LABRADOR IRON MINES HOLDINGS LIMITED

Schefferville Project

TECHNICAL REPORT
ON THE HOUSTON IRON ORE DEPOSIT
WESTERN LABRADOR
PROVINCE OF NEWFOUNDLAND AND LABRADOR
CANADA

Prepared by

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1. SUMMARY (ITEM 3)

This report describes the Houston deposits and includes an update, compliant with the requirements of National Instrument 43-101, on an earlier resource estimate released by LIM on April 8, 2010.

The authors of this report are either directors and/or officers of Labrador Iron Mines Holdings Limited ("LIMHL") and of Labrador Iron Mines Limited ("LIM"), a wholly owned subsidiary of LIMHL which holds the mineral claims on which the Houston iron deposits are located.

The authors are "qualified persons" within the meaning of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators. The authors are not independent of either LIMHL or LIM as described in section 1.4 of NI 43-101.

The Houston Deposits

LIM's current resource estimates for the Houston deposits of 19.5 million tonnes at an average grade of 58.3% Fe in the Measured and Indicated categories represents an increase of 26% over the previous NI 43-101 resources estimation of 15.5 million tonnes reported in April 2010 and 114% increase over the historical IOC resources of 9.1 million tonnes. The Houston deposits remain open to the northwest and southeast and to depth. The following table shows a summary of the Houston resources.

Houston Deposits – Resource Summary

		43-101 (February 2011)				43-101 (April 2010)				Historical 1982			
	Class	Tonnes	Fe	Mn	SiO2	Tonnes	Fe	Mn	SiO2	Tonnes	Fe	Mn	SiO2
		x 1000	%	%	%	x 1000	%	%	%	x 1000	%	%	%
TOTAL	M+IND	19,500	58.3	0.9	12.3	15,500	59.0	0.9	11.2	9,000	57.4	-	7.1
	INF	1,023	55.8	1.0	16.5	1,500	56.9	0.9	14.5	-	-	-	-

1.1 PROPERTY DESCRIPTION AND LOCATION

The Houston properties comprises 12 Mineral Rights Licenses, as of the date of this report, issued by the Department of Natural Resources, Province of Newfoundland and Labrador, representing 112 mineral claims located in western Labrador covering approximately 2,800 hectares.

LIM holds 100% interest in the title to the Mineral Rights subject to a Royalty equal to 3% of the selling price freight on board (FOB) port of iron ore produced and shipped from the properties, subject to such royalty being not greater than $1.50 per tonne.

The Houston project is located in the Province of Newfoundland and Labrador and is the western central part of the Labrador Trough Iron Range about 1,140 km northeast of Montreal and about 20 kilometres southeast of the town of Schefferville (Quebec).

The Houston deposits comprise a number of separate deposits currently identified as Houston 1, 2 and 3.

There are no roads connecting the area to southern Labrador or elsewhere in Canada. Access to the area is by rail from Sept-Îles to Schefferville and by air from Montreal and Quebec City via Sept-Îles and Wabush.

The Iron Ore Company of Canada ("IOC") had previous mining activities close to the Houston property during the period of operations from 1954 to 1982 when part of the Houston deposit formed part of the IOC resource base.

LIM is also currently preparing the James deposits, located approximately 15 km to the north-west of the Houston deposits, for production start-up during the spring of 2011, and has substantially completed the construction of a processing plant located at Silver Yard and an accommodation camp at Bean Lake.

1.2 HISTORY

The Quebec-Labrador Iron Range has a tradition of iron ore mining since the early 1950s and is one of the largest iron producing regions in the world. The former direct shipping iron ore ("DSO") operations at Schefferville operated by IOC produced in excess of 150 million tons of lump and sinter fine ores over the period 1954-1982.

The first serious exploration in the Labrador Trough occurred in the late 1930s and early 1940s when Hollinger North Shore Exploration Company Limited ("Hollinger") and Labrador Mining and Exploration Mining Company Limited ("LM&E") acquired large mineral concessions in the Quebec and Labrador portions of the Trough. Mining and shipping from the Hollinger lands began in 1954 under the management of the IOC, a company specifically formed to exploit the Schefferville area iron deposits.

As the technology of the steel industry changed over the ensuing years more emphasis was placed on the concentrating ores of the Wabush area and interest in and markets for the direct shipping Schefferville ores declined. In 1982, IOC closed its operations in the Schefferville area.

Following the closure of the IOC mining operations the mining rights held by IOC in Labrador reverted to the Crown. Between September 2003 and March 2006, Fenton and Graeme Scott, Energold Minerals Inc. ("Energold") and New Millennium Capital Corp. ("NML") began staking claims over the soft iron ores in the Labrador part of the Schefferville camp. Recognizing a need to consolidate the mineral ownership, Energold and subsequently LIM, entered into agreements bringing the southern deposits under one ownership. LIM subsequently acquired additional properties in Labrador by staking. All of the properties, including Houston, comprising LIM's Schefferville area projects were part of the original IOC Schefferville holdings and formed part of the 250 million tons of reserves and resources identified but not mined by IOC in the area.

LIM initiated ongoing environmental baseline data collection programs in 2006 in the Schefferville project area, including programs in traditional environmental knowledge, heritage and archaeological resources, wildlife, avifauna, fish and fish habitat, air quality, surface and groundwater quality, geochemistry etc. This information formed the basis of the Schefferville Area Iron Ore Mine Project Registration Document, formally submitted to the Newfoundland and Labrador Department of Environment and Conservation (NL DOEC) by LIM in April 2008, as well as the revised Environmental Impact Statement (EIS) submitted to NL DOEC in August, 2009.

In November 2009, LIM was advised by the NL Minister of Environment and Conservation that the EIS complied with the Environmental Protection Act and required no further work under the Provincial environmental assessment process. On February 12, 2010, LIM was informed that, under authority of Section 67(3)(a) of the Environmental Protection Act, the Lieutenant-Governor in Council has released the Schefferville Area Iron Ore Mine Project (James and Redmond deposits and Silver Yards processing site) from further environmental assessment.

Upon release from the Federal and Provincial EA processes, LIM initiated the submission of related construction and operation permit applications to various regulatory agencies. All major approvals and permits to construct and operate the James and Redmond Mines, as well as associated infrastructure, were received by August 2010 and mine construction was initiated in September 2010. The first phase of the beneficiation and processing plant has now been constructed and erected at the Silver Yards site, including the primary and secondary crushers, screens, scrubbers, stackers and conveyers. All the civil and concrete work has been finished and the plant piping is substantially complete.

Most of the James North pit area has now been stripped of overburden and cleared by the mining contractor. The ore haul road from the James Mine to the Silver Yards processing site has now been completed and is operational. Once installation of the plant is completed dry run stockpiled ore will be fed to the plant to allow commissioning to take place, which is scheduled to begin, subject to weather conditions, in April 2011.

Full scale mining operations are planned to commence in April 2011, and will continue for eight months until November, at an anticipated initial mining rate starting at 6,000 tonnes of ore per day, increasing to 10,000 tonnes of ore per day.

Environmental monitoring is continuing in the Schefferville area to confirm compliance with the approvals and permits as well as to monitor environmental conditions in the area and ongoing collection of environmental base line data.

1.3 GEOLOGY

At least 45 hematite-goethite ore deposits have been discovered in an area 20 km wide that extends 100 km northwest of Astray Lake, referred to as the Knob Lake Iron Range, which consists of a tightly folded and faulted iron-formation exposed along the height of land that forms the boundary between Quebec and Labrador. The Knob Lake properties are located on the western margin of the Labrador Trough adjacent to Archean basement gneisses. The Central or Knob Lake Range section extends for 550 km south from the Koksoak River to the Grenville Front located 30 km north of Wabush Lake. The principal iron formation unit, the Sokoman Formation, part of the Knob Lake Group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout the fold belt.

The sedimentary rocks in the Knob Lake Range strike northwest, and their corrugated surface appearance is due to parallel ridges of quartzite and iron formation which alternate with low valleys of shales and slates. The Hudsonian Orogeny compressed the sediments into a series of synclines and anticlines, which are cut by steep angle reverse faults that dip primarily to the east. The synclines are overturned to the southwest with the east limits commonly truncated by strike faults. Most of the secondary earthy textured iron deposits occur in canoe-shaped synclines, some are tabular bodies extending to a depth of at least 200m, and one or two deposits are relatively flat lying and cut by several faults. Subsequent supergene processes converted some of the iron formations into high-grade ores, preferentially in synclinal depressions and/or down-faulted blocks.

The Labrador Trough contains four main 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 metataconites which contain specular hematite and subordinate amounts of magnetite as the dominant iron minerals;
- Minor occurrences of hard high-grade hematite ore occur southeast of Schefferville at Sawyer Lake, Astray Lake and in some of the Houston deposits.

Secondary enrichment included the addition of secondary iron and manganese which appear to have moved in solution and filled pore spaces with limonite-goethite. Secondary manganese minerals, i.e., pyrolusite and manganite, form veinlets and vuggy pockets. The types of iron ores developed in the deposits are directly related to the original mineral facies. The predominant blue granular ore was formed from the oxide facies of the middle iron formation. The yellowish-brown ore, composed of limonite-goethite, formed from the carbonate-silicate facies, and the red painty hematite ore originated from mixed facies in the argillaceous slaty members.

Only the direct shipping ore is considered amenable to beneficiation to produce lump and sinter fines and forms part of the resources for LIM's DSO Projects.

1.4 EXPLORATION

Most historic exploration on the Schefferville area iron ore properties was carried out by IOC until the closure of its operation in the 1980s. A considerable amount of data used in the evaluation of the resource and reserve estimates is provided in the documents, sections and maps produced by IOC or their consultants. More recent exploration has been carried out by LIM during the period 2006 to 2010 and includes tricone reverse circulation and diamond drilling, trenching, bulk sampling and data collation and verification.

LIM is preparing the nearby James deposits for the start-up of commercial production in the spring of 2011. The Houston deposits are currently at the most advanced stage of the other undeveloped iron ore deposits held by LIMH in Labrador and Quebec.

Additional RC drilling will be required to evaluate further extensions of the Houston deposits to the north, south and down-dip and particularly Houston 3 to the south east. The majority of the additional resource discovered in the 2010 program has resulted from the drilling of a new mineralized zone located between the Houston 1 and 2 deposits, as well as infill drilling within the deposit outlines during 2010. The Houston deposits remain open along strike particularly to the southeast and further drilling is planned on Houston 3 during 2011. Additional bulk sampling for metallurgical testing may also be necessary to prepare the final process flow sheet for treatment of the iron and manganiferous ore resources.

1.5 DRILLING AND SAMPLING

Diamond drilling of the Schefferville area iron deposits has proven to be a challenge historically as the alternating hard and soft mineralized zones tend to preclude good core recovery. Traditionally IOC used a combination of reverse circulation drilling, diamond drilling and trenching to generate data for reserve and resource calculation. A large quantity of original IOC data has been recovered, reviewed and digitized by LIM.

For the most recent calculations of the resources for the Houston deposits, data from 4,418 metres of drilling in 84 historical reverse circulation drill holes comprising 1,485 samples has been used. The systematic drilling had been carried out on sections 100 feet (30 metres) apart.

IOC also sampled targets by trenching and test pits in addition to drilling. The test pits and trenches were to determine lithologies, ore body limits and quality of ore on surface. A total of 200 metres in 64 test pits and 6,700 metres in 159 trenches with their 2,086 samples from historical records were considered in this report. Samples were usually collected over 10 feet (3.0 metres) intervals.

In addition to historical data, LIM carried out several exploration programs at Houston since 2006 with the purpose of verifying the historical resources and evaluating its extensions. This included 5,985 metres in 89 drill holes, 554 metres in 10 trenches and 2,074 samples. Most of the drilling completed was using tricone reverse circulation.

The geological sections originally prepared by IOC have been updated with the information obtained through LIM's exploration work.

1.6 SAMPLE PREPARATION, SECURITY AND DATA VERIFICATION

The precise sampling procedures used by IOC are not known but it is believed that LIM has followed procedures that are similar to those used by IOC in the past. All samples were processed in a preparation laboratory, located in Schefferville that was established by LIM. Sampling as well as the preparation was carried out under supervision of LIM and SGS Geostat personnel in 2008 and by LIM personnel in 2006, 2009 and 2010 by experienced geologists or technicians following well-established sampling and preparation procedures. The samples were reduced to representative, smaller size samples that were sent to SGS Lakefield laboratory or to ACTLABS laboratory for analysis and testing.

1.7 METALLURGICAL TESTING

A bulk sample program was carried out in 2006 (2,400kg from Houston) and a further major bulk sampling program was carried out in 2008 when 2,000 tonnes of material were excavated from the Houston 1 deposit.

Four bulk trench samples of 600kg each taken in 2006 from the Houston No. 1 deposit were tested for compressive strength, crusher index and abrasion index at SGS Lakefield. Composite crushing, dry and wet screen analysis, washing and classification tests were done at "rpc - The Technical Solutions Centre" in Fredericton, New Brunswick.

During the 2008 bulk sample program, a total of 2,000 tonnes of ore was collected from the Houston No. 1 deposit from which 200 kg representative samples were taken for each of the raw ore types. At Houston, only blue ore was collected and sent to SGS Lakefield laboratories for metallurgical testing. Other tests (angle of repose, bulk density, moisture, direct head assay and particle size analysis determinations) were also carried out. Preliminary scrubber tests were also performed. The potential of beneficiation by gravity was explored by heavy liquid separation and vacuum filtration test work was also carried out by Outotec and FLSmidth Minerals.

The conceptual process design considered for processing the Houston ore is based on above described mineralogy and equipment testing performed for the Houston deposit. The proposed process consists of primary crushing, scrubbing, primary and secondary screening, secondary crushing, fines recovery plant and products upgrade plant. The products of the process will be lump, coarse sinter feed, sinter fines and pellet feed. In addition equipment will be installed to treat high silica ore, which will include finer crushing by the means of High Pressure Grinding Rolls (HPGR), to produce coarse sinter feed, sinter fines and pellet feed products. Additional metallurgical test work is required to further evaluate the ores from Houston 1 and 2 to facilitate final process design.

1.8 MINERAL RESOURCES AND MINERAL RESERVES

Table 1 summarizes an updated resource estimate for the Houston deposits, on both iron and manganiferous iron resources, which has been carried out in compliance with NI 43-101. No mineral reserves are reported in this document.

Table 1
Houston Deposits - NI 43-101 Compliant (Direct Shipping) Resources

Classification	Area	Ore Type	SG	Tonnes (x 1000)	Fe%	Mn%	SiO2%
Measured + Indicated	Houston 1	LNB-NB	3.5	4,970	61.1	0.7	8.8
		HiSiO2	3.3	1,278	52.8	0.6	21.1
		LMN-HMN	3.4	511	54.8	5.4	8.8
		Total	**3.5**	**6,759**	**59.0**	**1.0**	**11.1**
	Houston 2N	LNB-NB	3.5	55	60.2	0.6	11.6
		HiSiO2	3.3	117	52.4	0.6	22.8
		LMN-HMN	3.1	9	44.8	10.7	13.4
		Total	**3.4**	**181**	**54.4**	**1.1**	**18.9**
	Houston 2S	LNB-NB	3.5	5,989	60.3	0.7	10.1
		HiSiO2	3.3	2,566	52.6	0.8	21.5
		LMN-HMN	3.4	144	56.0	4.8	9.5
		Total	**3.4**	**8,699**	**58.0**	**0.8**	**13.4**
	Houston 3	LNB-NB	3.5	3,014	59.4	0.9	10.0
		HiSiO2	3.3	594	52.6	0.7	20.9
		LMN-HMN	3.3	253	52.6	5.3	10.2
		Total	**3.4**	**3,861**	**57.9**	**1.2**	**11.7**
	Total		***3.5***	***19,500***	***58.3***	***0.9***	***12.3***
Inferred	Houston 1	LNB-NB	3.5	81	58.2	0.6	13.0
		HiSiO2	3.3	87	52.4	0.5	20.4
		LMN-HMN	3.4	4	54.7	4.2	10.6
		Total	**3.4**	**172**	**55.2**	**0.7**	**16.7**
	Houston 2N	LNB-NB	-	-	-	-	-
		HiSiO2	3.3	0	50.8	0.8	24.3
		LMN-HMN	-	-	-	-	-
		Total	**3.3**	**0**	**50.8**	**0.8**	**24.3**
	Houston 2S	LNB-NB	3.5	336	59.4	1.0	12.0
		HiSiO2	3.3	298	52.5	1.3	21.2
		LMN-HMN	-	-	-	-	-
		Total	**3.4**	**634**	**56.2**	**1.1**	**16.3**
	Houston 3	LNB-NB	3.5	108	58.3	1.0	12.4
		HiSiO2	3.3	104	52.6	0.6	21.6
		LMN-HMN	3.3	5	50.6	4.3	12.8
		Total	**3.4**	**217**	**55.3**	**0.9**	**16.8**
	Total		***3.4***	***1,023***	***55.8***	***1.0***	***16.5***

[NOTE: approximately 4,000 tonnes of measured and indicated manganiferous iron resources lie outside the limits of claims held by LIM]

LIM's current resource estimates for the Houston deposits total 19.5 million tonnes (including manganiferous and higher silica ores) at a grade of 58.3% Fe in the Measured and Indicated categories represents an increase of 26% over the previous 43-101 resources estimation of 15.5 million tonnes reported in April 2010 and 114% increase over the historical IOC resources of 9.1 million tonnes. The Houston deposit remains open to the northwest and southeast and to depth. Table 2 shows the comparison of the resources obtained.

Table 2
Houston Deposits – Comparison of resources of the Houston deposit

		43-101 (February 2011)				43-101 (April 2010)				Historical 1982			
	Class	Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %
Fe Ore	M+IND	18,600	58.7	0.7	12.2	14,700	59.3	0.6	11.3	9,000	57.4	-	7.1
	INF	1,000	56.3	1.0	15.9	1,500	57.0	0.8	14.7	-	-	-	-
Mn Ore	M+IND	900	54.4	5.4	9.2	831	54.3	5.5	9.1	-	-	-	-
	INF	10	53.2	4.5	11.5	47	54.0	4.6	10.3	-	-	-	-
TOTAL	**M+IND**	**19,500**	**58.3**	**0.9**	**12.3**	**15,500**	**59.0**	**0.9**	**11.2**	**9,000**	**57.4**	**-**	**7.1**
	INF	**1,023**	**55.8**	**1.0**	**16.5**	**1,500**	**56.9**	**0.9**	**14.5**	**-**	**-**	**-**	**-**

IOC's estimated mineral resources and reserves were published in their Direct-Shipping Ore (DSO) Reserve Book prepared in 1983. The estimates were based on geological interpretations on cross sections and the calculations were done manually. IOC categorized their estimates as "reserves". The authors have adopted the same principle as the 2007 Technical Report on LIM's Western Labrador Iron Deposits prepared by SNC-Lavalin that these "reserves" should be categorized at "resources" as defined by NI 43-101.

The IOC classification reported all resources (measured, indicated and inferred) within the total mineral resource. These historical estimates are not current and do not meet NI 43-101 Definition Standards and are reported here for historical purposes only. The historical estimates should not be relied upon.

The original IOC ore definition was: >=50% Fe, <=18% SiO_2 dry basis. LIM's resource definitions includes Hi-SiO2 ores (>=50% Fe <=30% SiO_2 dry basis).

1.9 BLOCK MODELING

LIM used Gemcom GEMS 6.4.2.1 software for the resource estimation. The ordinary kriging interpolation method was used to estimate the resources by block modeling with block sizes of 5x5x5 metres and block rotation of 45.6° which corresponds to the general strike of the deposit. LIM used the geological and ore models interpreted in plane and in sections. LIM used different search ellipses derived from 3D semi-variogram analyses for the classification of the resources.

1.10 ANALYSES

Analyses for all of the samples from the 2006, 2008, 2009 and 2010 drilling and trenching programs were carried out by SGS-Lakefield Laboratory and/or by Activation Laboratories. The analytical method used was borate fusion whole rock X-Ray Fluorescence.

1.11 DENSITY

A variable specific gravity (density) was used for the modeled ore blocks. LIM used the following equation: SG (in-situ) = (2.3388 + Fe x 0.0258) x 0.9. The regression formula was calculated by LIM based upon 229 specific gravity tests.

1.12 OTHER RELEVANT DATA AND INFORMATION

The Knob Lake Iron Range is well known for its hematite-goethite iron deposits and this region was exploited for approximately 30 years by IOC. LIM proposes to reactivate DSO operations from the same general area, commencing initially with the James and Redmond deposits and subsequently, adding the Houston and other deposits, located relatively close to Schefferville, before developing deposits further removed from existing infrastructure. LIM plans to systematically bring the historic resources of the various deposits into compliance with NI 43-101 on a staged basis as required for future development.

It is believed that the DSO iron ore produced by IOC required little processing and that only crushing and screening was performed, and then blending to achieve the required grade and product specifications, before being loaded on to trains for transportation to Sept-Îles.

LIM has evaluated washing and screening of the ore to improve the quality and grade of products and to ensure a greater degree of consistency in the production of lump ore and sinter fines. It is expected that LIM's proposed washing and screening process will remove low grade iron and silica material and should increase the grades of the final product by up to 10% of the mined grade.

There is a high level of existing infrastructure in the Schefferville area as a result of the former IOC operations. LIM has restored or added new facilities including a beneficiation plant and rail spur line at the Silver Yard, and a 70-man accommodation camp at Bean Lake. Such facilities would be available for any operations on the Houston deposits.

The Houston deposits are located within reach of existing infrastructure, including road access, electrical power lines and the main line railway. LIM anticipates constructing a new 10 km haulage road to directly link the Houston deposits to the Silver Yard processing site or to a new processing site at Redmond and to re-lay a 10 km rail spur line to connect the Redmond site to the main rail line.

LIM has been collecting seasonal environmental baseline data since mid-2005. The Houston property has been included in the first phase study, which also included the James, Redmond and Knob Lake properties. An environment assessment report was prepared on James and Redmond and approved by the Government of Newfoundland and Labrador. The James and Redmond properties, Silver Yards processing site and Bean Lake camp have been released from both the federal and provincial environmental assessment processes and granted all necessary development permits by the Government of Newfoundland and Labrador.

LIM has established an active community relations program since mid-2005 and an ongoing effort is made to work very closely with the relevant First Nations to focus on developing and maintaining productive working relations, ensuring a good understanding of the proposed project. LIM has signed Impact Benefits Agreements with the Innu Nation of Labrador and with the Naskapi Nation of Kawawachikamach, a Memorandum of Understanding with the Innu of Matimekush-Lac John and an Agreement in Principal with the Innu Takuaikan Uashat Mak Mani-Utenam. LIM is currently engaged with those First Nations in negotiations for economic development or impact benefits agreements.

The market for iron ores and related products has seen substantial increases in recent years. It is expected that the European market is the most likely destination for products from LIM's projects given the freight advantage from the Port of Sept-Îles due to its proximity to Europe. However, there remains a very strong demand for iron ore from the Far East and in particular from China.

1.13 CONCLUSIONS

The authors have reviewed all of the data in the possession of LIM relating to the Houston and nearby iron and manganese deposits owned by LIM and have detailed personal knowledge of LIM's projects from initial conception and property acquisition dating back to 2005. All of LIM's exploration work programs and technical evaluation programs carried out in 2006 through 2010 were conducted under the supervision of at least one of the authors.

Technical reports prepared by LIM's senior geological staff reporting on annual work programs, including drilling, trenching and bulk sampling, and the block modeling and resource estimation of the Houston deposits, were carried out under the direct supervision of the authors.

The geological interpretation of the Houston deposits is restricted to the zones considered of economic quality. The historical IOC parameters of the Non-Bessemer and Bessemer ore types were considered together for the geological interpretations and modeling. The High Silica ($HiSiO_2$) ore types containing >=50% Fe and from 18% up to 30% SiO_2 were also considered for the geological interpretation and modeling of the selected mineral deposits.

The geological modeling of the Houston deposits was performed using standard sectional modeling of 30-metre spacing. Geological interpretation and modeling of the mineral deposits on paper sections and plans from IOC were digitized and updated with new information acquired during the recent field work seasons.

LIM used Gemcom GEMS 6.2.4.1 software for the resource estimation. The ordinary kriging interpolation method was used to estimate the resources by block modeling with block sizes of 5x5x5 metres and block rotation of 45.6° which corresponds to the general strike of the deposit. LIM used a composite length of 3.0 metre, considered suitable in comparison to the dimension of the blocks used for the model. The search ellipses were obtained from 3D semi-variogram analyses for the classification of the resources. The block model estimation used the topography and the overburden contact in the parameters settings.

The results of LIM's work to date on the Houston deposits has shown that there is more than sufficient merit to continue with the development of the Houston 1 and 2 deposits and to carry out further exploration work to confirm and expand the resource potential of the Houston 3 deposit, as well as to conduct preliminary evaluation of the potential for lower grade taconite deposits along the eastern flank of the Houston DSO resource zones.

The authors also consider that there is sufficient merit to progress detailed technical evaluation of the mining and processing of the Houston deposits, either as a stand-alone operation or in the alternative by treating the Houston ore at the current or expanded Silver Yards plant.

1.14 RECOMMENDATIONS

The results of exploration to date at Houston have been very positive, have confirmed the reliability of the historic IOC data and substantially increased the resource base at Houston.

Following a review of all data relative to the Houston deposits and the interpretation and conclusions of this review, there is more than sufficient justification to move towards a production and development decision with respect to the Houston 1 and Houston 2 deposits and simultaneously continue additional exploration to further expand the resource base of the Houston 3 deposit, as well as to evaluate the potential for lower grade taconite iron deposits along the eastern flank of the Houston iron ore deposits.

A $2 million program of exploration is recommended, together with environmental data collection, metallurgical testing, road route evaluation and detailed metallurgical, engineering and design studies with an additional estimated budget of $2 million.

At the same time as the recommended exploration and metallurgical programs outlined above, a number of specific items will be required to progress the development of the Houston deposits:

- More detailed mine plans, including geotechnical and hydrogeological studies and optimization of the development schedule;
- Additional metallurgical studies dependent on the mineralogy of the deposit;
- Completion of a beneficiation plant option evaluation study for selection of preferred beneficiation processes for the Houston ores
- Detailed beneficiation plant engineering and design;
- Completion of a cost analysis study regarding the preferred location at Silver Yards or Redmond to treat Houston ores.
- Transport and infrastructure requirements studies, including selection of the preferred haulage route for transporting ore from the Houston Mine site to the beneficiation plant at Redmond or Silver Yards.
- Engineering plans for the re-laying of 10 km of rail spur line from the TSH mainline to the Redmond turnabout;.
- Ongoing additional environmental studies, traditional environmental knowledge programs, and community consultation;
- Completion of the environmental assessment and permitting process.

2. INTRODUCTION (ITEM 4)

The authors are directors and/or senior officers of Labrador Iron Mines Holdings Limited ("LIMHL") and directors and/or officers of Labrador Iron Mines Limited ("LIM"), a wholly owned subsidiary of LIMHL, which holds the mineral claims on which the Houston iron deposits are located. The authors are "qualified persons" within the meaning of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators but are not independent of the LIMHL or LIM.

Previous resource estimates for the Houston deposits were based on estimates made by IOC in 1982 and were consequently of an historic nature and are not compliant with NI 43-101. The present report describes the Houston iron ore deposits located in western Labrador and presents a resource estimate compliant with the requirements of NI 43-101.

The authors have personal knowledge of the Houston deposits and the other nearby iron deposits held by LIM in western Labrador, having been instrumental in the initial acquisition and direction of exploration of the properties dating from 2005. Two of the authors (McKillen and Hooley) were co-authors of an internal scoping study of LIM's iron ore projects in western Labrador in September 2006 and one (McKillen) prepared a Resource Estimate and Technical Report on the Houston Deposit in May 2010 (filed on SEDAR May 25, 2010).

LIM engaged SNC Lavalin in 2007 to prepare an independent Technical Report (October 2007) on its western Labrador iron properties. One author of this current report (Dufort) was co-author of the SNC Lavalin report in 2007. In March 2010, LIM engaged the other author of the SNC Lavalin report (A. Kroon) to co-author, with SGS Canada Inc., a Revised Technical Report on an Iron Ore Project in Western Labrador, Province of Newfoundland and Labrador (March 2010) (filed on SEDAR March 11, 2010 with a revised version filed on SEDAR March 19, 2010) and an independent Technical Report of an adjacent Iron Project in Northern Quebec (March 2010) (filed on SEDAR March 11, 2010).

LIM has carried out significant geological exploration programs on the Houston and other Labrador properties held by LIM during the 2006, 2008, 2009 and 2010 summer seasons. One author (McKillen) has reviewed the annual technical assessment reports prepared by LIM for submission to the Department of Miners and Energy, Newfoundland and Labrador.

The authors have visited the site of the Houston project and the general Schefferville area iron deposits on numerous occasions from May 2006 to November 2010.

3. Reliance on Other Experts (Item 5)

This report has been prepared for LIMH. The findings, conclusions and recommendations are based on the authors' interpretation of information in LIM's possession, comprising reports, sections and plans prepared by IOC during 1954 to 1982; reports prepared for other subsequent owners of some of the Labrador area iron properties, including the Houston property, reports of exploration and sampling activities of LIM during the period 2006-2010 and independent technical reports authored by SNC Lavalin, A. Kroon, SGS Geostat Ltd. and MRB & Associates.

A number of metallurgical testing laboratories have carried out work on this project at the request of LIM. These include "rpc – The Technical Solutions", SGS Lakefield, Corem, SGA, FL Schmidt and Outokumpu. Detailed engineering design on the Silver Yards plant was carried out by DRA Americas and this has been extended to initial conceptual design for the potential Redmond plant.

The authors have verified the ownership of the mineral claims by reference to the website of the Department of Natural Resources of the province of Newfoundland and Labrador as of the date of this report but do not offer an opinion to the legal status of such claims.

The assistance of LIM personnel Erick Chavez, Howard Vatcher, Eldon Roul, and Tara Schrama of LIM's Exploration Department, Linda A. Wrong, Vice-President Environment & Permitting, Georgi Doundarov, Metallurgical Engineer, Joanne Robinson, Senior Mining Engineer and Rodel Ortiz, CAD Manager in the preparation of this report and the underlying in-house technical reports is gratefully acknowledged.

4. PROPERTY DESCRIPTION AND LOCATION (ITEM 6)

The Houston property is located in the western central part of the Labrador Trough iron range and about 1,140 km northeast of Montreal and 20 km southeast of the town of Schefferville, Quebec (Figure 1).

There are no roads connecting this area to southern 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.

With respect to the Houston property, LIM holds title to 12 Mineral Rights Licenses as of the date of this report issued by the Department of Natural Resources, Province of Newfoundland and Labrador, representing 112 mineral claims located in northwest Labrador covering approximately 2,800 hectares (Table 3 and Figure 2).

Under the terms of an Option and Joint Venture Agreement dated September 15, 2005 between Fonteneau Resources Limited ("Fonteneau") and Energold, as amended, and subsequently assigned to LIM, a royalty in the amount 3% of the selling price FOB port per tonne of iron ore produced and shipped from any of the properties shall be payable to Fonteneau. This royalty will be capped at US$1.50 per tonne on the Houston property.

On October 22, 2009, LIM announced that it had entered into an agreement with NML to exchange certain of their respective mineral licences in Labrador. The exchange eliminated the fragmentation of the ownership of certain mining rights in the Schefferville area and will enable both parties to separately mine and optimise their respective DSO deposits in as efficient a manner as possible. As part of the Agreement, NML transferred to LIM 125 hectares in five mineral licenses in Labrador that adjoin or form part of LIM's Houston deposit.

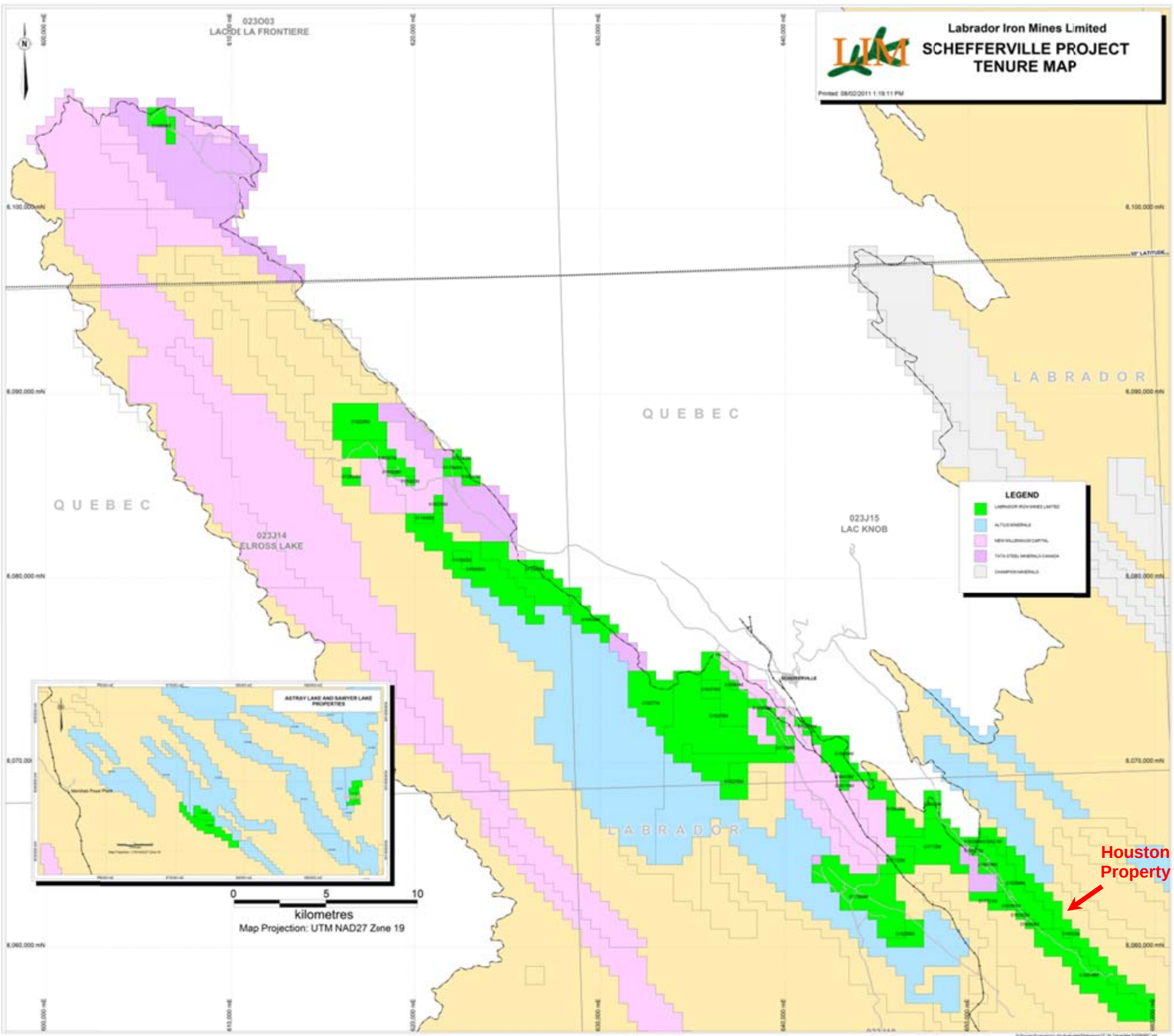
Under the Agreement the parties have agreed to work collaboratively to facilitate their respective extraction, processing and transportation activities by enabling each party to apply for all required surface rights. The parties have also agreed to finalize the layout or detailed technical descriptions of the surface rights that each requires to access the DSO deposits on their respective mineral claims, including any necessary roads, rail lines, processing and storage areas.

Table 3
List of Licenses Comprising the Houston Project
(as of February 14, 2011)

License Number	Location	Status	Claims	Area (Has)	Date Issued
016286M	Gilling River	Issued	22	550	12-Apr-04
016391M	Gilling River	Issued	1	25	27-Aug-09
016392M	Gilling River	Issued	1	25	27-Aug-09
016393M	Gilling River	Issued	1	25	27-Aug-09
016516M	Astray Lake	Issued	36	900	2-Oct-09
016575M	Huston Lake	Issued	1	25	10-Feb-05
016576M	Huston Lake	Issued	3	75	10-Feb-05
016577M	Huston Lake	Issued	1	25	10-Feb-05
017721M	Huston Lake	Issued	6	150	3-Jun-10
018284M	Gilling River	Issued	1	25	24-Dec-10
018521M	Petitsikapau Lake Area	Issued	5	125	14-Feb-11
018522M	Petitsikapau Lake Area	Issued	34	850	14-Feb-11
		TOTAL	**112**	**2,800**	

Figure 1
Project Location Map

Figure 2
Map of LIM Mining Licenses



5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY (ITEM 7)

5.1 ACCESSIBILITY

The Houston property, as with all of LIM's DSO iron properties, is located in the west central part of the Labrador Trough iron range. The mineral properties are located about 1,140 km northeast of Montreal and adjacent to or within 70 km of the town of Schefferville (Quebec). There are no roads connecting the area to southern Labrador or to Quebec. Access to the area is by rail from Sept-Îles to Schefferville or by air from Montreal and Sept-Îles.

