

Canadian base
and precious metal
exploration

PROBE
MINES LIMITED

TSX.V: PRB

CHROMITE

Cautionary Notes



Disclaimer

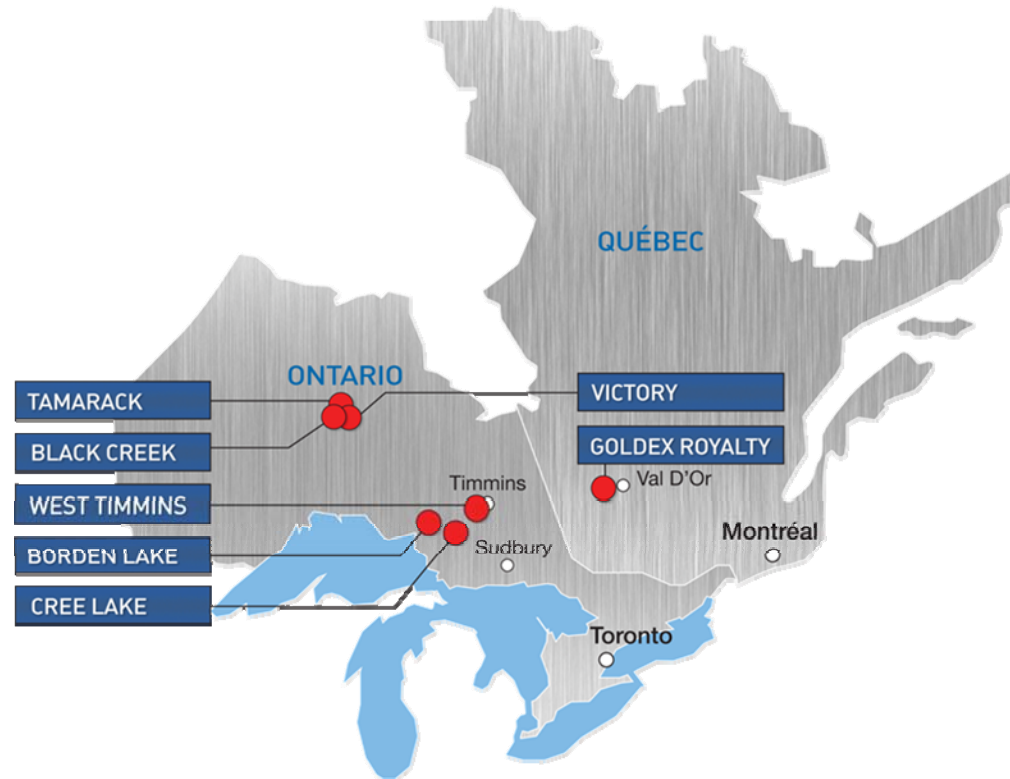
This presentation contains a review of the Company's projects in Canada. Viewers are cautioned that the projects are at an early stage of exploration and that estimates and projections contained herein are based on limited and incomplete data. More work is required before the mineralization on the projects and their economic aspects can be confidentially modeled. Therefore, the work results and estimates herein may be considered to be generally indicative only of the nature and quality of the projects. No representation or prediction is intended as to the results of future work, nor can there be any promise that the estimates herein will be confirmed by future exploration or analysis, or that the projects will otherwise prove to be economic.

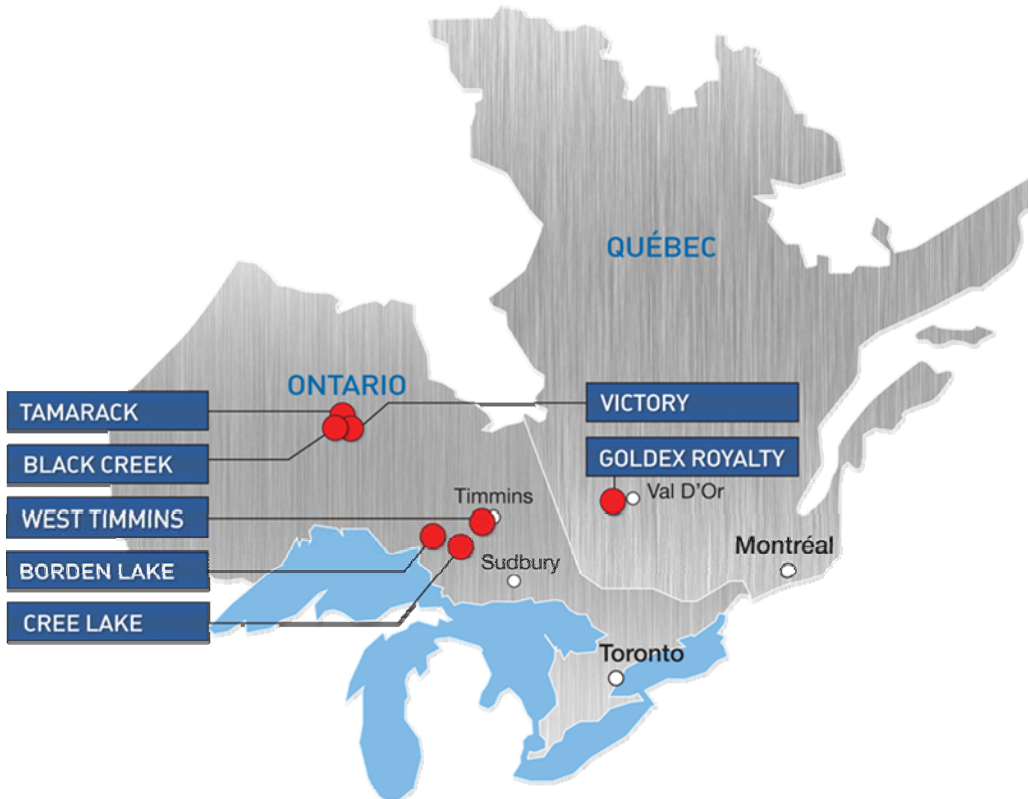
Forward-Looking Statements

This presentation includes certain "forward-looking statements". All statements other than statements of historical fact, included in this release, including, without limitation, statements regarding potential mineralization and reserves, exploration results, and future plans and objectives of Probe, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements.

