



# BHP Billiton

Building a world class potash business



**bhpbilliton**

resourcing the future

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19 January 2012

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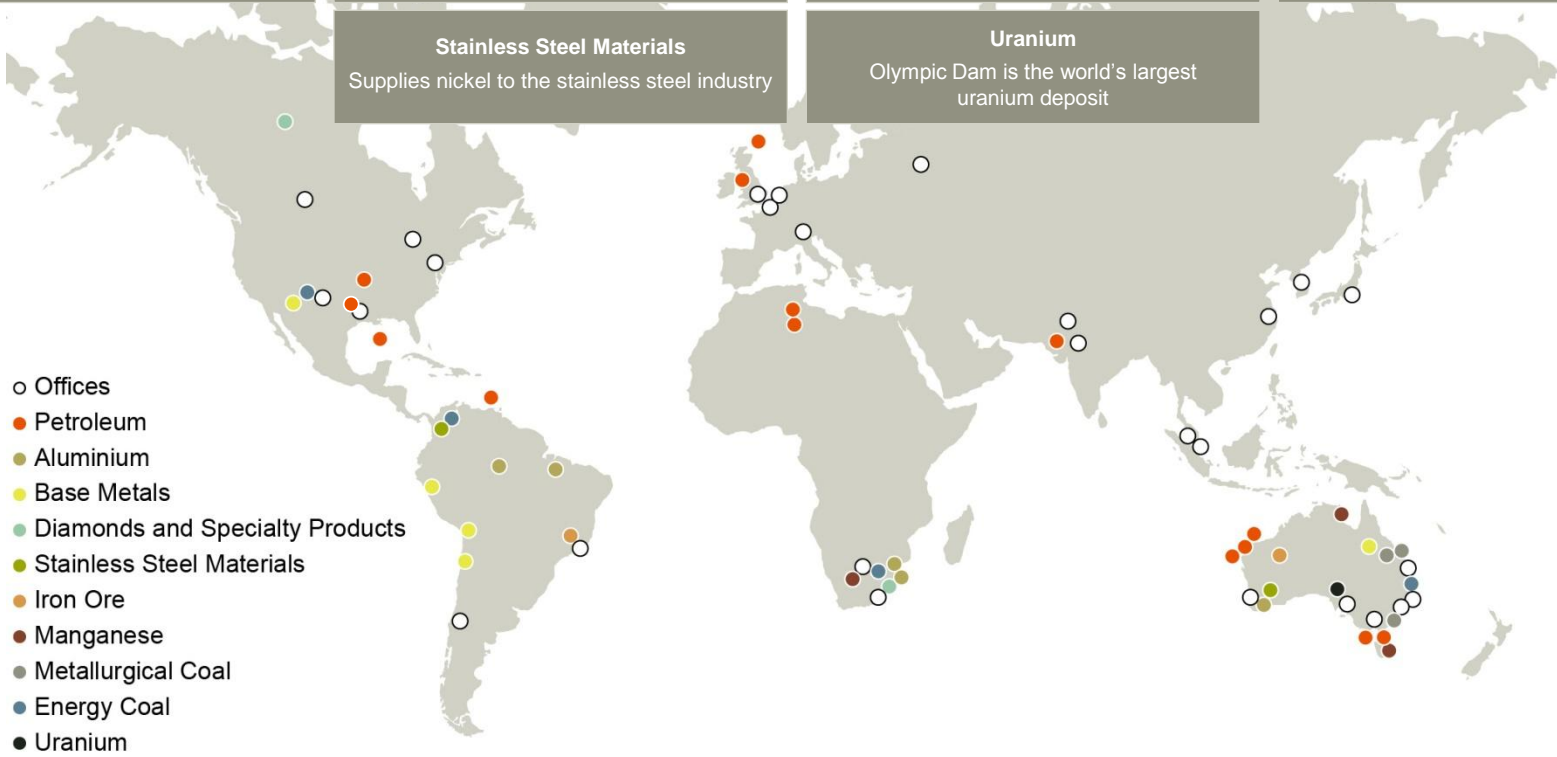
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# Key messages