The Houston deposit is located within reach of existing infrastructure approximately 20 km southeast of Schefferville and can be reached by existing gravel roads, although LIM plans to construct a new 10 km all-weather access road to directly connect Houston with the Silver Yards and the Redmond mine site to facilitate ore haulage from Houston to the proposed beneficiation plant.

5.2 CLIMATE

The Schefferville area and vicinity have a sub-arctic continental taiga climate with very severe 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.

5.3 LOCAL RESOURCES

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

5.4 INFRASTRUCTURE

The Houston property is located approximately 20 km southeast of Schefferville and approximately 10 km from the Redmond deposit which, together with the James deposit, currently forms part of LIM's first phase mine development.

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.

A community radio station, recreation centre, parish hall, gymnasium, playground, childcare centre, drop-in centre are also present in Schefferville.

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.

5.4.1 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 some 568 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 up to 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 area; 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; and 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.

5.5 Physiography

The topography of the Schefferville mining district is bedrock controlled with the average elevation of the properties varying between 500 m 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 of the height of land in Quebec, flow into the Kaniapiskau watershed, which flows north into Ungava Bay.

The mining district is within a "zone of erosion" in that the last period of glaciation has eroded away any pre-existing soil/overburden cover, with the zone of deposition of these sediments being 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.

6. HISTORY (ITEM 8)

The Quebec-Labrador Iron Range has a tradition of mining since the early 1950's and is one of the largest iron producing regions in the world. The former direct shipping iron ore operations at Schefferville operated by IOC produced in excess of 150 million tons of lump and sinter fine ores over the period 1954-1982. The properties comprising LIM's Schefferville area projects were part of the original IOC Schefferville operations and formed part of the 250 million tons of reserves and resources identified by IOC but were not part of IOC's producing properties[1].

There are currently four major iron ore producers in the Labrador City-Wabush region to the south, IOC, Quebec Cartier Mining Company, Consolidated Thompson Mines and Wabush Mines. New Millennium Capital in joint venture with Tata Steel is currently planning a Direct Shipping Ore project 30 kms north of Schefferville. A number of other projects in the Labrador area are in the exploration and review process.

The Labrador Trough which forms the central part of the Quebec-Labrador Peninsula, is a remote region which remained largely unexplored until the late 1930's and early 1940's when the first serious mineral exploration was initiated by Hollinger and LM&E. These companies were granted large mineral concessions in the Quebec and Labrador portions of the Trough. Initially, the emphasis was on exploring for base and precious metals but, as the magnitude of the iron deposits in the area became apparent, development of these resources became the exclusive priority for a number of years.

Mining and shipping from the Schefferville area began in 1954 under the management of the IOC, a company specifically formed to exploit the Schefferville area iron deposits.

In 1954, IOC started to operate open pit mines in Schefferville containing 56-58% Fe, and exported the direct-shipping product to steel companies in the United States and Western Europe. The properties and iron deposits that currently form LIM's Houston Project were part of the original IOC Schefferville area operations.

As the technology of the steel industry changed over the ensuing years more emphasis was placed on the concentrating ores of the Wabush area and interest and markets for the direct shipping Schefferville ores declined.

During the 1960's, higher-grade iron deposits were developed in Australia and South America and customers' preferences shifted to products containing +62% Fe or higher. In 1963, IOC developed the Carol Lake deposit near Labrador City and started to produce concentrates and pellets with +64% Fe, so as to satisfy the customers' requirements for higher-grade products. High growth in the demand for steel, which began after the end of World War II, came to an abrupt end in the early 1980's due to the impact of increasing oil prices. The energy crisis affected steel production in the U.S. and Western Europe as consumers switched to energy-efficient products. As a result, the demand for iron ore plummeted, creating a severe overcapacity in the industry. In 1982, the IOC

[1] *This is an historic estimate made in compliance with the standards used by IOC.*

closed its operations in the Schefferville area. From 1954 to 1982, a total of some 150 million tons of ore was produced from the area.

Hollinger, a subsidiary of Norcen Energy Ltd., was the underlying owner of the Quebec iron ore mining leases in Schefferville area. Following the closure of the IOC mining operations, ownership of the mining rights held by IOC in Labrador reverted to the Crown. In the early 1990's, Hollinger was acquired by La Fosse Platinum Group Inc. ("La Fosse") who conducted feasibility studies on marketing, bulk sampling, metallurgical test work and carried out some stripping of overburden at the James deposit. La Fosse sought and was granted a project release under the Environmental Assessment Act for the James deposit in June 1990 but did not go ahead with project development and the claims subsequently were permitted to lapse.

With the exception of the pre-stripping work carried out on the James deposit and the mining of the Redmond #1 orebody by IOC (adjacent to LIM's current Redmond property), none of the iron deposits within the LIM mineral claims were previously developed for production during the IOC period of ownership.

Between September 2003 and March 2006, Fenton and Graeme Scott, Energold and NML began staking claims over the soft iron ores in the Labrador part of the Schefferville camp. Recognizing a need to consolidate the mineral ownership, Energold entered into agreements with the various parties that have subsequently been assumed by LIM. LIM later acquired additional properties in Labrador by staking.

In December 2009, LIMHL, through a wholly-owned subsidiary, acquired control over an additional 50 million tons of historical direct shipping iron ore in the Province of Quebec, together with a large package of mineral claims in Quebec in the Schefferville area which are considered prospective for exploration for iron ore and which also host a number of small high grade manganese deposits.

During the period from September 2005 to 2010, LIM conducted exploration, development and other work in the Schefferville area. Such work consisted of geological evaluation, sampling, geophysical surveys, trenching, drilling, bulk sampling, resource verification, assaying, metallurgical test work, mine planning, community consultation, transportation studies and other work.

Concurrent with exploration activities, LIM initiated environmental baseline data collection programs in 2006, expanding this work in 2008 and continuing to the present day. A traditional environmental knowledge (TEK) program was also initiated in 2008 in parallel with the ongoing environmental programs. The environmental baseline data collection program focused on all areas of the natural and socio-economic environments, as described in detail in Section 18.0.

A Project Registration Document for the James and Redmond deposits was formally submitted to the Newfoundland and Labrador Department of Environment and Conservation by LIM in late April 2008 and was registered on the Department's website on May 5, 2008. The revised Environmental Impact Statement (EIS) for the Schefferville Area Iron Ore Mine (including the James and Redmond deposits as well as the Silver Yards Beneficiation Area, Bean Lake Camp Area, Ruth Pit Discharge Area and re-establishment of the Spur Line) was submitted to NL DOEC in August 2009. LIM was advised by the NL Minister of Environment and Conservation, in November 2009, that the EIS complied with the *Environmental Protection Act* and required no further work under the Provincial environmental assessment process. On February 12, 2010 the Minister of Environment and

Conservation informed LIM that, under authority of Section 67(3)(a) of the *Environmental Protection Act*, the Lieutenant-Governor in Council has released the Schefferville Area Iron Ore Mine from further environmental assessment, with associated terms and conditions. The Schefferville Area Iron Ore Mine project was also released from the Federal Environmental Assessment process in February 2009.

Upon release from the Federal and Provincial EA processes, LIM initiated submission of related construction and operation permits to various regulatory agencies. All major permits to construct and operate the James and Redmond Mines, as well as associated infrastructure, were received by August 2010 and mine construction was initiated in September 2010.

Throughout the year 2010, LIM advanced the Schefferville Projects toward production with ongoing active programs, including drilling, metallurgical testing, environmental, permitting, marketing, engineering and purchasing. LIM has substantially completed the erection of a processing plant at the Silver Yards Site, installed a mine accommodation camp at Bean Lake and commenced mine development at the James deposit.

The first phase of the beneficiation and processing plant has been constructed and erected at the Silver Yards site, including the primary and secondary crushers, screens, scrubbers, stackers and conveyers. All the civil and concrete work has been finished and the plant piping is substantially complete.

Most of the James North pit area has now been stripped of overburden and cleared by the mining contractor. The ore haul road from the James Mine to the Silver Yards processing site has now been completed and is operational. Once installation of the plant is completed dry run stockpiled ore will be fed to the plant to allow commissioning to take place, which is scheduled to begin, subject to weather conditions, in April 2011.

Full scale mining operations are planned to commence in April 2011, and will continue for eight months until November, at an anticipated initial mining rate starting at 6,000 tonnes of ore per day, increasing to 10,000 tonnes of ore per day.

7. GEOLOGICAL SETTING (ITEM 9)

7.1 REGIONAL GEOLOGY

The following summarizes the general geological settings of the Houston property and the other properties making up LIM's western Labrador iron ore project. The regional geological descriptions are based on published reports by Gross (1965), Zajac (1974), Wardel (1979) and Neale (2000) and were first prepared by the first named author (McKillen) for an internal scoping study report for LIM in 2006.

At least 45 hematite-goethite ore deposits have been discovered in an area 20 km wide that extends 100 km northwest of Astray Lake, referred to as the Knob Lake Iron Range, which consists of tightly folded and faulted iron-formation exposed along the height of land that forms the boundary between Quebec and Labrador. The iron deposits occur in deformed segments of iron-formation, and the ore content of single deposits varies from one million to more than 50 million tonnes.

The Knob Lake properties are located on the western margin of the Labrador Trough adjacent to Archean basement gneisses. 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 western half of the Labrador Trough, consisting of a thick sedimentary sequence, can be divided into three sections based on changes in lithology and metamorphism (North, Central and South). The Trough is comprised of a sequence of Proterozoic sedimentary rocks including iron formation, volcanic rocks and mafic intrusions known as the Kaniapiskau Supergroup (Gross, 1968). The Kaniapiskau Supergroup consists of the Knob Lake Group in the western part of the Trough and the Doublet Group, which is primarily volcanic, in the eastern part.

The Central or Knob Lake Range section extends for 550 km south from the Koksoak River to the Grenville Front located 30 km north of Wabush Lake. The principal iron formation unit, the Sokoman Formation, part of the Knob Lake Group, forms a continuous stratigraphic unit that thickens and thins from sub-basin to sub-basin throughout the fold belt.

The southern part of the Trough is crossed by the Grenville Front. Trough rocks in the Grenville Province to the south are highly metamorphosed and complexly folded. Iron deposits in the Grenville part of the Labrador Trough include Lac Jeannine, Fire Lake, Mounts Wright and Reed and the Luce, Humphrey and Scully deposits in the Wabush area. The high-grade metamorphism of the Grenville Province is responsible for recrystallization of both iron oxides and silica in primary iron formation producing coarse-grained sugary quartz, magnetite, specular hematite schists (meta-taconites) that are of improved quality for concentrating and processing.

The main part of the Trough north of the Grenville Front is in the Churchill Province and has been subjected to low-grade (green schist facies) metamorphism. In areas west of Ungava Bay, metamorphism increases to lower amphibolite grade. The mines developed in the Schefferville area by IOC exploited residually enriched earthy iron deposits derived from taconite-type protores.

Geological conditions throughout the central division of the Labrador Trough are generally similar to those in the Knob Lake Range.

A general geological map of Labrador is shown in Figure 3.

7.2 LOCAL GEOLOGY

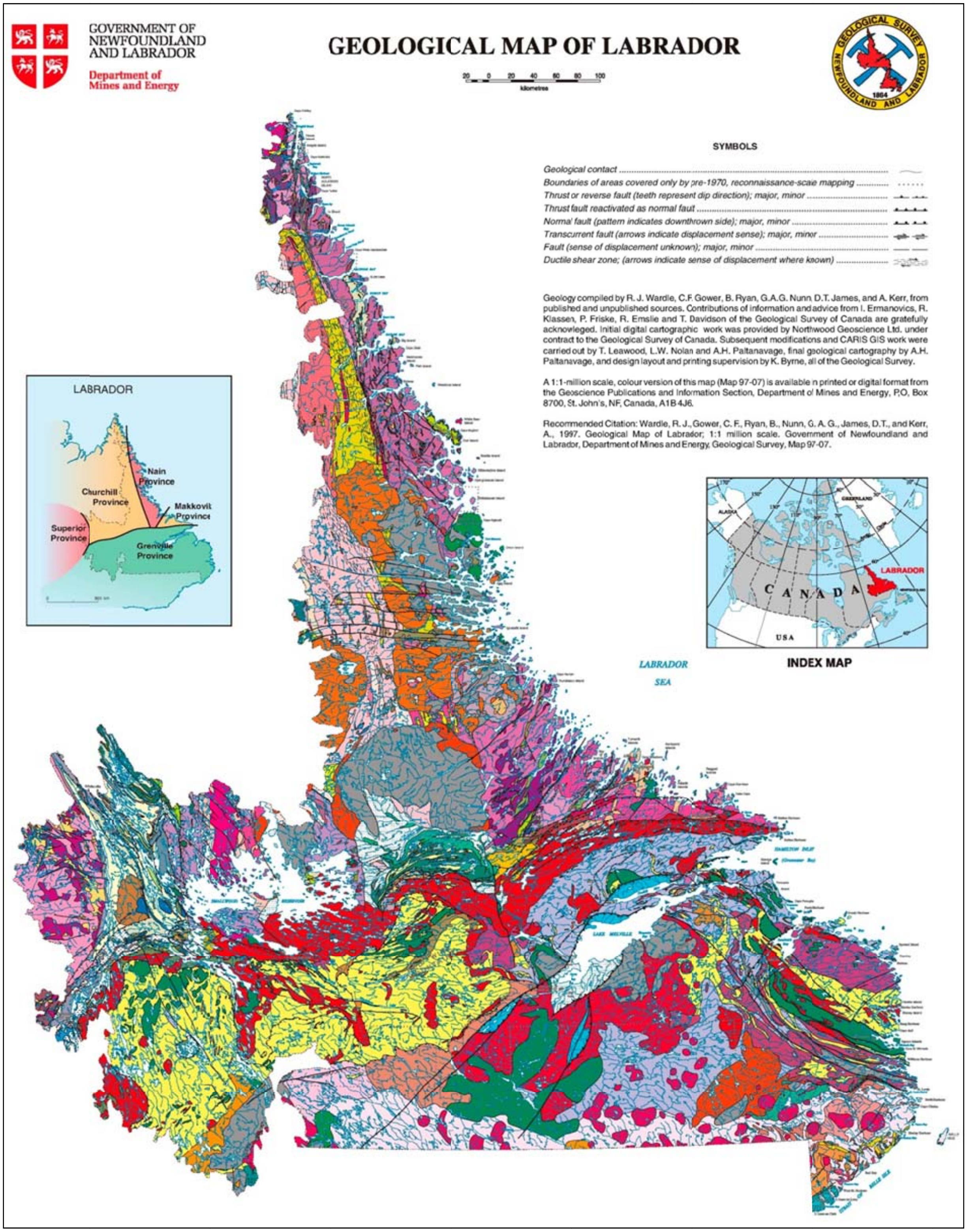
The general stratigraphy of the Knob Lake area is representative of most of the Knob Lake Range, except that the Denault dolomite and Fleming Formation are not uniformly distributed. The Knob Lake Range occupies an area 100 km in length by 8 km in width. The sedimentary rocks, including the cherty iron formation, are weakly metamorphosed to green schist facies. In the structurally complex areas, leaching and secondary enrichment have produced earthy-textured iron deposits. Unaltered, banded, magnetite iron formation, often referred to as taconite, occurs as gently dipping beds west of Schefferville, in the Howells River area.

The sedimentary rocks in the Knob Lake Range strike northwest, and their corrugated surface appearance is due to parallel ridges of quartzite and iron formation which alternate with low valleys of shales and slates. The Hudsonian Orogeny compressed the sediments into a series of synclines and anticlines, which are cut by steep angle reverse faults that dip primarily to the east. The synclines are generally overturned to the southwest with the east limbs commonly truncated by strike faults.

Most of the secondary, earthy textured iron deposits occur in canoe-shaped synclines; some are tabular bodies extending to a depth of at least 200 m, and one or two deposits are relatively flat lying and cut by several faults. In the western part of the Knob Range, the iron formation dips gently eastward over the Archean basement rocks for about 10 km to the east, then forms an imbricate fault structure with bands of iron formation, repeated up to seven times.

Subsequent, supergene processes converted some of the iron formations into high-grade ores, preferentially in synclinal depressions and/or down-faulted blocks. Original sedimentary textures are commonly preserved by selected leaching and replacement of the original deposits. Jumbled breccias of enriched ore and altered iron formations, locally called rubble ores, are also present. Fossil trees and leaves of Cretaceous age have been found in rubble ores in some of the deposits (Neal, 2000).

Figure 3


GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR
Department of
Mines and Energy
GEOLOGICAL MAP OF LABRADOR
20 0 20 40 60 80 100
kilometres
SYMBOLS
Geological contact
Boundaries of areas covered only by pre-1970, reconnaissance-scale mapping
Thrust or reverse fault (teeth represent dip direction); major, minor
Thrust fault reactivated as normal fault
Normal fault (pattern indicates downthrown side); major, minor
Transcurrent fault (arrows indicate displacement sense); major, minor
Fault (sense of displacement unknown); major, minor
Ductile shear zone; (arrows indicate sense of displacement where known)
Geology compiled by R. J. Wardle, C.F. Gower, B. Ryan, G.A.G. Nunn, D.T. James, and A. Kerr, from published and unpublished sources. Contributions of information and advice from I. Ermanovics, R. Klassen, P. Friske, R. Emslie and T. Davidson of the Geological Survey of Canada are gratefully acknowleged. Initial digital cartographic work was provided by Northwood Geoscience Ltd. under contract to the Geological Survey of Canada. Subsequent modifications and CARIS GIS work were carried out by T. Leawood, L.W. Nolan and A.H. Paltanavage, final geological cartography by A.H. Paltanavage, and design layout and printing supervision by K. Byrne, all of the Geological Survey.
A 1:1-million scale, colour version of this map (Map 97-07) is available in printed or digital format from the Geoscience Publications and Information Section, Department of Mines and Energy, P.O. Box 8700, St. John's, NF, Canada, A1B 4J6.
Recommended Citation: Wardle, R. J., Gower, C. F., Ryan, B., Nunn, G. A. G., James, D.T., and Kerr, A., 1997. Geological Map of Labrador; 1:1 million scale. Government of Newfoundland and Labrador, Department of Mines and Energy, Geological Survey, Map 97-07.
LABRADOR
Nain Province
Churchill Province
Makkovik Province
Superior Province
Grenville Province
ALASKA
GREENLAND
CANADA
LABRADOR
USA
INDEX MAP
LABRADOR SEA
LAKE MELVILLE

7.3 GEOLOGY OF SCHEFFERVILLE AREA

The stratigraphy of the Schefferville area is as follows:

Attikamagen Formation – 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 belt to more than 365 metres near Knob Lake. 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 interbedded with the argillite and slate, and lenses of chert are common. The formation grades upwards into Denault dolomite, or into Wishart quartzite in area 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 interbedded 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.

Near Knob Lake the formation probably has a maximum thickness of 180 metres but in many other places it forms discontinuous lenses that are, at most, 30 metres thick. Leached and altered beds near the iron deposits are rubbly, brown or cream coloured and contain an abundance of chert or quartz fragments in a soft white siliceous matrix.

Fleming Formation – occurs a few kilometres southwest of Knob Lake and only above dolomite beds of the Denault 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.

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 – More than 80% of the ore in the Knob Lake Range occurs within this formation. Lithologically the iron formation varies in detail in different parts of the range and the thickness of individual members is not consistent.

A thinly bedded, slaty facies at the base of the formation consists largely of fine chert with an abundance of iron silicates and disseminated magnetite and siderite. Fresh surfaces are grey to olive green and weathered surfaces brownish yellow to bright orange where minnesotaite is abundant.

Thin-banded oxide facies of iron formation occurs above the silicate-carbonate facies in nearly all parts of the area. The jasper bands, which are 1.25 cm or less wide and deep red, or in a few places greenish yellow to grey, are interbanded with hard, blue layers of fine-grained hematite and a little magnetite.

The thin jasper beds grade upwards into thick massive beds of grey to pinkish chert and beds that are very rich in blue and black iron oxides. These massive beds are commonly referred to as "cherty metallic" iron formation and make up most of the Sokoman Formation. The iron oxides are usually concentrated in layers a few centimetres thick interbedded with leaner cherty beds. In many places iron-rich layers and lenses contain more than 50% hematite and magnetite.

The upper part of the Sokoman Formation comprises beds of dull green to grey or black massive chert that contains considerable siderite or other ferruginous carbonate. Bedding is discontinuous and the rock as a whole contains much less iron than the lower part of the formation.

Menihek Formation **–** A thin-banded, fissile, grey to black argillaceous slate conformably overlies the Sokoman Formation in the Knob Lake area. Total thickness is not known, as the slate is only found in faulted blocks in the main ore zone. East or south of Knob Lake, the Menihek Formation is more than 300 metres thick but tight folding and lack of exposure prevent determination of its true thickness.

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 laminae or beds are visible in thin sections.

8. DEPOSIT TYPES (ITEM 10)

8.1 IRON ORE

The Labrador Trough contains four main 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 metataconites; 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, Astray Lake and in some of the Houston deposits.

The LIM deposits are composed of iron formations of the Lake Superior-type. The Lake Superior-type iron formation consists of banded sedimentary rocks composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock, with variable amounts of silicate, carbonate and sulphide lithofacies. Such iron formations have been the principal sources of iron throughout the world.

The Sokoman iron formation was formed as a 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, oolite 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.

Facies contains typical primary minerals, ranging from siderite, minnesotaite, and magnetite-hematite in the carbonate, silicate and oxide facies, 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.

8.1.1 Houston

The Houston property is located approximately 20 km southeast of Schefferville and can be reached by existing gravel roads. The Houston project area is composed of what appear to be at least three separate areas of iron enrichment with a continuously mineralized zone of over 3 km in strike length and which remains open to the south. These three areas of enrichment are referred to as the Houston 1, Houston 2 and Houston 3 deposits. Houston 3 is currently less well explored and there appears to be significant additional DSO potential to the south of Houston 3 which requires additional drilling.

The Houston DSO iron deposits are stratigraphically and structurally controlled, and consist of hard and friable banded, blue and red hematite that locally becomes massive. Airborne magnetometer survey data available from the Geoscience Data Repository of Natural Resources Canada suggests that the iron ore is concentrated along the western flank (gradient) of a modest to strong magnetic feature, which trends approximately 330°. The Houston 1 and Houston 2S deposits are not coincident with the strongest magnetic features, due to the poor magnetic susceptibility of this type of mineralization. IOC drilled and trenched the Houston deposit and prepared reserve and resource calculations which were contained in their Statement of Reserves at December 31, 1982.

LIM carried out drilling during the 2006, 2008, 2009 and 2010 programs which indicated that the majority of the potentially economic iron mineralization in the Houston area occurs within the upper iron formation (UIF) and middle iron formation (MIF) with lesser amounts in the SCIF (silicate-carbonate iron formation). The amount of red ore associated with the Ruth Formation appears to be minimal if not absent. Mineralization in several holes is found to terminate in a red chert, which may be the Lower Red Chert member that occurs at the boundary of the MIF and SCIF.

Striking northwest and dipping to the northeast, both Houston 1 and 2 mineralization has been found to extend down dip to the northeast. These down dip extensions had not been previously tested by IOC when mining operations in the area ended. At the present time there remains potential for additional resources to be developed at deeper levels in both the Houston 1 and 2 deposits (down dip).

The Houston 3 deposit appears to be more vertical in nature and drill holes testing the eastern margin of the known deposit have not intercepted any eastward extensions. However, this deposit has yet to be tested to its maximum vertical depth or for at least an additional 2 km of strike to the south.

Menihek Slate was encountered in drill chips in hole RC-HU011-2008 in the most southerly hole drilled on the Houston 3 property. At this location Menihek Slate has been thrust up and over the Sokoman Iron Formation. Cross sections of the Houston deposit dating from IOC exploration indicate the presence of a reverse fault striking NW through the Houston 1 and 2 deposits.

8.2 Manganese Deposits

The manganese deposits in the Schefferville area were formed by residual and second stage (supergene) enrichment that affected the Sokoman (iron) Formation, some members of which contain up to 1% Mn in their unaltered state. The residual enrichment process involved the migration of meteoric fluids circulated through the proto-ore sequence oxidizing the iron formation, recrystallizing iron minerals to hematite, and leaching silica and carbonate. The result is a residually enriched iron formation that may contain up to 10% Mn. The second phase of this process, where it has occurred, is a true enrichment process (rather than a residual enrichment), whereby iron oxides (goethite, limonite), hematite and manganese are redistributed laterally or stratigraphically downward into the secondary porosity created by the removal of material during the primary enrichment phase.

Deposition along faults, fractures and cleavage surfaces, and in veins and veinlets is also seen, and corroborates the accepted belief that the structural breaks act as channel-ways for migrating hydrothermal fluids causing metasomatic alteration and formation of manganiferous deposits. All the manganese occurrences in the Labrador Trough are considered to have been deposited by the processes described above.

8.2.1 Houston

The manganese mineralization in the Houston deposits is present in relatively low concentrations (~5% average) with sporadic concentrations of up to 24% hosted in the Middle Iron Formation apparently structurally controlled by folding and faulting along the western block of the east dipping reverse fault system.

9. MINERALIZATION (ITEM 11)

9.1 IRON ORE

The earthy bedded iron deposits are a residually enriched type within the Sokoman iron formation that formed after two periods of intense folding and faulting, followed by the circulation of meteoric waters in the fractured rocks. The enrichment process was caused largely by leaching and the loss of silica, resulting in a strong increase in porosity. This produced a friable, granular and earthy-textured iron ore. The siderite and silica minerals were altered to hydrated oxides of goethite and limonite. The second stage of enrichment included the addition of secondary iron and manganese which appear to have moved in solution and filled pore spaces with limonite-goethite. Secondary manganese minerals, i.e., pyrolusite and manganite, form veinlets and vuggy pockets. The types of iron ores developed in the deposits are directly related to the original mineral facies. The predominant blue granular ore was formed from the oxide facies of the middle iron formation. The yellowish-brown ore, composed of limonite-goethite, formed from the carbonate-silicate facies, and the red painty hematite ore originated from mixed facies in the argillaceous slaty members. The overall ratio of blue to yellow to red ore in the Schefferville area deposits is approximately 70:15:15 but can vary widely within and between the deposits.

Only the direct shipping ore is considered amenable to beneficiation to produce lump and sinter feed which will be part of the resources for LIM's development projects. The direct shipping ore was classified by IOC in categories based on chemical, mineralogical and textural compositions. This classification is shown in Table 4.

Table 4
Classification of Iron Ore Types

Schefferville Ore Types (From IOC)					
TYPE	**ORE COLOURS**	**T_Fe%**	**T_Mn%**	**SiO2%**	**Al2O3%**
NB (Non-bessemer)	Blue, Red, Yellow	>=55.0	<3.5	<10.0	<5.0
LNB (Lean non-bessemer)	Blue, Red, Yellow	>=50.0	<3.5	<18.0	<5.0
HMN (High Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50.0	>=6.0	<18.0	<5.0
LMN (Low Manganiferous)	Blue, Red, Yellow	(Fe+Mn) >=50.0	3.5-6.0	<18.0	<5.0
HiSiO2 (High Silica)	Blue	>=50.0		18.0-30.0	<5.0
TRX (Treat Rock)	Blue	40.0-50.0		18.0-30.0	<5.0
HiAl (High Aluminum)	Blue, Red, Yellow	>=50.0		<18.0	>5.0
Waste	All material that does not fall into any of these categories.				

The blue ores, which are composed mainly of the minerals hematite and martite, are generally coarse grained and friable. They are usually found in the middle section of the iron formation.

The yellow ores, which are made up of the minerals limonite and goethite, are located in the lower section of the iron formation in a unit referred to as the "silicate carbonate iron formation" or SCIF.

The red ore is predominantly a red earthy hematite. It forms the basal layer that underlies the lower section of the iron formation. Red ore is characterized by its clay and slate-like texture.

Direct shipping ores and lean ores mined in the Schefferville area during the period 1954-1982 amounted to some 150 million tons. Based on the original ore definition of IOC (+50% Fe <18% SiO_2

dry basis), approximately 250 million tonnes of iron resources remain in the Schefferville area, exclusive of magnetite taconite. LIM has acquired the rights to approximately 50% of this remaining historic iron resource in Labrador[2].

9.2 MANGANESE ORE

For an economic manganese deposit, there needs to be a minimum primary manganese content at a given market price (generally greater than 5% Mn), but also the manganese oxides must be amenable to concentration (beneficiation) and the resultant concentrates must be low in deleterious elements such as silica, aluminum, phosphorus, sulphur and alkalis. Beneficiation involves segregating the silicate and carbonate lithofacies and other rock types interbedded within the manganese-rich oxides.

The principle manganese deposits found in the Schefferville area can be grouped into three types:

Manganiferous iron deposits that occur within the lower Sokoman Formation. These are associated with in-situ residual enrichment processes related to downward and lateral percolation of meteoric water and ground water along structural discontinuities such as faults and fractures, penetrative cleavage associated with fold hinges, and near surface penetration. These typically contain from 5-10 % Mn.

Ferruginous manganese deposit, generally contain 10-35% Mn. These types of deposits are also associated with structural discontinuities (e.g., fault, well developed cleavage, fracture-zones) and may be hosted by the Sokoman (iron) Formation (e.g., the Ryan, Dannick and Avison deposits), or by the stratigraphically lower silica-rich Fleming and Wishart formations (e.g. the Ruth A, B and C deposits). These are the result of residual and supergene enrichment processes.

So called *manganese-occurrences or manganese-ore deposits* contain at least 35% Mn. These deposits are the result of secondary (supergene) enrichment and are typically hosted in the Wishart and Fleming formations, stratigraphically below the iron formation.

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[2] These numbers are based on historic estimates made in compliance with the standards used by IOC.

10. EXPLORATION (ITEM 12)

10.1 PAST EXPLORATION

In 1929, a party led by J.E. Gill and W.F. James explored the geology around Schefferville, Quebec and named the area Ferrimango Hills. In the course of their field work, they discovered enriched iron-ore, or "direct-shipping ore" deposits west of Schefferville, which they named Ferrimango Hills 1, 2 and 3. These were later renamed the Ruth Lake 1, 2 and 3 deposits by J.A. Retty.

In 1936, J.S. Wishart, a member of the 1929 mapping expedition, mapped the area around Ruth Lake and Wishart Lake in greater detail, with the objective of outlining new iron ore occurrences.

In 1937, W.C. Howells traversed the area of the Ruth Lake Property as part of a watercourse survey between the Kivivic and Astray lakes – now known as Howells River.

In 1945, a report by LM&E describes the work of A.T. Griffis in the "Wishart – Ruth – Fleming" area. The report includes geological maps and detailed descriptions of the physiography, stratigraphy and geology of the area, and of the Ruth Lake 1, 2 and 3 ore bodies. Griffis recognized that the iron ore unit (Sokoman Formation) was structurally repeated by folding and faulting and remarked that "The potential tonnage of high-grade iron deposits is considered to be great."

In 1946 and 1947, geological mapping of the southeast area of the Wishart Knob Lake area towards Astray Lake carried out by LM&E noted a number of areas with potential economic mineralization that led the discovery of the Houston 1 and 2 deposits in 1950.

Most exploration on the properties was carried out by the IOC from 1954 until the closure of their Schefferville operation in 1982. Most data used in the evaluation of the current status provided in the numerous documents, sections and maps produced by IOC or by consultants working for them.

In 1989 and 1990, La Fosse and Hollinger undertook an extensive exploration program for manganese on 46 known occurrences in the Schefferville area, including those on the Ruth Lake Property, divided at the time into Ruth Lake prospects, Ryan showing and Avison showing.

Work performed during the summer and fall of 1989 consisted of geological mapping, prospecting and sampling, airtrac drilling (26 holes totalling 478 ft = 146 m), and a VLF ground geophysical survey. Also in 1989, the La Fosse Platinum Group carried out exploration on the Ryan manganese showing. Work consisted of stripping and trenching (12 trenches totalling 1970 ft = 601 m), chip sampling and airtrac drilling (25 holes) coupled with sampling of cuttings. In addition, an 1,800 ton bulk sample was obtained and stockpiled for analysis. Representative samples were taken from the bulk sample stockpile and yielded an average of 23.1% Mn and 20.4% Fe.

In 1990, La Fosse returned to the Ryan manganese showing to continue exploration. Their work further defined the two manganese lenses into Zone 1 (560 ft x 30 ft = 171 m x 9 m) containing up to 25% Mn with Mn: Fe ratios around 1.0 and, Zone 2 (600 ft x 30 ft = 183 m x 9 m) containing 16.2% Mn and 10.7% Fe. The two zones are separated by approximately 30 ft (9 m) of barren, fault-gouge material.

Work consisted of stripping and trenching (14 trenches totalling 1600 ft = 488m), 3 diamond-drill holes (447 ft = 136 m), and 4 airtrac drill holes (97 ft = 30 m) with simultaneous sampling of cuttings. In addition, another 400 tons of manganese "ore" was mined and added to the 1800 ton stockpile from the previous year. The average grade of the 400 ton addition was 18.8% Mn and 24.2% Fe, whereas the average grade for the 2200 ton bulk sample was 22.3% Mn and 21.1% Fe.

During 1990, Hollinger investigated and named the Avison manganese showing (Geofile 23J/15/0290), located 1.5 miles (2.4 km) southeast of the Ruth deposit and along the same fault zone as the Ruth and Ryan deposits. Work consisted of geological mapping and sampling, stripping and trenching totalling ~150 ft (46 m), and airtrac drilling totalling 125 ft (38 m) with concomitant sampling. Selected samples from the zone returned values of up to 42% Mn, whereas channel samples from across the showing ranged from 15% to 25% Mn. It's location along the same fault zone as the Ruth and Ryan deposits were noteworthy to the project geologist.

A large part of Hollinger's efforts in 1990 were devoted to the Ruth Lake deposit(s). Work included detailed geological mapping, trenching, sampling, airtrac drilling (5 holes) with concurrent sampling and diamond drilling (21 holes totalling 2393 ft = 729 m) that outlined two new deposits: Ruth B and Ruth C.

10.2 LIM Exploration from 2005 - 2010

10.2.1 2005 Program

Initial exploration was conducted over LIM's Labrador area properties during the summer of 2005, including the Houston project. The work consisted of surveying old workings (trenches, pits and drill holes), prospecting, mapping and collecting rock samples.

10.2.2 2006 Program

A diamond drill program totalled 605 metres in 11 holes during the summer season of 2006 on the Houston as well as the James, Knob Lake No.1, and Astray Lake deposits using Cartwright Drilling Inc. of Goose Bay, Labrador. Also, a short program of bulk sampling was carried out in 2006 consisting of 75 metres of trenching for bulk sampling at the Houston deposit.

A summary of the drilling program is given in Section 13. A summary of the bulk sampling and trench sampling of 2006 is shown in Table 5 for the Houston Deposit.

10.2.3 2007 Program

The exploration program for 2007 comprised prospecting and trenching.

Table 5
Trench Sample Results – Houston 1 Deposit

From (m)	To (m)	Len (m)	Fe%	SiO_2%	Ore Type
0.00	26.00	26.00	66.14	1.39	NB
26.00	50.00	24.00	60.50	6.82	NBY
50.00	69.00	19.00	59.26	11.57	LNB
69.00	75.00	6.00	44.52	34.07	TRX

10.2.4 2008 PROGRAM

In addition to a drilling program, LIM contracted Eagle Mapping Ltd of Port Coquitlam, BC to carry out an aerial topographic survey flown over its properties in the Schefferville Area, including the Houston property. The survey covered an area of 16,230 ha and 233,825 ha at map scale of 1:1,000 and 1:5,000 respectively. Using a differential GPS (with an accuracy within 40 cm), LIM surveyed the 2008 RC drill holes, as well as the trenches and a total of 90 old IOC RC drill hole collars that were still visible and could be located.