Overview of Probe Mines

- Well-funded, Canadian base and precious metal explorer poised for significant growth in 2011
- Led by an experienced management team
- Portfolio of high-quality projects in a number of Canada's most important exploration plays
- Probe Mines' strategy is to aggressively explore its key assets to maximize shareholder value





Borden Lake

New gold discovery located
Chapleau, Ontario

Black Creek Chromite Deposit

NI 43-101 resource estimate
completed

West Timmins Gold Project

JV with Lake Shore Gold, drilling
program to commence shortly

Goldex Royalty

5% net smelter royalty on Agnico
Eagle's Goldex Mine

Cree Lake

Prospective gold property located
between Timmins and Sudbury

Board of Directors



Patrick Reid, B.A.	Chairman of the Board
David Palmer, Ph.D., P.Geo.	President, CEO and Director
Dennis Peterson, B.Comm., LLB	Director
John Gammon, Ph.D.	Director

Board well suited for
working in Ontario

At-a-Glance



TSX Venture	V.PRB
Industry	Mining
Shares Outstanding	56.33 M
Shares Fully Diluted	71.86 M
Recent Share Price	C\$1.40
Market Cap	C\$78.86 Million
Fiscal Year End	April 30
Cash-on-Hand	C\$25 Million, no debt

Ring of Fire

- Potential to be one of the most significant development projects in Ontario
- Located in politically stable environment with well-developed infrastructure and mining history
- Remote access, approximately 300 km from nearest infrastructure



Ring of Fire Exploration History

2002

- Diamond exploration (De Beers)
- Copper-zinc discovery
- First staking rush

2003–2007

- At least 30 companies exploring
- Big Daddy chromite discovery (Freewest)
- Eagle One Ni-Cu-PGE discovered by Noront
- Second staking rush

2008

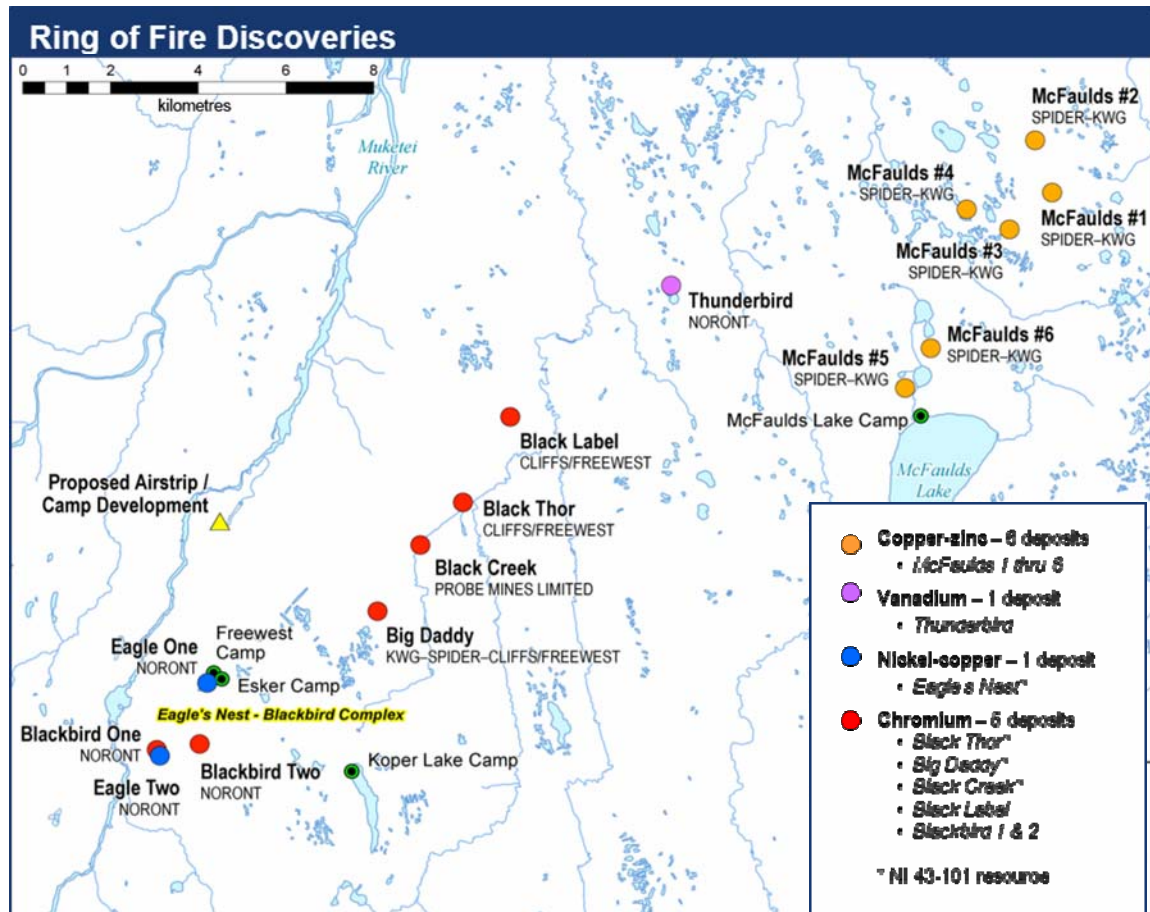
- Black Thor chromite discovery (Freewest)
- Blackbird One chromite discovery (Noront)

2009

- Blackbird Two chromite discovery (Noront)
- Black Label chromite discovery (Freewest)
- Black Creek chromite discovery (Probe)