- **Strong financial position with a long term focus**
- **Targeting potash production of 16 mtpa with room to grow**
- **Jansen Project start up projected in 2015**
- **Leveraging technology to ensure delivery**
- **Port, logistics and marketing plans well advanced**

# Diversified by commodity, geography and customer

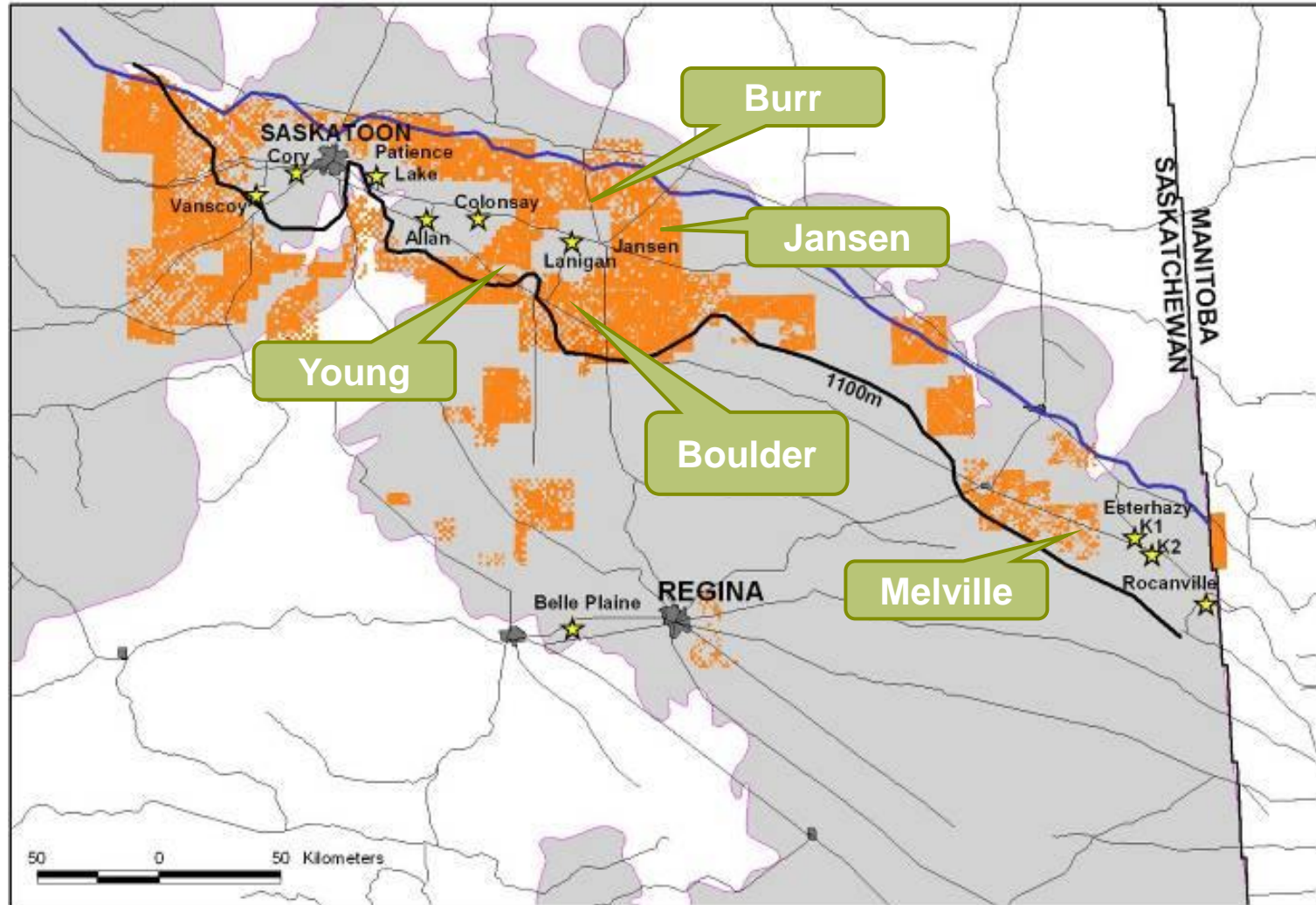
<p><b>Aluminium</b></p> <p>Aluminium operations across all three stages of the value chain</p>	<p><b>Base Metals</b></p> <p>One of the world's largest producers of silver, lead and copper</p>	<p><b>Diamonds &amp; Specialty Products</b></p> <p>EKATI Diamond Mine, titanium minerals, Potash development and exploration</p>	<p><b>Energy Coal</b></p> <p>One of the world's largest producers and marketers of export thermal coal</p>
<p><b>Iron Ore</b></p> <p>One of the world's premier suppliers of iron ore</p>	<p><b>Manganese</b></p> <p>Operations produce a combination of ores, alloys and metal</p>	<p><b>Metallurgical Coal</b></p> <p>Produce and market high quality hard coking coals for the international steel industry</p>	<p><b>Petroleum</b></p> <p>A significant oil and gas exploration and production business</p>
<p><b>Stainless Steel Materials</b></p> <p>Supplies nickel to the stainless steel industry</p>		<p><b>Uranium</b></p> <p>Olympic Dam is the world's largest uranium deposit</p>	