A bulk sampling program was carried out with material from the Houston as well as the James, Redmond and Knob Lake deposits. A total of 2,000 tonnes of blue ore was excavated from the Houston deposit as well as 1,400 tonnes of blue ore from the James South deposit, 1,500 tonnes of blue ore from the Redmond 5 deposit and 1,100 tonnes of red ore from the Knob Lake deposit.

The material was excavated with a T330 backhoe and a 950G front end loader and loaded into 25 ton dump trucks for transport to their individual stockpiles at the Silver Yard area where the crushing and screening activities were carried out. The samples were crushed and screened to produce two products:

- Lump Ore (-50 mm + 6 mm)
- Sinter Fines (- 6 mm)

Representative samples of 200 kg of each raw ore type were collected and sent to SGS Lakefield laboratories for metallurgical test work and assays. Representative samples of 2 kg of each product were collected and sent to SGS Lakefield laboratories for assays. Other samples were collected for additional screening tests. Five train cars were used for the transport of the samples to Sept-Îles, the rest of the sample material remains at the Silver Yard.

10.2.5 2009 PROGRAM

In addition to a drilling program, LIM completed a survey the 2009 RC drill holes, trenches as well as any historical IOC RC drill holes using a differential GPS.

The 2009 Houston trenching program was focused on the Houston 3 deposit, completing 479 metres in 9 trenches.

The exploration programs were intended to confirm and validate historic resources reported by IOC and to bring them into compliance with NI-43-101. Appendix I list drill holes and trenches completed by LIM between 2006 and 2010.

10.2.6 2010 Program

The 2010 program in Houston consisted of reverse circulation drilling. Drilling was targeted to test the presence of mineralization between cross sections 330 and 340 and as infill drilling in Houston 1 and Houston 2S. In 2010, 26 RC drill holes were completed at Houston for a total of 1,804 metres.

During the 2010 exploration season an airborne gravity and magnetic survey was flown over four claim blocks of LIM's Schefferville area properties centered on the Howse, Houston/Redmond, Astray and Sawyer Lake areas. High gravity anomalies associated with lower magnetism are considered prospective for DSO deposits. In total 1895.7 line kms was flown for the gravity and magnetic surveys. A total of 473.6 line kms were surveyed over the Howse area, 851.8 kms over Houston/Redmond areas, 354.6 kms over Astray and 215.7 line kms over the Sawyer Lake area.

An interim interpretation and evaluation of the processed and plotted airborne gravity gradiometer and magnetic data has confirmed the utility of the survey in detecting and outlining iron deposits and identified a number of new drill targets with the potential to expand currently known resources. Several of the new targets identified will be tested in 2011 using reverse circulation or diamond drilling.

11. DRILLING (ITEM 13)

Diamond drilling of the Schefferville iron deposits has been historically challenging in that the alternating hard and soft ore zones tend to preclude good core recovery. Traditionally IOC used a combination of reverse circulation (RC) drilling, diamond drilling and trenching to generate data for reserve and resource calculation. A large number of original IOC data have been recovered and reviewed by LIM and are included in the data base that is used for the estimation of resources.

LIM carried out exploration drilling programs in the 2006, 2008, 2009 and 2010 summer-fall seasons.

In 2006, 253 metres in 5 holes BQ size diamond core drilling were drilled in the Houston property using Cartwright Drilling Inc. of Goose Bay, of which only 1 drill hole was successfully completed.

Between 2008 and 2010, LIM used Acker RC tricone drill rigs Cabo Drilling using 75mm ($2^{7/8}$ inch) diameter rods. The drill rigs were mounted on Flex Trac Nodwell carriers or skids and outfitted with sample cyclones.

In 2008, 11 RC drill holes were drilled in Houston for a total of 791 metres.

In 2009, 46 RC drill holes were completed at Houston for a total of 3,136 metres.

In 2010, 26 RC drill holes were completed at Houston for a total of 1,804 metres.

Table 6 summarizes LIM's drilling programs at Houston.

Table 6
Houston Drilling Programs

Year	Type	Holes	Length (m)
2006	DD	5	253
2008	RC	11	791
2009	RC	46	3,136
2010	RC	26	1,804

DD – diamond drill, RC – reverse circulation

12. Sampling Method and Approach (Item 14)

During the time that IOC operated in the area, sampling of the exploration targets were by trenches and test pits as well as by drilling. In the test pits and trenches geological mapping determined the lithologies and the samples were taken over 10 feet (3.0 metres). The results were plotted on vertical cross sections. No further information was provided regarding the sampling procedures followed by IOC but verbal information from consultants, former IOC employees and others suggests that the procedures used by LIM were similar to IOC's during its activities in the Schefferville area.

LIM followed industry sampling standards and protocols for exploration. Sealed boxes and sample bags were handled by authorized personnel and sent to the preparation lab in Schefferville. RC sampling was done on site at the drill site and at the preparation laboratory in Schefferville. Logging was carried out at the preparation laboratory in Schefferville by LIM geologists.

Samples obtained during the 2008 and 2009 programs were prepared in the sample preparation laboratory installed in Schefferville by LIM.

The sampling procedures outlined below were designed and formulated by SGS Geostat.

The entire lengths of the RC drill holes were sampled. The average length of the RC samples was metres. A description of the cuttings was made at every metre drilled. A representative sample was collected and placed in plastic chip trays for every metre drilled. The chip trays were labelled with Hole ID and the interval represented in each compartment. The metres drilled with no recovery were marked with an X inside the chip tray compartment.

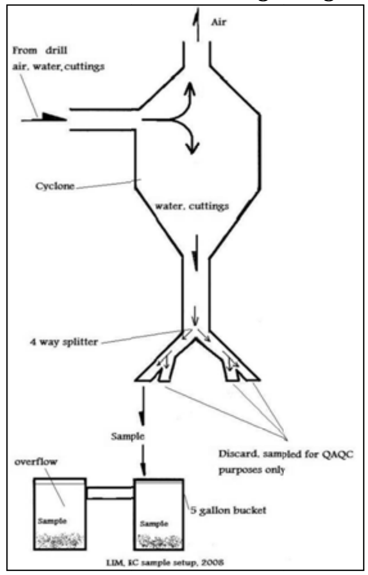
12.1 RC Sample Size Reduction (2008)

In order to reduce the size of the sample at the RC drill site to approximately 7.5 kg, the drill cuttings were split 4 ways after leaving the cyclone, during the 2008 drilling program (Figure 4).

The cuttings from three of the exit ports were discarded and the cuttings from the fourth exit were collected in a 5 gallon buckets. As part of the QA/QC program the cuttings from three of the four exits were routinely sampled.

Samples were taken by truck directly to the preparation lab in Schefferville under supervision of SGS Geostat. Upon arrival at the Preparation Lab, samples came under the care of SGS Geostat personnel.

Figure 4 - RC Size Reduction and Sampling Method
(used in the 2008 drilling Program)



12.2 Rotary Splitter RC Sample Size Reduction (2009)

In the 2009 RC drill program, drill cuttings were split with a rotary splitter mounted directly under the cyclone. The Rotary splitter is divided into pie shape spaces and is equipped with a hydraulic motor. The speed of the rotation of the splitter and the closing of the pie shape spaces was set in order to have a 7.5-10 kg sample from the 3 metre rod sample. Cuttings from the remaining material were discarded on site. As part of the QA/QC program the cuttings from the remaining discarded material were routinely sampled.

Upon arrival at the Sample Preparation Lab in Schefferville, samples came under the care of LIM personnel. The use of the rotary splitter sampling system demonstrated efficacy, therefore LIM decided to continue its use in future programs.

12.3 Rotary Splitter RC Sample Size Reduction (2010)

In the 2010 RC drill program, LIM followed the same on-site sample reduction as described above; however the samples were collected in the pails lined with Sentry II Micro Pore bags which allowed water to slowly drain thru while capturing very fine sample material (Figure 5).

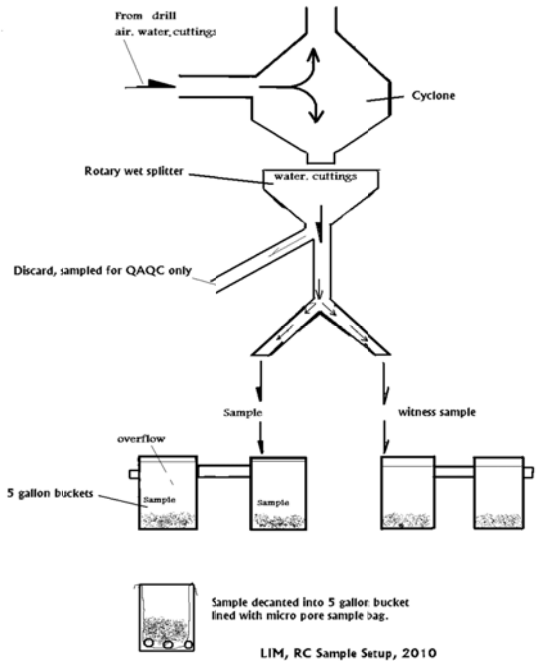


Figure 5. 2010 Reverse Circulation sampling setup diagram

12.4 2006, 2008 AND 2009 TRENCH SAMPLING

In 2006, 2008 and 2009 trenches were dug in several properties for resource estimations and ore body surface definition. The trenches were excavated with a Caterpillar 330 excavator with a 3-yard bucket. The excavator was able to dig a 1metre-wide trench with depths down to 3 metres, which was enough to penetrate the overburden.

Trenches were sampled on 3-metre intervals with the sample considered to be representative of the mineral content over that interval. After cleaning off the exposure, samples were collected from the sides of trenches. Samples were collected with a small rock pick along a line designated by the supervising geologist. In most cases the material sampled was soft and friable.

LIM completed a total of 554 metres of trenching in 10 trenches between 2006 and 2009 at Houston and collected a total of 135 samples.

13. Sample Preparation, Analysis and Security (Item15)

The standardized procedures for the preparation and reduction of samples collected during the 2008 and 2009 RC drilling campaigns were prepared by SGS Geostat and adopted by LIM for its sample preparation laboratory in Schefferville.

SGS Geostat were not in possession of the exact sampling procedures carried out historically by IOC but verbal information from former employees and drillers, suggests that the described procedures is similar to that used by IOC during their activities in Schefferville.

The relevant sample results and sample composites used for the resources estimation are described in section 19.

13.1 Sample Preparation and Size Reduction in Schefferville

At the end of every shift, the samplers and geologist delivered the samples to the preparation laboratory. Sample bags were placed in sequential order on a draining table and a "Sample Drop Off" form was completed noting the date, time, person, number of samples and sample sequence. These bags were left over night, so that the fine material could settle.

13.1.1 2008

Sample preparation and reduction was done at LIM's preparation lab in Schefferville which was operated by SGS Geostat personnel. In addition to the preparation lab personnel, SGS Geostat also provided a geologist and two geo-technicians to perform sampling duties on one of the two rigs utilized for the drill program. This procedure was implemented in order to facilitate the shipping and analysis to the SGS-Lakefield laboratory in Ontario.

The majority of samples have a width of 3 metres, equal to the length of the drill rods. As soon as samples were delivered to the Schefferville preparation laboratory, they fell under the responsibility of SGS Geostat. The sampling procedures were designed and formulated by SGS Geostat. These procedures were followed in the preparation laboratory of Schefferville, Quebec. Note that samples obtained from RC drills were wet. All samples were dried and reduced by riffle splitting and then sent to SGS-Lakefield in Ontario. A witness portion of the samples is kept in Schefferville.

13.1.2 2009

The 2008 procedures were adopted in 2009 for sample preparation and sample reduction and were carried out by LIM in its sample preparation laboratory in Schefferville. LIM had a lab supervisor and well trained geo-technicians to perform the sampling duties on the two rigs utilized for the drill program. Some later improvements were made to the procedures but overall they followed guidelines developed by SGS in 2008. All samples were dried and reduced by riffle splitting prior to shipment for analyses at Actlabs in Ancaster, Ontario.

13.1.3 2010

The 2010 sample preparation consisted entirely on cataloguing and drying of samples before shipping. No sample reduction was carried out in Schefferville before shipping.

13.2 SAMPLE PREPARATION AT SGS-LAKEFIELD LABORATORY

The following is a table taken from the SGS Geostat report, describing the RC drill hole sample preparation protocols used at the SGS Lakefield laboratory facility in Lakefield, Ontario.

Table 7
SGS-Lakefield Sample Preparation Methodology

Parameter	Methodology
Met Plant/Control quality assays - not suitable for commercial exchange	
PRP89	Crush up to 3kg of sample to 75% passing 9 mesh (2mm)
	Pulverize up to 250g of riffle split sample to 200 mesh (75µm)

13.3 SAMPLE ANALYSES AT SGS-LAKEFIELD

All of the 2008 RC drilling and trenching program were sent for analysis to the SGS-Lakefield Laboratory in Lakefield, Ontario, Canada. The analysis used was Borate fusion whole rock XRF (X-Ray Fluorescence). The following is a description of the exploration drill hole analysis protocols used at the SGS-Lakefield laboratory facility in Lakefield, Ontario. This description was given by SGS-Lakefield.

- X-Ray Fluorescence Analysis Code: XRF76Z
- Parameters measured, units: SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, TiO_2, Cr_2O_3, Ni, Co, La_2O_3, Ce_2O_3, Nd_2O_3, Pr_2O_3, Sm_2O_3, BaO, SrO, ZrO_2, HfO_2, Y_2O_3, Nb_2O_5, ThO_2, U_3O_8, SnO_2, WO_3, Ta_2O_5, 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 WDXRF 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 8
Borate Fusion Whole Rock XRF Reporting Limits

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	0.01
Also includes Loss on Ignition					

13.4 SAMPLE PREPARATION AT ACTLABS

During the 2009 exploration programme all trench and RC drill samples were shipped to Activation Laboratories (ACTLABS) facility in Ancaster, Ontario. Trench samples were taken to the preparation lab in Schefferville at the end of the day. The trench samples were not prepared in the same way as RC drill samples, being just bagged and shipped to the analytical laboratory.

As a routine practice with rock and core samples, ACTLABS ensured the entire sample was crushed to a nominal minus 10 mesh (1.7 mm), mechanically split (riffled) to obtain a representative sample, and then pulverized to at least 95% minus 150 mesh (105 microns). All of their steel mills are now mild steel, and do not induce Cr or Ni contamination. As a routine practice, ACTLABS automatically used cleaner sand between each sample at no cost to the customer.

Quality of crushing and pulverization is routinely checked as part of their quality assurance program. Randomization of samples in larger orders (>100) provides an excellent means to monitor data for systematic errors. The data is resorted after analysis according to sample number. The following is a table describing the rock, core and drill cuttings sample preparation protocols used at the ACTLABS.

Table 9
Rock, Core and Drill Cuttings Sample Preparation Protocols - ACTLABS

Rock, Core and Drill Cuttings	
code RX1	crush (< 5 kg) up to 75% passing 2 mm, split (250 g), and pulverize (hardened steel) to 95% passing 105 μ
code RX1 Terminator	crush (< 5 kg) up to 90% passing 2 mm, split (250 g), and pulverize (hardened steel) to 95% passing 105 μ
code RX1+500	500 grams pulverized
code RX1+800	800 grams pulverized
code RX1+1.3	1.3 kg pulverized
code RX2	crush (< 5 kg), split and pulverize with mild steel (100 g) (best for low
code RX3	oversize charge per kilogram for crushing
code RX4	pulverization only (mild steel) coarse pulp or crushed rock) (< 800 g)
code RX5	pulverize ceramic (100 g)
code RX6	hand pulverize small samples (agate mortar & pestle)
code RX7	crush and split (< 5 kg)
code RX8	sample prep only surcharge, no analyses
code RX9	compositing (per composite) dry weight
code RX10	dry drill cuttings in plastic bags
code RX11	checking quality of pulps or rejects

Following table shows the Pulverization Contaminants that are added by ACTLABS.

Table 10
Pulverization Contaminants that are added by – ACTLABS

Mill Type	Contaminant Added
Mild Steel (best choice)	Fe (up to 0.2%)
Hardened Steel	Fe (up to 0.2%). Cr (up to 200ppm), trace Ni, Si, Mn, and C
Ceramic	Al (up to 0.2%), Ba, Trace REE
Tungsten Carbide	W (up to 0.1%), Co, C, Ta, Nb, Ti
Agate	Si (up to 0.3%), Al, Na, Fe, K, Ca, Mg, Pb

13.5 SAMPLE ANALYSIS AT ACTLABS

Following is a description of the exploration analysis protocols used at the Actlabs facility in Ancaster, Ontario.

13.5.1 X-RAY FLUORESCENCE ANALYSIS CODE: 4C

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) are 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 0.5 g equivalent of the roasted sample with 6.5 g 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, Australia. Matrix corrections were done by using the oxide alpha – influence coefficients provided also by K. Norrish. In general, the limit of detection is about 0.01 wt% for most of the elements.

13.5.2 ELEMENTS ANALYZED

SiO_2 $Al2O_3$ Fe_2O_3(T) MnO MgO CaO Na_2O K_2O TiO_2 P_2O_5 Cr_2O_3, LOI

13.5.3 CODE 4C OXIDES AND DETECTION LIMITS (%)

The following table shows the Code 4C Oxides and Detection Limits (%)

Table 11
Code 4C Oxides and Detection Limits (%)

Oxide	Detection Limit
SiO_2	0.01
TiO_2	0.01
Al_2O_3	0.01
Fe_2O_3	0.01
MnO	0.001
MgO	0.01
CaO	0.01
Na_2O	0.01
K_2O	0.01
P_2O_5	0.01
Cr_2O_3	0.01
LOI	0.01

13.6 SAMPLE SECURITY AND CONTROL

13.6.1 LIM SAMPLE QUALITY ASSURANCE, QUALITY CONTROL AND SECURITY

LIM initiated a quality assurance and quality control protocol for its 2008 RC, DDH, and trench sampling program, which also was applied for its 2009 and 2010 programs. The procedure included the systematic addition of blanks, in-house reference standards, field duplicates, and preparation lab duplicates (not included in 2010 sequence) to approximately each 25 batch samples sent for analysis at SGS Lakefield.

The sealed sample bags were handled by authorized personnel from LIM and SGS Geostat and sent to the preparation lab in Schefferville. Authorized personnel did the logging and sampling in the secured and guarded preparation lab.

Each sample was transported back to the preparation lab with a truck at the end of each shift by the lab supervisor on a regular basis. The samples were transported to the lab near Schefferville, a warehouse facility rented by LIM. The lab was locked down during the night. Sample batches were sealed and sent by train or by express mail (by air). Traceability was present throughout the shipment to Lakefield and/or Ancaster.

13.6.1.1 Field Duplicates

The procedure included the systematic addition of field duplicates to approximately each 25 batch samples sent for analysis to the lab. In 2008, the cuttings from the second and third exits were routinely sampled every 25th batch. The 24th sample was collected at exit 2. The 26th sample was collected at exit 3. These samples went through the same sample preparation, analysis and security procedures and protocols as the regular 3 metre samples collected from the exit 1. In 2009 and 2010, the sample was split by a cyclone rotary splitter. One half of the material was discarded outside the drill, and the second half was sent into sampling buckets underneath the splitter. The field duplicate was taken for the material discarded outside the rig at every 25th sample. The 26th sample was the duplicate of the 25th sample. This QA/QC procedure enabled SGS and LIM any bias in the RC sampling program to be verified.

13.6.1.2 Preparation Lab Duplicates

The procedure included the systematic addition of preparation lab duplicates to approximately each batch of 25 samples sent for analysis at SGS-Lakefield. In 2008, a second portion of cuttings from the first exit size reduction procedure was routinely sampled every 25 batch similarly as described above. In 2009, the every 25th sample was taken the same way as a regular sample describe above. Its duplicate sample was tied empty to it. Once at the lab, the sample was dried, and riffle split 4 times. From the material riffle split, a lab duplicate was composed. In 2010, there was no lab duplicates because the sample bags were not riffle split.

13.6.1.3 Blanks

Blank samples were created onsite in Schefferville from barren slates located south east of the town. These blanks were used to check for possible contamination in laboratories. Some were sent to SGS-Lakefield and others to Corem and ALS-Chemex for verification of the average tenure in the blanks. Blank samples were inserted every 50 samples.

13.6.1.4 Standard Material

LIM introduced in-house standards with high grade James ore collected from a bulk sample taken in 2008. In 2009, LIM sent 20 samples to Actlabs and 10 sent to both SGS Lakefield and ALS Chemex starting the process of characterizing the standard material. In 2010, there were additional 30 samples of the high grade James standard material sent to Actlabs and 40 samples sent to both SGS and ALS Chemex. There was a second standard picked which was composed of medium grade Knob Lake ore material with 50 samples sent to SGS, Actlabs and ALS Chemex. The James Standard material was the only standards inserted into the sample sequence until 2010. The medium grade standard ore material will be incorporated in later programs.

13.6.2 SGS-Lakefield Sample Quality Assurance, Quality Control and Security

The following 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.

13.6.2.1 Quality control

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 12
SGS-Lakefield Laboratory Data Approval Steps

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

13.6.3 ACTLAB Sample Quality Assurance, Quality Control and Security

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 (CSRM) 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 ran.

The amount of duplicates done is decided by the Prep Department, their procedure is 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 fail the assigned criteria. These results are analyzed and any failures are investigated using our 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).

14. DATA VERIFICATION (ITEM 16)

14.1 QAQC PROCEDURES AND PROTOCOLS

The data verification of the iron (Fe), phosphorus (P), manganese (Mn), silica (SiO_2) and alumina (Al_2O_3) values was done with the assay results from the 2008 through 2010 RC drilling program.

SGS Geostat introduced a series of quality control procedures for the 2008 program including the addition of preparation lab duplicates, exit 2 duplicates, exit 3 duplicates and blanks.

In 2009, LIM followed the same QAQC protocols and procedures that SGS Geostat implemented for the 2008 exploration program. LIM introduced high grade standards at every 50th sample. LIM also developed an internal QAQC and Sampling Protocol and Method Manual in 2009 which specifies the procedures to follow thereafter.

In 2010, LIM completed the characterization of the standard ore material for high grade (60.93 ± 1.47%Fe, 9.96 ± 1.36%SiO2) and medium grade (56.47 ± 1.21%Fe, 8.31 ± 1.07%SiO2). Such materials were analyses in 3 different laboratories in order to get them certified.

14.1.1 DUPLICATES

LIM started a quality assurance and quality control protocol for its 2008 RC, DDH, and trench sampling program. The procedure included the systematic addition of field duplicates, preparation lab duplicates to approximately each 25 samples sent for analysis at SGS-Lakefield along with a blank at every 50 sample. This protocol was adopted and used during the 2009 and 2010 exploration programs with modifications mentioned above.

14.1.1.1 2008 Exploration Program

The data verification of the iron (Fe), Phosphorus (P), Manganese (Mn), silica (SiO2) and alumina (Al2O3) values was done with the assay results from the 2008 RC drilling program. As explained in section 13, SGS Geostat introduced a series of quality control procedures including the addition of preparation lab duplicates, exit 2 duplicates, exit 3 duplicates and blanks. SGS Geostat supervised the RC sampling.

In 2008, a total of 166 duplicates were taken and analyzed. The chart in Figure 6 produced by SGS Geostat in 2008 based on the results of the 2008 duplicates show that the data is precise and dependable.

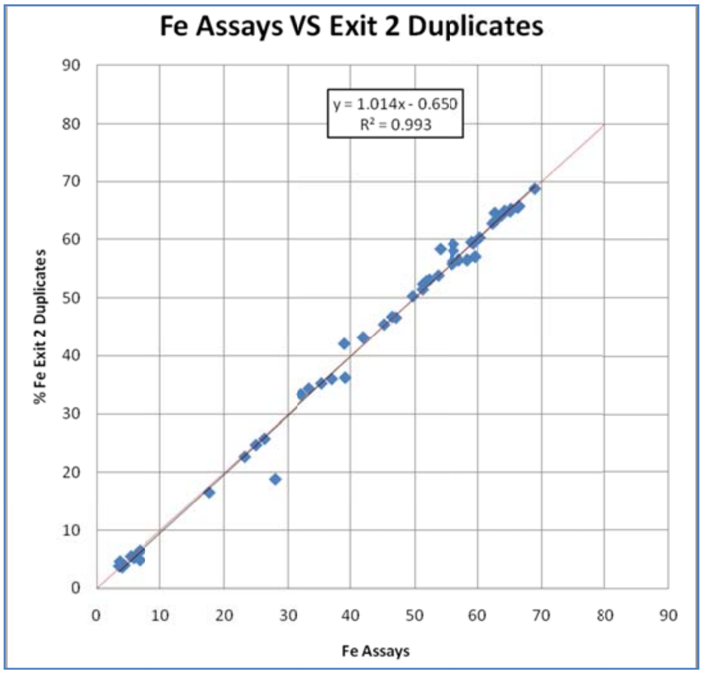


Figure 6: Fe Assay Correlation between original and Exit 2 Duplicate samples (2008)

14.1.1.2 2009 Exploration Program

LIM followed the same method of taking duplicates as in 2008. However, the field duplicate did not come from 3 exits but from two. The field duplicate came from a single discharge tube that flowed outside of the rig into a bucket. The lab duplicate sample bag was left empty and stapled to the sample bag that contained the sample that would at as the lab duplicate. The duplicates were treated as a normal sample, and were prepared, riffle split and sent to Actlabs for analysis.

The analysis of data plotted in charts in Figure 7 indicates that the repeatability of results is acceptable and the process of taking duplicates is good and reliable. There is very little variation in the data except for two few outliers, which could be a result of contamination while processing or taking the sample. The plot is linear, which means that there was no bias towards the analysis.

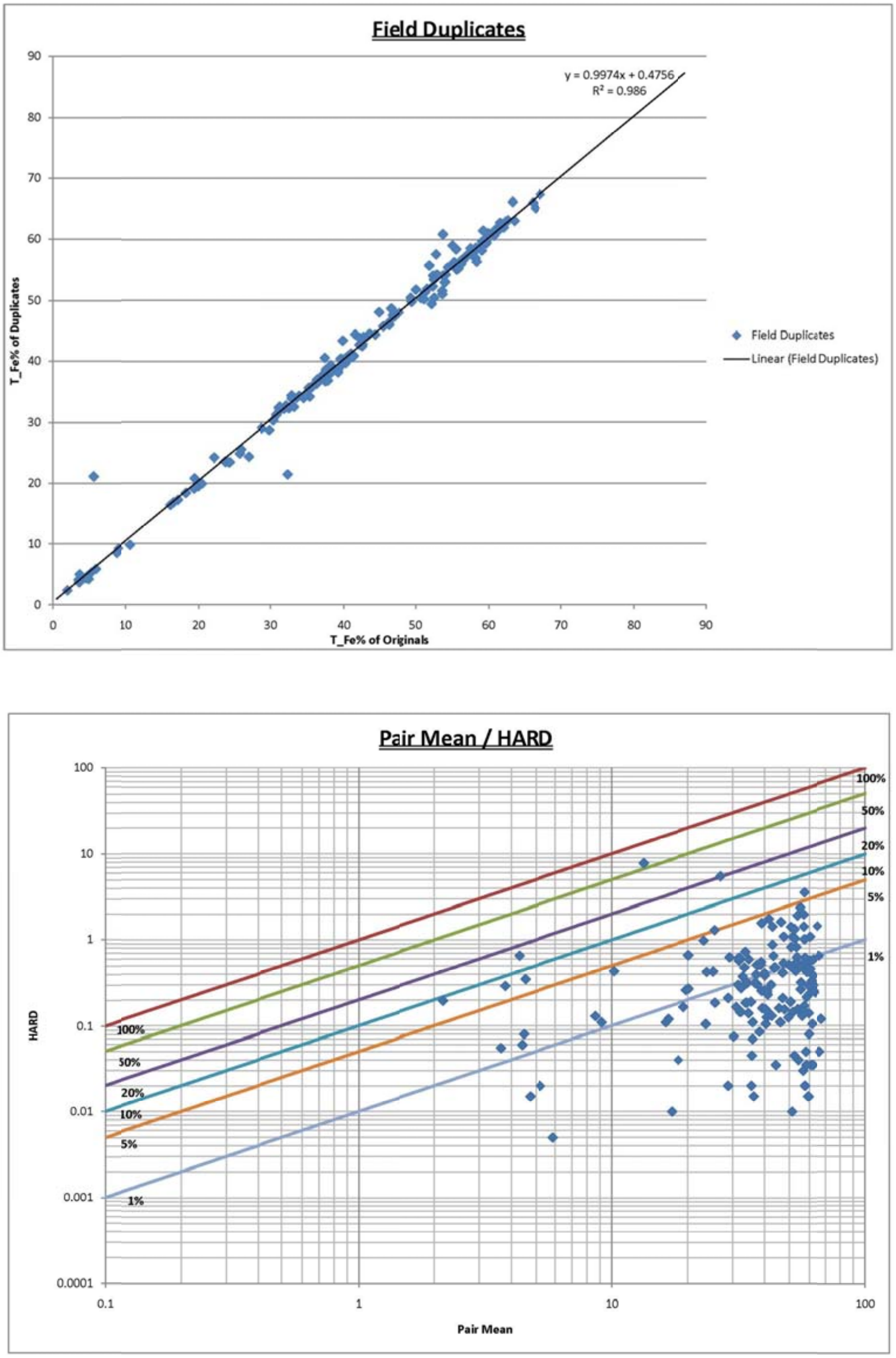


Figure 7 – Plot of results of duplicate samples (2009)

14.1.1.3 2010 Exploration Program

During 2010, the field duplicate came from a single discharge tube that flowed outside of the rig into a bucket. There were no lab duplicates taken because no riffle splitting was necessary. Samples and duplicates were collected and sealed using Sentry II Micropore Polywoven bags. These bags allowed the excess water to flow through catching the fines. The samples were dried in ovens for 3-4hrs prior shipping or storing. There were a total of 54 duplicates taken over the course of the 2010 program.

The overall Fe analysis of duplicates is good and repeatable as indicated in Figure 8 by the linear correlation of the samples versus their duplicates.

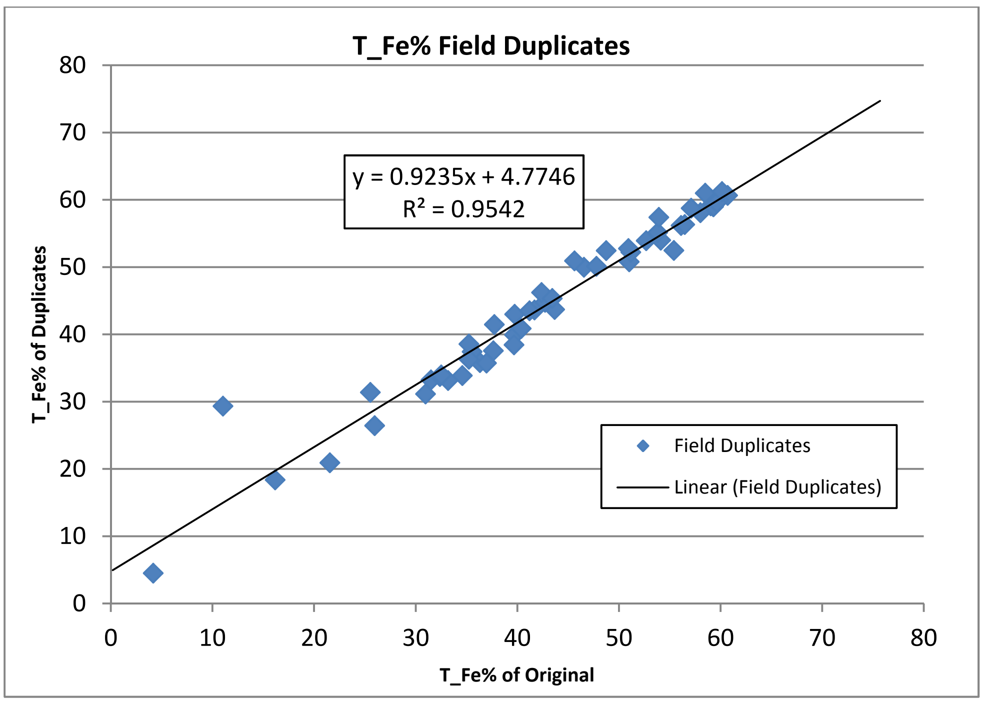


Figure 8 – Duplicates 2010

14.1.2 Standards

The insertion of standard samples in the sampling sequence started in 2010 once characterization and analysis of the materials used was completed; however, only the high grade standard was used. A total of 39 standards were inserted and figure 9 shows the results plotted. Samples 310008 and 310108 were over the 3σ limits, which indicate that there were some issues with the assays in that period, perhaps equipment calibration.

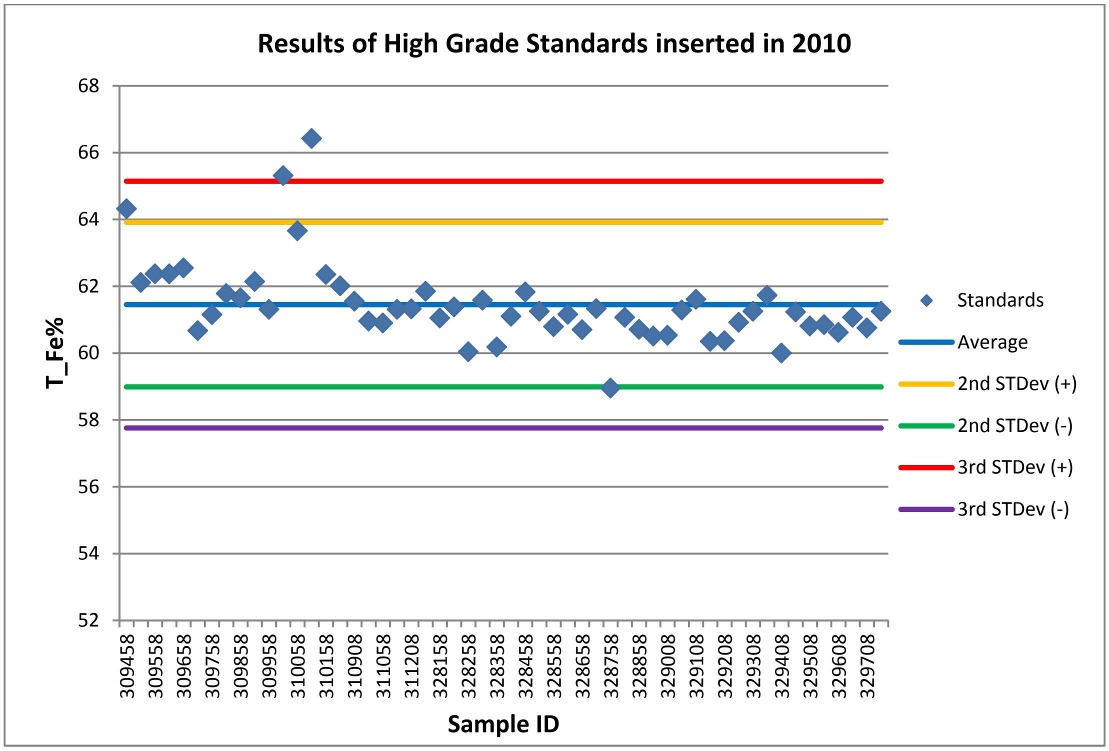


Figure 9 – Fe high grade standards in 2010

14.2 Assay Correlation of Twinned Holes

The data verification was done on the iron (Fe) and silica (SiO_2) assay results from the IOC historical RC drill results and the 2008-2010 RC drilling programs results. LIM twinned some IOC RC holes in order to verify the iron (Fe) content. A total of 6 paired RC holes from Houston were considered. Correlation coefficients showed adequate correlation. Refer to Figures 10 and 11.

Visual analyses of the selected pairs also show satisfactory correlation. A hole showed lower correlation due to low grade ore layers within the orebody and sharp changes because of the structural complexity (Figure 12).

