited, Irene E. Teske, Ministry of Environment and Kim G. Poole, Aurora Wildlife Research.

**9:00 am** Henretta Creek Reclamation Project. John Pumphrey, Teck Coal Limited.

**9:30 am** Remote-Sensing-Based Assessment of Reclamation at Teck Coal's Elk Valley Operations. Justin Straker<sup>1</sup>, Billie O'Brien<sup>2</sup>, Bob Fuller<sup>1</sup>, Carla Fraser<sup>2</sup>, Stefanie Freilinger<sup>1</sup>, Laurie Gallagher<sup>1</sup>, and John Pumphrey<sup>2</sup>. <sup>1</sup>Stantec and <sup>2</sup>Teck Coal Limited.

**10:00 am 10:30 am** Health Break

**10:30 am** Airborne Mapping of Vegetation Changes in Reclaimed Areas at Highland Valley Copper Between 2001 and 2008. Gary Borstad, Mar Martinez, Leslie Brown, ASL Borstad Remote Sensing Inc., Bob Hamaguchi, Jaimie Dickson and Mark Freberg, Highland Valley Copper.

**11:00 am** Available Options for the Determination of Ultra Trace Elements in Pristine Environments. Timothy Hua, ALS Laboratory Group.

**11:30 am** Update on the Reclamation of the Yankee Girl Tailings Site, Ymir, B.C. M. Tinholt, C. Bullock, D. Schneider, SNC-Lavalin Environment Inc., G. Stewart and G. Sinnett, Ministry of Agriculture and Lands, Crown Land Restoration Branch.

**12:00 – 1:15 pm** – No host Lunch

Chairs: Kim Bittman (Taseko Mines) and Carla Fraser (Teck Coal Limited)

**1:15 pm** An Introduction to Conservation and Reclamation at Alberta's Mineable Oil Sands. Tanya Richens, Alberta Environment.

**1:45 pm** Cultural Keystone Species in Oil Sands Mine Reclamation, Fort McKay, Alberta, Canada Ann Garibaldi and Justin Straker, Stantec.

**2:15 pm** An Adaptive Approach to Reclaiming the First Coal Corporation Central South Property. Jennifer Turner, AECOM, Debra Stokes, First Coal Corporation and Sara Duncan, Environmental Studies, University of Victoria.

**2:45 pm – 3:15 pm** Health Break

**3:15pm** Natural Processes: The Application of Natural Systems for the Reclamation of Drastically Disturbed Sites. David Polster, Polster Environmental Services Ltd.

**3:45 pm – 4:30 pm** Carbon Sequestration by Forests and Soils on Mined Land in the Midwestern and Appalachian Coalfields of the U.S. Beyhan Y. Amichev, Department of Soil Science, University of Saskatchewan, James A. Burger, Department of Forestry, Virginia Polytechnic Institute and State University and Jason A. Rodrigue, USDA Forest Service, Allegheny National Forest.

***Reclamation Awards Banquet*** – Van Horne/Baker Rooms

**6:30 pm** No host Bar

**7:30 pm** Banquet

**Thursday, September 17, 2009**

Chairs: Craig Stewart (B.C. Ministry of Environment) and Todd Wambolt (Gibraltar Mine)

**8:30 am** Using Lichens and Mosses as Bioindicators of Air Pollutant Deposition Near Remote Mining Operations. Shanti Berryman, Justin Straker and Daniel Straker, Stantec.

**9:00 am** Sullivan Mine Waste Dump Characterization, Part 1. M. Phillip, O’Kane Consultants, D. Thomson, Thomson Hydrogeologic, B. Dawson, Teck Metals Ltd., and W. Kuit, Teck Resources Ltd.

**9:30 am** Sullivan Mine Waste Dump Characterization, Part 2. M. Phillip, O’Kane Consultants, D. Hockley, SRK Consulting Inc., B. Dawson, Teck Metals Ltd., W. Kuit, Teck Resources Ltd., and D. Klein, Interior Reforestation Co. Ltd.

**10:00 am – 10:30 am** Health Break

**10:30 am** Selenium Management Challenges at Kemess Mine. J. McConnachie, G. Lysay and H. Bent, Northgate Minerals Corporation – Kemess Mine.

**11:00 am** Elk Valley Selenium Task Force (EVSTF) Update and Overview – 2009, John F. Pumphrey, Teck Coal Limited and Guy Gilron, Teck Resources Limited

**11:30 am – 1:00 pm** No host Lunch

Chairs: Kathy Pomeroy (Western Canadian Coal) and Diane Howe (B.C. Ministry of Energy, Mines and Petroleum Resources)

**1:00 pm** An Evaluation of Benthic Invertebrate Communities as an Indicator of Stream Ecosystem Health Below Active Coal Mines in the Elk River Watershed. J.L. Frenette, Royal Roads University.

**1:30 pm** Effect of Selenium on Early Life-Stage Development of Westslope Cutthroat Trout. J.R. Elphick, H.C. Bailey, B.K. Lo, Nautilus Environmental, J. Berdusco, Interior Reforestation, and G. Sword, Teck Coal Limited

**2:00 pm** Lentic and Lotic Mapping of the Elk River Watershed. M.L. Polzin, S. McPherson, D. Hlushak, and D. Michel, Interior Reforestation Co. Ltd.

**2:30 pm – 3:00 pm** Health Break

**3:00 pm** Ecological Assessment of Selenium in the Aquatic Environment. Peter M. Chapman, Golder Associates, William J. Adams, Rio Tinto, Marjorie L. Brooks, Southern Illinois University, Charles G. Delos, USEPA, Samuel N. Luoma, USGS, William A. Maher, University of Canberra, Harry M. Ohlendorf, CH2M HILL, Theresa S. Presser, USGS and D. Patrick Shaw, Environment Canada.

**3:30 pm** Passive and Semi-Passive Treatment Alternatives for the Bioremediation of Selenium from Mine Waters. A.J. Martin, Lorax Environmental Services Ltd., R. Jones, Teck Coal Limited, and M. Buckwalter-Davis, Lorax Environmental Services Ltd.

**4:00 pm** Selenium Release from Coal Mines in the Elk Valley, and Treatment R&D Plans. R.G. Jones, Teck Coal Limited, S.H. Brienne, S.E. Jensen, and A.N. Tompkins, Applied Research and Technology, Teck Metals Ltd.

**Closing Remarks**