Project and Exploration activities are not shown on this map.

# Extensive land holding in the world's premier potash basin

BHP Billiton potash tenements (~14,500 km<sup>2</sup>)

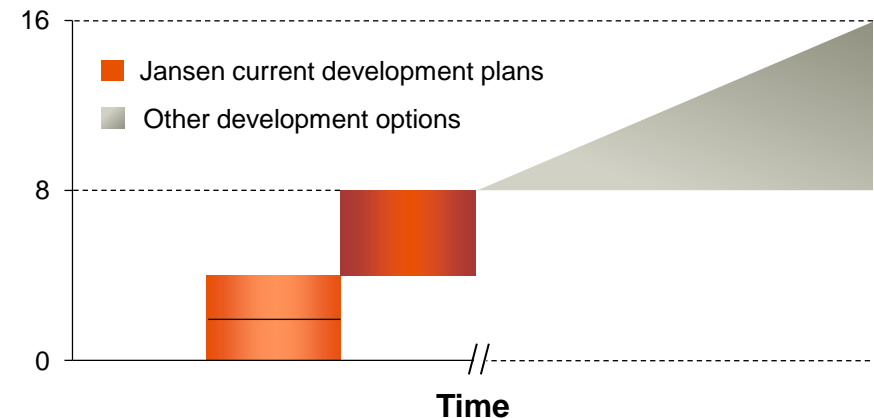


# A global potash business

- Based in Saskatchewan with a significant project hub in Toronto
- Intensive project selection and definition process combined with a comprehensive exploration program underpins a commitment to grow this business to 16 mtpa, and beyond
- Total of ~US\$2 billion invested in potash in Saskatchewan in the past four years
- Jansen Project most advanced
- Young and Melville projects are in the concept study phase
- Exploration work is continuing at Boulder and Burr and in other areas
- Logistics and marketing to serve customers around the world well advanced



**BHP Billiton potash production profile**  
(KCl million tonnes per annum)



Note: Conceptual representation of our conveyor belt of growth options.

# Jansen Project

- Conventional underground mine
- SNC-Lavalin retained as EPCM contractor
- All shaft sinking contracts in place
- Saskatchewan Ministry of Environment has approved the EIS
- Submission to Board for approval to proceed to execution expected 2012
- First production targeted in 2015
- To be built in stages to grow to 8 mtpa capacity in ~8 years