Figure 10
Graphic of Fe Assay Correlation of Twinned Holes

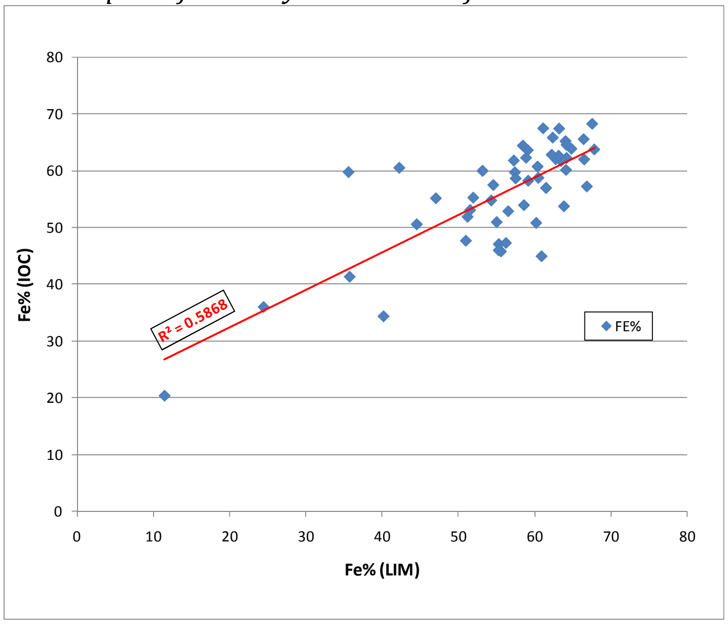


Figure 11
Graphic of SiO_2 Assay Correlation of Twinned Holes

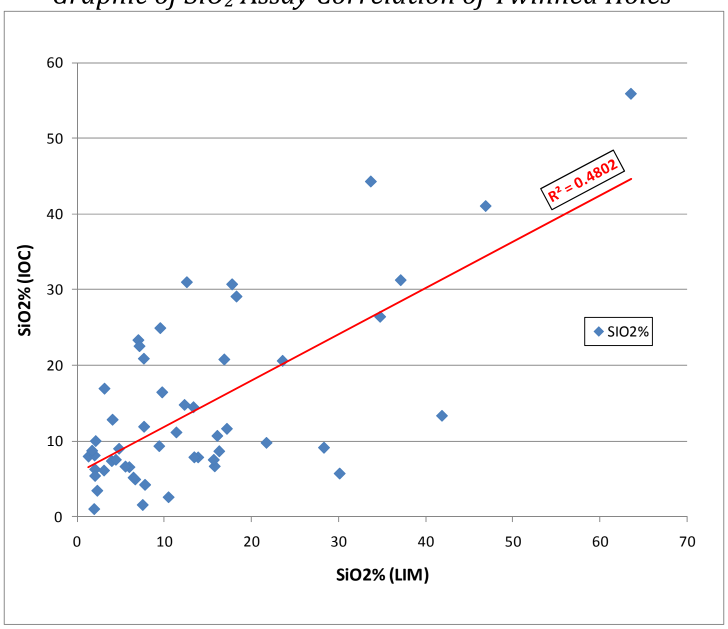
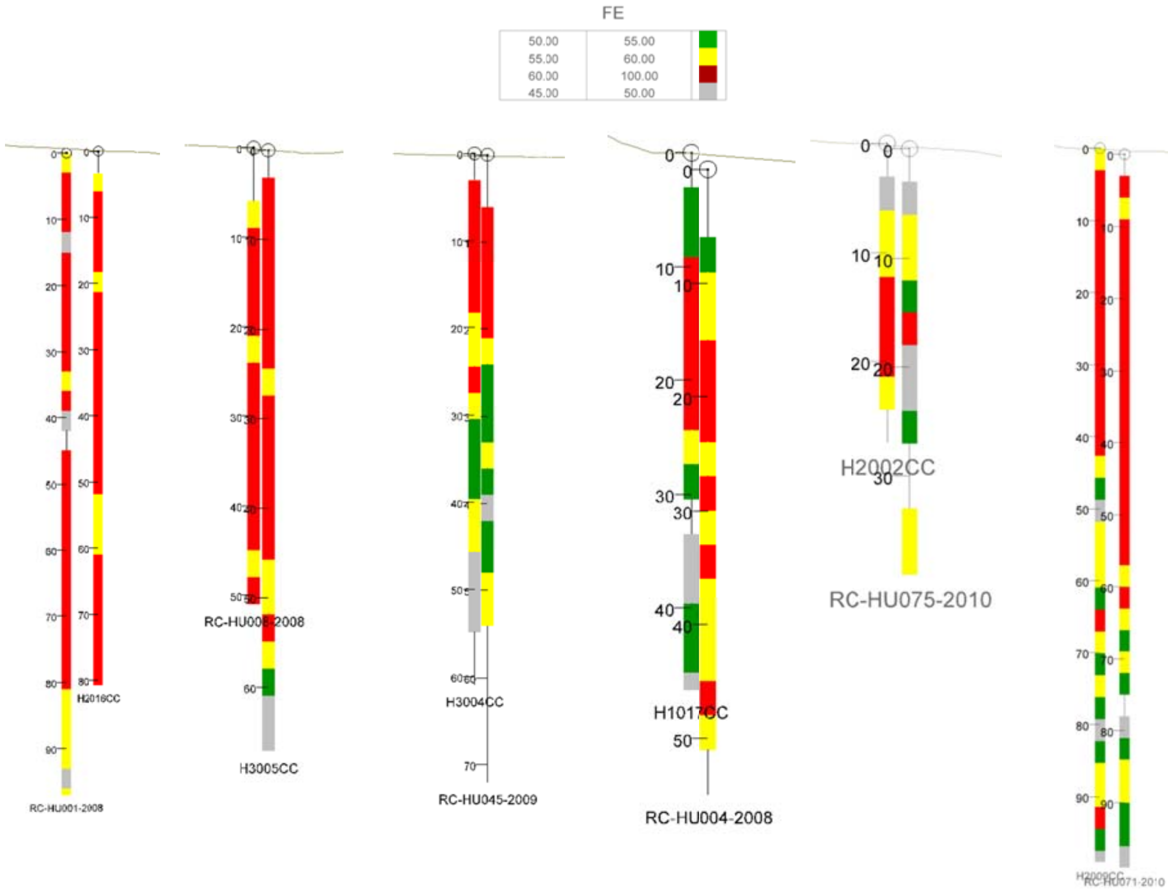


Figure 12
Visual comparison of Fe grades of 6 pairs of holes



14.3 BLANKS

A total of 60 blank samples were used to check for possible contamination in the analytical laboratories. SGS Geostat prepared the blank sample from a known slate outcrop located near Schefferville. SGS Geostat homogenized an average 200 kg of material on site at the preparation lab in Schefferville. LIM and SGS Geostat also sent two separate batches of fifteen (15) blank samples to the Corem and ALS-Chemex independent laboratories of Vancouver and Quebec City, respectively, for analysis.

An average 4.82% Fe and 61.96% SiO_2 was noted for the entire batch of 60 blank samples. For SGS-Lakefield, an average of 5.37% Fe and 61.40% SiO_2 was noted. For ALS-Chemex, an average of 4.22% Fe and 62.60% SiO_2 was noted. For COREM, an average of 4.34% Fe and 62.25% SiO_2 was noted.

During the 2009 program, a total of 46 blanks were inserted. The analytical results showing that the results remained within +/-1%, which is relatively good and unbiased.

During the 2010 program, a total of 62 samples of blank material were systematically inserted in the sample batches sent for analyses. The results remained within the zone between the average value and the 2σ. This states that the sampling procedures within the lab are very good, and there is very little to no bias. Blank sample 329707 that went outside the (+/-)3σ zones is possibly related to contaminated blank since the standards and duplicates included in the same batch showed not apparent problems. The figures 13 and 14 show of the results of the analysis of the blank material for the 2010 program.

Figure 13– Fe analysis on blank samples inserted in 2010

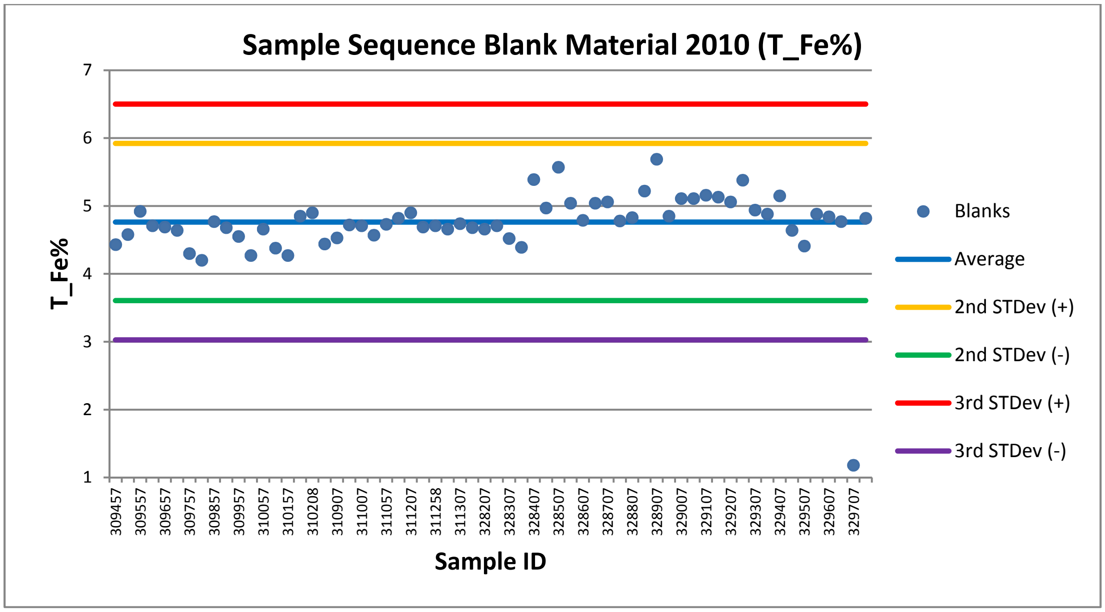
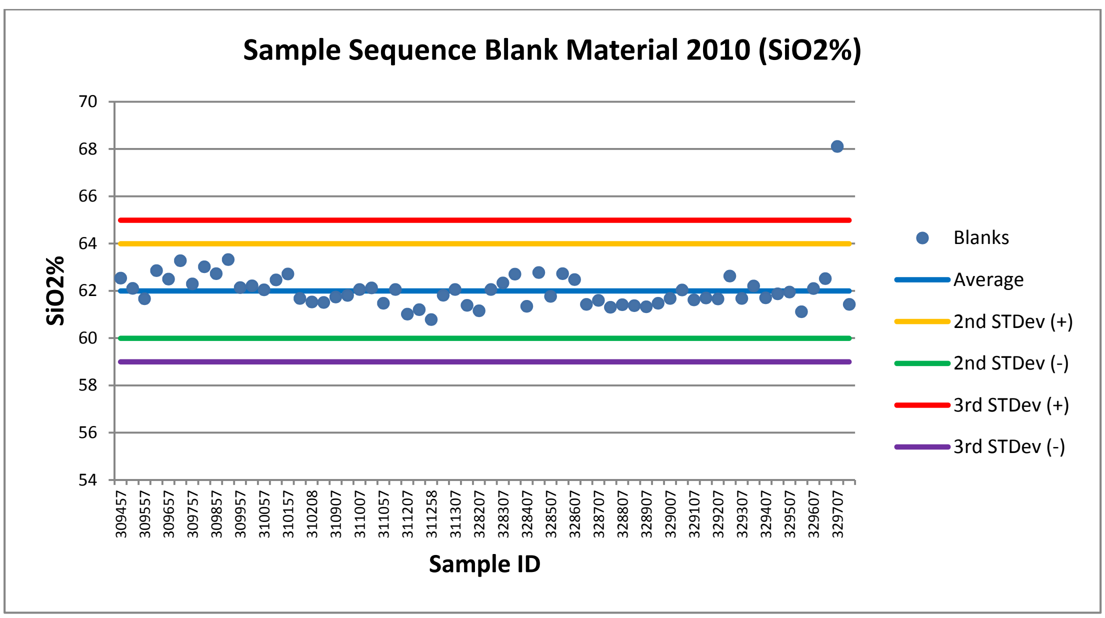


Figure 14– SiO2 analysis on blank samples inserted in 2010



15. ADJACENT PROPERTIES (ITEM 17)

Adjacent to the Houston property are several other iron ore deposits and claims owned by LIMH subsidiaries in Labrador and Quebec, which formed part of the former DSO operations of IOC during the period 1954-1982.

IOC produced an approximate total of some 150 million tons of direct shipping iron ore from all their properties in Quebec and Labrador during the operating years of 1954 to 1982. IOC is currently operating the Carol Lake iron property some 200 km south of Schefferville near Labrador City in Labrador. After closure, previously owned IOC operations in Labrador reverted to the Crown, while the mining leases in Quebec remained with the underlying owner, Hollinger. The balance of the former IOC properties not held by LIMH are mainly held by NML.

Through its wholly-owned subsidiary Labrador Iron Mines Limited, LIMH holds three Mining Leases and 38 Mining Rights Licenses (including 12 Licenses covering the Houston Property), issued by the Department of Natural Resources, Province of Newfoundland and Labrador, covering approximately 11,475 hectares. These Mineral Rights Licenses are held subject to a royalty of 3% of the selling price freight on board (“FOB”) port of iron ore produced and shipped from the properties, subject to such royalty being not greater than $1.50 per tonne.

Through its wholly-owned subsidiary, Schefferville Mines Inc. (“SMI”), LIMH holds interests in 278 Mining Rights issued by the Ministry of Natural Resources, Province of Quebec, covering approximately 11,579 hectares. SMI also holds an exclusive operating license in a mining lease covering 23 parcels totalling about 2,036 hectares. These mining rights and the operating license are held subject to a royalty of $2.00 per tonne of iron ore produced from the properties.

LIM is developing the James and Redmond deposits for commercial production start-up 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, while the Redmond 5 deposit contains an indicated resource of 2.1 million tonnes at a grade of 54.9% iron and at the Redmond 2B deposit contains an indicated resource of 0.85 million tonnes at a grade of 59.8% iron.

LIM's proposed mine operations will involve the extraction of iron ore by developing open pit mines at the James and Redmond deposits. Beneficiation will take place at a plant constructed adjacent to the Silver Yard marshalling area. A 4.5km rail spur has been re-established along the existing rail bed that connects with the TSH main rail line. Site construction is substantially complete at the James/Silver Yard, with contractors on site to initiate mining activities towards commissioning and start-up commencing in the spring 2011.

As was the case with IOC, all mining operations will be by conventional open pit mining methods. The ore excavated is estimated to contain between 50% - 60% iron and it is expected that the beneficiation process will enhance the product grade in excess of 62% iron and remove unwanted material. Historically the "direct shipping" iron ore produced by IOC needed no or only very little processing and that only crushing and screening was performed before the ore was loaded on trains to be transported. The working period is anticipated to start in April each year and to continue to November each year, with a work stoppage of four months during the winter months.

The Silver Yards beneficiation plant will produce lump ore and sinter fines and later pellet fines. Approximately one-quarter of the product is expected to be lump ore.

LIM's various properties comprise twenty different iron ore deposits which were part of the original IOC direct shipping Schefferville operations conducted from 1954 to 1982 and formed part of the 250 million tons of historical reserves and resources previously identified by IOC.

LIM has confirmed an indicated resource of 11 million tonnes on the James and Redmond deposits and measured and indicated resource of 19.4 million tonnes on the Houston deposits. The remaining seventeen deposits (excluding James, Redmond and Houston), have a total combined historical resource estimated to be approximately 125 million tons based on work carried out by IOC prior to the closure of its Schefferville operations in 1984. The historical estimate was prepared according to the standards used by IOC and, while still considered relevant, is not compliant with NI 43-101. The Company plans to bring the historical resources on these other deposits into NI 43-101 compliant status sequentially in line with their intended phases of production.

LIM's plans envision the development and mining of the various deposits in separate Stages. Stage 1, which will itself be undertaken in phases, comprises the deposits closest to existing infrastructure located in an area identified as the Central Zone. The first phase of Stage 1 involves mining of the James and Redmond deposits in Labrador. The second phase will involve the sequential development subject to permitting, of the Ruth, Gill and Knob Lake deposits in Labrador and the third phase the Denault, Star Creek and Malcolm deposits in Quebec. The Ruth, Gill and Knob Lake deposits are all located within approximately 10 km from the James deposit and close to the town of Schefferville and can also be reached by existing gravel roads.

Exploration drilling at the Houston deposits during 2010 significantly increased the size of the resources to 19.5 million tonnes of measured and indicated resource and as a result, the Houston deposits are now of sufficient tonnage that merits evaluation of a stand-alone operation and the development of a new Stage 2 (South Central Zone).

It is intended that during the mining of the Stage 1 deposits, planning will be undertaken for the future operation of the more distant deposits in subsequent stages. As currently envisioned Stage 3 will comprise the Howse (Labrador), Barney (Quebec) and adjacent deposits which are located in an area now defined as the North Central Zone, about 25 km northwest of Schefferville and relatively close to existing infrastructure.

The Astray and Sawyer deposits in Labrador (Stage 4), located approximately 50km to 65 km southeast of Schefferville (South Zone), do not currently have road access but can be reached by float plane or by helicopter.

The Kivivic deposit in Labrador and the Eclipse deposit in Quebec are located between 40 km to 70 km northwest of Schefferville (North Zone) and may eventually become Stage 5, but will require substantial infrastructure and building of road access.

A Joint Venture between Tata Steel Global Minerals Holdings, (80%) (a member of the Tata Group, the world's sixth largest steel producer) and New Millennium Capital Corp. NML (20%) is developing an adjacent DSO project on some of their claims in Labrador and Quebec about 30 km north of Schefferville.

NML published a Pre-Feasibility Study in April 2009 and on April 12, 2010 published a Feasibility Study on the development of the same project.

A Feasibility Study has also been carried out for NML on a taconite iron deposit known as the LabMag Property in the Howells River area of Labrador located some 30 km northwest of Schefferville. The property is owned by the partnership of New Millennium Capital Corp. and the Naskapi LabMag Trust and a Pre-Feasibility study has been carried out by NML on the adjacent K Mag taconite Property in Quebec.

16. MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 18)

16.1 METALLURGICAL TEST PROGRAMS

16.1.1 MIDREX TEST PROGRAM

In 1989 Midrex Technologies, Inc. ("Midrex"), an international iron and steel making technology company based in Charlotte, North Carolina, sampled and tested lump ore samples # 625 from the Houston 1 deposit for standard raw material evaluation purposes. The sample analyses are presented in Table 13.

Table 13
Midrex Lump Ore Samples Analyses

Sample #	Dry Wt% Yield at +6.7 mm	Fe %	S %	P %
625/ Houston 1	92.33	68.32	0.007	0.057

All lump ore samples were estimated by Midrex to be suitable for commercial production using its technology.

16.1.2 2006 BULK SAMPLING BY LIM

Bulk samples from trenches at the Houston deposit were collected during the summer of 2006 from two trenches 113 metres and 78 metres long respectively. Three bulk samples of some 600 kg each were collected from the Houston deposit trench for testing. The testing for compressive strength, crusher index and abrasion index were done at SGS Lakefield. The composite crushing, dry and wet screen analysis, washing and classification tests were done at "rpc – The Technical Solutions Centre" in Fredericton, New Brunswick. An additional five composite samples from the different ore zones in the trench were collected and tested in the ALS Chemex Lab in Sudbury for chemical testing.

The bulk sampling tests produced data for rock hardness and work indices for crushing and grinding, average density data for the various ore zones as well as chemical data. The specific gravity tests, completed on the bulk samples, have shown that there was a possibility that the average SG is higher than the 3.5 kg/t which was used in the IOC calculations. Additional SG testing was completed during the 2009 exploration program, obtaining a Fe-dependant variable SG (See Section 19.4).

The SG data have been and will continue to be used in the calculation of resource and reserve volumes while the chemical test results will be used to compare them with the historical IOC data from neighbouring drill holes. Table 14 shows the summary of the results of the tests on the 2006 bulk samples for the various ore types.

Table 14
Summary of Tests by SGS-Lakefield

Sample Name	CW (kWh/t)	AI (g)	UCS (Mpa)	Density CW (g/cm^3)	Density UCS (g/cm^3)
NB-Houston A	8.2	0.187	106.4	4.26	4.61
NB-Houston B	-	0.213	48.9	-	4.42
LNB Houston A	7.3	0.108	-	3.95	-
LNB Houston B	-	0.189	-	-	-
TRX-Houston A	6.7	0.098	22.3	3.47	3.00
TRX-Houston B	-	0.067	-	-	-
NB4-Houston A	5.7	0.086	73.0	3.77	4.36
NB4-Houston B	-	0.080	-	-	-

16.1.3 SGS Lakefield Program

A Bulk Sample program was undertaken during the summer of 2008. 2,000 tonne samples were excavated with a CAT-330 type excavator from the Houston 1 deposit. The excavated material was hauled to the Silver Yard area for crushing and screening. The raw material was screened at approximately 6 mm into two products – a lump product (-50 mm+6 mm) and a sinter fine product (-6 mm). The material excavated from each deposit and the products produced from each deposit were kept separate from the others.

Representative 200 kg samples of each raw ore type was collected and sent to SGS Lakefield Laboratories for metallurgical tests and other (angle of repose, bulk density, moisture, direct head assay and particle size analysis determinations).

Preliminary scrubber tests were performed. The potential of beneficiation by gravity was explored by Heavy Liquid Separation. Vacuum filtration test work was also carried out. The results of the bulk sample test are shown in Tables 15 and 16.

Table 15
Calculated Grades from 2008 Bulk Samples (SGS-Lakefield)

Deposit	**Houston**
Ore Type	Blue Ore
Fe[1]	66.1
SiO_2	2.22
P[1]	0.07
Al_2O_3	0.30
LOI	1.33

[1] Calculated from WRA oxides

Table 16
2008 Bulk Samples Test Results (SGS-Lakefield)

Houston	**(Blue Ore)**	**Assays %**					**Distribution**
Lump Ore	50 mm +6.7 mm	68.1	1.08	0.20	0.060	1.00	33.9
Sinter Feed	-6.7mm +150 μ m	66.2	3.30	0.41	0.078	1.22	35.5
Pellet Feed	-150 μ m +38 μ m	65.8	3.84	0.38	0.082	1.37	6.43
Slimes	- 38 μ m	63.7	1.99	0.54	0.089	2.17	24.1
Calc. Head		66.2	2.27	0.37	0.075	1.38	100.0

The material collected from the 2008 bulk samples at both Houston and the James deposits was sent to a number of other laboratories for additional test work, including Derrick Corporation for screening tests, Outotec, and FLSmidth Minerals. Samples from the James deposit were also sent to MBE Coal & Minerals Technologies to perform jig testing.

16.1.4 Derrick Corporation (2008)

Eight - 45-gallon drums of the sample were sent to Derrick Corporation in Buffalo, NY for screening test work. The purpose of the test work was to determine optimum screen capacity and design for sinter fines production.

Different screen openings were used to investigate the dependence of the recovery from the size of the product.

The test results proved that both 300 μm and 600 μm openings give very promising recoveries:

Table 17
Derrick Screen Tests Results

Screen	**Feed**	**Oversize**	**Undersize**	**Efficiency**
Openings	**Fe_{tot}, %**	**Fe_{tot}, %**	**Fe_{tot}, %**	**%**
300 μm Screen	61.23	68.26	58.91	99.2
600 μm Screen	61.23	66.62	59.28	99.6

16.1.5 Outotec (2009)

From the material sent to Derrick Corporation, a sample of -300 microns was sent to Outotec (USA) Inc., in Jacksonville, Florida for Wet Gravity Separation and Magnetic Separation using HGMS Magnet test work.

Based on the results of this study, it is possible to produce an iron product containing at least 67% Fe and less than 5% silica using wet gravity separation by the means of Floatex Density Separator, followed by spiral concentration. Recovery of 83% Fe in the Floatex underflow was achieved (17% of the head feed weight).

Wet gravity treatment on the rougher spiral tail with a wet table indicates additional material can be recovered at acceptable grade.

Testing using a SLon magnetic separator to recover Fe from the Floatex overflow combined with the gravity tail did produce a product containing 65.1% Fe.

16.1.6 MBE Coal & Minerals Technologies

Approximately 1,600 kg fine sample and 1,300 kg lump samples from the James ore were sent to MBE Coal & Minerals Technology GmbH, in Cologne, Germany, in November 2009. A representative part of each material was processed in two separate batch trials using a BATAC jig.

The test work on the fine ore sample produced a total of seven layers, whilst the Lump sample was split into five layer fractions.

Regarding the fine ore trials, the test work indicated that it was possible to achieve a concentrate grade of +65% Fe at a mass yield of +60%. It should be considered to grind the remaining 40 % (reject) in order to feed to an additional separation process step, like JONES WHIMS magnetic separation.

The lump ore could be upgraded successfully to a +65 % Fe at +43 % weight recovery or +64 % Fe at a weight recovery of +61%.

It should be considered to feed the lump ore material into a three product lump ore jig to produce final reject, a middlings fraction, which could be fed after further crushing to the fines jig, and a final high grade concentrate.

It is considered that the jig testing by MBE on the James ore should have a similar application to the Houston deposits and this should be confirmed in future testing.

16.1.7 FLSmidth Minerals

In 2010 Labrador Iron Mines Limited contracted FLSmidth Minerals to perform tests on the Density Separator samples to confirm feasibility of using Pan Filter to decrease the moisture content of the concentrate. The results of this test program showed that filter cake with moisture of less than 8% is achievable.

Currently, LIM is conducting a test program to confirm the feasibility of using HPGR, jigs and WHIMS to treat the high silica ore. These results are expected in May 2011.

17. MINERAL RESOURCE ESTIMATION (ITEM 19)

17.1 INTRODUCTION

The mineral resources presented herein are reported in accordance with the National Instrument 43-101 and have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

LIM published an initial NI 43-101 compliant resource estimate for Houston in May 2010 of 8.03 million tonnes in the Measured category at an average grade of 59.71% iron; 6.66 million tonnes in the Indicated category at an average grade of 58.80% iron and 1.49 million tonnes in the Inferred category at an average grade of 56.99% iron.

The Houston deposit had historical reserves (non-compliant with NI 43-101) of DSO quality totalling 9.1Mt @ 57.4% Fe and 7.1% SiO_2 (IOC Ore Reserves, 1983), which was based on geological interpretations on cross sections and calculations were done manually. It should be noted that the historical estimates are based on economics of 1983 and that although the geological, mineralogical and processing data will be the same today, economics and market conditions have changed.

The classification used in the IOC reports is as follows:

Measured: The ore is measured accurately in three dimensions. All development and engineering evaluations (economics, ore testing) are complete. The deposit is physically accessible and has a complete pit design. The reserve is economic and is marketable under current conditions.

Indicated: Development and engineering evaluations (economics, ore testing) are complete. Deposits in this category do not meet all the criteria of measured ore.

Inferred: Only preliminary development and evaluation are completed. Deposits may not be mineable because of location, engineering considerations, economics and quality.

The above shown terms, definitions and classification are not compliant with NI 43-101 but were used by IOC for their production reports. Current compliant mineral resources are categorized on the basis of the degree of confidence in the estimate of quantity and grade or quality of the deposit, as follows:

- Inferred mineral resources,
- Indicated mineral resources and
- Measured mineral resources.

Compliant mineral reserves are that part of a measured mineral resource or indicated mineral resource which can be extracted legally and at a profit under economic conditions that are specified and generally accepted as reasonable by the mining industry and which are demonstrated by a preliminary feasibility study or feasibility study as follows:

- Probable mineral reserve and
- Proven mineral reserve

Houston data used for the estimation of current mineral resources was initially compiled and validated using MapInfo Professional software in combination with Encom Discover and Microsoft Office Access. Data was then imported into Gemcom GEMS Software Version 6.2.4.1., which was used to perform the final validation of the Houston database, to construct solids, to build composites, to run geostatistical analyses, to build the block model, to run grades interpolation and to estimate mineral resources.

The data used for the resource estimation is based on data obtained as of December 2010 and has been compiled, collected, managed and verified using industry's best practices.

17.2 DATABASE AND VALIDATION

The historical data was entered from IOC's data bank listing print outs of drill holes, trenching and surface analyses. Most collar coordinate locations of drill holes were obtained using a Trimble DGPS with accuracies under 30cms. The locations of the remaining holes and trenches as well as geology were digitized using MapInfo v9.5 on historical maps that were geo-referenced using the DGPS surveyed points. The estimated accuracy of the digitized data is approximately 5 metres. Historical cross sections were also digitized using MapInfo/Discover software then imported into Gemcom GEMS 6.2.4.1.1.

The Houston database contains a total of 10,403 metres of drilling in 173 drill holes (including RC and diamond drilling), a total of 7,454 metres of trenching and a total of 5,645 samples. Table 17 provides a summary of the Houston database.

Table 17
Summary of Houston database

Source	Type	No.	Metres	Assays
Historical	Drill hole Trench	84 -	4,418 6,900	3,571
LIM (2005-2010)	Drill hole Trench	89 -	5,985 554	2,074

The final verification and validation of the collar information, down hole survey, lithology, mineralization and analytical data was performed using Gemcom GEMS validation tools that checked for missing and overlapping intervals as well as consistency in lengths. To the best knowledge of the authors, all data used in this estimation is accurate.

17.3 Geological Interpretation and Modeling

The geological and ore model interpretation of the Houston deposit was completed considering a cut-off grade of 40% Fe+Mn; however the resources reported are based on a cut-off grade of 50% Fe for iron ore and 50% Fe+Mn for manganiferous iron ore. The IOC ore type parameters of Non-Bessemer (NB), lean non-Bessemer (LNB), high silica (HiSiO2), high manganiferous (HMN) and low manganiferous (LMN) were considered for the resource estimation. Please refer to Table 4 for details.

The geological modeling of the Houston mineral deposit was done using 90 vertical cross sections with a direction of N043° spaced approximately 30 metres apart (100 feet). The cross section configuration is the same as the one used by IOC. Fifty two (52) available historical paper cross sections from IOC were digitized and used for the geological interpretation and modeling.

The original geological and ore interpretations were updated with information obtained during recent exploration programs. The solids were created from the sectional wireframes combining geological and mineralization interpretation.

The study area of the Houston deposit included in this report covers an extension of 2,680m long x 450m wide and 160m vertical. Further infill drilling will be required to better define mineralization in some areas within the ore body subject of this report. A remaining 2kms strike-length to the south-east of underexplored mineralization will be subject to a separate technical report once enough exploration work is completed.

17.4 Specific Gravity (SG)

The SG testing was carried out on reverse circulation drill chips. The SG was obtained by measuring a quantity of chips in air and then pouring the chips into a graduated cylinder containing a measured amount of water to determine the volume of water displacement. A volume of water equal to the observed displacement is then weighed and the SG of the chips is calculated using the equation listed below.

$$SG = \frac{A}{Ww}$$

SG=Specific Gravity of Sample
A=Weight of Sample in air (dry)
Ww=Weight of Water displaced

A variable specific gravity, Fe dependant, was used for the resource estimation which was calculated using the formula below.

$$\mathbf{SG_{(in\ situ)} = [(0.0258 * Fe) + 2.338] * 0.9}$$

The formula was calculated from regression analyses in MS Excel using 229 specific gravity tests completed during the 2009 drilling program. The 0.9 factor corresponds to a security factor to take into account porosity of an estimated average of 10% volume. This formula was validated and used by SGS Geostat in prior technical reports.

17.5 STATISTICS

Composite samples were calculated in GEMS at equal lengths of 3 metres starting from the collars using Fe, Mn, SiO_2, Al_2O_3 and P grades. Composites were extracted into a "Point Area" workspace for statistical analysis and grade interpolation.

Figures 15, 16 and 17 show basic statistics of Fe, SiO2 and Mn in all samples considered in the resource estimation.

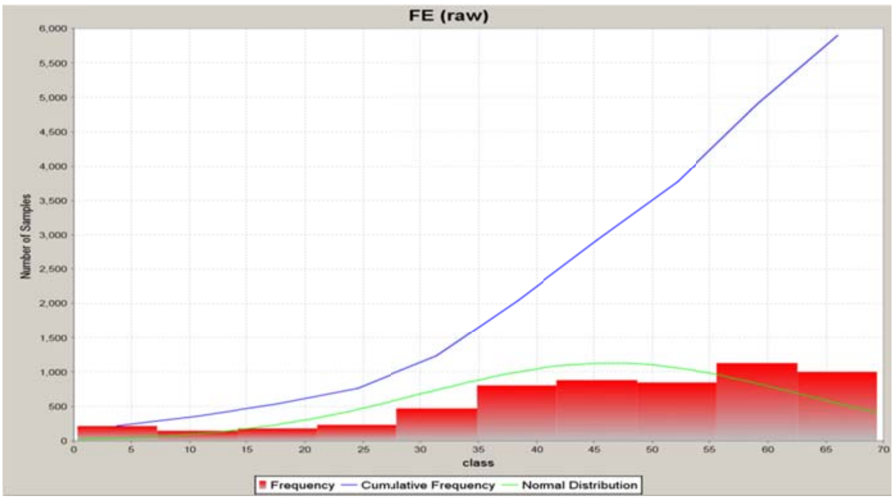


Figure 15 –Frequency, Cumulative Frequency and Normal Distribution chart of Fe

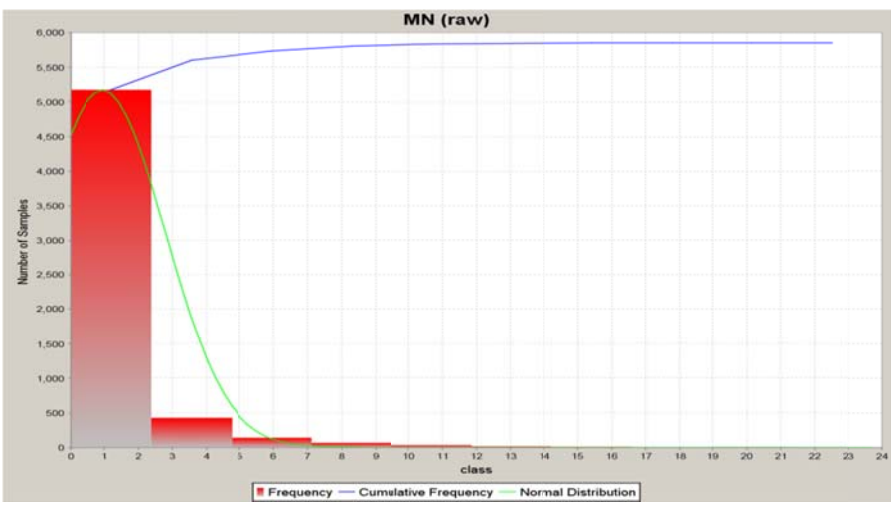


Figure 16 – Frequency, Cumulative Frequency and Normal Distribution chart of Mn

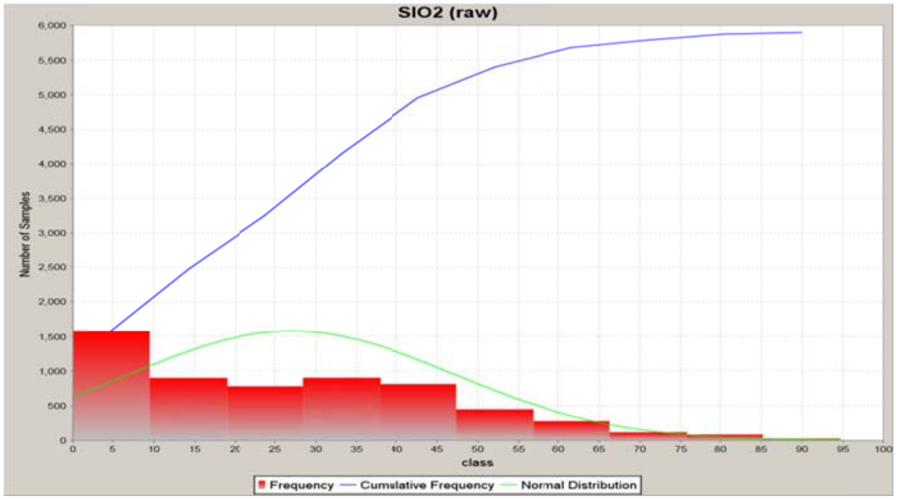


Figure 17 – Frequency, Cumulative Frequency and Normal Distribution chart of SiO_2

17.6 Block Modeling and Grade Estimation

17.6.1 *Variography*

3D semi-variogram analysis in GEMS using 4,064 composites of 3m in length with Fe grades >=40% was done to determine directions of maximum continuity and various ranges of influence of ore grades. The information obtained from the variograms was used in the parameters for the search ellipses for grade estimations.

Table 18 – Results of the 3D semi-variogram analysis

Principal Azimuth	Principal Dip	Intermediate Azimuth	Nugget	Model	Sill	Anisotropy		
						X	Y	Z
144.204	0	234.204	19.44	Spherical	46.84	88.032	59.659	54.749

17.6.2 *Grade Estimation Methodology*

The "Ordinary Kriging" interpolation method was used for grade estimate by block modeling with block sizes of 5x5x5 metres and block rotation of 45.6° which corresponds to the general strike of the Houston deposit. The block size considered was to be the smallest estimated size for this type of mineralization to take into account sharp grade changes over short intervals.

