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Opportunities in the Saskatchewan Mining Supply Chain

**Northern Opportunities Forum
La Ronge, SK
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Manager, Supply Chain Development
Ministry of the Economy



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Safety Moment



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Ministry of the Economy

- Mission to: “advance economic growth to generate wealth and opportunity in Saskatchewan.”

It has three core lines of business:

- To advance and regulate responsible resource development
- To develop, attract and retain skilled workers
- To enhance economic growth and competitiveness in the province.

Provide a more integrated approach to the province's economic growth.



Economy – Supply Chain

Overall:

To increase local goods and services content in resource industries including mining, energy and value added agriculture industry.

- To assist local companies to understand supply opportunities
- Team of three: *Michele Grella, Shelley Kent, Monique Lischynski*



Outline

- Overview of minerals exploration and production
- Overview of supply chain opportunities
- Examples of goods and services required
- What is important to buyers
- Strategies for market entry
- Resources
- ECON's roles and services



Overview

- Between 2008 - 2012, mining companies in SK will have invested over **\$15 B** in projects
- From 2008 – 2028 mining companies in SK will invest over **\$50 B** in new projects
- >30,500 employed in industry
- Over \$2.5 billion annually on wages, goods, services



Overview

Industry Drivers:

- Expanding global population
- Growing middle class in developing countries
- Increase need for food quality, power and industry
- Increased energy consumption
- Increased crop production



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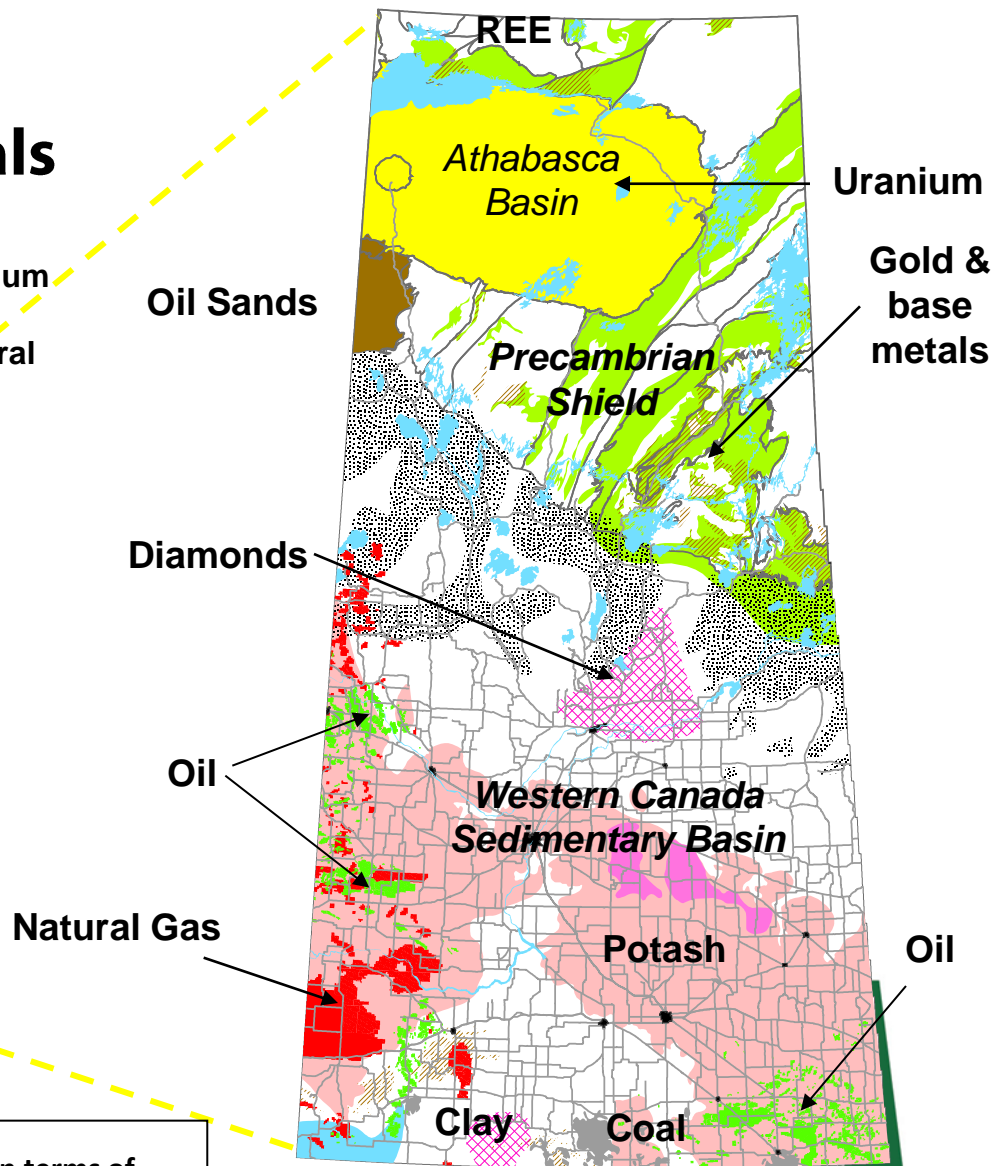
Rich Endowment of Minerals

- World's largest potash producer and 2nd largest uranium producer
- Canada's 2nd largest oil producer and 3rd largest natural gas producer