Jansen Project site, Saskatchewan

# Jansen stage 1 project – site (January 2012)

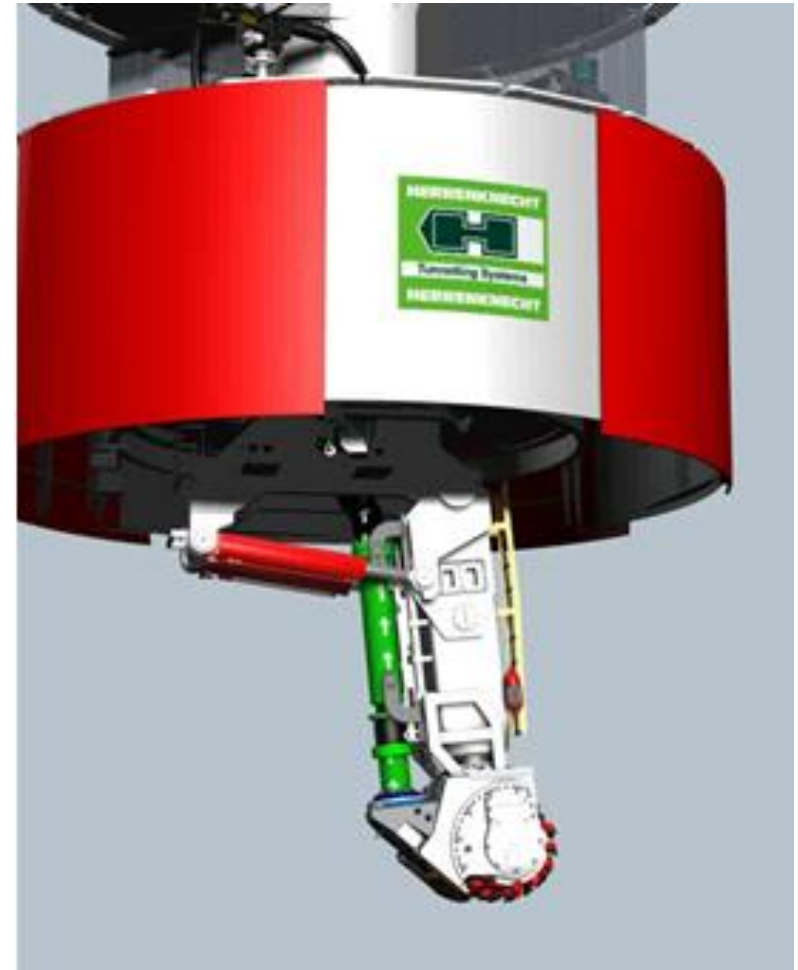
- ~250 people on site
- 89 freeze and monitoring wells have been drilled for the ground freezing program to enable sinking of shafts
- Freeze plant construction completed in August 2011
- Ground freezing commenced in September 2011 and the outside diameters of the shafts are now completely frozen
- Production facilities site preparation commenced September 2011
- Shaft excavation commenced