Table 19 - Parameters of the block model

Number of Blocks	
Columns	130
Rows	580
Levels	45
Origin and Orientation	
X	651,840 mE
Y	6,063,200 mN
Z	630 m
Orientation	45.6°
Block Size	
Column size	5m
Row size	5m
Level size	5m

Three rock codes were used to assign to the blocks. These were Air, Ore and Waste. Blocks had to be at least 50% inside the ore solid model to be coded as "Ore". Figures 18 to 21 show examples of rock code assigned as ore in sections 344, 325, 386 and 334 respectively.

The ranges (radius of influence) obtained from variogram analysis suggest that the density of data is adequate; however, some areas will need additional drilling to increase confidence in the results obtained.

Block grade estimation was completed by interpolation in fifteen (15) passes using three search ellipses defined by 3D semi-variogram analysis for five grades (Fe, Mn, SiO_2, Al_2O_3 and P). The three search ellipses were defined for resource classification (measured, indicated and inferred). Ranges assumed for search ellipses GEOS-1 and GEOS-2 are 20% and 40% respectively of the maximum range obtained from variogram analysis (GEOS-3). Figures 22 to 25 show results of the Fe interpolation on sections 344, 325, 386 and 334. Figure 26 shows stacked long sections throughout the studied area showing results of interpolation for Fe and SiO_2 and well as classification of blocks.

Table 20 - Parameters of search ellipses used in the interpolation of grades and classification

Search Ellipse	Classification	Principal Azimuth	Principal Dip	Anisotropy X	Anisotropy Y	Anisotropy Z
GEOS-1	Measured	144.204°	0°	17.61	11.93	10.95
GEOS-2	Indicated	144.204°	0°	35.21	23.86	21.90
GEOS-3	Inferred	144.204°	0°	88.03	59.66	54.75

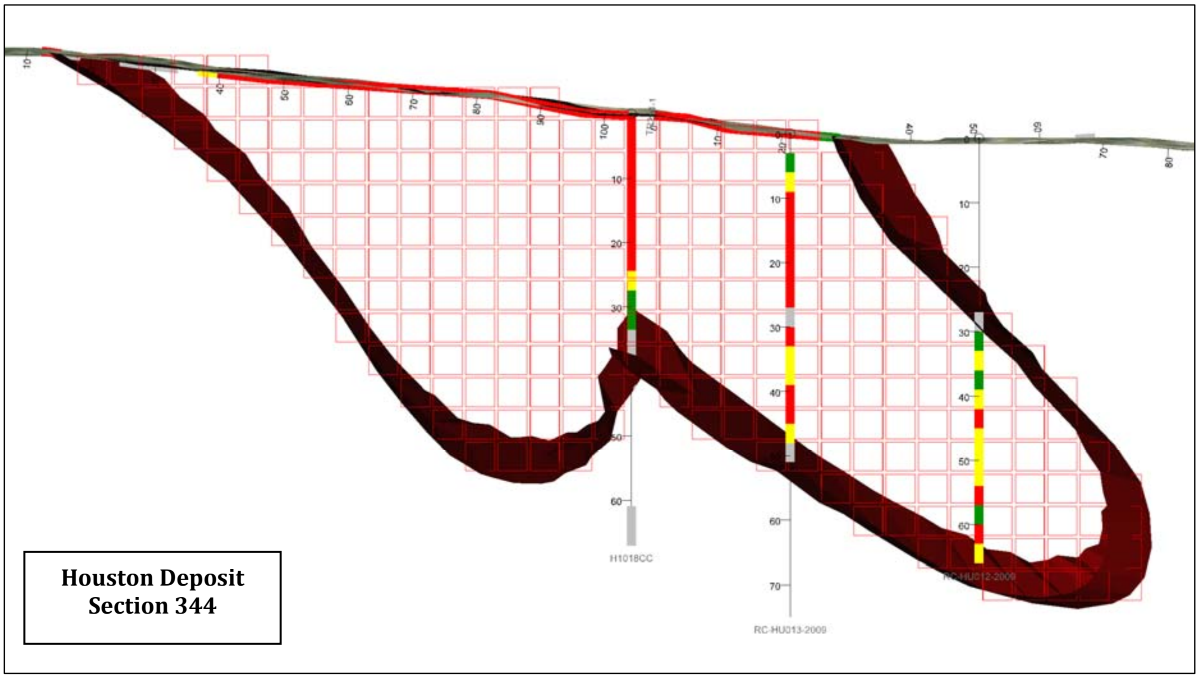


Figure 18 – Section 344 of Houston 1 with 15m corridor on both sides

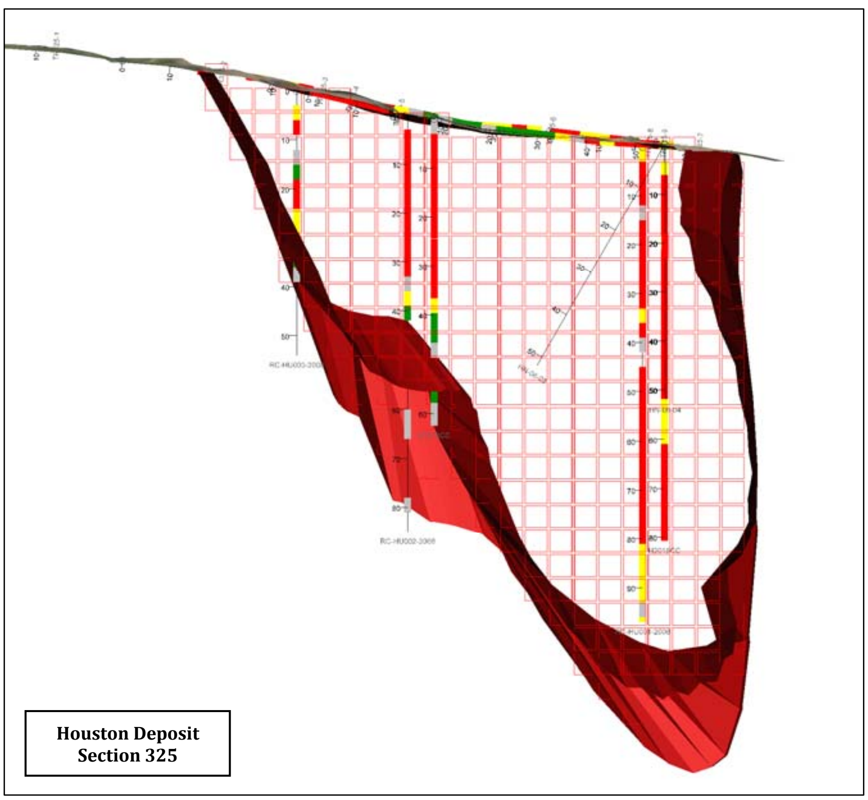


Figure 19 – Section 325 of Houston 2S with 15m corridor on both sides

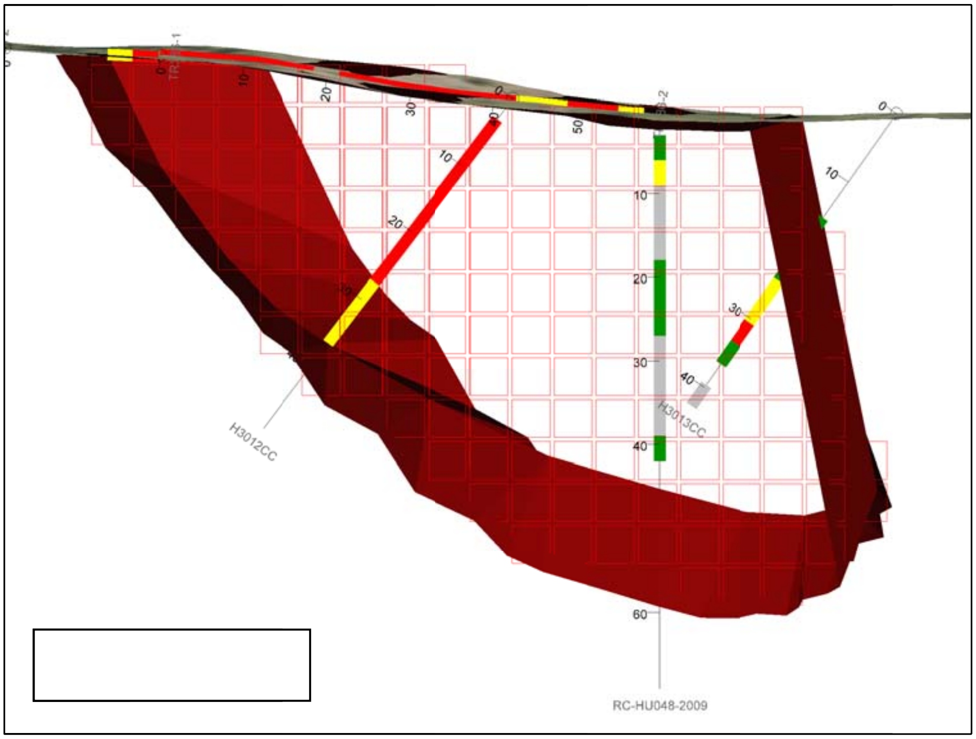


Figure 20 – Section 386 of Houston 3 with 15m corridor on both sides

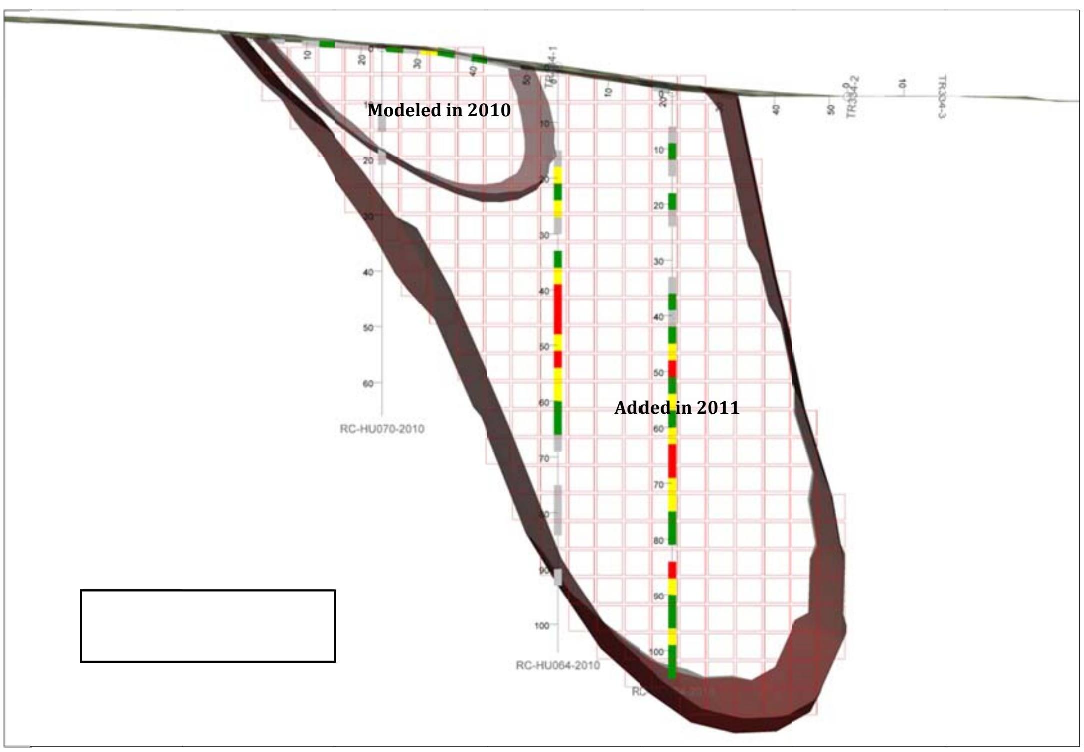


Figure 21 – Section 334 of Houston 2S with 15m corridor on both sides. Note the added mineralization using 2010 drilling results

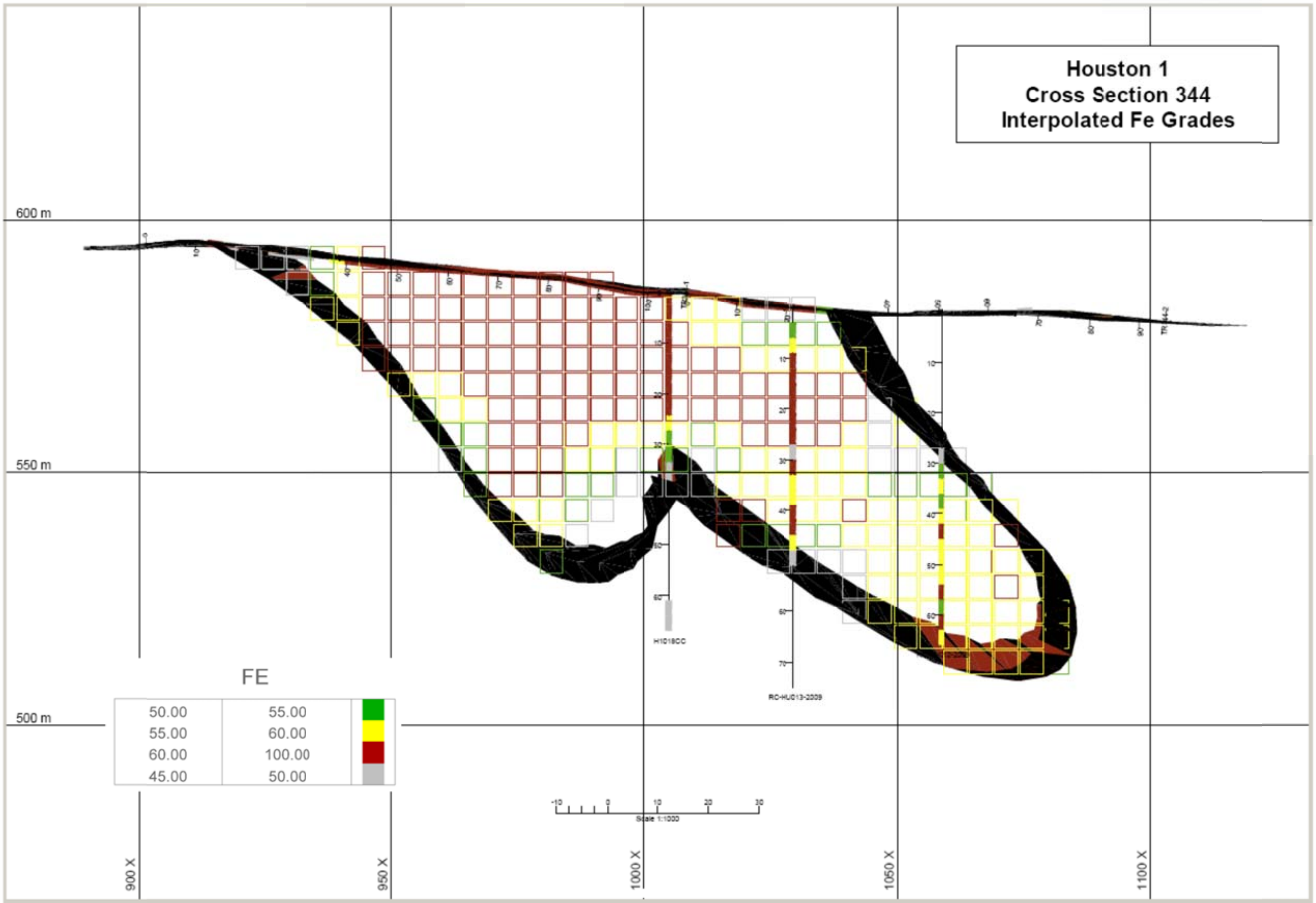

Houston 1
Cross Section 344
Interpolated Fe Grades
600 m
550 m
500 m
FE
50.00 55.00
55.00 60.00
60.00 100.00
45.00 50.00
900 X
950 X
1000 X
1050 X
1100 X

Figure 22

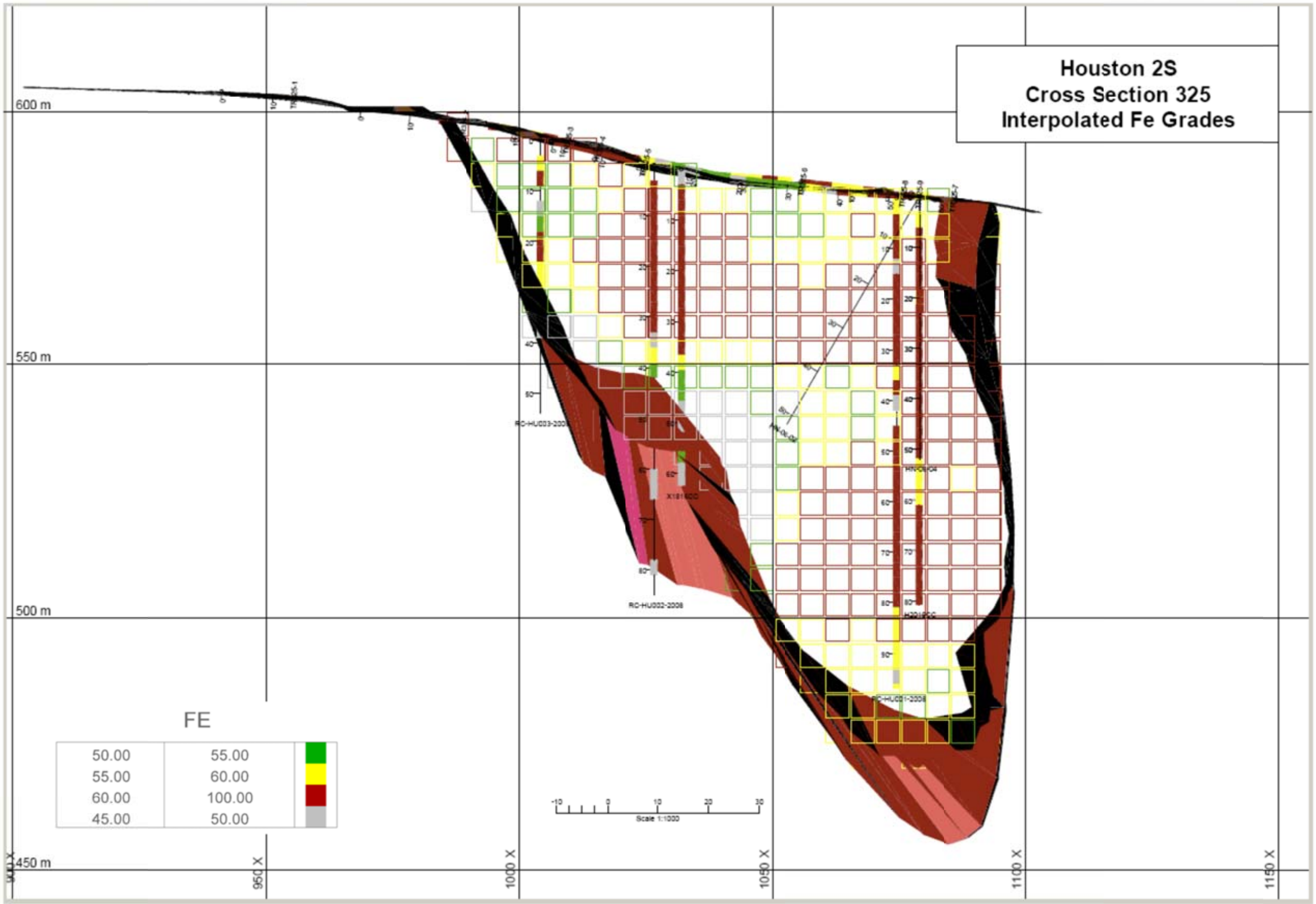

Houston 2S
Cross Section 325
Interpolated Fe Grades
600 m
550 m
500 m
450 m
950 X
1000 X
1050 X
1100 X
1150 X
FE
50.00 55.00
55.00 60.00
60.00 100.00
45.00 50.00
Scale 1:1000

Figure 23

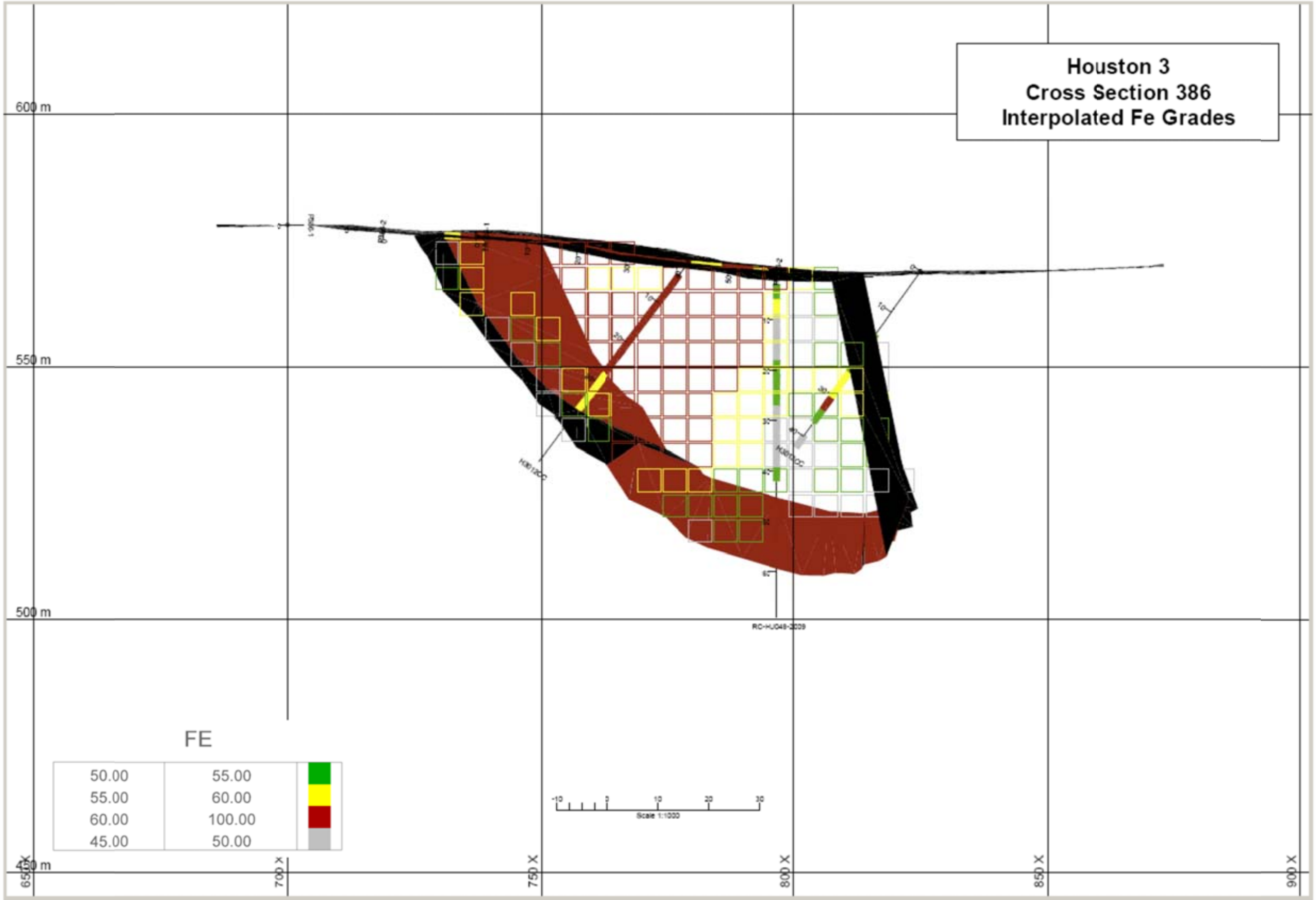

Houston 3
Cross Section 386
Interpolated Fe Grades
600 m
550 m
500 m
450 m
650 X
700 X
750 X
800 X
850 X
900 X
FE
50.00 55.00
55.00 60.00
60.00 100.00
45.00 50.00

Figure 24

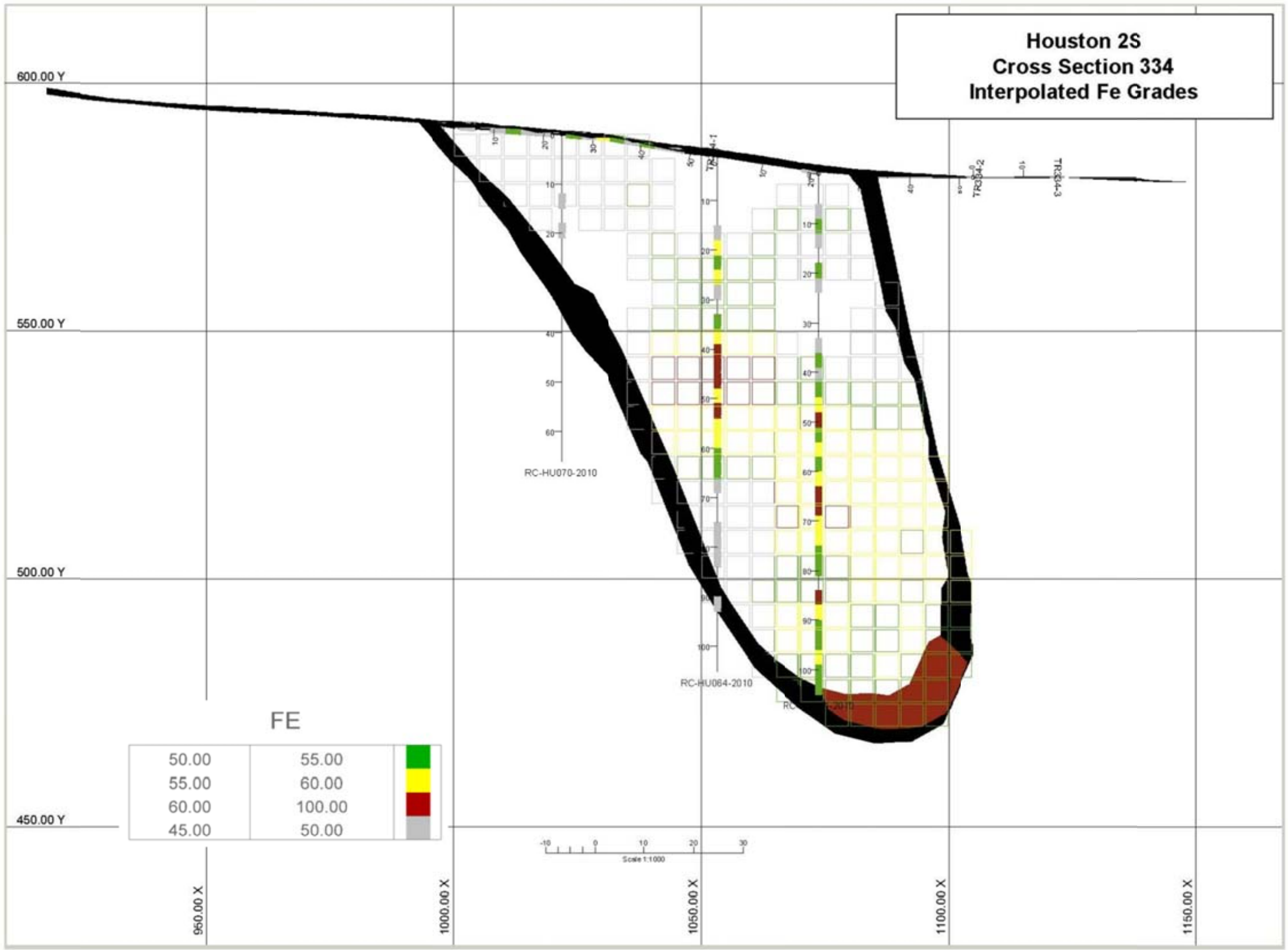

Houston 2S
Cross Section 334
Interpolated Fe Grades
600.00 Y
550.00 Y
500.00 Y
450.00 Y
950.00 X
1000.00 X
1050.00 X
1100.00 X
1150.00 X
RC-HU070-2010
RC-HU064-2010
FE
50.00 55.00
55.00 60.00
60.00 100.00
45.00 50.00

Figure 25

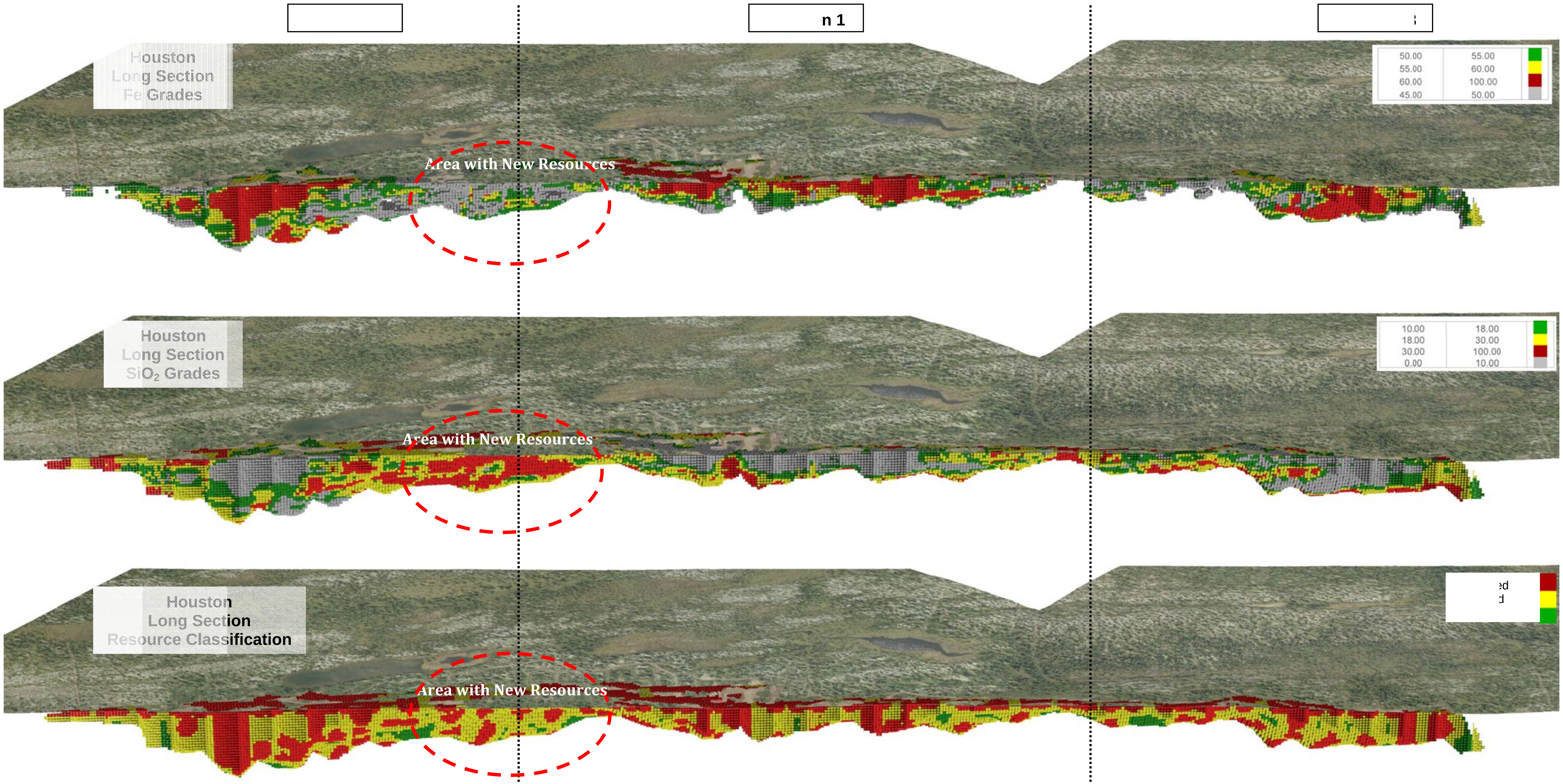


Figure 26 – Stacked long sections looking to the NE showing blocks with Fe, SiO_2 grades and resource classification

17.7 RESOURCE CLASSIFICATION

The estimated resources were classified in accordance with the specifications of the NI 43-101 Policy, namely in measured, indicated, and inferred resources.

LIM's current resource estimates for the Houston deposit of 19.5 million tonnes (including LMN, HMN and HiSiO2) at a grade of 58.3% Fe in the Measured and Indicated categories which represents an increase of 26% over the previous 43-101 resources estimation of 15.5 million tonnes reported in April 2010 and 114% increase over the historical resources of 9.1 million tonnes. The Houston deposit remains open to the northwest and southeast and to depth.

The results of the resource estimates for the Houston deposit are shown Table 21 and a comparison with 43-101 resources estimate dated May 2010 as well as historical resources in Table 22.

Mineral resources were classified using the following parameters:

- Portion of block (50%) must be contained within the interpreted ore solid;
- Block had to have a minimum of 2 samples for interpolation;
- Measured Mineral Resources:
  - Blocks estimated in first group pass;
  - Search ellipse GEOS1 (x=17.61, y=11.93, z=10.95)
  - Interpolated grades: Fe, Mn, SiO_2, Al_2O_3, P
- Indicated Mineral Resources:
  - Blocks estimated in second group pass;
  - Search ellipse GEOS2 (x=35.21, y=23.86, z=21.90)
  - Interpolated grades: Fe, Mn, SiO_2, Al_2O_3, P
- Inferred Mineral Resources:
  - Blocks estimated in third group pass;
  - Search ellipse GEOS3 (x=88.03, y=59.66, z=54.75)
  - Interpolated grades: Fe, Mn, SiO_2, Al_2O_3, P

Table 21 - Houston Deposit - NI 43-101 Compliant Iron Ore Resources

Classification	Area	Ore Type	SG	Tonnes (x 1000)	Fe%	Mn%	SiO2%
Measured + Indicated	Houston 1	LNB-NB	3.5	4,970	61.1	0.7	8.8
		HiSiO2	3.3	1,278	52.8	0.6	21.1
		LMN-HMN	3.4	511	54.8	5.4	8.8
		Total	**3.5**	**6,759**	**59.0**	**1.0**	**11.1**
	Houston 2N	LNB-NB	3.5	55	60.2	0.6	11.6
		HiSiO2	3.3	117	52.4	0.6	22.8
		LMN-HMN	3.1	9	44.8	10.7	13.4
		Total	**3.4**	**181**	**54.4**	**1.1**	**18.9**
	Houston 2S	LNB-NB	3.5	5,989	60.3	0.7	10.1
		HiSiO2	3.3	2,566	52.6	0.8	21.5
		LMN-HMN	3.4	144	56.0	4.8	9.5
		Total	**3.4**	**8,699**	**58.0**	**0.8**	**13.4**
	Houston 3	LNB-NB	3.5	3,014	59.4	0.9	10.0
		HiSiO2	3.3	594	52.6	0.7	20.9
		LMN-HMN	3.3	253	52.6	5.3	10.2
		Total	**3.4**	**3,861**	**57.9**	**1.2**	**11.7**
	Total		***3.5***	***19,500***	***58.3***	***0.9***	***12.3***
Inferred	Houston 1	LNB-NB	3.5	81	58.2	0.6	13.0
		HiSiO2	3.3	87	52.4	0.5	20.4
		LMN-HMN	3.4	4	54.7	4.2	10.6
		Total	**3.4**	**172**	**55.2**	**0.7**	**16.7**
	Houston 2N	LNB-NB	-	-	-	-	-
		HiSiO2	3.3	0	50.8	0.8	24.3
		LMN-HMN	-	-	-	-	-
		Total	**3.3**	**0**	**50.8**	**0.8**	**24.3**
	Houston 2S	LNB-NB	3.5	336	59.4	1.0	12.0
		HiSiO2	3.3	298	52.5	1.3	21.2
		LMN-HMN	-	-	-	-	-
		Total	**3.4**	**634**	**56.2**	**1.1**	**16.3**
	Houston 3	LNB-NB	3.5	108	58.3	1.0	12.4
		HiSiO2	3.3	104	52.6	0.6	21.6
		LMN-HMN	3.3	5	50.6	4.3	12.8
		Total	**3.4**	**217**	**55.3**	**0.9**	**16.8**
	Total		***3.4***	***1,023***	***55.8***	***1.0***	***16.5***

[NOTE: approximately 4,000 tonnes of measured and indicated manganiferous iron resources lie outside the limits of claims held by LIM]

Table 22 - Houston Deposit – Comparison of resources of the Houston deposit

		43-101 (February 2011)				43-101 (April 2010)				Historical 1982			
	Class	Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %	Tonnes x 1000	Fe %	Mn %	SiO2 %
Fe Ore	M+IND	18,600	58.7	0.7	12.2	14,700	59.3	0.6	11.3	9,000	57.4	-	7.1
	INF	1,000	56.3	1.0	15.9	1,500	57.0	0.8	14.7	-	-	-	-
Mn Ore	M+IND	900	54.4	5.4	9.2	831	54.3	5.5	9.1	-	-	-	-
	INF	10	53.2	4.5	11.5	47	54.0	4.6	10.3	-	-	-	-
TOTAL	**M+IND**	**19,500**	**58.3**	**0.9**	**12.3**	**15,500**	**59.0**	**0.9**	**11.2**	**9,000**	**57.4**	**-**	**7.1**
	INF	**1,023**	**55.8**	**1.0**	**16.5**	**1,500**	**56.9**	**0.9**	**14.5**	**-**	**-**	**-**	**-**

17.8 RESOURCES VALIDATION

Visual inspection on sections of interpolated block grades agreed well with the composite grades and it is considered acceptable.