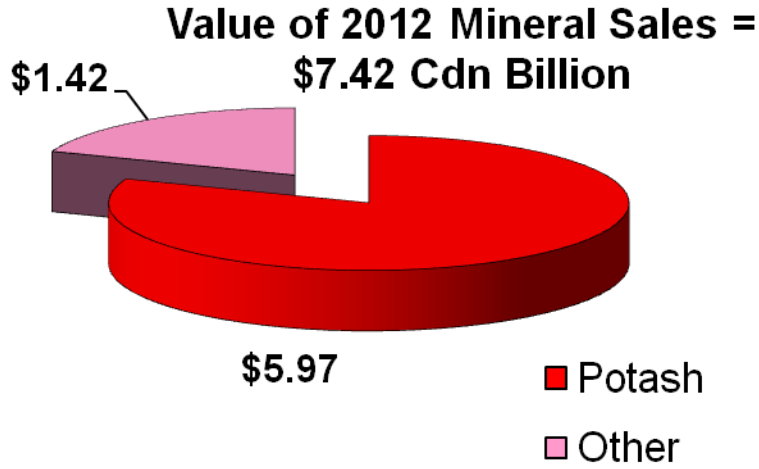


651,036 km²

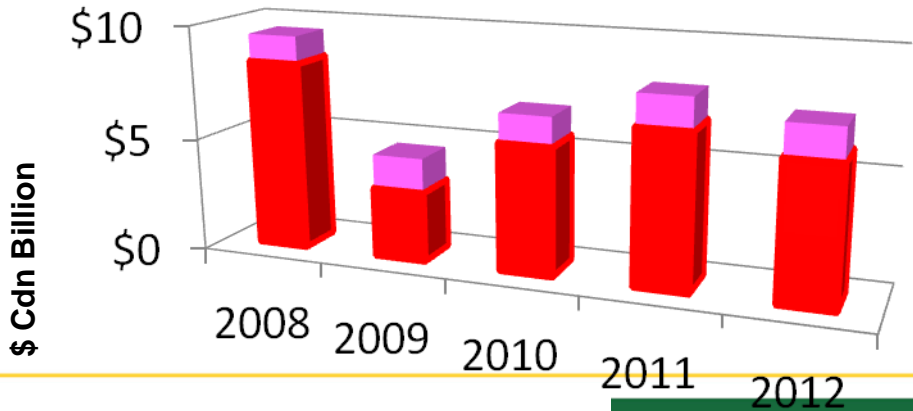
Ranked 1st in Canada and 5th overall out of 96 jurisdictions in terms of Mineral Potential, assuming current regulations and land use restrictions (ie investment attractiveness) in 2012/13 Fraser Institute Mining Survey.



Saskatchewan Value of Mineral Production



Value of Saskatchewan Mineral Production \$ Cdn B, 2008-12



2012

- Production: Potash, uranium, coal, gold, silver, salt, sodium sulphate, potassium sulphate, bentonite, silica sand and kaolin;

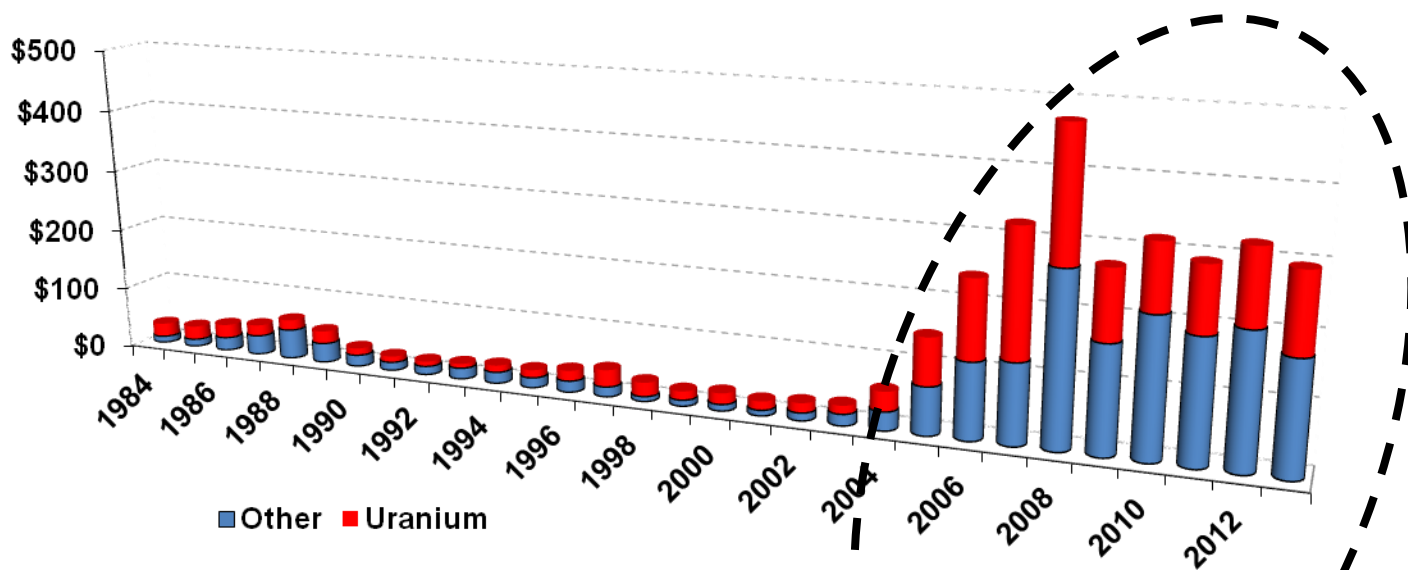
Position in Canada (value of production):

- In top 3
- 1 in 2008;
- 3 in 2012



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Saskatchewan Mineral Exploration: 1984 – 2013



***2013 Expenditures are a preliminary estimate**



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Saskatchewan Uranium: Exploration and Development Activity



