



K+S Potash Canada

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Over 150 employees and contractors are involved in commissioning at the Legacy Project. Pictured here are just a few of the men and women behind this crucial phase of the project.

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Commissioning Well Underway at the Legacy Site

The Legacy Project is in the crucial commissioning phase in which specialists begin testing equipment and systems in preparation for start-up in the spring of 2017.

"Commissioning is where we prove the equipment we put in place is ready for operation," says Russ Hrapinski, Commissioning Manager for K+S Potash Canada (KSPC) and the man overseeing the process. "It's tested, it's proven and then it's ready to go into production."

Commissioning at the Legacy Project is occurring in two phases. Pre-commissioning is the testing of individual pieces of equipment to make sure each meets specification and design requirements. Commissioning follows pre-commissioning and involves the testing of multi-component systems.

Various parts of the Legacy Project undergo pre-commissioning and commissioning at different times. Commissioning is complete on the early cavern development system, which features the massive underground caverns that will supply the plant with potash-laden brine. "With the solution mining process you have to have that part of the system up and running first," explains Gene Cochrane, Commissioning Execution Lead for KSPC.

Thomas Papst, Gene Cochrane, Russ Hrapinski, Gerald Vikse and Jaime Klein lead the various groups from KSPC and Amec FW responsible for commissioning at Legacy.



Commissioning Well Underway at the Legacy Site

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"You develop the caverns first so that when the plant is ready, the raw material is available for processing."

KSPC and Amec Foster Wheeler (Amec FW), the Legacy Project's management partner, are using an integrated team approach to commissioning. While Hrapinski oversees the process, Cochrane and his team of mostly long-term KSPC operations and trades employees focus on the commissioning phase, and Amec FW Pre-commissioning Manager Jaime Klein and his team are responsible for pre-commissioning. Amec FW team members overseeing construction of the Legacy Project "turn over" equipment to Klein once it's ready to enter the pre-commissioning process. This includes the critical "backbone" of power, instrumentation, fire protection and other systems and sub-systems that must be in place before any equipment can function. "They ensure all the pieces are there and every line in the documentation is there," says Klein.

"When that point has been achieved, it enters into the pre-commissioning world."

Commissioning people are a rare breed. Hrapinski says they're specialists who typically have a background in the trades and deep experience in their discipline. "The reason commissioning is a specialized trade is that the people that are in this know what the inherent risks are and they know how to manage those risks," says Hrapinski, who has managed commissioning on projects that have a total value of almost \$20 billion. "They know what to expect and they know how to troubleshoot." About 150 such specialists are involved in the commissioning process at the Legacy site and Hrapinski and Klein have worked with many of them, as well as each other, on previous projects. "Russ and I go back probably 25 years," says Klein.

Pre-commissioning is the most labour intensive and time-consuming portion of the commissioning process. Klein says that once

a piece of equipment has passed the rigorous testing and inspection required at the pre-commissioning phase it's given a certificate that basically guarantees that it's ready for the next phase. Cochrane's people then test each system comprising the equipment certified by the pre-commissioning team. "We take that group of components and we do a wet commissioning, where we put water into the process and run them together as a system," says Cochrane. "By circulating water through the system we can make sure it's operating according to design criteria."

While many of the specialists involved in pre-commissioning will set off for new projects once their work at the Legacy site is complete, the commissioning staff will transition to the start-up team and then operate the mine. Cochrane says this approach ensures KSPC's well-trained employees are familiar with the equipment and systems they'll be operating during production.

Special Guests Attend Symbolic Commissioning Event at Legacy

Members of the Supervisory Board and Board of Executive Directors stand outside of the process plant after a tour of the Legacy Project mine site.



Dr. Ralf Bethke, Chairman of the Supervisory Board, Mr. Norbert Steiner, Chairman of the Board of Executive Directors, and Dr. Ulrich Lamp, President and CEO of KSPC, symbolically push the commissioning "start button."

Representatives of K+S Group's Supervisory Board and Board of Executive Directors visited the Legacy site August 24 for a symbolic commissioning milestone celebration. Supervisory Board Chairman Ralf Bethke, Chairman of the Board of Executive Directors Norbert Steiner, and KSPC President and CEO Dr. Ulrich Lamp together pressed a large green button symbolizing the commissioning milestone, in which equipment and systems are tested prior to start-up. The Legacy mine is scheduled to go into production in the spring of 2017.