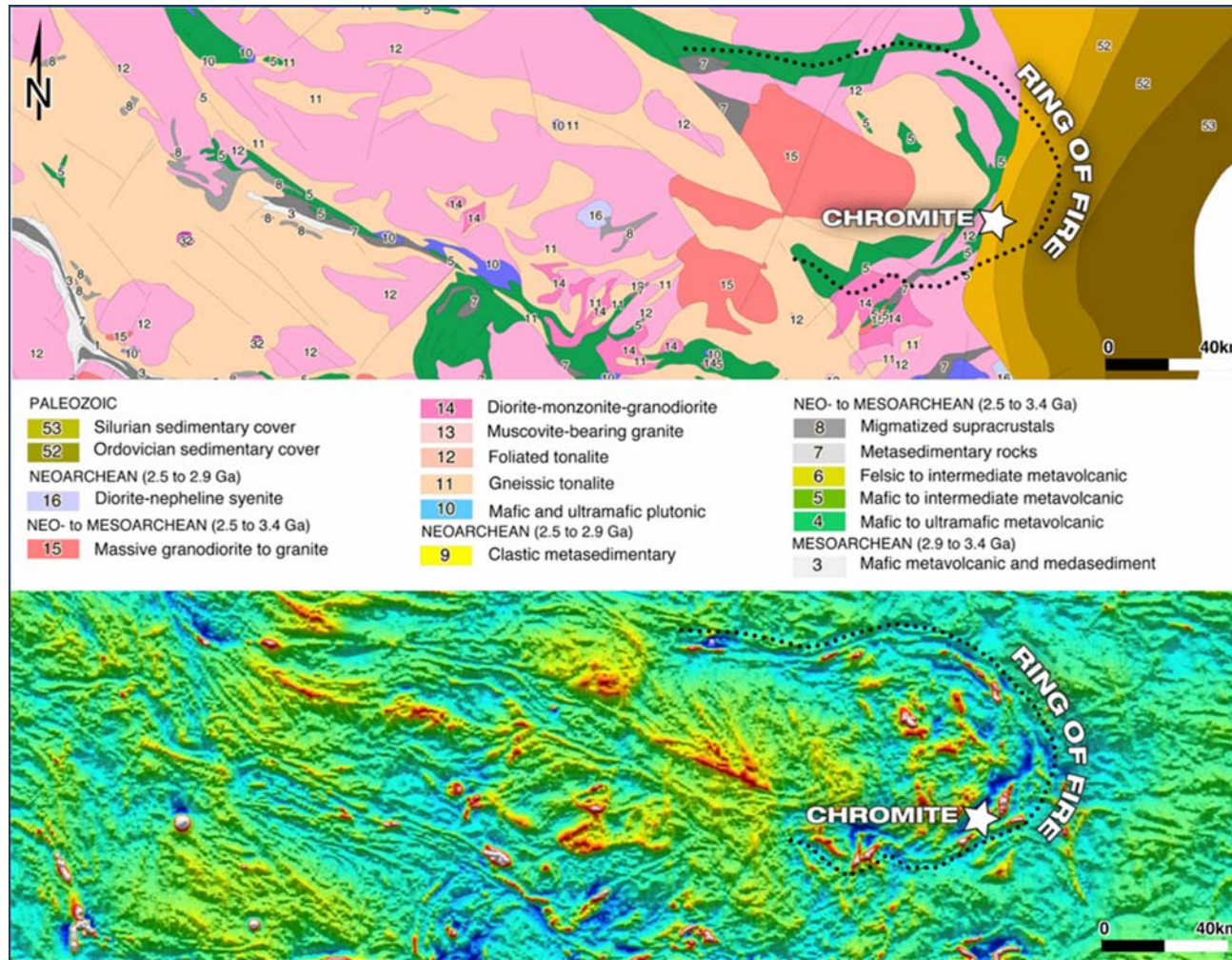
2010

- Black Thor purchased by Cliffs (100%)
- Big Daddy purchased by Cliffs (70%)



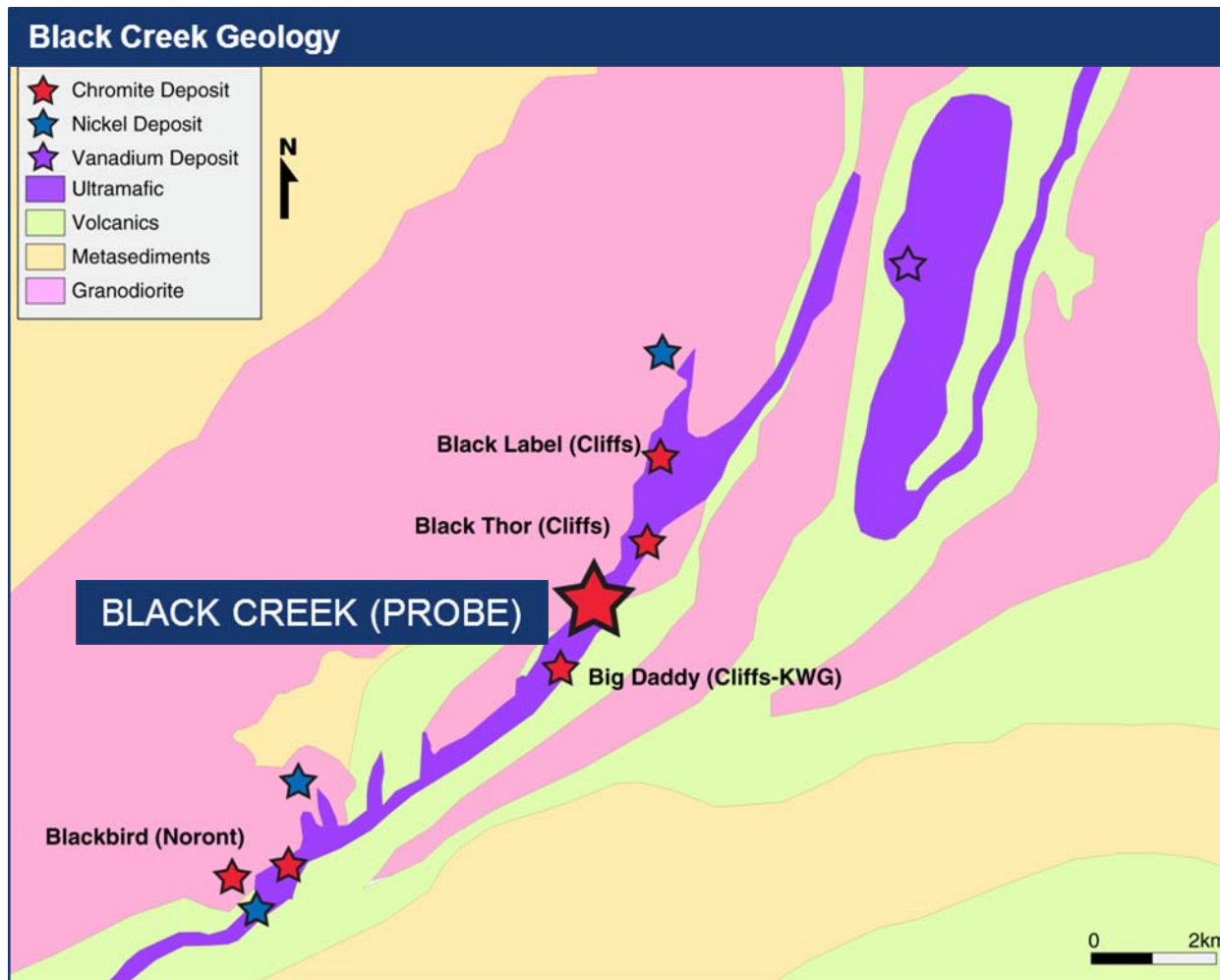
Source: Ministry of Northern Development, Mines and Forestry

Regional Geology



- Part of Sachigo granite-greenstone terrane
- Associated with some of the oldest greenstone rocks in Ontario (2.9–3.0 Ga)
- Ring of Fire consists of a 150 km long, arcuate greenstone belt