2014:

- Mining of high grade Cigar Lake deposit begins

2013:

- McClean Lake Mill restarts
- 3 Projects at Feasibility/Prefeasibility
- 7+ Advanced Stage Projects

Exploration 2003-2013:

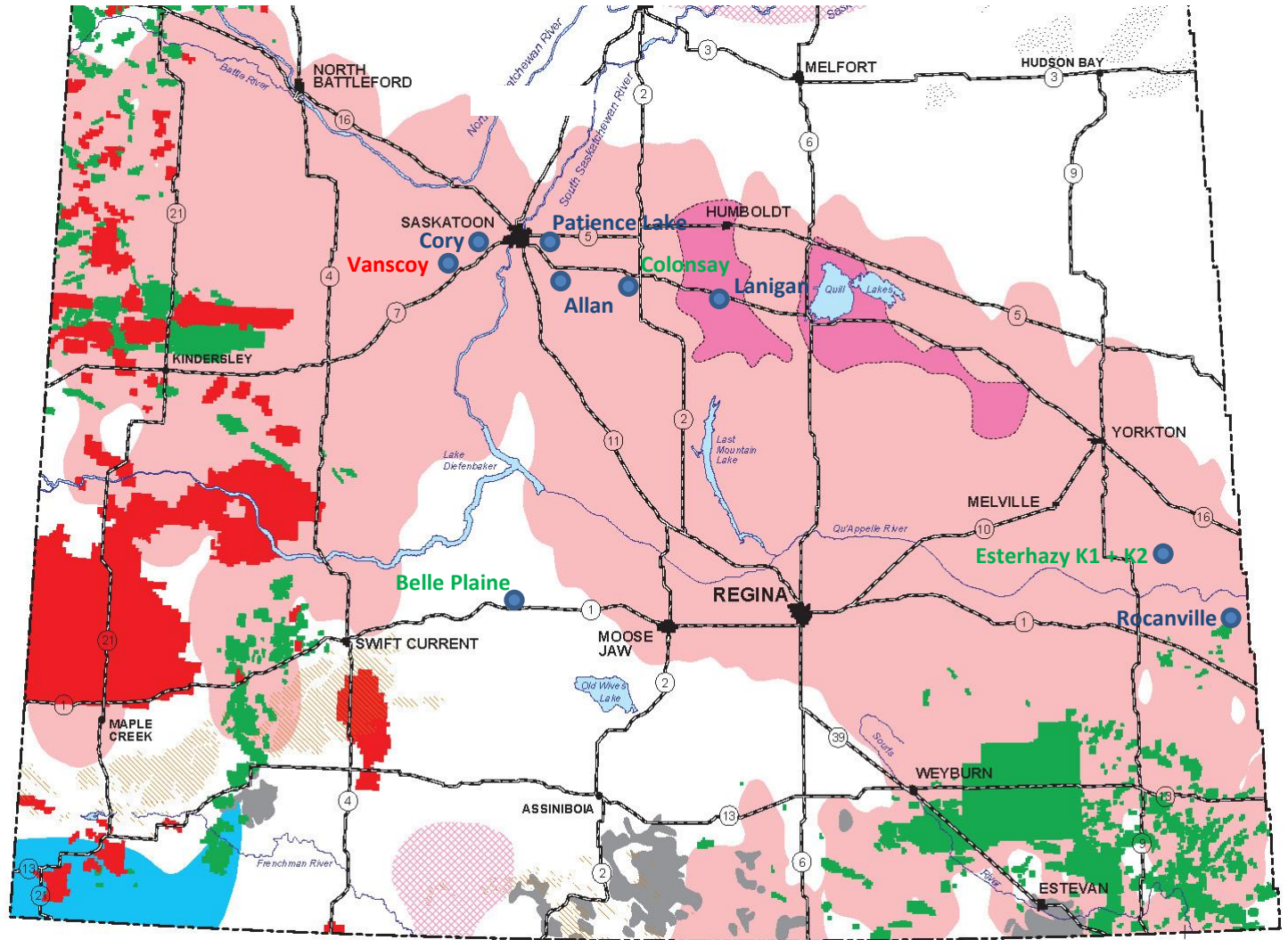
- \$1.2 Billion spent
- 16+ new discoveries from 100's of projects

Production by 2017 could
climb to 17,000 t/U



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Saskatchewan Potash Mines



Agrium
PotashCorp
Mosaic

Saskatchewan Potash Production

- 8 conventional underground mines
- 2 Solution mines



- Each of the potash mines have recently increased, or plan to increase their production capacity.
- Planned expansions of 15.9 Mt KCl by 2020
- This represents a 90% increase over 2004
- Total estimated cost of expansions: \$13.9 B



Saskatchewan Gold

~1.63 M oz Au produced since 1986 from 7 gold mines (primary) in LaRonge Gold Belt

