

# **CURRICULUM VITAE**

## **Monica L. Sillanpaa, E.I.T.**

### **ACADEMIC QUALIFICATIONS**

- 2009 Bachelor of Science in Mechanical Engineering (with distinction)  
University of Alberta
- 2009 Passed the National Council of Examiners for Engineering and Surveying  
Fundamentals of Engineering Exam

### **CONFERENCES, MEETINGS AND TECHNICAL TRAINING**

- *Autodesk Algor Simulation*, IMAGINIT Technologies, Edmonton, Alberta, July 2010
- *Fire, Arson and Explosion Investigation Training*, National Association of Fire Investigators, Boston, Massachusetts, March 2010

### **PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS**

- Member, Association of Professional Engineers, Geologists and Geophysicists of Alberta
- Member, National Association of Fire Investigators

## PROFESSIONAL CAREER

2008 - Present

ANDERSON ASSOCIATES CONSULTING ENGINEERS INC.

Mechanical Engineer in Training

- Material and mechanical equipment failure analyses including detailed examination and documentation, non-destructive testing, mechanical testing, metallurgical evaluation, and stress analyses
  - downhole oilfield tooling
  - pressure vessels
  - bearings
  - valves
  - industrial pipelines
  - compression fittings
  - soldered, brazed, and welded joints
  - plastic piping and fittings
  - sprinklers
  - heavy haul truck axles
  - crane booms
  - turbine blades
  - pumps
  - roof trusses
- 3D solid modeling and finite element analyses
  - bolted joints
  - pressure vessels
  - geometric stress concentrations
- Stress Analysis
  - wood and metal structures
  - pipe supports
  - hand tools
- Personal injury investigations involving equipment malfunction and building code violations
  - slip and fall
  - exercise equipment
  - ladders
- Fire and explosion cause and origin analyses
  - residential and commercial buildings
  - vehicles
  - compressor stations
- Quality assurance compliance material testing

2007

**GOLDBAR WASTEWATER TREATMENT PLANT**

Mechanical Engineering Co-operative Student

- Member of project management team for the Fermenter Project (construction of fermenter tanks and associated process piping, equipment, and instrumentation)
- Documentation of construction progress including daily and monthly reports
- Concrete and rebar inspections
- Pump and pressure tests

2006

**HALLIBURTON - SPERRY DRILLING SERVICES**

Mechanical Engineering Co-operative Student

- Shop testing of downhole multilateral tools
- Assembly manuals and data sheets for downhole multilateral tools