
General Manager & Principal Geotechnical Engineer

Expertise	Rock Mechanics, Slope Stability, Mining Geotechnical Design, Excavation/Infrastructure Interaction Studies, Numerical Modeling
Education	Ph.D. (Rock Mechanics), 2006 Roma Tre University, Rome, Italy M.Sc. (Geotechnical Engineering), 2001 La Sapienza University, Rome, Italy
Registration	Registered Professional Engineer, British Columbia (EGBC), Northwest Territories and Nunavut (NAPEG)
Professional Affiliations	Member: Centre of Training Excellence in Mining (CTEM), Women in Mining Canada (WIM), Women in Mining British Columbia (WIMBC).
Professional Experience	
2024 – Present	ITASCA Canada General Manager & Principal Geotechnical Engineer
2020 – 2024	Hamilton & D’Ambra Consulting Inc., Vancouver, BC, Canada Principal Rock Mechanics Engineer
2023 – 2024	Tetra Tech Canada Inc. Principal Rock Mechanics Engineer
2019 – Present	University of British Columbia, Mining Engineering, Vancouver, BC, Canada Adjunct Professor
2019 – Present	Simon Fraser University, Earth Sciences, Burnaby, BC, Canada Adjunct Professor
2018 – 2020	WSP Canada Inc. Director Geotechnical – Vancouver
2006 – 2018	Golder Associates Ltd., Vancouver, BC, Canada Mining Group Manager, Associate & Geotechnical Engineer
2002 – 2006	Roma Tre University, Rome, Italy Doctoral Student, Civil Engineering
2003 – 2005	University of Roma Tre, Rome, Italy Sessional Lecturer for Geotechnics, and Foundations and Retaining Structures
2001 – 2006	Independent contracts, Italy Civil Geotechnical Engineer

Project Experience

Mining:

Scoping, pre-feasibility and feasibility level for open pits, including Diavik Diamond Mine (NT, Canada), Ekati Mine (NT, Canada), Fording River Extension (BC, Canada), Greenhills Mine (BC, Canada), Meadowbank Gold (NU, Canada), Red Dog (AK, USA), Niobec (QB, Canada), and Kumtor Gold Mine (Kyrgyzstan). Activities: geotechnical investigation design and execution; data gap analysis; rock mass quality assessments; geotechnical sectors and design domain evaluation; open pit slope design parameters assessment; interpretation of monitoring, geotechnical borehole core and laboratory test data; calibration of numerical models for slope-stability assessment; back-analysis of slope failures; numerical modelling of rock excavations and their interaction with other excavations or infrastructures; identification of risks and evaluation of remedial measures (dewatering, buttresses, step-outs, etc.).

Open pit/underground interaction studies to evaluate the impact of underground mining activities (excavation, backfilling) on pit slope stress, deformations and stability, and to identify risks and remedial measures.

Operational experience: resident geotechnical engineer and client liaison for two open pit mines. Duties included: daily geotechnical inspection of multiple operating open pits for hazard assessment and reporting to stakeholders on identified risks and evaluated remediation solutions; collection and review of instrumentation and monitoring data; coordination of mining activities between the geotechnical department and the mining operations; coordination and prioritization of contractor activities; compilation and revision of health and safety plan, including revision of standard work procedures; and reporting on ground fall episodes and near misses.

Resident geotechnical engineer during excavation of bulk sample drift for a diamond evaluation in difficult ground conditions. Technical responsibilities included input to the underground mining plan, ground support recommendations, geotechnical core logging, underground geotechnical mapping, underground investigation planning and instrumentation monitoring. Client representative and liaison with mining contractor.

Infrastructure:

Geotechnical design under seismic loads of embankments, bridge deep and shallow foundations, as well as steel, concrete, and pile retaining walls for the route SS7 Appia and the Turin-Milan railway section of the High Capacity/High Speed line of the Italian national railways (T.A.V. S.p.A.).

Assessment of the differences between as-built and design geotechnical and hydrogeological conditions along the Monte Zucco railway tunnel (Italy), including a review of the existing data (TBM performance, field investigation, monitoring), and additional underground mapping and rock mass classification.

Teaching and Academic Experience:

Simon Fraser University (SFU), Department of Earth Sciences (Burnaby, Canada): Supervisory committee member for a graduate student (MSc thesis) on a project related to geotechnical and hydrogeological characterization of a potential site for geothermal energy production in British Columbia (Canada).

Invited lecturer at SFU to present about geotechnical challenges in pit slope design, geotechnical hazards assessment and mitigation in natural and man-made slopes, and a career as a geotechnical engineer.

University of British Columbia (UBC), Norman B. Keevil (NBK) Institute of Mining Engineering (Vancouver, Canada): Instructor for the fourth-year capstone engineering design project course, delivered online in winter 2020/21 and 2021/22 term 1 and 2. Gathered industry-sponsored innovative projects, organized confidentiality agreements, arranged lectures with over 20 guest speakers, guided and coached the students in project execution and through team conflicts. Organized end-of-the-year project presentations delivered via conference call by the students to the project sponsors and department instructors.

University of ROMATRE (Rome, Italy): Instructor for the 2003/04 and 2004/05 autumn semester (70 hours) course on 'Geotechnics'. Learning objectives: fundamentals of soil mechanics, hydraulic conductivity, soil and water pressure, fundamentals of shallow and deep foundation design; basic principles of earth retaining structure design. The course included lectures, laboratory sessions and a final exam.

University of ROMATRE (Rome, Italy): Instructor for the 2004 and 2005 spring semester course (30 hours) on 'Foundations and Retaining Structures'. Learning objectives: foundations and retaining structures design criteria and serviceability, bearing capacity and settlement of shallow and deep foundation under eccentric loads, pile groups, rigid and flexible retaining structures. The course included lectures, laboratory sessions and a final exam.