

ABDALLA BABIKER

Fort McMurray, AB, Canada | +1-416-938-6691 | abdalla.babiker@mail.utoronto.ca

SUMMARY OF QUALIFICATIONS

- Production Engineer with 3 years of industry experience in an oil and gas facility.
- Provision of technical services to ensure safe, reliable and profitable plant operations.
- Performance of process engineering studies and calculations for plant optimization.
- A self-motivated engineer with experience in providing technical support for management of change (MOC) execution, risk reviews, production bottleneck identification, and plant turnarounds.
- Recognized for the ability to effectively troubleshoot plant operating issues to ensure plant production targets are met or exceeded.

Areas of Technical Knowledge

Hydraulic Calculations

Six Sigma

Data mining

Quantitative Risk Assessment

Computer Skills

Microsoft Excel, Visio, Word and PowerPoint
Aspentech Hysys, Pro II and PROMAX
PI-ProcessBook
Computer programming: VBA and Java

Soft Skills and Personal Traits

Strong verbal and written communication skills
Project management and organizational skills
Strong initiative
Results oriented

EDUCATION

Master of Engineering in Chemical Engineering | University of Toronto

April 2020

Bachelor of Applied Science in Chemical Engineering (with distinction) | University of Ottawa

May 2015

INDUSTRY EXPERIENCE

Suncor Energy Inc.

Sept 2013 – Aug 2014; May 2017 - Present

Fort McMurray, Alberta, Canada

PRODUCTION ENGINEER (CONTACT EIT) | UPGRADING CRUDE DISTILLATION UNITS

Jan 2019 – Present

- Providing technical support for the operation of atmospheric and vacuum distillation units to maintain an average daily production of 65,000 barrels of synthetic crude oil.
- Monitoring key performance indicators (KPIs) and reporting findings to operations team and upper management to steward production targets.
- Conducting incident investigations using root cause analysis methods to provide recommendations to return plant to steady operations.
- Performed Crude Distillation Unit design review for a capacity debottlenecking project (\$12M yearly added profit) to ensure safe & reliable operations.
- Developed turnaround detailed process plans and reviewed chemical cleaning packages for unit equipment.

PROCESS ENGINEER (EIT) | UPGRADING PROCESS ENGINEERING DEPARTMENT

Mar 2018 – Dec 2018

- Technical Service Engineer in Central Process Engineering and Development group supporting all refinery units.
- Provided engineering support during plant turnaround by performing thorough equipment inspections and providing equipment repair recommendations to ensure steady operating conditions are maintained.
- Validated crude distillation unit engineering design adequacy for a debottlenecking project (\$30M yearly added profit). Utilized process simulations to perform calculations of pipeline velocity to assess erosion potentiality due to increase in production rates.
- Identified the root cause of a water hammering issue in a condensate return pipeline by performing thorough heat transfer & hydraulic analyses and provided recommendations to install a safer condensate piping system.

- Provided guidance, input, solutions and directives to several interns to develop plant monitoring tools for 4 refinery units, enhancing the efficiency of process troubleshooting activities.

PROCESS ENGINEERING INTERN | UPGRADING SULPHUR UNITS

May 2017 – Feb 2018

- Utilized knowledge of engineering principles to develop heat exchanger monitoring tools to proactively predict fouling intensity in 2 air coolers and 3 shell-and-tube heat exchangers, in order to optimize heat exchanger cleaning schedules.
- Developed a comprehensive process flow diagram for an existing sour water system to provide a clear visual tool that was used to optimize the sour water system.
- Collaborated with process control engineer to develop an adaptive process control tool which optimizes steam consumption in a sour water stripper reboiler, resulting in annual savings of \$500,000.
- Led the process of updating simulations for the Sulphur and Amine plants on PROMAX simulation software, resulting in robust simulation tools that were used to perform calculations to maximize plant production.
- Performed data collection of temperature and air velocity on lean amine air coolers in order to enhance amine cooling performance, optimize the process of amine gas sweetening, and satisfy fuel gas customer needs.

PROCESS ENGINEERING INTERN | ENERGY & UTILITIES

Sept 2013 – Aug 2014

- Developed process monitoring tools on PHD Uniformance, resulting in efficient & effective process troubleshooting.
- Improved the efficiency of 3 boilers by reducing boiler blowdown flowrates by 10% through coordinating steam testing campaigns to determine minimum continuous blowdown flowrates required to maintain targeted steam product purity.
- Led an MOC process to safely and efficiently manage the procurement of materials required to install online steam analyzers which reduce the costs of lab steam analysis by \$35,000 per year, while providing continuous monitoring capability for steam purity.
- Evaluated safe operating limits for 2 steam production units and established a technical operating envelope within which safe operation is maintained.
- Performed technical writing of quarterly project reports to communicate project updates to upper management.

SPECIAL TRAINING

AWARDS

PHA/HAZOP Facilitation | ACM Facility Safety (2018)

Extra Efforts Award | Suncor Energy (2018)

Process Troubleshooting | Norman Lieberman (2018)

Research Opportunity Program Award | University of Ottawa (2013)

P&ID/Engineering Drawing Interpretation | ACM Facility Safety (2013)

Engineering Entrance Award | University of Ottawa (2010)

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

Master of Engineering (MEng) Representative | University of Toronto

Sept 2016 – May 2017

- Represented the MEng community at the Chemical Engineering Graduate Students' Association.
- Planned and organized student events within the Chemical Engineering Department.