NI 43-101 Technical Report

Joyce Lake DSO Iron Project

NewfoundLand & Labrador

Respectfully submitted to:
Labec Century Iron Inc. (Century)

Effective Date: April 18, 2013

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1 Summary

SGS Canada Inc. ("SGS Geostat") was given a mandate to prepare a NI 43-101 compliant Resource technical report on the Joyce Lake DSO Ion deposits on behalf of the client.

The author of this report is independent of Century Iron Ore Holding, Champion Iron Mines Limited and Labec Century Iron Ore Inc. The latter two companies jointly own the mineral claims on which the Joyce Lake iron deposit is located. The author is a "qualified person" according to the definition of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators.

Be advised that information in this report is strictly focused on the Joyce Lake DSO Iron project of the property.

The Joyce Lake DSO Project is part of the Attikamagen Project in which Century has joint ventures with WISCO and Champion Iron Mines Limited. The Attikamagen Project is located in the Province of Newfoundland and Labrador, 15 kilometres north-east of Schefferville, Québec. The mineral resource estimate was prepared by SGS Canada Inc. - SGS Geostat Group ("SGS") of Blainville, Québec

The Joyce Lake DSO deposit was confirmed by Century through ground gravity survey, surface geological mapping and sampling. A systematic reverse circulation drilling program was conducted at Joyce Lake in 2011-2012 which included 118 drill holes totaling 13,328 metres and covering an area of 1,100 metres along strike and 600 metres in width. With drill hole spacing of 50 x 50 metres at the central part of the deposit, the 2011-2012 drilling campaign delineated a high grade zone and tested the extension of the deposit along strike and depth, and provided a detailed information base for the resource estimate. The mineralization remains open to the south.

A summary of the mineral resource estimate, based on the drilling results from the 2011-2012 drilling program is presented in Table below. These results show 10 million tonnes of measured and indicated mineral resources at an average grade of 59.45% total Iron (TFe) plus an additional 5.6 million tonnes of inferred mineral resources, at cut-off grade of 50% TFe.

Mineral Resource Estimation Methodology and Geological Modeling

The Joyce Lake DSO Project is hosted in folded banded iron formations of the Proterozoic Sokoman Formation. The iron mineralization is stratabound, sedimentary in origin, and occurs within a synclinal structure plunging shallowly to the southeast.

The Joyce Lake DSO Project's drill hole database contains 120 drill holes. Most of the holes are drilled vertically except for core holes at -65. Assay coverage of Joyce Lake contains 3,854 assays intervals totaling 11738.9 metres. Joyce Lake holes were drilled in a 1.3 square kilometres zone. Most holes are located on the north-west portion of the property and separated by 50 metres NW-SW and around 50 metres NE-SW.

A series of quality control procedures including duplicates, standards and blanks were introduced. From 2011 to 2012 a total of 93 blanks, 164 duplicates and 170 standards were analyzed. Correlation coefficients have shown adequate correlation.

Century provided to SGS a three dimensional model for the main stratigraphic rock units of the Sokoman Formation as GEMS wireframes interpreted from the drilling data. Preparation of the DSO envelope, resource estimation parameters and construction of the block model has been completed by SGS. Because the deposit folds NW-SE and plunges SE, transverse sections were used rather than longitudinal sections. A total of 18 prisms were used with a spacing of about 50 metres.

SGS verified the data generated by Century before conducting its mineral resource estimate. The digital drill hole database supplied by Century was validated for the following fields: collar location, azimuth, dip, hole length, survey data and analytical values.

Block Model Definition

The block model coordinates are based on the local UTM grid. A total of 77 holes and 817 composited assay intervals totaling 2451 metres were used for the block models. The block model was defined by block measuring 5 metres long by 5 metres wide by 3 meters thick. The blocks were confined to the wireframe described above as well as a surface defining the base of overburden. The base of overburden was defined by a wireframe joining the base of drill hole casings across the area.

Limits of mineralized zones are interpreted on sections from drill hole assay information available on the sections. The cut-off used to delineate potentially mineralized material is generally 50% Iron applied to original (3 metres) assay intervals. Also to obtain the current iron deposit, the model may include some internal waste with a grade less than 50% Iron. The main iron deposit called DSO_LMH is located in the Lower Massive Hematite (LMH) lithological layer between the Upper Ruth Chert (URC) and the Lower Ruth Chert (LRC). Two other blocks models, DSO_UMH1 and DSO_UMH2, were created in Upper Massive Hematite Layer.

The mineral resource estimate was completed using three dimensional wireframe modeling of DSO followed by block model interpolation methodology.

Block model grade interpolation was conducted on composited assay data. A composite length of 3 meters was chosen to reflect the 3 meter RC sampling intervals used on the Joyce Lake deposit compositing was done on the entire RC drill holes. A total of 77 holes and 817 composited intervals totalling 2,451 meters were used for the block models.

Search ellipsoid parameters

Ellipsoid	Shape	X/Y/Z (m)	Min Composites	Max Composites	Limit/Sample/Hole
A	Saucer	75/60/5	3	10	3
B	Saucer	150/120/10	9	10	3
C	Sphere	150	3	10	3

Block Model Classification

As for estimation, the procedure was run in several passes with search conditions (size of search ellipsoid, minimum data in search ellipsoid) relaxed from one pass to the next until most blocks within the mineralized solid were interpolated. The orientation and size of ellipsoids as well as the min./max. numbers of data used in the ellipsoid are fixed to 9 composites. In this case, two ellipsoids and one sphere were used with fixed radii.

Classification parameters

Ellipsoid	Shape	X/Y/Z (m)	Min Composites	Limit/sample/Hole
A Measured	Saucer	75/60/5	**6**	3
B Indicated	Saucer	150/120/10	9	3
C Inferred	Sphere	150	3	3

The ellipsoids A and B have an elongated axis in meters with Azimuth of 135N dipping 25 degrees, the intermediate flat along 45N and the smaller is 315 dipping 65 degrees.

Joyce Lake (DSO) Iron Resources

Cut-Off 55% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	4,050,000	62.31	7.42	0.58	0.93
Indicated	3,500,000	60.82	9.28	0.60	1.06
M+I	7,550,000	61.62	8.29	0.59	0.99
Inferred	2,700,000	59.62	11.82	0.49	0.48

Cut-Off 50% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	5,050,000	60.44	10.21	0.58	0.88
Indicated	4,950,000	58.44	12.77	0.62	0.98
M+I	10,000,000	59.45	11.48	0.60	0.93
Inferred	5,600,000	55.78	17.50	0.47	0.46

No Cut-Off	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	6,600,000	57.07	15.40	0.56	0.70
Indicated	6,750,000	55.06	18.02	0.59	0.80
M+I	13,350,000	56.05	16.73	0.58	0.75
Inferred	11,100,000	50.36	25.42	0.46	0.42

Mineralized envelope and Iron Cut-off, SG 3.2, rounded numbers

The Joyce Lake DSO project and surrounding properties have a rich mining heritage. Recent drilling and 3D modeling has shown that the Direct Shipping Ore iron deposits located on the property have a predictable geometry and potential for tonnage additions, both within the known extents and extrapolations. All of the mineralized structures have been modeled for the first time providing a far better understanding of the geological context and interrelationship between structures.

The average grade for the resources as a whole is good, further testing in basic upgrading process of the iron rich material below cut-off could provide additional resources which could be tabulated as additional resources should upgrade testing proves positives.

About the risk, regarding the estimation of mineral resources on the technical side, it resides in the specific gravity used to convert volume to tonnage as the DSO material is extremely difficult to recover in- situ at depth under the water table. The market conditions for iron demand, permitting and rail road availability remains the other major risk associated with the project in its context.

In conclusion, the Joyce DSO resource project is a relatively new discovery showing that other DSO projects can be found in the surrounding of the Schefferville area and obviously they have not all been found by IOC in the past.

The author encourages the company to explore and develop the property as several geological and geophysical ingredients similar to the Joyce Lake DSO are present on other locations of the property which can increase the DSO resources of the project.

The main DSO body is outcropping and gently dips into the shallow depth Joyce Lake. Yet there are several thinner zones of higher grade material which come to surface. The authors feel that the next stage for the project should include another drill campaign designed to provide sufficient data to be fed into a Preliminary Economic Assessment (PEA). A study of this level of detail would enable Labec Century Iron to highlight the economic viability of developing Joyce Lake through a seasonal open pit operation. This would give the company and shareholders an appraisal of the project.

The next step for this project should comprise additional drilling into the main area and also focus on other targets within 150 meters depth from surface.

The author suggests the company to try the SONIC drilling technique for SG measurement at Joyce Lake if it is possible in terms of access and costs.

An additional small scale metallurgical study (≈200k$) should be undertaken to provide a more robust picture of the expected recovery of the different mineralization facies. Testing should focus on the DSO and basic process to upgrade the border line iron material not classified as DSO which has high silica content. A part of the testing should also aim at valuating or processing some iron rich material to reduce the Mn content.

The author is aware a PEA is already in progress and results have been disclosed prior to filling this report.

The total cost of the recommended next phase of work for the Joyce Lake Project is summarized in the following table.

Estimated total cost for the next recommended phase.

Component	Estimated Cost
Drill Campaign	2,000,000$
Metallurgical tests	200,000$
Elaboration of Preliminary Economic Assessment	250,000$
TOTAL	2,450,000$

Claude Duplessis P.Eng. April 18th 2013

2 Introduction

2.1 General

This technical report was prepared by SGS Canada Inc. – Geostat ("SGS Geostat") for Labec Century Iron Inc. (Century) to support the disclosure of mineral resources for Joyce Lake DSO Iron Ore Project (Property or Project). The report describes the basis and methodology used for modeling and estimation of the Joyce Lake Iron Ore Deposit located on the property from drill holes completed during 2010 to 2012 exploration programs. The report also presents a full review of the history, geology, sample preparation and analysis, and data verification of the project. The report also provides recommendations for future work.

SGS Geostat was commissioned by Century to prepare an independent estimate of the mineral resources of Joyce Lake Iron Ore Deposit. Labec Century Iron Ore Inc. supplied electronic format data from which SGS Geostat generated and validated a final database.

2.2 Terms of reference

This technical report was prepared according to guidelines set under "Form 43-101 F1 Technical Report" of National Instrument 43-101 Standards and Disclosure for Mineral Projects. The certificate of qualification for Qualified Person responsible for this technical report has been supplied to Century as a separate document and can also be found at the very end of the report.

Mr Duplessis visited the Property on September 26th and 27th of 2012, for a review of exploration methodology, RC drilling technique and sampling procedures

All measurements in this report are presented in "International System of Units" (SI) metric units, including metric tonnes (tonnes) or grams (g) for weight, metres (m) or kilometres (km) for distance, hectare (ha) for area, and cubic metres (m^3) for volume. All currency amounts are Canadian Dollars ($) unless otherwise stated. Abbreviations used in this report are listed in Table 2-1.

Table 2-1 - List of abbreviation

tonnes or t	Metric tonnes
kg	Kilograms
g	Grams
km	Kilometres
m	Metres
µm	Micrometres
ha	Hectares
m3	Cubic metres
km/h	Kilometre per hour
%	Percent sign
t/m3	Tonnes per cubic metre
$	Canadian Dollars
°	Degree
°C	Degree Celcius

2.3 Source of Information

Information in this report is based on critical review of the documents, information and maps provided by personnel of Labec Century Iron Ore Inc. A complete list of the reports available to the authors is found in the References section of this report. Drilling data was primarily obtained from Century and validated against information obtained during the field visit and directly from the analytical laboratory. Historic work was largely summarized from the previous technical report prepared for Century for Attikamagen Project. The authors would like to thank the Century technical team for their collaboration.

3 Reliance on Other Experts

The author does not rely on other experts for the statement of DSO resources at Joyce Lake.

4 Property Description and Location

The Joyce Lake property is located in the western part of the Labrador Trough iron range and about 1,200 km northeast of Montreal and 20 km north east of the town of Schefferville (Figure 1 & Figure 2). There are no roads connecting this area to western Labrador or elsewhere in Quebec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montreal and Sept-Îles.

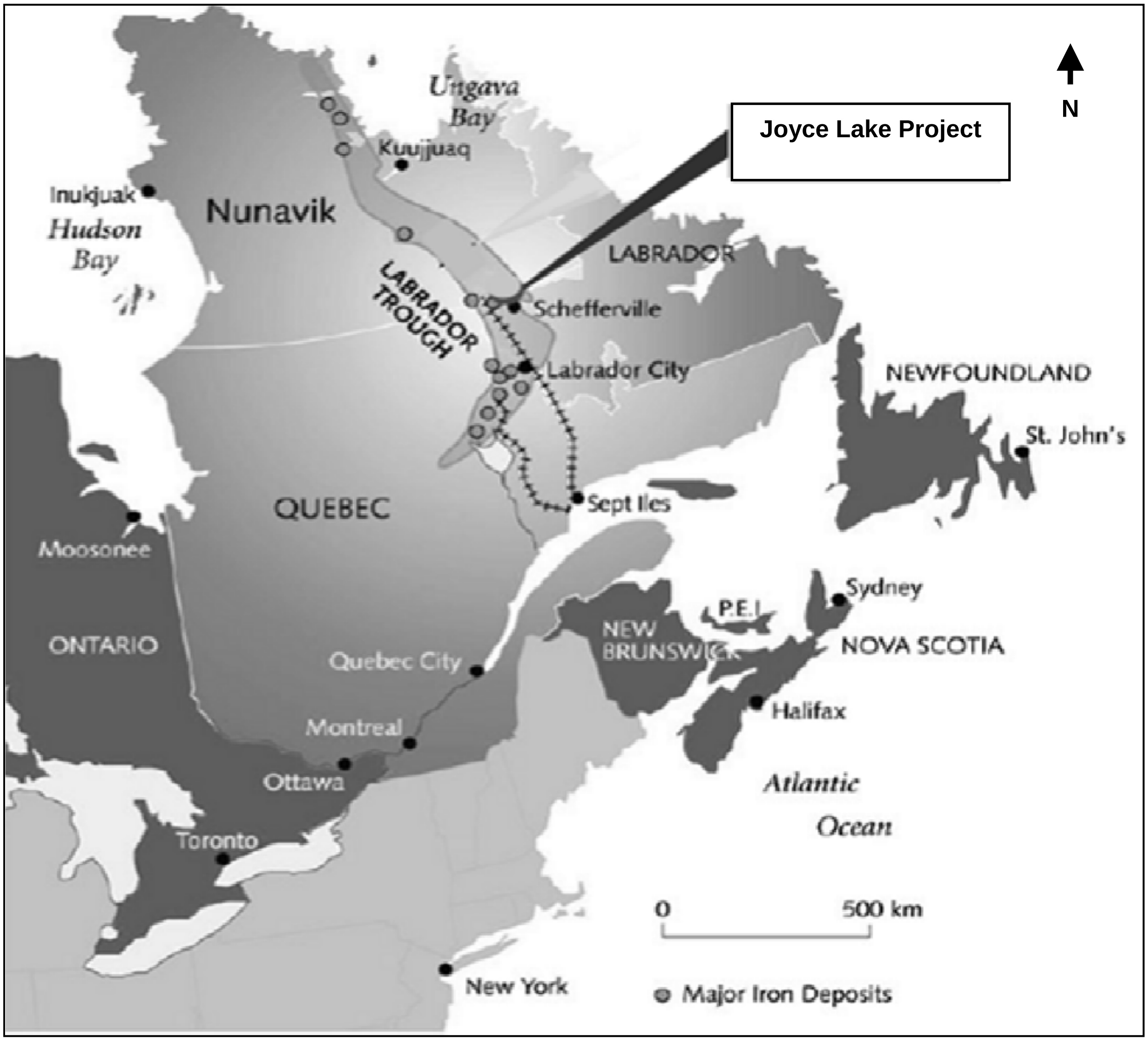


Figure 1 - Localisation of project area.

The Labrador Trough otherwise known as the Labrador-Quebec Fold Belt extends for more than 1,000 km along the eastern margin of the Superior craton from Ungava Bay to Lake Pletipi, Quebec. The belt is about 100 km wide in its central part and narrows considerably to the north and south.

The property is divided in 4 licenses owned by Labec Century Iron Ore Inc. (56%) and Champion Minerals Inc. (44%) for a total of 564 claims the Table 4-1 summarizes that a total of $7,071,262 has been expended on the Joyce Lake claims, and breaks these expenses down by claim.

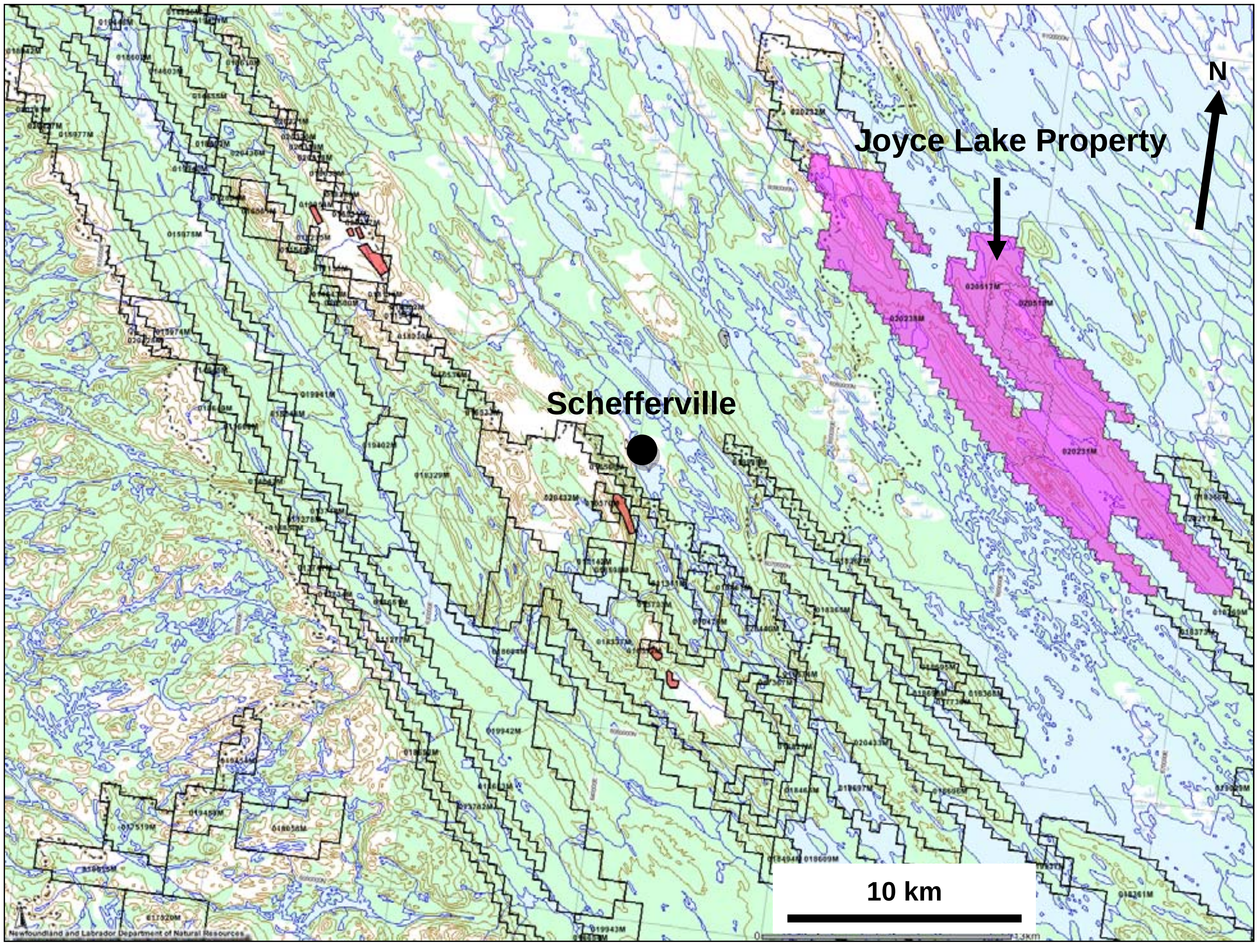


Figure 2 - Joyce Lake property in pink (From Newfoundland and Labrador Department of Natural Resources).

Table 4-2 - Exploration expenses for renewal. The Table 4-2 indicates the additional required expenses to keep these mineral claims in good standing.

Table 4-1 - Joyce Lake project claim status.

License	Client	Location	Claims	Stake Date	Work Due	Total Exp
020517M	Labec Century Iron Ore Inc. 56% Champion Minerals Inc. 44%	Hollinger Lake	51	18/09/2012	17/12/2014	**$75,362.71**
020238M	Labec Century Iron Ore Inc. 56% Champion Minerals Inc. 44%	Hollinger Lake	253	-	06/01/2014	**$7,925,944.84**
020231M	Labec Century Iron Ore Inc. 56% Champion Minerals Inc. 44%	Hollinger Lake	256	-	06/01/2014	**$5,363,255.47**
020518M	Labec Century Iron Ore Inc. 56% Champion Minerals Inc. 44%	Hollinger Lake	4	18/09/2012	17/12/2014	**$5,910.80**

Table 4-2 - Exploration expenses for renewal.

Work Reports License 020517M	$10,200 to be expended on this license by 2013/10/18
Work Reports License 020231M	$307,200 to be expended on this license by 2021/11/07
Work Reports License 020238M	$303,600 to be expended on this license by 2021/11/07
Work Reports License 020518M	$800 to be expended on this license by 2013/10/18

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Joyce lake is in a peninsular, inside of Attikamagan lake, with lake about 900 – 1200 m wide, separate the Joyce Lake peninsular and Iron Arm range. There is a gravel road connecting the Schefferville to Iron Arm Camp, where many locals have their seasonal cabins along the Iron Arm range. There are no roads connect the Iron Arm Camp to Joyce Lake property, so only helicopter or floatplane can access Joyce Lake at Summer time, or using skidoos to cross lake and bushes at winter time.

5.2 Climate

The Schefferville area has a subarctic continental taiga climate with very harsh winters. Daily average temperatures exceed 0°C for only five months a year. Daily mean temperatures for Schefferville average -24.1°C and -22.6°C in January and February respectively. Mean daily average temperatures in July and August are 12.4°C and 11.2°C, respectively. Snowfall in November, December and January generally exceeds 50 cm per month and the wettest summer month is July with an average rainfall of 106.8 mm.

Exploration work in the area can typically be carried out year-round, however RC drilling and trenching programs are typically preferred during the months of May to November. Mine development operations can be carried out year-round as well, as illustrated by other operators in the area. Operations during extreme cold conditions will stop intermittently.

5.3 Local Resources

It is assumed that the majority of the workforce would potentially come from the province of Newfoundland and Labrador and employees will also be recruited from the Quebec communities close to the project site.

5.4 Infrastructure

The town of Schefferville has a Fire Department with mainly volunteer firemen, a fire station and firefighting equipment. The “Sûreté Du Québec” Police Force is present in the town of Schefferville and the Matimekush-Lac John reserve. A clinic is present in Schefferville with limited medical care. A municipal garage, small motor repair shops, a local hardware store, a mechanical shop, and a local convenient store, 2 hotels, numerous outfitters accommodations are also present in Schefferville.

A modern airport includes a 2,000 metre paved runway and navigational aids for passenger jet aircraft. Air service is provided three times per week, to and from Wabush, Labrador, with less frequent service to Montreal or Quebec City, via Sept-Îles.

The Menihek power plant is located 35 km southeast of Schefferville. The hydro power plant was built to support iron ore mining and services in Schefferville. Back-up diesel generators are also present.

5.5 The Railroad

Schefferville is accessible by train from Sept-Îles. The Quebec North Shore & Labrador Railway ("QNS&L") was established by IOC to haul iron ore from Schefferville area mines to Sept-Îles; a distance of 468 km starting in 1954. After shipping some 150 million tons of iron ore from the area, the mining operation was closed in 1982, and, QNS&L maintained a passenger and freight service between Sept-Îles, Labrador City and Schefferville till 2005. In 2005 IOC sold the 208 km section of the railway between Emeril Yard at Ross Bay Junction and Schefferville (the Menihek Division) to Tshiuetin Rail Transportation Inc. (TSH), a company owned by three Quebec First Nations. The mandate of TSH is to maintain the passenger and light freight traffic between Sept-Îles and Schefferville. Train departures from Sept-Îles and Schefferville occur three times a week.

Five railway companies operate in the region;

- TSH which runs passengers and freight from Schefferville to Ross Bay Junction;
- QNS&L hauling iron concentrates and pellets from Labrador City/Wabush area via Ross Bay Junction to Sept-Îles;
- Bloom Lake Railway hauling ore from the CML mine to Wabush;
- Arnault Railways hauling iron ore for Wabush Mines ("Wabush") and Consolidated Thompson Limited ("CLM") between Arnault Junction and Pointe Noire;
- CRC hauls iron concentrates from Fermont area to Port-Cartier for Quebec Cartier Mining Company.

The latter railway is not connected to TSH, QNS&L, Bloom Lake or Arnault.

5.6 Physiography

The topography of the Schefferville mining district is bedrock controlled with the average elevation of the properties varying between 500m and 700m above sea level. The terrain is generally gently rolling to flat, sloping north-westerly, with a total relief of approximately 50 to 100 m. In the main mining district, the topography consists of a series of NW-SE trending ridges while the Astray Lake and Sawyer Lake areas are within the Labrador Lake Plateau. Topographic highs in the area are normally formed by more resistant quartzites, cherts and silicified horizons of the iron formation itself. Lows are commonly underlain by softer siltstones and shales.

Generally, the area slopes gently west to northeast away from the land representing the Quebec – Labrador border and towards the Howells River valley parallel to the dip of the deposits. The finger-shaped area of Labrador that encloses the Howells River, drains southwards into the Hamilton River watershed and from there into the Atlantic Ocean. Streams to the east and west flow into the Kaniapiskau watershed, which flows north into Ungava Bay.

The mining district is within a "zone of erosion" such that the last period of glaciation has eroded away any pre-existing soil/overburden cover; furthermore the zone of deposition of these sediments is well away from the area of interest. Glaciation ended in the area as little as 10,000 years ago and there is very little subsequent soil development. Vegetation commonly grows directly on glacial sediments and the landscape consists of bedrock, a thin veneer of till as well as lakes and bogs.

The thin veneer of till in the area is composed of both glacial and glacial fluvial sediments. Tills deposited during the early phases of glaciations were strongly affected by later sub glacial melt waters during glacial retreat. Commonly, the composition of till is sandy gravel with lesser silty clay, mostly preserved in topographic lows. Glacial melt water channels are preserved in the sides of ridges both north and south of Schefferville. Glacial ice flow in the area has been recorded as an early major NW to SE flow and a later less pronounced SW to NE flow. The early phase was along strike with the major geological features and the final episode was against the topography. The later NE flow becomes more pronounced towards the southern end of the district near Astray Lake or Dyke Lake.