"We were pleased and very excited to host both boards," says Maeghan Dubois, Senior Communications Specialist at KSPC in Saskatoon. Dubois said the board members also toured the Legacy site and participated in meetings in Saskatoon during their three-day visit to Saskatchewan.

The commissioning event included a smudging ceremony completed by Nikaneet First Nation Elder Louis Oaks. "First Nations and Métis people traditionally perform a smudging ceremony to give thanks and ask for blessings," says Terry Bird,

Lead Advisor, First Nations and Métis Initiatives for KSPC. "On this occasion, the Elder prayed for a safe work environment for all KSPC employees and continued good relations with First Nations and Métis people." Smudging ceremonies are widely practised by First Nations and Métis people. The ceremony involves the burning of sage, tobacco, sweet grass and cedar to send prayers to the Creator above, says Bird.



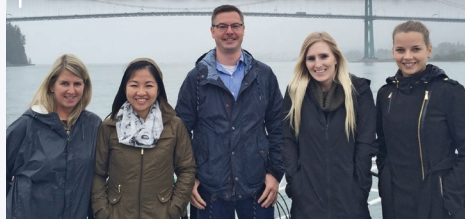
Port Facility Construction Entering the Final Stretch

It may receive less attention than the Legacy Project mine site, but K+S Potash Canada's (KSPC) potash handling and storage facility at Pacific Coast Terminals (PCT) bulk handling terminal in Port Moody, B.C. is a critical link in a transportation system that will see potash from the Legacy Project mine shipped to customers at distant points on the globe.

“The Port Moody facility will be our gateway to the ocean,” says Martin Ponzlet, Project Manager of the KSPC port initiative.

“The majority of the potash we produce in Saskatchewan will be shipped from this port to emerging markets in Asia, South America and North America.” Ponzlet says the \$200-million facility was about 76 per cent complete at the end of October and will be ready for operations once the Legacy mine begins production in the spring of 2017.

The Logistics and Transportation Department works out of KSPC's office in Vancouver, B.C.



KSPC has about a dozen people in two groups involved in the port project. Ponzlet leads a team that's working with global engineering firm CH2M Hill to design and build the port facility. Steffen Brill, KSPC Senior Manager of Logistics and Transportation, is in charge of setting up the Logistics organization and framework for future potash shipments by rail and ocean vessels. While the construction group members will be finished their work when the Legacy mine moves into production, Brill's team will stay on permanently to manage the mine site's and the port's outbound logistics, including rail transportation, shipping coordination and order management. “We're part of a global order management system within the K+S Group,” says Brill. “We will process customer orders through our IT system and coordinate all relevant logistics around that.”

Of course, the port would be of little use without product to ship. In that regard, the Legacy Project reached another milestone on September 15 when KSPC representatives took delivery of the first of 531 potash rail cars from manufacturer National Steel Car (NSC) in Hamilton, Ont. Brill says the cars, which are optimized to ship more volume per train, represent the initial three train sets needed to transport potash from mine to port about once a week. KSPC will require more cars as the Legacy mine ramps up production, he adds.

National Steel Car delivered the first of 531 rail cars to KSPC on September 15, 2016.



As the project nears completion, KSPC is establishing itself as a good neighbour in the Port Moody community through joint sponsorships with its port partner, PCT. PCT Community Initiatives Officer Jennifer McKinnon says KSPC has joined her company in sponsoring four \$1,500 scholarships awarded annually to high school students in Port Moody. The awards are based on academic leadership, athletics and involvement in the community or the arts. They're intended to help cover costs associated with tuition, books, fees and academic supplies for students pursuing a post-secondary education. “Partnering with another company allows us to make a bigger difference in our community,” says McKinnon. “It also increases public awareness of KSPC and PCT.” The two companies also support the Crossroads Hospice Society through a joint sponsorship of Summer Sunday Concerts in the park and the Treasures of Christmas gala.

KSPC and PCT partnered together this summer to support Summer Sunday concerts in the park in Port Moody, B.C.



