

**William Neil (Bill) Howell, M.A.Sc., P.Eng. Alberta**

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Retired 28Oct2012 from : Science Research Manager at the Mining and Mineral Sciences Laboratories of Natural Resources Canada (NRCan) in Ottawa : My recent responsibility was to manage and build a new Recycling R&D program, and to find cost recovery funding for it. I have experience in corporate and government business development, market research, management and execution of scientific & engineering R&D and projects, and plant operations.

Updated 20Jan2014

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**R&D Management Background**

- 4+ years as R&D Program Manager – Mineralogy & Metallurgical Processing, 24 scientific staff ; Recycling Technologies Initiative – new program with 3 staff
- 10 years as Secretary for major min
- ing R&D consortia, on Management & Technical committees, contracts, consortia tracking, notifications, planning, reports. Memberships generally included the mining industry, federal & provincial governments, R&D contactors, and trade unions in DEEP. :
  - Mining Automation Program (MAP- 27 M\$ cash & in-kind) – 3 mining companies & NRCan
  - Diesel Particulate Matter in underground mines (DEEP, 5 M\$) - 13 organizations
  - Explosives Free Rock Breakage Initiative (EFRB, 1 M\$) – 12 organizations
  - Hydrogen Mine Introduction Initiative (HMII, ~2.1+ M\$) – 7 organisations
- Organising, Technical, & Review Committee member of International Joint Conference on Neural Networks, the world's pre-eminent NN conference (2003, 2005, 2006, 2007, 2009, 2013)
- 4 months experience as Acting Deputy Director of the Mining and Mineral Sciences Laboratories

**Business Background**

- 3 years sales/marketing of R&D services to Canadian mining companies while at NRCan
- 2 years as Market Research Manager for chemical company, including the econometric modelling of prices/volumes reporting and presentations to senior management and major clients
- 2 years of the initial stages of business development projects for a chemical company, including competitor analysis, financial analysis of projects
- experienced in the preparation of business plans, presentation/analysis of operating results
- marketed computer voice dictation systems to lawyers and doctors through my own small company

**Technical Background**

- 6 years of chemical engineering R&D - uranium solvent extraction, leaching, fluid modelling, inorganic acids processes, seed coatings, enzyme pasteurization
- 3 years plant operations engineer in the inorganic chemical industry
- strong (non-practicing) knowledge of Computational Intelligence subjects, some neuroscience
- extensive knowledge of the fundamentals of Climate Change science, and the common errors and misconceptions by scientists in that area

**Other**

- B.A.Sc.Chemical Engineering - U of Calgary 1978, M.A.Sc. Chemical Engineering - U of Ottawa 1986
- Member: International Neural Network Society (INNS, ~1990-on), Institute of Electronics and Electrical Engineers - Computational Intelligence Society (IEEE-CIS, ~2003-on).
- Member : Alberta APEGGA (2007, 2013-), Order of Engineers of Québec (OIQ, ~1980-2010?); Canadian Institute of Mining, Metallurgy and Petroleum (CIM, ~1995-2010?)
- Bilingual (federal government levels EEE in French reading, writing, oral).

## William Neil Howell, Career Timeline

	Dates	Organization	Responsibility
Natural Resources Canada	Feb11-Apr12	Science Research Manager – Recycling Technologies Initiative	To start up & manage a new R&D program
	Jul10-Dec11	Science-Policy Integration Nexus of Expertise (SPINE)	Team member, author of 5 incomplete reports on fundamental science & concepts (these
	Oct09-Jun11	Chief Building Emergency Officer (CBEO), 555 Booth Street	Recruit & manage emergency (evacuation) team, manuals, external inspections
	Dec08-Dec11	Secretary - Hydrogen Mine Introduction Initiative (HMII)	Similar to EFRB + help build agreements, novel insurance & risk arrangements
	Sep08-Dec11	Secretary – Explosives Free Rock Breakage (EFRB) initiative	Sit on Management & Technical committees, work with contracts, consortia tracking,
	Dec07-Aug08	Project Manager – Special Apparatus and Facilities	Acting Business Manager, nano-toxicology review, Employee Information System,
	Oct06-Nov07	On leave in Calgary – temporary employment & family	Campaign work; looking for possibility to stay permanently close to family
	Nov04-Sep06	Project Manager – Special Apparatus and Facilities for underground mining R&D initiatives	Build R&D initiatives and external funding in the mining industry, eg for 2.4 M\$ testing
	Dec01-Oct04	R&D Program Manager – Mineralogy and Metallurgical Processing	Managed 24 research staff, also involving realignment/ restructuring
	May00-Nov01	Climate Change - Minerals and Metals Action Plan 2000, plus Minerals and Metals Strategy for Regions	Assistant to Sector lead with Branch input to sectoral strategy - develop and compose
	Apr98-Mar01	Mining Automation Program (MAP) – INCO, Dyno Nobel, Sandvik Tamrock, and NRCan-CANMET	Secretary, Management and Technical Committees
	Apr97-Jan00	Diesel Emissions Evaluation Program (www.deep.org)	Secretary, Management Board and Technical Committee
	Jul96-Apr97	Transportation Energy Technology Program, Ottawa	Research Officer, electric and hybrid vehicles
	Mar93-Jun96	Natural Resources Canada (NRCan), Mining & Mineral Sciences Laboratories (MMSL), Ottawa	Business Development Coordinator, mineral sciences
ICI-CIL	Nov88-Feb93	ICI Forest Products, Montreal	Market Res. Manager, chloralkali
	Jan87-Oct88	ICI Sulfur Products, Mississauga	Research Engineer
	Apr86-Dec86	Canadian Fracmaster, Calgary	Research Engineer, Rheology
	?Sep83 - Mar86?	Energy, Mines & Resources, Ottawa	Physical Scientist, hydrometallurgy
	?Dec79-Aug81	Alcan, Jonquiere QC	Process Engineer, AlF3 plant

### Education

1993-present	International Joint Conference on Neural Networks – annual tutorials, workshops and conference. Paid out of my own pocket (>2,5 k\$/yr) and vacation time	Advanced: math & statistics, neuroscience, engineering controls, cognitive psychology, etc.
Sep81-Feb86	University of Ottawa, Energy, Mines & Resources, Ottawa	M.A.Sc. Chem Eng, Thesis work, uranium extraction
Sep73-May78	University of Calgary	BSc Chemical Engineering

\* references that are now retired. Most references will have moved to other organizations and locations.