5.1 First Nations Social context

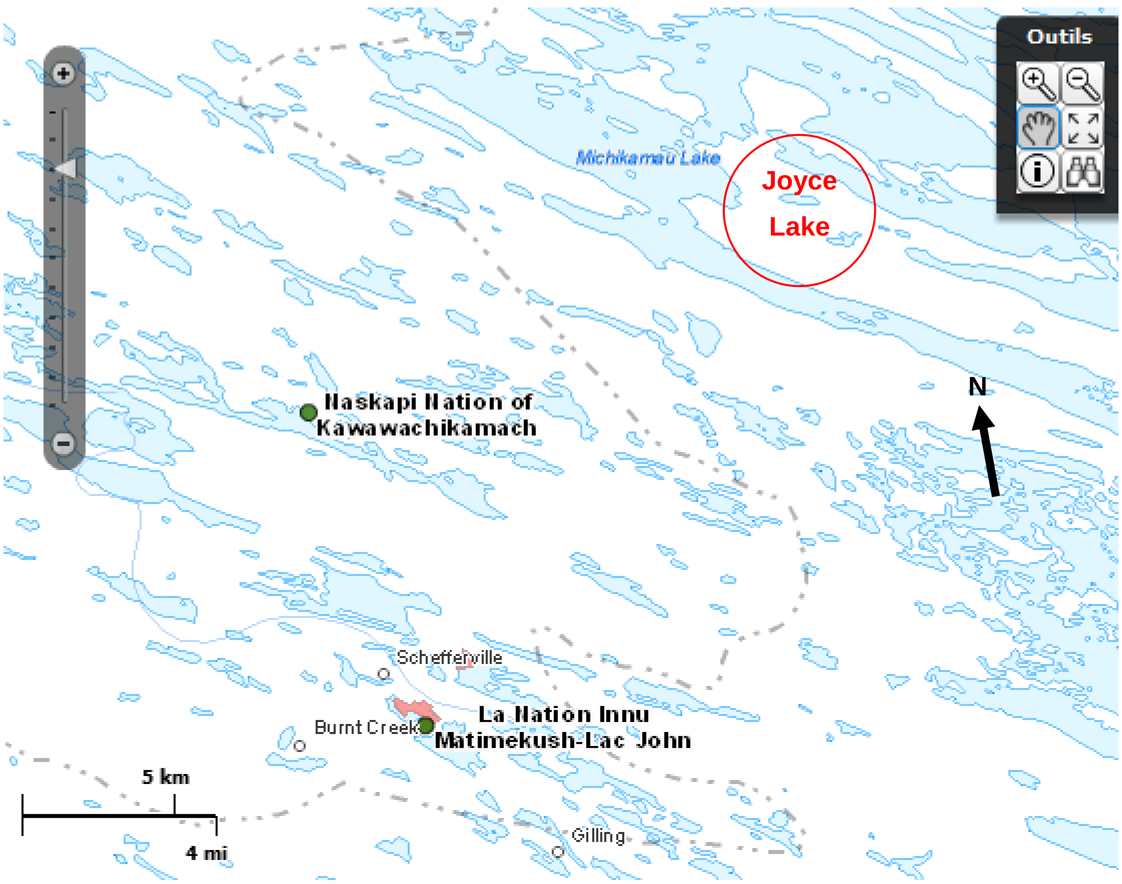


Figure 3 - First nation location (From Aboriginal Affairs and Northern Development Canada)

5.1.1 The Naskapi Nation

The Naskapi Nation of Kawawachikamach is located 16 km northeast of the Town of Schefferville on the Québec-Labrador border, and has a population of approximately 718 registered members. The village itself is situated on approximately 41 square miles of Category IA-N land and covers an area of approximately 40 acres. There is ample room for expansion, whether for residential, commercial, or industrial purposes.

The vast majority of the residents of Kawawachikamach are Naskapi. Naskapi is the principal language, and it is spoken by all Naskapis and written by many. English is the second language, although many persons also speak some French. The Naskapis still preserve many aspects of their traditional way of life and culture. Like many northern communities, the Naskapis rely on subsistence hunting, fishing, and trapping for a large part of their food supply, and for many raw materials. Harvesting is at the heart of Naskapi spirituality.

5.1.2 The Innu Nations

There are two Innu reserves on the outskirts of Schefferville: Matimekush and Lac John. Both are located in the North Shore Administrative Region, in the Regional County Municipality of Caniapiscau. The Matimekush Reserve is adjacent to lac Pearce, while the Lac John Reserve is some 4 km east of Schefferville.The Lac John and the Matimekush reserves were established in 1960 and 1968 respectively, following the transfer of the land on which they were relocated by the Government of Québec to the Government of Canada. After the closing of the Schefferville mines, in 1982, and the departure of most of the non-Native residents, in May 1998 the Governor in Council expanded the area of the Matimekush Reserve from 14.8 to 70.9 hectares. The Lac John Reserve covers 23.3 hectares.

The Innu of Schefferville designate themselves by the name “Naplekinnuat”, that is, the “Innu of Knob Lake”. The expression “Schefferville Innuat” is also used. The Elders still identify themselves as “Mishta Shipu Innuat”, or '”Innu of the Great River”, i.e., the Moisie River. The Mishta Shipu Innuat is a sub-group of the Uashau-innuat of Sept-Îles.

The Nation Innu Matimekush-Lac John had 838 members in January 2009, 718 of whom lived on the two local reserves. Based on the 2006 Census, approximately 40% of the population was under 20 years of age.

6 History

(From 1937 – 2007) Extract of: MRB & associates geological consultants NI-43-101 technical report, the Attikamagen iron property, western Labrador, Newfoundland and Labrador by John Langton, M. Sc., P. Geo. Doug Clark, P. Geo. April 8, 2009 (Amended September 24, 2009)

Labrador Mining and Exploration ("LM&E") discovered iron formation in 1937 and explored the area between Petitsikapau and Iron Arm from 1937 to 1939. Work by B.C. Freeman and another project by J.A. Retty consisted of 1:4,800 scale surfaces mapping and sampling. A limited control grid was established to provide a systematic framework for subsequent chip sampling across the iron-rich rocks. This sampling included the metallic iron formation (unleached iron formation beds), as well as the lean chert and chert/jasper horizons.

LM&E returned to the Property in 1942-1943. A.E Moss compiled data from other workers and produced detailed maps at 1:4,800 scale. He reports that "*several prospecting teams (have) examined much of the area...and a great many specimens have also been collected*". During this time two bulk samples were obtained and submitted to the American Cynamid Co. to determine the amenability of the ore to beneficiation. "*The results were that the intimate association of the silica and iron prevented any of the siliceous ores of the area from being amenable to the large scale methods of beneficiation which were being employed at that time in the Lake Superior region*". It was noted, however, that "*tremendous tonnages of these siliceous ores are available in the area and may become of commercial value with the improvement of beneficiation methods*" (Retty, 1945). Analysis of Sample "A" gave 45.9% Fe and 20.2% SiO_2. Sample "B" contained 41.1% Fe and 34% SiO_2. In reference to the metallurgical test work there were very few details of the testing procedure employed. It is significant to note that metallurgical test work at that time typically involved the grinding of samples to 100 mesh - 200 mesh. Today, prospective iron samples are ground as fine as 325 mesh to achieve acceptable liberation of gangue minerals.

In 1951, a geological mapping project was conducted west of Attikamagen Iron by L.C.N. Burgess working for the Iron Ore Company of Canada ("IOC"). This program focused on the area between Attikamagen and Schefferville. The iron formation on the finger of land between Iron Arm and Petitsikapau Lake was also examined. In 1952, a regional survey by T.N. Walthier of IOC examined 100km of iron formation in the areas around Iron Arm, Dyke Lake and Snelgrove Lake (54°35'N, 64°50'W). He reports a small number of analytical results from hand samples and chip samples.

In 1953, IOC evaluated the area north of Attikamagen Lake. R. Girardin led a five-man field party. LM&E examined the Attikamagen area in 1961 as reported by R.A. Crouse. Work consisted of 31 magnetometer lines totalling 24 km over mainly drift-covered areas to delineate the iron formation. Seventy grab samples and one bulk sample were collected and analyzed.

In 1978, J.B. Stubbins did geological reconnaissance mapping and sampling for LM&E in the Lac Sans Chef and Joyce Lake areas. Locations and analytical results of 15 iron formation samples were reported. Forty-eight lake sediment samples were collected near the shores of Iron Arm by J.M. Grant in the same year. The locations and analytical results of 16 samples were reported.

In 1979, LM&E drilled one diamond drill hole at the northern end of the deposit. This 6 m hole was logged by J.M. Grant as cherty metallic iron formation and had an estimated iron content of 25% to 30%. A regional airborne geophysical survey was conducted over parts of the Labrador Trough by Scintrex Ltd. for LM&E in 1980. Instruments used included a GAD-6 scintillometer, an HEM-802 electromagnetic instrument and a MAP-4 proton precision magnetometer (Grant, 1980). The results of the survey indicated seven high U/Th ratios mostly over the slates. The magnetic intensity ranged from a background of 57,000 gammas to as high as 65,000 gammas over the iron formation. Many conductive horizons were recorded over the Menihek, Attikamagen (Le Fer Formation) and Dolly Slate Formation. This was thought to represent an increase in magnetite content.

Also in 1980, LM&E contracted Scintrex to fly an airborne geophysical survey consisting of 328 line kilometres over the Attikamagen Iron area. The airborne survey was focused on possible base metal mineralization not iron ore. Work continued in the area in 1981 with an induced polarization (“IP”) survey conducted by Phoenix Geophysics Ltd. The intent of this work was to follow up on previously outlined anomalies resistivity and IP anomalies. Limited ground spectrometer surveys indicated identified a low-level uranium anomaly on the Property. No boulders or outcrops were found that would have accounted for these readings.

In 1982, IOC closed its mining operations in the Schefferville area and exploration activity ceased. However, with the recent sharp increase in iron prices on the world market, iron mineralization in the area is again being actively evaluated. Since 2003, New Millennium (TSXV: NML) has been exploring the LabMag and KéMag Taconite Deposits (3,665,000,000 tonnes grading 26.4% Fe and 2,141,000,000 tonnes grading 27.0% Fe, respectively) west and north of Schefferville, Quebec. These deposits host lithologically similar Sokoman Formation iron-rich rocks. New Millennium is considering constructing the world’s largest pelletizing plant and transporting concentrate via a slurry pipeline.

In 2007, Champion conducted an airborne magnetic, gamma-ray and VLF-EM (very-low-frequency-electromagnetic) geophysical survey on the Property, as well as a preliminary surface-mapping and a reconnaissance sampling program to provide ground reference samples for correlation with the geophysical data. In May 2008, the property was optioned to Labec Century Iron Inc.

In early 2010, the ground gravity survey provided crucial information leading to the drilling programs of 2010 and 2011. Gravity profiles were carried out on Joyce Lake Area. Strong gravity highs were systematically associated with strong magnetic anomalies, indicative of magnetite. Potential DSO targets were identified in each of the investigate area.

7 Geological Setting and Mineralization

7.1 Regional geology

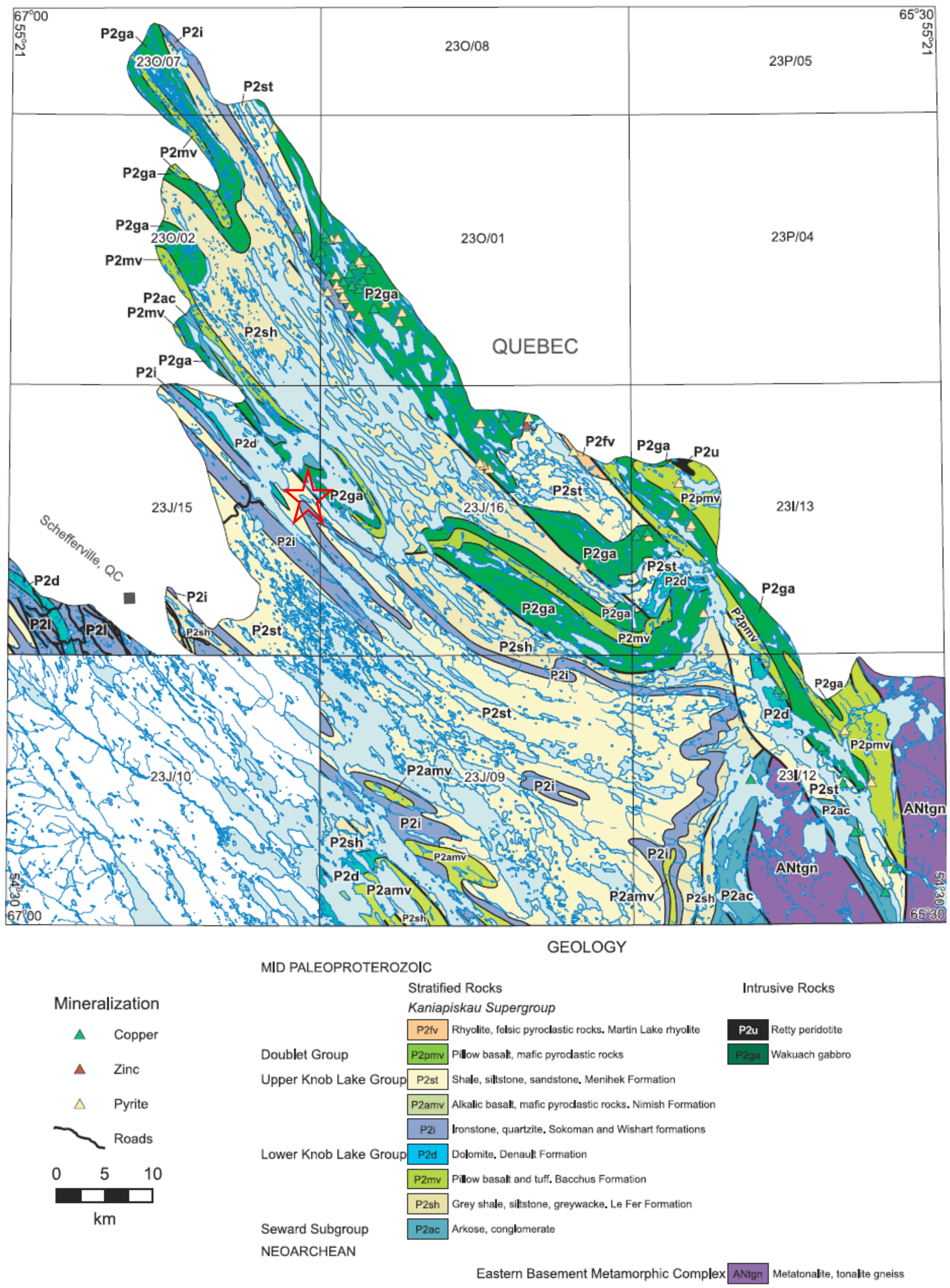


Figure 4 - Geology of Schefferville area from Newfoundland Labrador Natural Resources

The Iron Arm - Attikamagen Lake area is located northeast of Schefferville, Quebec, and is part of the much larger area which includes the Schefferville Mining District. The area is underlain chiefly by rocks that form the western, miogeosynclinal part of the Labrador Trough (Figure 3) in the Churchill Province of the Canadian Shield. These rocks are mainly sedimentary strata of early Proterozoic (Aphebian) age.

To the west (Howells River area) these sediments lie in unconformity on the Archean gneisses of the basement complex and to the east they pass into the eugeosynclinal facies of the Labrador Trough. The sedimentary sequence is referred to as the Knob Lake Group (Kaniapiskau Supergroup) and in the central Labrador Trough it consists of the following members (ascending order):

Seward Subgroup (of Wardle, 1982) consisting of the Discovery Lake, Snelgrove Lake and Sawyer Lake Formations; Attikamagen Subgroup (of Wardle, 1982) which consists of the Le Fer, Denault, Dolly and Fleming Formations; and Ferriman Subgroup (of Wardle, 1982) which consists of the Wishart, Sokoman, Nimish (a local time equivalent unit to the Sokoman cherty iron formation), and Menihek Formations.

The Kaniapiskau Supergroup has been intruded by numerous diabase dykes known as the Montagnais Intrusive Suite. These dykes along with the Nimish volcanics (greenstones) are the only rock types representing igneous activity in the western part of the central Labrador Trough.

Harrison et al. (1972) divided the area structurally into three zones:

- a western marginal zone (Howells River area),
- a zone of close spaced folds and thrust faults (Schefferville Mining District),
- an eastern zone of more widely spaced folds and faults.

The Iron Arm - Attikamagen Lake area is within the Eastern Zone and lies on the eastern limb of the Petitsikapau Synclinorium, a major structural feature in the central part of this zone.

The Eastern Zone as defined by Harrison et al. (1972) lies to the northeast of the Knob Lake thrust fault and extends to the Iron Arm - Attikamagen Lake area.

According to Harrison et al. (1972), it is believed to be underlain by strata of the Attikamagen (i.e., Le Fer Formation of Wardle, 1982), Denault, Dolly, Wishart, Ruth, Sokoman and Menihek Formations.

Apart from the Knob Lake fault, only one other major thrust fault was defined by Harrison et al. (1972) in this area. This fault lies about 3.2 km (2 mi.) east of the Knob Lake fault and brings strata of the Denault against the Sokoman Formation. The fault has a stratigraphic throw of several thousand metres. A number of straight lineaments in the broad belt underlain by Menihek slatey rocks northeast of this fault have been interpreted as thrust faults. The displacement on these faults is unknown.

Open to tightly closed folds with axial planes dipping about 80 degrees to the northeast are believed to be the characteristic fold pattern of the competent units of the zone (Harrison et al., 1972).

The Menihek slates are intersected by a pronounced axial cleavage plane which dips 80 degrees to the northeast. The Menihek strata may be much more complexly deformed than the underlying, stronger layers (Harrison et al., 1972).

Harrison et al. (1972) stated that the rather abrupt change in the style of deformation east of the Knob Lake fault is attributed to stratigraphic factors. Probably the development of an intricate pattern of faults and folds in the Eastern Zone was inhibited by the greater thickness of strata. This increased thickness is due to the appearance of the Dolly Formation and to an increase in the thickness of the Denault Formation.

Burgess, summarized the local structure in the Attikamagen area as being simple, consisting of gently plunging linear folds which strike in a northwest direction. More complex structures occur west of Lac Sans Chef and in the vicinity of Joyce Lake. In both cases, faulting accompanies the folding and in the area west of Lac Sans Chef, there are numerous folds, which die out in a matter of thousands of metres.

According to Burgess (1951), around Joyce Lake, the structural picture is a confused one. The syncline is not a simple one for it seems quite certain that there are second magnitude folds which account for the distribution of the lenses of Wishart and Attikamagen (Dolly Formation of Harrison et al., 1972). On the east limb of the syncline there is iron formation faulted up between the Wishart and Dolly Formations. There is considerable doubt concerning the interpreted extensions of these two faults.

7.2 Local Geology

7.2.1 Geology of Schefferville Area

The sedimentary sequence of the Knob Lake Group consists of two sedimentary cycles (Figure 6).

- **Cycle 1** (the Attikamagen Subgroup of Wardle. 1982) is a marine shelf succession comprising the Le Fer, Denault, Dolly, and Fleming Formations.

- **Cycle 2** (the Ferriman Subgroup of Wardle, 1982) represents deposition in a deeper water slope-rise environment. It begins with a transgressive quartz arenite, Wishart Formation, followed by shale and iron-formation of the Sokoman Formation and conformably overlain by the Menihek Formation.

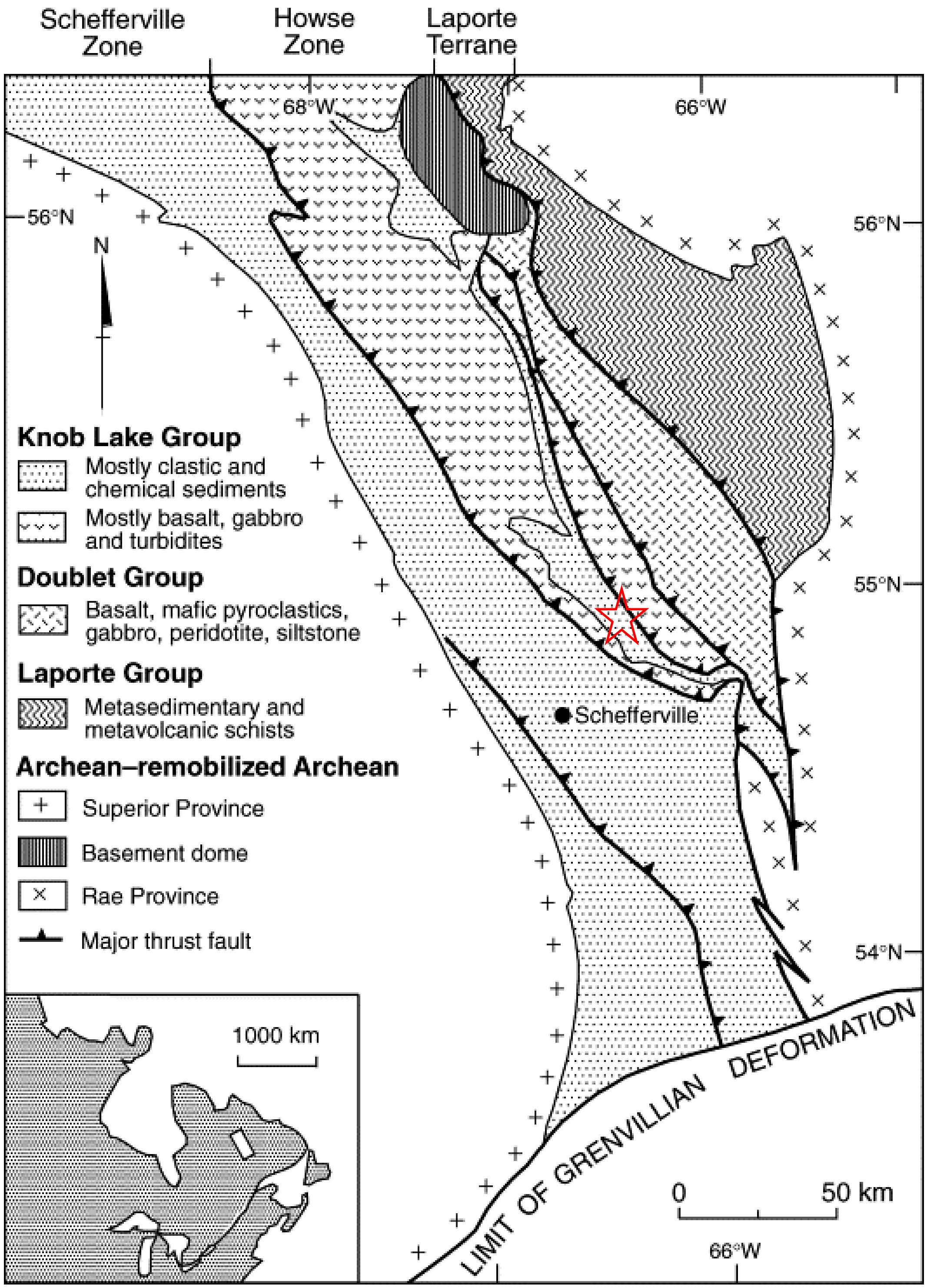


Figure 5 - Lithotectonic Subdivisions of the Central Labrador Trough (From Williams et al. 2000).

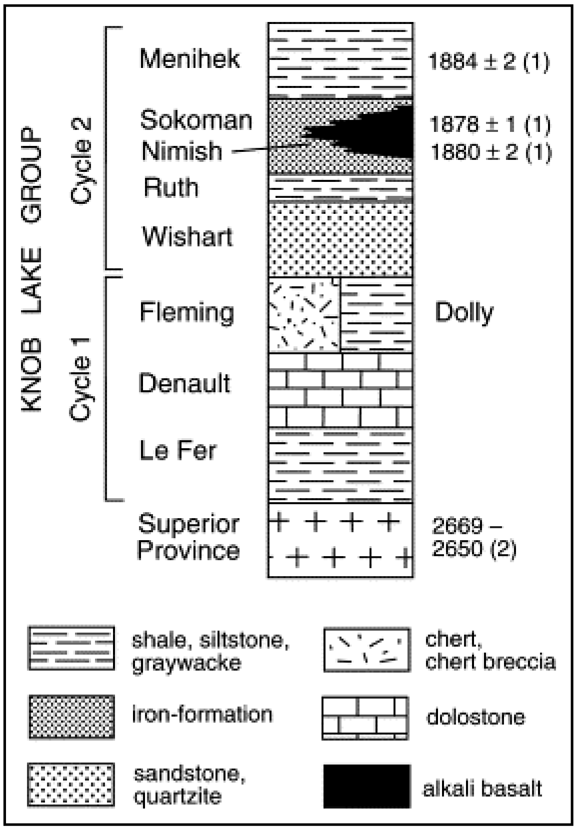


Figure 6 - Generalized Stratigraphy of the Knob Lake Group (From Williams and Schmidt, 2004 with Numbers Representing Ages of Rock Units in Million Years).

***Attikamagen Subgroup* –** is exposed in folded and faulted segments of the stratigraphic succession where it varies in thickness from 30 metres near the western margin of the Labrador Trough. The lower part of the formation has not been observed. It consists of argillaceous material that is thinly bedded (2-3mm), fine grained (0.02 to 0.05mm), grayish green, dark grey to black, or reddish grey. Calcareous or arenaceous lenses as much as 30 cm in thickness occur locally inter-bedded with the argillite and slate, and lenses of chert are common. The formation grades upwards into Denault dolomite, or into Wishart quartzite in areas where dolomite is absent. Beds are intricately drag-folded, and cleavage is well developed parallel with axial planes, perpendicular to axial lines of folds and parallel with bedding planes.

***Denault Formation* –** is inter-bedded with the slates of the Attikamagen Formation at its base and grades upwards into the chert breccia or quartzite of the Fleming Formation. The Denault Formation consists primarily of dolomite, which weathers buff-grey to brown. Most of it occurs in fairly massive beds which vary in thickness from a few centimetres to about one metre, some of which are composed of aggregates of dolomite fragments.

***Fleming Formation* –** it has a maximum thickness of about 100 metres and consists of rectangular fragments of chert and quartz within a matrix of fine chert. In the lower part of the formation the matrix is dominantly dolomite grading upwards into chert and siliceous material.

***Wishart Formation* –** Quartzite and arkose of the Wishart Formation form one of the most persistent units in the Kaniapiskau Supergroup. Thick beds of massive quartzite are composed of well-rounded fragments of glassy quartz and 10-30% rounded fragments of pink and grey feldspar, well cemented by quartz and minor amounts of hematite and other iron oxides. Fresh surfaces of the rock are medium grey to pink or red. The thickness of the beds varies from a few centimetres to about one metre but exposures of massive quartzite with no apparent bedding occur most frequently.

Ferriman Subgroup :

***Ruth Formation* –** Overlying the Wishart Formation is a black, grey-green or maroon ferruginous slate, 3 to 36 metres thick. This thinly banded, fissile material contains lenses of black chert and various amounts of iron oxides. It is composed of angular fragments of quartz with K-feldspar sparsely distributed through a very fine mass of chlorite, white mica, iron oxides and abundant finely disseminated carbon and opaque material. Much of the slate contains more than 20% iron.

***Sokoman Formation* –** The Sokoman Formation is the main iron formation host throughout the Labrador Trough. Its thickness varies between 120 and 240 metres. The basal facies of the Sokoman formation at Joyce Lake are composed of alternating micro- to macro bands of hematite, magnetite, siderite (ankerite) with red, white and green cherts. This assemblage was affected by alteration and oxidation processes through which carbonate and silica were leached out while magnetite oxidized to marthite. Based on field observations and logging data gathered from RC-chips at Joyce Lake, three members of units can be identified; **UIF, MIF, LIF**.

