



2090, WATER'S EDGE DRIVE
OAKVILLE, ONTARIO, CANADA. L6L 1A4

PHONE: +1 905-842-3516

FAX: +1 905-842-8051

EMAIL: TCARTER@TGCGEOSOLUTIONS.COM



DR. TREVOR G. CARTER

SPECIALTY/SKILLS:

Geological Engineering for surface and underground mining and for heavy civil hydropower and tunnelling. Crown Pillar Evaluation. Rock Grouting.

GEOGRAPHIC BASE: Ontario, Canada

TYPE OF COMPANY: Limited Liability

RESUMÉ

DR. TREVOR G. CARTER

EDUCATION	B.Sc. (Joint Honours) Geology and Oceanography University of Wales, Swansea, UK S.M. Civil Engineering Massachusetts Institute of Technology, Cambridge, Mass. USA Ph.D. Geological Engineering University of Surrey, Guildford, UK
PROFESSIONAL QUALIFICATIONS	Professional Engineer (Ontario, Canada) Chartered Civil Engineer (UK) Member, Institution of Civil Engineers (UK) Chartered Geologist (UK) Fellow, Geological Society of London (UK) European Engineer (FEANI)
PROFESSIONAL SOCIETIES	Member, Association of Professional Engineers, Ontario Member, British Tunnelling Association Member, British Geotechnical Society

PROFESSIONAL COMMITTEES	International Society of Rock Mechanics (High Stress Tunnelling) International Society of Rock Mechanics (Grouting) International Tunnelling Society (WT-17 – Deep Tunnelling)
INVITED LECTURES & CONFERENCE ORGANIZATION	Keynote Lecturer – 1 st International Conference on Empirical Design Methods in Mining, Lima, Peru, 2014 Lecturer - Annual Grouting Course, Colorado School of Mines (2012-Present) Organizing Committees – 5 th NARMS conference, 2002; Int. Conference on Crown Pillars for Active and Abandoned Mines, 1989 Lecture series given for University of Toronto, M.Sc. courses, Civ. Eng. 1451F, "Engineering Geology for Rock Mechanics" and "Introductory Rock Mechanics" (1989, 1990, 1994, 1996). Invited lectures given to University of Waterloo 3rd and 4th year Undergraduate Engineering classes on "Role of Engineering Geology in Civil Engineering" (1984, 1995, 2000, 2003, 2007).
REVIEW BOARDS	Nathpa-Jhakri HydroPower Project, India, 1993-2006 Karebbe Dam, Indonesia, 2005-2006 Goro Tailings Dam, New Caledonia 2006-2009 La Higuera & La Confluencia HydroPower Projects, Chile 2006-2014
PROFESSIONAL EXPERIENCE & BACKGROUND	
2015 TO DATE	TGC-GEOSOLUTIONS, OAKVILLE, ONTARIO, CANADA <i>President</i> Independent Review Consultant for major open pit expansion in Peru; Senior Consultant to Golder Associates on engineering geological and rock engineering projects worldwide – recent involvement includes underground mine review, quarry tunnel oversight and heavy civil tunnelling evaluation projects in Central and North America
1979 TO 2015	GOLDER ASSOCIATES, TORONTO, CANADA <i>Specialist Geological Engineer, Associate, and then Principal</i> Senior advisor to mining rock engineering group; technical involvement on numerous mining and civil engineering projects worldwide, including involvement in: <ul style="list-style-type: none"> • design and investigation for various hydroelectric stations, underground and surface mines, mills and heavy structures • design and construction guidance on conventional and emergency grouting for dams, tunnels, building foundations, mine workings, shafts, open pits and quarries • rock mechanics appraisals for underground openings/shafts for mining and civil purposes including crown pillar stability appraisal and remediation for abandoned mine workings • subsidence assessment for soft rock mines (gypsum and coal) • rockburst and fault slip evaluations for deep hard rock mining

- rockmass assessment of breakback and cave influence for block and panel cave mines
- concrete and rock deterioration investigations
- rock slope stability assessments for highways cuts and deep open pits
- water conveyance, highway and access tunnel design and construction implementation (TBM and conventional drill and blast), including squeezing and swelling conditions
- quarry and armourstone and cliff stability evaluation for marine and shore protection

1975 TO 1979

GOLDER ASSOCIATES, MAIDENHEAD, U.K.

Senior Engineering Geologist

Engaged on the 1000 MW Drakensberg Pumped Storage Scheme, South Africa. Involved in all aspects of investigations and on-site construction control for excavation and rock reinforcement of the underground caverns, tunnels and shafts.

1972 TO 1975

BINNIE AND PARTNERS, LONDON, U.K.

Project Engineering Geologist

Involved in design and construction of large water retaining dams, including 35 m Alton Water earthfill dam, and 60 m high rockfill dam at Brenig. Involved in investigations for 2000 MW Dinorwig Pumped Storage Scheme, North Wales, U.K.

PUBLICATIONS:

Over 100.