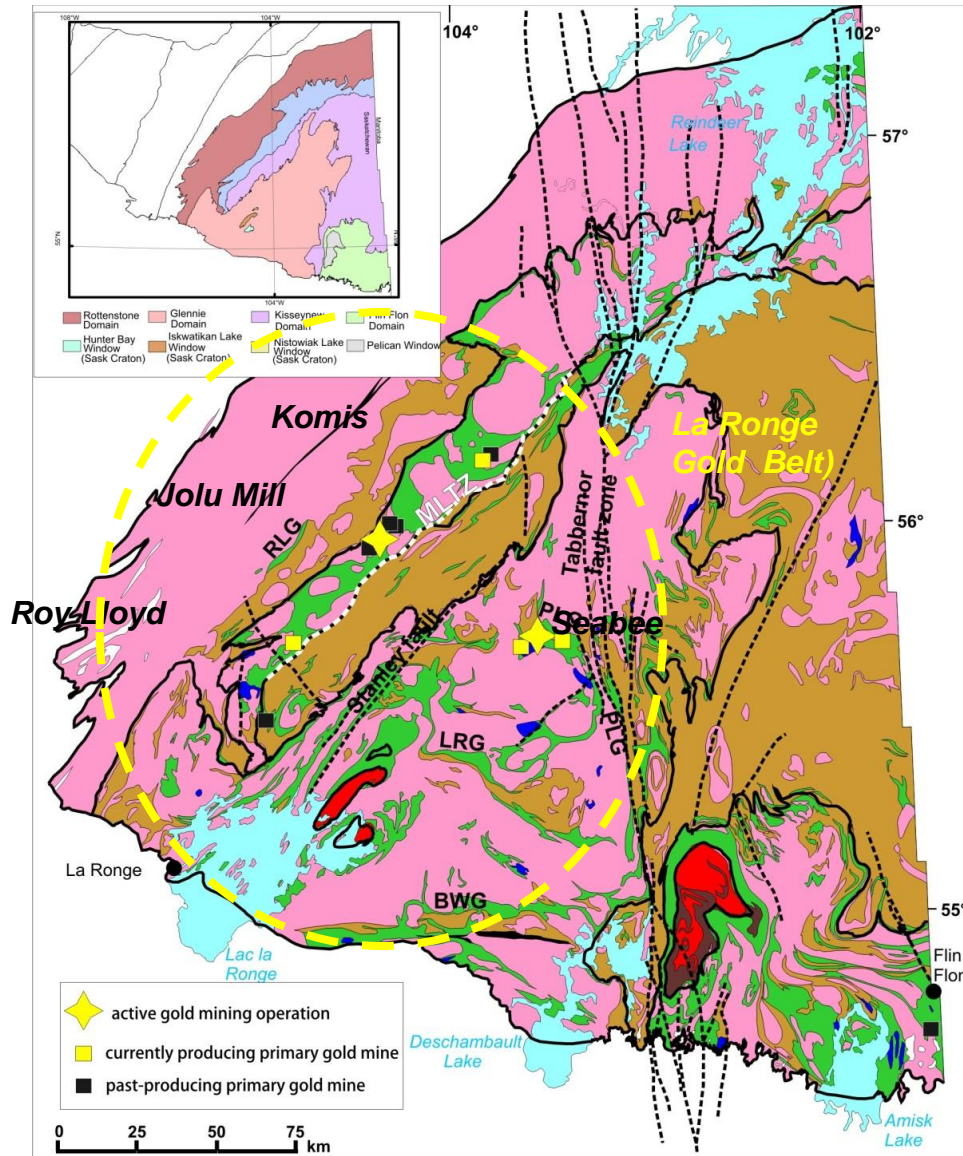
Current Operations :

Seabee Gold Operation (Claude Resources)

- 2 mines (Seabee, Santoy 8,)
- produced 1 millionth oz in August 2012
- 2012: 49,570 oz Au

La Ronge Gold Project (Golden Band Resources):

- production at three mines over past year (Roy Lloyd, EP, Komis) at Jolu Mill
- 41,932 oz Au produced in 2012 fiscal year (year ended April 30, 2012;
- After operational restructuring production has recently resumed



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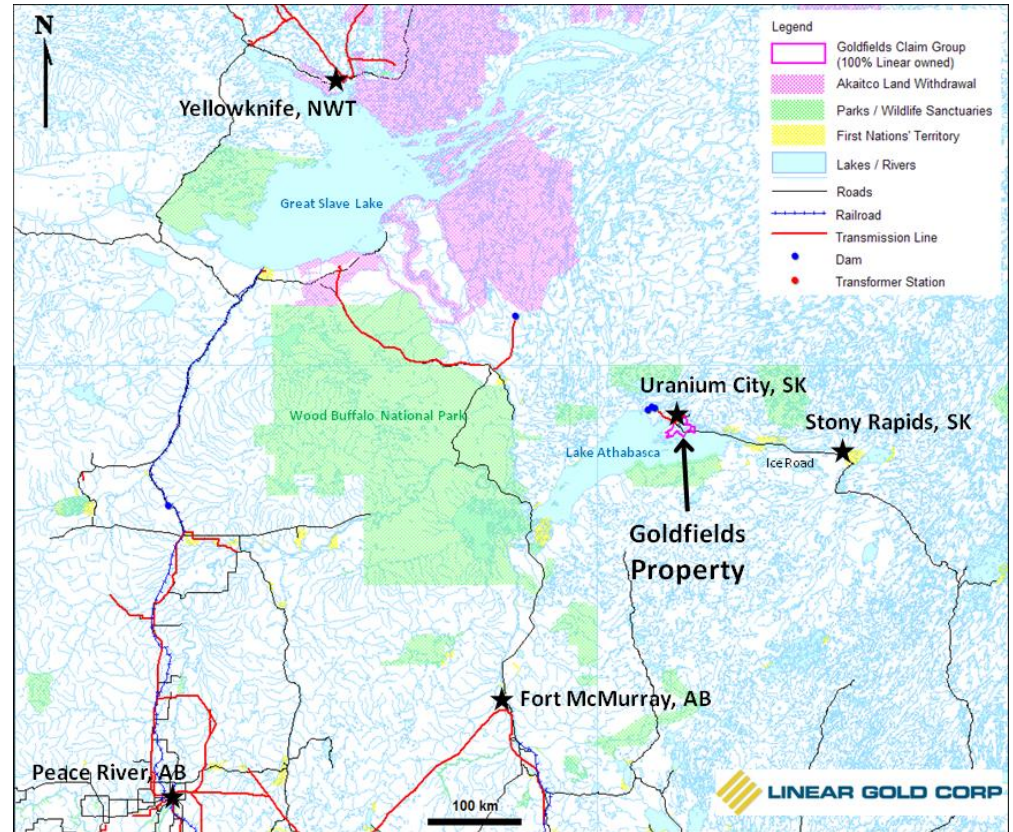
Gold

