(The) Evolution of the Site Remediation Industry in Canada

Kevin French, Vertex Environmental Inc

The environmental industry has experienced steady evolution since the "good old days" of "dig and dump" as advances in science, technology, regulation and broader societal trends, like sustainability, have taken place. Since the early days when remediation was only driven by heavy metal contamination in soil and only addressed via excavation, environmental remediation technology has evolved dramatically. Remedial designs now consider hundreds of contaminants in soil, groundwater and soil vapour and at concentrations as low as parts per trillion. Additionally, our greater understanding of the subsurface now requires us to consider complex processes such as vapour intrusion and diffusion-controlled contaminant migration to increase the effectiveness and certainty of in-situ remediation approaches.

The author's experience from over 30 years of environmental consulting and remediation contracting will provide insights into the dramatic evolution that has occurred over this period by discussing advances in the understanding and characterization of site conditions; better-engineered remedial amendments; advances in application technologies; and the use of detailed interim data collection to assist in optimizing remedial programs and outcomes.

Upon review of the past, it is hoped environmental practitioners and stakeholders will gain a more thorough understanding of the current state of remediation in Canada, what is possible, what is not, and potentially what the future of our essential sector may hold.

Kevin French

Mr. French is Vice President of Vertex Environmental Inc. and has over 30 years of experience and expertise in environmental engineering, specializing in site assessment and remediation. Kevin has been involved in the design and implementation of remediation programs across Canada involving permeable reactive barriers, adsorptive technologies, in-situ chemical oxidation and reduction, aerobic and anaerobic biodegradation, etc. in soil, groundwater and bedrock for a variety of contaminants, including petroleum hydrocarbons, chlorinated solvents, heavy metals and other compounds. He holds a Bachelor's degree in Engineering from the University of Waterloo and is a Professional Engineer and a Qualified Person in Ontario.