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CAREER PROFILE >>>

Mechanical Engineer

Name: Rob Martell, P. Eng., BSc. (Eng)

Home Community: Saskatoon, SK

Education: Bachelor of Science in Mechanical Engineering,

University of Saskatchewan

Employer: BHP

Details of the Job: Mechanical engineering is about designing equipment that will make a process work the way we want it to. This involves the application of physics (statics, dynamics, hydraulics) and materials science.

Rob started as a junior design engineer; then spent time as a maintenance engineer onsite at a remote mine, before moving on to project engineering roles with increasing responsibility. Rob's current role has him using his field experience of over 20 years to ensure that the engineering done for the Jansen surface mill facility results in the safest, highest producing, most efficient and technologically advanced mill possible. New and innovative technologies being introduced at Jansen include drones, robotic and remote automation, virtual and augmented reality, etc.

A Typical Day: In a given day, Rob will review data and documents; meet with stakeholders in our office or through immersive conferencing; and review engineering design and data in 3D.

He also travels to engineering offices within Canada and internationally to meet with equipment suppliers and inspect equipment.

"What interested me in this role was working with a global company (and the opportunities that come with that), as well as the chance to lead the implementation of leading-edge technologies that have never been applied to our industry before."

Skills Needed: Strong problem-solving and technical aptitude, ability to collaborate and communicate effectively with people from various disciplines to get the right outcome, being able to think in an integrated way when designing solutions, having a long-term focus – i.e. how will the equipment perform over decades, not just on day 1.

About the Job: Being a mechanical engineer requires a balance of practicality and creativity. You have to find a balance between relying on what you know works, and at the same time looking at innovative solutions to solve problems in a new way. This is a multidisciplinary role – I work with structural engineers, electrical engineers, process engineers, and other disciplines to make sure that the final design works.