P&E MINING CONSULTANTS INC.
Geologists and Mining Engineers

TECHNICAL REPORT AND RESOURCE ESTIMATE ON THE HARVEY-TUTTLE PROPERTY QUÉBEC, CANADA

Latitude 52°32'30"N and Longitude 67°40'30"W

FOR

CHAMPION MINERALS INC.

By

P&E Mining Consultants Inc.

NI-43-101 & 43-101F1
TECHNICAL REPORT

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Effective Date: February 25, 2011
Signing Date: April 13, 2011

IMPORTANT NOTICE

This report was prepared as a National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Champion Minerals Inc. ("Champion") by P&E Mining Consultants Inc. ("P&E"). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in the consulting services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended to be used by Champion subject to the terms and conditions of its contract with P&E. This contract permits Champion to file this report as a Technical Report with Canadian Securities Regulatory Authorities pursuant to National Instrument 43-101, Standards of Disclosure for Mineral Projects. Any other use of this report by any third party is at that party's sole risk.

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SUMMARY

This Report was prepared at the request of Mr. Thomas Larsen, President and CEO and Mr. Alexander S. Horvath, P. Eng., Executive VP Exploration, both of Champion Minerals Inc. ("Champion"). Champion is a Canadian based, publicly held company trading on the Toronto Stock Exchange ("TSX") under the symbol of CHM. The purpose of this Report is to provide an independent, National Instrument ("NI") 43-101 compliant technical report and mineral resource estimate on the Harvey-Tuttle Property in the Fermont Holdings project area in the Regional Municipality ("MRC") of Caniapiscau, Québec, Canada (the "Property").

The Harvey-Tuttle Property is located in the Fermont iron ore district ("FIOD") of northeastern Québec, approximately 60 km southwest of the city of Fermont and 250 km north of the St. Lawrence River port town of Port-Cartier. The Property is located near the Trans-Québec Labrador Road, which provides year round access.

The Harvey-Tuttle Property is part of 18 iron ore properties, the Fermont Holdings, a joint venture ("JV") agreement by Champion (82.5 %) and Fancamp Exploration Ltd. ("Fancamp"). On September 1, 2009, Champion announced the execution of a definitive option and joint venture ("JV") agreement (the "Agreement") with Fancamp and The Sheridan Platinum Group Ltd. ("Sheridan") in connection with 15 properties optioned pursuant to the Binding Option Agreement between the Fancamp, Sheridan and Champion dated May 21, 2008. Under the terms of the final Agreement, Champion could earn an initial 65 % interest in the properties at Champion's option by expending $6 million in staged exploration and development work expenditures on the properties, making cash payments to Fancamp and Sheridan totalling $1 million, and issuing 2.5 million shares to Fancamp and Sheridan, all over a 4-year period. Fancamp and Sheridan would retain a 3% Net Smelter Return ("NSR") royalty, one third of which may be purchased by Champion for $3 million.

Champion announced in June 2010 the completion of its earn-in of $6 million in work expenditures, the payment of $400,000 and the issuance of 1,500,000 common shares of Champion, equally divided between Fancamp and Sheridan. Champion completed the required work commitment, aggregate cash payments of $1 million and the share issuance of 2.9 million common shares pursuant to the Fermont Option and JV Agreement dated as of August 31, 2009, earning its right to an undivided 65 % right, title and interest in and to all claims of the Fermont Properties covered in the Agreement. Champion signed an agreement with Sheridan in order to acquire Sheridan's 17.5 % interest in the JV to increase its ownership to 82.5 %. Under the terms of the agreement, Champion has agreed to issue 4,000,000 shares to Sheridan and to pay $2,000,000 in cash. Both Fancamp and Sheridan retain the 3 % NSR royalty.

The Harvey-Tuttle Property is located on the boundary of the Menneval and Faber townships, in the district of Saguenay and consists of 185 contiguous claims covering an area of 9,696.05 ha with 94 claims held jointly by Champion (82.5 %) and Fancamp (17.5 %) and 91 claims held 100 % by Champion. Claims held 100 % by Champion will become part of the JV Agreement and will reflect the current ownership of the Fermont Holdings at 82.5 % Champion and 17.5 % Fancamp. The transfer process of these claims is not complete at the time of writing of this Report. As of the effective date of this Report, the claims are in good standing.

The FIOD lies within a Paleo-Proterozoic fold and thrust belt known as the Labrador Trough, which hosts some of the most extensive iron formations in the world. The Labrador Trough can be divided into three geological domains, of which the Southern Domain hosts the FIOD.

Metamorphism of the Southern Domain was responsible for the recrystallization of primary iron formations, producing coarse-grained sugary quartz, magnetite, and specular hematite schists and gneisses.

Archean granitic and granodiorite gneisses and migmatites of the Ashuanipi Metamorphic Complex form the basement to most of the FIOD. Unconformably overlying these basement gneisses are the metamorphosed equivalents of the Lower Proterozoic Knob Lake Group that includes the iron formations of the FIOD. The Knob Lake Group is a continental margin metasedimentary sequence, consisting of pelitic schist, iron formation, quartzite, dolomitic marble, semi-pelitic gneiss and local mafic volcanics. The Knob Lake Group was deformed and subjected to metamorphism within a northwest-verging, ductile fold and thrust belt during the Grenville Orogeny. As a result of folding and transposition, reversals, truncations and repeats that thicken the iron formation are common.

In the Southern Domain of the Labrador Trough, the Knob Lake Group comprises six formations. The Sokoman Formation, also known as the Wabush Iron Formation, extends for more than 1000 km and is the ore-bearing unit in the Knob Lake Group, subdivided into Lower ("LIF"), Middle ("MIF") and Upper ("UIF") members.

The iron in the UIF, MIF and LIF is for the most part in its oxide form, mainly as specular hematite and specularite in its coarse-grained form and to a lesser extent, as magnetite, with some of the iron in iron silicates. The main gangue mineral in the iron formation deposits is quartz that constitutes approximately 50 % of the ore.

The geology of the Harvey-Tuttle Property is characterized by open to tight, upright and overturned folds that refold early recumbent folds. At least three phases of folding are evident from fold-interference patterns. Dips of bedding and schistosity are rarely a guide to stratigraphic sequence, and many of the units disappear by attenuation rather than faulting. Champion's 2008 airborne geophysical survey outlined numerous and significant magnetic signatures of the iron formation on the Property. This magnetic signature can be misleading as the anomalies disappear where the host rocks are non-magnetic (i.e. hematite-rich). Tectonic thickening of the rock units is common and this is the most important structural factor economically as it is the thickened, near-surface synclinal hinges that are most favourable for open pit mining.

The Harvey-Tuttle iron deposit can be classified as Lake Superior-type iron formation. Iron formations are classified as chemical sedimentary rock containing greater than 15 % iron consisting of iron-rich beds usually interlayered on a centimetre scale with chert, quartz or carbonate. Ore is mainly composed of magnetite and hematite and commonly associated with mature sedimentary rocks. Extensive Lake Superior-type iron formations occur on all continents, in parts of relatively stable sedimentary-tectonic systems.

The following is a summary of the mineral resource calculations prepared with respect to the Harvey-Tuttle Property. The definition of Inferred resources is in compliance with the CIM Definitions and Standards on Mineral Resources and Mineral Reserves, December 11, 2005.

The 2011 mineral resource estimate for the Harvey-Tuttle Property utilized conventional statistical analysis, variography and grade interpolation via Gemcom block modelling. Utilizing 4 m composites for FeT, as well as CaO and MgO, the block models within an interpreted 3D solid domain were coded with the rock codes, bulk density and classified into the Inferred category.

A Gemcom database was utilized for the February 25, 2011 mineral resource estimate for the Property. The Harvey-Tuttle database consists of 61 drill holes totalling 13,165 m drilled in 2010 along with digital surface topography and property boundary line.

Based on the mineral resource model, the Total Inferred Mineral Resources for the Harvey-Tuttle deposit at a 15 % FeT cut-off are estimated at 947 Mt grading 23.2 % FeT, 6.3 % CaO and 5.2 % MgO as outlined in the table below.

Total Inferred Mineral Resources for the Harvey-Tuttle Deposit[1,2,3]

FeT Cut-Off Grade (%)	Tonnes (Mt)	FeT %	CaO %	MgO %
20 %	717	25.0	5.4	4.7
15 %	947	23.2	6.3	5.2
10 %	1,049	22.3	6.7	5.4

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

The total Inferred mineral resource estimates are presented at cut-off grades of 10 %, 15 % and 20 %, utilizing mining costs of $1.76/t and $7.17/t for the processing, G&A and concentrate shipping costs. The processing recovery is estimated to be 82 %, using an iron price of US$1.14/dmtu ("dry metric tonne unit") applied to the pit optimization algorithms employed to estimate the in-situ Inferred mineral resources.

Results presented in the table below are for the same cut-off grades of 10 %, 15 % and 20 % and are the estimates of the portion of the mineral resources that may be potentially economically exploited.

Total In-Pit Optimized Inferred Mineral Resources[1,2,3]

FeT Cut-Off Grade (%)	Tonnes (Mt)	FeT (%)
20 %	581	25.3
15 %	749	23.6
10 %	793	23.1

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

Based on the results from the 2010 exploration work by Champion, which corroborated historic works on the Property, the Harvey-Tuttle Property is one of merit with regard to potential iron ore resources, and should be the subject of continued exploration. A two phase exploration program is proposed, with Phase I to include a 12,500 m drill program, a 700 line-km airborne geophysical survey and a preliminary economic assessment budgeted at $5.9 million and Phase II to include a delineation / definition drill program and feasibility study budgeted at $15.5 million.

1.0 INTRODUCTION

1.1 TERMS OF REFERENCE

The following Technical Report (the "Report") presents the Resource Estimate prepared by P&E Mining Consultants Inc. ("P&E") regarding the Harvey-Tuttle Property in the Fermont Holdings project area in the Regional Municipality ("MRC") of Caniapiscau, Québec, Canada (the "Property"). This Technical Report has been prepared in compliance with the requirements of Canadian National Instrument ("NI") 43-101 and in accordance with the guidelines of the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005

This Report was prepared at the request of Mr. Thomas Larsen, President and CEO and Mr. Alexander S. Horvath, P. Eng., Executive VP Exploration, both of Champion Minerals Inc. ("Champion"). Champion is a Canadian based publicly held company trading on the Toronto Stock Exchange ("TSX") under the symbol of "CHM" with its corporate office at:

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This Report is considered current as of February 25, 2011.

The Harvey-Tuttle Property is centred at latitude 52°32'30"N and longitude 67°40'30"W and is part of 18 iron ore properties, the Fermont Holdings, a joint venture ("JV") agreement by Champion (82.5 %) and Fancamp Exploration Ltd. ("Fancamp"). The Property consists of 185 contiguous claims covering an area of 9,696.05 ha with 94 claims held jointly by Champion (82.5 %) and Fancamp (17.5 %) and 91 claims held 100 % by Champion. Claims held 100 % by Champion will become part of the JV Agreement and will reflect the current ownership of the Fermont Holdings at 82.5 % Champion and 17.5 % Fancamp. The transfer process of these claims is not complete at the time of writing of this Report.

Champion's Fermont Holdings project area is located in the Fermont iron ore district ("FIOD") of northeastern Québec, approximately 60 km southwest of the city of Fermont. The Harvey-Tuttle iron deposit can be classified as a stratiform Lake Superior-type iron formation. Deformation and metamorphism of the principal iron formation unit, the Sokoman Formation, has structurally thickened the iron formation in fold hinges and coarsely recrystallized the rock to a quartz specular hematite with varying amounts of magnetite.

