



Towards Sustainable Mining Vers le développement minier durable

Biographies: Members of the TSM Independent Review Task Force

Dr. Michael Davies, P.Eng/P.Geo

Dr. Michael Davies has an undergraduate degree in Geological Engineering along with Masters and PhD degrees in Civil Engineering (Geotechnical/Environmental). Over the past 30 years, he has worked throughout the world in mining with particular emphasis on mine waste management, including tailings design, operations and closure.

Dr. Davies is Vice President, Environment, Teck Resources Ltd. Most recently prior to joining Teck in early 2012, he was Vice-President of Mining for AMEC Earth & Infrastructure where he worked from 1998. He has a number of publications in the areas of tailings/mine waste and risk management.

He is currently chair of the Mining Association of Canada's Tailings Working Group, a committee comprising tailings management professionals from across the MAC membership, including mining and engineering consulting firms. He has served on the Group for many years and was deeply involved in the development of MAC's Guides and Towards Sustainable Mining's tailings management protocol.

Dr. Craig Ford, Ph.D.

Dr. Craig Ford is President and Owner of Corporate Responsibility Solutions Inc., a firm providing advisory services to the resource development and financial sectors in the areas of safety, health and security, environmental affairs, community relations and development, human rights and government relations. Dr. Ford is also Executive-in-Residence at the Schulich Global Mining Management MBA specialization and is a member of the ICMM Independent Expert Review Panel which assesses a prospective member company's appropriateness for ICMM membership. He has worked in the mining industry for 35 years and for the past 20 years has been involved in corporate responsibility issues at mine sites around the world.

Dr. Ford is the former Vice-President, Corporate Responsibility (CR) at Inmet Mining Corporation, where he led the CR function for 13 years until Inmet was purchased by First Quantum Minerals in March, 2013. Under his leadership, Inmet established a strong reputation for excellence in a range of CR issues to create clear business value for the enterprise, culminating in the start of construction of Cobre Panama, a \$6.2 billion greenfield development project in Panama located within a challenging socio-environmental context.

Dr. Ford has demonstrated ability to effectively influence across organizations to build a strong business case for enhancing corporate responsibility policies, systems and performance incorporating evolving international best practice to build reputation and drive enterprise value. He is a strong advocate for the business value of integrated and comprehensive CR management systems to address the increasingly complex and material matters that are common in the resource development sector today.

Dr. Ford is a member of the Board of the Mining Association of Canada (MAC) and has been an Executive Board member of MAC and Chair of the Towards Sustainable Mining Governance Team. He was closely involved in the development of MAC's TSM initiative, where he served as Chair of the Initiative Leaders. He was a member of the Principal Liaison Committee of the International Council on Mining and Metals and is a founding member of the Devonshire Initiative, an extractives-development organization network established to foster dialogue and to achieve on-the-ground improvements in development outcomes, where he served on its Steering Committee. Craig was Technical Co-Chair of the 9th International Conference on Acid Rock Drainage (ICARD) and Chair of the 5th ICARD Organizing Committee and was also involved in the founding of the International Network for Acid Prevention (INAP), and served as its first Operating Committee Chair. He sits on the Ontario Board of the Nature Conservancy of Canada.

Dr. Ford holds Bachelors and Masters degrees in Geology from Western University and a Ph.D. in Geology and Geochemistry from the Colorado School of Mines. He also holds an ICD.D designation from the Institute of Corporate Directors.

Doug Horswill

Doug Horswill retired as Senior Vice President, Sustainability and External Affairs, Teck Resources in April 2014.

Following 20 years in the Public Service, culminating in the positions of Deputy Minister of Finance and Corporate Relations and Deputy Minister of Energy, Mines and Petroleum Resources for the Province of British Columbia, Mr. Horswill joined Cominco Ltd. as Vice President, Environment and Public Affairs in September 1992. He spent the next 22 years developing and leading Teck's sustainability, community relations, environment, health, safety and external relations areas including Teck's international zinc and health program.

Mr. Horswill holds a Bachelor of Applied Science degree in Mineral Engineering and a Master of Arts degree in Economics from the University of British Columbia. He was awarded the Queen Elizabeth Diamond Jubilee medal for service in international development charitable sector.

Mr. Horswill is past Chairman of the Mining Association of Canada and the Mining Association of British Columbia. He currently serves as Chairman of the Board of Resource Works and is a member of the Boards of the Sunny Hill Health Care

Centre for Children, CARE Canada, and the Vancouver Aquarium. He is Executive in Residence for the Asia Pacific Foundation of Canada.

Peter Lighthall, P.Eng

Peter Lighthall is an independent geotechnical consultant, based in Naramata, BC, with over 40 years of experience, specializing in tailings dams and tailings impoundments, mine waste and mine water management.

