Champion Iron Announces Completion of Bloom Lake Mine Feasibility Study

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Montréal, Québec, Canada: Champion Iron Limited (ASX: CIA, TSX: CIA) ("Champion" or the "Company") is pleased to announce the results of the Feasibility Study for the Bloom Lake Iron Ore Mine ("Bloom Lake"), located near the town of Fermont, in north-eastern Quebec.

The Feasibility Study demonstrates that recommencing iron ore mining operations at Bloom Lake is financially viable and would be competitive in global iron ore markets with the potential to be one of the region's leading long-life iron ore mines. A production restart at Bloom Lake would be a major contributor to the provincial and national economy.

Champion Iron Chairman and CEO Mr Michael O'Keeffe said, "This is a major result for the Company. Based on conservative assumptions, the Feasibility Study demonstrates that the Bloom Lake Iron Ore Mine is clearly viable. In fact, very few iron ore projects offer the potential of 20+ years of production at industry-low operating costs, whilst being strategically located in close proximity to all necessary infrastructure and situated in what we consider to be a superior mining jurisdiction. I am confident that the Feasibility Study, and these attributes, will allow Champion Iron to secure investor support and funding as we bring the Bloom Lake mine back into full-scale production."

Highlights

(All quoted figures in CA$ unless stated otherwise)

- Net after-tax cash flow of $2.3 billion (including all forecasted CAPEX);
- After-tax net present value at 8% discount rate of $984 million and an internal rate of return of 33.3% after tax;
- Total revenue over life-of-mine of $15.1 billion;
- Total capital costs of $326.8 million including mine upgrade capital cost of $157.2 million;
- Mineral Reserves for the Bloom Lake Project are estimated at 411.7 million tonnes at an average grade of 30.0% Fe;
- Concentrate production averages 7.4 million tonnes per annum at an assumed steady state over the 21-year life-of-mine. The concentrate, at 66.2% Fe is obtained with an expected metallurgical recovery that averages 83.3% Fe relative to plant feed at the 30% Fe average feed grade;
- Plant and processing upgrades are expected to deliver improvements in Fe recovery. The upgraded recovery circuit flowsheet replaces the existing 3-stage spiral circuit with a new gravity circuit that limits the recirculating process streams and reduces the chance of losses of iron to the rougher stage tailings. The recovery of additional iron minerals will also be achieved by a magnetic scavenging circuit;
- Life-of-mine average operating cost of production of $44.62 per dry metric tonne, FOB Sept-Iles;
- Life-of-mine average iron ore price at 66.2% Fe CFR China (62% Fe index plus premium for extra Fe content) of US$78.40 provided by a market study by Metalytics, a specialist economics consultancy in the metals and mineral resources sector.

Summary of Economic Parameters and Feasibility Results

Mining Parameters	Reserve (Mt)	411.7
	Processed tonnage (Mtpa)	20.0
	Average Fe processing recovery (%)	83.3%
	Average mining dilution (%)	4.3%
	Average Recovered concentrate (Mtpa)	7.4
	Mine Life (years)	21 years
Cost Parameters	Initial CAPEX including Working Capital (CA$M)	326.8
	LOM CAPEX (CA$M)	329.5
	LOM OPEX (CA$/t of ore)	16.85
	LOM OPEX (CA$/t dry concentrate)	44.62
Revenue Parameters	Gross Revenue (CA$M)	15,116
	Shipping Costs (CA$M)	3,748
	Cash Operating Margin (CA$M)	4,432
	Operating Margin %	29.3%
	After Tax Net Cash-Flow (CA$M)	2,335
Iron Ore Price	LOM Av Iron Price at 66.2%Fe CFR China (US$/ton)	78.40

Parameters	Inflation	Nil
	Average Exchange Rate	0.79 US$:1.0 CA$
	NPV – 8% Pre-Tax (CA$M)	1,675
	IRR (pre-tax)	43.9%
Valuation	NPV – 8% After-Tax (CA$M)	984
Parameters	IRR (after-tax)	33.3%
	Pay-back (pre-tax) (years)	2.5
	Pay-back (after-tax) (years)	3.1

Mineral Resource and Reserve Estimates

The following table presents the mineral resource for the Bloom Lake Project estimated at a cut-off grade of 15% Fe, inside an optimized Whittle open pit shell based on a long-term iron price of USD $60/dmt concentrate for 66% Fe content. The Measured and Indicated mineral resource for the Bloom Lake Project is estimated at 911.6 Mt with an average grade of 29.7% Fe, and Inferred mineral resource at 80.4 Mt with an average grade of 25.6% Fe.

