

## RESUME

### **Roger L. Amelunxen**

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#### **Summary of Qualifications:**

Over thirty five years experience in mineral processing of base metals. Work experience includes plant operation, R&D, management of operations, project engineering and most recently, consulting. Most experience has been related to extraction processes of Cu, Mo, Pb, Zn and Ag/Au sulfide ores.

In the last 10 years, consulting services have focused on the execution of geo-metallurgical testwork and feasibility studies for large tonnage operations, plant optimization projects through audits and the use of in-house dynamic simulator models for grinding and flotation. Fluent in English and Spanish.

#### **Personal Information:**

Nationality	Canadian (Dutch Origin)
Schooling:	High School: German School, Cali, Colombia (1966)
University/degrees:	Manhattan School of Music, NY, Diploma Piano 1969 McGill U. Montreal, B. Eng Metallurgy, 1974
Languages:	English/Spanish (Fluent), Dutch/German (Fair)

#### **Details:**

**Aug. '99 – To-date Amelunxen Mineral Processing Ltd. Garibaldi Highlands, BC**

Owner of a mineral processing consulting company known as Aminpro (see [www.aminpro.com](http://www.aminpro.com)). The focus is on development of geo-metallurgical models for feasibility studies and plant audits through Aminpro's process simulators. The company also pilots, sizes and fabricates the Aminpro Contact Cell. The following is a list of the major work done.

- Audits Cu-Mo plant – Codelco-Andina 2009
- Geometallurgical programs for: Teck-Andacollo and QB 2009-2010
- Scoping Study Quadra-Sierra Gorda – 2008-2009
- Process Investigation on a Robinson Ore - 2008
- Geometallurgical Testwork Management Quadra-2008
- FLUOR: Conga Stage 2-2008, Quebrada Blanca 2008
- CMOC – Audits and surveys of 6 molybdenum concentrators - 2008
- Directed Xstrata-El Morro Geo-metallurgical Testwork – Modelled the Process- 2007

- Process Consultant to Fluor-Chile : El Morro, Quellaveco and Conga Projects 2007-2008
- Ivanhoe Mines – Ore testing and development of process facilities Oyu Tolgoi - 2006
- Northern Orion – R&D in depression of As/Zn of Agua Rica Ores.
- Phelps Dodge – Scale-up / design of Bagdad contact cells- 2006
- Newmont-Phoenix Mine: trouble-shooting contact cell-2006
- Newmont USA: Flotation modeling Carlin Ores, 2005-2006
- FLUOR-Canada: Ivanhoe: Oyu Tolgoi project: consultant in flotation. 2005-06
- HATCH-Vancouver: Direction of testwork and modeling – Northern Orion-Agua Rica, 2005-06
- Codelco-Teniente: audit of their Molybdenum plant – June 05
- Amec-Vancouver: Feasibility Study on Ivanhoe Mines Project: audit of metallurgy – April 05
- Newmont: consultant for Minas Conga Project – March-August 2005
- FLUOR-Chile: Process Lead for a feasibility study – Cu/Au plant in Peru – May Oct 04
- HATCH Engineering-Chile: consultant for due diligence Minera Los Pelambres Oct 03-Jan 04.
- BHP-Billiton:Tintaya (Perú) flotation circuit audit, re-designed flotation cells. Jan 2004
- Process metallurgist for BHP-XXX greenfield Project in Southern Perú from ore typification, testwork (in Lima) to circuit design and formulation of design criteria. Jan-Aug 2000
- Technical Manager FLEET (Flotation Economic Evaluation Tool) with Minnovex Technologies Jan 2001-Feb 2003. An industry sponsored project to model the flotation process.
- Audits, Grinding/Flotation modeling at KCM – Zambia, Aug-Dec 2003
- Plant process audit, flotation modeling for Cia Minas Buenaventura-Uchucchacua, Peru 2004

**Apr. '95 – Aug. '99**

**BHP-Billiton: Escondida Mine**

**Antofagasta, Chile**

Development Manager Phase IV Expansion: for 2 years, responsible for Phase IV expansion project. Conceptual engineering, basic design, feasibility study and up to 50% of detail engineering.

Plant Manager Escondida: for 2.5 years; commissioned the Phase III expansion, fully in charge of the 105,000 t/d operation with 300 people. Reported to and acted as General Mine Manager during his absence. Started with the definition of the needs to engage a Phase 3.5 expansion.

**Apr. '93 - Apr. '95**

**Freeport Indonesia Pt.**

**New Orleans, USA**

Director Metallurgy and Technical Services: Based in New Orleans headquarters, I directed the research work at the Belle Chasse laboratory. Also acted as owner's process representative for the 115K expansion. Pilot tested, designed and commissioned the first commercial Contact Cell at the Freeport plantsite.

**Nov. '90- Apr. '93**

**Amelunxen TECHNOLOGIES INC**

**Delta, B.C. Canada**

Consultant: For 2.5 years, engaged in a wide variety of projects: design and fabrication of column flotation cells (3 units delivered), plant and column flotation circuit commissioning, lectures at universities, audits, pilot plant testwork. Invented and did R&D on the Contact Cell, a high intensity flotation device. Most consulting work was done in Latin America, working for the large corporations (Codelco, Southern Perú Copper, BHP-Escondida, Minas Buenaventura).

**Feb. '89 - Nov. '90**                      **Cominco Engineering Services Ltd.**                      **Vancouver, B.C. Canada**

Technical Manager Column Technology Div.: For 1.75 years. Co-Founder of the column flotation division (now known as CPT).

**Nov. '85 - Dec. '88**                      **Southern Perú Copper Corp.**                      **Cuajone, Perú**

Concentrator Superintendent: For 1.5 years, accountable for the safety and performance of the operation, maintenance and metallurgy of the 57,000 ton per day plant. Plant was run with 150 workers and 30 engineers.  
Concentrator Assistant Superintendent: For 1.5 years, designed and supervised the start up of what was then the largest columns in the world (10 feet diameter). Transformed the moly flotation circuit into a near-all column circuit. Reduced the Moly plant costs by 40% with an aggressive reagent and equipment control scheme.

**Aug '79 - Nov. '85**                      **Placer Development Inc**                      **Vancouver, B.C. Canada**

Sr. Project Engineer - Gibraltar Mines (B.C. Canada): 2 years responsible for the research program on Column Flotation. Over a year was spent developing test programs and a feasibility study of the dump leaching operation. The project eventually became Canada's only cold weather copper dump leaching facility.

Mill Superintendent - Minera Real de Angeles (Zacatecas, Mexico): 2 years responsible for the owner's process engineering representation, personnel hiring and commissioning of the 14,000 ton per day Silver-Lead and Zinc plant. Plant had a successful start-up and operation was handed over to the local management team.

Operating Metallurgist - Gibraltar Mines (B.C. Canada): 1 year...

Project Engineer- Gibraltar Mines (B.C. Canada): for 1 year, making plant improvements and contracting out the fabrication of most projects.

**Jun. '78 - Jul. '79**                      **Rosario Resources Corp.**                      **Mochito, Honduras**

Chief Metallurgist: Responsible for the plant metallurgical program and assay lab.

**Jun. '74 - Jun. '78**                      **Placer Development Inc.**                      **Vancouver, B.C. Canada**

Mill Engineer - Gibraltar Mines (B.C. Canada): Responsible for the coordination between operations and maintenance of all plant maintenance.

Engineer in Training: a 2-year period in which I received exposure to the various areas of the process plant.