- **The Upper Iron Formation (UIF)**, 10-20m average thickness, consists of meso-bands of cherts and iron oxides which can be divided into two sub-members, UMH and RC. Upper Massive Hematite (UMH) consists of Hematite, Magnetite, Jasper and white, grey and red cherts. This sub-member has more Hematite, Magnetite and significantly less jasper (occurs as uncommon globules and laths) than the RC and is considered to be an enriched variety of the RC. It is moderately massive with major mineral being medium grained hematite and minor magnetite, with occasional pockets of specularite and abundant geothite. It weathers easily in the field, leaving minimal to no outcrop. Red Chert (RC) has much more red chert, so Fe% is reduced when compared to the UMH. It is usually meso-banded hematite and red chert with a weak planar fabric, some jasper (15-20%) and coarse oolites of hematite with ringed jasper - fine oolites. No discernable bedding or cleavage. There is also no green chert in RC compared with LIF which can be clearly separated into these two units.
- **The Middle Iron Formation (MIF)** (10-60m) which is highlighted on the Joyce Lake map as LMH, is similar to the UMH. This member contains significantly more Hematite and Magnetite than UIF and LIF. MIF contains Hematite, Magnetite, white chert and carbonate. It is also moderately massive with interlaying bands of white chert to carbonate and massive hematite and specularite. It is weakly magnetic with occasional pods of specularite and tension gashes of specularite and/or magnetite. It displays a leached texture typical of DSO, with large (>5m) zones of massive hematite and specularite with minor or no white chert bands. Red chert is present only in very small amounts. It comprises sub-units known as Upper Red Chert ("URC"), Pink Grey Chert ("PGC") and Lower Red Chert ("LRC"). In the field the URC consists of light to dark red coarse grained three to fifteen centimetre thick non-magnetic chertylayers interbedded with light to dark grey or bluish hematite-magnetite medium to coarse grained weakly to non-magnetic iron formation layers (Figure 7). This unit usually forms topographic highs. The PGC comprises ten to thirty centimetre thick layers of thinly laminated, light to dark grey, fine-to medium-grained moderately to strongly magnetic iron formation with light grey to brown, medium-grained, 0.5 to 5.0 centimetre thick, weakly to non-magnetic cherty layers (Figure 7). PGC is recessive in both Hayot and Hayot East Areas and outcrops in topographic lows while at Sans Chef North it occupies kilometric outcrops of anticline structure. Both the PGC and URC are the most consistently magnetic illustrating the higher concentration of magnetite from field observations. The URC is locally magnetic at the base, but it is commonly non-magnetic. In general, the URC is coarser grained with corresponding coarser beds when compared to the PGC that is composed of finer grain sized beds and corresponding thinner beds suggesting a deeper depositional environment;
- **The Lower Iron Formation (LIF)** which is the lowest member in the Sokoman formation stratigraphy column contains much more chert and low Hematite. Based on field observation it has micro to medium banding of chert and iron oxides. The LIF consists of two sub-members; LRC and Ruth shale. The Lower Red Chert (LRC) consists of green and red chert, magnetite (5 to 20 centimetres thick), carbonate and hematite. Green chert and higher Magnetite is a key for this sub-member. The Ruth Shale (RS) sub-member, previously considered as a separate formation, contains black shale with traces of pyrite and also Magnetite, Hematite or Quartz at the top. Few thin Hematite layers are rarely observed at the

top of this sub-member. Please note this sub-member was highlighted on the Joyce Lake geologic map and all cross sections by its historical name, “Ruth formation”.

This rock shows very continuous horizon of thinly banded hematite-jasper rich layers with carbonate blobs, some of them being fresh and other totally altered. The matrix is same color on fresh and altered surface and some horizons have magnetite introduced in. In the LRC, magnetite occurs in 5 to 20 centimetres thick strongly magnetic laminated magnetite beds intercalated with weakly magnetic red magnetite-bearing chert over thickness of approximately 15 metres.

***Menihek Formation* –** A thin-banded, fissile, grey to black argillaceous slate conformably overlies the Sokoman Formation in the Joyce lake area. Total thickness is not known, as the slate is only found in faulted blocks in the main ore zone The Menihek slate is mostly dark grey or jet black. It has a dull sooty appearance but weathers light grey or becomes buff coloured where leached. Bedding is less distinct than in the slates of other slate formations but thin laminations or beds are visible in thin sections.

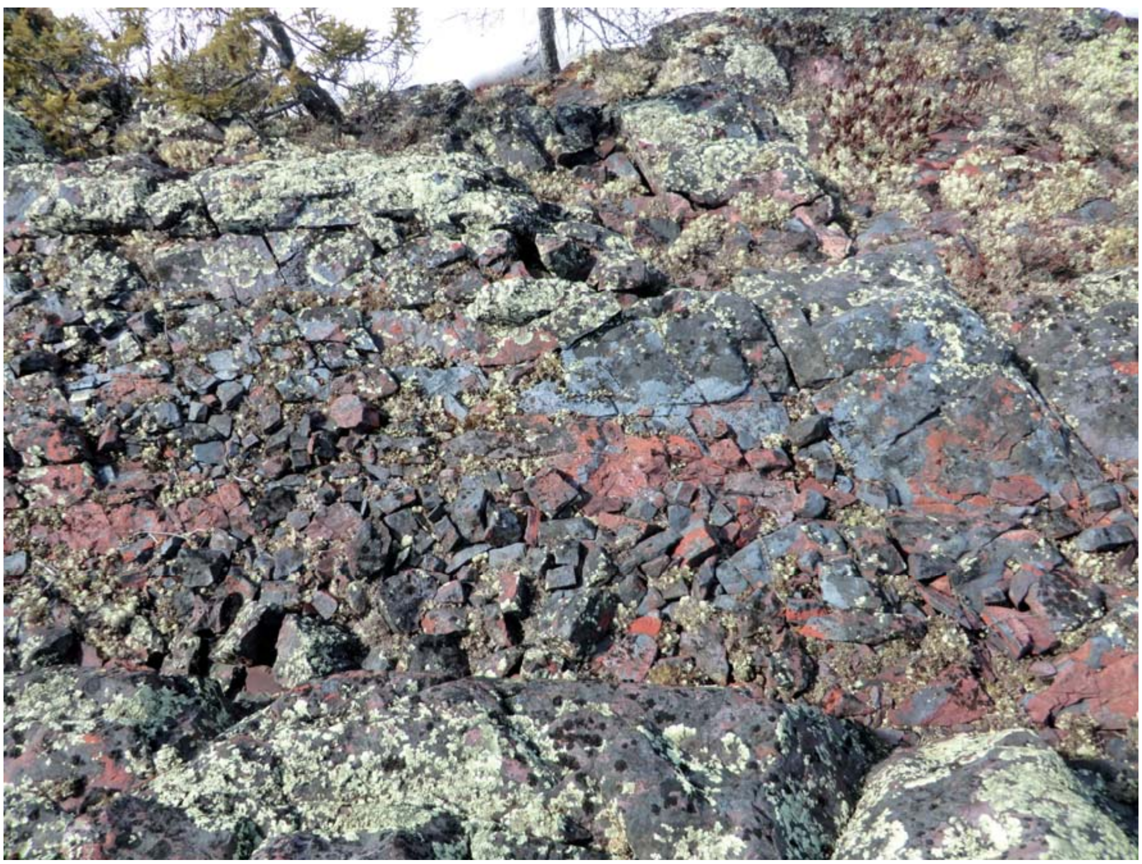


Figure 7 – URC outcrop at Joyce Lake Project

7.3 Joyce Lake Geological Structure

Field mapping done by Labec Century Iron Ore Inc. geologists indicates that the fold structure at Joyce lake is trending NW-SE. There are zones of minimal strain and the units appear undeformed. These low strain zones are of particular interest because they would represent unshortened and therefore thicker iron beds outside of the fold nose. It was observed in the field, especially from the massive hematite units on one limb of the fold structure, that there were specularite and hematite veinlets and tension gashes (1mm-3mm) oriented obliquely to the strike of the perceived bedding. These brittle features likely helped to accommodate the volume change during shortening and thus the shortening to be oriented along a strike of NE-SW.

Figure 8 – PGC outcrop at Joyce Lake Project

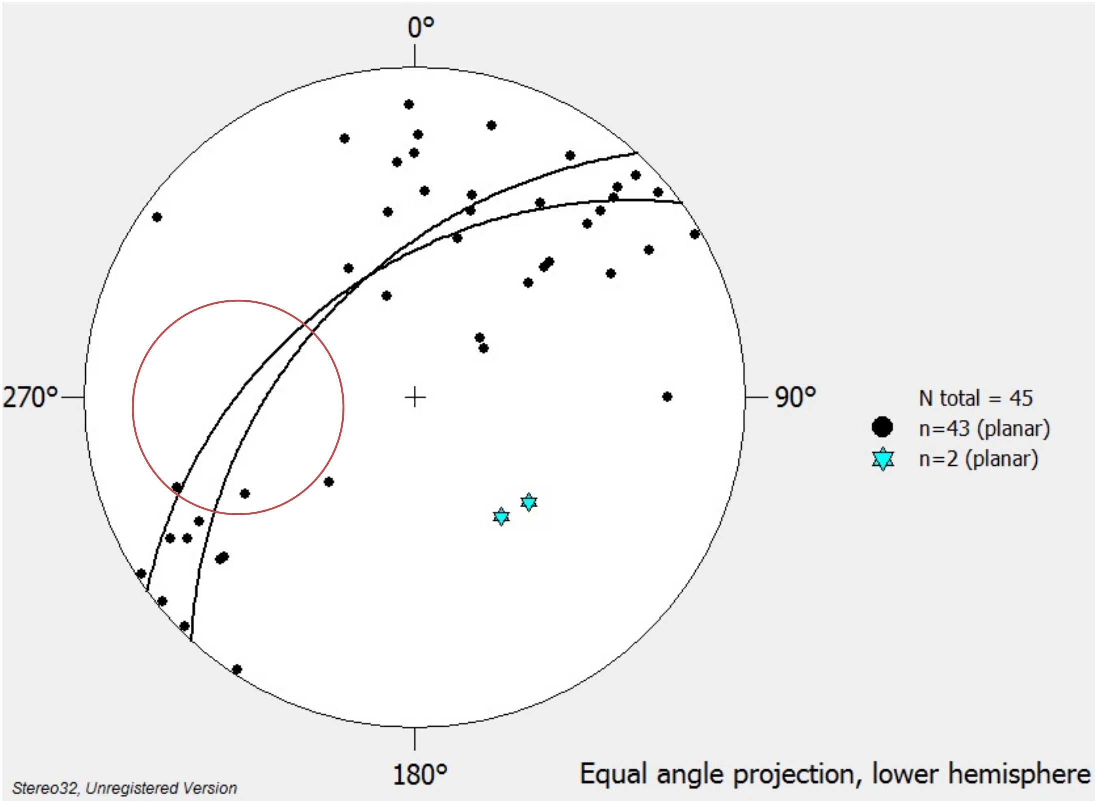


Figure 9 – Stereo-net of field mapping at Joyce Lake

The Figure 9 plot of the poles of perceived bedding planes (black dots) measured in the field at Joyce Lake. The red circle represents an obvious gap in the dataset, which likely represents the lack of reliable structural measurements in the nose of the fold. The blue stars are two inferred fold axes with accompanying great circles. Geologist noticed that there is an obvious gap in the number of measurements concerning the fold structure (Figure 9) but this is likely accounted for by the lack of outcrop in the nose of the fold and hence it is assumed that those missing orientations would belong to that set of strikes and dips. It was deduced that the fold was trending at approximately 135^{o} with a dip of approximately 42^{o}.

The Ruth shale provides an impermeable layer at depth to cap the down flow of meteoric water and therefore encourage leaching of silica and the deposition of enriched hematite as DSO. This is expected to be greatest where there is the greatest brittle deformation and would carry the greater tonnage where the massive hematite units are thicker. These conditions are satisfied within the nose of the fold structure and within the minimal strain zones identified in the field. The fold structure plunges to the Southeast and one would expect the hematite beds to thicken. Eventually, however the strata are capped by the impermeable Menihek Shale unit. Moving away from the zone of brittle deformation and being capped by an impermeable layer retards the percolation of meteoric water and therefore reduces the potential of enrichment and DSO formation along this trend.

8 Deposit Types

The Labrador Trough contains four mains types of iron deposits:

- **Soft iron ores** formed by supergene leaching and enrichment of the weakly metamorphosed cherty iron formation; they are composed mainly of friable fine-grained secondary iron oxides (hematite, goethite, limonite).
- **Taconites**, the fine-grained, weakly metamorphosed iron formations with above average magnetite content and which are also commonly called magnetite iron formation.
- More intensely metamorphosed, coarser-grained iron formations, termed **meta-taconites**; which contain specular hematite and subordinate amounts of magnetite as the dominant iron minerals.
- Occurrences of **hard high-grade hematite ore** occur southeast of Schefferville at Sawyer Lake and Astray Lake.

The Sokoman iron formation was formed as chemical sediment under varied conditions of oxidation-reduction potential (Eh) and hydrogen ion concentrations (pH) in varied depth of seawater. The resulting irregularly bedded, jasper-bearing, granular, oolitic and locally conglomeratic sediments are typical of the predominant oxide facies of the Superior-type iron formations, and the Labrador Trough is the largest example of this type.

The facies changes consist commonly of carbonate, silicate and oxide facies. Typical sulphide facies are poorly developed. The mineralogy of the rocks is related to the change in facies during deposition, which reflects changes from shallow to deep-water environments of sedimentation. In general, the oxide facies are irregularly bedded, and locally conglomeratic, having formed in oxidizing shallow-water conditions. Most carbonate facies show deep-water features, except for the presence of minor amounts of granules. The silicate facies are present in between the oxide and carbonate facies, with some textural features indicating deep-water formation.

The carbonate, silicate and oxide facies contain typical primary minerals ranging from siderite, minnesotaite, and magnetite-hematite respectively. The most common mineral in the Sokoman Formation is chert, which is closely associated with all facies, although it occurs in minor quantities with the silicate facies. Carbonate and silicate lithofacies are present in varying amounts in the oxide members.

The sediments of the Labrador Trough were initially deposited in a stable basin which was subsequently modified by penecontemporaneous tectonic and volcanic activity. Deposition of the iron formation indicates intraformational erosion, redistribution of sediments, and local contamination by volcanic and related clastic material derived from the volcanic centers in the Dyke-Astray area.

9 Exploration

Iron ore enrichment was discovered along the northeast side of Joyce Lake by Labrador Mining and Exploration Co. Ltd. (LM&E) in 1943. The enrichment (known as the Timmins Bay deposit) was examined by J.A. Retty at that time and found to have a length of 152 m (500 ft.) and a width of 12 m (40 ft.) at its widest point (Retty et al., 1944).

Two samples collected by Retty in 1943 from the northeast side of Joyce Lake gave the following results (Retty et al., 1944):

- No. R-1 (Grab); 1.2 m (4 ft) Width; 69.0% Fe, 1.34% Insol. 0.16% Mn, 0.01% P, 0.09% S
- No. R-2 (Grab); 6.7 m (22 ft) Width; 69.1% Fe, 0.86% Insol. 0.39% Mn, 0.01% P, 0.07% S

In 1944, the ore was traced along an additional 152 m (500 ft.) bringing the total length of the deposit to 305 m (1000 ft.). No surface work had been done at the deposit up to that time (Retty and Moss, 1945). According to Stubbins (1978), the area around Joyce Lake had been mapped on a scale of 1" = 200' in 1949. No other information regarding this work is available at present.

In 1951, a geological mapping project was conducted west of Lake Attikamagen by L.C.N. Burgess of the Iron Ore Company of Canada (IOCC). The area mapped covers about 259 km^2 (100 sq. mi.). Mapping was done on a scale of 1" = 1000'.

In summarizing the economics of the area, Burgess stated that it almost certainly contains small ore bodies near some of the ore outcrops on Lac Sans Chef and Joyce Lake, but these were not considered to be large enough to meet the million ton minimum. He added that there are large areas of unexposed iron formation throughout the region which have room for larger tonnages of ore.

Work was done by Harrison et al. of the Geological Survey of Canada (GSC) in the 1950's and has provided much of the material for a detailed account of the stratigraphy and structure of a strip 3.2 - 4.8 km (2-3 mi.) wide and 45 km (28 mi.) long across the southwest margin of the Labrador Trough (Harrison et al., 1972). This study included part of the Iron Arm - Attikamagen Lake area which was mapped by Burgess during his 1951 project.

In 1978, a geological reconnaissance traverse and collection of samples was carried out in the Joyce Lake area (Block No. 11) by LM&E. Nine samples were collected and assayed, all of which were channel chip rock samples taken from surface outcrops of 'middle massive iron formation' outcropping in a syncline adjacent to Joyce Lake. All nine samples were submitted for Davis Tube testing to determine their amenability to magnetic concentration (Stubbins, 1978). Stubbins (1978) commented that of the three outcrop areas sampled around Joyce Lake, one sample in each iron ore and/or lean ore. However, when tested by Davis Tube, only one sample (No. 29623) had results of interest and even that had relatively low weight recovery at 27% (Table 9-1).

Table 9-1- Results Sample N0. 29623

Sample No. 29623							
Wt Recover (%)	**Phos (%)**	**Mn (%)**	**SiO2 (%)**	**Al2O3 (%)**	**Total Oxide (%)**	**LOI (%)**	**Fe Recov (%)**
27.0	67.5	0.10	0.09	4.7	0.1	98.1	55.6

More recent aeromagnetic exploration has been carried out by Nova Scotia Ltd in 2007. The same year Champion conducted an airborne magnetic, gamma-ray and VLF-EM (very-low-frequency-electromagnetic) geophysical survey on the Property, as well as a preliminary surface-mapping and a reconnaissance sampling program to provide ground reference samples for correlation with the geophysical data.

A comprehensive program of exploration work was completed on the Property during the 2008 field season. At the beginning of the season two experts in iron formations, P. K. Pufahl, Ph. D., and E. E. Hiatt, Ph. D., were brought to the Property to familiarize the exploration team with the local geology, especially the Sokoman Formation. The group targeted Joyce Lake and two other areas (Lac Sans Chef and Jennie Lake) where Pufahl and Hiatt offered guidance on the history, formation, geochemistry, deposition and stratigraphy of the Sokoman Formation, providing a framework for the summer's geological mapping program. Pufahl and Hiatt (2008) confirmed the potential for the magnetite rich PGC units and commented on the potential for magnetite rich iron formation and for DSO on the Property. Detailed mapping (1:2,500 scale) ensued using the Pufahl and Hiatt criteria of the Sokoman Formation along flagged grid-lines oriented northeast-southwest and spaced 150 m to 300 m apart. Seven lines comprising 11 km were mapped on the Joyce Lake grid. Compiled geological data, plotted in the field on 17x11 topographic map sheets, were sent to MRB & Associates GIS services in Val-d'Or where they were digitized and assembled into individual geological maps for each grid area. These were then superimposed with the airborne magnetic data, for interpretation of geology in areas covered by water or overburden. The results shown magnetic lows anomalies located in Joyce Lake that suggested DSO in this property.

A ground gravity survey was undertaken in 2010 by Labec Century Iron Ore Inc. The survey was carried out by Geosig Inc., from Québec City, Québec. The gravity method was chosen in order to discriminate between hematite and magnetite mineralization based on their density contrast.

Gravity profiles were carried out on Joyce Lake Area (Claim 013445M), selected on the basis of interpretation of previous work by Champion. The selected targets are most often located in fold hinges where the limbs are characterized by magnetic highs, indicative of magnetite rich mineralization and the hinge is characterized by magnetic low, frequently indicative of hematite or iron hydroxide rich mineralization. Results in the figure 6 show high magnetic (magnetite) area surrounding magnetic lows (Hematite).

In the fall of 2010, Century started to drill boreholes in the area and found three potential DSO targets. All targets were selected based on geological and geophysical data. The taconite at Hayot Lake area is a shallow dipping magnetite-rich iron formation with an expected minimum thickness of 60 to 100 metres.

The Joyce Lake DSO deposit was confirmed by Century through ground gravity survey, surface geological mapping and sampling. A systematic reverse circulation drilling program was conducted at Joyce Lake in 2011-2012 which included 114 drill holes totaling 12,966 metres and covering an area of 1,100 metres along strike and 600 metres in width. With drill hole spacing of 50 x 50 metres at the central part of the deposit, the 2011-2012 drilling campaign delineated a high grade zone and tested the extension of the deposit along strike and depth, and provided a detailed information base for the resource estimate. The mineralization remains open to the south.

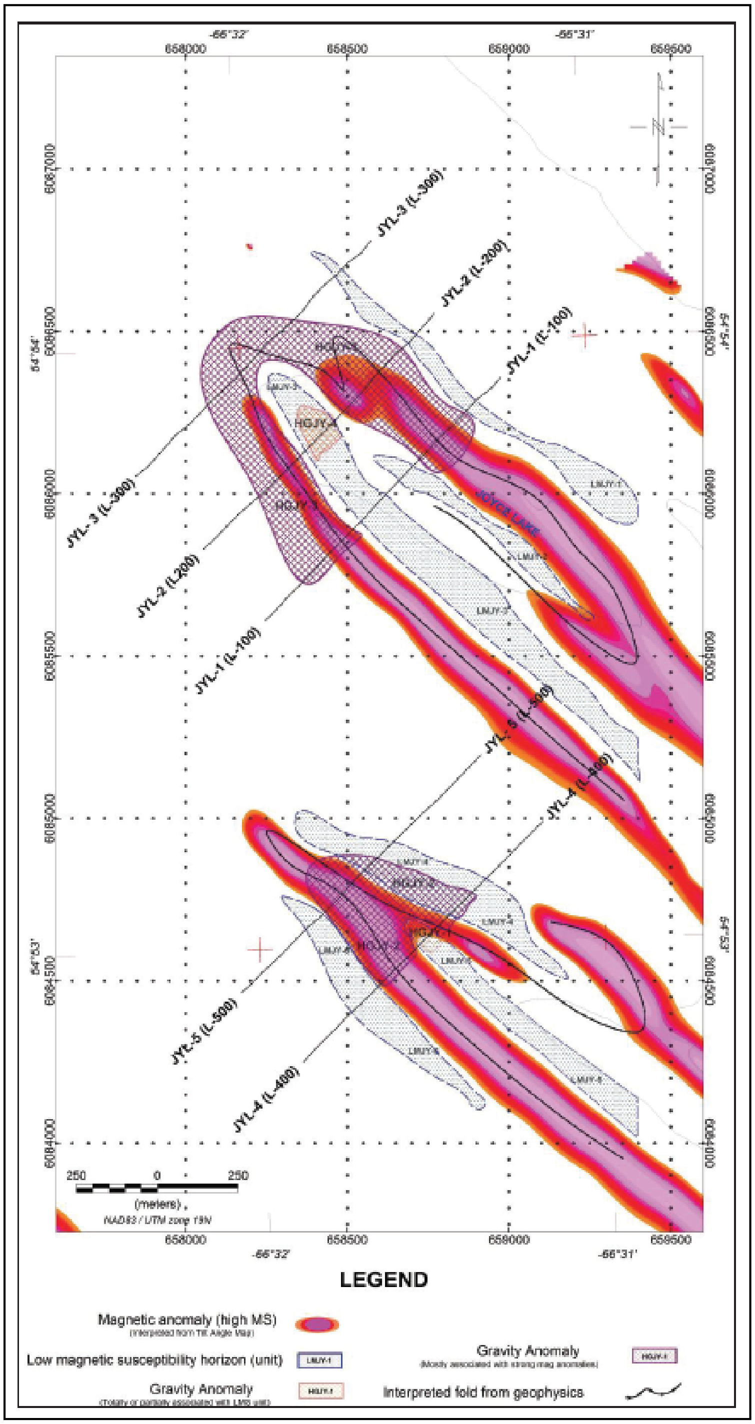


Figure 10 - Geophysical interpretation, Joyce Lake area (From SRK Consulting, not to scale)

10 Drilling

The figure below presents the Hornet RC drill in action at Joyce Lake in 2012. The RC drilling produce cutting and fines which are processed at the drill site with a rotary splitter attached to the drill RC system. The general sampling procedure for the 3 meters sample run is done using 3 five gallons connected pails to the output of the drill splitter. A portion of 5/16 (around 30 lbs / 12 Kg for Acker drill and 70 lbs /32 kg) of the original sample is taken as the main drill sample (pail SA & pail SB), the remaining of the sample which are rejects at the drill about 11/16 is discarded. The SA & SB, SA being the coarse and SB the fines are carried in bags within plastic pails to the core shack in Schefferville where they are blended into a concrete mixer and afterward pass into a riffle splitter pulling out a 1/8 mass of the sample(SA+SB) weighting 3 to 8 kg. The Hornet drill bit has a diameter of 9 cm while Acker has 7.5 cm diameter.

Figure 11 - Joyce Lake drill rig in operation at Hole JOY-12-84

10.1 Drilling program 2010

In 2010, DSO target were tested by Century in Joyce Lake. Four boreholes (362 metres) were drilled at the Joyce Lake Area Syncline. Blocky and sandy ground resulting in poor core recovery was encountered in boreholes. A total of 90 samples were sent to COREM for testing (78 samples and 12 QAQC).

Joy-10-01 was drilled at NE limb of Joyce Lake syncline where enriched hematite beds were mapped over 15 to 20 metres and two historical samples returned 53 to 60 percent Fe. Poor core recovery was observed (8.9 percent). Assays results in Table 10-1 show a zone of 18 metres with 57.75 percent iron average.

- 0-98 metres: URC unit, thick layered hematite, blue to dark grey and reddish in color, fine grained. Some large pieces of blocky core have fine white chert bands or grey chert.
- 98-110 metres: Ruth shale unit, fine grained black sandstone with fine layered medium grained pinkish chert sand beds with disseminated fine grained specularite (10-20 percent).

Joy-10-02 was drilled at the north east extremity of Joyce Lake where enriched beds hit in URC unit. The overall core recovery of this hole was 6.6 percent.

- 0-29 metres: JUIF unit, mainly light grey to whitish chert, 30 to 50 percent hematite leached and some carbonate
- 29-120 metres: URC unit, mainly thick banded to massive hematite (40 to 60 percent) with narrow whitish to reddish chert.
- 120-129 metres: PGC unit, no core recovered but the sandy core contains high percentage of magnetite.

Joy-10-03 was drilled at SW limb of Joyce Lake syncline where enriched hematite beds were mapped over 36 to 60 metres and two historical samples returned 40 to 60 percent Fe. The overall core recovery is 11.5 percent.

- 0-36 metres: JUIF unit, light grey to whitish chert, containing some carbonates. Hematite is the dominated Iron minerals, accounts for 30 to 50 percent, mostly leached and enriched. Locally, carbonates are at 10 to 20 percent, but leached as limonite.
- 36-60 metres: URC unit, thick banded to massive hematite (enriched), with narrow whitish to reddish chert. Hematite at this zone accounts for 40 to 60 percent.
- 60-84 metres: Wishart unit, with white to pinkish quartzite or dolomite, fine to medium grained, with some limonite filling the small cavities. Some grey chert with 30 to 50 percent hematite at 78-84 metres.

Joy-10-04 was drilled at hinge zone of small syncline, about 1.4 km south of Joyce Lake syncline.

- 0-5.6 metres: JUIF unit, mainly light grey to whitish chert, containing some carbonates. Hematite is the dominated Iron minerals (30 to 50 percent), carbonate at 5 to 20 percent and fine narrow magnetite bands (2 to 5 percent) mixed with grey chert.
- 5.6-39 metres: URC unit, mainly thick banded to massive grey to pinkish chert, dominated with hematite and carbonates, 40 to 60 percent hematite and 20 to 30 percent carbonate.

Table 10-1 - The 2010 significant assay results from the first batch of results

Hole Number	From (m)	To (m)	Length (m)	Fe% Total
Joy-10-01	6.00	24.00	18.00	**57.75**
Joy-10-02	24.00	51.00	27.00	**54.13**
Includes	*93.00*	*123.00*	*30.00*	***59.87***
Joy-10-03	51.00	57.00	6.00	49.25

10.2 Drilling program 2011

In 2011, to relieve the poor core recovery a RC drilling program was planned. A total of 40 holes were drilled in Joyce Lake area, 32 RC holes (3917 metres) and 8 drill core holes (1242 metres). The samples were sent to Activation Laboratories for XRF analysis. RC drilling completed at Joyce Lake encountered a potential DSO target. Drill hole Joy-11-06 intersected 139.0 m grading 52.8% Total Iron ("FeT"), and drill hole Joy-11-07 intersected 91.0 m grading 52.5% FeT, including 42.0 m grading 65.3% FeT (Table 10-2).