- **Developer:**

- Brigus Gold Corp.
Goldfields Project,
Uranium City area

- Others:

Wescan Goldfields
Fuhua Mining



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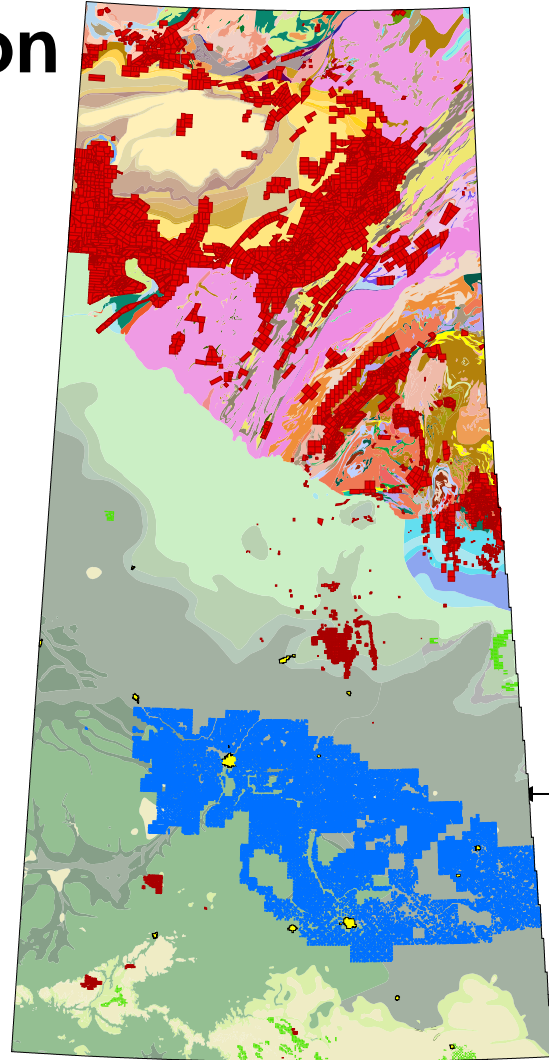
Saskatchewan Coal Mining and Exploration

2012 (2011) Coal Production in Mt, Sherritt International




- Bienfait: 0.5 (0.6)
- Boundary: 5.6 (5.8)
- Poplar River 3.6 (3.5)
- Total = 9.7 Mt:
- 2011 Production = 9.9 Mt

Coal Exploration

Hudson Bay area



Dispositions

-  Mineral
-  Potash
-  Coal (Issued/ Applied For)

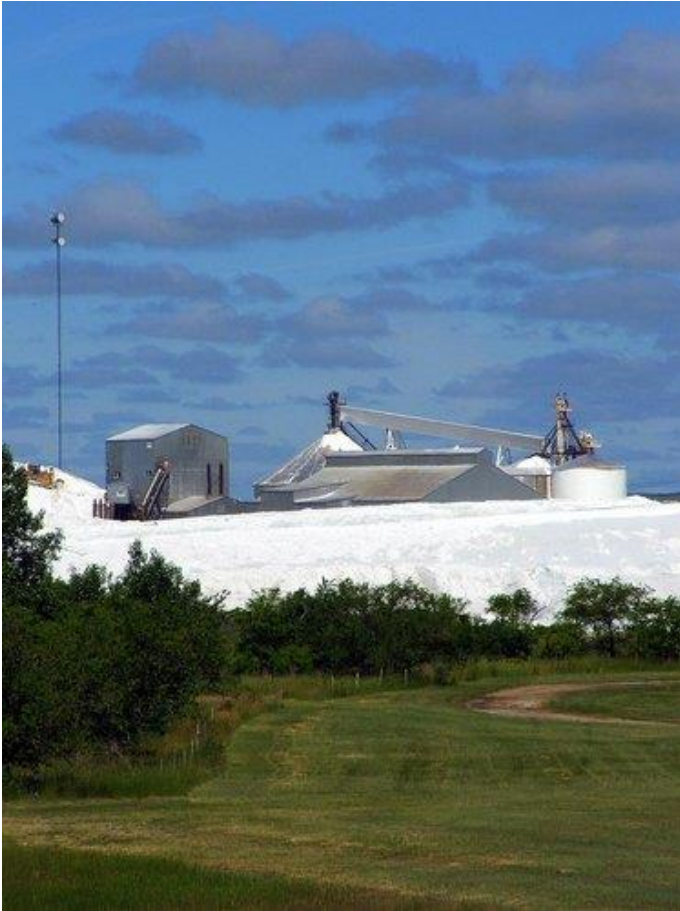
Hudson Bay area

Producing Mines



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Saskatchewan Other Mineral Production and Exploration



Sask Minerals Chaplin Sodium Sulphate Mine – photo by Lilypon (Google Earth post).

Production:

- sodium sulphate
- high-value silica sand
- potassium sulphate
- limestone
- salt
- bentonite and other clay products
- aggregate.