Champion has accepted that the qualifications, expertise, experience, competence and professional reputation of P&E's Principals and Associate Geologists and Engineers are appropriate and relevant for the preparation of this Report. Champion has also accepted that P&E's Principals are members of professional bodies that are appropriate and relevant for the preparation of this Report.

The purpose of this Report is to provide an independent, NI 43-101 compliant, Resource Estimate on the Harvey-Tuttle Property. P&E understands that this Report will be used to support the public disclosure of the Resource Estimate made on February 28, 2011 (refer to the Champion News Release, dated February 28, 2011). This Report will be filed on SEDAR as required under NI 43-101 disclosure regulations.

1.2 SITE VISITS

A site visit to the Harvey-Tuttle Property from January 18-19, 2011 has been carried out by Ms. Tracy Armstrong, P. Geo., of P&E, a qualified person ("QP") under the terms of the NI 43-101, who has provided specific input to this Report.

1.3 UNITS AND CURRENCY

Unless otherwise stated:

- All units of measurement in the Report are in the metric system.
- Metal values are reported in percentage ("%").
- Costs and Fe values are reported in United States dollars ("$").
- Grid coordinates are given in the UTM NAD 83 (Zone 19) and latitude / longitude system; maps are either in UTM coordinates or latitude / longitude system.

1.4 SOURCES OF INFORMATION

This report is based, in part, on internal company technical reports, and maps, published government reports, company letters and memoranda, and public information as listed in the "References", Section 20.0, at the conclusion of this Report. Several sections from reports authored by other consultants have been directly quoted or summarized in this Report, and are so indicated where appropriate.

It should be noted that the authors have relied heavily upon selected portions or excerpts from material contained in the following NI 43-101 compliant technical report. This Report is publicly available on SEDAR (www.sedar.com):

"National Instrument 43-101 Technical Report: Harvey-Tuttle Lakes Iron Property, Province of Québec". NI 43-101 technical report prepared for Champion Minerals Inc. by MRB & Associates, dated April 28, 2010.

1.5 GLOSSARY OF TERMS

Abbreviation	Description
°C	Degrees Celsius
°	Degrees
%	Percent
% Fe (sol)	Percentage of soluble iron
$	United States Dollar
<	Less than
>	Greater than

Abbreviation	**Description**
Al_2O_3	Aluminum oxide
ArcelorMittal	ArcelorMittal Mines Canada
asl	Above sea level
CaO	Calcium oxide
Canadian Javelin	Canadian Javelin Ltd.
Champion	Champion Minerals Inc.
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	Centimetre
Consolidated Thompson	Consolidated Thompson Iron Mines Limited
CRM	Certified reference material
dmtu	Dry metric tonne unit
Fancamp	Fancamp Exploration Ltd.
Fe	Iron
Fe_2O_3	Iron (III) oxide, ferric oxide
FeT	Total iron
FIOD	Fermont iron ore district
Ga	Billion years
ha	Hectare
Hodge Brothers	Hodge Brothers Transport
IF	Iron formation
Jubilee	Jubilee Iron Corporation
JV	Joint venture
K_2O	Potassium oxide
kg	Kilogram
km	Kilometre
km^2	Squared kilometre
Lantech	Lantech Drilling Services
LIF	Lower Member
LOI	Loss on ignition
m	Metre
MgO	Magnesium oxide
MIF	Middle Member
mm	Millimetre
Mm^3	Millions cubic metres
Mn	Manganese
MnO	Manganese oxide
MRB	MRB & Associates
MRC	Regional County Municipalities (Municipalité Régionale de Comté)
MRNFQ	Ministère des Ressources Naturelles et de la Faune (Québec)

Abbreviation	Description
Mt	Million tonnes (metric)
MW	Megawatts
N	North
Na_2O	Sodium oxide
NI	National Instrument (43-101)
NSR	Net Smelter Royalty
NTS	National topographic system
P&E	P&E Mining Consultants Inc.
P_2O_5	Phosphorus oxide
QA/QC	Quality assurance and quality control
QC	Quality control
QCM	Québec Cartier Mining Company
QP	Qualified person
S	South
SEDAR	System for Electronic Document Analysis and Retrieval
Sheridan	Sheridan Platinum Group Ltd.
SiO_2	Silica Dioxide
t	Tonnes (metric)
t/m^3	Tonnes per cubic metre
TiO_2	Titanium Dioxide
TQM	Total quality management
TSX	Toronto Stock Exchange
UIF	Upper Member
UTM	Universal Transverse Mercator
W	West
XRF	X-ray fluorescence

2.0 RELIANCE ON OTHER EXPERTS

P&E has assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Report are accurate and complete in all material aspects. While we carefully reviewed all the available information presented to us, we cannot guarantee its accuracy and completeness. We reserve the right, but will not be obligated to revise our Report and conclusions if additional information becomes known to us subsequent to the date of this Report.

Although copies of the tenure documents, operating licenses, permits, and work contracts were reviewed, an independent verification of land title and tenure was not performed. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on the clients solicitor to have conducted the proper legal due diligence. Information on tenure and permits was obtained from Champion and GESTIM, the Québec government website for mineral claims.

A draft copy of this Report has been reviewed for factual errors by Champion and P&E has relied on Champion's historical and current knowledge of the Property in this regard. Any statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

3.0 PROPERTY DESCRIPTION AND LOCATION

3.1 LOCATION

Champion's Fermont Holdings are located in the Fermont iron ore district ("FIOD") of northeastern Québec, approximately 60 km southwest of the city of Fermont and 250 km north of the St. Lawrence River port town of Port-Cartier and consist of 18 iron properties totalling 664.24 km^2 (Figures 3-1 and 3-2). This Report is concerned with one of Champion's properties, the Harvey-Tuttle Property.

Figure 3-1: Location Map of the Fermont Project Area

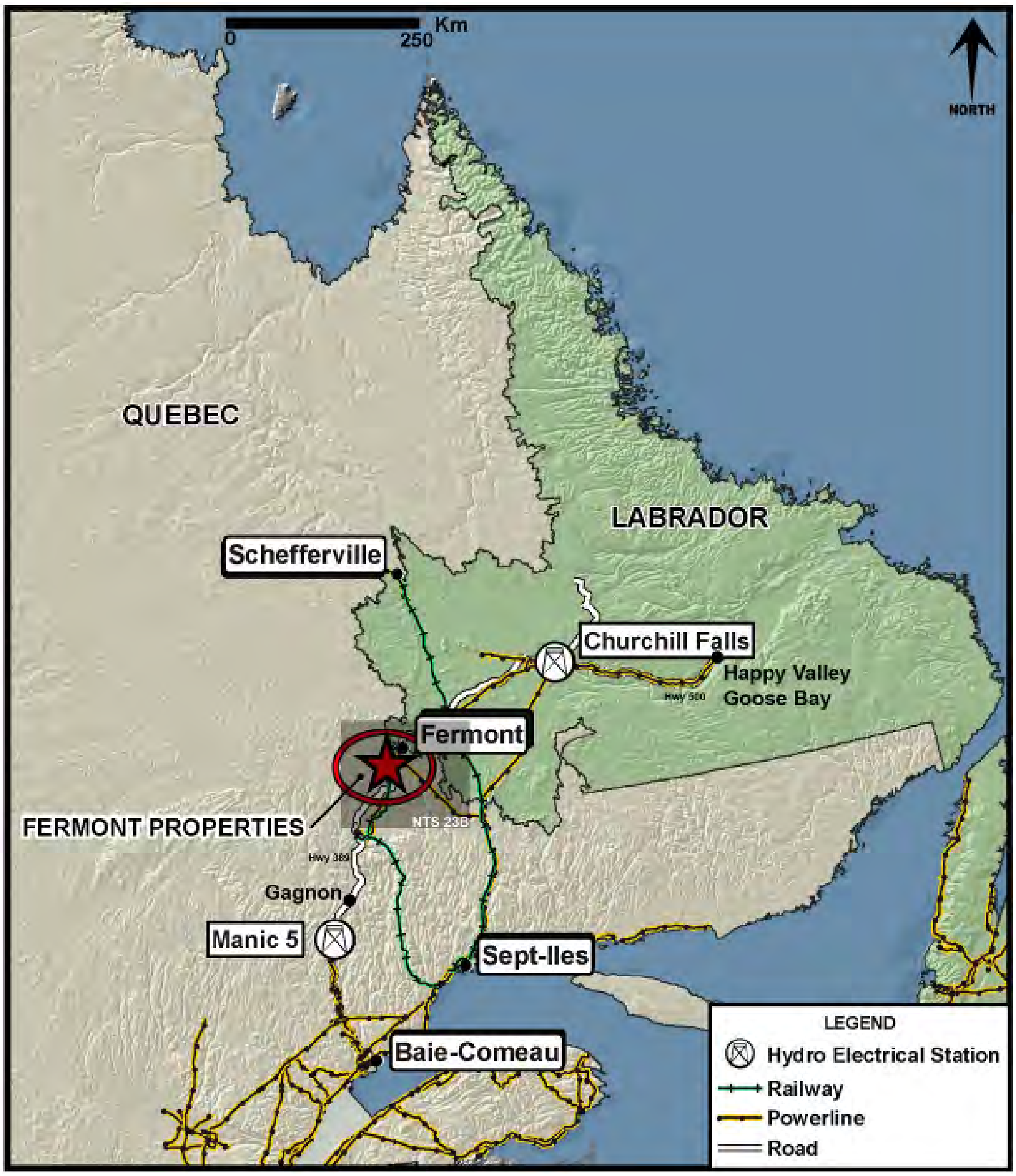
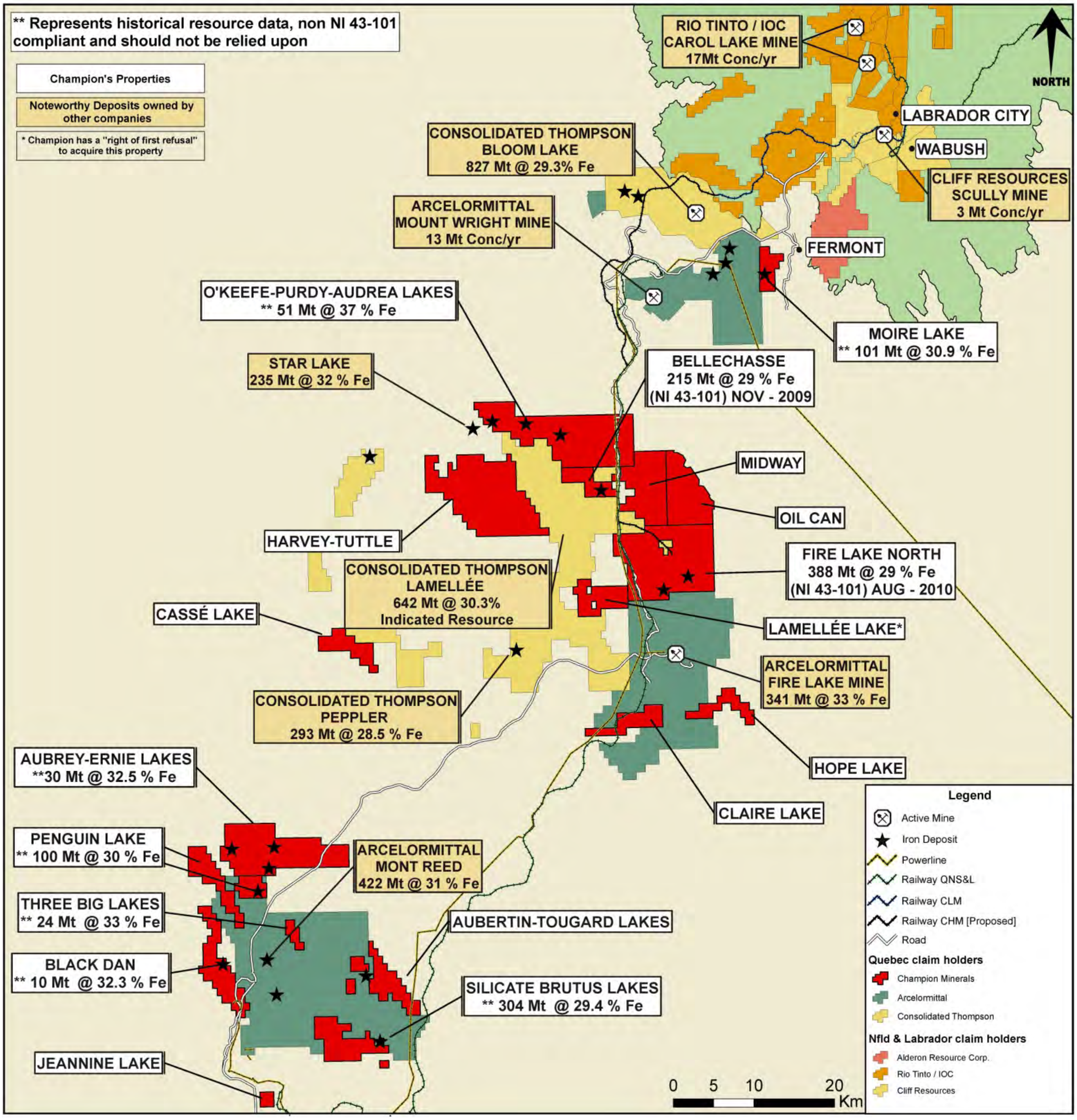