A second validation was done using 20 trace blocks. Interpolated grades assigned to these blocks agreed with the grades of samples in them.

A third validation was done comparing the results obtained using Ordinary Kriging ("OK") versus Inverse Distance ("ID") interpolation methods. The results obtained using the ID method were 1.2% higher than the results obtained using the OK method confirming that the use of the OK method did not over estimate resources and it is considered an adequate method to use.

18. OTHER RELEVANT DATA AND INFORMATION (ITEM 20)

18.1 PROJECT DESCRIPTION

Through its wholly-owned subsidiary Labrador Iron Mines Limited, LIMH holds three Mining Leases and 52 Mineral Rights Licenses issued by the Department of Natural Resources, Province of Newfoundland and Labrador, covering approximately 15,875 hectares.

In addition, through a wholly owned subsidiary Schefferville Mines Inc. ("SMI"), LIMH also indirectly holds interests in 279 Mining Rights issued by the Ministry of Natural Resources, Province of Quebec, covering approximately 11,703 hectares. SMI also holds an exclusive operating license in a mining lease covering 23 parcels totalling about 2,036 hectares.

LIM's various properties comprise twenty different iron ore deposits which were part of the original IOC direct shipping Schefferville operations conducted from 1954 to 1982 and formed part of the 250 million tons of historical reserves and resources previously identified by IOC.

LIM has confirmed an indicated resource of 11 million tonnes on the James and Redmond deposits and measured and indicated resource of 19.4 million tonnes on the Houston deposits. The remaining seventeen deposits (excluding James, Redmond and Houston), have a total combined historical resource estimated to be approximately 125 million tons based on work carried out by IOC prior to the closure of its Schefferville operations in 1984. The historical estimate was prepared according to the standards used by IOC and, while still considered relevant, is not compliant with NI 43-101. The Company plans to bring the historical resources on these other deposits into NI 43-101 compliant status sequentially in line with their intended phases of production.

LIM's plans envision the development and mining of the various deposits in separate Stages. Stage 1, which will itself be undertaken in phases, comprises the deposits closest to existing infrastructure located in an area identified as the Central Zone. The first phase of Stage 1 involves mining of the James and Redmond deposits in Labrador. The second phase will involve the sequential development subject to permitting, of the Ruth, Gill and Knob Lake deposits in Labrador and the third phase the Denault, Star Creek and Malcolm deposits in Quebec. The Ruth, Gill and Knob Lake deposits are all located within approximately 10 km from the James deposit and close to the town of Schefferville and can also be reached by existing gravel roads.

Exploration drilling at the Houston deposits during 2010 significantly increased the size of the resources to 19.5 million tonnes of measured and indicated resource and as a result, the Houston deposits are now of sufficient tonnage that merits evaluation of a stand-alone operation and the development of a new Stage 2 (South Central Zone).

It is intended that during the mining of the Stage 1 deposits, planning will be undertaken for the future operation of the more distant deposits in subsequent stages. As currently envisioned Stage 3 will comprise the Howse (Labrador), Barney (Quebec) and adjacent deposits which are located in an area now defined as the North Central Zone, about 25 km northwest of Schefferville and relatively close to existing infrastructure.

The Astray and Sawyer deposits in Labrador (Stage 4), located approximately 50km to 65 km southeast of Schefferville (South Zone), do not currently have road access but can be reached by float plane or by helicopter.

The Kivivic deposit in Labrador and the Eclipse deposit in Quebec are located between 40 km to 70 km northwest of Schefferville (North Zone) and may eventually become Stage 5, but will require substantial infrastructure and building of road access.

The Project described in the following sections comprises two main components:

1. Houston Mine and Haul Road: The development of the Houston mineral deposits and associated haul road to connect the Houston area and the existing approved Redmond mine area; and
2. Redmond Beneficiation Area and Rail Spur Re-Establishment: The construction of a beneficiation facility at the Redmond mine area, already approved for mining further to the completion of the environmental assessment and permitting process in 2010, as well as the re-establishment of a spur line along a historically constructed rail bed within the current mine lease area to connect the Redmond mine area to the main rail line.

18.1.1 Houston Mine - Project Overview

LIM proposes to advance the Houston Mine Project in a number of Phases. It is expected that the first phase will involve the development and production from the Houston 1 and 2 deposits.

Pending completion of additional exploration at Houston 3, and the confirmation of the extent of the deposit, Houston 3 will be brought online at a later date.

Development of the Houston deposits will require construction of an approximately 10 km haul road from the Houston area to connect with the Silver Yards-Redmond road and the old Redmond 1 mine site.

Major features of the anticipated Houston Mine Project include:

- all development will be located within Labrador.
- mining will be carried out using conventional open pit mining methods, employing drilling and blasting operations;
- additional small excavations that may be required will include borrow pits, quarries and side-hill cuts associated with the construction and maintenance of access roads, mine haulage roads, sumps and settling ponds, and railway spur line construction;
- a 10 km haul road will be constructed between the Houston and Redmond areas which will require the placement of a clearspan-type bridge above the Gillings River and smaller bottomless-type culverts across the smaller watercourse crossings. A

haul road options evaluation program will be conducted to select the preferred route alignment;

- additional assessment of preferred haul road options will be conducted in consultation with communities and in consideration of environmental, traditional environmental knowledge, engineering and best management practices; and
- nearby existing and permitted infrastructure, including the Silver Yard laboratory, maintenance shed and warehouse facilities, and the Bean Lake accommodation camp will be used to service the Houston Mine Project, as required.

18.1.2 REDMOND PLANT - PROJECT OVERVIEW

It is currently anticipated that ore mined from the Houston area will be transported by truck along a new Houston haul road to the Redmond beneficiation area, where a new beneficiation plant is being considered. It was originally intended that ore mined from the Houston deposits would be processed at the existing approved Silver Yards area. The completion of a beneficiation plant options evaluation study to select the preferred beneficiation processes for the Houston ores will be carried out in parallel with a cost analysis study regarding the preferred location at Silver Yards or Redmond to treat the Houston ores and these are included in the Recommendations of this report. The preferred road route option will be selected upon completion of this study.

A beneficiation options evaluation program is proposed to allow for the selection of a preferred beneficiation option. Although the Redmond beneficiation area has not been assessed under the Environmental Assessment process at this location, development of, the Redmond 2 and 5 deposits and associated infrastructure at the Redmond site have been assessed and released from further environmental assessment and the mine leases have been issued.

For the Redmond plant location a rail spur will also be re-established along an existing rail bed from the main Schefferville to Sept-Îles rail line to the Redmond turnabout.

Major features of the anticipated Redmond Plant Project include:

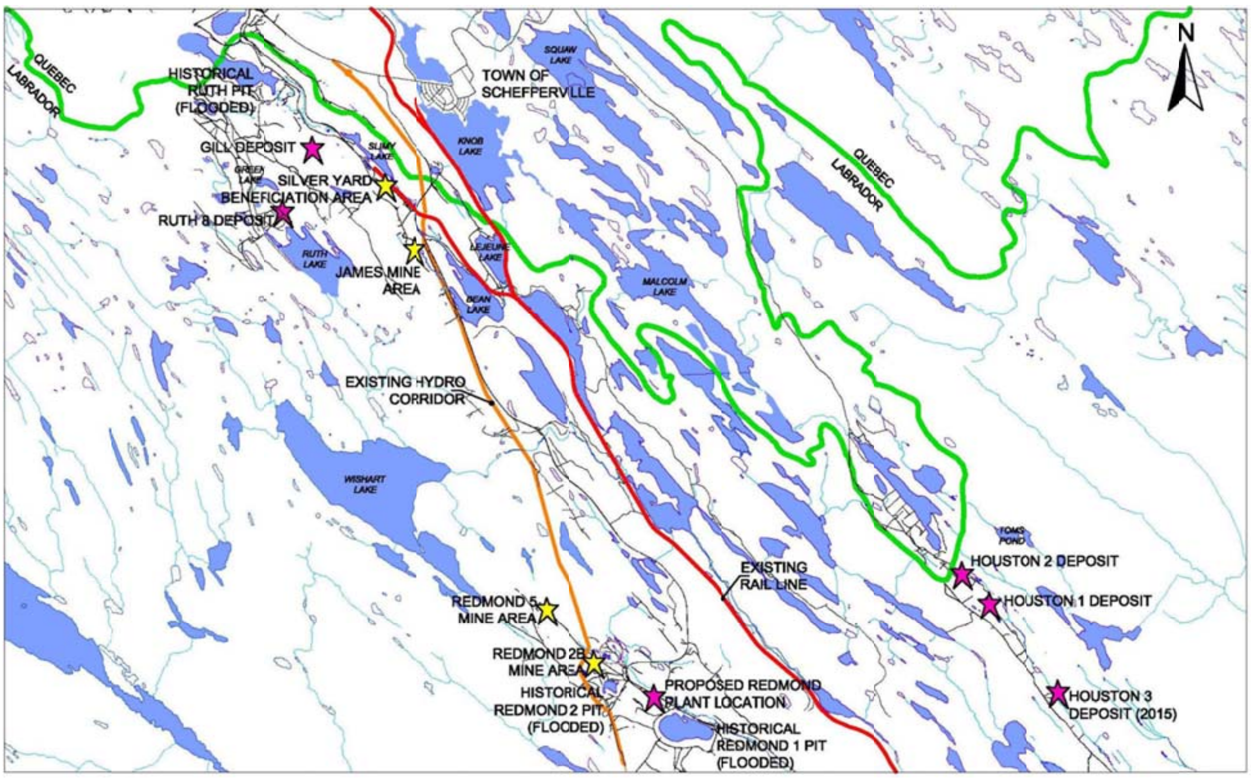
- ore will be beneficiated by crushing, washing, jigging, density and magnetic separation.
- no chemicals will be used in the beneficiation process;
- the proposed Redmond beneficiation facility is expected to house a primary crusher, tumbling scrubber, secondary crusher, primary screening equipment, secondary screening equipment, filtration equipment, jigs, density and magnetic separation equipment, and various chutes, conveyors, and pumps;
- beneficiation water requirements will be sourced from the existing Redmond Pit 1, a historically mined pit that has been confirmed not be fish habitat. Subsequent to the washing and screening process, reject fines will be pumped back into Redmond Pit 1; and

- a 10 km rail spur line and turnabout, previously operated and abandoned, will be restored along the existing rail bed within the Redmond property to connect the Redmond plant site to the main rail line.

Subject to the completion of the environmental assessment process and project release, and obtaining necessary permits, development activities are planned to commence on the Houston deposits in 2012/2013, with initial mine development to begin at Houston 1 and 2 in 2013. Construction of the proposed new plant at Redmond, or expansion of the existing plant at Silver Yards, could be undertaken in 2012/2013 and come on stream in the second half of 2013.

The general project location and features are shown on Figure 27.

Figure 27 - Project Features



18.2 HOUSTON MINE DEPOSITS 1 AND 2

The following section presents the anticipated surface site plans including end-of-mining pits, ore stockpiles, road options, and waste rock areas, associated with the proposed development of the Houston Mine Deposits 1 and 2 and the anticipated Houston Deposit 3, pending completion of additional exploration on Houston 3 planned for 2011 (Figure 28).

Currently, there are a number of road alignment options shown and the preferred road option will be selected upon completion of the evaluation process including community consultations.

18.2.1 HOUSTON MINE INFRASTRUCTURE

The infrastructure at the Houston Deposits Mining Area is expected to include the following:

- A number of open pits with associated haulage roads;
- Temporary low grade and waste rock stockpile areas;
- Temporary settling pond facility
- Site office trailer

The Houston Mine development will benefit from the presence of extensive existing and approved infrastructure in the area. As discussed in further detail in later sections, iron ore production from the Houston deposits will be beneficiated at one of two areas, either the currently approved Silver Yards Beneficiation Area or the proposed Redmond Beneficiation Area. The selection of the preferred option will be conducted upon completion of the beneficiation options evaluation study, as recommended by this report.

Vehicle maintenance will be conducted at the existing approved and permitted LIM facilities, developed as part of the James and Redmond mine projects.

Figure 28 - Houston Deposits: Houston 1 and 2 (2012)

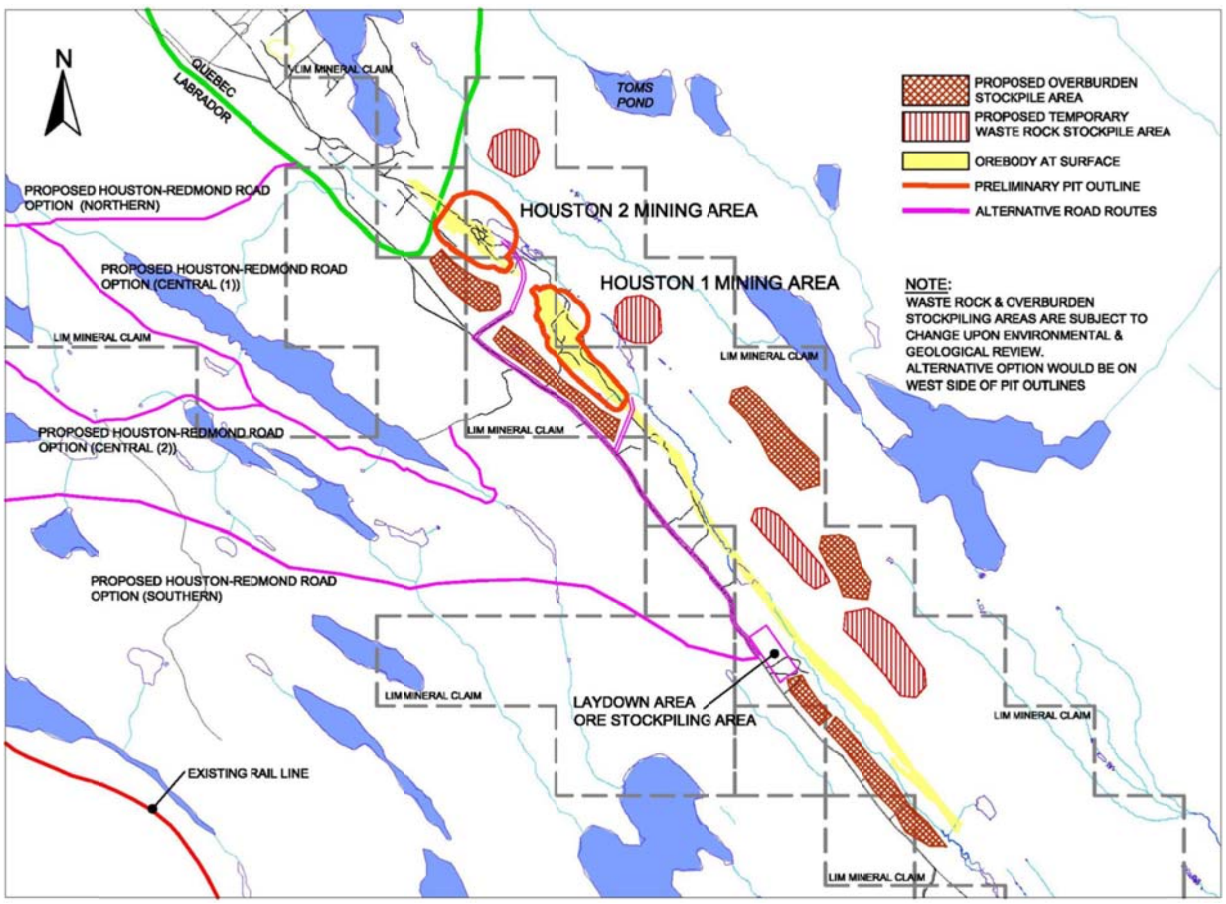
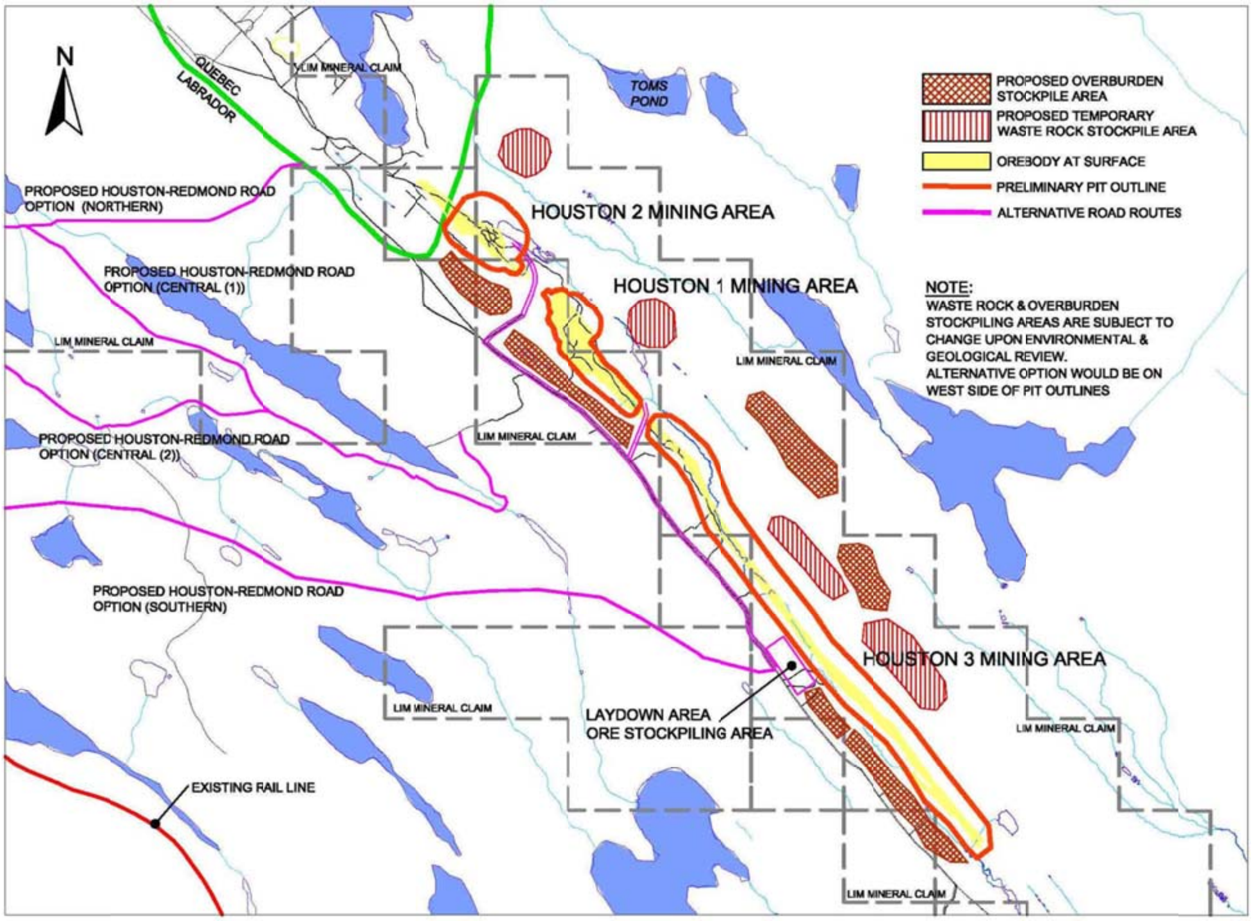


Figure 29 - Houston Deposits: Houston 3 (under evaluation subject to future exploration)



18.2.2 *Mine Operations*

It is the intention of LIM to outsource as much as is practical of the direct production operations, including mining operation and maintenance and beneficiation operation and maintenance, to experienced contractors and facility operators. LIM will perform all mine planning and resource/grade control with its own personnel. All mining operations will be by conventional open pit mining methods.

The mining contractor will provide all equipment to drill, blast, load and haul ore, waste rock and top soils to the designated locations. The waste will be hauled to the specific waste dump sites. Upon completion of mining, temporary waste stockpiles may be placed back into the pits from which they originated.

The major production period is anticipated to start in April and to continue to November each year. Overburden stripping could occur during the four winter months as well as dewatering and routine maintenance.

18.2.3 Pit Design

Open pit operations at Houston will be similar to those historically carried out by IOC in similar shallow operations and will also be similar to those planned by LIM at the James mine. The major difference is that with the potential long strike length at the Houston deposits it should be possible to open a number of separate pits that will advance along strike as well as in depth and this will permit waste material to be backfilled into completed mining areas. This will reduce the overall waste haulage distance and will potentially have a beneficial effect on the environment with a much reduced volume of waste left exposed on completion.

The pit designs for the various deposits will generally have overall pit wall angles that will range from 34^{o} in overburden to 55^{o} in competent rock. The face angles will range from 40^{o} in overburden to 70^{o} in competent rock. These angles are based on dewatered/depressurized pit walls and controlled blasting techniques. The excavations will be mined in 10 m benches.

18.2.4 Mine and Borrow Pits

Mining is anticipated to commence at the Houston 1 and 2 deposits in 2013, subject to environmental release and permitting, and ongoing exploration and deposit definition at Houston 3 will continue. The Houston property requires clearing and grubbing within the waste rock storage and low-grade stockpile footprints and pit footprints. Pending confirmation of the extent of Houston 3, it is expected that this deposit will be developed in 2015.

In addition to ore, overburden and waste rock will be excavated. Overburden will be temporarily stored for later use in site reclamation. Where possible, waste rock will be temporarily stored for later deposition back into the pits from which it originated upon mine closure. Excavation and transport to the beneficiation area will be done using conventional truck and excavator methods. Borrow material requirements will be supplied by locally available materials.

Suitable reclamation material from the clearing and grubbing will be stockpiled in strategic locations for future reclamation purposes. Topsoil material salvaged from the Houston site preparation will be stockpiled around the site for future reclamation purposes. Those areas vegetated prior to the start of operations will be re-vegetated seeded to provide stability to the ground surface.

18.2.5 Ore, Waste and Overburden Stockpiles

The waste rock disposal plan for the Houston mining area includes an option of temporarily storing the waste rock at the Houston pit area and then subsequently placing this material back into the mined-out pits upon completion of mining in the area. Should in-pit disposal not be possible, storage locations away from surface water systems and in areas previously cleared through condemnation drilling will be selected.

Permanent waste rock and overburden materials will be stockpiled and contoured in a manner that conforms to provincial guidelines and regulations. Where applicable, waste rock storage areas will be built up in lifts to limit the overall dumping height. The stockpiled materials will be managed to limit the possibility of suspended solids being introduced into site drainage or adjacent water-bodies. Overburden will be used during site reclamation to support re-vegetation.

Due to the very low probability of the presence of sulphide minerals in the waste rock and uneconomic mineralized zones, as evidenced by previous ARD studies in the area, waste rock storage sites are not planned to be contoured or capped with clay to control any acidic runoff.

18.2.6 Site Buildings and Infrastructure

18.2.6.1 Supporting Infrastructure

It is not anticipated that any permanent structures will be erected for the mining operations at Houston. A workshop and warehouse may be established, as well as a portable office which will include services such as washrooms and a first aid room. All of the buildings, including foundations if required, will be removed upon completion of operations. General services and infrastructures will be shared with the contractor.

18.2.6.2 Laboratory

The existing LIM laboratory at the Silver Yards area will be used for the Houston Project. No onsite laboratory will be established.

18.2.6.3 Explosives Storage and Mixing Facilities

Mechanical methods will be used, where possible, to break up the rock but may also require the use of explosives. The contractor will be responsible for complying with the required permit and/or approvals under the Natural Resources Canada Explosive Regulatory Division. The Contractor will ensure that blasting will follow all provincial regulations, including the Occupational Health and Safety Regulation, under the *Newfoundland and Labrador Occupational Health and Safety Act* 1165 and the Mine Safety of Workers under Newfoundland and Labrador Regulation 1145/96.

18.2.6.4 Lighting

All buildings will include sufficient perimeter lighting with outdoor fixtures. Exterior lighting will be timer or photocell controlled. Lighting will also be provided at doorways and overhead doors. There will be no street lighting on any access roads. Portable lighting plants and lights on mobile equipment will be used within the pit areas to illuminate working areas.

18.2.7 Camp

The existing camp accommodations at LIM's Bean Lake site will be used for workers.

18.2.8 Water Use

Initially, it is anticipated that potable water will be tanked to the site and/or bottled water will be transported to the Project. It is also recognized that existing ground water testing has shown that the water may be of suitable quality upon completion of well development and so it is possible that groundwater may be considered at some point in the future. If so, testing and use of groundwater for potable water use will be taken in accordance with applicable regulations and permit requirements. Testing of the potable water quality will be conducted regularly in accordance with provincial requirements.

18.2.9 Domestic and Solid Disposal

There is no on-site landfill proposed for the Project. It is planned that garbage and litter will be collected on-site and delivered to an experienced Labrador-based contractor and placed in a landfill facility in Labrador West, in accordance with applicable regulations. Any food or organic garbage onsite will be held in animal-proof containers to prevent attracting bear, birds, and other wildlife.

No wastes will be deposited in or near watercourses or wetlands. A recycling program is being considered for the area and LIM will support and participate in this initiative, where possible.

18.2.10 Hazardous Waste

It is not expected that the mine will generate large quantities of hazardous waste. Should any hazardous wastes be generated, they will be stored, transported, and disposed of according to federal and provincial waste disposal regulations.

LIM will require contractors to follow provincial waste diversion regulations or policies, including provincial programs for beverage containers, tires and waste oil and other petroleum products. Discarded tires will be handled according to the requirements of the provincial tire recycling program established by the Waste Management Regulations and used oil will be collected for recycling or reuse according to the Used Oil Control Regulations. In addition, any scrap metals will be taken to a scrap metal recycling operation.

18.2.11 Power Supply

It is anticipated that power requirement for the Houston Mine site will be supplied by diesel generators.

18.2.12 Mine Access and Site Roads

There are no roads connecting the area to southern Labrador. Access to the area is by rail from Sept Iles to Schefferville or by air from Montreal, Sept Iles or Wabush to the Schefferville airport.

Primary access to the Houston deposits will be by a new haul road to be developed between Houston and the Redmond area. Although there are existing roads from the community of Schefferville to the Project area, these roads will be avoided for ore transport to reduce potential impacts on the local residents.

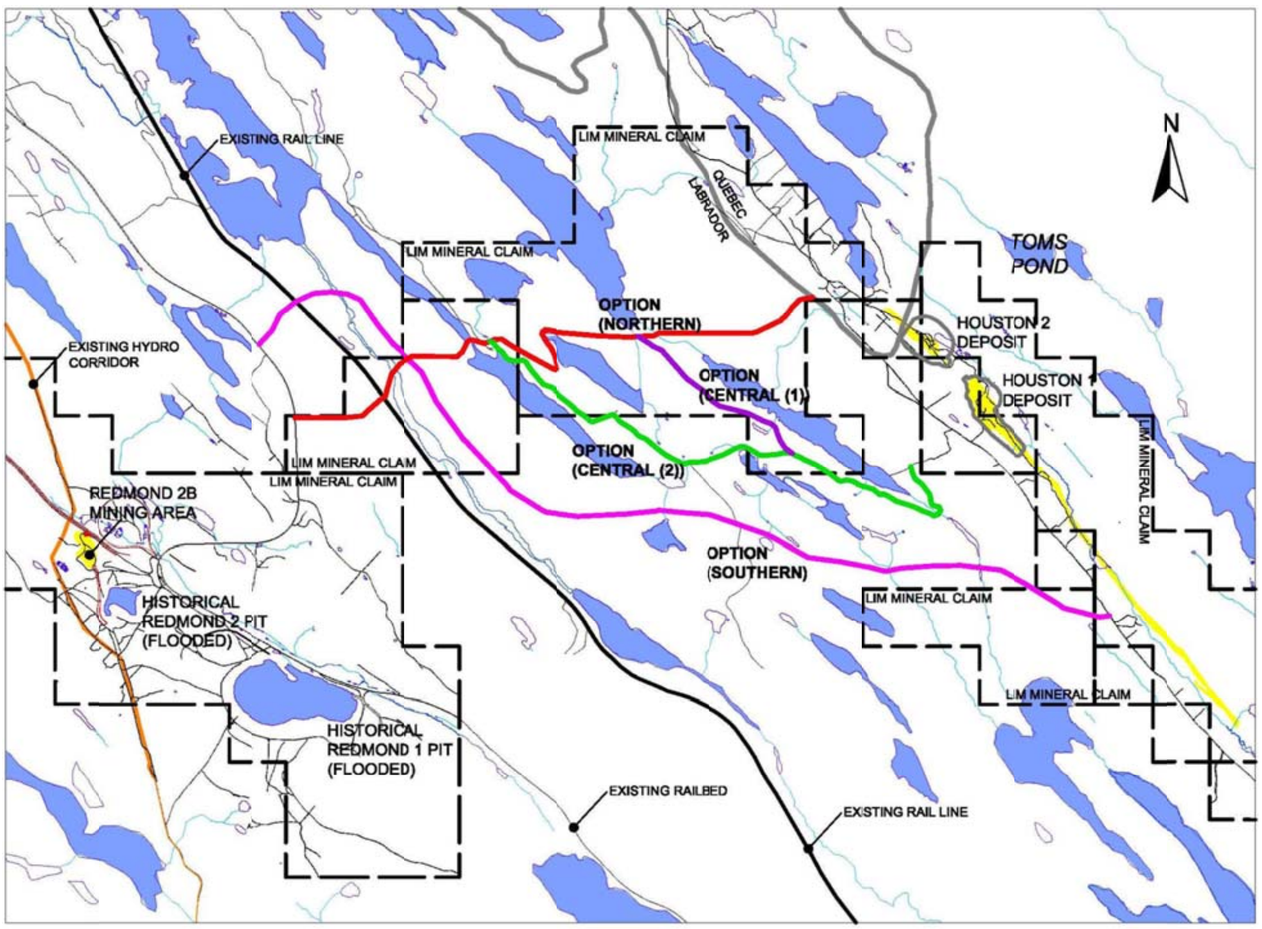
Extensive environmental baseline data has been collected for the road alignment options, including water crossings, and this information, in combination with community consultation and incorporation of traditional environmental knowledge, will be used to evaluate the preferred road option (Figure 30).

This area currently has several bush roads, used for historical exploration and, where possible, these exploration roads will be incorporated into the haul road construction to reduce project footprint. A clear-span-type bridge proposed for the temporary crossing at the Gilling River and will reduce the need to place any structures below the high water mark of the watercourse. The bridge could be removed upon completion of mining activities in the area. Smaller water courses will be crossed using a bottomless culvert or other similar structure, to reduce any interference with the watercourse.

The haulage roads will be designed and built to permit the safe travel of all of the vehicles in regular service by following accepted industry standards and following Section 27 of the Mines Safety of Workers Regulations.

All haul roads at the mine sites will be engineered and built to permit the safe travel of all vehicles and in accordance with provincial regulations (CNLR 1145/96). The running surface width of proposed haul roads will be designed to conform to current industry standards. Within the pit designs, the access roads will be limited to only mine personnel.

Figure 30 - Houston Road Options



18.3 REDMOND BENEFICIATION AND SPUR LINE RE-ESTABLISHMENT

Iron ore production from the Houston deposits will be beneficiated at one of two areas, either the currently approved Silver Yards Beneficiation Area or the proposed Redmond Beneficiation Area.

The preferred option will be selected upon completion of the beneficiation options evaluation study, as recommended by this report.

18.3.1 Redmond Beneficiation Plant (Mineral Beneficiation) and Spur Line Re-Establishment

The following section presents information related to the proposed infrastructure development at the proposed Redmond Beneficiation area and the re-establishment of the existing rail spur.

As there is extensive documentation on the Silver Yards beneficiation equipment and processing approach, the following sections provide a summary of the proposed beneficiation facility development at the Redmond area, which are expected to be similar to Silver Yards plant.

The proposed infrastructure at the proposed Redmond Beneficiation area will include:

- Beneficiation building and equipment, primary mobile crushing plant, various conveyors, product stockpiles;
- Water supply lines extending from Redmond Pit 1 to the plant;
- Reject fines disposal pipeline, extending from the Redmond plant to Redmond Pit 1;
- Electrical building module, mobile diesel generators, and transformer;
- Standard mobile offices;
- Parking area;
- Run of mine (ROM) ore stockpile area;
- Stockyard and railcar loading area;
- Settling pond for emergency reject fines disposal
- Rail Spur re-laying, and
- Security fencing and/or signage.

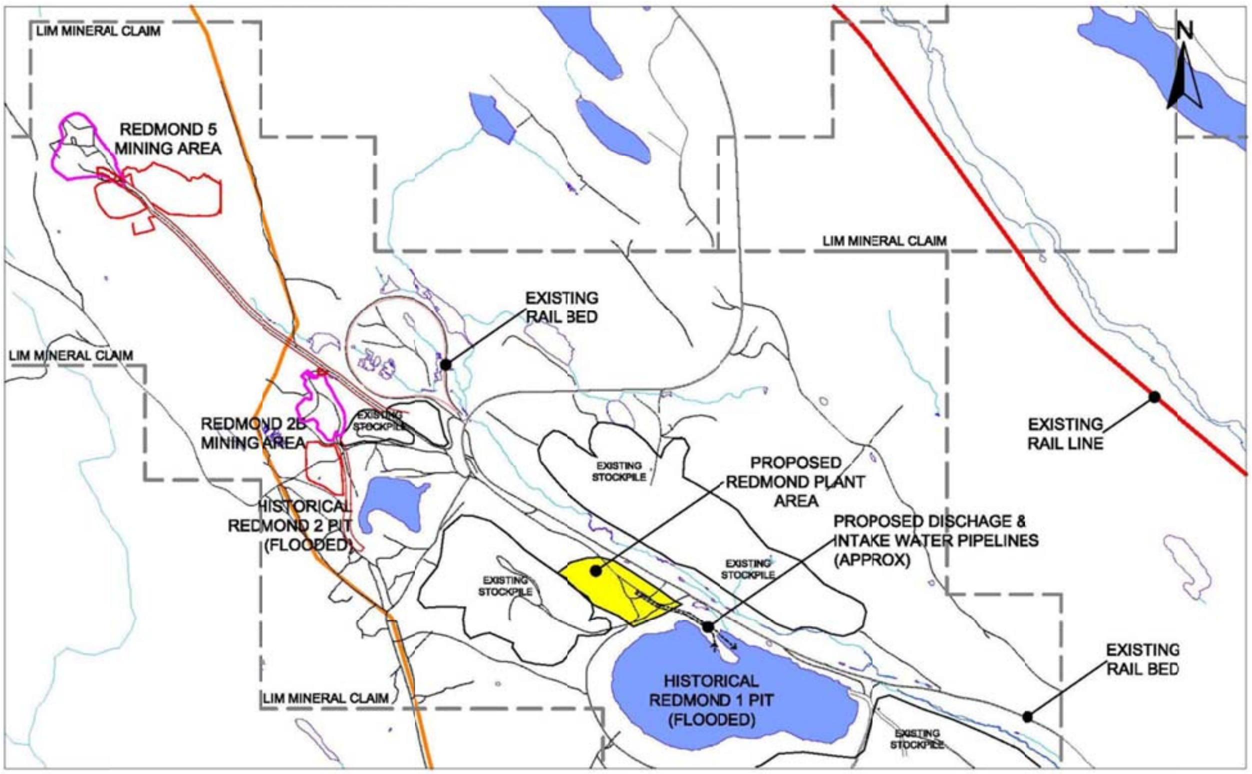
18.3.2 Water Source and Reject Fines Storage Area – Redmond Pit 1

The beneficiation process involves the crushing, screening and washing of the rock, and does not involve the use of any chemicals. The resulting wash-water consists of water and fine rock material (reject fines.). Mineralogically, this material is the same as the surrounding rocks. The reject fines are estimated to be produced at an estimated rate of 20 percent of feed.