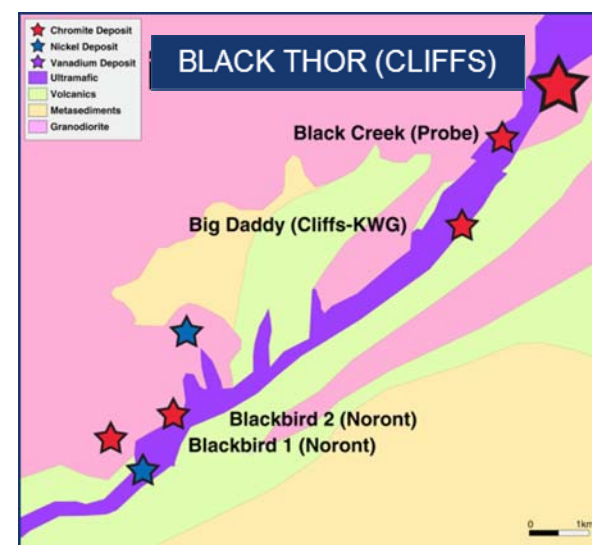
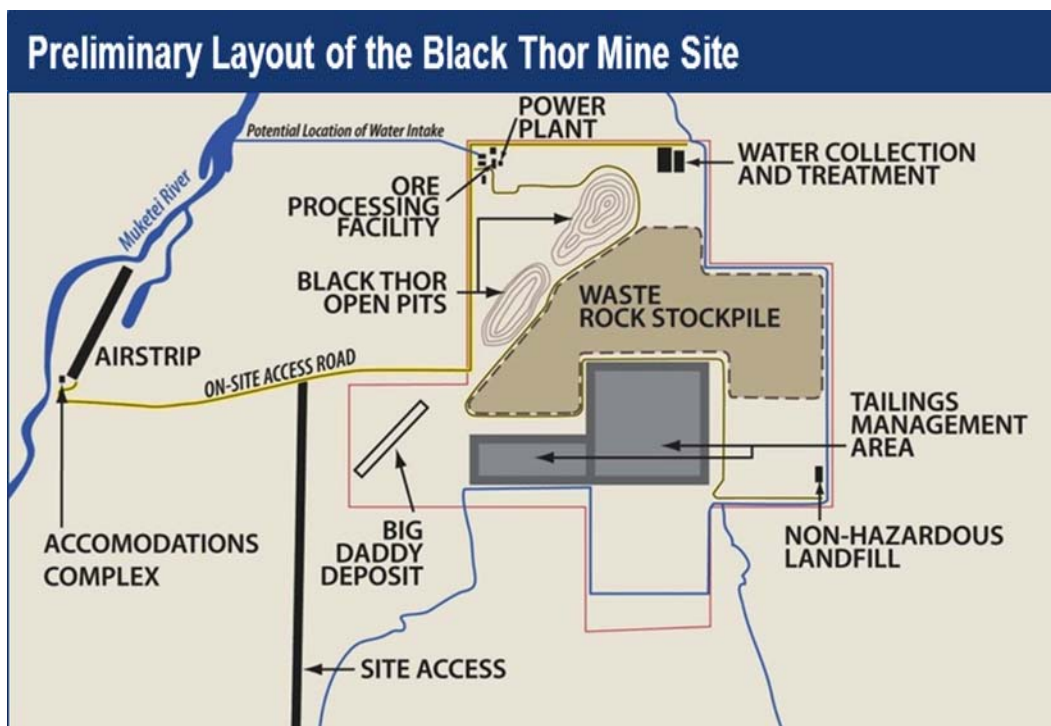
Local Geology



- Stratiform-type chromite mineralization hosted by layered ultramafic intrusion
- 16 km long peridotite
- At least 6 known chromite deposits
- Chromite mineralization consists of:
 - a) disseminated
 - b) banded
 - c) semi-massive, and
 - d) massive varieties

Black Thor Chromite Deposit

- Owned by Cliffs Natural Resources (100%)
- “Base Case” scenario sees production by 2015/2016
- Lower-grade deposit requires concentrator
- Initial mining from open-pit (10–15 years) at 70,000 t/d



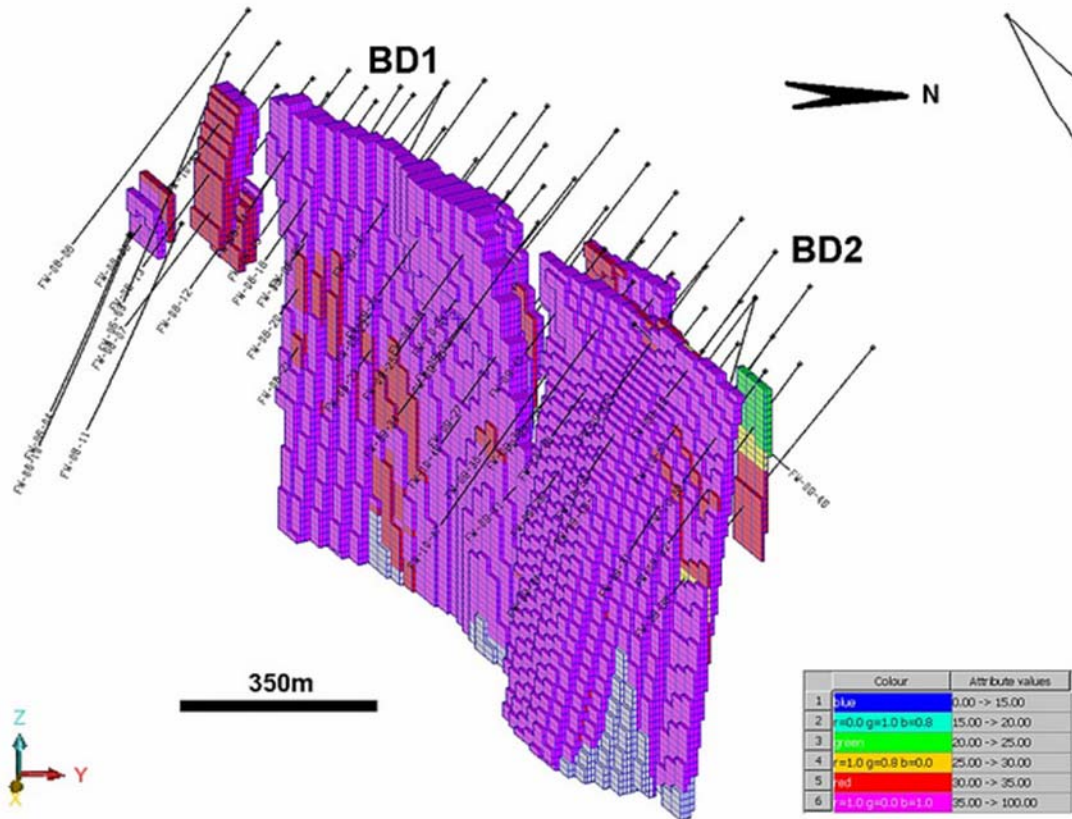
Black Thor Resource Estimate

Tonnes (millions)	Grade (% Cr ₂ O ₃)	Cut-Off (% Cr ₂ O ₃)
121.9	27.8	20
69.6	31.9	25
36.1	36.1	30
16.7	40.5	35

Source: <http://www.cliffsnaturalresources.com/Operations/CliffsFerroalloys/chromite/Pages/ProjectDescriptionPresentation.aspx>

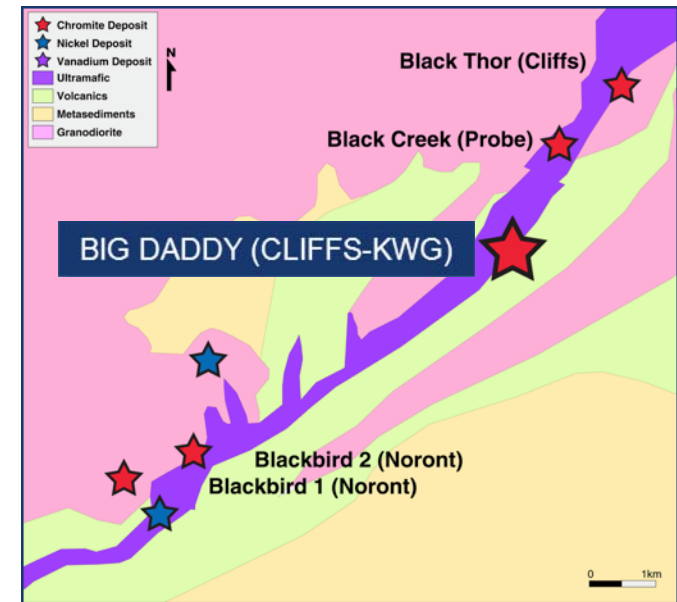
Big Daddy Chromite Deposit

- Owned by Cliffs Natural Resources (70%) and KWG Resources (30%)