Table 10-2 - The 2011 significant assay results first batch of results

Hole Number	From (m)	To (m)	Core Length (m)	Fe% Total
Joy-11-06	3.00	142.00	139.00	**52.80**
includes	*96.00*	*138.00*	*42.00*	***64.19***
Joy-11-07	12.00	93.00	91.00	**52.46**
includes	*12.00*	*54.00*	*42.00*	***65.26***
Joy-11-08	3.00	114.00	111.00	37.20
includes	*60.00*	*66.00*	*6.00*	***59.85***
Joy-11-09	2.00	126.00	123.00	46.64
includes	*9.00*	*18.00*	*9.00*	***61.26***
and	*54.00*	*69.00*	*15.00*	***64.80***

** Note: All reported intervals are down-hole core lengths and not true thickness. Iron values were determined by X-ray fluorescence (XRF) major element analysis at an ISO 17025 accredited laboratory.*

10.3 Drilling program 2012

Following the discovery of DSO type mineralization during the 2011 drill campaign, at Joyce Lake, a program of exploration and definition drilling was initiated in February 2012 to expand and better define the zone of high grade iron mineralization. As of September 2012, a total of 7,807.5 metres (74 holes in 2012) of RC drilling was completed. Additionally, 30 tonnes of bulk samples were also collected for metallurgical testing.

The area of high grade mineralization at shallow depth has been drilled on a 50x50 metre grid. The higher grade mineralization occurs mostly within a synclinal fold closure and partly on both flanks. The synclinal structure has a shallow 15 degree plunge to the southeast. Bedding in the fold closure is sub horizontal to moderately dipping. All RC drill holes are vertical.

The mineralization reaches bedrock surface covered by 3 to 6 metres of overburden. The first batch of assay results confirmed a zone of high grade iron mineralization at Joyce Lake with intercepts up to 54 metres over 60% total iron (TFe %) and with an average of 6.09% silica (SiO_2).

The following assay results (Table 10-4) confirmed the continuity and extension down plunge, along strike of the high grade mineralization (>60% TFe) at Joyce Lake with a thickness up to 66 metres. The highlights of the 2012 campaign include.

- Drill hole Joy-12-69 intersected 54 metres of enriched iron mineralization with an average of 62.75% Total iron (TFe)
- Drill hole Joy-12-71A intersected 48 metres of enriched iron mineralization with an average of 61.27% Total iron (TFe)
- Drill hole Joy-12-104 intersected 66 metres of enriched iron mineralization with an average of 62.75% Total Iron (TFe);
- Drill hole Joy-12-111 intersected 57 metres of enriched iron mineralization with an average of 66.72% TFe;

The high grade mineralization occurs at the closure of a synclinal fold where the mineralized lens is shallow to relatively flat dipping. The fold structure plunges gently to the southeast. All holes are drilled at -90° dip.

Since 2010, a total of 118 holes (13,328.5 m) were drilled in Joyce Lake area.

Table 10-3 - Drill length summary between 2010 and 2012.

Historical	Core Hole	Reversed Circulation	Total Length
2010	4	-	362
2011	8	32	5,159
2012	-	78	**7,807.5**
TOTAL	**12**	**110**	**13,328.5**

Table 10-4 - The 2012 significant assay results from the first batch

Hole Number	From (m)	To (m)	Core Length (m)	Fe% Total
Joy-12-46	30	102	72	48.25
Includes	*45*	*57*	*12*	***61.13***
Joy-12-47	63	102	39	42.73
Joy-12-52	6	60	54	48.39
Includes	*15*	*48*	*33*	***51.41***
Joy-12-53	27	81	54	49.83
Includes	*27*	*39*	*12*	***61.37***
Joy-12-55	30	87	57	**50.62**
Includes	*42*	*57*	*15*	***64.56***
Joy-12-60	12	76	64	48.4
Includes	*24*	*55*	*31*	***55.06***
Joy-12-63	0	57	57	46.4
includes	*30*	*48*	*18*	***55.41***
Joy-12-65	3	45	42	**58**
includes	*6*	*30*	*24*	***63.7***
Joy-12-66	6	78	72	**51.59**
includes	*6*	*42*	*36*	***63.5***
Joy-12-67	6	90	84	49.63
includes	*9*	*54*	*45*	***59.67***
Joy-12-68	6	87	81	**54.25**
includes	*12*	*48*	*36*	***61.11***
Joy-12-69	6	117	111	**51.96**
includes	*9*	*63*	*54*	***61.59***
Joy-12-70	6	93	87	**52.75**
includes	*6*	*60*	*54*	***61.2***
Joy-12-71A	6	90	84	**51.62**
includes	*6*	*48*	*48*	***61.27***
Joy-12-74	6	12	6	**55.71**
Joy-12-78	24	30	6	**51.23**
Joy-12-85	90	132	42	**59.80**
include	*108*	*132*	*24*	***66.33***
Joy-12-96	69	75	6	**59.98**
Joy-12-100	87	93	6	**64.49**
Joy-12-101	18	21	3	**56.48**
Joy-12-103	63	102	39	**61.02**
Joy-12-104	57	123	66	**62.75**
Joy-12-105	72	93	21	**66.40**
Joy-12-106	45	72	27	**60.47**
Joy-12-107	39	75	36	**63.52**
Joy-12-108	78	87	9	**54.73**
Joy-12-109	45	60	15	**50.72**
Joy-12-110A	105	129	24	**62.05**
Joy-12-111	93	150	57	**66.72**
Joy-12-113	63	84	21	**60.87**
Joy-12-115	12	21	9	**55.73**
Joy-12-116	45	54	9	**56.07**
Joy-12-117	117	150	33	**63.41**

The following picture present the Acker drill on the North West end of the Joyce Lake.

Figure 12 – RC Acker Drill Rig drilling hole Joy-12-111 – Cabo drilling

11 Sample Preparation, Analyses and Security

All collars, except for lake holes and not holes past Joy-12-113, of the completed holes in 2011-2012 seasons are surveyed using a differential GPS by Allnorth Engineering Consultants based at Labrador City. The QA/QC protocol employed during the 2011-2012 exploration programs included procedures for monitoring the "chain-of-custody" of samples and the insertion of 9 different reference material types, 4 blank types and sample duplicates. In 2011, all the samples collected at Joyce Lake project were prepared and assayed by Activation Laboratories (Actlabs) Ltd in Ancsater, Ontario, while portion of samples from early 2012 drilling programs were prepared and assayed by SGS Canada Inc in Lakefield, Ontario, while the rest of samples were prepared and assayed by Activation Laboratories Ltd in Ancsater, Ontario.

11.1 Sample Analysis and Security by Actlabs

To minimize the matrix effects of the samples the heavy absorber fusion technique of Norrish and Hutton *(1969, Geochim. Cosmochim. Acta, volume 33, pp. 431-453)* is used for major element oxide analysis. Prior to fusion, the loss on ignition (LOI), which includes H_2O+, CO_2, S and other volatiles, can be determined from the weight loss after roasting the sample at 1050°C for 2 hours. The fusion disk is made by mixing a 0.5g equivalent of the roasted sample with 6.5g of a combination of lithium metaborate and lithium tetraborate with lithium bromide as a releasing agent. Samples are fused in Pt crucibles using an AFT fluxer and automatically poured into Pt molds for casting. Samples are analyzed on a Panalytical-Axios Advanced XRF. The intensities are then measured and the concentrations are calculated against the standard G-16 provided by Dr. K. Norrish of CSIRO (Commonwealth Scientific and Industrial Research Organisation), Australia. Matrix corrections were done by using the oxide alpha – influence coefficients also provided by K. Norrish. In general, the limit of detection is about 0.01% for most of the elements.

- X-Ray Fluorescence Analysis Code: 4C used at Actlabs.
- Variables (%): SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, LOI;

Table 11-1 - Table Borate Fusion Whole Rock XRF Reporting Limits for Actlabs.

Element	Limit (%)	Element	Limit (%)	Element	Limit (%)
SiO_2	0.01	Na_2O	0.01	CaO	0.01
Al_2O_3	0.01	TiO_2	0.01	MgO	0.01
Fe_{total} as Fe_2O_3	0.01	Cr_2O_3	0.01	K_2O	0.01
P_2O_5	0.01	V_2O_5	0.01	MnO	0.001

Following is a description of the quality assurance and quality control protocols used at the Actlabs facility. This description is based on input from Actlabs. A total of 34 standards are used in the calibration of the method and 28 standards are checked weekly to ensure that there are no problems with the calibration. Certified Standard Reference Materials (CSRMs) are used and the standards that are reported to the client vary depending on the concentration range of the samples.

The re-checks are done by checking the sample's oxide total. If the total is less than 98% the samples are reweighed, fused and analyzed. The amount of duplicates done is decided by the Prep Department, their procedure is one for every 50 samples only if there is adequate material. If the work order is over 100 samples they will pick duplicates every 30 samples. General QC procedure for XRF is: The standards are checked by control charting the elements. The repeats and pulp duplicates are checked by using a statistical program which highlights any sample that fails the assigned criteria. These results are analyzed and any failures are investigated using their QCP Non-Conformance (error or omission made that was in contrast with a test method (QOP), Quality Control Method (QCP) or Quality Administrative Method (QAP).

11.2 Sample Analyses and Security at SGS-Lakefield

The analysis used was Borate fusion whole rock XRF (X-Ray Fluorescence). The following is a description of the exploration drill hole analyses protocols used at the SGS-Lakefield laboratory facility in Lakefield, Ontario. This description was supplied by SGS-Lakefield.

- X-Ray Fluorescence Analysis Code: XRF76Z
- Variables (%): SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, LOI;
- Typical sample size: 0.2 to 0.5 g
- Type of sample applicable (media): Rocks, oxide ores and concentrates.
- Method of analysis used: The disk specimen is analyzed by Wavelength Dispersive XRF spectrometry.
- Data reduction by: the results are exported via computer, on line, data fed to the Laboratory Information Management System with secure audit trail.
- Corrections for dilution and summation with the LOI are made prior to reporting.

Table 11-2 - Table Borate Fusion Whole Rock XRF Reporting Limits for SGS.

Element	Limit (%)	Element	Limit (%)	Element	Limit (%)
SiO_2	0.01	**Na_2O**	0.01	**CaO**	0.01
Al_2O_3	0.01	**TiO_2**	0.01	**MgO**	0.01
Fe_{total} as Fe_2O_3	0.01	**Cr_2O_3**	0.01	**K_2O**	0.01
P_2O_5	0.01	**V_2O_5**	0.003	**MnO**	0.01
Also includes Loss on Ignition					

The following Table 11-3 is a description of the quality assurance and quality control protocols used at the SGS-Lakefield laboratory facility in Lakefield, Ontario. The following description was given by SGS-Lakefield. One blank, one duplicate and a matrix-suitable certified or in-house reference material per batch of 20 samples. The data approval steps are shown in the following table.

Table 11-3 - SGS-Lakefield Laboratory Data Approval Steps

Step	Approval Criteria
1. Sum of oxides	Majors 98 – 101% Majors + NiO + CoO 98 –102%
2. Batch reagent blank	2 x LOQ
3. Inserted weighed reference material	Statistical Control Limits
4. Weighed Lab Duplicates	Statistical Control Limits by Range

12 Data Verification

SGS proceeded to the entire database verification before resources estimation. The digital drill hole database supplied by Century has been validated for the following fields: collar location, azimuth, dip, hole length, survey data, and analytical values. Some errors were found and were later corrected to produce the final resource estimation.

The Joyce Lake database contains 120 drill holes, with the following distribution: 12 core drill holes (including 2 re-drilled holes Joy-11-24A et Joy-11-29A) and 110 RC drill holes dipping at -90 including a pair of holes drilled at the same location (Joy-12-112A, Joy-12-112B).

Assay coverage of Joyce Lake contains 3,854 assay intervals totalling 11,738.9 meters. Joyce Lake holes were drilled in a 1.3 square kilometres zone from 657900E/6086700N to 659100E/6085400N in the UTM reference system. Most holes are located on the NW portion of the property and the spacing is around 50 metres.

Table 12-1 - Drill Holes List

Hole Name	Easting (X)	Northing (Y)	Elevation (Z)	Azimuth	Dip	Length (m)
Joy-10-01	658859.00	6086265.00	517.81	40	-65	110
Joy-10-02	658193.00	6086388.00	526.37	0	-90	129
Joy-10-03	658464.00	6085964.00	511.59	220	-65	84
Joy-10-04	658713.00	6084605.00	536.36	0	-90	39
Joy-11-05	658329.00	6086247.00	504.88	0	-90	50
Joy-11-06	658193.35	6086383.59	526.56	0	-90	143
Joy-11-07	658051.12	6086531.96	524.92	0	-90	102
Joy-11-08	658326.03	6086527.70	528.57	0	-90	114
Joy-11-09	658865.32	6086240.17	514.70	0	-90	141
Joy-11-10	658707.64	6086352.33	517.04	0	-90	123
Joy-11-11	659019.47	6086046.25	507.39	0	-90	105
Joy-11-12	658458.42	6086405.47	514.30	0	-90	156
Joy-11-13	658579.25	6086489.21	528.21	0	-90	105
Joy-11-14	658381.04	6086588.16	527.76	0	-90	69
Joy-11-15	658119.57	6086317.95	521.55	0	-90	147
Joy-11-16	658183.36	6086101.21	529.94	0	-90	123
Joy-11-17	658333.30	6085964.49	530.46	0	-90	99
Joy-11-18	658480.80	6085829.10	530.30	0	-90	114
Joy-11-19	658622.28	6085671.38	541.50	0	-90	147
Joy-11-20	658780.56	6085574.89	540.35	0	-90	142
Joy-11-21	658925.00	6085434.00	535.10	0	-90	117
Joy-11-22	659041.99	6085567.78	521.22	0	-90	144
Joy-11-23	658122.68	6086463.06	530.93	0	-90	138
Joy-11-24A	659260.77	6085210.66	533.49	50	-65	248
Joy-11-25	658107.15	6086607.88	536.10	0	-90	60
Joy-11-26	658259.08	6086464.16	528.69	0	-90	153
Joy-11-27	658184.82	6086527.03	533.68	0	-90	120
Joy-11-28	658336.11	6086398.32	518.20	0	-90	162
Joy-11-29A	659396.82	6085350.47	517.42	50	-65	175
Joy-11-30	658189.59	6086241.71	520.06	0	-90	174
Joy-11-31	659548.63	6085481.73	514.64	50	-65	134
Joy-11-32	658396.64	6086455.55	521.38	0	-90	174
Joy-11-33	658470.50	6086529.91	528.75	0	-90	138
Joy-11-34	658049.16	6086389.13	529.30	0	-90	130
Joy-11-35	657981.15	6086461.88	530.75	0	-90	90
Joy-11-36	657921.18	6086519.15	530.63	0	-90	51
Joy-11-37	659474.40	6085424.72	507.34	50	-65	197.1
Joy-11-38	659659.70	6085311.42	511.48	50	-65	155
Joy-11-39	658221.40	6086422.25	527.63	0	-90	168
Joy-11-40	657985.47	6086590.37	530.31	0	-90	45
Joy-11-41	658631.10	6086421.61	524.05	0	-90	171
Joy-11-42	658268.54	6086173.32	512.67	0	-90	159
Joy-12-43	658298.56	6086208.13	504.87	0	-90	176
Joy-12-44	658647.00	6086289.00	504.86	0	-90	102
Joy-12-45A	658574.00	6086216.00	504.79	0	-90	58.5
Joy-12-46	658501.00	6086284.00	504.82	0	-90	109.5
Joy-12-47	658363.00	6086289.00	504.84	0	-90	102
Joy-12-48	658826.00	6086183.00	504.89	0	-90	126.5
Joy-12-49	658753.00	6086111.00	504.89	0	-90	118.5
Joy-12-50	658684.00	6086042.00	504.86	0	-90	92.5
Joy-12-51	658895.00	6085974.00	504.91	0	-90	69
Joy-12-52	658968.00	6086042.00	504.83	0	-90	116
Joy-12-53	658257.00	6086321.00	504.91	0	-90	82.5
Joy-12-54	658468.00	6086253.00	504.81	0	-90	141
Joy-12-55	658400.00	6086321.00	504.83	0	-90	126
Joy-12-56	658330.09	6086248.82	504.87	0	-90	97.5
Joy-12-57	658359.69	6086565.39	526.81	0	-90	128
Joy-12-58	658424.64	6086627.69	535.42	0	-90	60
Joy-12-59	658443.41	6086642.19	536.63	0	-90	66

Joy-12-60	658424.14	6086559.43	526.67	0	-90	95.5
Joy-12-61	658513.42	6086553.51	531.33	0	-90	99
Joy-12-62	658528.05	6086577.58	532.10	0	-90	69
Joy-12-63	658460.57	6086582.48	532.26	0	-90	91.5
Joy-12-64	658330.65	6086612.01	536.27	0	-90	69
Joy-12-65	658076.50	6086562.03	529.37	0	-90	81
Joy-12-66	658009.42	6086550.54	529.52	0	-90	82.5
Joy-12-67	658016.00	6086488.66	525.05	0	-90	90
Joy-12-68	658051.96	6086530.59	524.92	0	-90	88.5
Joy-12-69	658080.18	6086493.11	524.82	0	-90	118.5
Joy-12-70	658115.76	6086538.62	528.86	0	-90	93
Joy-12-71A	658034.44	6086454.03	524.73	0	-90	90
Joy-12-72	658747.43	6086394.39	518.93	0	-90	84
Joy-12-73	658719.22	6086430.70	521.37	0	-90	33
Joy-12-74	658776.61	6086355.25	516.37	0	-90	90
Joy-12-75	658897.19	6086263.86	521.86	0	-90	93
Joy-12-76	658862.95	6086300.96	522.71	0	-90	99
Joy-12-77A	658931.74	6086232.50	524.48	0	-90	81
Joy-12-78	658179.21	6086159.56	524.01	0	-90	30
Joy-12-79	658242.25	6086076.11	527.51	0	-90	82.5
Joy-12-80	658220.19	6086136.42	526.30	0	-90	85.5
Joy-12-81	658133.01	6086126.21	530.43	0	-90	63
Joy-12-82	658214.10	6086057.71	533.04	0	-90	42
Joy-12-83	658289.27	6086043.17	529.82	0	-90	90
Joy-12-84	658147.33	6086208.21	521.63	0	-90	43.5
Joy-12-85	658221.28	6086344.51	509.75	0	-90	177
Joy-12-86	658146.49	6086557.75	533.00	0	-90	79.5
Joy-12-87	658220.86	6086633.18	544.13	0	-90	48
Joy-12-88	658220.58	6086562.53	534.06	0	-90	69
Joy-12-89	658293.91	6086629.48	538.04	0	-90	45
Joy-12-90	658290.39	6086564.82	530.15	0	-90	78
Joy-12-91	658435.60	6086359.69	507.23	0	-90	171
Joy-12-92	658672.05	6086387.82	521.18	0	-90	42
Joy-12-93	658747.22	6086312.50	512.29	0	-90	76.5
Joy-12-94	658553.05	6086515.40	529.76	0	-90	73.5
Joy-12-95	658964.17	6086192.45	527.63	0	-90	129
Joy-12-96	658994.71	6086153.16	527.81	0	-90	103.5
Joy-12-97	658356.72	6086484.92	525.36	0	-90	150
Joy-12-98	659037.93	6086099.50	525.87	0	-90	45
Joy-12-99	658037.99	6086590.09	531.45	0	-90	57
Joy-12-100	658299.45	6086484.82	528.49	0	-90	141
Joy-12-101	657960.50	6086526.07	529.63	0	-90	54
Joy-12-102	658002.83	6086412.08	530.74	0	-90	49.5
Joy-12-103	658182.26	6086456.38	530.02	0	-90	153
Joy-12-104	658143.67	6086428.36	529.93	0	-90	153
Joy-12-105	658108.41	6086375.25	523.53	0	-90	135
Joy-12-106	658073.14	6086418.30	524.39	0	-90	117
Joy-12-107	658151.52	6086498.20	530.94	0	-90	123
Joy-12-108	658213.16	6086482.75	531.27	0	-90	147
Joy-12-109	658247.18	6086534.49	531.06	0	-90	102
Joy-12-110A	658291.04	6086426.19	524.71	0	-90	171
Joy-12-111	658256.16	6086394.50	520.91	0	-90	171
Joy-12-112	658198.00	6086295.00	519.88	0	-90	3
Joy-12-112A	658231.00	6086269.00	515.07	0	-90	57
Joy-12-112B	658225.00	6086266.00	517.00	0	-90	162
Joy-12-113	658385.00	6086532.00	524.55	0	-90	117
Joy-12-114	658182.16	6086600.96	541.50	0	-90	117
Joy-12-115	658247.00	6086602.00	537.99	0	-90	109.5
Joy-12-116	658072.00	6086335.00	527.00	0	-90	100.5
Joy-12-117	658359.00	6086421.00	520.14	0	-90	177
Joy-12-U1	658147.25	6086345.18	525.08	0	-90	159

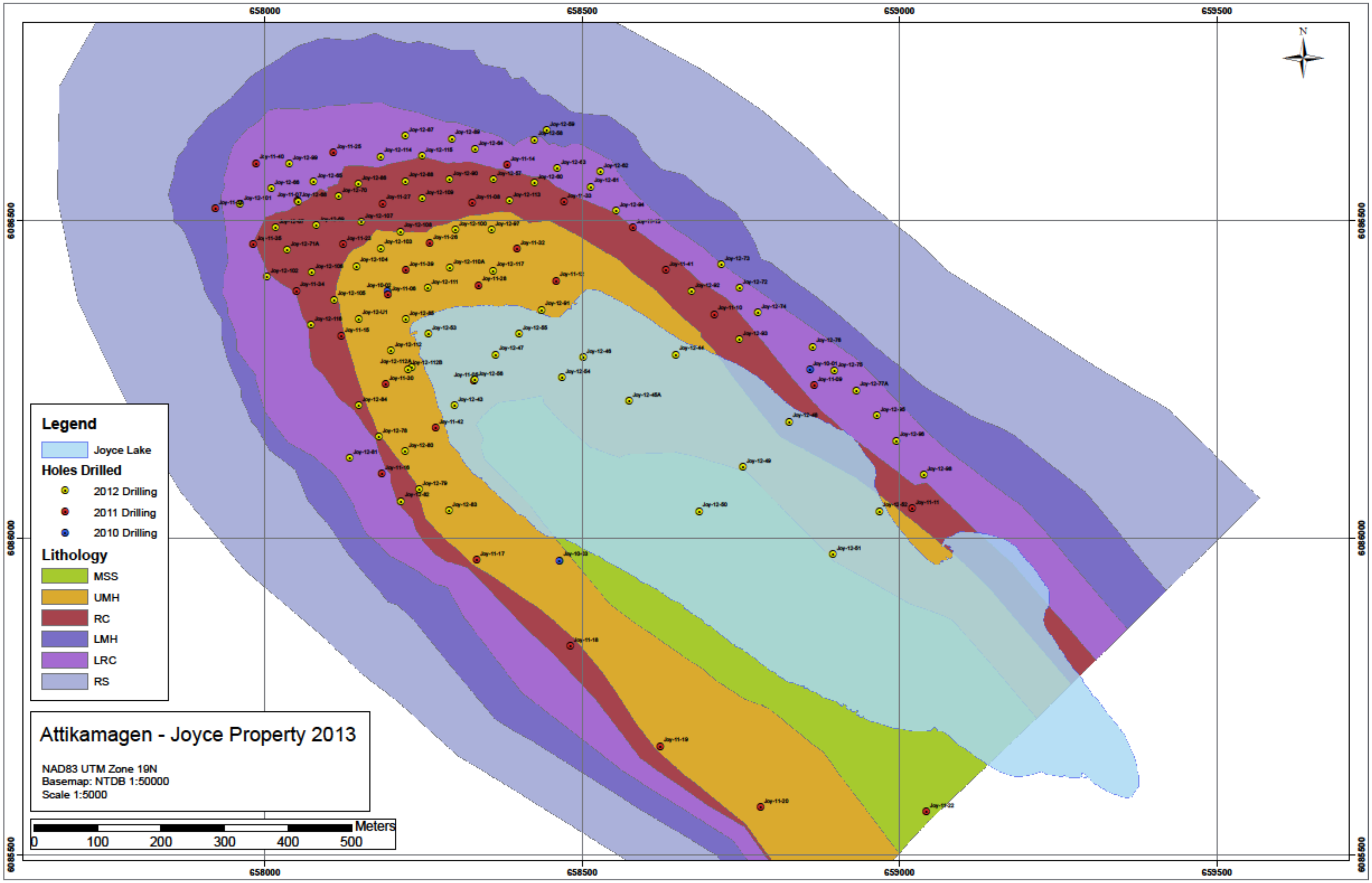


Figure 13 - Map of Collars location with lithological formation (From Labec Century Iron)

The data verification was done on the iron (Fe) and silica (SiO_2) assay results from the 2011 and 2012 drilling program. Assays analyses were performed by Actlabs in 2011-2012 and SGS in 2012. A series of quality control procedures including duplicates, standards and blanks were introduced. From 2011 to 2012 a total of 93 Blanks were used, including 68 silica blanks and the rest; feldspar blanks, halite blanks or dolomite blanks. A total of 164 duplicates were used from 2011 to 2012 program and 1 from 2010. From 2011 to 2012, 170 standards were analysed and 6 from 2010. Correlation coefficients have shown adequate correlation

12.1 Duplicates

Illustrated through Figure 14 and Figure 15 are the field duplicates (blue) versus original (red) samples. As we can see there are only small differences between the originals and duplicates. Si and Fe value results show a high reproducibility of the analysis.

Actlabs performed assay analyses in 2011. The data verification was done on the iron (Fe) and Silica (SiO_2) assay results. To represent acceptable error limits of the duplicates values, the plus or minus 20% lines were added to the graphics. Visual analysis of duplicates shows satisfactory correlation. Only one assay appears to be out of the median line for iron and two for the silica values. However, there is no value out of 20% boundaries. The 2011 Actlabs results show a good correlation.

SGS Lakefield and Actlabs in Ancaster proceeded to the 2012 assays analysis. The data verification was done on the iron grade (Fe%) and Silica grade (SiO_2%) assay results from 2012 drilling program. Visual analyses of duplicates of SGS assays show satisfactory correlation. Two holes appear to be outside the average line for Iron and Silicate. Only one result is over the minus 20 % boundary for the silica. This results could be related to the error either at sample collection in the field or sample preparation at Lab., however there is not enough failures to invalidate the results. Iron (Fe) and Silica (SiO_2) assay results from 2012 Actlabs assays return a good correlation. Indeed Visual analyses of duplicates show satisfactory correlation. One assay appears to be out of the average line for Iron and Silicate. Furthermore, no results exceed the 20% boundaries.