Should the Redmond site be selected as the preferred option, reject fines would be deposited into nearby historically mined pit, Redmond #1, as it is confirmed by DFO not to be fish habitat, is not in communication with surface water systems in the area, and will be used as the source water for the beneficiation.

Based on existing hydrogeological, hydrological and fish habitat assessments conducted during the initial Redmond mine environmental assessment process, in combination with the determination from Department of Fisheries and Oceans, and in consideration that the Redmond Pit 1 is an existing man-made feature and is not fish habitat, LIM concluded that the deposition of the reject fines at this location presented the least potential for environmental impacts.

Figure 31 - Redmond Beneficiation Plant Area and Spur Line Re-Laying



18.3.3 BENEFICIATION

18.3.3.1 Processing Plant

The Redmond beneficiation plant, if selected as the preferred option, would be located in the old Redmond mine, near the old Redmond 1 Pit in a previously stripped and disturbed area.

The Redmond plant and rail spur re-establishment areas are located in an area of historical mining and mine waste storage. With minor exceptions, the original railway subgrade and track ballast remains in place, although the steel tracks were removed sometime after IOC terminated its mining operations in 1982.

18.3.3.2 Beneficiation Building

The building and contents will be movable and modular to fit with the LIM's long term plans. The beneficiation facility will house the equipment needed for the beneficiation process.

The other infrastructures that may be located at the beneficiation area include fuel storage, mobile diesel generators, laydown areas, and process water pump facilities.

Other buildings at the beneficiation area will include: site offices, which are standard mobile trailers/modular units; maintenance shed, which is a sprung type structure; and warehouse facilities, which is container type storage.

18.3.3.3 Process Design

The proposed Redmond plant facility and contents will be designed to fit with the Project's long term plans. The beneficiation facility will house the tumbling scrubber, primary screening equipment, secondary screening equipment, jigs, density and magnetic separators, filter and various chutes, conveyors, and pumps. The products will be stockpiled via radial stackers. Train loading will be done with front end loaders directly into the rail wagons.

The beneficiation plant will be designed to operate on average 7 to 8 months per year. Details of the process flow and equipment is provided in the sections below. The conceptual process design is based on mineralogy and preliminary equipment testing performed.

18.3.3.4 Process Description and Flowsheet

18.3.3.4.1 Primary Crushing Area

The ROM ore from the pits will be delivered via off-highway end dump trucks to the primary mobile crushing plant and either directly dumped into the feed hopper or stockpiled nearby for subsequent reclaiming into the feed hopper by a front end loader or a loader and truck.

The primary mobile crushing plant will include a hopper, vibrating grizzly feeder, jaw crusher, various chutes, bins, and conveyors, and lubricating system. The primary crushing plant will not be enclosed. There will be a dust collector system accompanying the primary crushing circuit.

The ROM feed will have a top size of 600 mm. It is expected that approximately 50% of the feed will bypass the primary crushing as it will already be minus 100 mm.

18.3.3.4.2 Tumbling Scrubber Area

The discharge from the primary crushing will be conveyed via surge bin to a tumbling scrubber circuit. The purpose of this step is to beneficiate the ore by incorporating water to wash the clay materials from the ore materials.

18.3.3.4.3 Primary Screening Area

The discharge from the tumbling scrubber circuit proceeds to the primary screening circuit. This is the first stage of classification. The primary screening unit will have double deck screen and the oversize material (+25 mm) on the top deck is sent to the secondary crushing circuit, the undersize material (-1 mm) from the bottom deck is sent to the secondary screening circuit, and the remaining material (+1 mm, -25 mm) is conveyed to the lump ore screening area.

18.3.3.4.4 Lump Ore Screening Area

The oversize of the second deck from the Primary Screen (+1 mm, -25 mm) will be fed to a single Lump Ore Screen with the same size as the primary screen. The Lump Ore Screen deck will have an opening of 8mm and the oversize material (+8 mm, -25 mm) will be fed to a lump jig and the screen undersize (+1 mm, -8 mm) along with the oversize of the Secondary Screen will be transported to a sinter jig.

18.3.3.4.5 Secondary Crushing Area

The oversize (+25 mm) from the primary screening circuit will be transferred to the secondary crushing circuit. The secondary crusher product from the will be re-circulated back to the primary screening circuit.

18.3.3.4.6 Secondary Screening Area

The undersize (-1 mm) from the Primary Screening circuit will be pumped to the Secondary Screening circuit. The oversize material (+600 µm) from the secondary screen is conveyed to the sinter jig. The undersize material (+100 µm, -600 µm) will feed a Density Separator

18.3.3.4.7 Fines Recovery Plant

The undersize material (+100 µm, -600 µm) from the secondary screen will be pumped to the two stages de-sliming cyclones with the primary cyclone underflow feeding a Density Separator and the secondary cyclone underflow along with the Density Separator overflow reporting to a Wet High Intensity Magnetic Separator (WHIMS). The undersize material (-100 µm) from the Density Separator will be dewatered in a Heavy Duty Horizontal Pan Filter to a moisture of below 8% and then stockpiled as a Sinter Fines product. The water from the filter is pumped to the reject rock disposal area.

18.3.3.4.8 Products Upgrade Plant

Product upgrade equipment will be installed to process the (-100 µm) products and to beneficiate lower grade iron ore to produce a saleable product. The upgrade equipment will include a lump jig and a sinter jig to increase the lump and sinter fines products grades to a desired 64% Fe and a Wet High Intensity Magnetic Separator (WHIMS) to further process the (-100 µm, +25 µm) overflow of the Density Separator and the underflow of the Secondary de-sliming Cyclone to produce another product – ultra fines (pellet feed).

18.3.3.5 Laboratory

An on-site mobile laboratory in a portable modular building has been established at the Silver Yards plant area and will be utilized for the Houston Project. The laboratory includes a sample preparation section with a drier, crushers, screens, pulverisers and rifle splitters and an analytical lab section for daily ore control and exploration samples analysis. The analytical methods used will be fusion (lithium metaborate) followed by XRF spectrometry.

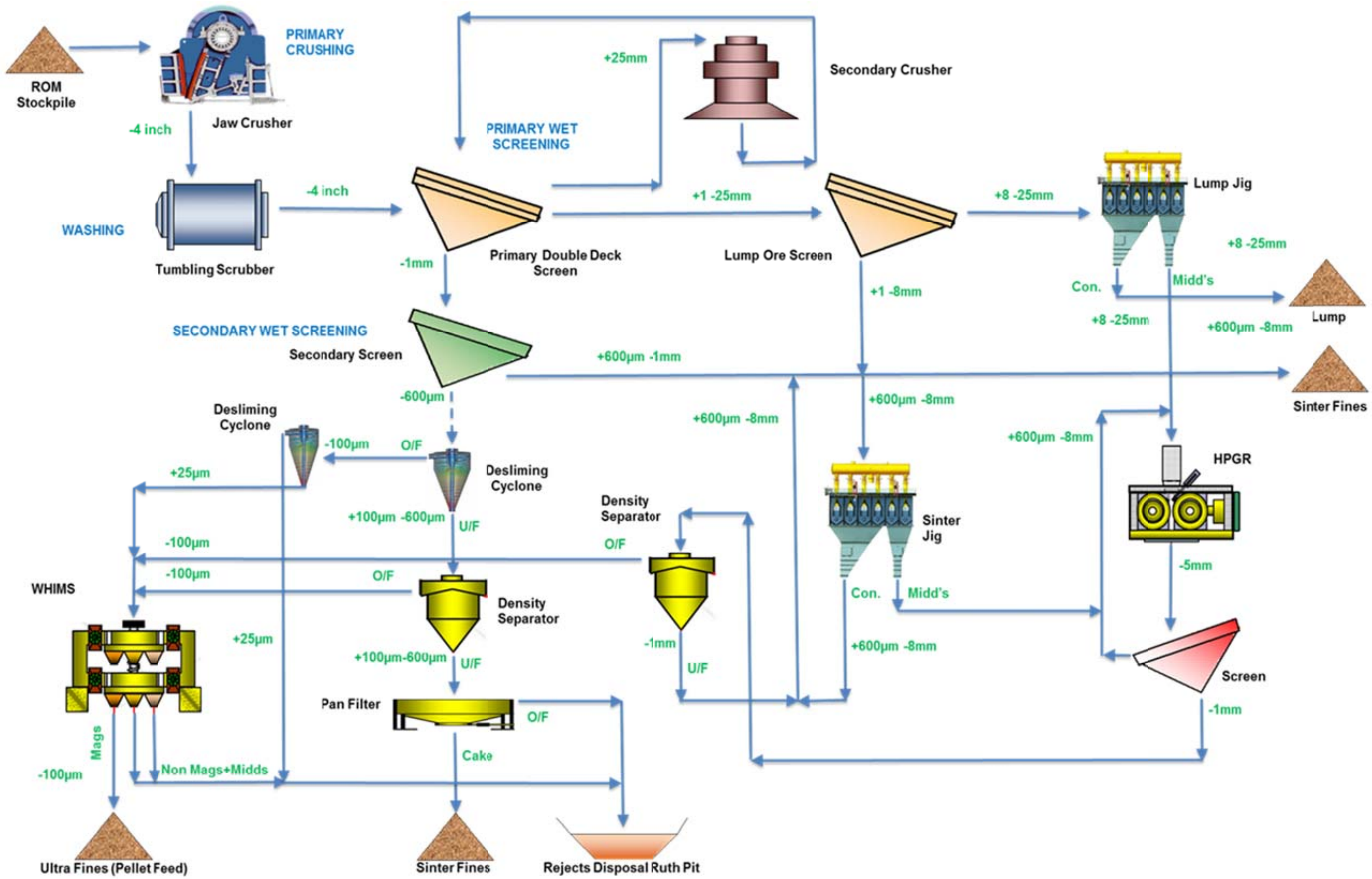
18.3.3.6 Power Supply

Currently, all energy for LIM's Silver Yard beneficiation plant and camp is provided by diesel generators. It is anticipated that future electrical power needs will be met by the Menihek hydro-electric generating plant owned by Newfoundland and Labrador Hydro (Nalcor).

The Menihek Power Plant is located 32 km southeast from Silver Yard and is the only provider of electric power to the area. The Menihek plant was built by IOC specifically to support iron ore mining and services in Schefferville. The plant contains two 5 MW Westinghouse generators and one 12 MW unit. Presently two lines are distributing power to the Township of Schefferville. The existing transmission corridor runs across the proposed Redmond processing site. The main substation lowering the voltage of distribution to Schefferville town is close to Silver Yards.

LIM understands that in the near future, Nalcor plans to refurbish one line to continue to supply power to the town of Schefferville and the other line will be available for commercial service including mining. For the purposes of this report it is assumed that power for the Redmond Processing Plant will be supplied by Nalcor from the Menihek Power Plant.

Figure 32 - Beneficiation Process



18.3.4 PROCESS RECOVERIES AND GRADES

The plant, as anticipated, will produce three different products – lump ore, sinter fines, and ultra-fines (pellet feed). Based on similarities in terms of metallurgy, ore texture and ROM grades with LIM's James property similar recoveries and product grades are expected. This is also confirmed by the series of test programs conducted for Houston and James deposits. Future testing followed by detailed design will be conducted in the near future to firm the expected products parameters. The assumed plant products recoveries and grades are shown below.

❑	Lump	15%	65-66% Fe
❑	Sinter Fines	54%	63-66% Fe
❑	Pellet Feed	12%	61-63% Fe
	Total Recovery	**81%**	

18.3.5 RAILWAY INFRASTRUCTURE

18.3.5.1 Redmond Rail Infrastructure

The plant product material from the sinter fines stockpiles and the lump ore stockpile will be reclaimed with front end loaders and delivered to rail cars on the re-laid Redmond spur line. It is planned to re-establish track along the existing 10 km Redmond rail spur bed, currently located within the Redmond mine lease area, to connect the Redmond Mine Area to the main TSH rail line.

The approximately 560 km (355 mile) main rail line between Schefferville and Sept-Îles, which was originally constructed for the shipment of iron ore from the Schefferville area, has been in continuous operation for over fifty years. The Québec North Shore and Labrador Railway ("QNS&L"), a wholly-owned subsidiary of IOC, was established in 1954 by IOC to haul iron ore from the Schefferville area mines to the port of Sept-Îles. After the shutdown of IOC's Schefferville operations in 1982, QNS&L maintained a passenger and freight service between Sept-Îles, Labrador City and Schefferville up to 2005. In 2005, QNS&L sold the section of the railway known as the Menihek Division (200 km) between Ross Bay Junction and Schefferville to Tshiuetin Rail Transportation Inc. ("TSH").

TSH owns and operates the approximately 200 km (130 mile) main line track between Schefferville and Ross Bay Junction where it connects to IOC's QNS&L Railroad, which connects the remaining approximately 360 km (225 miles) to Sept-Îles.

TSH is owned equally by a consortium of three local Aboriginal First Nations, Naskapi Nation of Kawawachikamach, Nation Innu Matimekush-Lac John and Innu Takuaikan Uashatmak Mani-Utenam (collectively, the "TSH Shareholders"). The mandate of TSH is to maintain the passenger and light freight traffic between Sept-Îles and Schefferville. TSH currently operates passenger and light freight service between Schefferville and Sept-Îles twice per week.

LIM entered into a Memorandum of Understanding with TSH in 2007 pursuant to which LIM and TSH agreed to work together towards concluding a Transportation Services Agreement under which TSH will provide rail transportation and other related infrastructure services to LIM to transport the iron ore products. As provided in the MOU, the transportation of iron ore cars requires the unanimous consent of the TSH Shareholders pursuant to a unanimous shareholders' agreement dated August 23, 2004 among such parties. Such consent will be necessary in order for LIM to transport iron ore from the Houston Properties to Ross Bay Junction for onward connection via QNS&L to the port of Sept-Îles.

The TSH Menihek section of the railway will require upgrading and rehabilitation to carry iron ore between Schefferville and Ross Bay Junction. Some refurbishment of the rails, ties and culverts will need to be carried out to enable the line to continuously carry large volumes of iron ore traffic. TSH has developed a rail upgrade programme, to be carried out over a seven year period, and is in discussions with the Federal Government and with the Government of Quebec with regard to the financing of this upgrade. LIM has been asked to support this effort and to make some financial contributions to the cost of the upgrade. The Company and NML have also agreed to collaborate to determine the most expedient means to refurbish the TSH r rail main line to standards required to carry out the transportation of minerals extracted from the direct shipping ore deposits.

QNS&L operates the railway from Ross Bay Junction to Sept-Îles and this southern section of the railway currently carries the iron ore products from the Labrador City, Wabush and Bloom Lake iron mines to the port of Sept-Îles for each of IOC, Wabush Mines and Consolidated Thompson respectively.

At the Port of Sept-Îles (Arnaud Junction) the QNS&L railroad connects to the Arnaud Railroad (Chemin de fer Arnaud (CFA)), owned by Wabush Mines, which runs approximately 34 km around the bay to the terminal at Pointe-Noire.

Each of TSH, QNS&L and CFA are Common Carriers as such term is defined under the *Canada Transportation Act* ("CTA"). Federal railway companies that are Common Carriers must by law issue tariffs in respect of the movement of traffic at the request of a shipper, and must meet statutory "level of service" obligations to all shippers, detailed in sections 113 to 116 of the CTA.

The existing rail services were extensively utilized by LIM during the latter part of 2010 to successfully transport all of the mining equipment and plant components to Schefferville.

LIM is in advanced negotiations with each of TSH, QNS&L and CFA with regard to the transportation of LIM's iron ore products in 2011 and future years.

Work along the Redmond spur line, previously operated and abandoned by IOC, will include the restoration of sidings, and the re-laying of track along the existing rail bed and turnabout. The infrastructure components involved in the re-laying of rail include:

- ballast - the existing rail bed and most of the necessary ballast are already in place and some preparatory grading and levelling may be done;
- culverts - all necessary culverts are in place and current information indicates that they require no upgrade;
- ties – new hardwood ties;
- rails – new or second-hand rails;
- turnout and switch – new turnout, new switch points and switch stand to main line;

- bumping posts and derail; and
- other track material– new spikes, new or used rail anchors, new or used tie plates and joint bars, new track bolts, nuts and spring washers.

There will also likely be a split platform static railway scale and scale house, to weigh the loaded ore cars.

The new track and associated infrastructure will be installed in conformance with the latest edition of the American Railway Engineering and Maintenance-of-Way Association (AREMA) recommended practices.

The planned Redmond spur line will operate entirely within Labrador and as such will be regulated under the provincial Rail Service Act 2009.

18.3.5.2 Rolling Stock

LIM plans to lease rotary gondola ore cars each with a capacity of about 100 tonnes, with a car body suitable for a gross rail load of about 130 tonnes (286,000 lbs.). It is anticipated that three car sets will be required to transport LIM's iron ore tonnage in an eight month period in each year. Each car set will consist of 120 railcars or 240 railcars. The total railcar cycle time from the Redmond site to Pointe-Noire for the loaded movement and empty return of a train is expected to be approximately 68 hours.

LIM will operate with sufficient power units and rolling stock to meet the operational needs of the Project. The numbers of locomotives and ore cars will be initially determined on the start-up operations (i.e., the first year production level), and by the outcome of evaluations of railway operation.

The locomotives to run between the Redmond or Silver Yards loading areas and Emeril Yard at Ross Bay Junction will be leased by LIM and shared with TSH in a run through operation. This train will likely be powered by two robotized SD40 locomotives equipped with Locotrol and PDD (proximity detection devices). The locomotives to run on the QSN&L line between Ross Bay Junction and Sept-Iles will be supplied by QSN&L although LIM may be asked to make some financial contribution to the acquisition of additional units.

Figure 33 - Existing Railway Infrastructure

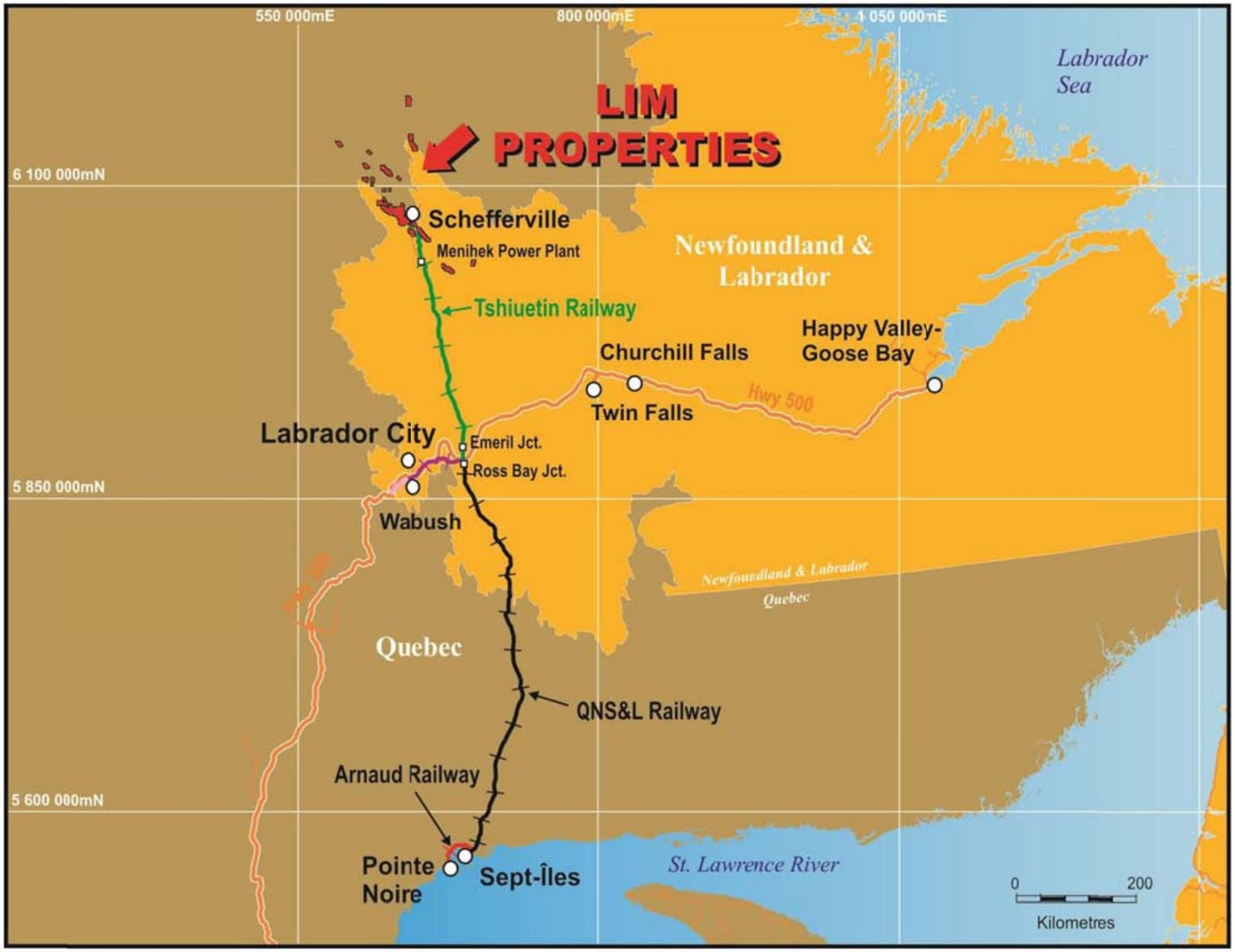
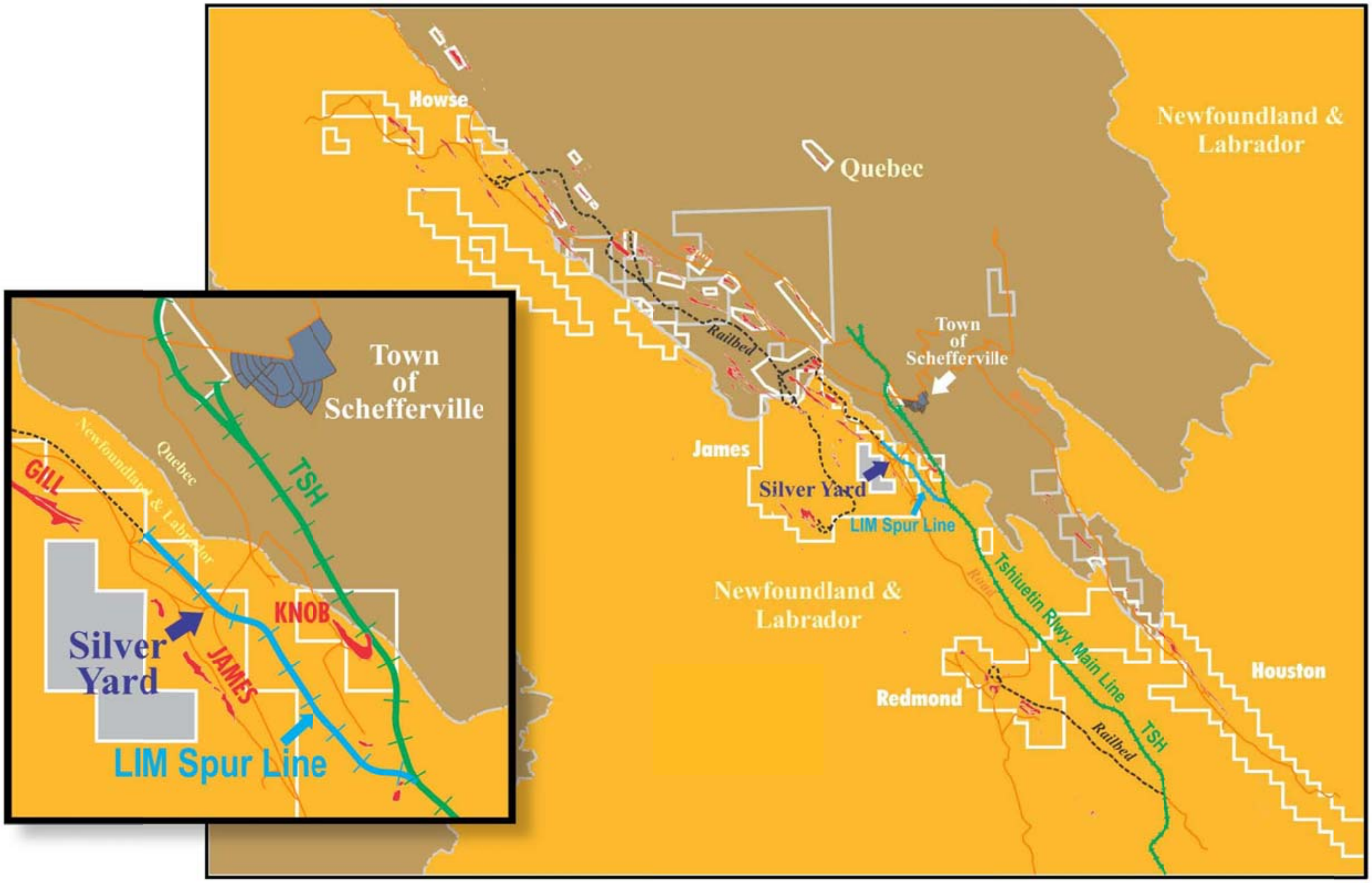


Figure 34 - Rail Infrastructure in LIM Project Areas



18.3.6 Port Facilities

LIM intends to transport the ore to be produced from the Houston Project to the Port of Sept-Îles for onward shipment to steel mills in Europe or Asia.

The Port of Sept-Îles, situated 650 kilometres down river from Quebec City on the North Shore of the Gulf of St. Lawrence on the Atlantic Ocean, is a large natural harbour, more than 80 metres in depth, which is open to navigation year round. The Port of Sept-Îles is an international marine hub, and nearly 80% of its merchandise traffic, mostly iron ore, is destined for international markets. The Port of Sept-Îles is the most important port for the shipment of iron ore in North America, serving the Quebec and Labrador mining industry. Each year approximately 30 million tonnes of merchandise is handled, comprised mainly of iron ore.

With a full range of high-performance equipment, the Port of Sept-Îles is one of North America's leading iron ore ports and will now become Canada's second largest in terms of annual volume handled, with over 35 million tons.

In 2009 the Government of Canada announced it would invest up to $19.5 million in the improvement of operations at the Port of Sept-Îles, with optimization projects for Pier 30 and the Relance Terminal (Pier 40).

In its 2009 Annual Report, the Sept-Îles Port Authority stated "*for the iron ore sector experiencing unparalleled growth since the 1970's, additional major investments will be required in the very short term to optimize existing infrastructure and build a new multi-user wharf". "Thanks to the close relations maintained by the Port with its industry partners and government, new structuring developments will definitely materialize quite soon in this new era of vitality."*

In February 2010, the Minister of Transport announced the Government of Canada's contribution to a new project for the development of the Pointe-Noire terminal at the Port of Sept-Îles. The Government of Canada agreed to contribute up to $5 million for a new project to develop the Pointe-Noire Terminal, part of the Port of Sept-Îles facilities modernization plan.

The plan includes work on the land owned by the Port near the eastern part of Pier 31 of Pointe-Noire, as well as marine work to extend the pier. The project consists mainly of a 60-metre extension to the east, as well as the installation of two piled steel platforms linking the pier to the land with a conveyer. On land, dynamite and backfill work was undertaken to build warehousing space with a capacity of up to 1.5 million tonnes, of dry bulk cargo. Anticipated project results include increasing the capacity of the Pointe-Noire Terminal to accommodate two vessels at the same time, and the installation of handling equipment required for new iron ore mining companies.

In September 2010, in announcing support for the second phase of revitalizing the Relance Terminal (Pier 40) in the Port of Sept-Îles, Prime Minister Stephen Harper stated *"The Port of Sept-Îles is the cornerstone of the economy of this region. The modernization of the Relance Terminal will create greater economic opportunities for businesses and industries of Quebec's North Shore and will provide local businesses with better access to foreign markets."*

In February 2010 LIM signed an agreement with the Sept-Îles Port Authority for the use of the Pointe-Noire facilities at the Port to ship LIM's iron ore products. LIM agreed to a base fee schedule with the Port Authority regarding wharfage fees for iron ore loading for LIM's shipping operations.

LIM is currently evaluating a number of different options for its Sept-Îles operations including use the facilities of Wabush Mines or other facilities of the Sept-Îles Port Authority.

It is expected that Pier #30, which is the property of the Port Authority and currently utilized by Wabush Mines on a senior berthing privilege basis, will be used for loading ships. The extension of Pier #30 (Pier #31) is currently utilized by Consolidated Thompson to load self-unloading laker vessels which then tranship to cape size ships in the deeper waters of the bay. Alternatively, LIM's ships could be loaded at the nearby Pier #40, which is operated by the Port Authority.

Presently, Pier #30 can accommodate ships up to 150,000 DWT, while Pier #40 can accommodate ships up to 60,000 DWT. It is anticipated that ships to be loaded with LIM's DSO Products will range in size from 60,000 DWT to 140,000 DWT. At the Wabush facilities, some modifications and additions to existing conveyers and equipment will be required to handle LIM's iron ore products.

There are two ships loaders on Pier #30/#31, one owned and operated by Wabush Mines and the other owned and operated by Consolidated Thompson. On January 11, 2011 Cliffs Resources Inc., the parent of Wabush Mines, announced the acquisition of Consolidated Thompson which, if and when completed, will result in Cliffs/Wabush having duplicate ore handling facilities, including two ship loaders which should have excess loading capacity.

In the long term, LIM anticipates that it will be able to utilize the new multi-user wharf planned by the Port Authority and, when built, this should enable the loading of cape size vessels.

18.4 PROJECT SCHEDULE

Subject to approval, initial construction could start at the Houston 1 and 2 deposits and road in 2012 or early 2013. Pending the completion of exploration at Houston 3 and the confirmation of the extent of the deposit, development of Houston 3 is currently anticipated for 2015.

The proposed schedule is subject to completion of environmental assessment on project release and the approval of the development plan, and the rehabilitation and closure plan by the Government of Newfoundland and Labrador, and the negotiation and implementation of financial assurance and the issue of all required permits.

18.4.1 CONCEPTUAL PRODUCTION SCHEDULE

Production is preliminarily scheduled to commence in second quarter of 2013. Table 23 is an indicative schedule based on the mining and treatment of the measured and indicated resource of 18.6 million tonnes of Fe ores at a predicted mining loss of 10% and on expected total recoveries of an average of 81%. This does not include any inferred resource, or any potential increase in resources from ongoing exploration, and does not include the processing of any manganiferous ore. The estimated production schedule data is derived from a beneficiation process plant ore feed rate of 10,000 tonnes per day.

Table 23 – Preliminary Production Schedule (tonnes of product x 1000)
Subject to Detailed Engineering and Design

		2013	2014	2015	2016	2017	2018	2019	2020
Houston	ROM	1000	2300	2600	2600	2600	2600	2200	600
	Product	820	1750	2000	2000	2000	2000	1600	400
Lump		140	330	350	350	350	350	300	20
Sinter Fines		550	1200	1350	1350	1350	1350	1000	320
Pellet Feed		130	220	300	300	300	300	300	60

18.4.2 Redmond Plant Site Infrastructure Construction

Mobilization to the site and set-up of basic site services and access will commence once the required permits are in place. Spur line reconstruction, Redmond beneficiation site infrastructure and the Houston 1 and 2 mine construction is planned to commence in the 2012/2013. Site preparation, infrastructure construction and plant commissioning and full start-up (ready for production) are anticipated to take six months.

18.4.3 Engineering Design

Detailed engineering design and procurement will be completed prior to and during the initial site works, overburden removal and pre-stripping.

18.5 Community and Social Issues

LIM has established an active community relations program since mid-2005 and an ongoing effort is made to work very closely with the adjacent and potentially impacted First Nations to focus on developing and maintaining productive working relations, ensuring a good understanding of the proposed project.

Extensive community consultation has been conducted with the nearby communities of Matimekush-Lac John and Kawawachikamach, as well as communities in western and central Labrador (Labrador City, Wabush, Happy Valley-Goose Bay) and at Uashat (Sept-Îles, Quebec).

LIM has signed Impact Benefits Agreements (IBA) with the Innu Nation of Labrador and the Naskapi Nation of Kawawachikamach. A Memorandum of Understanding has been signed with the Innu of Matimekush-Lac John and an Agreement in Principle signed with the Innu Takuaikan Uashat mak Mani-Utenam. Ongoing discussions for the completion of impact benefit agreements with these two Innu are being undertaken. The TSH railway company is owned by a consortium of First Nations conprising the Naskapi Nation of Kawawachikamach, the Innu of Matimekush-Lac John and Innu Takuaikan Uashat mak Mani-Utenam.

Project design and implementation will include consideration of information resulting from ongoing consultation with the communities, traditional environmental knowledge, environmental and engineering considerations and best management practices. These consultations and agreements will ensure a close working relationship with the local communities with respect to their involvement in the provision of labour, goods, and services to the Project.

Direct and indirect economic benefits for various communities and stakeholders are expected and this will continue the positive developments initiated by LIM as part of its Schefferville Area Iron Ore Mines at James and Redmond. The ongoing economic impact of such employment and contracting business will be very positive and lead to the development of other support and service sector jobs and the consistent and planned development and growth.

18.6 MINE AND ENVIRONMENTAL STUDIES AND PERMITS

Environmental baseline studies were initiated in the project areas in 2005 and the Redmond mine area has already been assessed through the Canadian Environmental Assessment Act and the Newfoundland and Labrador Environment Protection Act and Environmental Assessment Regulations.

The Labrador Iron Mines Limited Schefferville Area Iron Ore Mine Environmental Impact Study (August 2009) for the James and Redmond mine areas, as well as the Silver Yard beneficiation area and the Ruth Pit discharge area, was released by the Lieutenant-Governor of Newfoundland and Labrador from further assessment in February 2010.

Environmental baseline collection programs are ongoing and applicable environmental and mining studies and permits will be submitted for approval as required prior to the start of construction, mining and processing.

18.6.1 ENVIRONMENTAL BASELINE PROGRAMS VALUED ENVIRONMENTAL COMPONENTS

Environmental baseline work was initiated in the area in 2005. Community consultation was also initiated in 2005. Environmental baseline work conducted to date, and included in ongoing programs, includes:

- Surface water sampling, geochemistry, and general water quality
- Community consultation, meetings and traditional knowledge collection
- Preliminary ARD Assessment
- Aquatic habitat mapping (lake, pits and streams)
- Benthic community and sediment surveys
- Terrestrial assessment of properties (vegetation communities)
- Avifauna and Wildlife Surveys
- Traditional Environmental Knowledge programs
- Caribou surveys
- Due diligence assessment on Project areas to document current predevelopment site conditions and historical disturbance
- Snow and ice pack
- Air quality
- Noise and vibration
- Climatology
- Fish community assessment
- Fish tissue sampling
- Hydrology and hydrogeology

- Water quality monitoring (seasonal)
- Additional terrestrial and wildlife surveys (spring birds, on-site presence, etc.)
- Detailed fish habitat assessments of existing watercourse crossings
- Traditional knowledge
- Cultural resources and archaeological assessment

LIM conducted an extensive issues scoping process in relation to the existing Schefferville Area Iron Ore Mine project at the James and Redmond areas, which included consultation with appropriate regulatory agencies, the public, and Aboriginal groups, in order to identify the potential environmental issues associated with that Project. Valued Environmental Components (VECs) were identified in the Environmental Impact Statement (EIS) (August 2009) for the James and Redmond Project and potential related environmental effects were evaluated. Mitigation measures which are technically and economically feasible were incorporated into Project design and planning and additional VEC-specific mitigation has also been identified and proposed as required and appropriate. The VECs include Employment and Business, Communities, Fish and Fish Habitat, and Caribou.

Based on extensive baseline data collection programs undertaken in the area since 2005, the VECs for the Houston mine, Houston road, Redmond beneficiation plant and rail spur re-laying projects are expected to be the same.

The detailed Environmental Assessment conducted for Schefferville Area Iron Mine project at the James and Redmond areas, including community consultation and traditional environmental knowledge (TEK) program discussions, determined that there would be no significant adverse environmental effects on these VECs.

The Labrador Iron Mines Limited Schefferville Area Iron Ore Mine Environmental Impact Study (August 2009) was released by the Lieutenant-Governor of Newfoundland and Labrador from further assessment in February 2010. The Redmond plant and rail spur re-laying areas are located within the general assessment area covered by the 2009 environmental assessment and the Houston road and Houston deposits are located nearby.