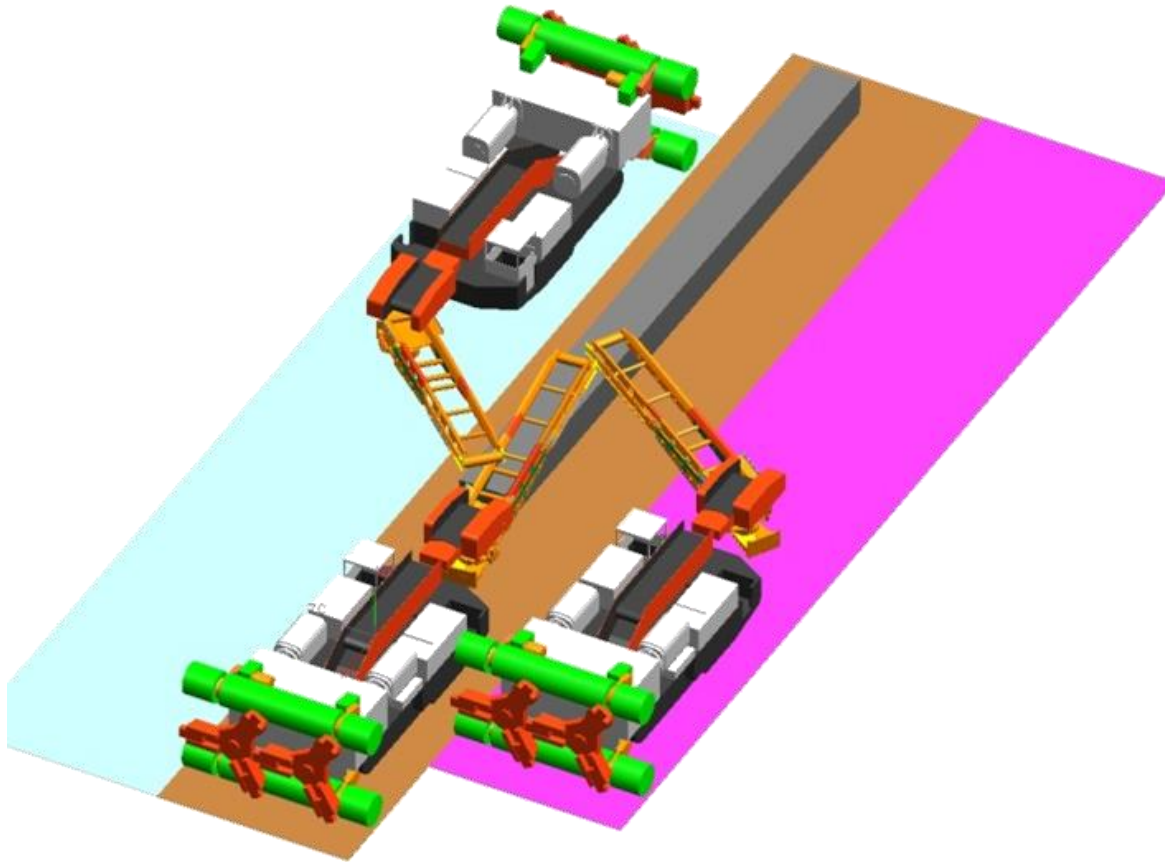
Freeze plant, Jansen Project

# Jansen shaft sinking technology

- High sinking rates, expected to average approximately three metres per day
- Step change in safety with the removal of personnel from the shaft bench
- Integrated mechanical excavation, muck removal and ground support installation
- Full exploitation of sedimentary geology through mechanical excavation
- Engineering currently 85 per cent complete, fabrication is well underway
- Planning a full scale test in 1H 2012



# Multiple pass mining



- Conveyor design needs to facilitate the goal of keeping the borers producing
- Borer design minimizes the setup time for conveyor establishment
- Highest productivity unit available in the market
- Manages the adjustable height required for the Jansen ore body
- Single pass mining in the vertical plane minimizes safety exposures