Mineral Resource Estimate for the Bloom Lake Project(notes 1-9)

Classification	Tonnage (dry)	Fe	CaO	Sat	MgO	Al_2O_3
	kt	%	%	%	%	%
Measured	439,700	31.0	0.6	3.0	0.7	0.3
Indicated	471,900	28.5	2.5	6.8	2.3	0.4
Total M&I	911,600	29.7	1.6	5.0	1.5	0.4
Inferred	80,400	25.6	1.9	7.9	1.7	0.3

Notes on Mineral Resources:

1. The mineral resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards for Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council May 10th, 2014.
2. The independent and qualified person for the 2016 Bloom Lake resource estimate, as defined by NI 43-101, is Réjean Sirois, P. Eng., from G Mining. The effective date of the estimate is November 15, 2016.
3. The mineral resources are estimated at a cut-off grade of 15% Fe.
4. The mineral resources are estimated using a long-term iron price of USD $60/dmt concentrate and an exchange rate of 1.30 CAD/USD.
5. The mineral resources are reported within an optimized Whittle open pit shell.
6. The average strip ratio is 0.97:1 (w:o).
7. “Sat” stands for Satmagan or Saturation Magnetization Analyser, an instrument which measures magnetite in mineralised material.
8. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserves.
9. The number of metric tonnes was rounded to the nearest hundred. Any discrepancies in the totals are due to rounding effects; rounding followed the recommendations in NI 43-101.

The Proven and Probable mineral reserve is estimated at 411.7 Mt at an average grade of 30.0% Fe based on a cut-off grade of 15% Fe. The mineral reserve was estimated using a long-term concentrate price of US$54/dmt for 66% Fe content and an exchange rate of 1.30 CA$/US$. The mineral reserve includes a 4.3% mining dilution at an average grade of 10.3% Fe. The average strip ratio of the open pit is 0.48.

Mineral Reserve Estimate (notes 1-8)

Classification	Diluted Ore Tonnage (dry)	Fe	CaO	Sat	MgO	Al_2O_3
	kt	%	%	%	%	%
Proven	264,160	30.73	0.48	2.98	0.56	0.32
Probable	147,554	28.71	2.84	6.68	2.72	0.40

Total P&P	411,713	30.01	1.33	4.30	1.33	0.35

Notes on Mineral Reserves:

1. CIM definitions were followed for mineral reserves.
2. Mineral reserves based on September 28, 2016 LIDAR survey
3. Mineral reserves are estimated at a cut-off grade of 15% Fe.
4. Mineral reserves are estimated using a long-term iron price reference price (Platt's 62%) of $50/dmt and an exchange rate of 1.30 CAD/USD. An Fe concentrate price adjustment of $4.00/dmt was added.
5. Bulk density of ore is variable but averages 3.63 t/m^3.
6. The average strip ratio is 0.48:1.
7. The mining dilution factor is 4.3%.
8. Numbers may not add due to rounding.

Updated Mine Plan

The restart of operations at Bloom Lake is based on different operating assumptions which include an upgrade to the concentrator plant and a mineral reserve and mining scenario updated for the current iron ore market.

The operation consists of a conventional surface mining method using an owner mining approach with electric hydraulic shovels and mine trucks. All major mine equipment required for the restart of Bloom Lake is present on-site as this equipment was among the assets purchased by the Company's subsidiary, Quebec Iron Ore Inc.

Updated Concentrator Plant

Quebec Iron Ore Inc. intends to use Bloom Lake's existing crushing and storage facilities, along with the mill and the rail load-out facilities to produce 7.4 Mtpa of concentrate, with an expected recovery of 83.3% from the ore mined from the main pit.