Block Model of the Massive Domain, Big Daddy Chromite Deposit

Source: KWG Resources Technical Report



Big Daddy Resource Estimate

Zone	Category	Tonnes x 10 ⁶	Avg % Cr ₂ O ₃	Cr:Fe Ratio
BD 1	Indicated	13.4	40.49	2.0
BD 2	Indicated	9.8	40.88	2.0
Total	Indicated	23.2	40.66	2.0
BD 1	Inferred	7.2	38.48	2.0
BD 2	Inferred	9.1	39.57	2.0
Total	Inferred	16.3	39.09	2.0

Big Daddy Metallurgy

Preliminary Ferrochrome Smelting Results:

XPS (Xstrata Process Support) is performing ongoing smelting test work on the **Big Daddy chromite deposit** for KWG Resources.

The main product of chromite refining is ferrochromium. Chromium's use in iron, steel and nonferrous alloys enhances hardness and resistance to corrosion and oxidation. The use of chromium to produce stainless steels and nonferrous alloys are two of its more important applications.

Preliminary results of the first two small-scale batch smelting tests are:

Test	Temperature	Flux %	Cr %	Fe %	C %	Si %	% Cr Recovery	Slag: Metal Ratio
1	1685°C	9	58	33.5	7.24	0.47	86	1.12
2	1635°C	12	59.6	33.1	7.26	0.15	91	1.19