Figure 3-2: Location Map of Champion's Fermont Holdings Properties, FIOD



NI 43-101 compliant resources have been estimated on two of Champion's Fermont Holdings properties. Inferred mineral resource estimates of 388 Mt grading 29 % Fe for the Fire Lake North property (Malloch et al., 2010) and 215 Mt grading 29 % Fe for the Bellechasse property (Malloch et al., 2009) have been reported.

The Harvey-Tuttle Property has not been legally surveyed, but the perimeter generally follows the Range and Lot lines. Each claim block was map staked, and the corner points obtained from, the Ministère des Ressources Naturelles et de la Faune Québec ("MRNFQ") GESTIM on-line claim management system at http://www.mrnfp.gouv.qc.ca/mines/index.jsp.

3.2 FERMONT IRON PROPERTIES AGREEMENT

Champion holds 82.5 % interest and Fancamp Exploration Ltd. ("Fancamp") holds 17.5 % in a joint venture ("JV") agreement on the 17 properties that comprise the Fermont Holdings (Figure 3-2).

On September 1, 2009, Champion announced the execution of a definitive option and JV agreement (the "Agreement") with Fancamp and The Sheridan Platinum Group Ltd. ("Sheridan") in connection with 15 properties optioned pursuant to the Binding Option Agreement between the Fancamp, Sheridan and Champion dated May 21, 2008 (refer to the Champion News Releases, dated September 1, 2009 and May 27, 2008), and the optioning of the Penguin Lake iron property and right of first refusal on the Lamêlée Lake iron property (refer to the Champion News Release, dated May 13, 2009).

Under the terms of the final Agreement, Champion could earn an initial 65 % interest in the properties at Champion's option by expending $6 million in staged exploration and development work expenditures on the Properties, making cash payments to Fancamp and Sheridan totalling $1 million, and issuing 2.5 million shares to Fancamp and Sheridan, all over a 4-year period. Fancamp and Sheridan would retain a 3% Net Smelter Returns ("NSR") royalty, one third of which may be purchased by Champion for $3 million.

After earning the initial 65 % interest, Champion would have the option to acquire a further 5 % interest in any of the retained claim blocks by completing a positive bankable feasibility study on the applicable retained claim blocks. Champion would be required to make a one-time issuance of 500,000 shares to Fancamp and Sheridan on completion of the first feasibility study.

After Champion completes its earn-in, Fancamp, Sheridan and Champion would form a JV reflective of their proportionate ownership interests in the properties in order to explore and develop the retained mineral concessions. Champion will retain a right-of-first-refusal on any part or all of Fancamp's or Sheridan's proportionate interest in each of the mineral concessions comprising the properties. If the Fancamp or Sheridan elect not to fund their proportionate interest in the JV, their interest would be diluted and, when Fancamp's or Sheridan's interest is reduced below a 10 % remaining interest, Fancamp and Sheridan would be left with a 3 % NSR royalty subject to a buyback clause at Champion's option to reduce the NSR royalty to 2 % by paying $3 million. Champion would also retain a first-right-of-refusal on the royalty. There is a 10 km area of influence around each mineral concession.

Champion completed its earn-in (Champion News Release, June 8, 2010) of $6 million in work expenditures, the payment of $400,000 and the issuance of 1,500,000 common shares of Champion, equally divided between Fancamp and Sheridan. Champion completed the required work commitment, aggregate cash payments of $1 million and the share issuance of 2.9 million common shares pursuant to the Fermont Option and JV Agreement dated as of August 31, 2009, earning its right to an undivided 65 % right, title and interest in and to all claims of the Fermont Properties covered in the Agreement.

Champion signed an agreement with Sheridan in order to acquire Sheridan's 17.5 % interest in the JV to increase its ownership to 82.5 % (Champion News Release, June 28, 2010). Under the terms of the agreement, Champion has agreed to issue 4,000,000 shares to Sheridan and to pay $2,000,000 in cash. Both Fancamp and Sheridan retain the 3 % NSR royalty.

3.3 PROPERTY TENURE

The Property is situated within National Topographic System (”NTS”) Map Sheet 23B/12, approximately 70 km southwest of the town of Fermont (Québec) and straddles the Menneval and Faber townships boundary, in the District (County) of Saguenay. The area is also delineated as part of the Regional Municipality of Caniapiscau. The centre of the Property is located at approximately latitude 52°32'30"N and longitude 67°40'30"W.

The Harvey-Tuttle Property consists of 185 contiguous claims covering an area of 9,696.05 ha (Table 3.1 and Figure 3-3) with 94 claims held jointly by Champion (82.5 %) and Fancamp (17.5 %) and 91 claims held 100 % by Champion.

Note that claims held 100 % by Champion will become part of the JV Agreement and will reflect the current ownership of the Fermont Holdings at 82.5 % for Champion and 17.5 % Fancamp. The transfer process of these claims was not complete at the time of writing of this Report.

Table 3.1: Mineral Claims for the Harvey-Tuttle Property, Effective February 2011

Claim Number	Renewal Date	Area (ha)	Annual Fees	Work Credits*	Work Required	Remaining Work Required	Registered Title Holder
94947	19/09/2011	52.40	$120.00	$3,565.35	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94948	19/09/2011	52.40	$120.00	$3,565.35	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94949	19/09/2011	52.39	$120.00	$3,565.23	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94950	19/09/2011	52.39	$120.00	$3,565.22	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94951	19/09/2011	52.39	$120.00	$3,565.22	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94974	19/09/2011	52.41	$120.00	$3,565.46	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94975	19/09/2011	52.41	$120.00	$3,565.46	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94976	19/09/2011	52.41	$120.00	$3,565.46	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94977	19/09/2011	52.41	$120.00	$3,565.46	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94978	19/09/2011	52.40	$120.00	$3,565.34	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
94979	19/09/2011	52.40	$120.00	$3,565.34	$900.00	$0.00	Champion 82.5 %; Fancamp 17.5%
2020180	6/07/2012	52.45	$120.00	$449.04	$900.00	$450.96	Champion 82.5 %; Fancamp 17.5%
2020181	6/07/2012	52.45	$120.00	$449.04	$900.00	$450.96	Champion 82.5 %; Fancamp 17.5%
2020182	6/07/2012	52.45	$120.00	$449.04	$900.00	$450.96	Champion 82.5 %; Fancamp 17.5%
2020183	6/07/2012	52.44	$120.00	$447.92	$900.00	$452.08	Champion 82.5 %; Fancamp 17.5%
2020184	6/07/2012	52.44	$120.00	$447.92	$900.00	$452.08	Champion 82.5 %; Fancamp 17.5%
2020185	6/07/2012	52.44	$120.00	$447.92	$900.00	$452.08	Champion 82.5 %; Fancamp 17.5%
2020186	6/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020187	6/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020188	6/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020189	6/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020190	6/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020191	6/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020192	6/07/2012	52.41	$120.00	$447.56	$900.00	$452.44	Champion 82.5 %; Fancamp 17.5%
2020193	6/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020194	6/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020195	6/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020196	6/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020197	6/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020198	6/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020199	6/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020200	6/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020201	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%