Exploration:

- base metals
- diamonds
- rare earth elements
- graphite



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Mineral Sector in Fall 2013

Outlook is fairly positive, however, still uncertainties:

- direction of global markets
- pace and scope of uranium recovery

Commodity prices are down

Many mining companies are in cost control mode

Need to appreciate how that impacts current procurement focus

- companies have existing supply chains
- will be working with them to reduce costs
- extra challenge for new suppliers and/or start-up suppliers



Supply Chain Opportunities

Exploration

Projects (new mines/expansions)

- Establish Infrastructure
- Construct Underground
- Construct Surface

Operations



Exploration

Supply Chain Opportunities

Exploration:

- Geology (geologists, technicians, prospectors)
- Transportation
- Camp/lodging
- Drilling
- Geochem Analysis
- Field Supplies and Equipment
- Communication and Freight



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Projects

Supply Chain Opportunities

- Opportunities exist in both new mine and mine expansion development
- Key manufactured goods required:
 - Concrete
 - Steel and fabrication
 - Electrical
 - Pumps and piping
 - Valves and fittings
 - Equipment
 - Miscellaneous



Surface Construction

- Heavy civil construction
- Mechanical rotating equipment
- Mill/product storage/flotation buildings
- Electric, instrumentation, controls
- Concrete
- Scaffolding
- Cyclones
- Grinding equipment
- Scrubbers
- Pumps & piping
- Dryers
- Thickeners
- Tanks and storage bins
- Conveyors
- Bucket elevators
- Boilers
- Centrifuges

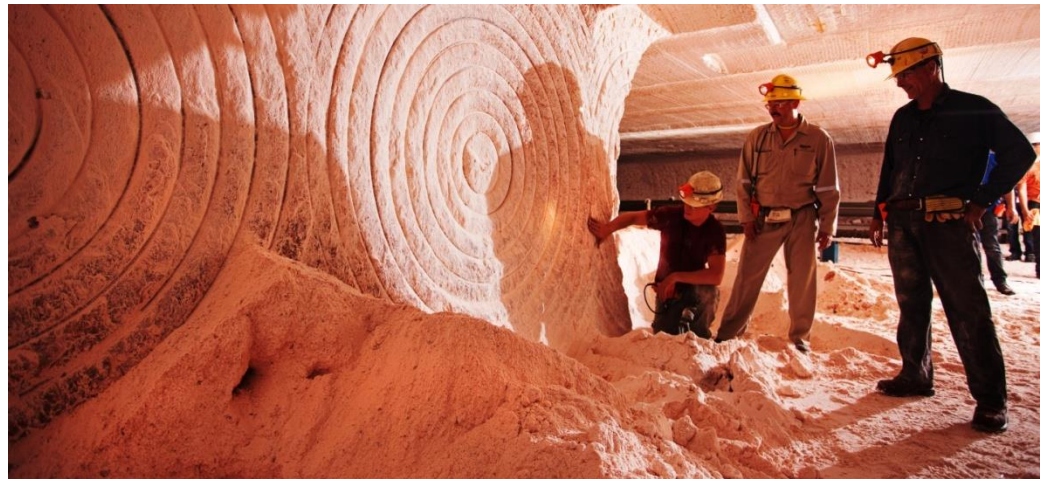


- Overhead cranes
- Compressors
- Agitators
- Belt scales
- Transformers
- Fire protection systems
- Process control equipment
- Process chemicals
- HVAC equipment



Underground Construction

- Walking/drill rigs and drill bits
- Ultrasound measurement equipment
- Hoist rope/wire rope
- Winch
- Pumps
- Electrical equipment
- Hydraulic motor
- Conveyor and conveyor components
- Fans
- Scoop trams
- Limit switches
- Cranes
- Crushers
- Screens
- Rock drill lifts
- Instrumentations
- Shovels
- Load and hauling machinery
- Raise bore systems
- Specialized mine vehicles
- Rock tools
- Explosives and suppliers
- Rock drills



Operating Mines (Potash)

- Chemicals – potash flotation, water conditioning for heating systems
- Fuels and Lubes
- Dedust oil for potash
- Mobile equipment-trucks, dozers, front end loaders, etc.
- Conveyor belting for underground
- Bearings, seals and power transmission parts
- Electrical consumables such as breakers, fuses, switches and fixtures
- Pipes, valves and related fittings (ie. steel, PVC, copper)



Operating Mines (Uranium)

- Computing and telecom (hardware, software and services)
- Nuclear materials and process equipment, mechanical components, tooling, maintenance components
- Boilers, piping, forged components
- Electronics and instrumentation
- Logistics, handling and storage
- Reagents and environment
- Production services (waste management and cleaning, decommissioning)
- General service