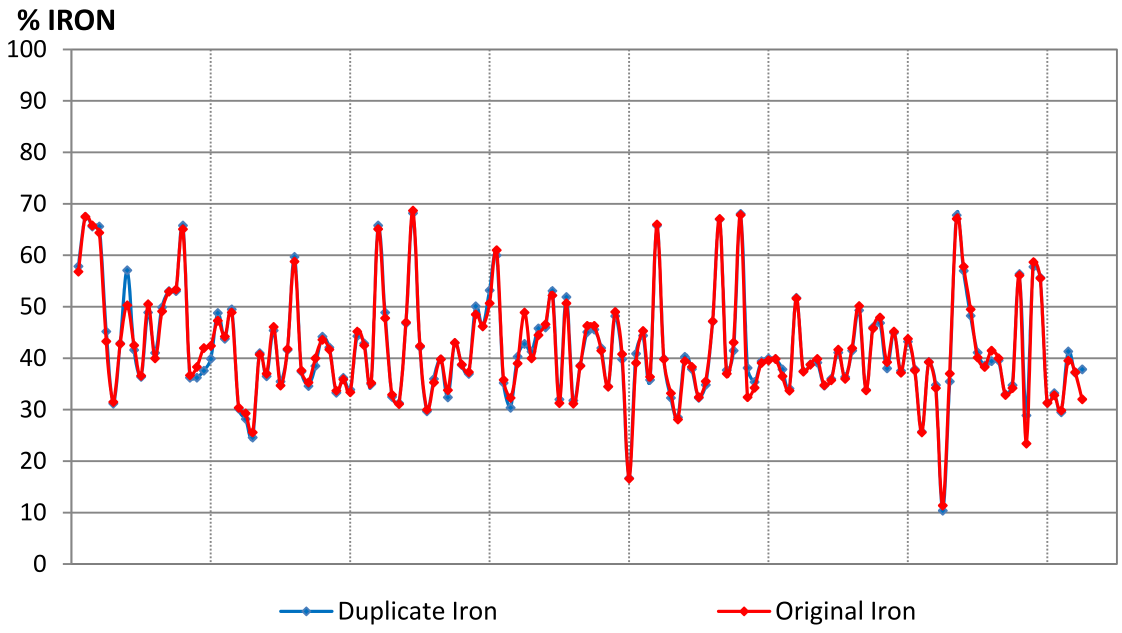


Figure 14 - Iron Duplicate Comparison

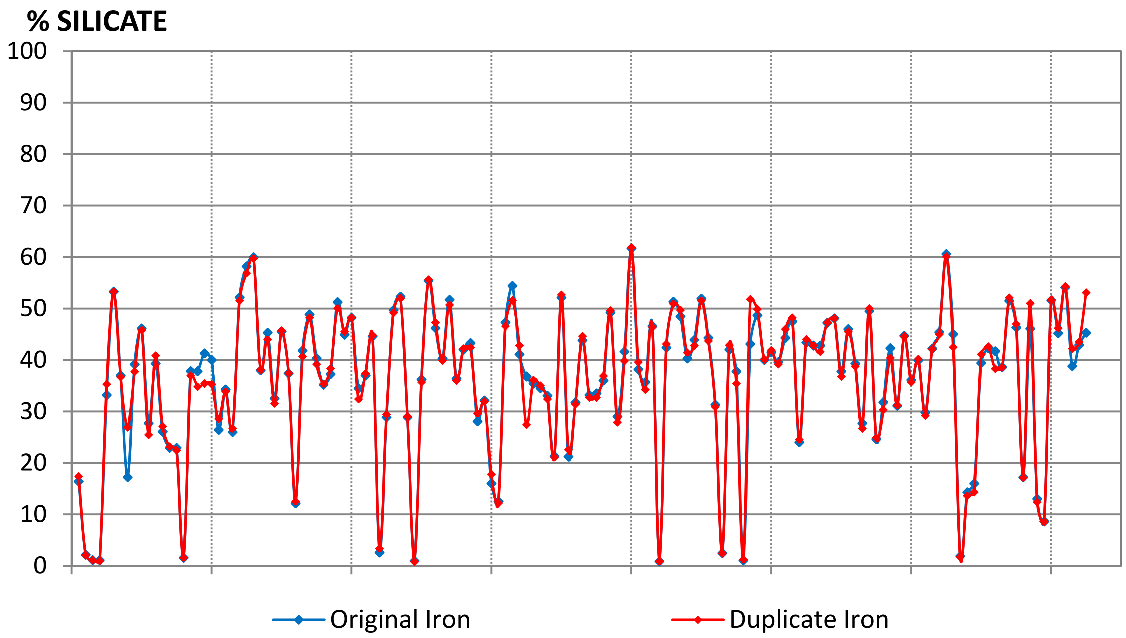


Figure 15 - Silicate Duplicate Comparison

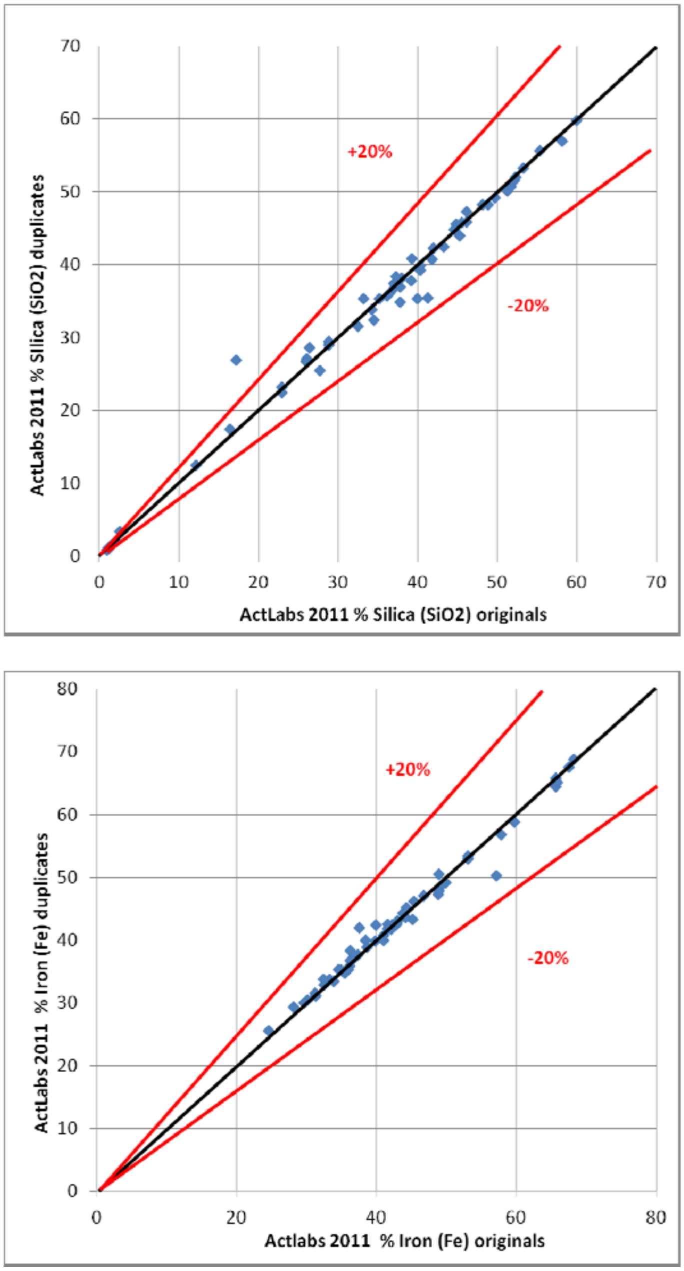


Figure 16 - Assays results for RC drilling programs – Actlabs 2011

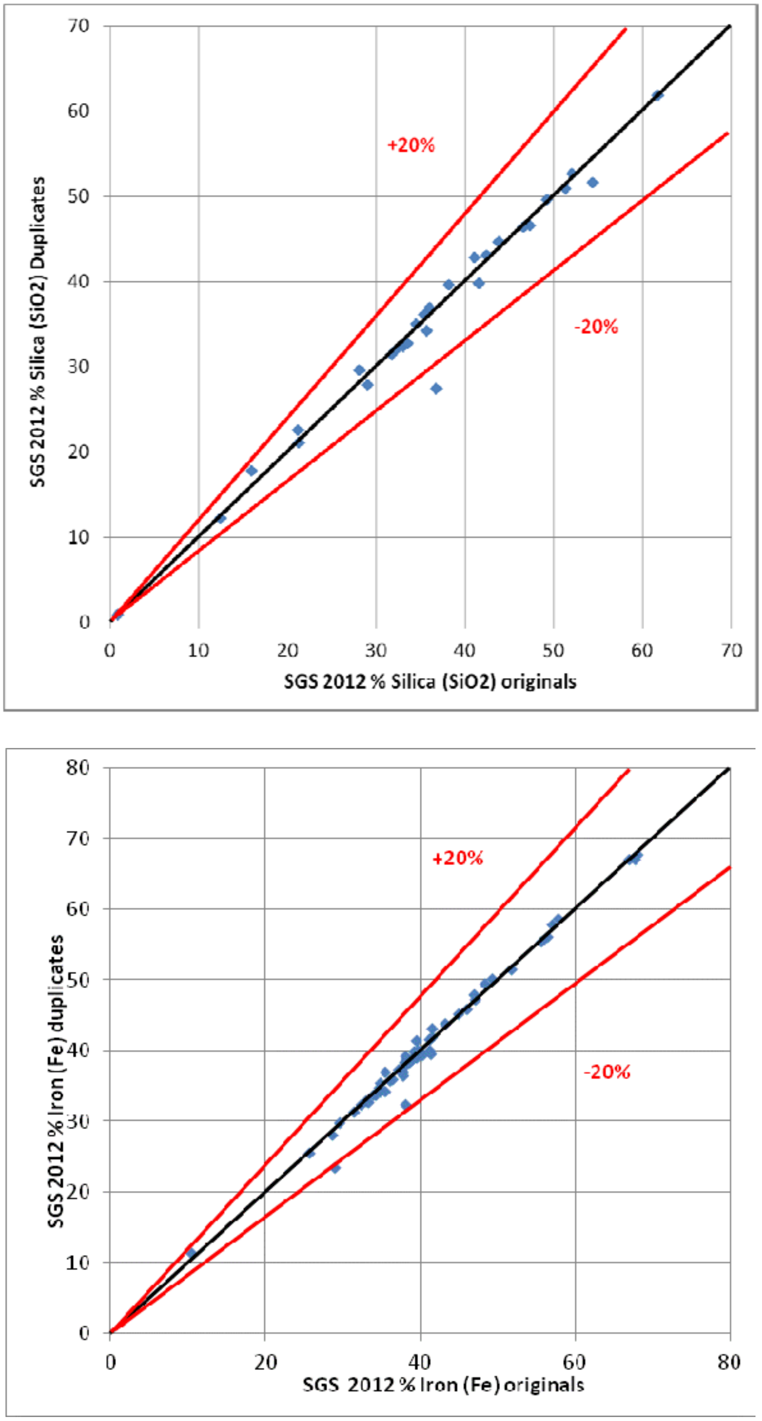
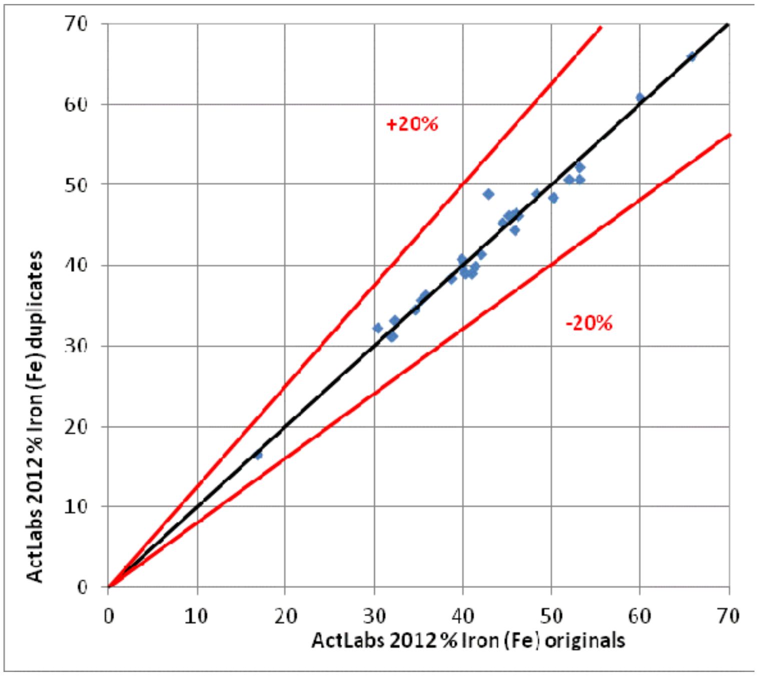


Figure 17 - Assays results for RC drilling programs – SGS Lakefield 2012



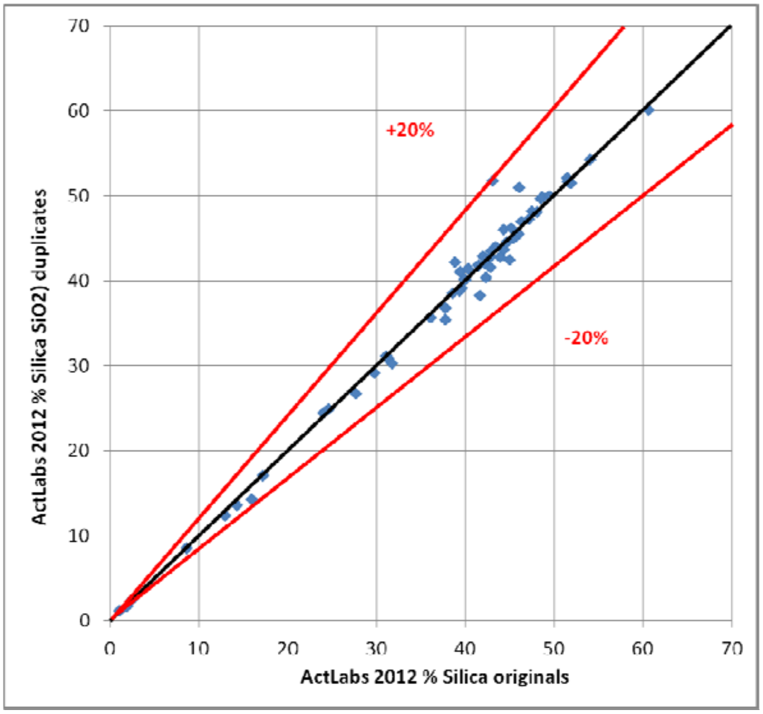


Figure 18 - Assays results for RC drilling programs – Actlabs 2012

12.2 Blanks

A total of 6 different blank compositions were used at Joyce Lake for the QA/QC process. For the QA/QC statistical process, only 4 were analysed herein. The 2 other blank types did not have sufficient number of data to provide useful information. Of the 4 blank types included, all have low values of Iron grade (Mean 0.8) but not the same values of silicate grades. Table 12-2 shows average values for each blank, there is 3 levels of Silicate values (Low %, Medium % and High %).

Table 12-2 - Blank type averages

Blank type	Description	Average Fe %	Average Si %
BL	Silica	1.09	96.29
$CaMg(CO_3)_2$	Dolomite	0.41	3.32
FSP	Feldspar	0.62	59.74
NaCl	Halite	0.25	1.04

The blank values were considered satisfying when the value is less than 1 % Iron (Fe). As a whole, blanks analysis is acceptable (Figure 11). The figure below shows failures with the blank type Bl. This blank type (Bl) appears to have high iron grades, particularly during a period in 2012 at the SGS labs. However others types, NaCl, CaMg and Fsp are satisfying.

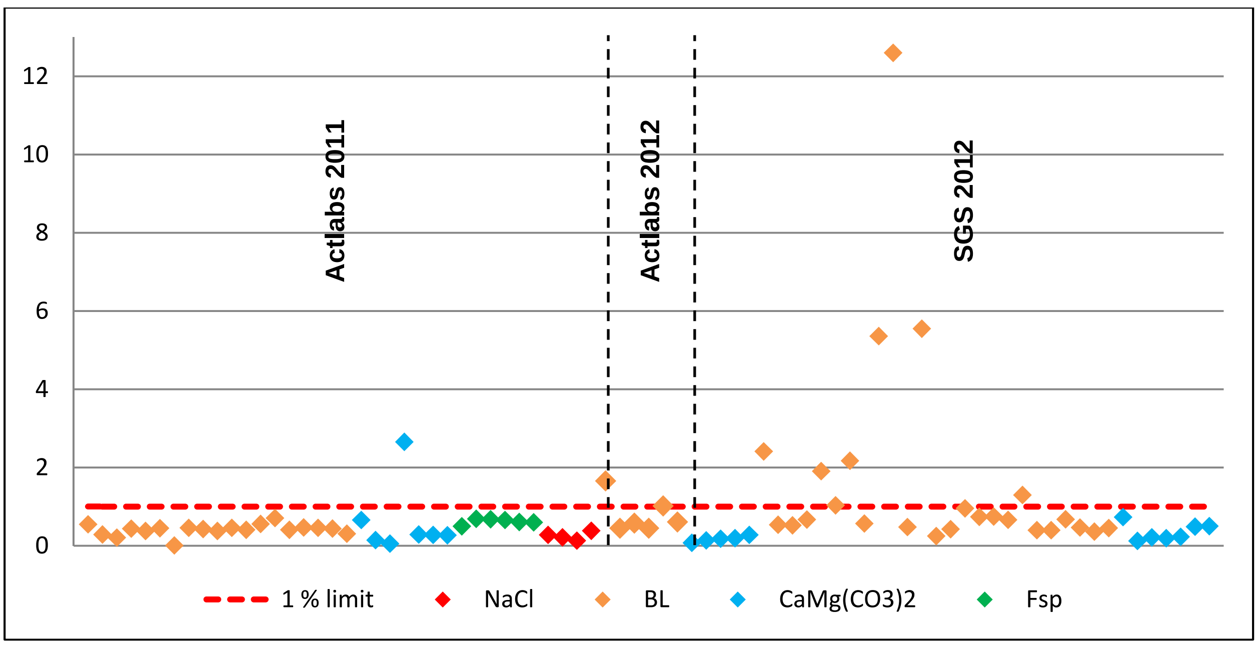
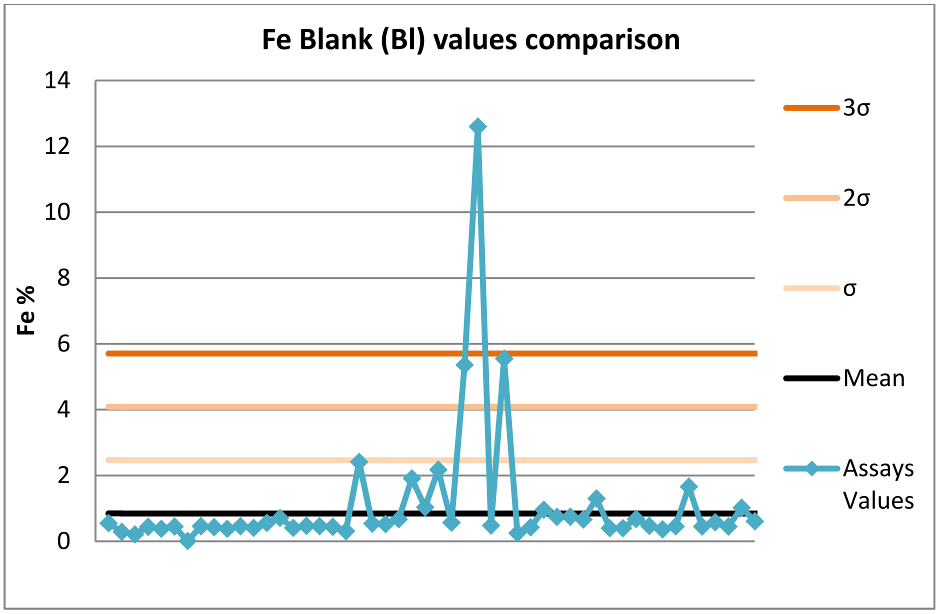


Figure 19 - Fe Blank values comparison (2011 - 2012)

The Figure 20 shows a focus on the blank type “BL” Iron and Silicate grade. If we look at the results from the silica analyses we observe variations in concentration (up to 20% for silica). The amplitude of the anomalies suggests that errors are not related to inter-sample contamination or sample tag errors, and invalid blank material seems to represent a more likely explanation.



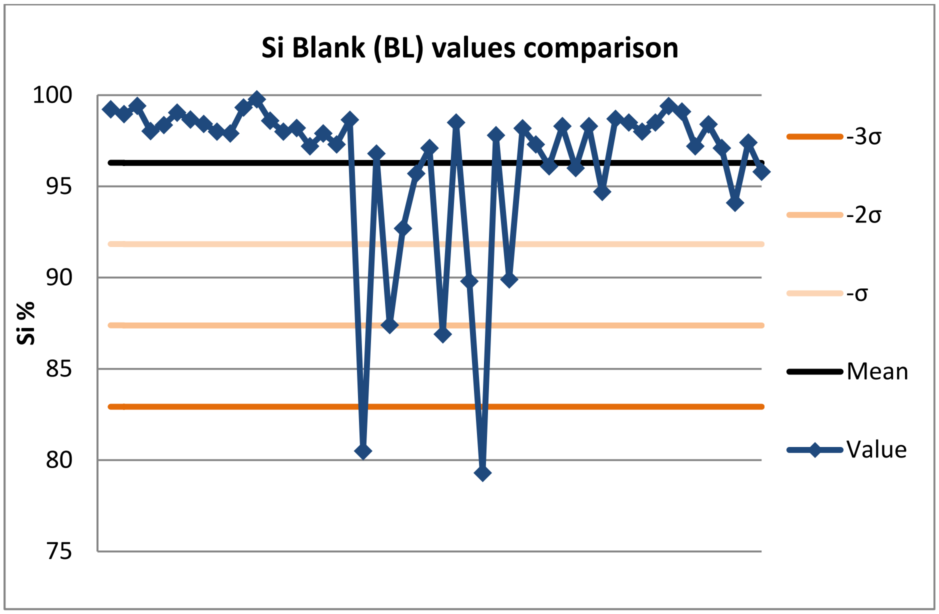


Figure 20 - BL Blank type comparison

To find the origin of errors, holes 105 and 106 were re-assayed due to their high blank values. It was found that assay values remained the same, including hole 105's 5.36% Fe blank (Table 12-3). Only one re-assayed hole gets a significantly different value (Hole 106's blank re-assayed equal to 9% Fe which previously assayed 12% Fe). Those results suggested that high values were due to the blank material.

After consultation with Labec Century Iron geologist, high-Fe blanks are possibly due largely to blank materials, not to the lab. Those materials are taken from the Schefferville area, mostly from the floats derived from the quartzite bed of Wishart Formation under the Sokoman Formation. Occasionally people accidentally choose rocks with hematite inclusions. Some blanks have lower silica contents due to higher alumina content indicating a rock with some feldspar or other tectosilicates present.

Table 12-3 - Holes concerned by Blanks issues

Hole ID	Depth (m)	Values (Fe %)	Re-assay (Fe %)
97	45	2.41	2.41
103	96	1.91	1.91
104	126	2.17	2.17
105	33	5.36	5.36
106	12	12.60	9.00
108	51	5.55	5.55
113	105	1.66	1.66

12.3 Standards

From 2011 to 2012 nine different standards were used in the sampling process. A total of 170 reference material samples were inserted in the sampling process. Table 12-4 shows summary of standards used in the process. In this QA/QC validation, to have significant results, the decision was taken to use only the standard if there are at least five analytical results reported.

Table 12-4 - Standards summary

Standard	Fe % Mean	Si % Mean	Number of values
FER 1	52.74	8.12	2
FER 3	31.46	53.55	2
FER 4	27.42	50.20	1
SCH 1	60.60	8.12	59
STD 1	38.95	35.54	18
STD 2	31.59	44.10	20
STD 3	30.31	43.18	26
STD 4	27.43	44.92	12
TPO 1	34.60	25.16	5

Table 12-5 below shows the results for the 6 standards used in the QA/QC validation procedure; SCH1, STD1, STD2, STD3, STD4 and TPO1. The other three standards did not have sufficient data to provide useful information.

Table 12-5 - Used standards summary

Standard	%Si Mean	% Si Deviation	%Fe Mean	% Fe Deviation
SCH 1	8.13	0.20	60.61	0.24
STD 1	35.54	0.24	38.96	0.17
STD 2	44.10	0.17	31.59	0.20
STD 3	43.18	0.36	30.31	0.19
STD 4	44.92	0.34	27.43	0.16
TPO 1	25.16	0.11	34.60	0.19

The following findings are summarized from the plots of iron and silica results obtained from the inserted standards. The standard deviation was used to determine the quality of measurements. SGS considered that the values within two standard deviations limits were judged well correlated.

SCH1: Only one iron sample was under the -3σ limit. In addition, one other standard was under the -2σ limit. The rest of the samples were around or within the ±1σ limit. For the silicate, only one sample was under the -3σ limit. Furthermore, three others standards were outside the ±2σ limits.

STD1: For both elements, only one sample was outside the ±2σ limits. Four samples were outside the ±σ limits.

STD2: For Iron, three samples were outside the ±2σ limits. Additionally, four samples were outside the ±1σ limits. For silica, one sample was close to the ±3σ limits.

STD3: All the samples were between ±3σ limits. One iron sample was under the -2σ limit and two others very close to the +2σ limit. However, one of the silica values was under the -3σ limit. The remaining results were either close or between the first standard deviation limit.

STD4: Only one iron value was marginally under the -2σ limit. Two others were over the +1σ limit. For silicates results, two samples were over the first standard deviation limit.

TPO1: For iron and silicate two samples were outside the ±2σ limits.

Overall, there are only three samples outside the ±3σ limits; which indicate good global correlation of the standards analyses.

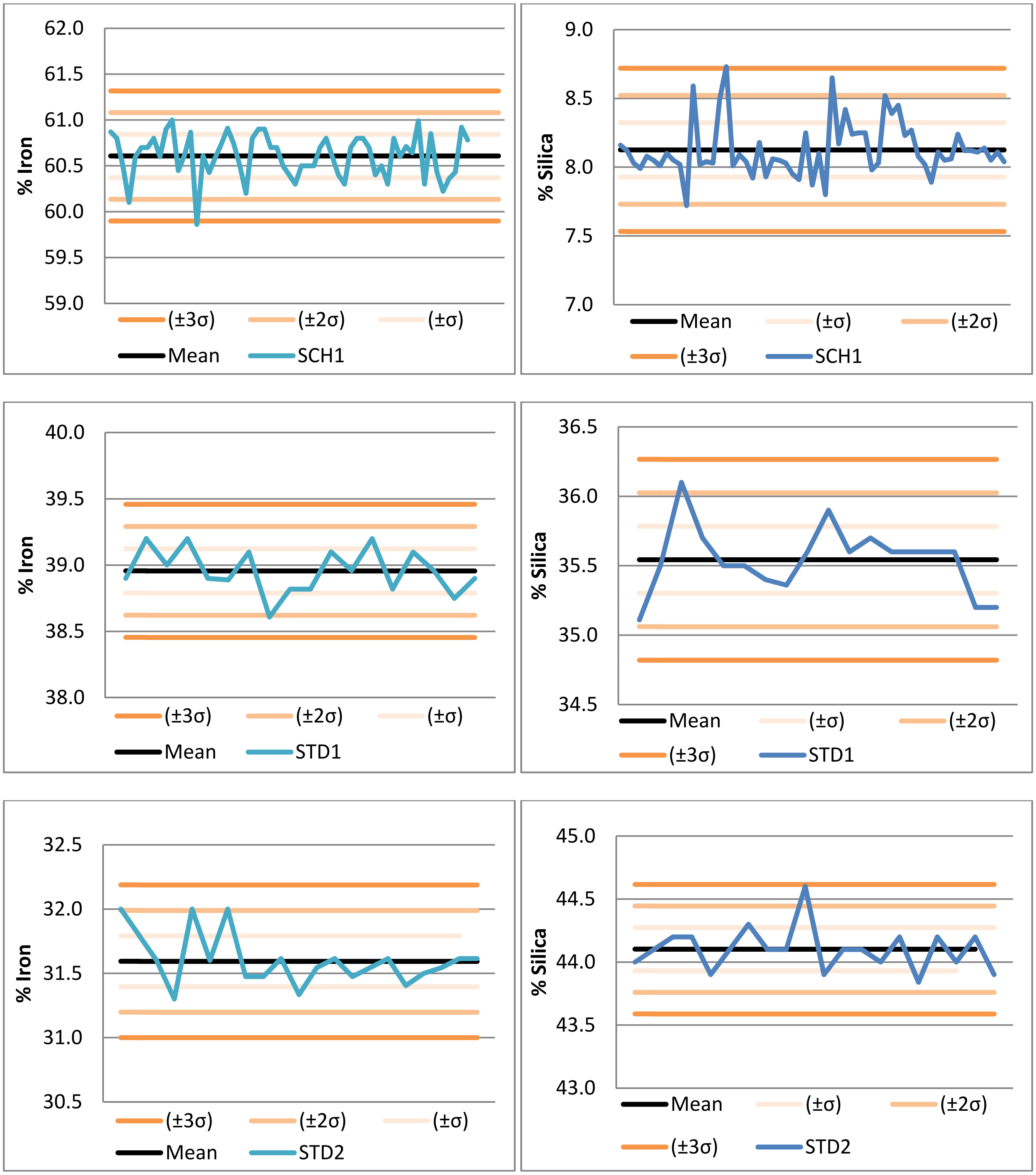


Figure 21 - Standard analysis part 1

Figure 22 - Standard analysis part 2

12.4 Re-Analysis

As part of Joyce Lake QA/QC protocol, 75 Actlabs samples were re-assayed by SGS in June 2012. To represent acceptable error limits of the duplicates values, the plus or minus 20% lines were added to the graphics. The following plotted values confirmed a good correlation between both analyses. The samples re-analysis returns 51 % of higher values and 49 % of lower values. The SGS iron grades show a relative difference averaging 2.8 % higher than Actlabs.