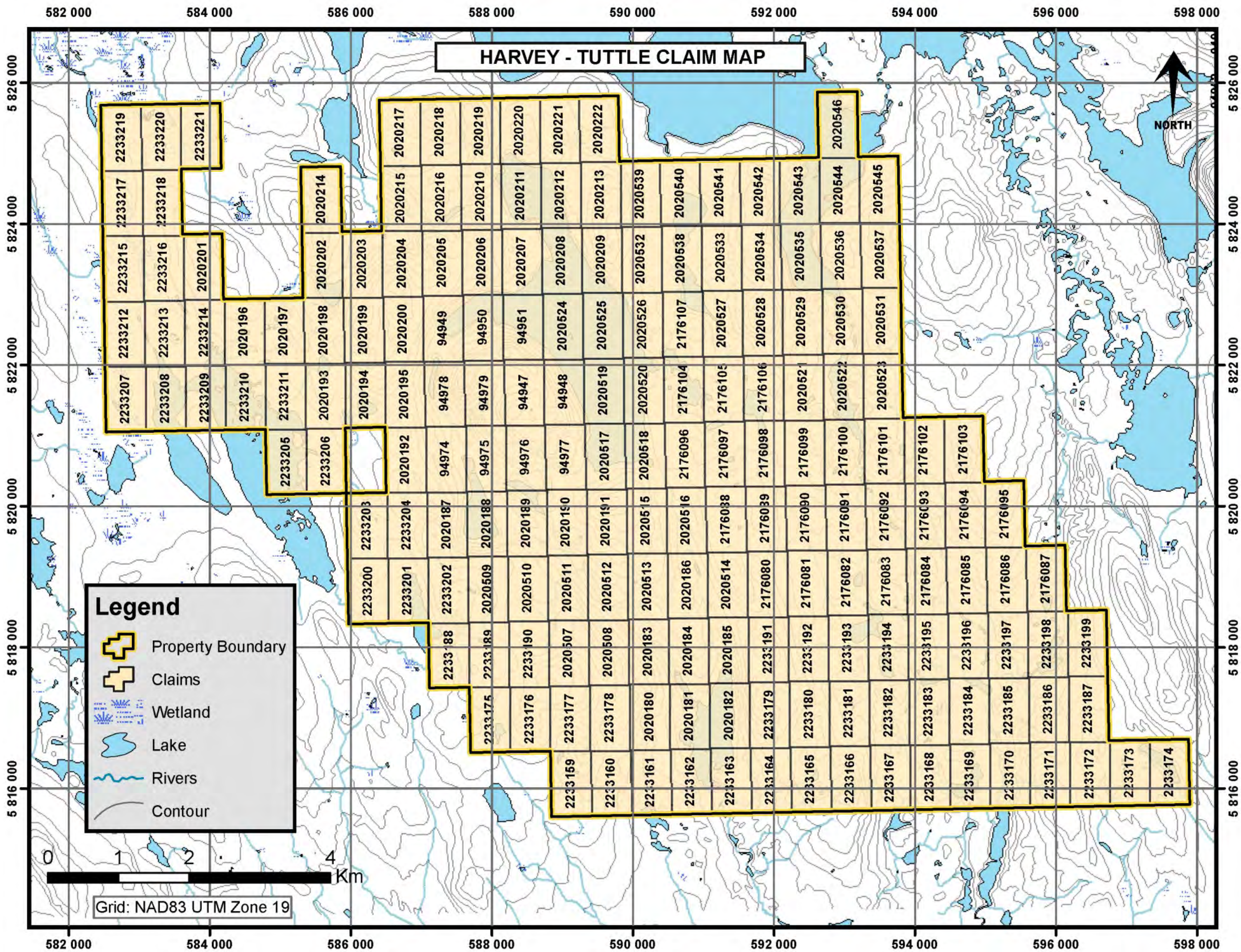
Claim Number	Renewal Date	Area (ha)	Annual Fees	Work Credits*	Work Required	Remaining Work Required	Registered Title Holder
2020202	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020203	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020204	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020205	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020206	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020207	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020208	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020209	6/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020210	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020211	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020212	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020213	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020214	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020215	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020216	6/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020217	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020218	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020219	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020220	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020221	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020222	6/07/2012	52.36	$120.00	$446.97	$900.00	$453.03	Champion 82.5 %; Fancamp 17.5%
2020507	12/07/2012	52.44	$120.00	$447.92	$900.00	$452.08	Champion 82.5 %; Fancamp 17.5%
2020508	12/07/2012	52.44	$120.00	$447.92	$900.00	$452.08	Champion 82.5 %; Fancamp 17.5%
2020509	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020510	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020511	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020512	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020513	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020514	12/07/2012	52.43	$120.00	$447.80	$900.00	$452.20	Champion 82.5 %; Fancamp 17.5%
2020515	12/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020516	12/07/2012	52.42	$120.00	$447.68	$900.00	$452.32	Champion 82.5 %; Fancamp 17.5%
2020517	12/07/2012	52.41	$120.00	$447.56	$900.00	$452.44	Champion 82.5 %; Fancamp 17.5%
2020518	12/07/2012	52.41	$120.00	$447.56	$900.00	$452.44	Champion 82.5 %; Fancamp 17.5%
2020519	12/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020520	12/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020521	12/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020522	12/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020523	12/07/2012	52.40	$120.00	$447.45	$900.00	$452.55	Champion 82.5 %; Fancamp 17.5%
2020524	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020525	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020526	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020527	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020528	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020529	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020530	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020531	12/07/2012	52.39	$120.00	$447.33	$900.00	$452.67	Champion 82.5 %; Fancamp 17.5%
2020532	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020533	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020534	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020535	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020536	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020537	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%

Claim Number	Renewal Date	Area (ha)	Annual Fees	Work Credits*	Work Required	Remaining Work Required	Registered Title Holder
2020538	12/07/2012	52.38	$120.00	$447.21	$900.00	$452.79	Champion 82.5 %; Fancamp 17.5%
2020539	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020540	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020541	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020542	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020543	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020544	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020545	12/07/2012	52.37	$120.00	$447.09	$900.00	$452.91	Champion 82.5 %; Fancamp 17.5%
2020546	12/07/2012	52.36	$120.00	$259.60	$900.00	$640.40	Champion 82.5 %; Fancamp 17.5%
2176080	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176081	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176082	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176083	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176084	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176085	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176086	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176087	6/01/2013	52.43	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176088	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176089	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176090	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176091	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176092	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176093	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176094	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176095	6/01/2013	52.42	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176096	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176097	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176098	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176099	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176100	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176101	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176102	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176103	6/01/2013	52.41	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176104	6/01/2013	52.40	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176105	6/01/2013	52.40	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176106	6/01/2013	52.40	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2176107	6/01/2013	52.39	$120.00	$136.00	$450.00	$314.00	Champion 100 %
2233159	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233160	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233161	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233162	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233163	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233164	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233165	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233166	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233167	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233168	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233169	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233170	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233171	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233172	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233173	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %

Claim Number	Renewal Date	Area (ha)	Annual Fees	Work Credits*	Work Required	Remaining Work Required	Registered Title Holder
2233174	10/05/2012	52.46	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233175	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233176	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233177	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233178	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233179	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233180	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233181	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233182	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233183	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233184	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233185	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233186	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233187	10/05/2012	52.45	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233188	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233189	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233190	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233191	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233192	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233193	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233194	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233195	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233196	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233197	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233198	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233199	10/05/2012	52.44	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233200	10/05/2012	52.43	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233201	10/05/2012	52.43	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233202	10/05/2012	52.43	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233203	10/05/2012	52.42	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233204	10/05/2012	52.42	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233205	10/05/2012	52.41	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233206	10/05/2012	52.41	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233207	10/05/2012	52.40	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233208	10/05/2012	52.40	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233209	10/05/2012	52.40	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233210	10/05/2012	52.40	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233211	10/05/2012	52.40	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233212	10/05/2012	52.39	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233213	10/05/2012	52.39	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233214	10/05/2012	52.39	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233215	10/05/2012	52.38	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233216	10/05/2012	52.38	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233217	10/05/2012	52.37	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233218	10/05/2012	52.37	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233219	10/05/2012	52.36	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233220	10/05/2012	52.36	$120.00	$0.00	$135.00	$135.00	Champion 100 %
2233221	10/05/2012	52.36	$120.00	$0.00	$135.00	$135.00	Champion 100 %
185		**9696.05**	**$22,200.00**	**$79,975.58**	**$105,705.00**	**$55,048.31**	

* Note that excess work credits from another claim may be applied to the claim to be renewed as discussed in Section 3.4.

Figure 3-3: Claim Map of the Harvey-Tuttle Property



The 185 claims that make up the Harvey-Tuttle Property are currently in good standing as of the effective date of this Report. The closest renewal date for claims on the Harvey-Tuttle Property are for claim numbers 94947-94951 and 94974-94979 on September 19, 2011. A renewal fee of $1,320.00 and required work of $9,900.00, which is covered by excess work credits on these claims, is needed to renew these 11 claims.

3.4 THE QUÉBEC MINING ACT AND CLAIMS

The Québec Mining Act deals with the management of mineral resources and the granting of exploration rights for mineral substances during the exploration phase. It also deals with the granting of rights pertaining to the use of these substances during the mining phase. The act also establishes the rights and obligations of the holders of mining rights to ensure maximum development of Québec's mineral resources.

The claim is the only valid exploration right in Québec. The claim gives the holder an exclusive right to search for mineral substances in the public domain, except sand, gravel, clay and other loose deposits, on the land subjected to the claim. Since November 2000, exploration titles are obtained by map designation over predetermined parcels of land. This approach is quicker and simpler, makes claims indisputable and protects the investments made on a claim.

The term of a claim is two years, from the day the claim is registered and it can be renewed indefinitely providing the holder meets all the conditions set out in the Mining Act, including the obligation to invest a minimum annual amount required in exploration work determined by regulation. The Act includes provisions to allow any amount disbursed to perform work in excess of the prescribed requirements to be applied to subsequent terms of the claim.

To satisfy government assessment requirements and thus maintain the claim(s) in good standing, minimum exploration expenditures must be incurred and filed 60 days prior to the anniversary date(s) of the claim(s). The report of work is due prior to 60 days of the anniversary date. In Québec, the amount of expenditure per claim varies according to the surface area of the claim, location (either north or south of 52° latitude) and the number of terms since its issuance, which escalates according to the following schedules:

Table 3.2: Amount of Assessment Work to be Carried Out During Each Term of a Claim

South of 52° of Latitude

TERM	SURFACE AREA OF CLAIM		
	< 25 ha	25 – 100 ha	> 100 ha
1 to 3	$500	$1,200	$1,800
4 to 6	$750	$1,800	$2,700
7 or more	$1,000	$2,500	$3,600

North of 52° of Latitude

TERM	SURFACE AREA OF CLAIM		
	< 25 ha	25 – 45 ha	> 45 ha
1	$48	$120	$135
2	$160	$400	$450
3	$320	$800	$900
4	$480	$1,200	$1,350
5	$640	$1,600	$1,800
6	$750	$1,800	$1,800
7 or more	$1,000	$2,500	$2,500

Assessment work credits from another claim may be applied to the claim to be renewed, so long as the renewed claim lies within a radius of 4.5 km from the centre of the claim with the excess work credits. The claim holder may apply amounts spent on work carried out on a mining lease or concession towards the renewal of a claim, provided that the work was performed during the term of the claim and that the amount does not exceed one quarter of the required amount for renewal. If the required work was not performed or was insufficient to cover the renewal of the claim, then the claim holder may pay a sum equivalent to the minimum cost of the work that should have been performed.

The cost of renewal of a claim depends on the surface area of the claim, its location and the date the application is received. If the application for renewal and fees are received prior to 60 days before the anniversary of the claims(s) the following renewal fees apply for claims north of 52° latitude: less than 25 ha = $26; 25 to 45 ha = $96; 45 to 50 ha = $107; over 50 ha = $120. For claims south of 52° latitude the following renewal fees apply: less than 25 ha = $26; 25 to 100 ha = $52; over 100 ha = $78. These renewal fees double if the application is received within 60 days or less of the anniversary date of the claim(s).

3.5 SURFACE RIGHTS AND PERMITS

Champion held the following permits issued by MRNFQ for work on the Property in 2010:

- Permits no. 3008072 and no. 3008546, issued for the clearance of trees for drill pads and access to drill sites.
- Permit no. 907508 00 342, issued for the construction of a 13 km access road to the Property.
- Permit 919351 00 000 for the establishment of a camp located off the Property at Lamêlée Lake which was in use from January to April (refer to Figure 4-1 for location of the camp).

Each claim provides access rights to a parcel of land on which exploration work may be performed. However, the claim holder cannot access land that has been granted, alienated or leased by the State for non-mining purposes, or land that is the subject of an exclusive lease to mine surface mineral substances, without first having obtained the permission of the current holder of these rights.

The Mining Act states that a claim holder cannot erect or maintain a construction on lands in the public domain without obtaining, in advance, the permission of the MRNFQ unless such a construction is specifically allowed for by ministerial order. An application is not necessary for temporary shelters that are made of pliable material over rigid supports that can be dismantled and transported.

A temporary tent camp was established on the Property from June to October 2010 at the southern end of Harvey Lake (Figure 4-1). At the completion of the 2010 exploration program, the camp and equipment was demobilized.

At the time of this Report, P&E were not aware of any back-in rights, payments or other agreements or encumbrances which the Harvey-Tuttle Property could be subject.

3.6 ENVIRONMENTAL CONSIDERATIONS

P&E has not investigated any environmental liabilities that may have arisen from previous work, and P&E is not aware of any present environmental related issues affecting the Harvey-Tuttle Property.

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The following section is sourced and is an update of the previous technical report on the Property by Langton and Clark (2010).

4.1 ACCESSIBILITY

The Harvey-Tuttle Property is centred approximately 60 km southwest of the town of Fermont, which lies near the border of Québec and Labrador. The Property is adjacent to the Trans-Québec-Labrador Road (Highway #389 in Québec and Highway #500 in Newfoundland and Labrador), which runs from in Québec from Baie-Comeau to Fermont, continuing into Labrador City and Wabush in Newfoundland and Labrador, and eventually Goose Bay (Newfoundland and Labrador), and provides year round access to the area.