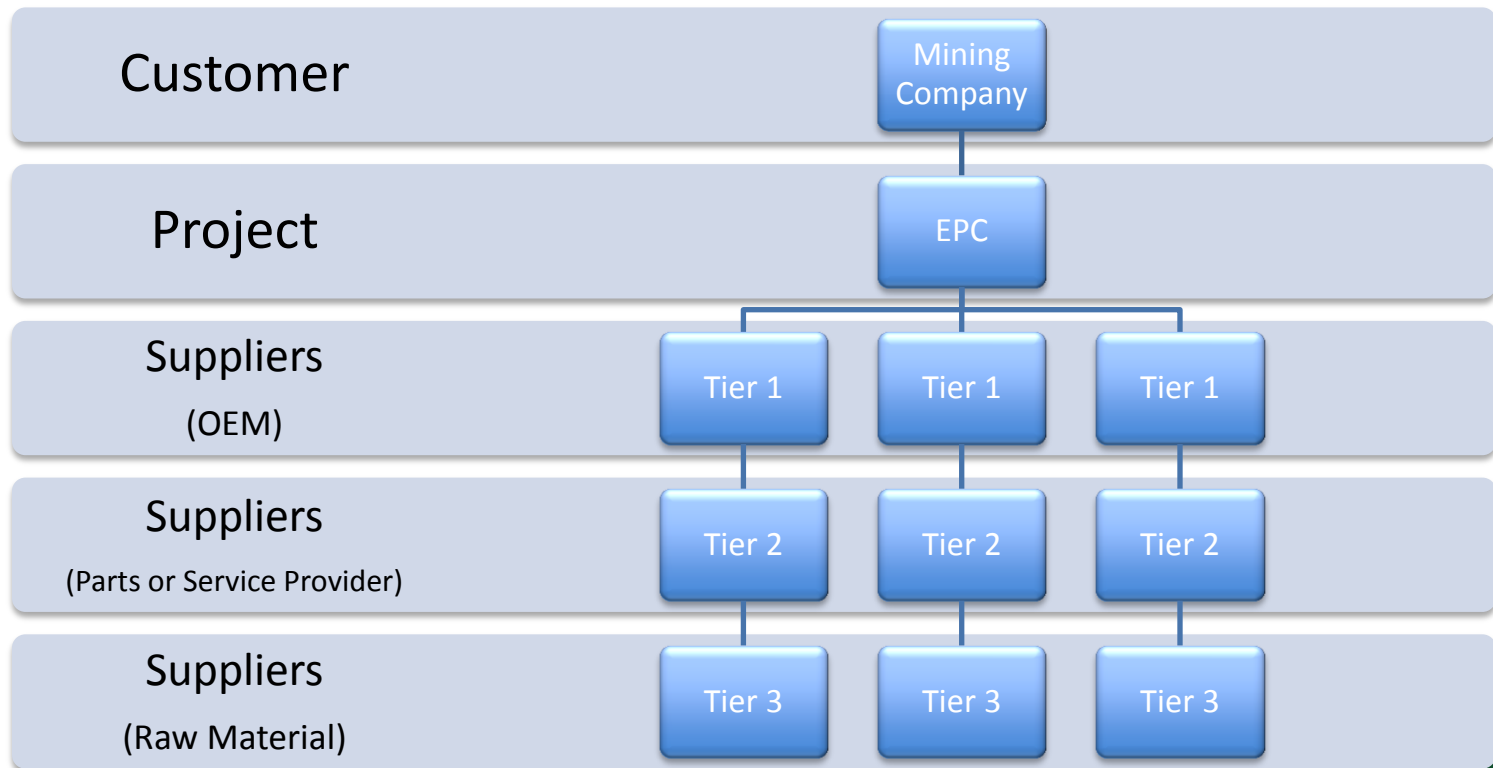
Site Services

- Water
- Waste disposal
- Catering
- Camp Accommodation
- Janitorial Services
- Pest Control
- Security on site
- Medical on site
- Transportation
- Internet and phone
- Storage shelters



Project Supply Chain

EPC Example



EPC – Consulting company which provides engineering, procurement and construction support to mining company.

Used extensively in new projects/expansions.



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Project Perspective

Engineering view:

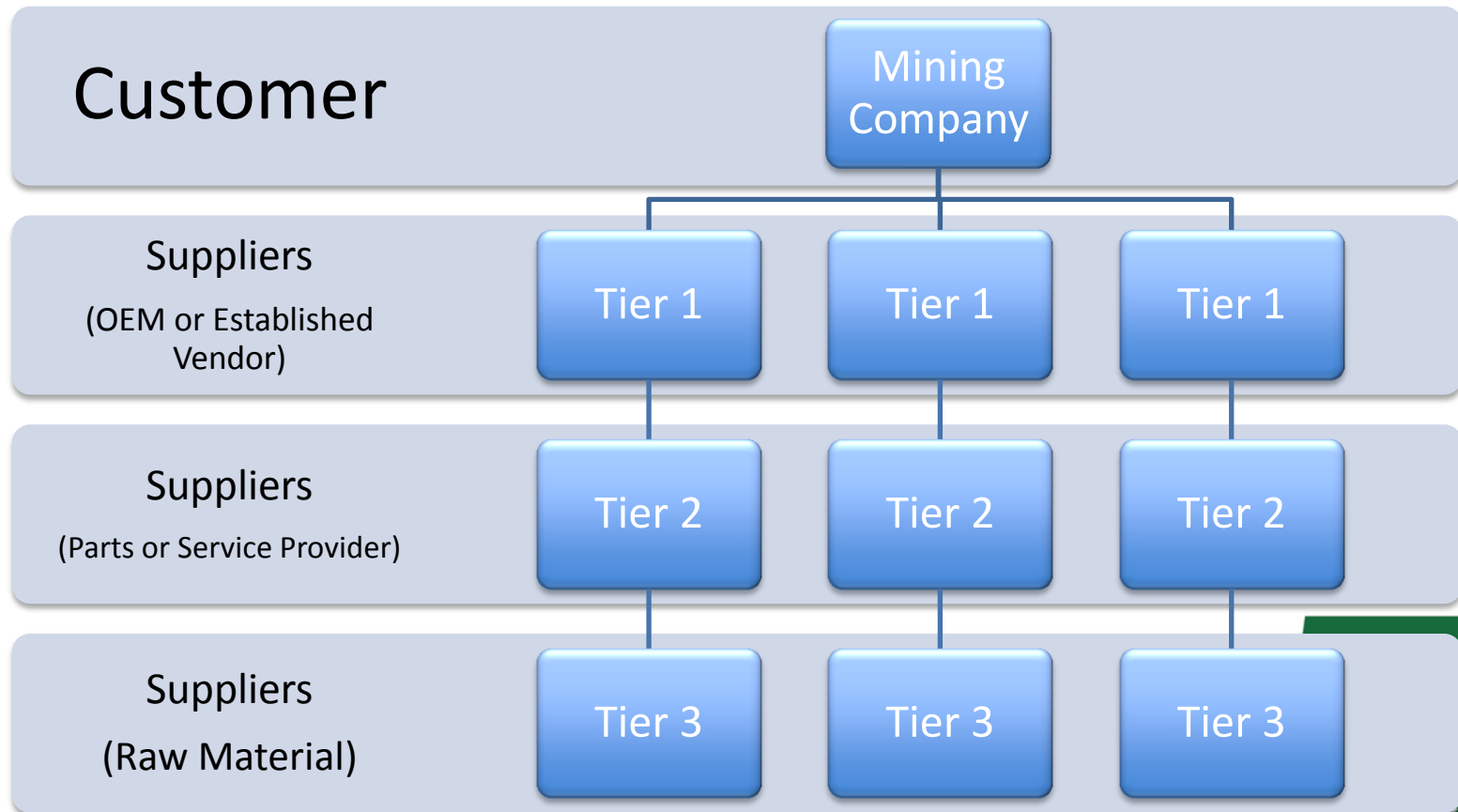
- On-time, on-budget, reduced risk
- Prequalification systems
- Supplier experience and know-how critical