Alloy and Slag from the first smelting test of Big Daddy ore

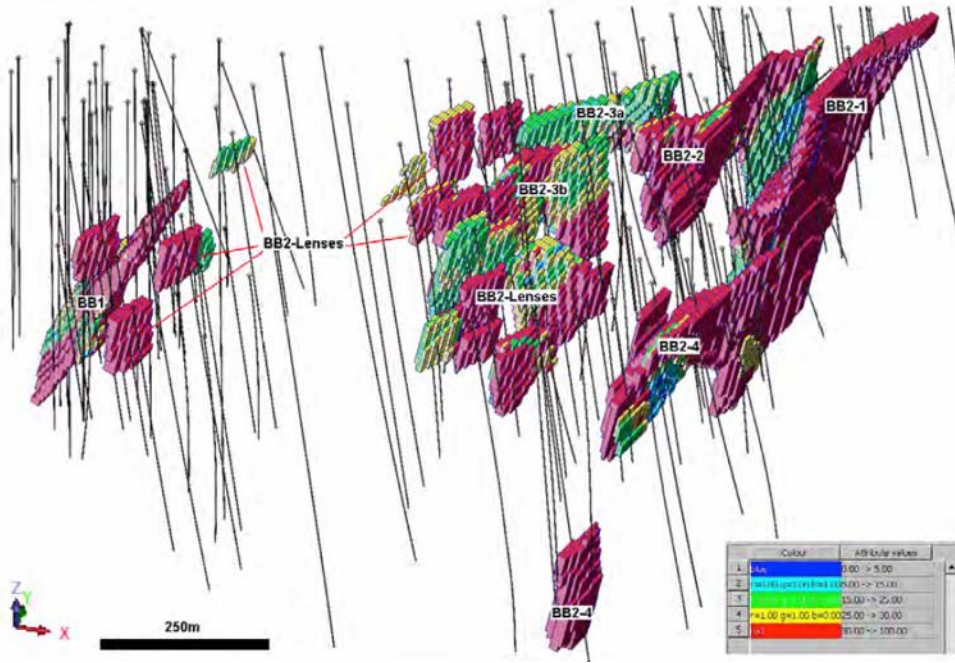


Alloy from the second smelting test

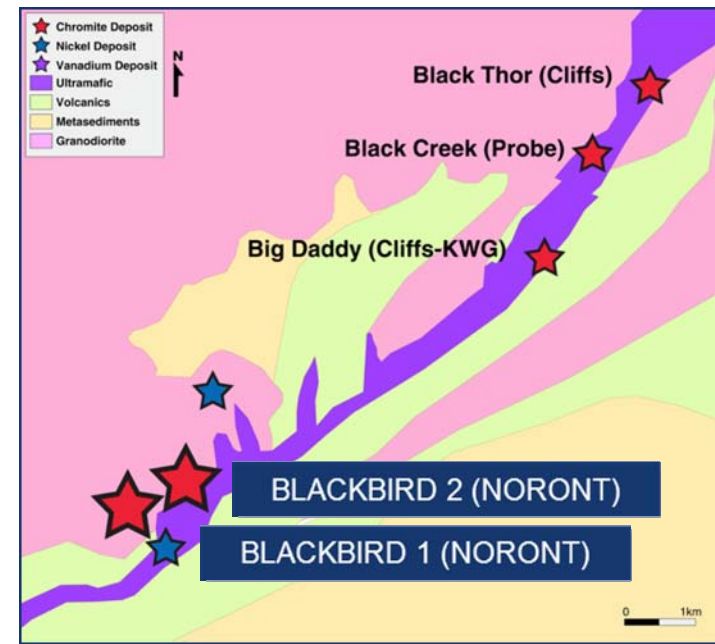


Source: KWG Resources

Blackbird Deposits



Source: Noront Resources Technical Report

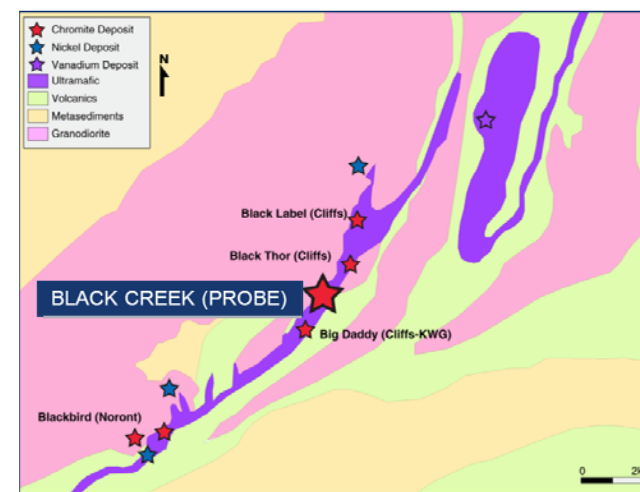
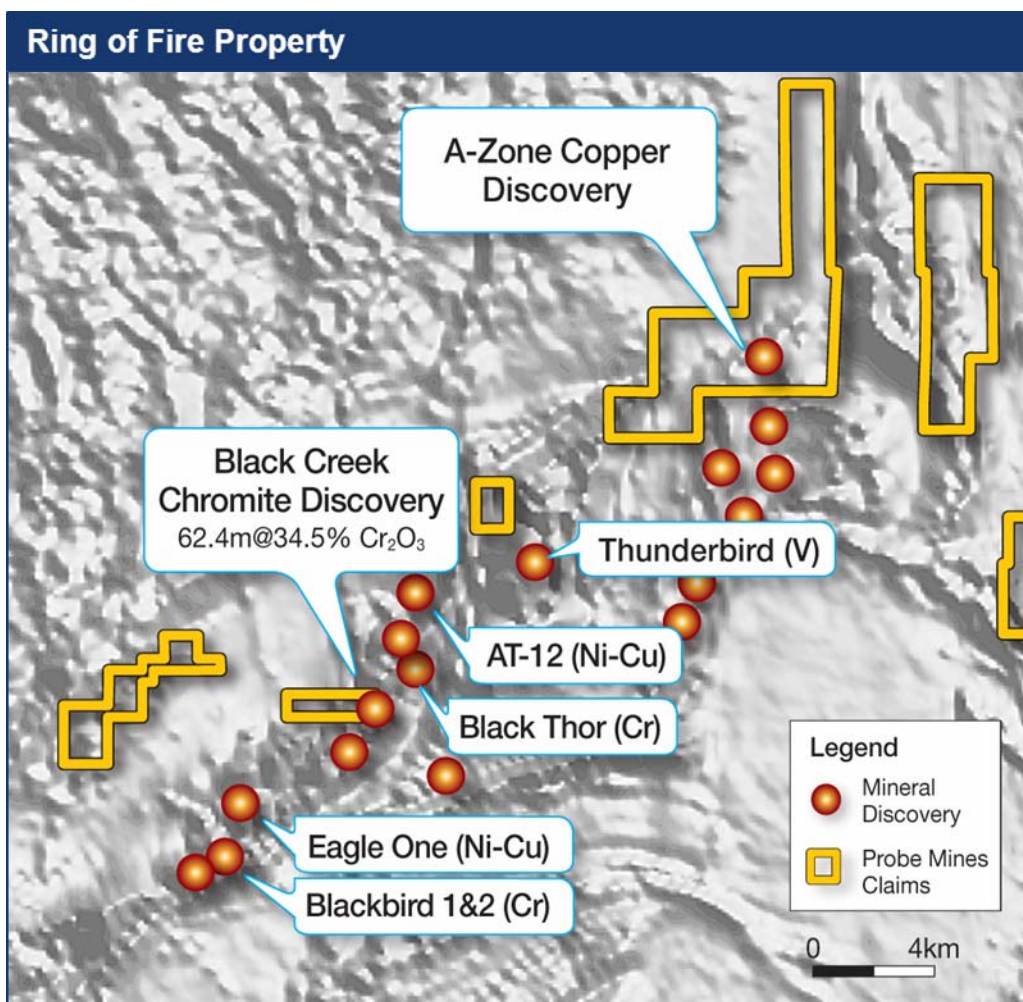


Blackbird 1 & 2 Resource Estimate (massive zones)				
Zone	Category	Tonnes x 10 ⁶	% Cr ₂ O ₃	Cr:Fe
BB2 (mass)	Measured (M)a	4.2	36.55	1.94
BB1 & BB2 (mass)	Indicated (I)	3.4	36.08	1.94
BB1 & BB2 (mass)	Total M&I	7.6	36.34	1.94
BB2 (mass)	Total Inferred	3.5	34.93	1.95

- Owned by Noront Resources (100%)

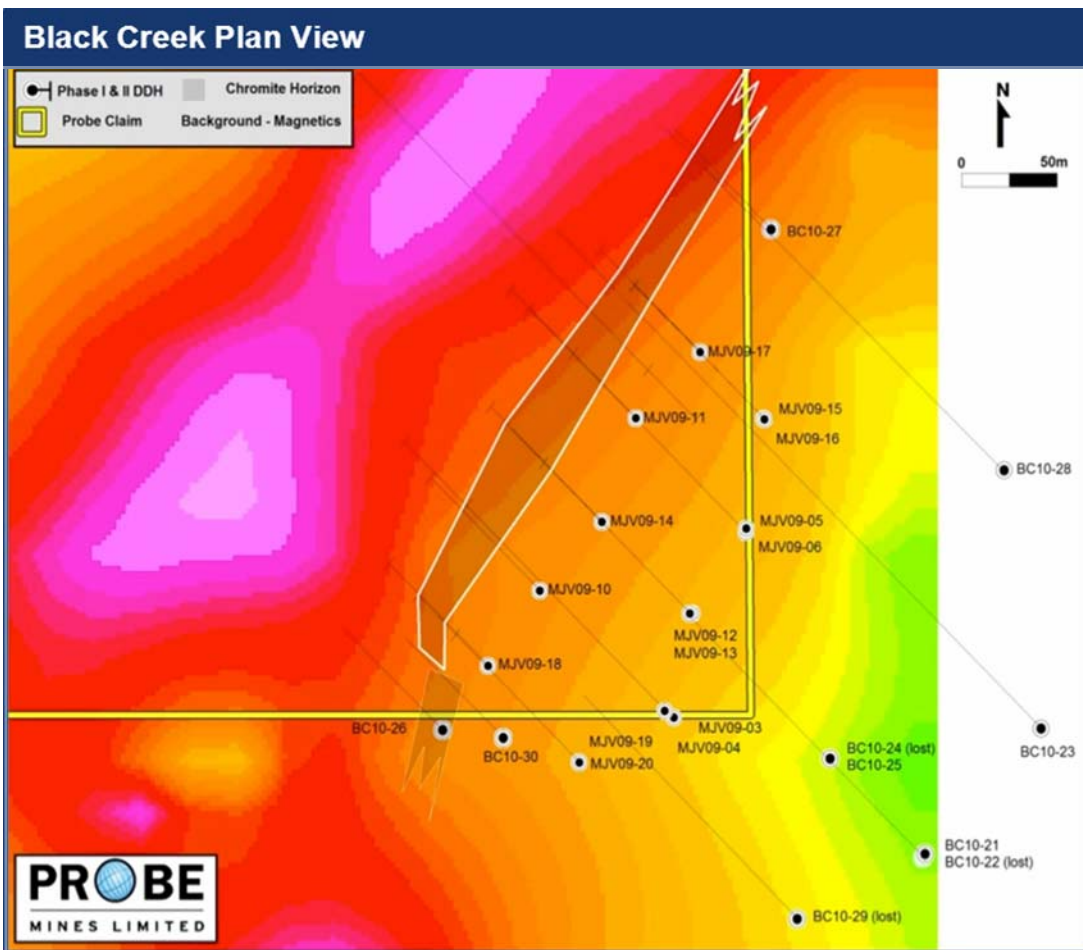
Black Creek Chromite Project

- Owned by PROBE MINES LIMITED (100%)