Direct access to the Property is via a 2010 extension of a seasonal road constructed in 2008 by Consolidated Thompson Iron Mines Ltd. ("Consolidated Thompson") to access their Lamêlée Lake Property (the 'CT Road' on Figure 4-1).

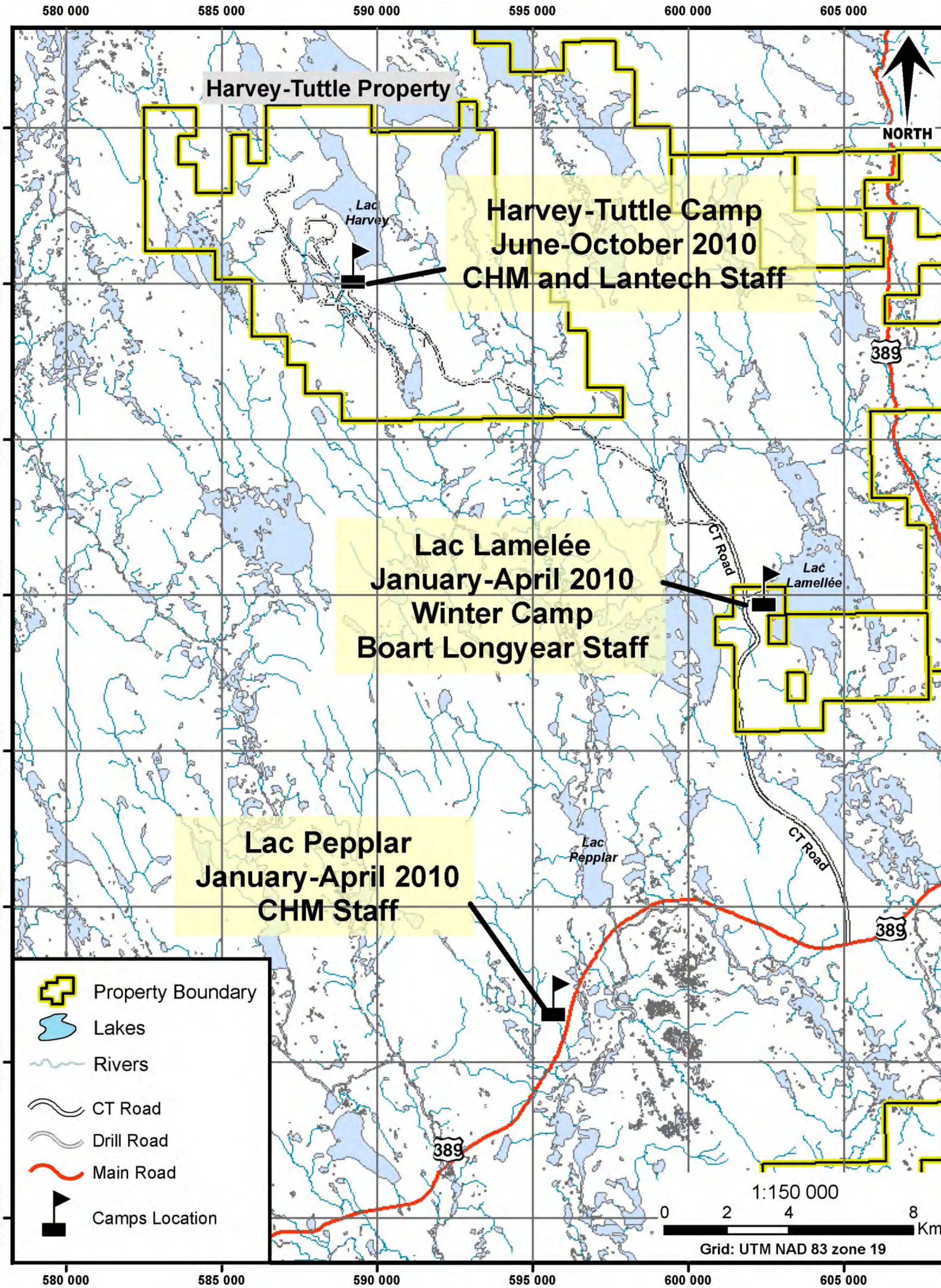
The airport at Wabush in Newfoundland and Labrador is the main airport servicing the region and offers daily flights to Montreal, Québec City and Sept-Iles in Québec and Goose Bay and St. Johns in Newfoundland and Labrador. Local air service is also available from the Wabush Water Aerodrome located adjacent to Wabush on Little Wabush Lake, with flights offered from June to until October.

The Labrador City area is accessible by train through the Tshiuetin Rail Transportation Inc. railway. The tracks link Sept-Iles to Emeril Junction and Schefferville. There are two trains per week for passengers and community freight. The Cartier Railway is a privately-owned railway that operates 416 km of track connecting the iron ore mine at Mont Wright, just west of Fermont with an iron ore processing plant and port at Port-Cartier, on the north shore of the St. Lawrence River. The railway is used solely for iron-ore and freight transport.

4.2 CLIMATE

The Fermont area has a sub-arctic, continental taiga climate with very severe winters, typical of north central Quebec. Winter conditions last 6 to 7 months, with heavy snow from December through April. The prevailing winds are from the west and average 14 km per hour, based on records at the Wabush Airport. Daily average temperatures exceed 0°C for only five months a year. Daily mean temperatures for Fermont average -24.1° and -22.6°C in January and February, 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. Mean daily average temperatures in July and August are respectively, 12.4° and 11.2°C. Because of its relatively high latitude, extended day-light enhances the summer work-day period. Early and late winter conditions are acceptable for ground geophysical surveys and drilling operations.

Figure 4-1: Access to the Harvey-Tuttle Property



4.3 LOCAL RESOURCES AND INFRASTRUCTURE

The town of Fermont has a population of approximately 4,000 and is the residential town for ArcelorMittal Mines Canada ("ArcelorMittal", formerly Québec Cartier Mining Company ("QCM")) employees who work at the Mont Wright iron operations. The town was originally built by QCM in the early 1970s. Fermont has schools, a 72-room hotel, municipal and recreational facilities, and a business and shopping complex. The height-of-land, which determines the border between Québec and Newfoundland and Labrador, is located 10 km east of Fermont.

The twin communities of Labrador City (27 km east of Fermont), and Wabush (35 km east of Fermont) in Newfoundland and Labrador, have a total population of approximately 10,000. Labrador City and Wabush were also developed around the iron-ore mining operations during the last half-century. The twin cities offer services that complementary to those offered in Fermont, with a strong industrial base and excellent medical and educational services, and are serviced by a wide variety of retail shops and grocery outlets.

The hydroelectric availability in Labrador comes from Churchill Falls, which generates 5,428 MW of power, 127 MW of which is currently made available to the Labrador West region for current needs. The region has the lowest average cost for power in Newfoundland and Labrador; however, the system is being taxed and a second transmission line to service the Labrador West is on the high priority list of requirements for the region (Hydron Report 2008).

The area is a mining centre able to provide personnel, contractors, equipment and supplies.

A tent camp was established immediately west of Lamêlée Lake, at the north end of Consolidated Thompson's CT Road, from January to April 2010 to accommodate the Boart Longyear drill personnel (Figure 4-1). The camp was demobilized and stored in early April 2010 at the suspension of the first stage of the drill program and the camp permit was not renewed. The CHM geologists and technicians were housed in a privately owned camp located in the Peppler Lake area. The Lamêlée Lake camp was transported to and erected at the southern end of Harvey Lake in June 2010. There was no permit required for this second camp site because it was located on the Property. At the completion of the June-October drill program, all tents and equipment were demobilized.

4.4 PHYSIOGRAPHY

The topographic features of the Harvey-Tuttle area are largely attributed to the lithologies and structures of the underlying rocks. The area is typical of sub-arctic terrain and consists of a rolling glacial peneplain from 600 m to 750 m above sea level, with local relief generally around 80 m. Turtleback Hill, on the southwest shore of Harvey Lake, dominates the Property with an elevation of 775 m. Tuttle and Harvey Lakes have an elevation of approximately 640 m. The area drains southward to the St. Lawrence Estuary through the Nipissis and Manicouagan River systems. Glaciation left a veneer of moraine boulder till and eskers that cover much of the local bedrock. Ice flow direction was towards the southeast, based on local drumlin-like features, glacial striae and crag-and-tail features. Glacial deposits dominate the local topography and control most of the surface drainage. Lakes, swamps and grassy meadows fill bedrock and drift depressions. Most of the terrain is thinly forested with a typical mixture of fir and tamarack, with local stands of aspen and yellow birch. Ground cover is generally in the form of grasses, caribou moss and shrubs the latter typically comprising willow, arctic birch, alders and Labrador tea.

5.0 HISTORY

The following section is sourced and summarized from the previous technical report on the Property by Langton and Clark (2010).

Since the late 1940's the FIOD including the Harvey-Tuttle area has seen a number of different exploration programs completed by various companies. A compilation of all available historic geological, geophysical and drill hole information was completed by Champion in order to help evaluate the economic potential of the Property.

5.1 REGIONAL HISTORIC EXPLORATION

BHP Minerals Canada Inc. completed a regional heavy-mineral sampling program in northeastern Québec (St-Pierre 1998). Sampling took place along lines spaced approximately 50 km apart with sample sites at approximately 3 km separation with 1,561 - 25 kg samples collected. Targeted commodities and deposits included diamonds, base-metals associated with massive sulphide deposits, Broken Hill-type deposits, and gold occurrences associated with massive sulphides and shear zones.

Anglo American Exploration (Canada) Ltd. completed a 12,750 km^2 regional reconnaissance survey exploring for potential Broken Hill and Franklin / Sterling-type zinc deposits in the eastern part of the Gagnon Terrane, south of the city of Fermont (Zuran 2003). Work included regional stream sediment, till and rock sampling at 40 sites in the Gagnon Terrane. The sampling program did not successfully discover the unique mineralogy associated with Franklin / Sterling deposits, however, the report concluded that the region has potential for Broken Hill type deposits.

5.2 HARVEY-TUTTLE AREA EXPLORATION

Work was undertaken by QCM, between 1957 to 1959, on various claims on and around the present day Property. Geological mapping, structural interpretation and magnetic and dip-needle surveys were completed around Harvey, Tuttle, Isobel, Anne and Fina Lakes and identified the presence of iron formation at these locations. One drill hole drilled to 98 m at Tuttle Lake tested the ore zone (QCM 1957a, 1957b, 1958, 1959a, 1959b, 1959c).

Gillett and Meikle's (1957) report for M.J. Boylen Engineering includes detailed geological mapping including structural measurements and a geophysical (magnetic / dip needle) survey over claims around Harvey Lake. Outcrops of the iron formation were mapped and subdivided into six members.

Canadian Javelin Ltd. exploration works included a regional low level aerial magnetic survey that covered the Harvey Lake area in order to better delineate the iron formation especially in areas lacking outcrop exposure. The survey covered approximately 518 square kilometres and comprised 1609 line kilometres of flying (Hunting Geophysics 1959). Geological mapping and magnetometer transverses over cut and picketed lines were completed on the property between Vickie and Elephant Lakes, west of Harvey Lake (Knowles 1959).