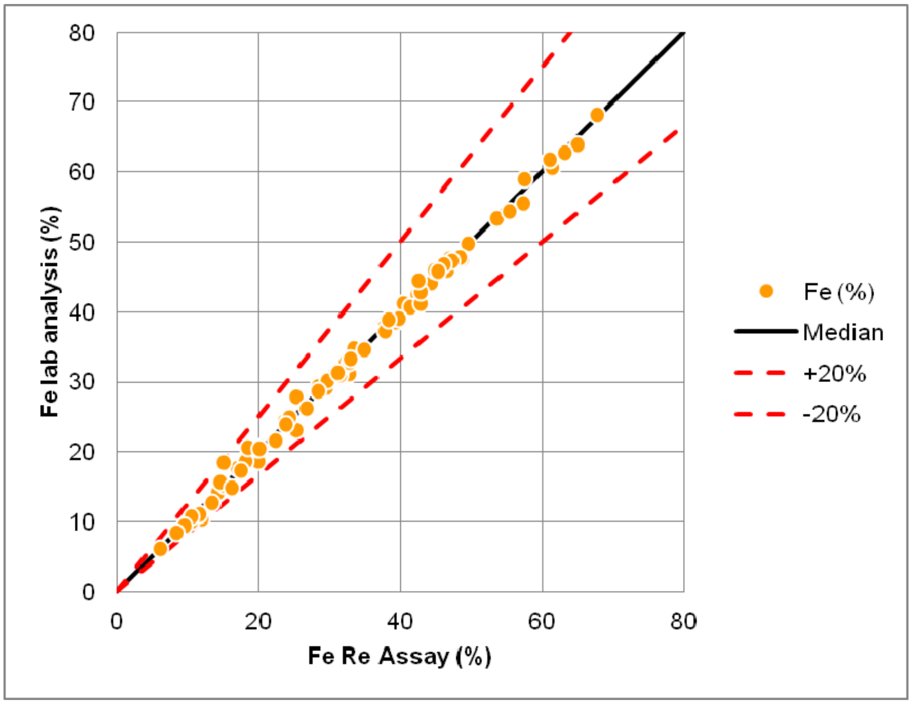


Figure 23 Re assay results versus laboratories results (Fe %)

12.5 Lake Holes QA/QC

The “lake hole” term is a conceptual expression use in the designation of holes drilled during winters on the lake. A separate “lake hole” QA/QC process was done at SGS to confirm their validity as required by the resources estimation. As a result, the three “lake holes” variation, between lab assays and Century internal XRF assays, appear to be the same as the other holes. Furthermore, “lake holes” duplicates were compared. As a result, a good correlation is observable for the duplicates; all values are close to the median line.

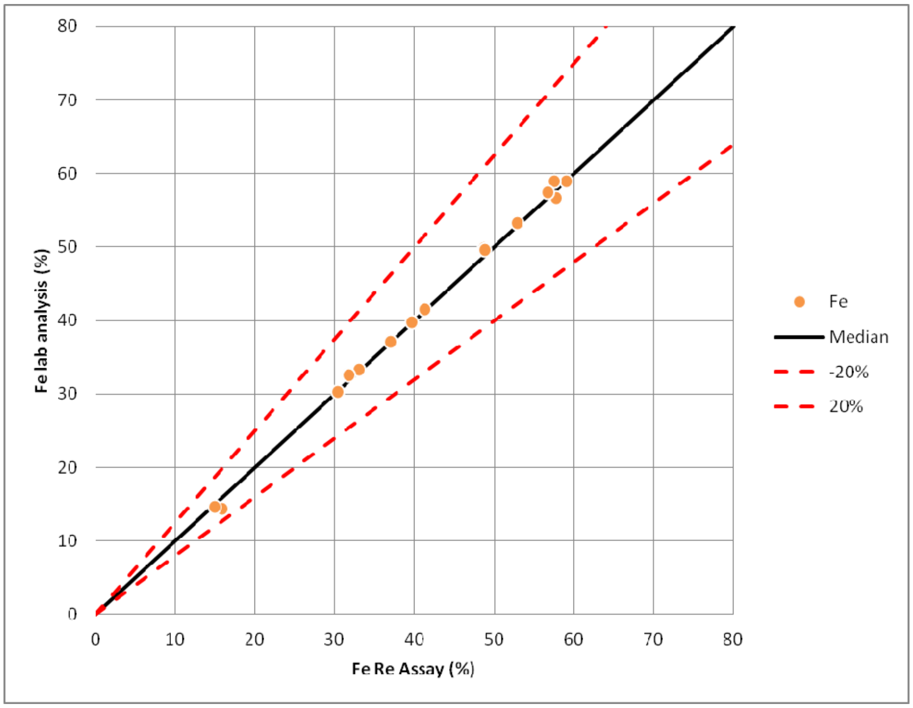


Figure 24 - Duplicates control for iced holes

12.1 QA/QC Conclusion

As part of the 2012 work program at Joyce Lake, Labec Century Iron Inc. implemented a QA/QC protocol which consists of inserting reference materials in the sample series (including both standards and blanks). The QA/QC program also included analysis of duplicates on selected samples.

The limit of plus or minus 20% variation was chosen acceptable variance for XRF analytical process. Most of the differences observed were contained in the range of 20% variance during the QA/QC process. Only a few results were found outside the boundaries and considered as failures. For the 2011 to 2012 drilling program, results return good correlation.

For the blanks, a 1% error line was set as an acceptable limit. However, several issues were found in Iron and Silicate values. The difference was too high to come from sampling contamination. After consultation with Century geologist it was determined that high iron values of blanks came from the blanks sampling process in Schefferville area; for that reason it did not affect the QA/QC results.

Reported results for the standards inserted in the 2011-2012 drill program have shown good correlation except for 3 samples where values compared are higher than the expected mean values of those standards. Those 3 values are not considered to invalidate all the results.

13 Mineral Processing and Metallurgical Testing

Extract of report produced by SGS Minerals Lakefield facilities.

13.1 Evaluation of Wet High Intensity Separation

13.1.1 Bulk Sample Selection

In September 2012 three bulk samples, for a total of 32 tonnes, were collected on site, two of which are described in this report;

- Bulk sample #1: ore presenting lump and sinter products above 64 % Fe requiring no upgrading.
- Bulk sample #2: ore presenting around 60 % Fe for which fine material would require upgrading.
- Bulk sample #3: presenting around 42 % Fe and cannot be used for the metallurgical testwork.

Century Geologists chose extraction zones for sampling at closure of Joyce Lake synclinal fold, near drill hole Joy 12- 65 and Joy 12-66. Soutex supervised the bulk sample extraction and sub sampling. The first rock layer was laid down as overburden to avoid contamination. Rock was shovelled out of the trenches and stocked in different piles to represent where it was extracted from. Samples from bulk sample#1 and #2 were characterized.

13.1.2 Bulk sample results

13.1.2.1 Bulk sample scrubbed

The samples were first scrubbed and screened then a sub-sample of the -10 mesh fraction was split for WHIMS testing. Sample was initially passed at the highest intensity of 25 amperes; the magnetic fraction was successively passed at 20, 15, 10 and 5 amperes. All products were filtered, dried and assayed.

For bulk sample #1, results were almost linear. Results show good recuperation from 5 amperes magnetism, 73.9 % of the sample weight (150.1 g), with 75.3% of the total iron. The total iron grade is 68.3 % and it is the better grade of each magnetism classes. However, from 20 amperes, 56.9 % of the silicate contents were caught. Inspection of the cumulative distribution for successive intensities show that iron and silica values increase with the intensity.

Table 13-1 - Cumulative distribution of SiO_2 and Fe_2O_3, and SiO_2 and Fe assays of for Bulk sample #1

#1	Weight		Cumulative Distribution		Cumulative assays	
	g	*(%)*	*SiO_2 (%)*	*TFe (%)*	*SiO_2 (%)*	*TFe (%)*
5 Amp	150.1	73.9	38.2	**75.3**	1.31	**68.3**
10 Amp	159.4	78.5	43.6	**79.9**	1.41	**68.2**
15 Amp	167.0	82.3	49.3	**83.5**	1.52	**68.1**
20 Amp	175.9	86.7	56.9	**87.8**	1.67	**67.9**
25 Amp	187.1	92.2	69.7	**93.0**	1.92	**67.7**

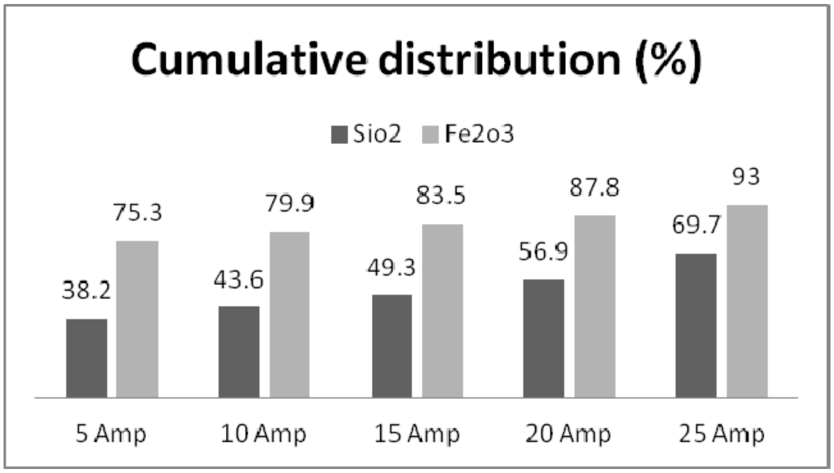


Figure 25 - Cumulative SiO_2 and Fe_2O_3 distributions for Bulk sample #1

Bulk sample #2 results show good recuperation for 20 amperes magnetism, 70.9% of the sample weight (134.3g), with 74.7% of the total iron. The TFe grade is 65.6%. Bulk sample #2 is made of fine material which could be the source of less iron recovery than lump and sinter products of Sample #1.

Table 13-2 - Cumulative distribution of SiO_2 and Fe_2O_3, and SiO_2 and Fe assays of for scrubbed Bulk sample #2

#2	Weight		Cumulative Distribution		Cumulative assays	
	g	*(%)*	*SiO_2(%)*	*TFe (%)*	*SiO_2(%)*	*TFe(%)*
5 Amp	46.6	24.6	8.27	**26.2**	2.90	**66.4**
10 Amp	57.6	30.4	12.1	**32.3**	3.43	**66.1**
15 Amp	70.9	37.4	17.7	**39.4**	4.09	**65.6**
20 Amp	134.3	70.9	34.6	**74.7**	4.22	**65.6**
25 Amp	148.0	78.1	49.1	**81.2**	5.42	**64.7**

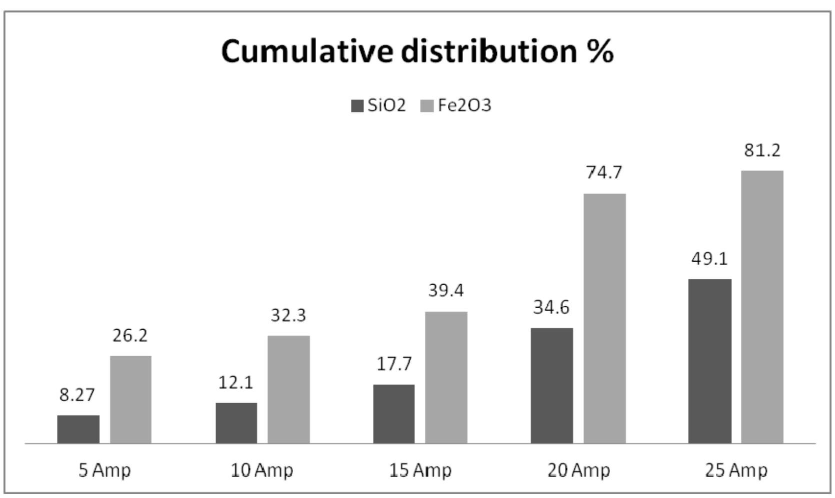


Figure 26 - Cumulative SiO_2 and Fe_2O_3 distributions for Bulk sample #2

Scrubbing method appears to recover a good proportion of iron from bulk sample #1. However, for bulk sample #2, higher intensity is required for a good recovery. This problem is due to the structure of the bulk sample #2. This one is made of fine materials need higher intensity to recover the fine particles of iron.

13.1.2.2 Bulk samples Wet Washed:

A subsample of bulk sample #2 was wet screened and a -10 mesh fraction was split for WHIMS testing. The sample was initially passed at the highest intensity of 25 amperes. The magnetic fraction was successively passed at 20, 15, 10 and 5 Amp. All products were filtered and assayed. Basically, wet washing eliminated fine materials like clay and silt.

Contrary to scrubbed bulk sample #2, results show good recuperation for 5 amperes magnetism, 59.3 % of the sample weight (125.6 g), with 63.3 % of the TFe distribution. Furthermore, the iron grade is 65.9 %. These results show that wet washed method is a good treatment for fine material. However, this method also affects other components distribution.

Table 13-3 - Cumulative distribution of SiO_2 and Fe_2O_3, and SiO_2 and Fe assays of for wet washed Bulk sample #2

#2	Weight		Cumulative Distribution		Cumulative assays	
	g	*(%)*	*SiO_2(%)*	*TFe(%)*	*SiO_2(%)*	*TFe(%)*
5 Amp	125.6	59.3	19.7	**63.3**	2.92	**65.9**
10 Amp	134.8	63.7	23.1	**67.7**	3.19	**65.7**
15 Amp	145.2	68.6	26.8	**72.8**	3.43	**65.5**
20 Amp	155.8	73.6	33.1	**77.7**	3.95	**65.2**
25 Amp	171.4	81.0	46.3	**84.5**	5.02	**64.4**

Next figure (Figure 27) shows the difference between the percentages of weight of iron recovered minus the silica recovered. The difference was higher for wet washed method for lower magnetism. It shows that wet washed permit to recover more iron with lower magnetism and by this way to decrease silica recovery.

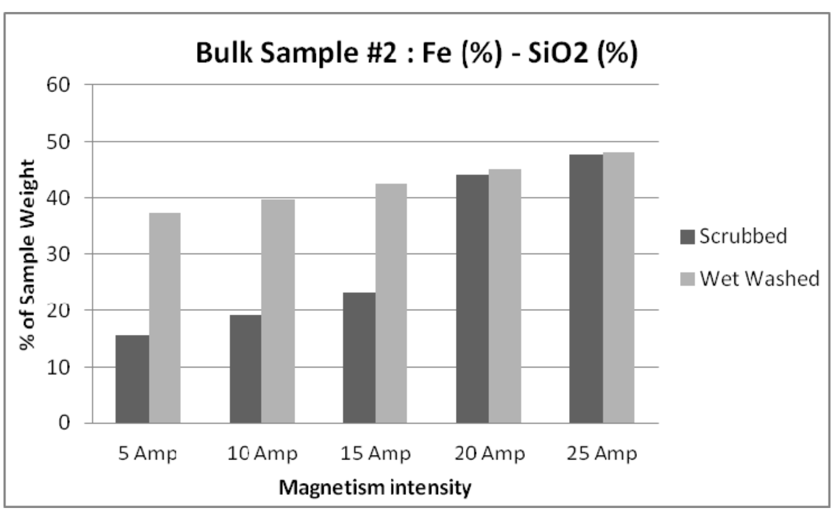


Figure 27 - Bulk sample #2 Value = (Iron grade – Silica grade) scrubbed and wet washed

13.2 Wilfley test

A sample of bulk sample #2 scrubbed and wet washed; were passed to the Wilfley table. The minus 10 mesh portions were submitted to Whole Rock Analysis assays. Whole rock analysis is the determination of major element oxides of a rock sample. This will total approximately 100% in non-mineralized samples. The minus 10 mesh material was submitted to a single stage of Wilfley gravity separation to try to generate an iron concentrate of 64% Fe. The Wilfley test was run in open circuit, with no recirculation, and two streams (concentrate and tailings) were collected. Both products were submitted to WRA assays.

The wet washed fraction shows better distribution of the iron and the silica. At least, 82.7% of the TFe distribution with a grade of 63.2% TFe, is recovered in the concentrate contrary to 78.7% of the iron with a grade of 63.1% TFe for the scrubbed fraction. Conversely, the iron distribution in the tailings 2% lower in the wet washed samples than the scrubbed sample. A higher grade of silica was observed in the tailings for the wet washed sample, 15.6% contrary to 13.7%. The following graphics presents these results.

This test allows a better weight recovery, better TFe grade in the concentrate with lower Silica grade and furthering more in the tailings lower TFe grade and higher Silica grade.

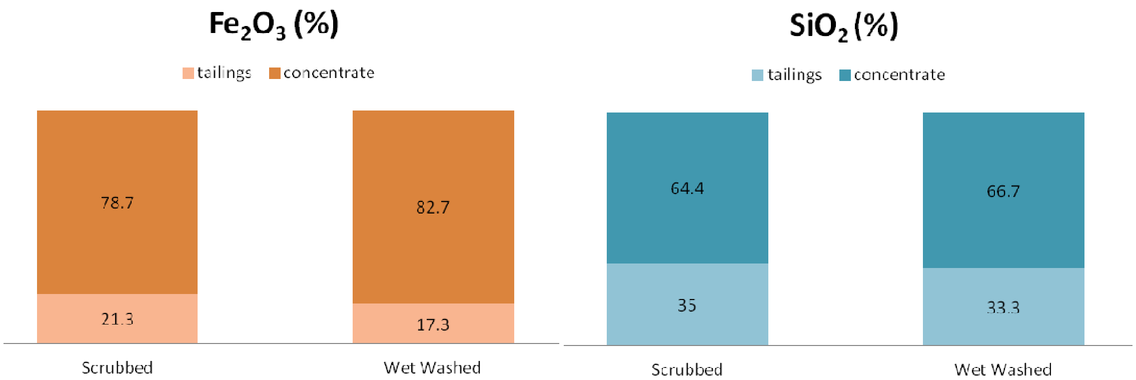


Figure 28 – Fe_2O_3 (%) distribution and SiO_2 (%) distribution

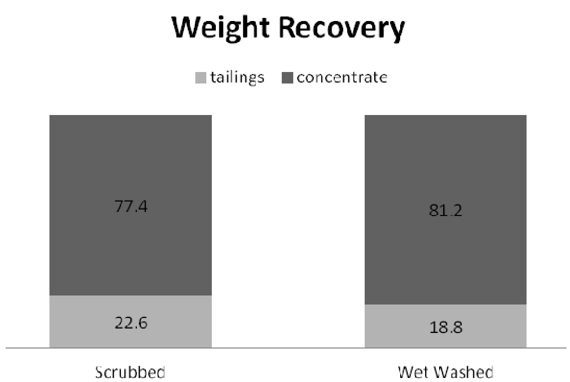


Figure 29 - Weight recovery (%)

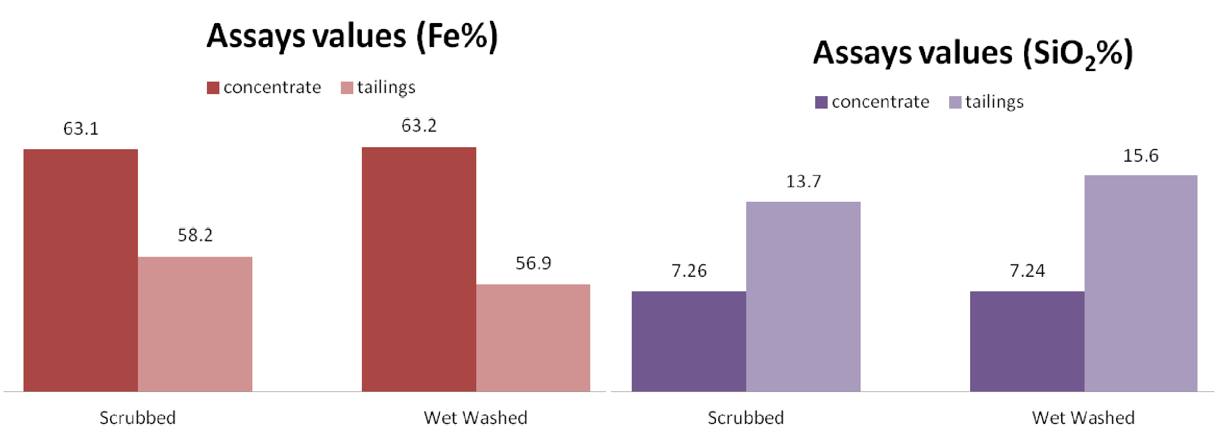


Figure 30 - Silica and Iron grade values

14 Mineral Resource Estimates

14.1 Introduction

The resource block models for Joyce Lake uses drill hole data, which comprises the basis for the definition of 3D mineralized envelopes with resources limited to the material inside those envelopes. Drill hole data within the mineralized envelopes are then transformed into fixed length composites followed by interpolation of the grade of blocks on a regular grid and filling the mineralized envelopes from the grade of composites in the same envelopes. All the interpolated blocks below the topography make the mineral inventory at that date and they are classified according to proximity to composites and corresponding precision/confidence level. Technical and economic factors are then applied to the blocks in the form of a pit-optimization and cut off grades to constrain the resources to those that present a reasonable prospect of economic extraction.

A summary of the mineral resource estimate, based on the drilling results from the 2011-2012 drilling program show 10 million tonnes of measured and indicated mineral resources at an average grade of 59.45% total Iron (TFe) plus an additional 5.6 million tonnes of inferred mineral resources, at cut-off grade of 50% TFe.

Table 14-1 - Summary of Mineral Resource Estimate at Joyce Lake DSO Project

Cut-off 55% Fe	Tonnes	%Fe	%SiO2	%Al2O3	%Mn
Measured	4,050,000	62.31	7.42	0.58	0.93
Indicated	3,500,000	60.82	9.28	0.60	1.06
M+I	7,550,000	61.62	8.29	0.59	0.99
Inferred	2,700,000	59.62	11.82	0.49	0.48

Cut-off 50% Fe	Tonnes	%Fe	%SiO2	%Al2O3	%Mn
Measured	5,050,000	60.44	10.21	0.58	0.88
Indicated	4,950,000	58.44	12.77	0.62	0.98
M+I	10,000,000	59.45	11.48	0.60	0.93
Inferred	5,600,000	55.78	17.5	0.47	0.46

14.2 Geological Interpretation and Modeling

The Joyce Lake iron deposit is hosted in folded banded iron formations of the Proterozoic Sokoman Formation. The iron mineralization is stratabound, sedimentary in origin, and occurs within a synclinal structure plunging shallowly to the southeast. The main DSO enrichment is within the nose of the syncline. Century provided to SGS a three dimensional model for the main stratigraphic rock units of the Sokoman Formation as GEMS wireframes interpreted from the drilling data.

- UMH (Upper Massive Hematite)
- RC (Red Chert)
- LMH (Lower Massive Hematite)
- LRC (Lower Red Chert)

Each stratigraphic unit exhibits different iron content and variable magnetite and hematite proportions. The UMH and LMH are generally the DSO bearing units. For resource modelling, a three dimensional model for the interpreted DSO was generated, hereafter referred to mineralized envelopes.

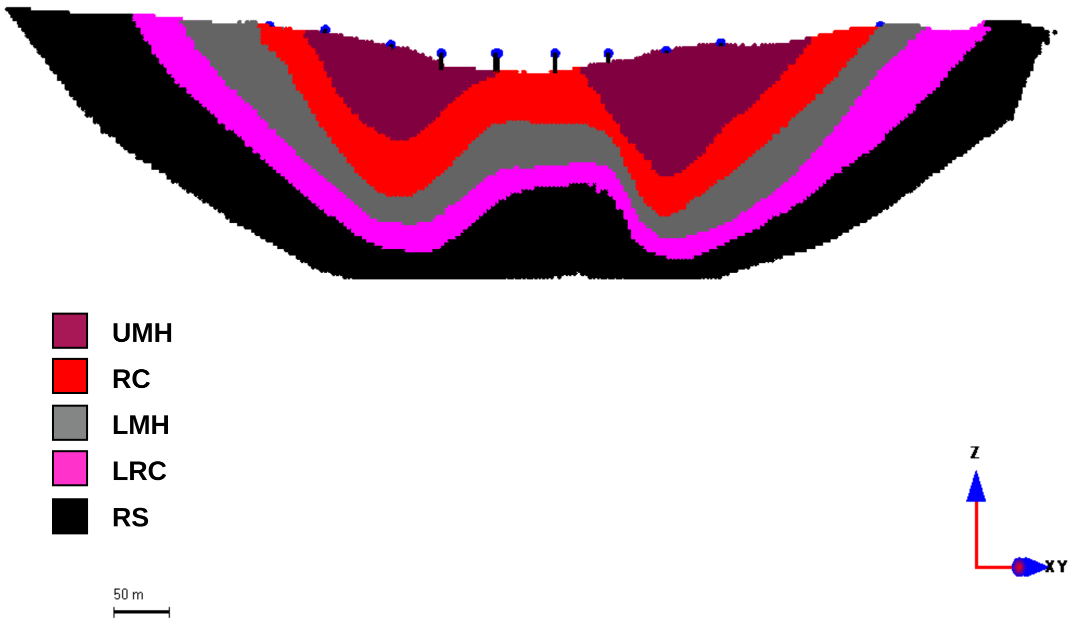


Figure 31 - Lithological layers of Joyce Lake property (section Joy _L0)

Because the deposit folds NW-SE and slopes SE, transverse sections were used rather than longitudinal sections. A total of 18 prisms were used with a spacing of about 50 meters.

14.3 Mineral Resources Estimation Methodology and Geological Modeling

The Resources Estimation and classification section of this report on the Joyce Lake property mineral resource estimate was prepared by Claude Duplessis P.Eng. Mr. Duplessis is responsible for this section and the whole report. He is a qualified person by virtue of education, experience and membership in a professional organization.