Vessel Incident Won't Impact 2017 Target Production Capacity

Early on the morning of July 17, 2016, during routine testing, one of the Legacy Project process vessels fell down inside the process plant. While this incident did result in substantial damage, K+S Potash Canada was grateful to report that nobody was injured.

“You never want to receive the phone call that an incident has happened,” says Colin Braithwaite, Vice President, Health, Safety and Security, KSPC. “But thankfully, this incident proved that the safety training and emergency evacuation and response procedures that are in place for our project work.”

Braithwaite says that his first question that morning was about the well-being of the contractors working in the area at the time of the vessel failure. Luckily, he didn't have to wait long for his answer.

“The contractors evacuated the incident scene and mustered to their required areas quickly, allowing everyone to be accounted for,” says Braithwaite. “We were able to double and triple check and confirm that everyone was safe in a very efficient and timely manner.”

Intensive efforts have been, and are continuing to be made together with the partners involved (including insurance companies) to assess and repair the damage. It is already known that the incident will impact the Legacy Project timeline, but not the target production capacity for 2017.

“As a result of this incident, the production of the first tonne of potash from our mine is expected to be produced in the second quarter of 2017 and not at the end of 2016 as originally planned,” says Maeghan Dubois, Senior Communications Specialist, KSPC. “We are, however, still projecting that we will be able to reach our target production capacity of 2 million tonnes per year by the end of 2017. The total volume produced in 2017, however, is expected to be below 1 million tonnes.”

KSPC Title Sponsor of MS Bike Tour Events in Saskatchewan

K+S Potash Canada (KSPC) was title sponsor of two recent cycling events in Saskatchewan that raised a total of \$435,000 for multiple sclerosis (MS) research and programming in Canada. This is the third consecutive year that K+S served as the title sponsor of the MS bike tours in Saskatchewan, which feature rides in Moose Jaw and Waskesiu. KSPC Senior Communications Specialist Maeghan Dubois says KSPC is pleased to champion a cause that has particular importance to people in this province.

"We know Saskatchewan has one of the highest rates of MS in Canada," says Dubois. "The MS bike tour is one way that we can have a broad and positive impact right across the province. It's also a good fit for KSPC and our employees because the bike tour locations are in close proximity to our site and Saskatoon locations. It's wonderful to see colleagues engage in the events – either through volunteering or riding."

The K+S MS Southern Bike Tour in Moose Jaw was a two day, 150 km ride that took place on August 20-21. Approximately 125 riders, who raised a minimum \$295 each in donations, participated in one or both days of the ride, according to Eric Lett, captain of the five-member K+S team and Primary Mining Superintendent at KSPC's Legacy site. "It's fantastic to be able to give to the MS Society and then talk to the people who benefit when they come out to support the ride," says Lett. "It's a great way to give back to the community."

Deb MacFadden, Human Resources Advisor at KSPC's head office in Saskatoon and captain of the 23 member KSPC team at the K+S MS Northern Bike Tour in Waskesiu, participated in her seventh ride on September 17 and says the annual ride has become a fulfilling affair. "It's a great weekend and a fun family event," MacFadden says of the 55 km ride. "But you also get to meet people with MS and hear how their medication has helped them. You feel you're contributing to that, and it's very satisfying." About 400 people participated in the Waskesiu ride.

The money raised through MS rides across Canada is split between research and services such as newly-diagnosed kits, educational sessions and support groups, says Maggie Lens, MS Manager of Development for Northern Saskatchewan. Since diagnosis typically occurs between the ages of 15 and 40, MS is a young person's disease that often strikes those about to start a family or establish a career, she says. "We are fortunate that we're now funding research here in Saskatchewan," says Lens. "In addition to other benefits, research provides hope."



Opportunities with K+S and Contractors

Interested individuals may apply for posted jobs and keep an eye out for new ones on KSPC's career page.

ks-potashcanada.com/opportunities

Additional information on jobs, job fairs, information sessions and company culture are available by following links to KSPC's Facebook, Twitter, LinkedIn and YouTube accounts.



If you have questions or concerns about the Legacy Project, please call the K+S Community Hotline at:

1-855-385-8686 ext. 2999