



BRETT DUECK, P. ENG

DRILLING ENGINEER

TECHNICAL EXPERTISE

- / Drilling Engineering and Well Design
- / Drilling Management
- / Due Diligence and Resource Reporting
- / Project Management

EDUCATION

- / BS in Engineering, University of Saskatchewan, Saskatoon, SK, Canada (2010)

REGISTRATIONS & LICENSES

- / Professional Engineer, Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)
- / Professional Engineer, Association of Professional Engineers and Geoscientists of Alberta (APEGA)

CERTIFICATIONS & TRAINING

- / First Aid, Canadian Red Cross, Saskatoon, SK, Canada
- / Workplace Hazardous Materials Information System, WorkSafe Saskatchewan
- / Applied Reservoir Engineering, PetroSkills, Calgary, AB, Canada
- / Project Management, Edwards School of Business, Saskatoon, SK, Canada

WORK HISTORY

- / RESPEC (2016–Present)
- / North Rim (2010–2016)

OVERVIEW

As a geological engineering graduate from the University of Saskatchewan, Brett Dueck's background covers drilling, mining, petroleum, and geotechnical studies. In the past 11 years, he has specialized in the mineral industry, with his primary focus being drilling management and well engineering. Brett has worked on projects for many companies, specifically on projects related to potash and mineral drilling programs, brine injection wells, and hydrogeological drilling studies. His services include well design, permitting/regulatory coordination, drilling cost estimates, and subcontractor management. He also performs the project management and health, safety, and environmental (HS&E) setup for these projects. He has contributed to due diligence, Joint Ore Reserves Committee, and National Instrument (NI) 43-101 documents by assisting in resource estimates, drilling reviews, and report compilation.

TECHNICAL EXPERIENCE

Drilling Engineering and Well Design. Brett has developed drilling programs, primarily for potash exploration, water monitoring, and injection wells. He has designed drilling programs in Goderich, Ontario, and throughout Saskatchewan, Canada, as well as in Holbrook, Arizona; Moab, Utah; and the Mojave Desert, California; in the United States. He typically designs all of the drilling program components, including casing, drilling fluids, cement, and geophysical logging programs for the wells. Many of these wells have been used for resource estimations and mining operations.

Brett has recently been working on research and development for emerging solution-mining technologies. His primary focus has been on developing drilling programs for directionally drilling horizontal wells through salt formations. He has also been working on the completions systems that provide the solution-mining engineers with the flow control required to develop their caverns. Using his experience working in evaporite environments, he has been repurposing technology that is proven in the oilfield for solution-mining applications.

Drilling Management. Brett has managed drilling programs for the potash and mineral industry throughout Saskatchewan, Ontario, Canada, and Arizona, California, and Utah, United States. Based on the drilling program design, he obtains multiple quotes from subcontractors and develops detailed applications for expenditure cost estimates and schedules. He also provides full procurement services to clients by issuing purchase orders and subcontracts on behalf of the client. Upon project startup, Brett coordinates with all of the subcontractors, schedules daily meetings, tracks costs, and tracks the schedule so clients can stay informed in the fast-paced drilling environment. He has managed projects with budgets ranging from \$500,000 to more than \$10 million.

As a part of these projects, Brett is also responsible for developing the accompanying HS&E plans that are vital to the drilling program's success. These plans are developed as per regulatory requirements and account for the client's current safety program to ensure that the highest level of safety is provided. Brett coordinates the environmental and safety reporting as required throughout.

Due Diligence and Resource Reporting. Brett has contributed to numerous NI 43-101 reports by ensuring that the data collected from his drilling programs are NI 43-101 compliant. He has also completed the resource estimations for several of these reports in the potash industry. Brett participates in compiling reports by outlining the drilling details and the methodology for resource calculation. He has been involved in due diligence reviews by examining proposed drilling and completions procedures for drilling design and risks.