Jubilee Iron Corporation ("Jubilee") undertook geological mapping and a magnetic survey on the Property. The work indicated widths of 15 to 60 m for the iron formation. Two shallow diamond drill holes were drilled in 1961 and gave the first subsurface information. Hole 1 encountered

27 m (from 3 to 30 m) of quartz-specularite iron formation grading 26.72 % Fe. Drill hole 2 intersected 18 m (from 2 to 20 m) of quartz-specularite/magnetite grading 32.66 % Fe iron formation (Jubilee 1961 and Lacombe 1963).

Four iron formation prospects have been historically identified on the Property:

- Tuttle Lake: The iron formation comprises magnetite-hematite-quartz in a formation of iron silicate. Mineralization consists of fine to coarse grained magnetite and hematite that is both massive and disseminated with less than 10 % iron silicates.

- Harvey-Menneval Lake: The iron formation consists of both hematite-quartz and magnetite-quartz and is underlain by gneiss and marble. Mineralization consists of medium grained specularite and magnetite.

- Colline-Turtleback: A magnetite-quartz iron formation within a grunerite-chlorite magnetite schist and a grunerite-carbonate-magnetite quartzite. Mineralization consists of both massive and disseminated specularite and magnetite, with bands of pure magnetite. Magnetite quartzite forms as small lenses within banded grunerite quartzite.

- Fina Lake: The geology consists of a hematite-quartz iron formation intercalculated with a silicate-carbonate iron formation. The mineralization comprises coarse grained hematite and minor magnetite, which is both disseminated and massive. QCM identified two bands of hematite-quartz iron formation that could be traced intermittently for 3 km northwest of Fina Lake.

Further information on these prospects is available on the MRNFQ website.

6.0 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY

The FIOD lies within a Paleo-Proterozoic fold and thrust belt known as the Labrador Trough, which hosts some of the most extensive iron formations in the world (Figure 6-1). The area is underlain chiefly by rocks that form the western, miogeosynclinal part of the Labrador Trough in the Churchill Province of the Canadian Shield. The Labrador Trough, also known as the New Québec Orogen and the Labrador-Québec Fold Belt, extends for more than 1,000 km along the eastern margin of the Superior Craton from Ungava Bay to the Manicouagan impact crater, Québec. The fold and thrust belt is about 100 km wide in its central part and narrows considerably to the north and south. It marks the collision between the Archean Superior Province (circa 3.0 Ga to 2.5 Ga) and the Rae Province of the Hudsonian Orogeny (circa 1.82 Ga to 1.79 Ga). Rocks of the Rae Province were transported westward over the Archean Superior Province basement creating a foreland fold and thrust belt marked by a series of imbricate thrusts (Figure 6-2). Based on stratigraphic juxtapositions, these thrust faults may have stratigraphic throws of several thousand metres.

Figure 6.1: Location Map of the Labrador Trough

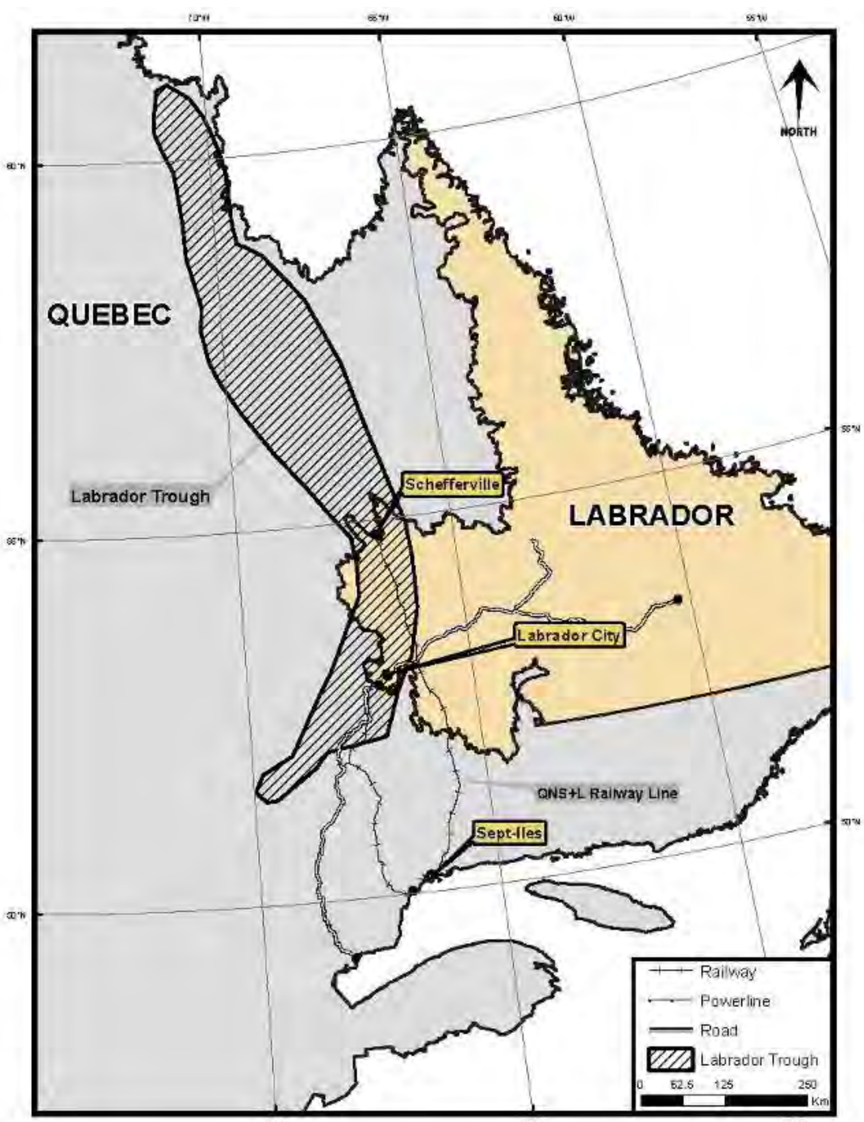
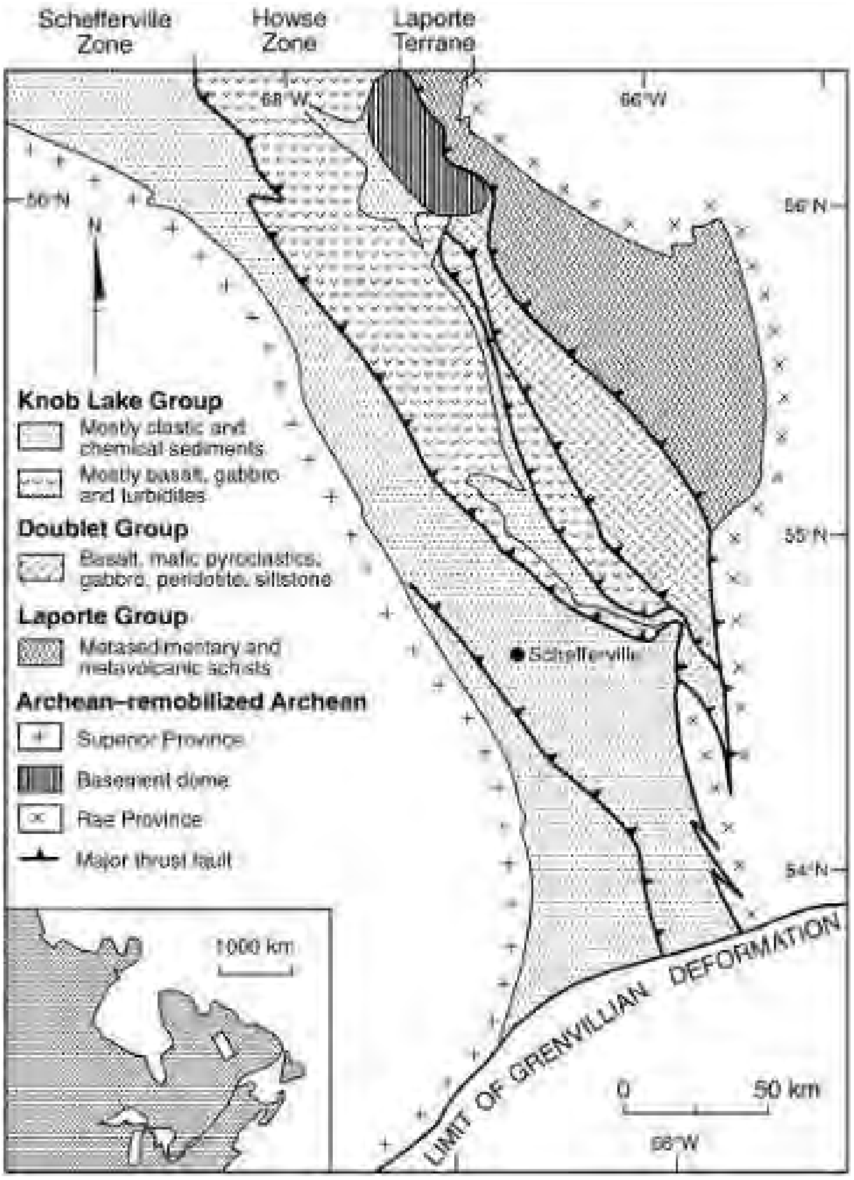


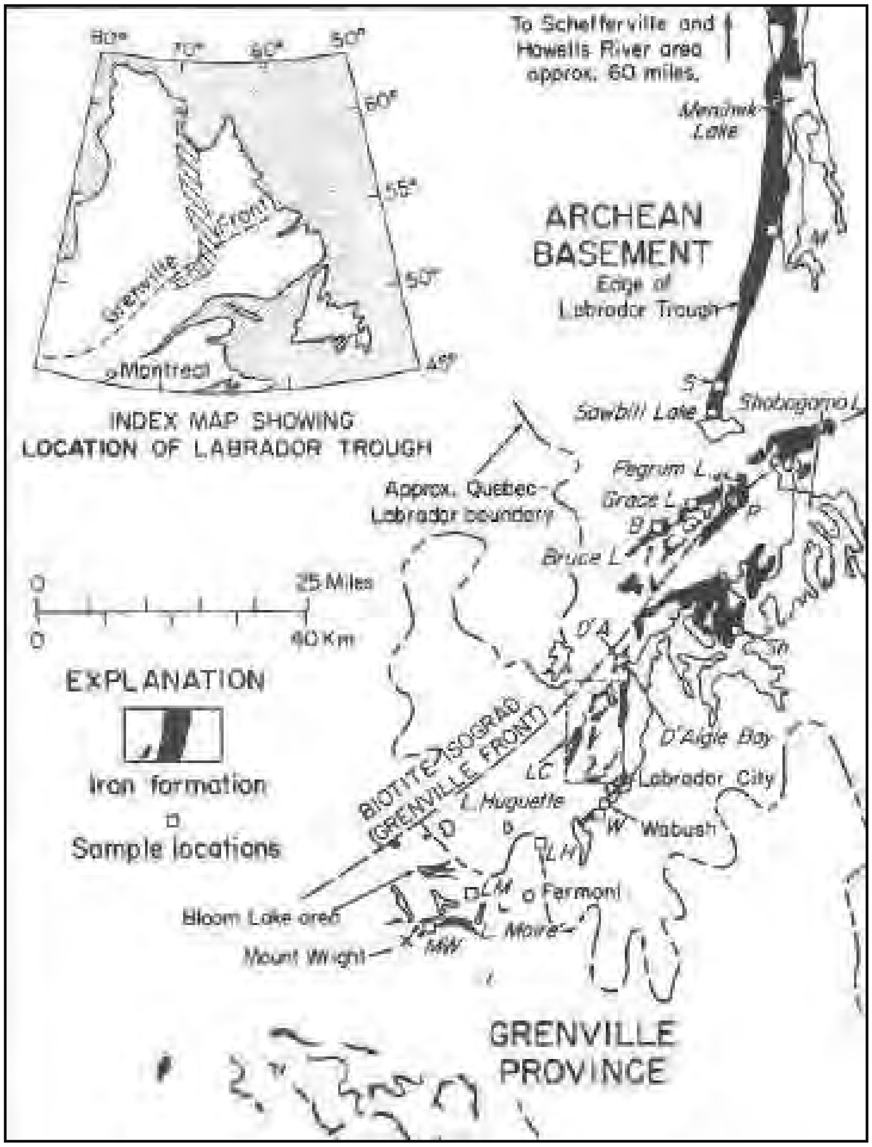
Figure 6-2: Litho-tectonic Subdivisions of the Central Labrador Trough



From Williams and Schmidt (2004)

The Labrador Trough can be divided into three geological domains. The Southern Domain is defined by the northern limit of the Grenville Orogenic Belt at approximately 53º24'00"N Latitude. The biotite metamorphic isograd, which represents the northernmost expression of the Grenville Orogenic Belt (along the Grenville Front), crosses the Labrador Trough trending northeast approximately 35 km northwest of Fermont (Figure 6-3) according to Fahrig (1967) and Klein (1978). The Southern Domain encompasses Labrador Trough rocks that were metamorphosed during the Grenville Orogeny (circa 1.3 Ga to 1.0 Ga), which involved northward thrusting, northeast-southwest folding, abundant gabbro, anorthosite and pegmatite intrusions, and high-grade metamorphism.

