

# Kathleen Baker, E.I.T.

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## PROFILE

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A driven Chemical Engineer-in-Training with a background in production optimization and academia. I am specializing in safety and risk management for the mining industry, utilizing my communication skills to bring together key stakeholders in academia and industry. I want to continue facilitating stakeholder collaboration after my graduation. My work ethic helps me to complete difficult tasks within tight timelines and my desire for continuous improvement helps me to develop alternative solutions.

## EDUCATION

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**Master of Science** September 2016 – Tentative Graduation September 2018  
Chemical Engineering, University of Alberta

- Investigating the ground hazards associated with oil sands tailings storage and transport facilities.
- Enhancing and implementing a Field Level Hazard Assessment tool to include precursory ground hazard events.
- Supervising an undergraduate research assistant.

**Bachelor of Science** September 2008 - May 2012  
Chemical Engineering, University of Alberta

## PROFESSIONAL EXPERIENCE

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**University of Alberta** Edmonton, AB  
Chemical Engineering Design II Teaching Assistant January 2017 – May 2018

- Evaluated and provided feedback on students' portfolio work throughout the semester.
- Coordinated meeting times for students and industrial advisors.
- Assisted lead professors with mark allocation at the end of the semester.
- Aided students with technical design project related questions.

**Northern Alberta Institute of Technology** Edmonton, AB  
Petroleum Engineering Technology Instructor August 2013 - Present

- Developed and delivered course content for courses such as: Computer Applications for the Oil and Gas Industry, Safety Studies, Natural Gas: Field and Plant Processes, Production Optimization, Applied Research Foundations, Equipment Optimization and Process Troubleshooting, Project Development and Evaluation and Field Placement.
- Designed, administered and assessed formative and summative assessments.
- Created a suitable learning environment for students in the classroom by managing people and behaviours, timelines and deadlines and course material.
- Provided support and counsel to students regarding course and career objectives.
- Mentored new instructors as the lead instructor for two courses.
- Responsible for placing students on two-week work experience positions. This included communicating and coordinating with industry while finding optimal positions for both industry and student requirements.

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## Lone Pine Resources

Production Engineer in Training

Calgary, AB

June 2012 - June 2013

- Monitored production and identified optimization candidates in three field: heavy oil and two natural gas.
- Developed proposals to increase production and revenue.
- Implemented artificial lift equipment to optimize production such as rod insert pumps, progressing cavity pumps and plunger lift systems.
- Completed monthly production forecasting and decline analysis for two natural gas fields and a heavy oil field.
- Assessed the potential to implement compressors to increase production in a natural gas field.
- Collaborated with the geology and reservoir teams to identify recompletion candidates and new drilling locations by analyzing well logs.
- Investigated new shale gas drilling opportunities.
- Created and presented proposals including economic evaluations for optimization projects.
- Ran weekly meetings, completed site visits and provided primary technical support to field staff on both natural gas and heavy oil assets.
- Assisted with the development of a well abandonment program in a decommissioned field.
- Ensured field operations followed Alberta Energy Regulator Standards.
- Initiated Management of Change documents for infrastructure changes.

## Lone Pine Resources

Student Engineer

Calgary, AB

May - August 2011

- Contributed to the analysis of progressive cavity and rod insert pumps in a heavy oil field to develop a strategy to reduce area workover and operating costs.
- Investigated the sudden increase in water and sand cuts in a heavy oil field.
- Reviewed well files and developed completion summaries and downhole schematics for each well to determine recompletion candidates using WellView and Excel.
- Compiled an Excel database of well test data and estimated ultimate recovery in a natural gas field to assist with the booking of reserves.

## COMPUTER SKILLS

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- Mapping Software: GeoScout and GeoVista
- Simulation Software: VMG Sim and Simtronics
- Microsoft Office: Excel, Word, Project, Outlook and Power Point
- Education Software: Moodle and eClass
- Economics Software: Value Navigator and AFE Navigator
- Production Software: ProdView, WellView, Merak Peep, IHS Piper, IHS Virtuwell, S-Rod and PC Pump

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## MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS AND TICKETS

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- Class 5 Drivers License
- Clean Drivers Abstract
- Valid Passport
- OSSA Basic Safety Training
- First Aid
- H2S Alive
- Society of Petroleum Engineers (SPE)
- Solar Energy Society of Alberta
- Women in Scholarship, Engineering, Science and Technology
- Canadian Coalition of Women in Engineering, Science, Trades and Technology

## CONFERENCE PRESENTATIONS

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**Faculty of Engineering Graduate Research Symposium** Edmonton, Alberta  
Poster Presentation June 28, 2017

- Improving the Sustainability of Tailings Operations: Protecting Worker Safety by Enhancing Field Level Hazard Assessment Tools

**Congreso Colombiano de Minería** Medellín, Columbia  
Presenter May 25, 2016

- Inherently Safe Design in the Extraction Industries

## RECOGNITIONS

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Faculty of Engineering Graduate Research Symposium Sustainability Research Award Edmonton, AB  
Recipient June 2017

The Jason Lang Scholarship Competition Government of Alberta Award Edmonton, AB  
Recipient September 2012

## EVENT ADMINISTRATION

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**Canadian Coalition of Women in Engineering, Science, Trades and Technology** Edmonton, AB  
Social Subcommittee Chair June 2018

- Organize social events including: coffee networking sessions, tradeshow, dinner events and the closing gala.
- Designate volunteers for the positions throughout the conference.

**Canadian Chemical Engineering Conference** Edmonton, AB  
Co-organizer October 2017

- Research, review, select and coordinate the Process Safety Management Sessions and Student Poster Sessions.

## MENTORING ACTIVITIES

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**UA-WISE/WISER Mentorship Program** Edmonton, AB  
Mentor September 2017 – May 2018

- Assisting an undergraduate student with leadership skill development, goal setting and networking.

**Student Leadership Award of Distinction Program (NAIT)** Edmonton, AB  
Mentor September 2015 – May 2016

- Assisted students with leadership skill development, goal setting and networking.

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## EVENT PARTICIPATION

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**Petroleum Engineering Technology Student Club** Edmonton, AB  
Instructor Advisor September 2015 – May 2016

- Assisted students with the planning of events and networking.

**Chemical Engineering Technology Student Club** Edmonton, AB  
Instructor Advisor September 2015 – May 2016

- Assisted students with the planning of events and networking.

**Society of Petroleum Engineers: NAIT Student Chapter** Edmonton, AB  
Instructor Advisor September 2014 – May 2016

- Assisted students with the planning of educational activities, seminars and networking.
- Helped students secure funding for conferences.

## COMMUNITY AND VOLUNTEER ACTIVITIES

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**Canadian Down Syndrome Society** Edmonton, AB  
Child Care Provider May 2015

- Responsible for a group of six children for the weekend.
- Assisted with activities such as: a trip to the Science Centre, yoga, karaoke and dancing.

**Cerebral Palsy Association** Edmonton, AB  
Yoga and Art Assistant Instructor September 2014 – May 2015

- Assisted instructors set up for art class with a group of 10 - 15 children with disabilities at the Art Gallery of Alberta.
- Assisted children with disabilities complete their art projects.
- Assisted instructors teach yoga poses to children and adults with disabilities.

## PERSONAL INTERESTS

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- International travelling
- Amateur photography
- Personal health and fitness
- Self proclaimed foodie