New Supplier:

- Not long term
- Projects in different locations



Operations Supply Chain



Operations Perspective

Mining view:

- Long term
- What do you offer that adds value

New Supplier View:

- Long term
- Consistent location
- Potential for market growth



Strategies for Market Entry

- Direct to mining companies
- Partnering with other suppliers of goods and services
- Work with existing OEM or suppliers to mining companies – supply to the supplier

Saskatchewan Manufacturers Guide

www.economy.gov.sk.ca/mfgguide



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Preparing for the Market

Do your homework:

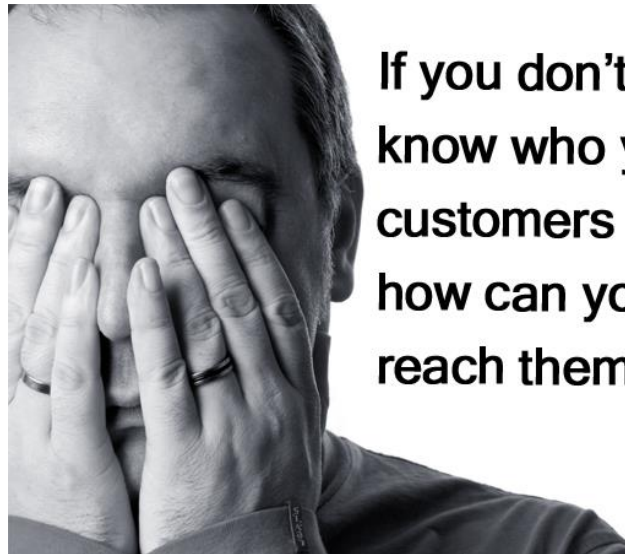
- market research – understand your potential customer
- Understand what your good at (core competency)
- Think through the 4 P's
product, place, price, promo



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Practical Advice

- **Know your customer**
- **Know your competition**
- **Know your product**



If you don't know who your customers are how can you reach them?

Photo credit: Hel Black_MorgueFile
www.imaginedpartners.com



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Making the Pitch

- Review procurement policies and procedures
- Make an appointment
- Conduct a “lunch & learn”
- Provide product literature, catalogs (electronically), web site address
- Request to be added to the bidders list
- Complete prequalification process
- If not added to the bidders list, ask why, constructive feedback and adjust



Making the Pitch

What buyers like:

- **Become a qualified bidder**
- **Tailor your offering to the business**
- **Ask customer what they are interested in**
- **Offer how your product is different from your competitors**



You Get the Order

Now What?

Supplier evaluations:

- **Product quality**
- **Delivery**
- **Price**
- **Health, Safety, Environment**
- **Experience**
- **Spec compliance**
- **Turnover packages**



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Becoming a Preferred Supplier

For the long term:

- **Safety**
- **Service**
- **Quality**
- **Technical competency**
- **Relationships**



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Resources

used in this presentation

How to Successfully Access the Mining Supply Chain - Source of information for this presentation. Detail on potash and uranium including company background, contracts, existing supply chains, procurement methods, contacts

www.economy.gov.sk.ca/supply_chainopp

Potash Mining Supply Chain Requirement Guide - goods and services required to support the development/ operation for conventional and solution mine.

www.economy.gov.sk.ca/PotashRequirementGuide

Mining Supply Chain Forum - Presentations from mining and engineering companies.

www.economy.gov.sk.ca/MiningSupplyChainForum



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Other Events

- 44th Annual Saskatchewan Geological Survey Open House
December 2-4, 2013, Saskatoon
- PDAC 2014 – Prospectors and Developers Association of Canada (PDAC)
March 2-5, 2014 Toronto
- Canadian Institute of Mining (CIM)
May 11-14, 2014, Vancouver



How we can help...

- Information on the mining industry and supply chain opportunities
- Information on the Saskatchewan business environment and related business costs tailored to individual business case
- Connections to mining and supply companies

www.economy.gov.sk.ca/



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Saskatchewan Industrial
and Mining Suppliers
Association (SIMSA)

*Promoting Saskatchewan solutions for
the global resource industry*

Phone: 306-221-8899

Email: info@simsa.ca

Web site: simsa.ca

Go Riders!!!!!!



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Questions???

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