Figure 6-3: Simplified Regional Geology Map of the Southern Portion of the Labrador Trough Showing the Position of the Biotite Isograde and Iron Formations



The metamorphism was responsible for the recrystallization of primary iron formations, producing coarse-grained sugary quartz, magnetite, and specular hematite schists (or meta-taconites). This coarser grained Southern Domain hosts the FIOD.

The Central Domain extends northward to approximately 58º30'00"N Latitude, along the west side of Ungava Bay. The Central Domain hosts regionally metamorphosed (greenschist metamorphic facies) iron formation deposits. The Central Domain consists of a sequence of Achaean, mainly sedimentary rocks, including iron formations, volcanic rocks and mafic intrusions, known as the Kaniapiskau Supergroup. The Kaniapiskau Supergroup is subdivided into the Knob Lake Group (western part of the Trough) and the Doublet Group, which is primarily volcanic, in the eastern part. The iron formation, meta-dolomite and quartzites in the Southern Domain are recognized as the metamorphosed equivalents of the Knob Lake Group.

The Northern Domain, north of the Leaf Bay area (58º30'00"N Latitude), comprises regionally metamorphosed rocks (lower amphibolite facies), much like those of the Southern Domain.

There is believed to be only one iron formation assemblage throughout the region. This formation varies in thickness and appears to have underlain the greater part of the original Labrador geosyncline. The economically important succession of quartzite-slate-iron formation, and their metamorphosed equivalents, persists throughout the three Domains.

6.2 FERMONT IRON ORE DISTRICT (FIOD) GEOLOGY

The FIOD, which includes iron formation in the Mont Reed-Fermont-Wabush area, is part of the Gagnon Terrane (Brown et al., 1992) within the Grenville Province of Western Labrador (Figure 6-4). Archean granitic and granodioritic gneisses and migmatites of the Ashuanipi Metamorphic Complex form the basement to most of the FIOD. They comprise white to grey, coarse-grained hornblende-epidote-biotite granitic and tonalitic gneisses. Garnetiferous amphibolites are interlayered with the gneisses in the basement sequence.

Unconformably overlying the basement gneisses are the metamorphosed equivalents of the Lower Proterozoic Knob Lake Group, including crystalline limestone (siliceous dolomite), glassy quartzite, silicate-carbonate quartzite, magnetite-quartz iron formation, specularite-quartz iron formation, silicate-magnetite iron formation, garnet-biotite gneiss and garnet-mica schist. Quartzo-feldspathic and graphite-biotite gneisses overlie the iron formation sequence.

The Knob Lake Group is a continental margin metasedimentary sequence, consisting of pelitic schist, iron formations, quartzite, dolomitic marble, semi-pelitic gneiss and subordinate, local mafic volcanics. The Knob Lake Group was deformed and subjected to metamorphism ranging from greenschist to upper amphibolite facies within a northwest-verging ductile fold and thrust belt, during the Grenville Orogeny (Brown et al., 1992; van Gool et al., 2008). The sequence is best exposed in the region west of Wabush Lake, extending southeast into the province of Québec, and northeast beyond the north end of Shabogamo Lake. The equivalent rock successions of the Southern and Central domains are shown in the comparative list of Formations in Figure 6-5. Intrusive rocks in the FIOD include pegmatites and aplite dykes, granodiorite plutons, amphibolites, gabbros and peridotite bodies.

Figure 6-4: Regional Geology Map of the FIOD

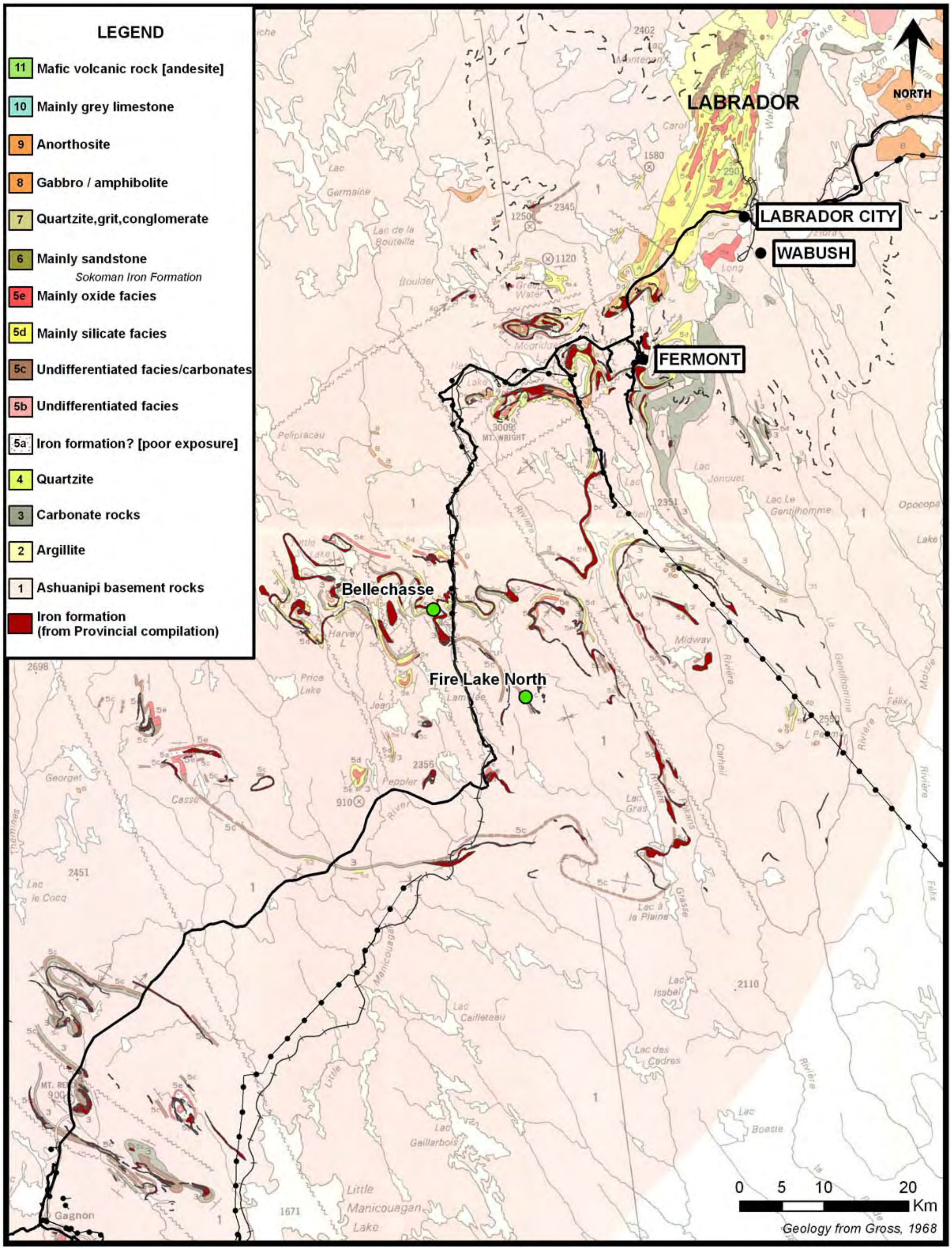


Figure 6-5: Equivalent Rock Successions in the Central and Southern Domains of the Labrador Trough

PROTEROZOIC
Helikian
Shabogamo Group
Gabbro, Diabase

Intrusive Contact

	PROTEROZOIC Aphebian **Kaniapiskau**	
Churchill Province		**Grenville Province**
(Low-Grade Metamorphism) Knob Lake Group		(High-Grade Metamorphism)
Menihek Formation Black shale, siltstone		Nault Formation Graphitic, chloritic and micaceous schist
Sokoman Formation Cherty iron formation		Wabush Formation Quartz magnetite-specularite-carbonate iron formation
Wishart Formation Quartzite, siltstone		Carol Formation Quartzite, quartz-muscovite-garnet schist
Denault Formation Dolomite, calcareous siltstone		Duley Formation Meta-Dolomite and calcite marble
Attikamagen Formation Gray shale, siltstone		Katsao Formation Quartz-biotite-feldspar schist and gneiss

Unconformity

ARCHEAN
Ashuanipi Complex
Granitic and granodioritic gneiss,
mafic intrusives

Note: The Duley, Carol and Wabush Formations are included in the Gagnon Group

From Gross (1968).

6.2.1 STRATIGRAPHY

The following sections are summarized from Fahrig (1967), Gross (1968), Dimroth (1970) and Muwais (1974) on the stratigraphy of the Knob Lake Group.

In the Southern Domain of the Labrador Trough, the Knob Lake Group is comprised of six formations. The Attikamagen, Denault, Mackay River, Wishart, Sokoman and Menihek Formations occur along a northeast trending belt, and are briefly described below.

6.2.1.1 KNOB LAKE GROUP

ATTIKAMAGEN FORMATION

The Attikamagen Formation is the oldest stratigraphic sedimentary sequence within the Knob Lake Group. The Formation, which can reach 300 m in thickness, unconformably overlies the Archean Ashuanipi Metamorphic Complex, and predominantly consists of brownish to creamy coloured, banded, medium to coarse-grained, quartz-feldspar-biotite-muscovite schist and lesser gneiss. Accessory minerals include chlorite, garnet, kyanite and calcite. The Attikamagen Formation appears to be best preserved in the deeper portions of the continental shelf, east of Wabush and Shabogamo Lakes, where the Formation thickness is greatest. In the extreme northwest, the Formation tapers and disappears, leaving upper units of the Knob Lake stratigraphy in contact with the Archean basement (Gross 1968).

DENAULT FORMATION

Conformably overlying the Attikamagen Formation is the Denault Formation. This Formation consists of coarse-grained, banded, dolomitic and calcitic marble up to 75 m thick with minor tremolite, quartz, diopside and phlogopite as accessory minerals. In the Wabush Lake area the Denault Formation has only been identified east and south of the Lake, and represents a transition between the shallow and deeper parts of the continental shelf. Stromatolites have been described to the south of Wabush Mine. Locally, the Formation can be sub-divided into three sub-units consisting of the lower siliceous horizon, the middle low silica (< 5 % SiO_2) horizon and the upper siliceous horizon. Low silica dolomite is mined and added to the iron pellets, and acts as a flux in the smelting process.