The current classified resources of the Joyce Lake Deposit reported below are compliant with standards as outlined in the National Instrument 43-101.

14.3.1 Resource Estimation

As usual, Joyce lake DSO resources were estimated through the construction of a resource block model with small blocks on a regular grid filling an interpreted mineralized envelope and with grades interpolated from measured grades of composited drill hole samples around the blocks and within the same envelope. Blocks are then assigned to resource categories according to average proximity to samples.

14.3.2 Envelopes and Block model definition

Limits of mineralized zones (Envelopes Figure 32) were interpreted on sections from drill hole assay information available on the sections. The cut-off used to delineate potentially mineralized material was 50% Fe Cut-off applied to original (3 m) assay intervals. Also to obtain the current iron deposit, the model may include some internal waste with a grade less than 50% Fe Cut-off. The main iron deposit called DSO_LMH is located in the Lower Massive Hematite (LMH) lithological layer between the Upper Red Chert (URC) and the Lower Red Chert (LRC). Two other block models, DSO_UMH1 and DSO_UMH2, were created in the Upper Massive Hematite Layer. A total of 18 sections were used with spacing of about 50 meters to define the envelope.

The block model coordinates are based on the local UTM grid and was centred within the three envelopes. Blocks measure 5 meters long by 5 meters wide by 3 meters thick. The overburden layer was defined by a wireframe joining the base of drill hole casings depths across the area. Information on the block models is presented in Table 14-2.

Table 14-2 - Block Models Parameters

	X (m)	Y (m)	Z (m)
Size	5	5	-3
Starting Coordinate	657900mE	6085310mN	590
Ending Coordinate	659175mE	6086685mN	302

DSO_LMH	Total number of blocks	81,807 (100%)
	Total estimated blocks	81,807 (100%)
	Volume	6,135,525 m^3
DSO_UMH 1	Total number of blocks	9,549 (100%)
	Total estimated blocks	9,549 (100%)
	Volume	716,175 m^3
DSO_UMH 2	Total number of blocks	10,553 (100%)
	Total estimated blocks	10,553 (100%)
	Volume	791,475 m^3

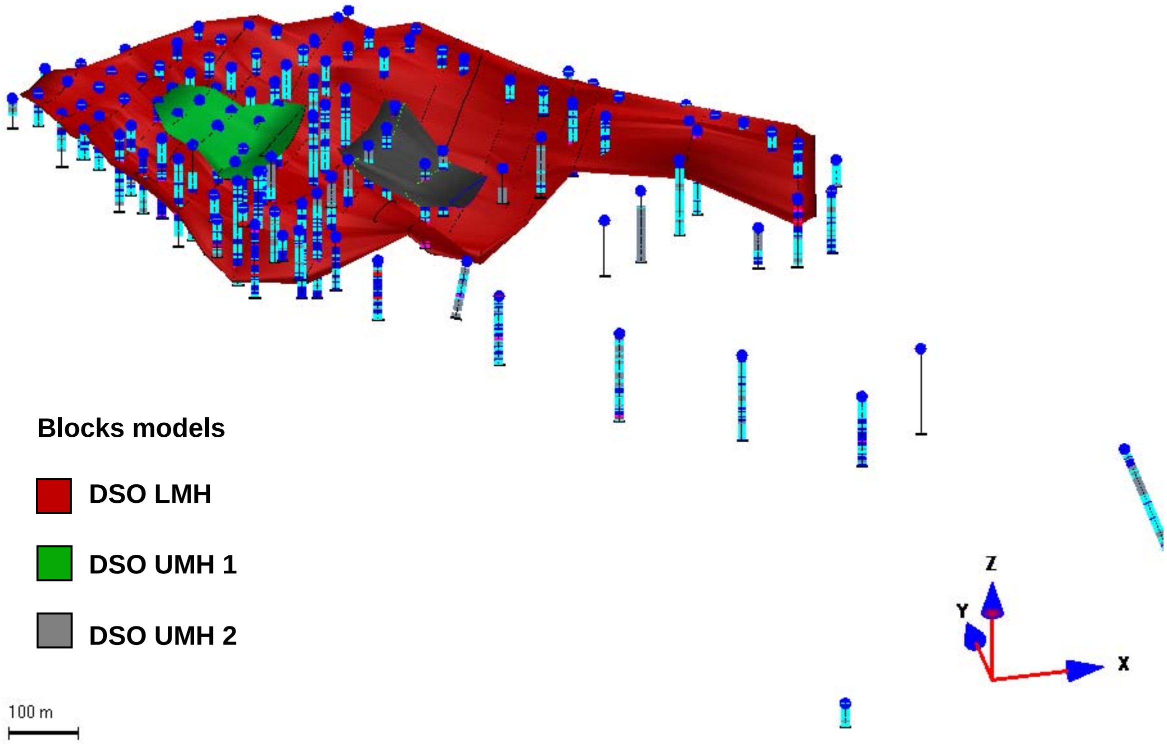


Figure 32 - Joyce Lake Envelopes for block modeling

14.3.3 Composites Used for Estimation

Block model grade interpolation was conducted on composited assay data. A composite length of 3 meters was chosen to reflect the 3 meter RC sampling intervals used on the Joyce Lake deposit compositing was done on the entire RC drill holes. A total of 77 holes and 817 composited intervals totalling 2,451 meters were used for the block models.

For block model estimation, we used 3 meter long bench composites with a minimum sample length of 1.5 meters to generate a composite within the mineralized intervals. Interpolation of the average grade of blocks within interpreted mineralized solids from nearby mineralized composites was accomplished by an inverse square interpolation, with two distinct ellipses employed and one sphere. The procedure was run in several passes with search conditions (size of search ellipsoid, minimum data in search ellipsoid) relaxed from one pass to the next until all blocks within the mineralized solid were interpolated. The orientation and size of ellipsoids as well as the min./max. numbers of composites used in the ellipsoid are fixed. In this case, two ellipsoids and one sphere were used with fixed radii (Table 14-3). As we will see further down, those interpolation passes were also used as starting points to classify the resources interpolated in the blocks.

Table 14-3 - Ellipsoid parameters

Ellipsoid	Shape	X/Y/Z (m)	Min Composites	Max Composites	Limit/Sample/Hole
A	Saucer	75/60/5	3	10	3
B	Saucer	150/120/10	9	10	3
C	Sphere	150	3	10	3

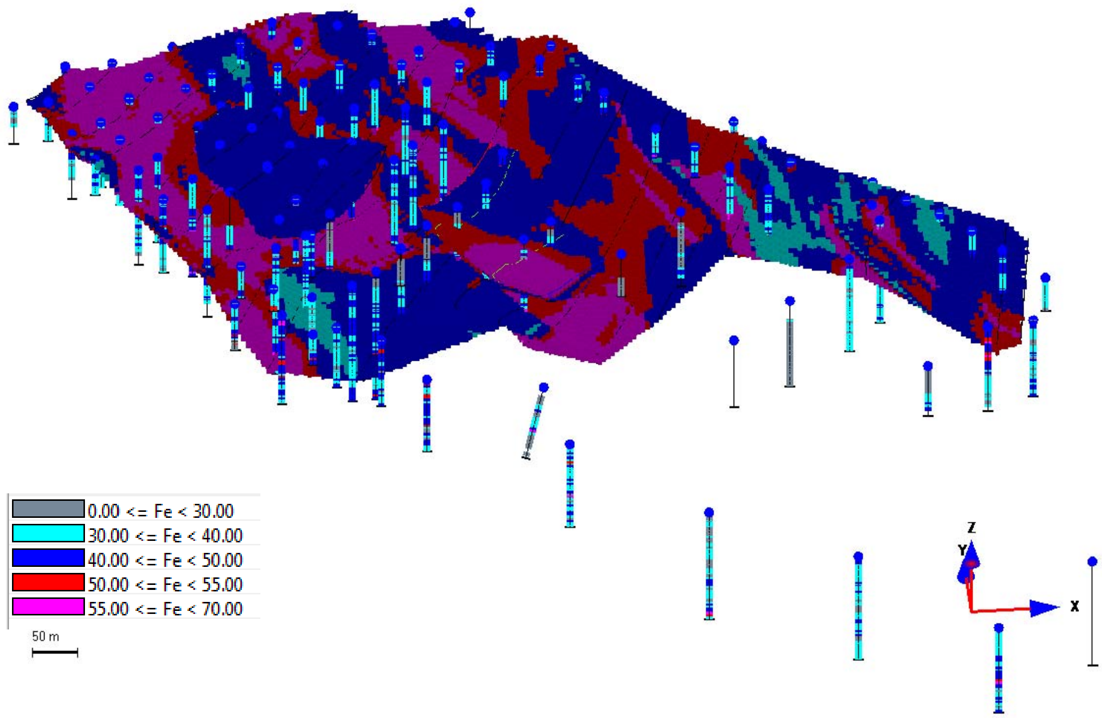


Figure 33 - Blocks estimation, Joyce Lake DSO iron deposit (SGS)