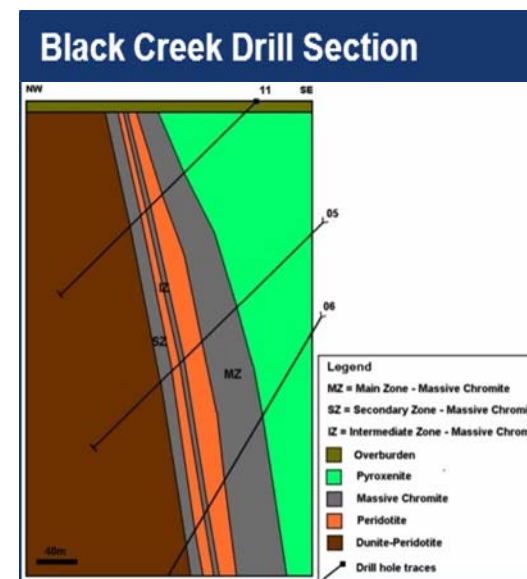


- Strategically located in the heart of the “Ring of Fire”
- 2009 drilling program resulted in discovery of high-grade “Black Creek” massive chromite zone
- Probe maintains 100% interest
- Updated NI 43-101-compliant resource estimate completed December 2010

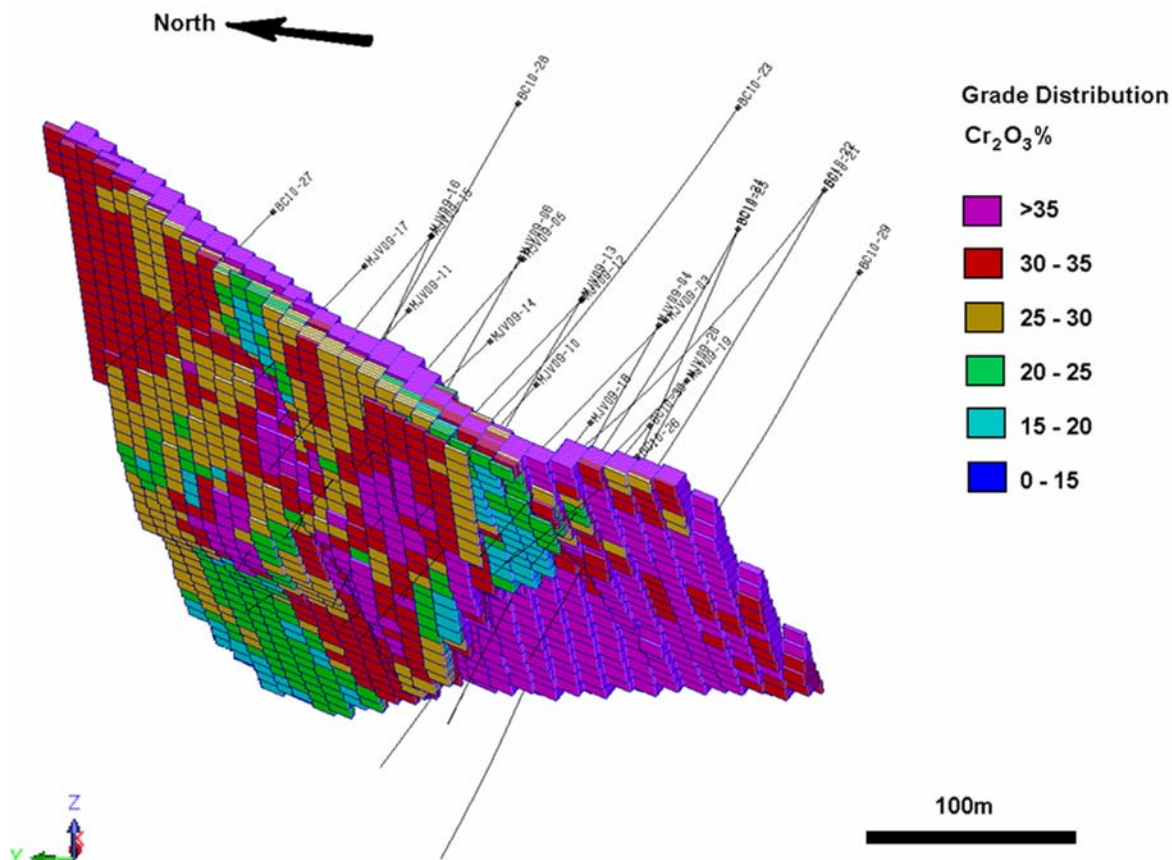
Black Creek Chromite Project



- Chromite horizon intersected under less than 4 m of overburden, open-pit potential
- 350 m strike length, average 40 m width, drilled to vertical depth of 350 m



Black Creek Block Model



Black Creek Banded Chromite Ore



2010 NI-43 101 Resource Estimate

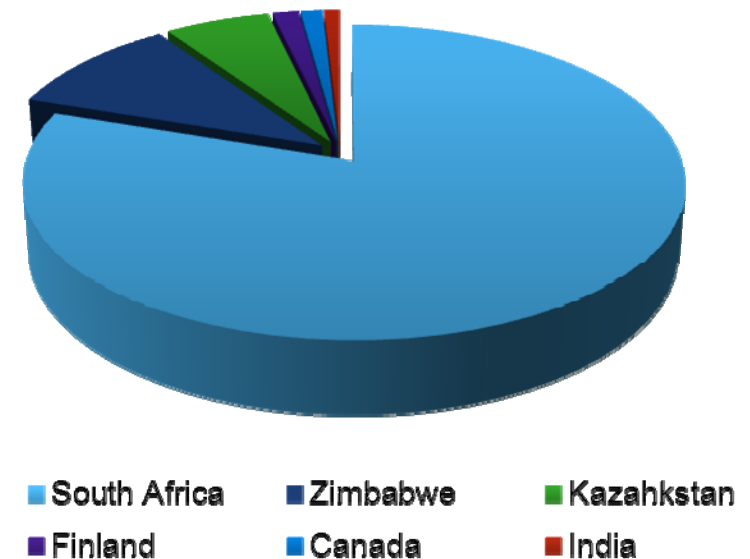
Category	T	Avg % Cr_2O_3	Cr:Fe Ratio
Measured (M)	5.256	37.00	1.8
Indicated (I)	3.389	38.04	1.8
Total M & I	8.645	37.41	1.8
Inferred	1.610	37.78	1.7

Ring of Fire Chromite

Canada has moved into the top five chromite resource countries in just three years, exclusively due to the Ring of Fire.

- **Black Thor**
(70Mt @ 32% Cr₂O₃ at 2:1 Cr:Fe)
- **Big Daddy**
(50Mt @ 38% Cr₂O₃ at 2:1 Cr:Fe)
- **Blackbird**
(15Mt @ 30% Cr₂O₃ at 2:1 Cr:Fe)
- **Black Creek**
(10Mt @ 38% Cr₂O₃ at 2:1 Cr:Fe)
- **Blackstone**
(undefined)
- **Black Label**
(undefined)

Global Chromite Resources



Source: <http://www.norontresources.com/Investors/getDocument/2011.03-NorontCorporatePresentation.pdf>

Ring of Fire Chromite Project

There is no significant North American source of high-grade chromite.