Current information suggests that significant adverse environmental effects are not predicted in relation to the construction, operation, or decommissioning phases, of the Houston Projects or as a result of accidental events. Furthermore, existing approved infrastructure is in place and will be used, where possible, to reduce the project footprint. Upon receipt of all necessary approvals, a monitoring and follow-up program will be undertaken to assess the accuracy of the effects predictions, and to determine the effectiveness of mitigation measures.

18.7 PERMITS, APPROVALS AND AUTHORIZATIONS

A list of potential regulatory approvals and compliance standards that are anticipated for future developments of the Houston Project are presented in Table 25.

Other regulations that will govern design, development, operation, and rehabilitation and closure of the Houston mine sites include:

- Metal Mining Effluent Regulations (MMER)
- National Pollutant Release Inventory (NPRI)
- Transportation of Dangerous Goods (TDG)
- Workplace Hazardous Materials Inventory System (WHMIS)
- Occupational Health and Safety (OH & S)

Table 25 - Potential Regulatory Approvals/Permits

Permit, Approval or Authorization **Activity**	**Issuing Agency**
Federal	
Approval under the Fisheries Act	Fisheries and Oceans Canada
Approval under the Navigable Waters Protection Act	Transport Canada
Provincial	
Certificate of Environmental Approval to Alter a Body of Water • Schedule A: Culvert Installation • Schedule H: Other works within 15 m of a body of water Water Use License Non-Domestic Well Permit	DOEC – Water Resources Management Division
Certificate of Approval - Mine Construction Industrial Processing Works Certificate of Approval (Operation) Certificate of Approval - Generators Water Resources Real-time Monitoring MOU Development and Implementation Approval of MMER Emergency Response Plan Approval of Environmental Contingency Plan (Emergency Spill Response) Approval of Environmental Protection Plan – Mine Construction and Operations and Spur Line Construction and Operations	DOEC – Pollution Prevention Division
Contingency: Permit to Control Nuisance Animals, if required Approval of Caribou Mitigation Strategy and Monitoring Program (one is already in place for the existing Schefferville Area Iron Ore mines at James and Redmond)) Approval of Avifauna Management Plan	DOEC – Wildlife Division
Gasoline and Associated Products Fuel Tank Registration National Building Code Fire, Life and Safety Program Building Accessibility Design Registration Motor Vehicle Special Permits	Government Service Centre (GSC)
Approval of Development Plan, Rehabilitation and Closure Plan, and Financial Security – Mine Mining Leases Surface Rights Lease Approval of Women's Employment Plan Approval of NL Benefits Plan	DNR – Mineral Lands Division

Permit, Approval or Authorization Activity	Issuing Agency
Operating Permit to Carry out an Industrial Operation During Forest Fire Season on Crown Land Permit to Cut Permit to Burn	DNR – Forest Resources

18.8 MARKETS

The viability and profitability of the Houston Project is believed to be most sensitive to the sale price of iron ore.

High demand for iron ore in recent years has been driven primarily by China and south-east Asia. This demand effectively raised the price of iron ore "fines" (FOB Brazil) from around US$42 per tonne in 2005, to about US$50 per tonne in 2006, to about US$55 per tonne in 2007, and to about US$95 per tonne in 2008.

During the last quarter of calendar 2008 and the first quarter of calendar 2009, there was a considerable degree of weakness in the world-wide steel industry associated with the downturn in most major economies. This downturn was particularly severe in Europe and North America and resulted in a decline in spot iron ore prices from the record high prices achieved earlier in 2008.

During 2009 negotiations with the Chinese industry represented by the China Iron & Steel Association failed to agree on a 2009 benchmark price and China effectively bought iron ore at spot, which began to rise during the second half of the year reaching around US$105 per tonne by the end of calendar 2009.

Negotiations regarding setting a traditional benchmark price continued during the last months of 2009 and the first months of 2010 but eventually broke down. The major suppliers and consumers each reached separate agreements but all based around a quarterly pricing mechanism using average spot prices during a preceding three month period. Spot prices generally increased during 2010 to around US$145 per tonne by the end of March 2010 and reaching US$175 per tonne in April 2010, before falling back slightly later in the year.

In early 2011, the world-wide iron-ore market remains very positive with recent spot prices for 62% Fe sinter fines approaching US$190 per tonne (CFR China).

Despite efforts by the Chinese government to slow down some aspects of growth of the Chinese economy, including restricting credit and raising base interest rates, demand for iron ore continues to grow. This demand, coupled with some recent interruptions in supply from Australia and Brazil, has driven iron ore prices to an all-time high. This is expected to slow somewhat in future months as the effects of bad weather in both Brazil and Australia return to normal and if, as expected, some Indian export restrictions are lifted.

The current increases in iron ore costs will inevitably lead to increases in steel prices, which may lead to reduced levels in steel demand in subsequent periods. In the short to medium term demand for iron ore is expected to remain strong and prices are forecast to retract only marginally. In the longer term as major new production capacity comes on line in Brazil and Australia, the balance between supply and the continuing increasing demand is likely to remain close. The extent to which demand continues to exceed supply will be influenced by new and increased growth in demand from other markets, including south-east Asia, and renewed growth in Europe led by Germany, and by the levels at which new iron ore supply, particularly from West Africa, may emerge.

The general consensus of current forecasts is that iron ore supply and demand will remain generally in balance until around 2015, with prices only dropping 10-15% in that period, followed by a supply surplus with prices declining somewhat thereafter. For the purposes of this report it is assumed that iron ore prices will remain strong for both calendar 2011 and calendar 2012.

The projected long-term iron ore spot prices for sinter fine ore at 62% Fe assumed for the Houston Project (per tonne FOB Sept-Îles), are: 2011-US$110; 2012-US$110; 2013-US$100; 2014-US$90; 2015 and following years US$80. Lump ore has traditional been priced at a premium of about 10% to sinter fines.

LIM has undertaken extensive marketing discussions with potential customers, and samples have been dispatched to a number of steel mills. While Europe is the logical market for LIM's iron products, given the proximity of the Port of Sept-Îles to Europe, demand from China is so strong that it is likely that at least a portion of LIM's production will be shipped to Chinese or Asian customers.

18.9 CAPITAL AND OPERATING EXPENDITURES

The initial capital cost of the Houston Mine Project for mine site preparation and overburden removal is estimated to be approximately $2 million. It is assumed that all mine operating equipment will be supplied by the mining contractor. An additional $3 million is estimated for the cost of the new haul road to Houston. Additional capital expenditures will be required in future years as the other Houston deposits are developed into production.

Houston Mine	
Mine site preparation/overburden removal	$2 million
Houston haul road, including bridge over Gilling River	$3 million
TOTAL	**$5 million**

The initial capital cost of the Redmond Plant is estimated to be approximately $30 million based on the actual cost incurred by LIM on the construction of the Silver Yards plant, and assuming the installation of additional equipment and plant upgrades.

Redmond Plant	
Major Processing Equipment	$10 million
Secondary Equipment, conveyers	$3 million
Steel and Civil Works	$7 million
Electrical and Piping	$10 million
	$30 million
Contingency	$5 million
Total	**$35 million**

An additional $8 to $10 million is estimated for the cost of re-laying the Redmond rail spur line. Working capital is not included in the initial capital cost estimate.

The average operating costs for the Houston project are estimated to be in the range of approximately CAD$50 per tonne, assuming that all mining and processing activities are carried out by contractors, with rail transportation and port handling costs collectively accounting for approximately half of the total operating costs.

The first year is considered a construction year as based on production start-up by mid-year the Project will only achieve its rated capacity towards the end of the first year.

18.10 TAXATION

The following fiscal considerations are expected to apply to the Houston Project.

For Federal and Provincial corporate income tax:

- the Federal income tax rate is 15% and Provincial income tax rate is 14% for the Province of Newfoundland and Labrador.
- accelerated depreciation of 25% per year up to 100% on Class 41A processing and power supply assets; depreciation of 25% on the declining balance for Class 41B mining and port installation assets;
- Canadian development expenditure depreciation on the basis of 30% per year. Canadian exploration expenditure depreciation is on the basis of 100%;

For Provincial mining tax the rate is 15% for Newfoundland and Labrador. Exploration and development expenditures will be deductible at 100% and depreciation of up to 100% of capital expenditures.

The combined effects of depreciation and allowances are expected to result in tax deferment of about four years for corporate income tax, and two years for provincial mining tax, and does not take into account any allowance for any tax losses carried forward.

19. CONCLUSIONS (ITEM 21)

The authors' review of data together with their knowledge of LIM's projects obtained during the period 2005-2010 indicates that there is more than sufficient merit to proceed with the development and permitting of the Houston deposits to enable them to be brought to commercial production, while at the same time continuing the further exploration of the Houston 3 deposit and the lower grade taconite potential along the eastern margin of the Houston zone.

It has been demonstrated that the historical resources calculated by IOC are reliable although they were not based on the full extent of the deposit as currently known.

The Houston deposits are of a size to justify a separate beneficiation plant to be located at the Redmond mine site or at the existing beneficiation plant at the Silver Yards. The preferred options will be selected upon completion of Beneficiation Options Evaluation Study.

Subject to regulatory and environmental approvals, LIM should be able to commence development of the Houston mine and haulage road in 2012/2013, with the first ore being extracted in 2013. LIM also expects to be able to commence development of the Redmond beneficiation plant and rail-spur in 2012 to be ready to accept ore from the Houston mine in 2013.

Other deposits in Labrador and Quebec owned by LIMH will be sequentially developed and will be subject to separate technical evaluation, environmental assessment and regulatory approvals.

20. RECOMMENDATIONS (ITEM 22)

Following the review of all relevant data and the interpretation and conclusions of this review, it is recommended that the Houston deposits be prepared for development, while at the same time continuing exploration on the Houston property, especially to the south of Houston 3 to fully evaluate the additional resource potential, as well as to investigate the lower grade taconite potential along the eastern margin of the Houston deposits.

Some additional infill drilling is necessary to evaluate the deeper, down dip, potential of the Houston 1 and 2 deposits as well as some further drilling between the Houston 2 and 3 deposits and to the north of the Houston 1 deposit.

A program of reverse circulation drilling is proposed for the Houston project (36 holes):

- 8 holes to the north of Houston 1 800m
- 8 holes to the south of Houston 2 800m
- 20 holes to the south of Houston 3 and along the eastern flank of the entire Houston zone 2,000m

Total: 3,600m

The estimated budget for such drilling is:

- 3,600m @ $400/metre $1,440,000
- Support (geology, etc.) $ 170,000
- Analytical $ 100,000

Sub-total: $1,710,000
Contingency: $ 290,000
Total: $2,000,000

In addition programs of environmental data collection, metallurgical testing, road route evaluation and detailed metallurgical, engineering and design studies are recommended at an estimated budget of $2,000,000.

At the same time as the recommended exploration and metallurgical programs outlined above, a number of items will be required to progress the development of the Houston deposits:

- More detailed mine plans, including geotechnical and hydrogeological studies and optimization of the development schedule;
- Additional metallurgical studies may be required dependent on the mineralogy of the deposit;
- Completion of a beneficiation plant option evaluation study for selection of preferred beneficiation option, i.e. Redmond area or Silver Yards area;
- Detailed beneficiation plant engineering and design will be required;
- Transport and infrastructure requirements, including selection of the final haulage route for transporting ore from the site to the beneficiation plant at the Redmond mine site;
- Engineering plans for the relaying of 10 km of rail spur line from the TSH mainline to the Redmond turnabout;

- Ongoing additional environmental studies, traditional environmental knowledge programs, and community consultation; and
- Completion of the environmental assessment and permitting process.

21. References (Item 23)

The following documents are in LIM's files and have been reviewed by the authors:

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"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 and Resource Estimate on the Houston Iron Ore Deposit Western Labrador", Labrador Iron Mines Limited, T.N. McKillen, May 18, 2010.

22. DATE AND SIGNATURE PAGE (ITEM 24)

This Technical Report is dated February 21, 2011 and reports on all exploration work done up to December 31st of 2010.

Signed and dated

(signed) "T.N. McKillen"

Dated at Toronto, ON
February21, 2011

Terence N. McKillen, P.Geo.

QUALIFICATIONS CERTIFICATE

I, Terence N. McKillen, Professional Geologist, do hereby certify that:

1. I am a consulting geologist residing at 965 Davecath Road, Mississauga, Ontario, L5J 2R7.
2. I am one of the co-authors of the report entitled "Technical Report On The Houston Iron Ore Deposit Western Labrador Province of Newfoundland and Labrador Canada" dated February 2, 2011.
3. I graduated from the University of Dublin, Trinity College in 1968 and hold a Bachelors and a Masters Degree in Natural Sciences (Geology). I obtained a Masters Degree in Mineral Exploration and Mining Geology from the University of Leicester in 1971.
4. I am a member in good standing of the Association of Professional Geoscientists of Ontario (#0216); the Professional Engineers and Geoscientists of Newfoundland and Labrador (#04525) and the Order of Professional Geologists of Québec (#1392) and am designated as a specialist in Geology and Mineral Exploration and Development.
5. I have worked as a geologist and mining executive in the minerals industry for over 40 years since my graduation from university.
6. I have read the definition of ''qualified person'' set out in National Instrument 43-101 (NI 43-101) and by reason of my education, membership of professional associations and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. I am responsible with the other author for parts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 19 and 20 of this Technical Report on the Houston Iron Ore Deposit in Western Labrador. I have visited the project site on many occasions from 2005 to 2010, including most recently on 28 Oct. 2010.
8. I was instrumental in the original acquisition of the Houston and nearby iron ore properties held by Labrador Iron Mines Limited, have been involved in the corporate development thereof and have prepared earlier technical and business reports and evaluations pertaining to the Houston and other iron ore properties held by LIMH in Labrador and Quebec or directly supervised the preparation of such technical reports.
9. I am not independent of either Labrador Mines Limited or Labrador Iron Mines Holdings Limited as described in section 1.4 of NI 43-101, being a director and officer of both companies.
10. I have read National Instrument 43-101 – Standards of Disclosure for Mineral Projects and Form 43-101F1 and Companion Policy 43-101CP and certify that this Technical Report has been prepared in compliance with such instrument(s).
11. As of the date of the report and to the best of my knowledge, I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the report, the omission of which disclosure would make the Technical Report misleading.

12. I consent to the filing of the Technical Report with any stock exchange or other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Report.

DATED

(signed) "T.N. McKillen"

February 21, 2011

Terence N. McKillen, P. Geo.

This Technical Report is dated February 21, 2011 and reports on all exploration work done up to December 31st of 2010.

Signed and dated

Dated at Toronto, ON
February21, 2011

(signed) "D.W. Hooley"

D.W. Hooley, FAusIMM

QUALIFICATIONS CERTIFICATE

I, D.W. Hooley, FAusIMM, Mining Engineer, do hereby certify that:

1. I am a mining engineer residing at 65 Rhos Road, Rhos-on-Sea, Conwy LL28 4RY, UK.
2. I am a co-author of the report entitled "Technical Report On The Houston Iron Ore Deposit Western Labrador Province of Newfoundland and Labrador Canada" dated February 21, 2011.
3. I graduated from the Royal School of Mines, Imperial College, University of London with Bachelor of Science degree in Mining Engineering 1968.
4. I am a Fellow in good standing of Australasian Institute of Mining and Metallurgy.
5. I have worked as a mining engineer and mining executive in the minerals industry for over 40 years since my graduation from university.
6. I have read the definition of ''qualified person'' set out in National Instrument 43 101 (NI 43 101) and by reason of my education, membership of professional associations and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43 101.
7. I am responsible with the other authors either singularly or jointly for parts 1, 2, 3, 4, 5, 6, 15, 19 and 20 and singularly for parts 16 and 18 of this Technical Report on the Houston Iron Ore Deposit in Western Labrador. I have visited the project site on many several occasions from 2006 to 2010, including most recently on 1st November 2010.
8. I am not independent of either Labrador Mines Limited or Labrador Iron Mines Holdings Limited as described in section 1.4 of NI 43-101, being a director and President and Chief Operating Officer of both companies.
9. I have read National Instrument 43-101 – Standards of Disclosure for Mineral Projects and Form 43-101F1 and Companion Policy 43-101CP and certify that this Technical Report has been prepared in compliance with such instrument(s).
10. As of the date of the report and to the best of my knowledge, I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the report, the omission of which disclosure would make the Technical Report misleading.

11. I consent to the filing of the Technical Report with any stock exchange or other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Report.

DATED *(signed) "D.W. Hooley"*

February 21, 2011 **D.W. Hooley, FAusIMM**

This Technical Report is dated February 21, 2011 and reports on all exploration work done up to December 31st of 2010.

Dated at Toronto, ON
February21, 2011

(signed) "Daniel Dufort"

Daniel Dufort, P. Eng.

QUALIFICATIONS CERTIFICATE

I, Daniel Dufort, professional engineer do hereby certify that:

1. I am an engineer residing at 61 Wetherburn Drive, Whitby, Ontario, L1 P 1M8.
2. I am one of the co-authors of the report entitled "Technical Report On The Houston Iron Ore Deposit Western Labrador Province of Newfoundland and Labrador Canada" dated February 21, 2011.
3. I graduated from Polytechnique University, Quebec in 1979 and hold a BSca in Mining Engineering.
4. I am a member of the Order of Professional Engineers of Québec and Ontario, and I am designated as a Mining Engineer.
5. I have worked as a mining engineer in the minerals industry for 31 years since my graduation from Polytechnique University.
6. I have read the definition of ''qualified person'' set out in National Instrument 43-101 (NI 43-101) and by reason of my education, association with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. I worked on with the other authors on Section 18 (Other Relevant Data and Information) and more specifically on 18.1, 18.2, 18.3 18.4 and 18.9 of this Technical Report on the Houston Iron Ore Deposit in Western Labrador. I have visited the site many times during 2009.
8. I am not independent of either Labrador Mines Limited or Labrador Iron Mines Holdings Limited as described in section 1.4 of NI 43-101, being from 2009 to 2011, Vice-President Operations and more recently, Vice President, Technical Services, of both companies.
9. I have read National Instrument 43-101 – Standards of Disclosure for Mineral Projects and Form 43-101F1 and Companion Policy 43-101CP and certify that this Technical Report has been prepared in compliance with such instrument(s).
10. As of the date of the report and to the best of my knowledge, I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the report, the omission of which disclosure would make the Technical Report misleading.
11. I consent to the filing of the Technical Report with any stock exchange or other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Report.

Dated: February 21, 2011

Daniel Dufort P. Eng.

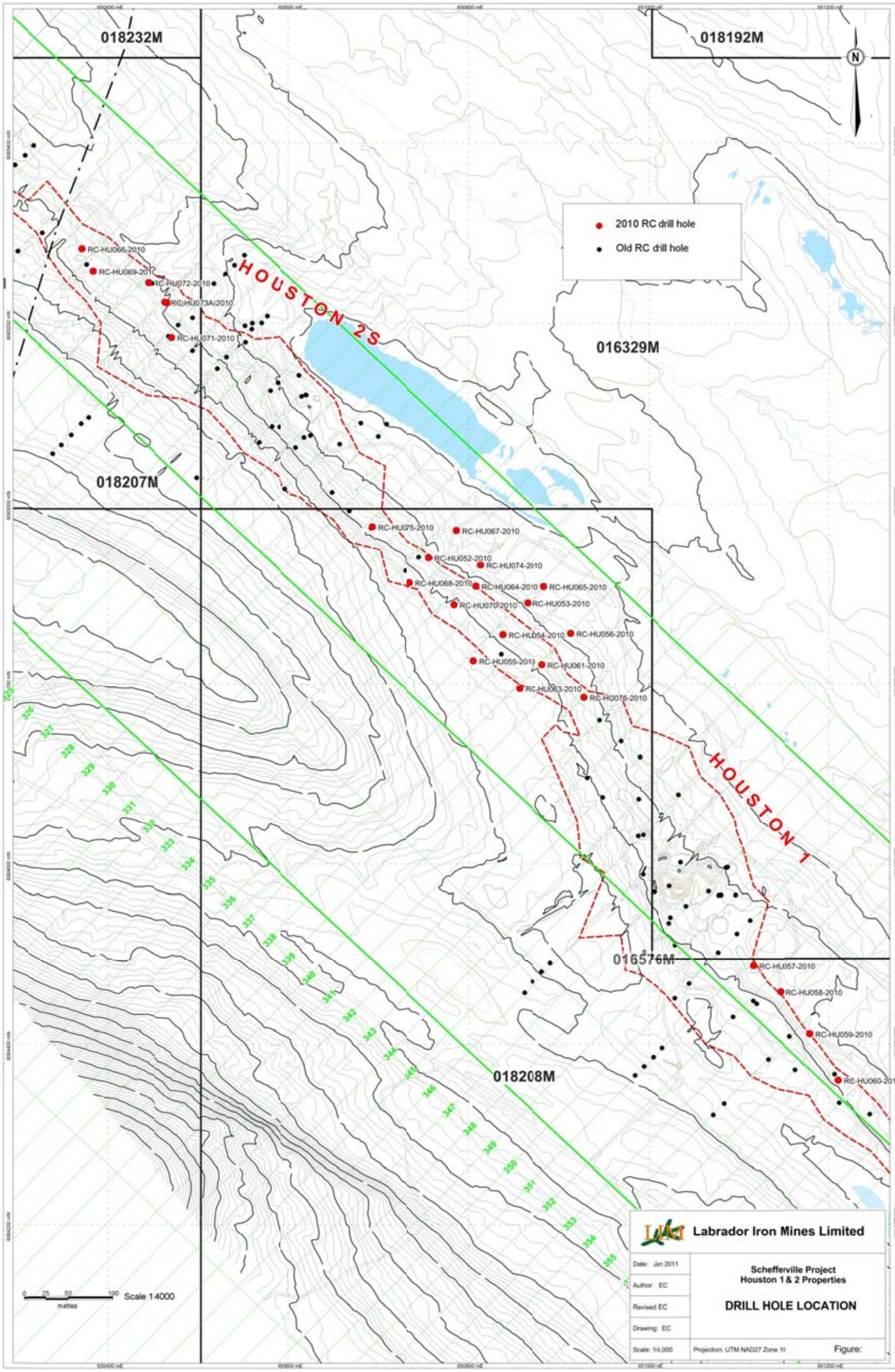
23. ILLUSTRATIONS (ITEM 26)

The following plans are attached as illustrations of the exploration drilling and trench sampling programs carried out on the Houston Property by LIM to date.

List of Plans and Sections

Houston 1 & 2 Drill Holes

Houston 1 & 2S Drill Holes


018232M
018192M
018207M
016329M
016576M
018208M
HOUSTON 2S
HOUSTON 1
2010 RC drill hole
Old RC drill hole
RC-HU066-2010
RC-HU071-2010
RC-HU075-2010
RC-HU067-2010
RC-HU052-2010
RC-HU074-2010
RC-HU068-2010
RC-HU064-2010
RC-HU065-2010
RC-HU053-2010
RC-HU054-2010
RC-HU056-2010
RC-HU055-2010
RC-HU061-2010
RC-HU063-2010
RC-HU057-2010
RC-HU058-2010
RC-HU059-2010
Scale 1:4000
Labrador Iron Mines Limited
Date: Jan 2011
Author: EC
Revised: EC
Drawing: EC
Scale: 1/4,000
Schefferville Project
Houston 1 & 2 Properties
DRILL HOLE LOCATION
Projection: UTM NAD27 Zone 19
Figure:

APPENDIX I

(List of drill holes and trenches completed by LIM in the Houston property)

	Hole ID	Easting	Northing	Elev (m)	Len	Az	Dip	Type	Status	Start	Finish
1	HN-06-01	650617	6065073	586	32.0	0	-90	DD	Cancelled	03-Aug-06	03-Aug-06
2	HN-06-02	650620	6065121	583	52.0	230	-60	DD	Cancelled	17-Aug-06	17-Aug-06
3	HN-06-03	651022	6064534	590	72.0	0	-90	DD	Completed	23-Jul-06	02-Aug-06
4	HN-06-04	650620	6065121	583	52.0	0	-90	DD	Cancelled	18-Aug-06	19-Aug-06
5	HN-06-05	651644	6063846	574	45.0	0	-90	DD	Abandoned	20-Aug-06	20-Aug-06
6	RC-HU001-2008	650615	6065119	583	97.0	0	-90	RC	Completed	28-Aug-08	01-Sep-08
7	RC-HU002-2008	650581	6065086	589	85.0	0	-90	RC	Completed	02-Sep-08	04-Sep-08
8	RC-HU003-2008	650567	6065068	594	54.0	0	-90	RC	Completed	04-Sep-08	06-Sep-08
9	RC-HU004-2008	651087	6064596	584	55.0	0	-90	RC	Completed	04-Sep-08	06-Sep-08
10	RC-HU005-2008	651077	6064565	585	33.0	0	-90	RC	Abandoned	01-Sep-08	03-Sep-08
11	RC-HU005A-2008	651080	6064566	585	87.0	0	-90	RC	Completed	01-Sep-08	03-Sep-08
12	RC-HU006-2008	651029	6064510	590	66.0	0	-90	RC	Completed	30-Aug-08	01-Sep-08
13	RC-HU007-2008	651723	6063804	570	45.0	0	-90	RC	Completed	07-Sep-08	08-Sep-08
14	RC-HU008-2008	651712	6063753	571	51.0	0	-90	RC	Completed	08-Sep-08	10-Sep-08
15	RC-HU009-2008	652125	6063154	565	93.0	0	-90	RC	Completed	09-Oct-08	11-Oct-08
16	RC-HU010-2008	652176	6063083	561	53.0	0	-90	RC	Completed	12-Oct-08	13-Oct-08
17	RC-HU011-2008	652144	6063065	565	72.0	0	-90	RC	Completed	13-Oct-08	15-Oct-08
18	RC-HU012-2009	651035	6064702	582	66.0	0	-90	RC	Completed	14-Aug-09	15-Aug-09
19	RC-HU013-2009	651014	6064682	583	75.0	0	-90	RC	Completed	15-Aug-09	17-Aug-09
20	RC-HU014-2009	651066	6064655	582	90.0	0	-90	RC	Completed	20-Aug-09	22-Aug-09
21	RC-HU015-2009	651045	6064627	584	69.0	0	-90	RC	Completed	22-Aug-09	23-Aug-09
22	RC-HU016-2009	651025	6064606	586	70.0	0	-90	RC	Completed	23-Aug-09	24-Aug-09
23	RC-HU017-2009	651086	6064624	581	79.0	0	-90	RC	Completed	24-Aug-09	27-Aug-09
24	RC-HU018-2009	651013	6064547	589	28.0	0	-90	RC	Completed	17-Aug-09	18-Aug-09
25	RC-HU018A-2009	651015	6064543	589	9.0	0	-90	RC	Completed	18-Aug-09	18-Aug-09
26	RC-HU019-2009	651087	6064537	586	69.0	0	-90	RC	Completed	27-Aug-09	28-Aug-09
27	RC-HU020-2009	651063	6064514	588	15.0	0	-90	RC	Abandoned	18-Aug-09	18-Aug-09
28	RC-HU020A-2009	651064	6064515	588	73.0	0	-90	RC	Completed	18-Aug-09	20-Aug-09
29	RC-HU021-2009	650538	6065192	585	30.0	0	-90	RC	Completed	29-Jul-09	29-Jul-09
30	RC-HU022-2009	650586	6065159	581	111.0	0	-90	RC	Completed	30-Aug-09	01-Sep-09
31	RC-HU023-2009	650557	6065133	589	99.0	0	-90	RC	Completed	02-Aug-09	04-Aug-09
32	RC-HU024-2009	650547	6065117	590	69.0	0	-90	RC	Completed	31-Jul-09	02-Aug-09
33	RC-HU025-2009	650603	6065134	583	126.0	0	-90	RC	Completed	28-Aug-09	30-Aug-09
34	RC-HU026-2009	650564	6065105	589	99.0	0	-90	RC	Completed	29-Jul-09	31-Jul-09
35	RC-HU027-2009	650647	6065093	581	120.0	0	-90	RC	Completed	04-Aug-09	06-Aug-09
36	RC-HU028-2009	650588	6065032	596	67.0	0	-90	RC	Completed	10-Aug-09	12-Aug-09
37	RC-HU029-2009	650661	6065055	583	93.0	0	-90	RC	Completed	06-Aug-09	08-Aug-09
38	RC-HU030-2009	650636	6065029	589	63.0	0	-90	RC	Completed	12-Aug-09	13-Aug-09
39	RC-HU031-2009	650617	6065012	594	33.0	0	-90	RC	Completed	13-Aug-09	14-Aug-09
40	RC-HU032-2009	650698	6065034	583	97.0	0	-90	RC	Completed	08-Aug-09	10-Aug-09

	Hole ID	Easting	Northing	Elev (m)	Len	Az	Dip	Type	Status	Start	Finish
41	RC-HU033-2009	650560	6065175	584	90.0	0	-90	RC	Completed	01-Sep-09	02-Sep-09
42	RC-HU034-2009	651543	6064009	579	9.0	0	-90	RC	Completed	03-Sep-09	05-Sep-09
43	RC-HU034A-2009	651543	6064009	579	117.0	0	-90	RC	Completed	03-Sep-09	05-Sep-09
44	RC-HU035-2009	651559	6063977	578	82.0	0	-90	RC	Completed	05-Sep-09	06-Sep-09
45	RC-HU036-2009	651604	6063971	577	78.0	0	-90	RC	Completed	06-Sep-09	07-Sep-09
46	RC-HU037-2009	651666	6063868	573	81.0	0	-90	RC	Completed	07-Sep-09	08-Sep-09
47	RC-HU038-2009	651672	6063821	572	102.0	0	-90	RC	Completed	08-Sep-09	09-Sep-09
48	RC-HU039-2009	651634	6063880	574	96.0	0	-90	RC	Completed	09-Sep-09	11-Sep-09
49	RC-HU040-2009	651607	6063941	576	78.0	0	-90	RC	Completed	11-Sep-09	12-Sep-09
50	RC-HU041-2009	651539	6063962	580	72.0	0	-90	RC	Completed	12-Sep-09	14-Sep-09
51	RC-HU042-2009	651531	6063940	585	39.0	0	-90	RC	Completed	14-Sep-09	15-Sep-09
52	RC-HU043-2009	651624	6063835	578	42.0	0	-90	RC	Completed	15-Sep-09	16-Sep-09
53	RC-HU044-2009	651589	6063925	579	90.0	0	-90	RC	Completed	16-Sep-09	17-Sep-09
54	RC-HU045-2009	651750	6063698	569	72.0	0	-90	RC	Abandoned	17-Sep-09	18-Sep-09
55	RC-HU046-2009	651753	6063583	574	60.0	0	-90	RC	Completed	18-Sep-09	20-Sep-09
56	RC-HU047-2009	651774	6063614	570	66.0	0	-90	RC	Completed	20-Sep-09	21-Sep-09
57	RC-HU048-2009	651769	6063652	569	69.0	0	-90	RC	Completed	21-Sep-09	23-Sep-09
58	RC-HU049-2009	651711	6063793	571	72.0	0	-90	RC	Completed	23-Sep-09	25-Sep-09
59	RC-HU050-2009	651822	6063540	567	36.0	0	-90	RC	Abandoned	26-Sep-09	27-Sep-09
60	RC-HU050A-2009	651815	6063554	567	51.0	0	-90	RC	Abandoned	27-Sep-09	28-Sep-09
61	RC-HU051-2009	652147	6063115	564	9.0	0	-90	RC	Abandoned	29-Sep-09	29-Sep-09
62	RC-HU051A-2009	652147	6063115	564	6.0	0	-90	RC	Abandoned	29-Sep-09	29-Sep-09
63	RC-HU051B-2009	652147	6063115	564	69.0	0	-90	RC	Abandoned	29-Sep-09	01-Oct-09
64	HN-TR-01-06	651006	6064569	587	75.0	41	-2	TR	Completed	22-Aug-06	23-Aug-06
65	TR-HU2-001-2009	650555	6065168	585	4.0	30	0	TR	Completed	25-Aug-09	25-Aug-09
66	TR-HU3-001-2009	651517	6063932	584	76.0	35	-1.2	TR	Completed	30-Aug-09	31-Aug-09
67	TR-HU3-002-2009	651561	6063896	584	85.0	52	-8.7	TR	Completed	01-Sep-09	01-Sep-09
68	TR-HU3-003-2009	651615	6063814	583	63.0	42	-10.7	TR	Completed	02-Sep-09	02-Sep-09
69	TR-HU3-004-2009	651668	6063738	579	49.0	49	-5.1	TR	Completed	02-Sep-09	02-Sep-09
70	TR-HU3-005-2009	651716	6063697	575	31.0	35	-20	TR	Completed	02-Sep-09	02-Sep-09
71	TR-HU3-006-2009	651748	6063573	575	48.0	41	-6.6	TR	Completed	03-Sep-09	03-Sep-09
72	TR-HU3-007-2009	651771	6063508	575	57.0	58	-24.2	TR	Completed	03-Sep-09	03-Sep-09
73	TR-HU3-008-2009	652124	6063073	564	66.0	49	-4	TR	Completed	08-Sep-09	08-Sep-09
74	RC-HU052-2010	650756	6064940	587	93.0	0	-90	RC	Completed	05-Oct-10	07-Oct-10
75	RC-HU053-2010	650865	6064890	583	93.0	0	-90	RC	Completed	07-Oct-10	08-Oct-10
76	RC-HU054-2010	650838	6064855	588	84.0	0	-90	RC	Completed	08-Oct-10	10-Oct-10
77	RC-HU055-2010	650805	6064826	592	60.0	0	-90	RC	Completed	10-Oct-10	11-Oct-10
78	RC-HU056-2010	650913	6064856	584	99.0	0	-90	RC	Completed	11-Oct-10	13-Oct-10
79	RC-HU057-2010	651116	6064487	585	60.0	0	-90	RC	Completed	13-Oct-10	14-Oct-10
80	RC-HU058-2010	651146	6064458	587	46.0	0	-90	RC	Completed	14-Oct-10	14-Oct-10

	Hole ID	Easting	Northing	Elev (m)	Len	Az	Dip	Type	Status	Start	Finish
81	RC-HU059-2010	651179	6064412	586	54.0	0	-90	RC	Completed	14-Oct-10	15-Oct-10
82	RC-HU060-2010	651210	6064360	589	67.0	0	-90	RC	Completed	15-Oct-10	16-Oct-10
83	RC-HU061-2010	650881	6064822	589	87.0	0	-90	RC	Completed	16-Oct-10	17-Oct-10
84	RC-HU062-2010	650271	6065363	596	32.0	0	-90	RC	Completed	17-Oct-10	24-Oct-10
85	RC-HU063-2010	650856	6064795	590	72.0	0	-90	RC	Completed	18-Oct-10	19-Oct-10
86	RC-HU064-2010	650808	6064908	586	105.0	0	-90	RC	Completed	19-Oct-10	22-Oct-10
87	RC-HU065-2010	650883	6064908	582	64.0	0	-90	RC	Completed	22-Oct-10	24-Oct-10
88	RC-HU066-2010	650371	6065283	594	66.0	0	-90	RC	Completed	24-Oct-10	26-Oct-10
89	RC-HU067-2010	650786	6064971	581	48.0	0	-90	RC	Completed	24-Oct-10	25-Oct-10
90	RC-HU068-2010	650735	6064912	591	67.0	0	-90	RC	Completed	25-Oct-10	26-Oct-10
91	RC-HU069-2010	650383	6065258	593	69.0	0	-90	RC	Completed	26-Oct-10	27-Oct-10
92	RC-HU070-2010	650784	6064888	590	66.0	0	-90	RC	Completed	26-Oct-10	27-Oct-10
93	RC-HU071-2010	650471	6065184	591	99.0	0	-90	RC	Completed	27-Oct-10	29-Oct-10
94	RC-HU072-2010	650444	6065245	590	73.0	0	-90	RC	Completed	27-Oct-10	29-Oct-10
95	RC-HU073-2010	650466	6065223	590	58.0	0	-90	RC	Abandoned	29-Oct-10	30-Oct-10
96	RC-HU073A-2010	650464	6065223	589	52.0	0	-90	RC	Abandoned	30-Oct-10	31-Oct-10
97	RC-HU074-2010	650813	6064932	582	105.0	0	-90	RC	Completed	29-Oct-10	31-Oct-10
98	RC-HU075-2010	650692	6064975	589	39.0	0	-90	RC	Completed	31-Oct-10	01-Nov-10
99	RC-HU076-2010	650928	6064785	586	46.0	0	-90	RC	Completed	01-Nov-10	02-Nov-10