# Project description – Stage 1 scope

## Mine and plant site

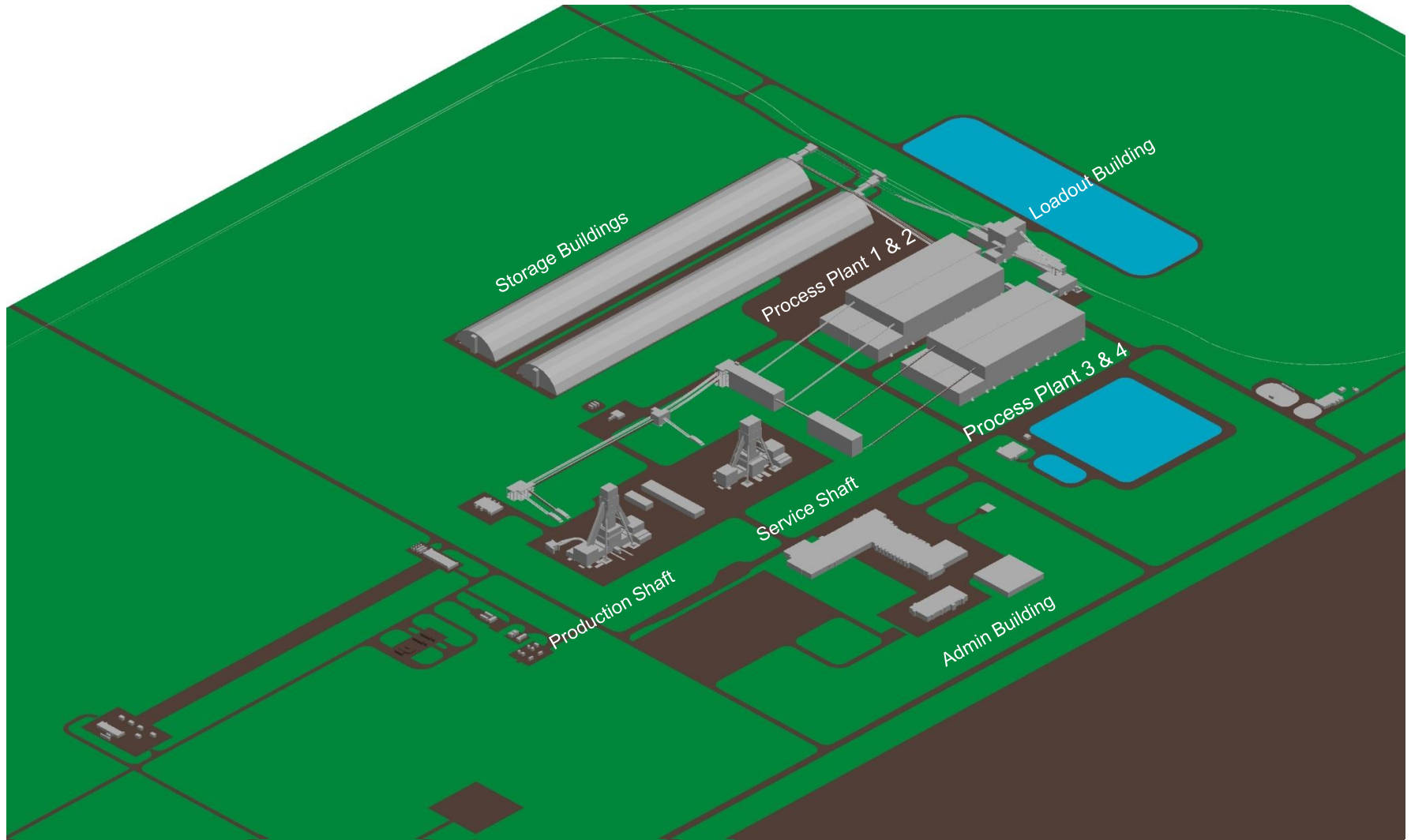
- Two 6.5 metre shafts to about 1 kilometre depth
- Fully equipped service shaft, head frame and hoist
- Six underground borers
- 10,000 tonne raw ore storage
- Tailings management system
- Processing plant
- Partial administration/mine dry/maintenance facilities

## Infrastructure on site

- 100,000 tonne product storage building
- Rail loading facility
- Site accommodation
- Utility tie-ins (power, water, gas)



# Jansen – complete



Artist's impression Jansen surface structures at capacity

# Port, logistics and marketing

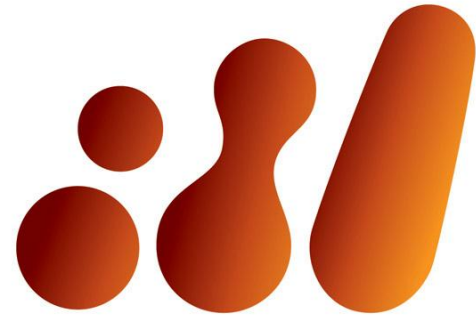
- Port of Vancouver, Washington USA, selected as preferred port location
- Permitting process under way
- In discussions with Canadian Pacific and BNSF for rail haulage
- New generation rail cars – continuous loading and unloading to speed up delivery
- BHP Billiton's model includes independent and customer-focused marketing. We intend to market our own potash production



# Building a world class potash business

- Great portfolio of projects in Saskatchewan
- Global experience to build capacity for 16 mtpa and beyond
- Jansen is on track to be a modern high capacity mine starting production in 2015
- Jansen and our other potash developments are backed by the balance sheet of BHP Billiton
- Logistics and marketing experience will leverage new technologies to ensure efficient and safe delivery to customers around the world





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