Mr. Lighthall was educated at the University of British Columbia (BASc, Civil Engineering, 1971) and University of London, Imperial College of Science and Technology (MSc., Civil Engineering Soil Mechanics, 1979). He has worked throughout the world, including South America, Eastern and Western Europe, Russia and former Soviet Union states, China, the Middle East, Africa and Australia, as well as extensively within Canada and USA. He has worked on development and implementation of leading edge technologies for tailings management, including thickened and paste tailings and filtered dry stack tailings. He is well experienced in tailings dam design in high earthquake risk areas. He has focused in recent years on tailings dam and tailings management review and/or technical advisory roles on major mine developments and mine operations.

Nalaine Morin

Nalaine Morin is Principal of ArrowBlade Consulting Services. Ms. Morin is nationally recognized for her work in environmental assessment. She has led and managed the environmental review of several large resource development projects on behalf of multiple First Nations. Her deep technical background in both mining and environmental assessment processes combined with being of Tahltan descent has enabled her to understand and to identify methods for the connection and support of both First Nation traditional knowledge and western science together in a way that bridges cultural understanding on both sides. She provides services in technical review, regulatory support, negotiations, community consultation and environmental resource management.

In 2006, Ms. Morin helped establish the Tahltan Heritage Resources Environmental Assessment Team on behalf of the Tahltan Nation. The THREAT team is an innovative team that incorporates the expertise of the Tahltan people with Western science. As the lead manager of THREAT, she has helped the Tahltan Nation navigate the environmental assessment processes of several large-scale resource projects from mines to run-of-river projects to transmission lines. Ms. Morin continues to work with her nation as one of the project managers for the Tahltan Heritage Resources Environmental Assessment Team where she is instrumental in the development of processes for the inclusion of Tahltan knowledge in the environmental assessment and permitting processes for resource development projects. Ms. Morin has gained a national reputation for effectively managing complicated resource project issues in a cross cultural setting. Many of the innovative processes she has helped develop have been subsequently adopted for use at the Provincial level.

Ms. Morin works with First Nations across Canada on projects as varied as mining, pipelines and highway infrastructure. In 2009, her expertise was recognized by the Canadian Environmental Assessment Agency as she was selected as a panel member for the review of a major mining project in BC. Ms. Morin has been asked to speak at a number of conferences both provincially and nationally. She most recently shared a keynote address discussing impact assessment at the International Association of Impact Assessment conference and was a featured speaker at the Prospectors and Developers Association of Canada conference.

Ms. Morin holds a Bachelor of Applied Science degree from the University of British Columbia and a Mechanical Engineering Technology Diploma from the British Columbia Institute of Technology. She currently resides in Leduc, Alberta. Nalaine continues to develop her consulting and professional expertise to meet the needs of her clients and has recently acquired certification as an Environmental Professional, certified by the Canadian Environmental Certification Approvals Board.

Dr. John Sobkowicz, Ph.D., P.Eng

Dr. John Sobkowicz is a Principal and senior geotechnical engineer with Thurber Engineering Ltd. in Calgary, Canada. Over his 40-year career, he has developed expertise in natural hazard risk assessment, water resources (including dam and canal design, construction, and maintenance; and dam safety reviews), and mine and tailings geotechnique, and has published over 60 technical papers in these fields.

Dr. Sobkowicz is a member of geotechnical engineering review boards for all five active oil sand mining companies in Alberta. He recently finished a two-year term as Vice-President, Technical of the Canadian Geotechnical Society, and in 2013 received the Frank Spragins Award for Technical Excellence from the Association of Professional Engineers and Geoscientists of Alberta.

Alan Young

Since 1990 Alan Young has worked as a facilitator, planner, analyst and activist with a wide range of conservation groups, Aboriginal organizations, companies and governments across Canada. His focus has been on sustainability strategies for the extractive sector, which have involved projects throughout North America, Latin America and Europe.

He started his work as coordinator of the joint federal/territorial and Aboriginal Porcupine Caribou Co-Management Board in the Yukon. From 1994 to 2002, he served as Executive Director of the Environmental Mining Council of BC. In 2002, he left EMCBC to form the Materials Efficiency Research Group to focus on his interest in bringing different sectors together to build joint solutions to social and environmental issues in the extractive industries. Since 2003 he has worked on diverse projects, including socio-economic impact assessments, large scale

conservation strategies, certification programs in the forestry and mining sectors, as well as various legislative reform initiatives in the extractive sectors nationally and internationally. Since 2003 has served as Director of Corporate Programs the Canadian Boreal Initiative (now International Boreal Conservation Campaign), and has been the Director of the Secretariat of the Boreal Leadership Council, a multi-stakeholder alliance including banks, investors, leading extractive companies, Aboriginal organizations and NGOs working towards large-scale conservation and sustainable development across Canada's boreal forest region.

Mr. Young is Chair of the Centre for Science in Public Participation, Vice Chair of Global ForestWatch Canada and Director of the International Institute for Sustainable Development. He is former chair of the Forest Stewardship Council of Canada and currently sits on the Mining Association of Canada's Community of Interest Advisory Panel.