Gossan’s Industrial Mineral Opportunities in Manitoba

Presentation to:
Gossan Resources Limited
James Bamburak, M.Sc., P.Geo.
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Industrial Mineral Opportunities in Manitoba

Manitoba’s Business Advantage

- Strategic Central Location
- Mid-Continent Trade Corridor
- Maritime Province
- Near-Surface Geology ranging from Archean to Recent
- Diverse and Stable Economy
- Highly Competitive Business Costs
- Skilled Multicultural Workforce
- Well-developed Modern Infrastructure
- Abundant, Inexpensive Hydro-electric Power

Manitoba Industry, Trade and Mines
Industrial Mineral Opportunities in Manitoba

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Manitoba Industry, Trade and Mines
A comparison of Canadian Cities’ electrical costs

General - Large Power
Source: Hydro Quebec, May 2000
The N.A. comparison is even better...

![Bar chart showing comparison of energy costs in different cities, with New York having the highest cost at 12.63 cents/kwh, followed by Portland at 5.7 cents/kwh, Seattle at 4.92 cents/kwh, and Wpg at 2.96 cents/kwh.](chart.png)

General - Large Power
Source: Hydro Quebec, May 2000
THIS GOVERNMENT RECOGNIZES THE IMPORTANCE OF THIS INDUSTRY AND WANTS TO SEE IT GROW!
Hon. MaryAnn Mihychuk P. Geo., Minister of Industry, Trade and Mines, November 19, 1999

- Over $1 billion in mineral production
- 15% of total exports
- Employing over 4000 people
Industrial Mineral Opportunities in Manitoba

- Deposits & Occurrences
  - Precambrian
    - Superior Province (Archean)
    - Trans-Hudson Orogen (Proterozoic)
  - Phanerozoic
    - Western Canada Sedimentary Basin
    - Hudson Bay Basin
Precambrian Chromite

BIRD RIVER LAYERED MAFIC ULTRAMAFIC SILL:

- National-Ledin property
- Chrome property
- Peterson block
- Page property
- Maskwa-Dumbarton property

Mafic volcanic rocks, associated with sediments

Felsic volcanic rocks

Greywacke mudstone

Basalt

Late granite

Synvolcanic gabbro diorite - granodiorite
Chrome Property

- Bird River Sill, SE MB
- Gossan Resources Limited
- 5 million tonnes of 7% \( \text{Cr}_2\text{O}_3 \), as defined by 19 drillholes in 1942
- 12.8 m wide, 900 m long and 100 m deep
- Can be be upgraded to 27% \( \text{Cr}_2\text{O}_3 \) by gravity methods
Precambrian Ilmenite & Magnetite

• Pipestone Lake Anorthosite Complex
  – 15 km strike length
  – Gossan Resources Limited & Cross Lake Mineral Exploration Inc.
  – 243 million tonnes 9.28% ilmenite, 23.6% magnetite and 0.28% V$_2$O$_5$ to a depth of 300 m
  – additional resources present at Kiskitto Lake, 50 km SE
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• Seymourville
  – Ordovician Winnipeg Fm
  – Gossan Resources Limited and others.
  – Occurrence is 15 m thick and contains a potential 45 million tonnes of silica sand. The sand is exposed at surface or occurs beneath thin overburden.
  – After washing, a similar sand from Black Island Quarry was marketed as being over 99.5% SiO$_2$. 
Phanerozoic Silica Sand

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Phanerozoic High-purity Dolomite

• Interlake Area
  – Ordovician/Silurian Stonewall Fm. and Silurian Interlake Group
  – Abundant outcrops of high-purity dolomite (21.6% MgO with <1% residue).
Phanerozoic

High-purity Dolomite

- Stonewall Quarry
  - Ordovician/Silurian Stonewall Formation.
  - Production of dolime and crushed dolomite from 1880 to 1965 by Winnipeg Supply and Fuel Company, Limited.
Phanerozoic
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Phanerozoic High-purity Dolomite

- **Sandridge Area**
  - Silurian Fisher Branch Formation
  - Gossan Resources Ltd.
  - 80 km north of Winnipeg
  - Geological resource of 67 million tonnes of dolomite averaging 21.6% MgO with less than 0.23% residue.
  - Additional 33 million tonnes of similar grade is inferred
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- STRENGTHS OF THE SANDRIDGE DEPOSIT
  - Each quarter section should contain almost 1.9 million tonnes of high purity dolomite for each metre of depth (excluding thin marker beds and infill)
  - Minimal stripping required
  - Very low farming interest
  - Very low water table
  - Skilled labour available
  - Nearby communities with many urban amenities
  - Close proximity (120 km) to Manitoba’s Capital Region
  - All-weather Provincial Highway
  - CP railroad track between Winnipeg and Arborg, located 45 km to the east
Manitoba Mining & Minerals Convention 2003

Winnipeg, Manitoba
November 13-15, 2003

On the Web
www.mineralsconvention.com