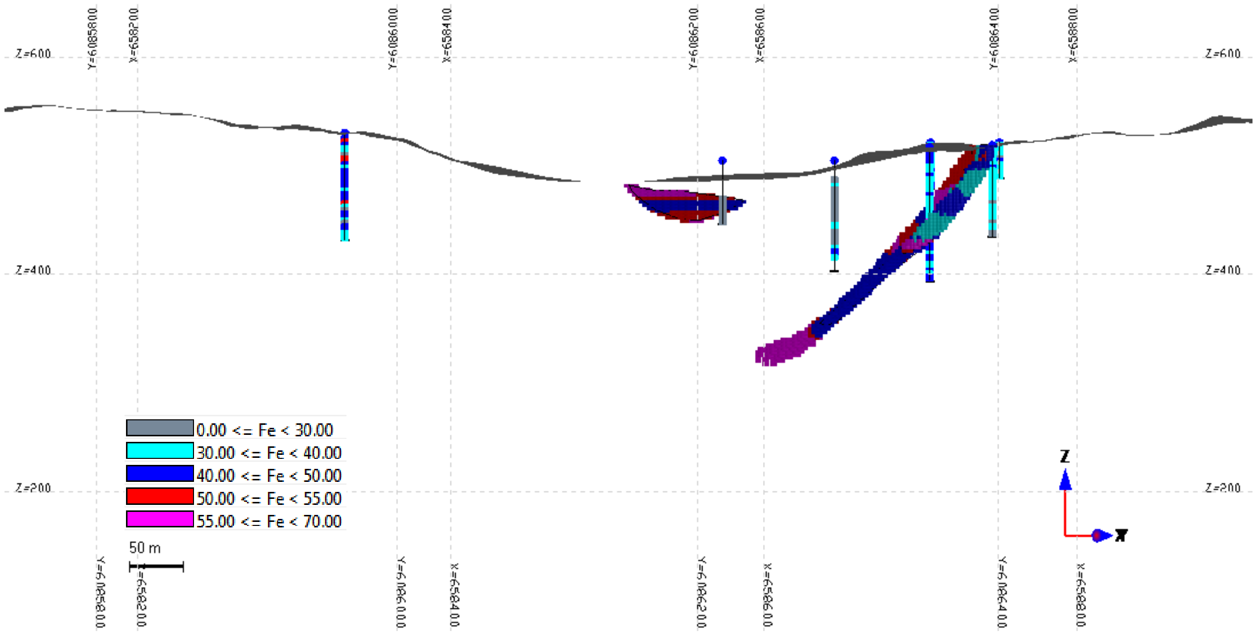


Figure 34 - Transverse View Section L20S, Joyce Lake Property

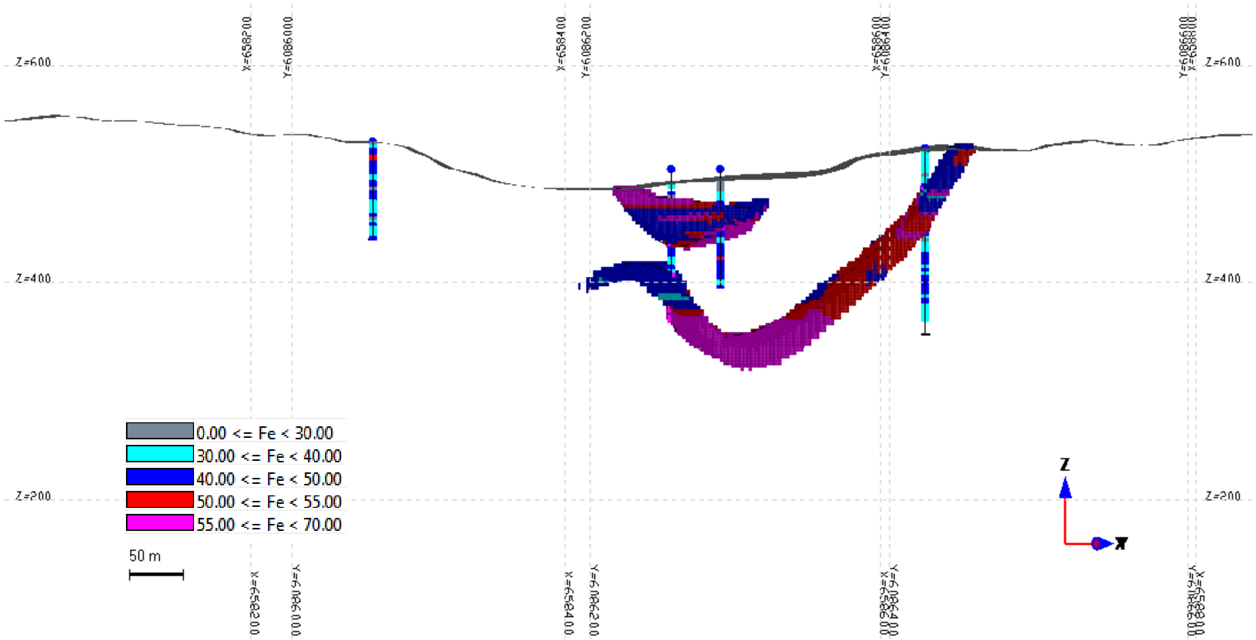


Figure 35 - Transverse View Section L10S, Joyce Lake Property

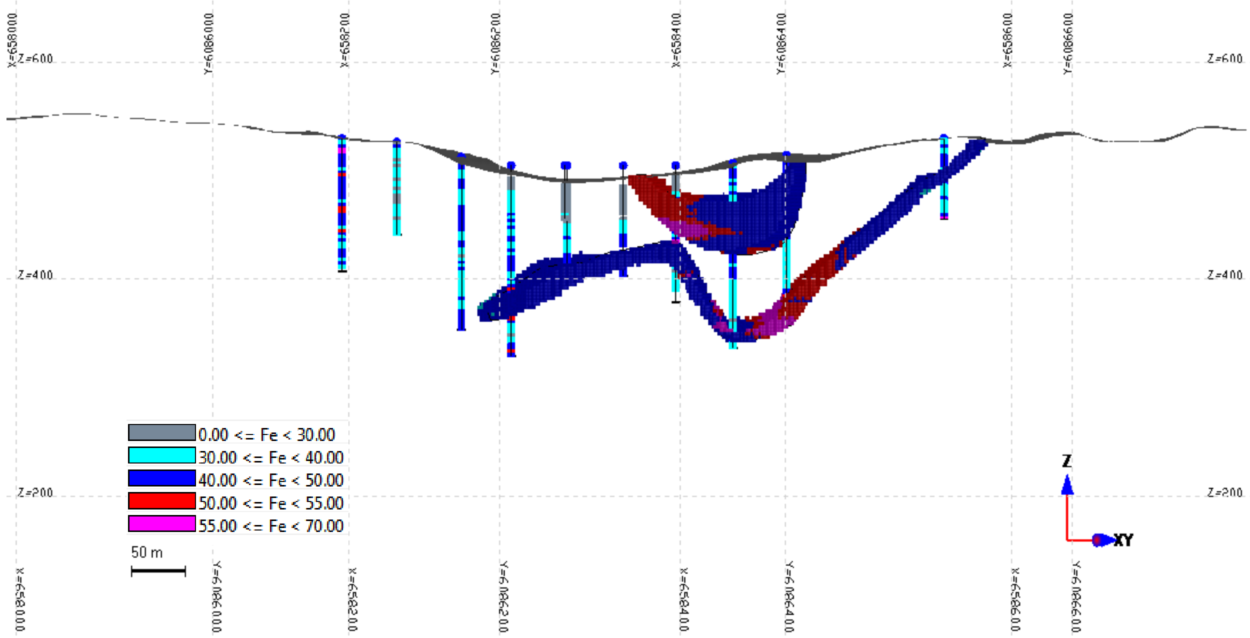


Figure 36 - Transverse View Section L00N, Joyce Lake Property

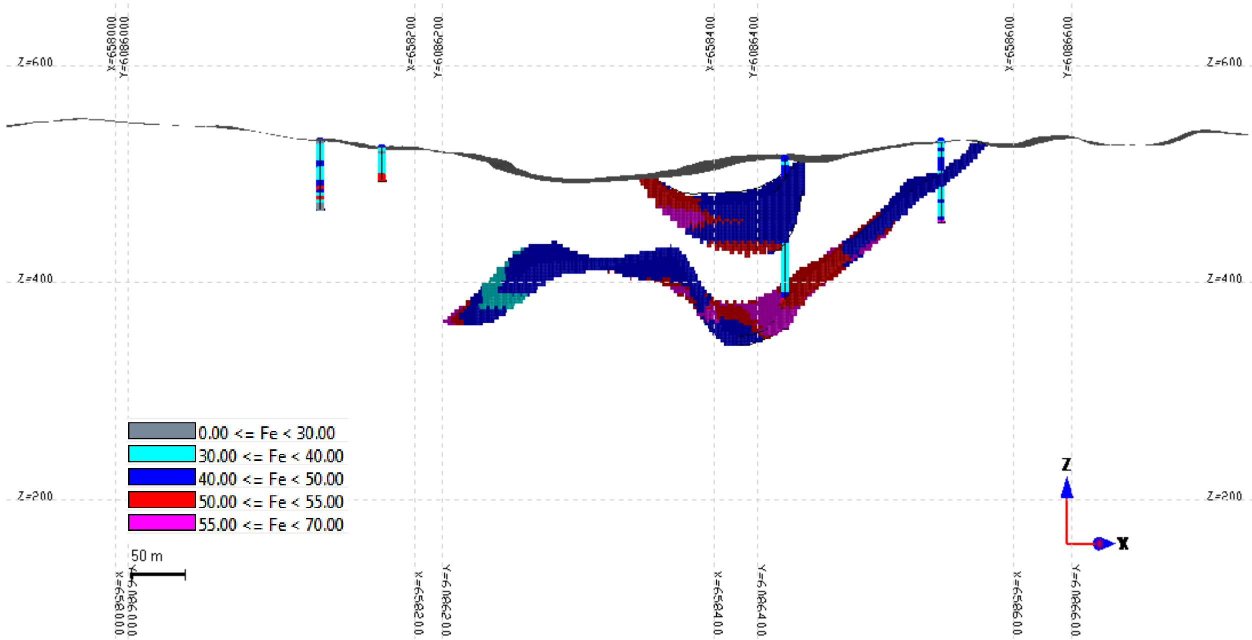


Figure 37 - Transverse View Section L05N,, Joyce Lake Property

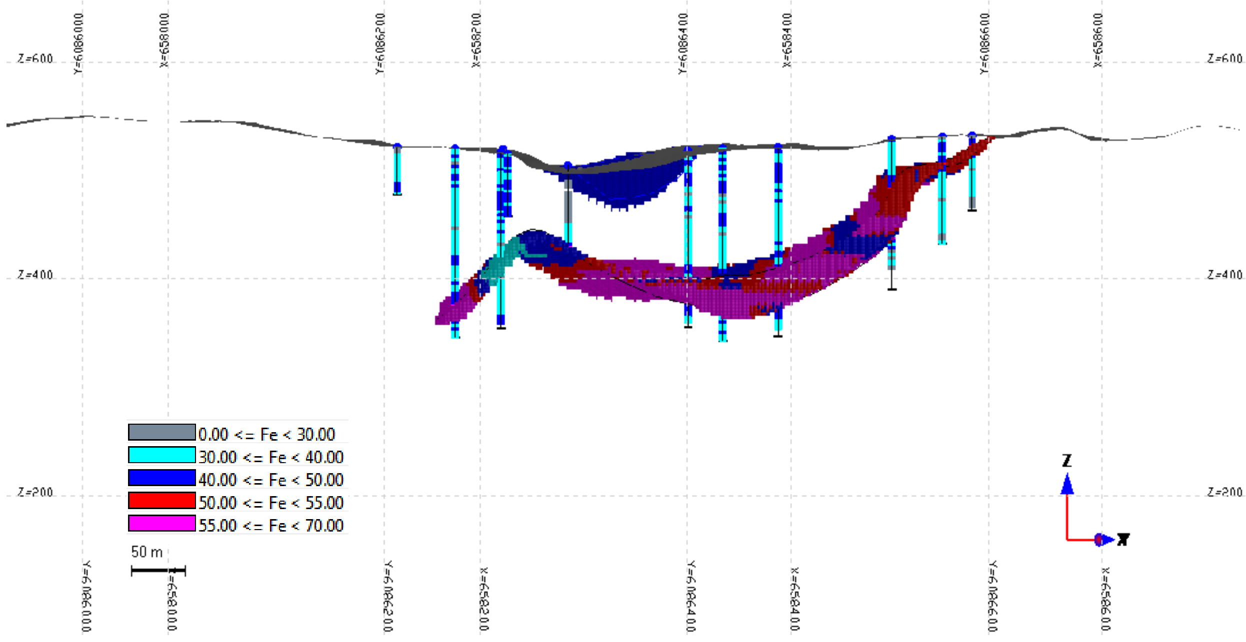


Figure 38 - Transverse View Section L10N, Joyce Lake Property

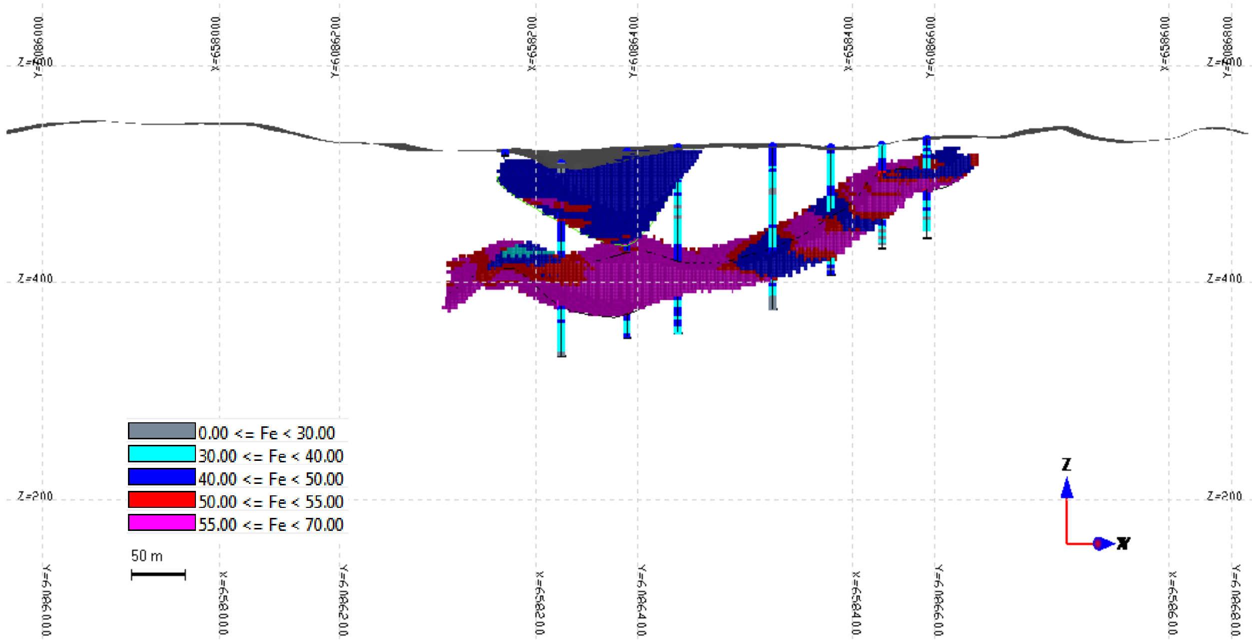


Figure 39 - Transverse View Section L15N, Joyce Lake Property

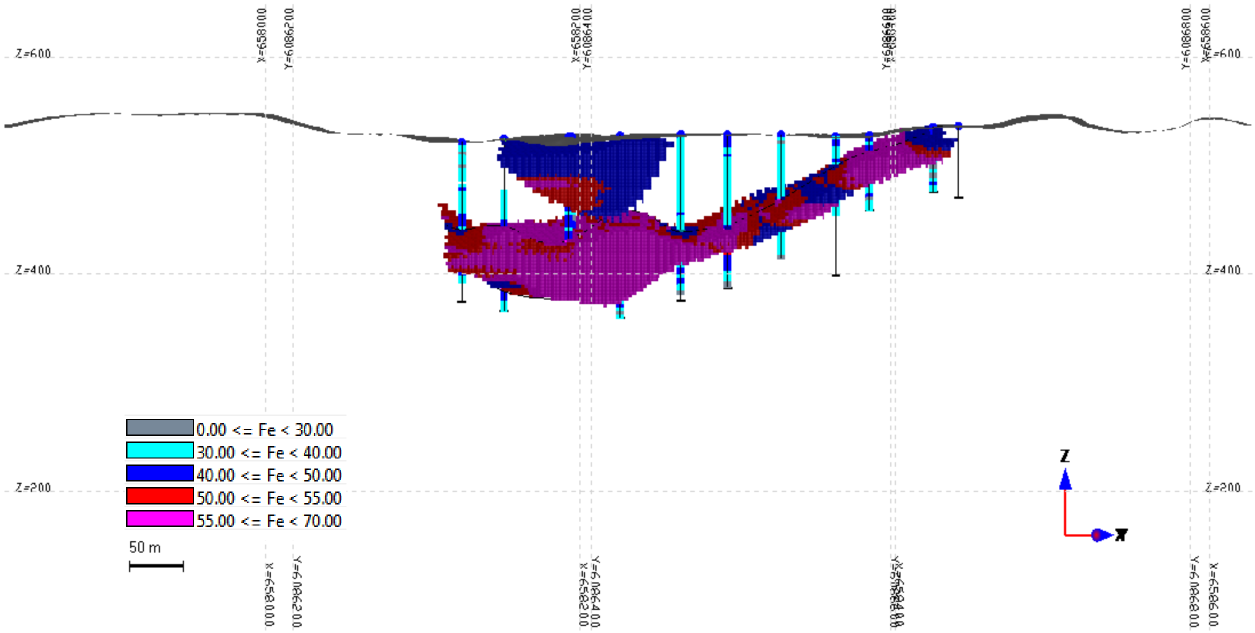


Figure 40 - Transverse View Section L20N, Joyce Lake Property

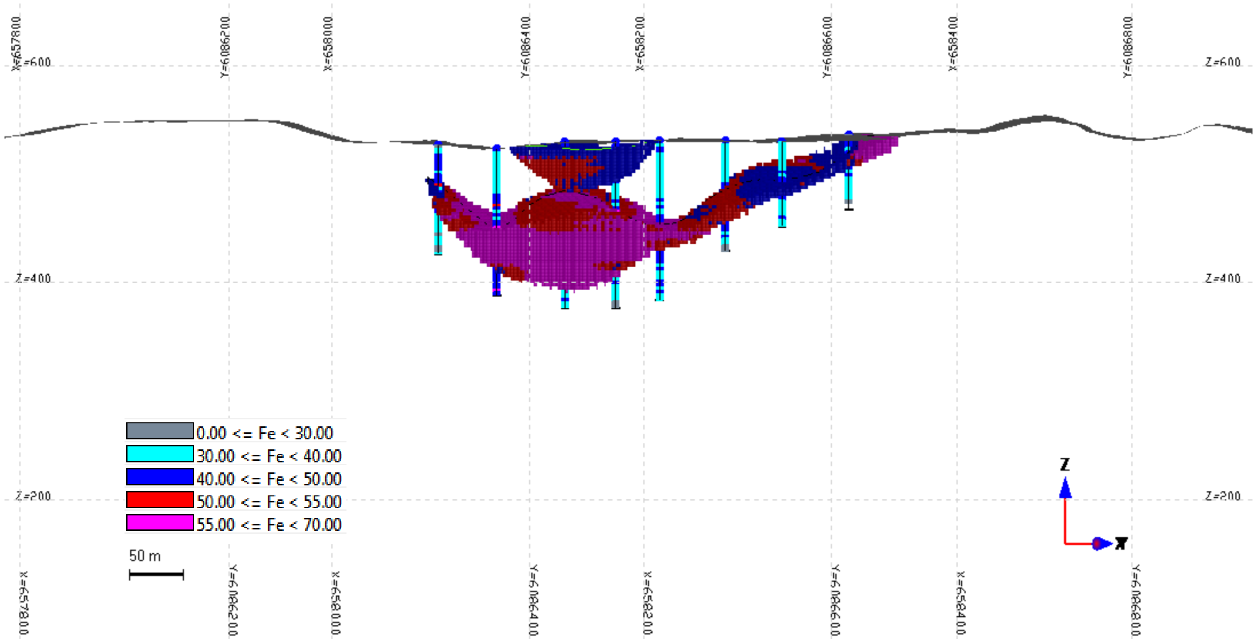


Figure 41 -Transverse View Section L25N, Joyce Lake Property

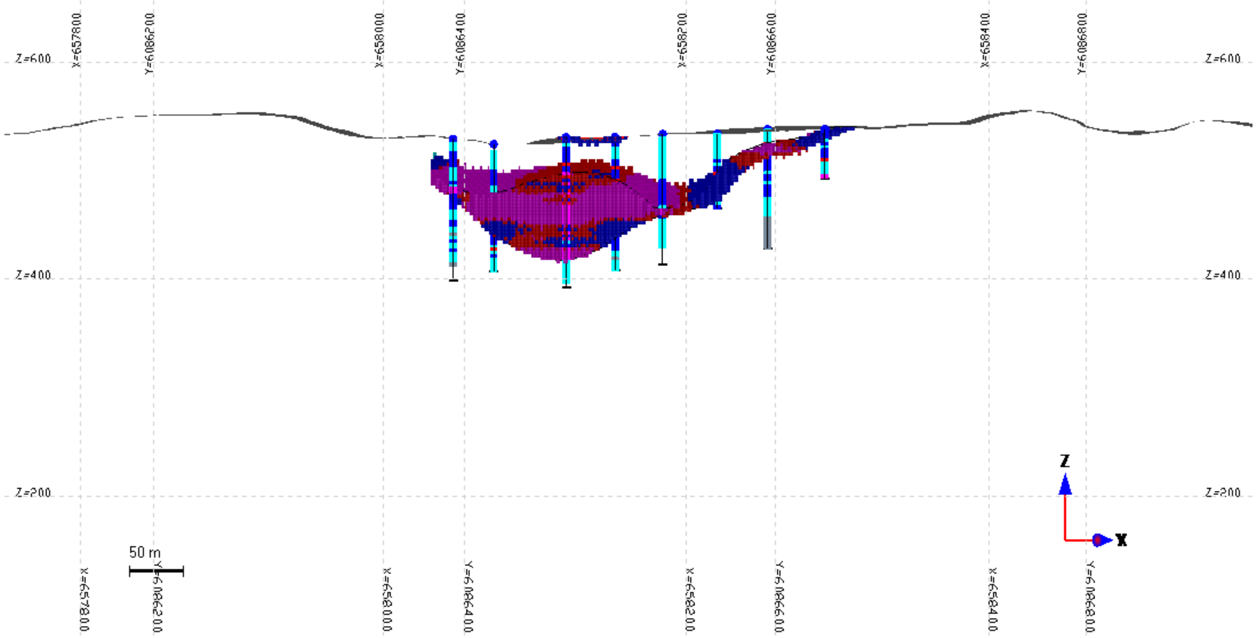


Figure 42 - Transverse View Section L30N, Joyce Lake Property

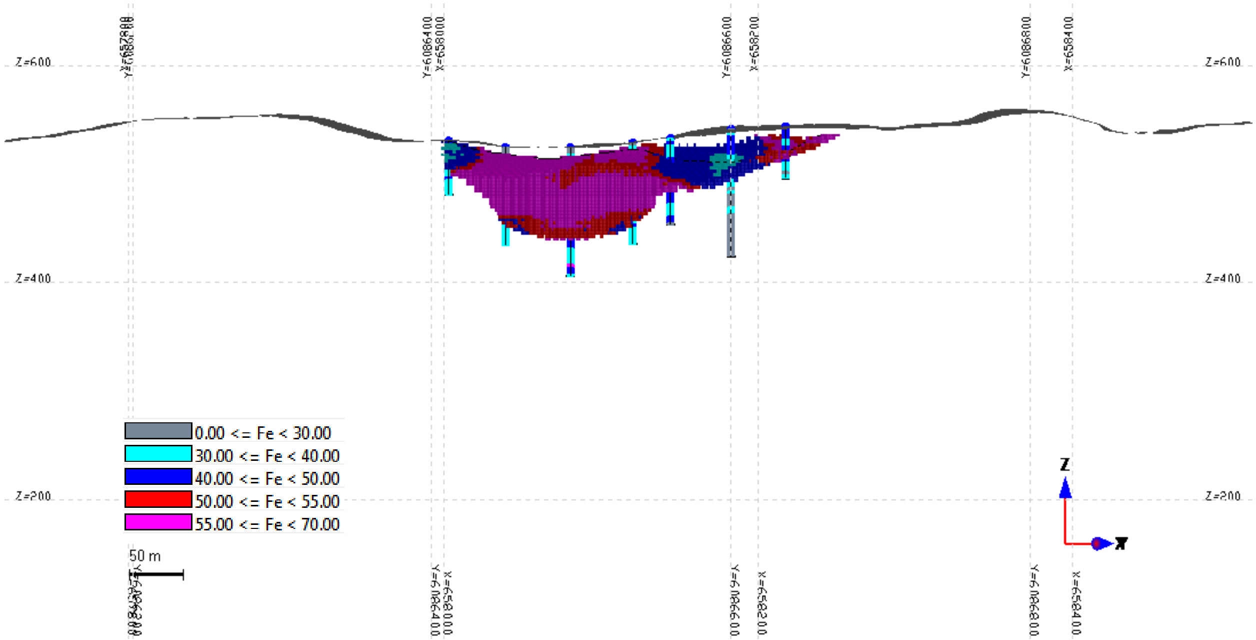


Figure 43 - Transverse View Section L35N, Joyce Lake Property

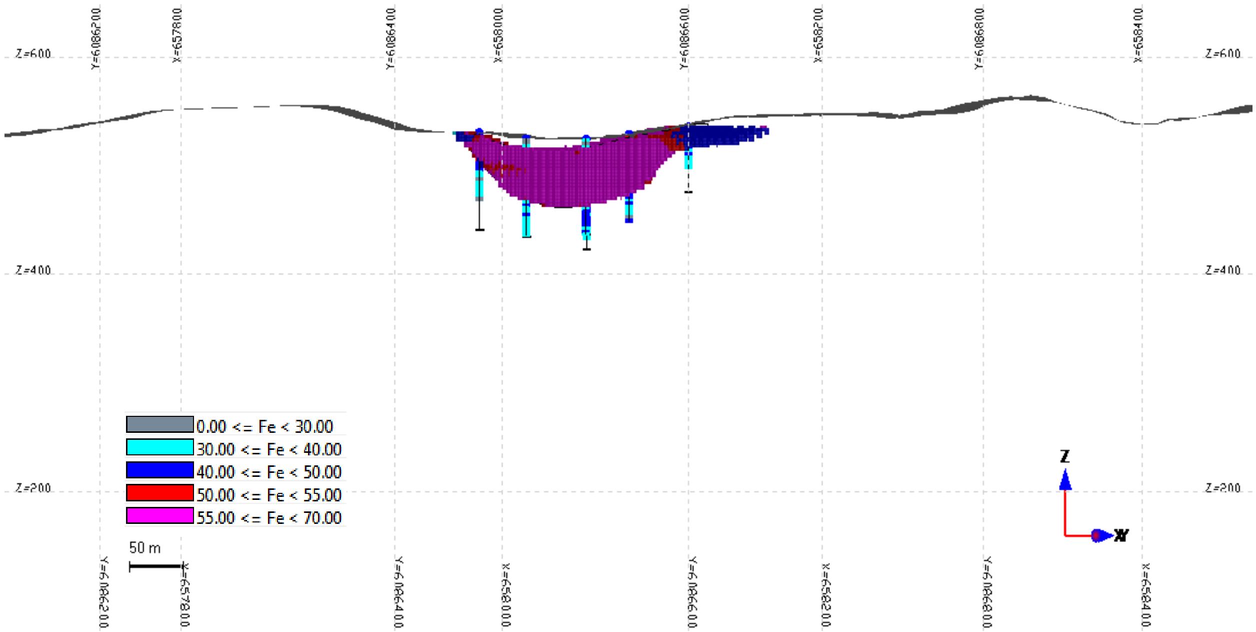


Figure 44 - Transverse View Section L40N, Joyce Lake Property

14.3.4 Block Model Classification

As for estimation, the procedure was run in several passes with search conditions (size of search ellipsoid, minimum data in search ellipsoid) relaxed from one pass to the next until most blocks within the mineralized solid were interpolated. The orientation and size of ellipsoids as well as the min./max. numbers of data used in the ellipsoid are fixed to 9 composites. In this case, two ellipsoids and one sphere were used with fixed radii (Table 14-3). As a result black blocks were not estimated.

Table 14-4 - Classification parameters

Ellipsoid	Shape	X/Y/Z (m)	Min Composites	Limit/sample/Hole
A Measured	Saucer	75/60/5	**6**	3
B Indicated	Saucer	150/120/10	9	3
C Inferred	Sphere	150	3	3

The ellipsoids A and B have an elongated axis in meters with Azimuth of 135N dipping 25 degrees, the intermediate flat along 45N and the smaller is 315 dipping 65 degrees.

14.4 Mineral Resources Estimation Conclusion

Mineral resource reporting was completed in GENESIS using the conceptual iron envelope. Mineral resources were estimated in conformity with generally accepted CIM Estimation of Mineral Resource and Mineral Reserve Best Practices Guidelines. The Mineral Resource Statement for the Joyce Lake iron DSO deposit is presented in Table 14-5.

In the opinion of SGS, the geological interpretation, sample location, assay intervals, drill holes spacing, QA/QC and grade continuity of the Joyce Lake DSO deposit are adequate for this resource estimation and classification.

Table 14-5 - NI 43-101 Mineral Resource Statement of the Joyce Lake DSO Iron Deposit

Joyce Lake (DSO) Iron Resources

Cut-Off 55% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	4,050,000	62.31	7.42	0.58	0.93
Indicated	3,500,000	60.82	9.28	0.60	1.06
M+I	7,550,000	61.62	8.29	0.59	0.99
Inferred	2,700,000	59.62	11.82	0.49	0.48

Cut-Off 50% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	5,050,000	60.44	10.21	0.58	0.88
Indicated	4,950,000	58.44	12.77	0.62	0.98
M+I	10,000,000	59.45	11.48	0.60	0.93
Inferred	5,600,000	55.78	17.50	0.47	0.46

No Cut-Off	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	6,600,000	57.07	15.40	0.56	0.70
Indicated	6,750,000	55.06	18.02	0.59	0.80
M+I	13,350,000	56.05	16.73	0.58	0.75
Inferred	11,100,000	50.36	25.42	0.46	0.42

Mineralized envelope and Iron Cut-off, SG 3.2, rounded numbers

The base case for public disclosure is the statement with Fe cut-off above 50%.
The Resource above 50% includes the Resources above the 55% Fe cut-off in the table.
By: Claude Duplessis P.Eng Qualified Person, Assistance of: Floran Faiello

15 Mineral Reserve Estimates

There are no mineral reserves at this stage of development of the property.

16 Adjacent Properties

Adjacent to Joyce Lake Property there are ore occurrences hold by Century Iron including, Hayot Lake, Lac sans Chef and Jennie Lake (Attikamagen Iron Project figure next page). The Attikamagen Iron Project includes one group of claims around the boundary between the Provinces of Quebec and Newfoundland and Labrador. The property includes 405 designated cells located in Québec and 617 claims located in Labrador, covering an aggregated area of approximately 345 square kilometres. Those properties include DSO iron deposits and taconite deposits with geology analogous to Joyce Lake Project.

The Hayot Lake project, part of the Attikamagen Iron property is located in the northeastern Quebec, approximately 22 kilometres north of the town of Schefferville. The Hayot Lake iron deposit is formed of the Sokoman Formation. It is classified as taconite iron deposit. A taconite deposit requires, to be considered as economic, a minimum of iron generally greater than 30 percent. This type of deposits is made of a banded sedimentary unit composed principally of magnetite and hematite within chert-rich rock, and variable amounts of silicate-carbonate-sulphide lithofacies. Such iron formations have been the principal sources of iron throughout the world (Gross, 1996). In Novemer 2012 Labec Cenury published a mineral Resource Evaluation about Hayot Lake taconite Iron project, the inferred resource is 31.25% Fe. Jennie Lake and Lac Sans Chef deposits were tested for DSO deposit. The both projects return high hematite grade formation similar as Joyce Lake property. There is no estimation available at this day.

There are numerous others iron ore occurrences in the area north of Schefferville with analogous geological setting, including:

- Labrador Iron Mines Limited's (LIM) Houston deposits situated in Labrador about 20 km from Schefferville, Québec. An updated independent mineral resource estimate of the Houston deposits, prepared as of March 31, 2012, confirmed the measured and indicated resource estimated. LIM started commercial production on another property, the James deposit in the spring of 2011. LIM has reported an NI 43-101 compliant indicated resource at James of 8.1 million tonnes at a grade of 57.7% iron.

- New Millennium's Howells LabMag taconite deposit located in Labrador approximately thirty kilometres northwest of Schefferville and the KéMag taconite deposit in Québec, fifty kilometres north of Schefferville. Both projects contain iron oxide mineralization that is considered analogue to the iron mineralization explored on the Attikamagen Iron Project. The reader is cautioned that existence of potentially economic taconite and DSO-type iron mineralization on the New Millennium LabMag and KéMag projects does not necessarily indicate that taconite and DSO iron mineralization exist on the Attikamagen Iron Project.

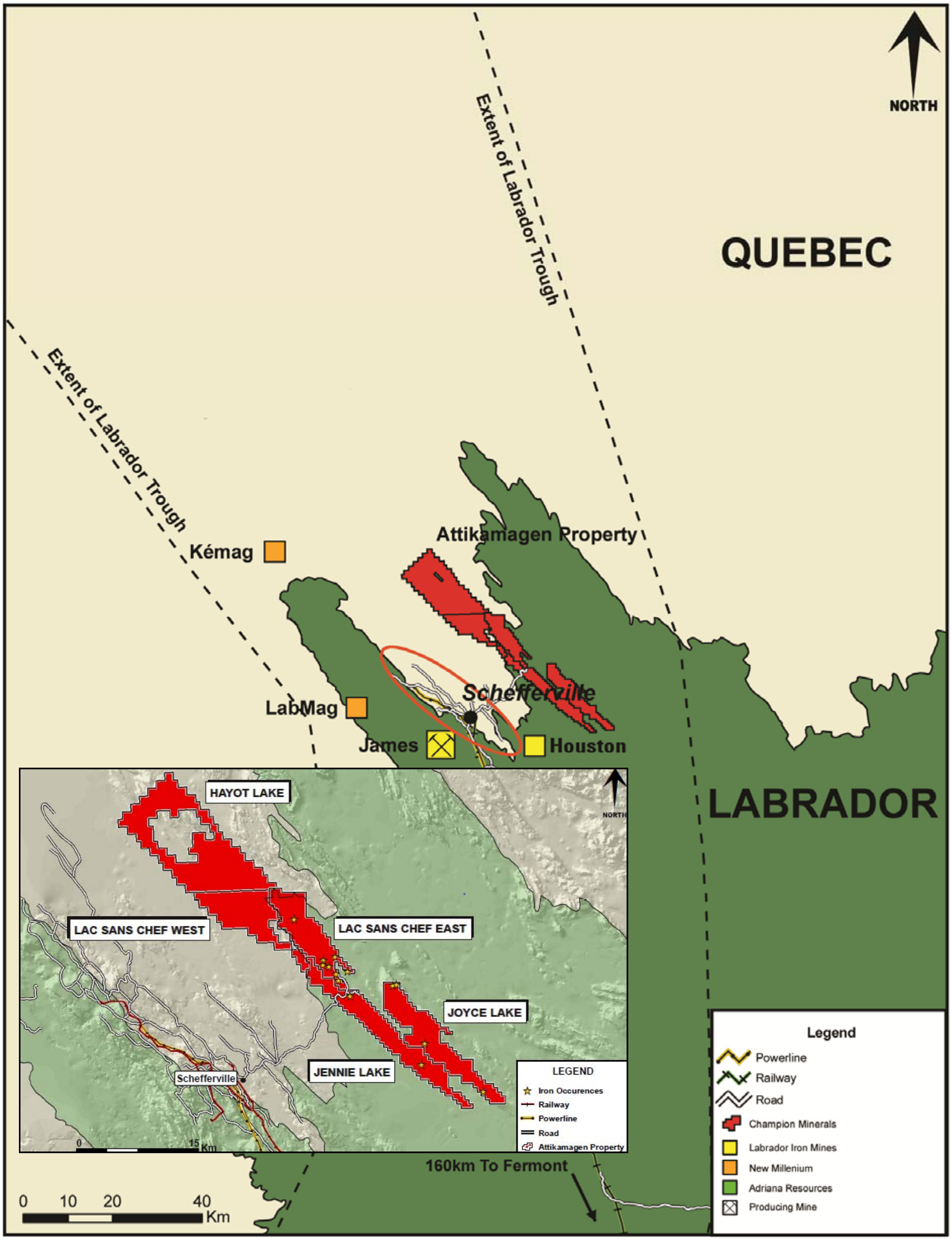


Figure 45 - Adjacent properties location (from Champion Mineral)

17 Other Relevant Data and Information

The author is aware that the company is working on a PEA using the resource model of this report. The author is also aware drilling is ongoing at Joyce Lake as part of project development and verbal recommendations.

18 Interpretation and Conclusions

The Joyce Lake DSO project and surrounding properties have a rich mining heritage. Recent drilling and 3D modeling has shown that the Direct Shipping Ore iron deposits located on the property have a predictable geometry and potential for tonnage additions, both within the known extents and extrapolations. All of the mineralized structures have been modeled for the first time providing a far better understanding of the geological context and interrelationship between structures.

Drill campaigns undertaken in 2011 and 2012 have resulted in discovery of significant DSO iron resources on the Joyce Lake Project.

In the fall of 2010, Century drilled fourteen core boreholes (1,182 metres) on four targets. Three potential DSO targets were tested at the Jennie Lake, Joyce Lake (4 holes) and Lac Sans Chef areas and one taconite target at the Hayot Lake area. All targets were selected based on geological and geophysical data. The taconite at the Hayot area is a shallow dipping magnetite-rich iron formation with an expected minimum thickness of 60 to 100 metres. During this program 349 samples collected were submitted to the ALS Chemex laboratory ("ALS Chemex") and COREM for assaying and testing (Davis Tube and Satmagan). Four boreholes (362 metres) were drilled at the Joyce Lake area syncline testing the DSO target. Blocky and sandy ground resulting in poor core recovery was encountered in these boreholes. A total of 151 samples were sent to COREM for testing.

In 2011, 40 (RC drill) holes were drilled in Joyce Lake area, for a total of 5,159 metres; the samples were sent to Activation Laboratories for XRF analysis.

In 2012 Century completed 74 (RC drill) holes, comprising 7,807.5 drilled metres on its Joyce Lake DSO Iron Ore Prospect. In addition to drilling they collected 32 tonnes of bulk samples for the metallurgical testing. The following assay results confirmed the continuity and extension both down plunge and along strike of the high grade mineralization (>60% TFe) at Joyce Lake with a thickness up to 66 metres. The high grade mineralization occurs at the closure of a synclinal fold where the mineralized lens is shallow to relatively flat dipping.

The average grade for the resources as a whole is good, further testing in basic upgrading process of the iron rich material below cut-off could provide additional resources which could be tabulated as additional resources should upgrade testing proves positives.

About the risk, regarding the estimation of mineral resources on the technical side, it resides in the specific gravity used to convert volume to tonnage as the DSO material is extremely difficult to recover in-situ at depth under the water table. The market conditions for iron demand, permitting and rail road availability remains the other major risk associated with the project in its context.

In conclusion, the Joyce DSO resource project is a relatively new discovery showing that other DSO projects can be found in the surrounding of the Schefferville area and obviously they have not all been found by IOC in the past.

Joyce Lake (DSO) Iron Resources

Cut-Off 55% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	4,050,000	62.31	7.42	0.58	0.93
Indicated	3,500,000	60.82	9.28	0.60	1.06
M+I	7,550,000	61.62	8.29	0.59	0.99
Inferred	2,700,000	59.62	11.82	0.49	0.48

Cut-Off 50% Fe	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	5,050,000	60.44	10.21	0.58	0.88
Indicated	4,950,000	58.44	12.77	0.62	0.98
M+I	10,000,000	59.45	11.48	0.60	0.93
Inferred	5,600,000	55.78	17.50	0.47	0.46

No Cut-Off	Tons	%Fe	%SiO2	%Al2O3	%Mn
Measured	6,600,000	57.07	15.40	0.56	0.70
Indicated	6,750,000	55.06	18.02	0.59	0.80
M+I	13,350,000	56.05	16.73	0.58	0.75
Inferred	11,100,000	50.36	25.42	0.46	0.42

Mineralized envelope and Iron Cut-off, SG 3.2, rounded numbers

19 Recommendations

The author encourages the company to explore and develop the property as several geological and geophysical ingredients similar to the Joyce Lake DSO are present on other locations of the property which can increase the DSO resources of the project.

The main DSO body is outcropping and gently dips into the shallow depth Joyce Lake. Yet there are several thinner zones of higher grade material which come to surface. The authors feel that the next stage for the project should include another drill campaign designed to provide sufficient data to be fed into a Preliminary Economic Assessment (PEA). A study of this level of detail would enable Labec Century Iron to highlight the economic viability of developing Joyce Lake through a seasonal open pit operation. This would give the company and shareholders an appraisal of the project.

The next step for this project should comprise additional drilling into the main area and also focus on other targets within 150 meters depth from surface.

The author suggests the company to try the SONIC drilling technique for SG measurement at Joyce Lake if it is possible in terms of access and costs.

An additional small scale metallurgical study (≈200k$) should be undertaken to provide a more robust picture of the expected recovery of the different mineralization facies. Testing should focus on the DSO and basic process to upgrade the border line iron material not classified as DSO which has high silica content. A part of the testing should also aim at valuating or processing some iron rich material to reduce the Mn content.

The author is aware a PEA is already in progress and results have been disclosed prior to filling this report.

The total cost of the recommended next phase of work for the Joyce Lake Project is summarized below

Estimated total cost for the next recommended phase.

Component	Estimated Cost
Drill Campaign	2,000,000$
Metallurgical tests	200,000$
Elaboration of Preliminary Economic Assessment	250,000$
TOTAL	2,450,000$

20 References

The following documents have been reviewed by the authors:

"Geology of Iron Deposits in Canada".Volume I.General Geology and Evaluation on Iron Deposits. G.A. Gross. Department of Mines and Technical Surveys Canada. 1965;

"Overview Report on Hollinger Knob Lake Iron Deposits". Fenton Scott. November 2000.

"MRB & associates geological consultants NI-43-101 technical report, the Attikamagen iron property, western Labrador, Newfoundland and Labrador" by John Langton, M. Sc., P. Geo. Doug Clark, P. Geo. April 8, 2009, Amended in September 2009.

"Independent Technical Report, Attikamagen Iron Project, Schefferville Area, Québec" Labec Century Iron Ore Inc. & SRK Consulting, January 2011;

"Filing statement" Red Rock Capital Corp, Century Iron Mines Corp. May 2011;

"A high-density lake sediment and water survey in two areas of central and western Labrador", J.W. McConnell and M.J. Ricketts Newfoundland Labrador Natural Resources. October 2011;

"Century Iron Mines Corporation update on its drilling results and bulk sampling for its Joyce Lake DSO Prospect" Century Iron Mines Corp. September 2012;

"Mineral Resource Evaluation, Hayot Lake Taconite Iron Project, Schefferville, Québec" Labec Century Iron Ore Inc. & SRK Consulting, November 2012;

"Century Iron Mines Corporation update on its drilling results and bulk sampling for its Joyce Lake DSO Prospect" Century Iron Mines Corp. November 2012;

"Technical Report Pre-Feasibility Study of the DSO Project, New Millennium Capital Corp."Met-Chem Canada Inc. April 15, 2009.

"Technical Report Feasibility Study of the Direct Shipping Iron ore (DSO) Project", New Millennium Capital Corp. April 9, 2010.

"Technical Report on the Houston Iron Ore Deposit Western Labrador". Labrador Iron Mines Limited. T.N. McKillen, D.W. Hooley, D. Dufort. February 21, 2011;

21 Certificate of Qualified Person

I, Claude Duplessis Eng., do herby certify that:

1. I am a senior engineer and consultant with SGS Canada Inc. – Geostat with an office at 10 Blvd de la Seigneurie East, Suite 203, Blainville, Quebec, Canada, J7C 3V5;

2. This certificate is to accompany the Report entitled: "NI 43-101 Joyce Lake DSO Iron project, Newfoundland & Labrador", which was prepared for Labec Century Iron Ore Inc., dated April 18th 2013.

3. I am a graduate from the University of Quebec in Chicoutimi, Quebec in 1988 with a B.Sc.A in geological engineering and I have practiced my profession continuously since that time. I am a registered member of the Ordre des ingénieurs du Québec (Registration Number 45523), registered engineer in the province of Alberta (Registration Number M77963) and a registered engineer in the province of Newfoundland & Labrador (Registration Number 0681) I have worked as an engineer for a total of 24 years since my graduation. My relevant experience for the purpose of the Technical Report is: Over 20 years of consulting in the field of Mineral Resource estimation, orebody modeling, mineral resource auditing and geotechnical engineering. I have specific experience in modelling and estimation of various types of iron deposits.

4. I did the personal inspection of the Joyce Lake property in Newfoundland & Labrador and the Schefferville facilities in Quebec from September 26th and 27th of 2012, for a review of exploration methodology, RC drilling technique and sampling procedures.

5. I am responsible for all the sections of the Technical Report.

6. I am independent of Labec Century Iron Ore Inc as described in section 1.5 of the Instrument;

7. I have had no prior involvement with the property that is the subject of the Technical Report;

8. I have read the Instrument and the sections of the Technical Report that I am responsible for, which have been prepared in compliance with the Instrument; and

9. As of the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report that I am responsible for, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed at Blainville, Quebec this April 18th 2013

Signed and Sealed

(signed) "Claude Duplessis"

Claude Duplessis Eng.

Effective Date: April 18th 2013