The proposed concentrator plant upgrade was developed to improve the overall iron recovery previously achieved by the existing concentrator when Bloom Lake was in production from 2010 until 2014. The specific goal was to improve the recovery of both the coarser (+425 microns) and fine (-106 microns) iron minerals, while having no adverse effect on the recovery of other size fractions.

The concentrator upgrade development was based on proven technology for Labrador Trough iron ore deposits.

Logistics

The mine already has operational processing facilities and rail loop infrastructure, with access to end markets via port and rail. The rail access consists of three separate segments. The first is the 31.9 km rail spur on-site that is operational and connects to the Quebec North Shore & Labrador (QNS&L) railway at the Wabush Mines facilities in Wabush, Labrador. The second segment uses the QNS&L railway between Wabush to the Arnaud junction in Sept-Iles. The third segment is from Arnaud to Pointe-Noire port facilities (Sept-Iles) where the concentrate will be unloaded, stockpiled and then loaded onto vessels for export.

Bloom Lake benefits from excellent access to power, water, roads, rail, ports and a highly professional mining labour market, as well as a government that continues to be supportive of new investment and mining.

Technical Report and Qualified Persons

A National Instrument 43-101 Technical Report ("Report") will be filed under the Company's profile on SEDAR within 45 days of the date of this news release. The Report will consist of a summary of the Feasibility Study. The Feasibility Study will also contain contributions from the following independent Qualified Persons:

- Louis-Pierre Gignac, P.Eng. – G Mining
- Rejean Sirois, P.Eng. – G Mining
- Etienne Bernier, P.Eng. – G Mining
- Stéphane Rivard, P.Eng. – Ausenco
- Robin Jones, P.Eng. – Ausenco
- Michel L. Bilodeau, P.Eng. – Ausenco
- Edward Hart, MAusIMM – Mineral Technologies
- Philippe Rio Roberge, P.Eng. – WSP Canada Inc.

Each of these Qualified Persons has reviewed and approved the technical information contained in this news release that is relevant to their area of responsibility and verified the data underlying such technical information.

About Bloom Lake

On April 11, 2016, the Company, through its subsidiary, Québec Iron Ore Inc., acquired the Bloom Lake assets from affiliates of Cliffs Natural Resources Inc. that were subject to restructuring proceedings under the Companies' Creditors Arrangement Act (Canada). Québec Iron Ore Inc. is 63.2% owned by the Company, with the remaining 36.8% equity interest owned by Ressources Québec, acting as a mandatory of the Government of Quebec.

The Bloom Lake property is located on the south end of the Labrador Trough, approximately 13 km north of Fermont, Quebec, and 10 km north of the Mount-Wright iron ore mining operation of ArcelorMittal Mines Canada. The Bloom Lake Mine is an open pit truck and shovel operation, with a concentrator. From the site, iron concentrate can be transported by rail, initially on the Bloom Lake Railway, to a ship loading port in Sept-Iles, Québec.

The Bloom Lake Mine has already been authorized for operation under the federal and provincial environmental authorities. The project was subject to an environmental impact assessment process under Section 31 of the Provincial Environment Quality Act, which led to the first decree issued by the Quebec government in 2008 authorizing mining activities at the Bloom Lake site.

An updated positive Feasibility Study on Bloom Lake is being completed and will be available under the Company's profile on SEDAR (www.sedar.com) within 45 days of the date of this news release.

About Champion

Champion is an iron development and exploration company, focused on developing its significant iron resources in the south end of the Labrador Trough in the province of Québec. Following the acquisition of its flagship asset, the Bloom Lake iron ore property, the Company's main focus is to implement upgrades to the mine and processing infrastructure it now owns while also advancing projects associated with improving access to global iron markets, including rail and port infrastructure initiatives with government and other key industry and community stakeholders.

Champion's management team includes professionals with mine development and operations expertise who also have vast experience from geotechnical work to green field development, brown field management including logistics development and financing of all stages in the mining industry.

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David Cataford, COO at Tel. +1 514-316-4858

For additional information on Champion Iron Limited, please visit our website at www.championiron.com.

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