Key participants include:

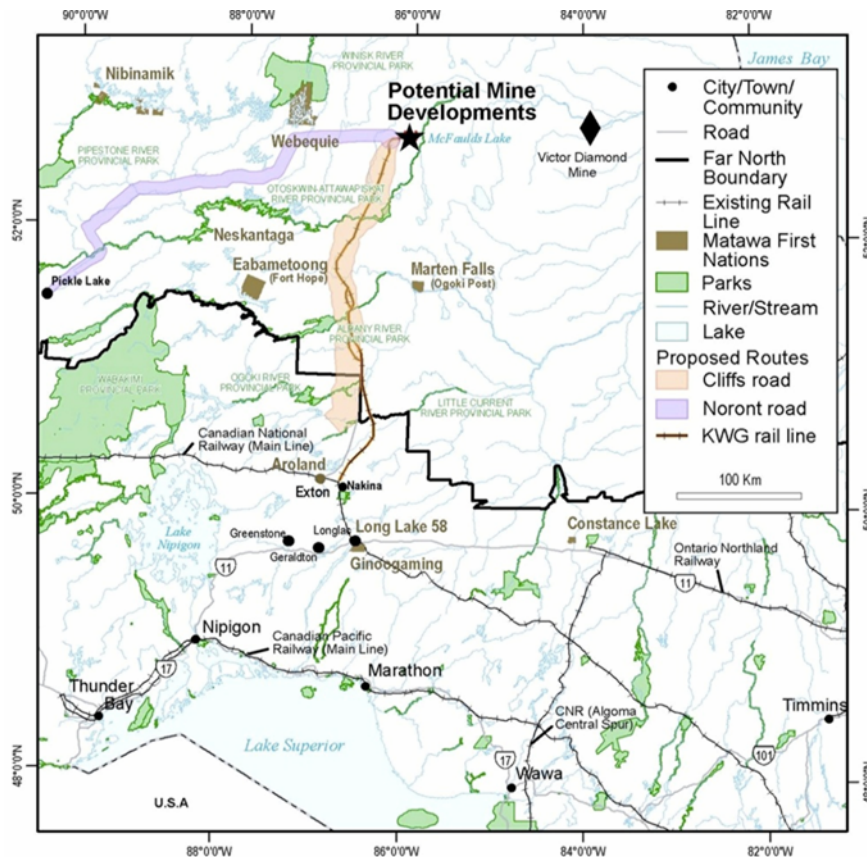
- Cliffs Natural Resources (chromite, road infrastructure)
- KWG Resources (chromite, railway corridor proposal)
- Probe Mines (chromite)
- Ontario Government (funding, permits, etc.)
- First Nations



Cliffs Natural Resources has committed substantial resources and is contemplating plans that include an open-pit/underground mine, ore processing facility, integrated transportation system and a ferrochrome production facility.

The Ontario Government has commenced a number of initiatives to facilitate project advancement and development.

Infrastructure – Transportation Options



- Cliffs Natural Resources has identified a permanent year-round road linking the mine site and the CN rail line at Nakina as a viable option
- Potential railway corridor identified by KWG Resources; geotechnical studies underway
- Proposal for an all-weather road connecting to the southwest by Noront Resources



Source: Ministry of Northern Development, Mines and Forestry

Infrastructure – Mining

Cliffs “Base Case” Mining Scenario for the Black Thor Deposit

- Two open pits (10–15 years)
- Ore – 6,000 to 12,000 tpd; waste – 65,000 tpd
- Northeast Pit – 1,500 m long, 300 to 700 m wide, 300 m deep
- Southwest Pit – 1,300 m long, 500 m wide, 200 m deep
- Transition to underground mining for the remaining life of the mine, estimated to be a further 15–20 years
- Underground mining method – blasthole stoping
- Underground production – 6,000 to 12,000 tpd
- Ore extracted from the mine with a grade of 40% Cr₂O₃ or greater is suitable for refining directly in the off-site ferrochrome production facility without any further treatment at the mine site. Ore with a lower grade must be processed to increase its chromite content.



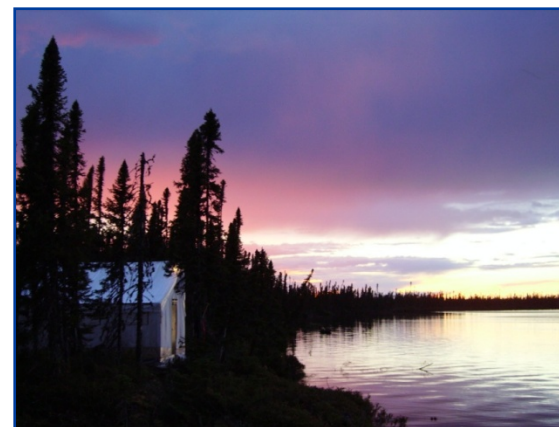
Timelines

The Ontario Government has established the Ring of Fire Secretariat to assist in development of the area.

Implementation Timelines – 2015/2016

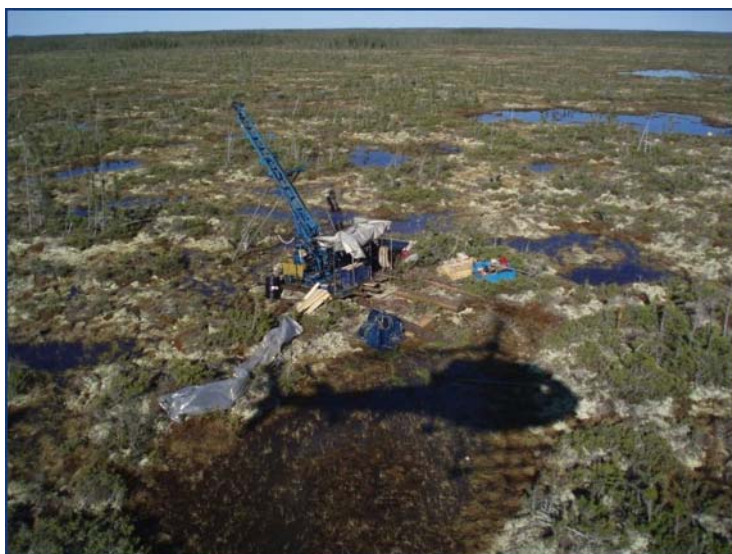
Timelines assume:

- Environmental approval and feasibility studies completed by the end of 2012/early 2013
- Production decision early to mid 2013
- Construction – mid 2013 to mid 2014
- Production late 2015/2016



Black Creek – What's Next?

- Probe is currently evaluating strategic options for the Black Creek Deposit
- 10Mt of high-grade, direct shipping ore with potential to expand deposit at depth
- Project represents good opportunity to participate in the Ring of Fire development



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