MACKAY FORMATION

Overlying the Denault Formation is the Mackay River Formation It consists of aqueous meta-tuffaceous sediments and conglomerate units. This sequence is not present in the Fermont area and occurs mainly northeast of Shabogamo Lake, northeast of Labrador City.

WISHART FORMATION

The Wishart Formation conformably overlies the Denault Formation and locally unconformably overlies the Attikamagen Formation. It consists of a 60 m to 90 m thick sequence of white, massive to foliated quartzite, which is typically resistant to weathering and erosion, forming prominent hills in the Wabush Lake Region. The Wishart Formation can be subdivided into the Lower, Middle and the Upper Members based on variation in composition and texture. The Lower Member consists of white to reddish brown, quartz-muscovite schist with varying percentages of garnet and kyanite.

The Middle Member is a coarsely crystalline orthoquartzite that is generally massive to banded. Accessory minerals include carbonates, amphiboles (varying from tremolite and / or anthophyllite to grunerite and / or cummingtonite), garnets, micas (muscovite, sericite and biotite) and chlorite. Bands of iron-rich carbonates or their weathered products, limonite and goethite, may also occur.

The Upper Member exhibits a gradational contact with the overlying Sokoman Formation, and generally consists of bands of carbonate alternating with bands of quartzite. The presence of thin layers of muscovite and biotite schist (pelitic layers) is common. Accessory minerals include grunerite, garnets, kyanite and staurolite.

Parts of the Middle Member are locally mined for silica.

SOKOMAN FORMATION

The Sokoman Formation, also known as the Wabush Iron Formation, is the ore-bearing unit in the FIOD and is subdivided into Lower, Middle and Upper Members. The Sokoman Formation conformably overlies the Wishart Formation, but also locally shares its basal contact with the Denault, Mackay Lake, and Attikamagen Formations, and the Ashuanipi Metamorphic Complex.

The Lower Member ("LIF") consists of a 0 m to 50 m thick sequence of fine to coarse-grained, banded quartz carbonate, and / or quartz carbonate magnetite, and / or quartz carbonate (i.e., siderite, ankerite and ferro-dolomite) silicate (i.e., grunerite, cummingtonite, actinolite, garnets), and / or quartz carbonate silicate magnetite, and / or quartz magnetite specularite sequences. This member generally contains an oxide band up to 10 m thick near the upper part.

The Middle Member ("MIF"), which forms the principal iron ore sequence, consists of a 45 m to 110 m thick sequence of quartz magnetite, and / or quartz specularite magnetite, and/or quartz specularite magnetite carbonate, and / or quartz specularite magnetite anthophyllite gneiss and schist sequence. Actinolite and grunerite-rich bands may be present in this member, although they are generally attributed to in-folding of the upper member. A vertical zonation is typically present with finer grained quartz magnetite dominated iron formation forming the basal section. Manganese content (rhodochrosite and pyrolucite) ranging from 0.4 % to 1.0 % Mn is associated with this sequence. Martite may also occur in weathered zones via supergene alteration of magnetite (Wabush Mines, Canning prospect and D'Aigle Bay area). The upper part of the MIF horizon is predominantly comprised of coarser grained quartz specular hematite iron formation.

The Upper Member ("UIF") consists of a 45 m to 75 m thick sequence, similar in composition to the LIF, and can generally be differentiated through contact relationships with the overlying and underlying formations and the presence of increased grunerite or actinolite content. A magnetite rich zone may be present in the lower part of this Member.

Hydrous iron oxides (limonite and goethite) have been observed in all members of the Sokoman Formation. Limonite and / or goethite are present in weathered and fractured zones and are derived primarily from alteration of carbonates (Muwais 1974). Pyrolusite (a manganese oxide) may occur in a distinct zone at the base of the MIF but has also been observed in all members of the Sokoman Formation typically associated with surficial or supergene enrichment, extending to depth along and adjacent to structural discontinuities, such as fault and fracture zones.

MENIHEK FORMATION

The Menihek Formation consists of a 15 m to 75 m thick sequence of pelitic sediments. The Formation is commonly fine grained, foliated and variably comprised of a quartz-feldspar-mica (biotite-muscovite)-graphite schist. Garnets, epidote, chlorite and carbonates are accessory minerals. This unit is well preserved in the southern region, and within broad synclinal regions in the north.

6.2.1.2 SHABOGAMO INTRUSIVE SUITE

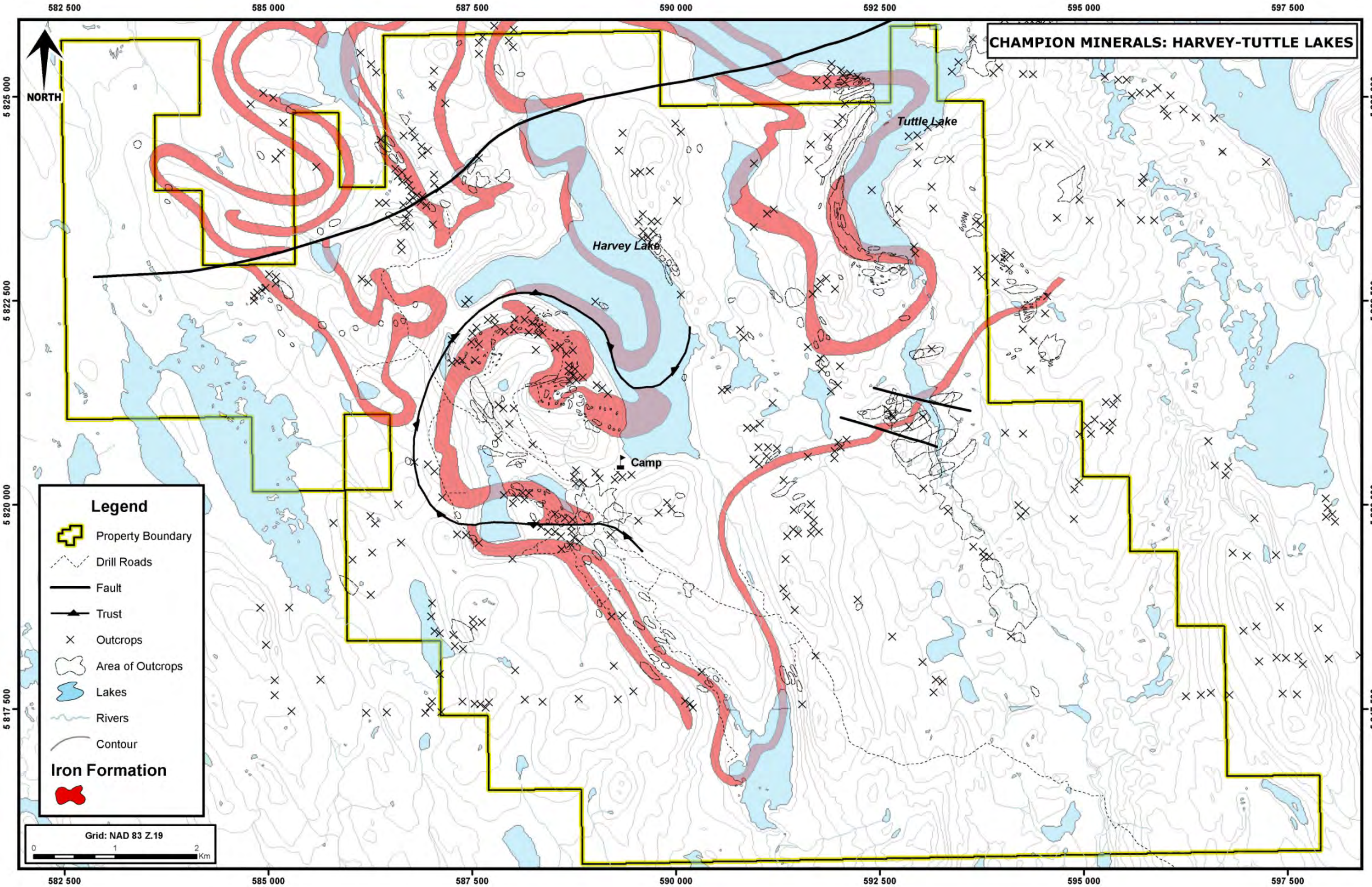
The Shabogamo Intrusive Suite comprises the youngest Precambrian rocks in the Wabush Lake area. It consists of massive, medium to coarse-grained mafic intrusive (gabbro, olivine gabbro and amphibolites), non-magnetic, sill-like bodies with ophitic to sub-ophitic textures. These sills may be locally discordant and have a tendency to be schistose near the contact with other rock formations. Most of the gabbro sills are composed of plagioclase, pyroxene, olivine and minor amounts of magnetite and ilmenite. The amphibolite equivalents are commonly composed of hornblende, biotite, garnets and chlorite. Pyrite, muscovite, and feldspar are accessory minerals.

6.3 HARVEY-TUTTLE PROPERTY GEOLOGY

The Harvey-Tuttle Property is underlain primarily by gneiss of the Ashuanapi Basement Complex. The geology underlying the Property is characterized by open to tight, upright and overturned folds that refold early recumbent folds. Younger sedimentary rocks and iron formation of the Denault and Sokoman Formations anastomoses through the Property following complex fold interference patterns. At least three phases of folding are evident from fold-interference patterns. Dips of bedding and schistosity are rarely a guide to stratigraphic sequence, and many of the units disappear by attenuation. Locally, folded thrust faults, occurring at the iron formation-wallrock contact have disrupted the iron formation unit and possibly truncated it. The magnetic signatures of the iron formation, which are readily outlined by geophysical surveys, can be misleading as the anomalies disappear where the host rocks are non-magnetic (e.g., hematite-rich). It is apparent from the 2008 airborne geophysical survey, and the 2010 drill program, that tectonic thickening of rock units has occurred locally. This is a major factor economically, as it is the thickened, near-surface, synclinal hinges that are most favourable for open pit mining.

The iron formation occurs as quartz specularite and has an average width of between 20 to 100 m and between 100 to 200 m where structurally thickened (Figure 6-6). The proportions of specular hematite and quartz varying along and across strike. The high grade end member of quartz specular hematite iron formation is coarse grained and the friable specularite layers disaggregate to iron-oxide crystal fragments.

Figure 6-6: Geology Map of the Harvey-Tuttle Property



6.4 REGIONAL STRUCTURAL GEOLOGY

Three stages of deformation are recognized in the Southern Domain. The first stage, associated with the New Québec Orogeny, produced linear belts that trend northwest in the Central Domain. The second stage, developed during the Grenville orogeny, reoriented the northwest trending linear belts to the east and northeast. Thrust faults associated with these two transpressional events are common, but sometimes very difficult to identify. Bedding planes are generally recognizable in the quartzite, dolomite and iron formation.

It is unclear whether the compositional banding in the schists and gneisses reflects original bedding. Asymmetrical, overturned and recumbent folds are common throughout the FIOD. The complex interference patterns evident on geological maps of the area indicate that a third phase of deformation has affected this domain.

As a result of folding and transposition, reversals, truncations, and repeats that thicken the iron formation are common. Late, brittle faults have redistributed the sequences only slightly compared with the influence of folding on the area.

6.4.1 HARVEY-TUTTLE STRUCTURAL GEOLOGY

The surface distribution pattern of rocks at Harvey-Tuttle is a reflection of the complex interference pattern created by multiple phases of deformation that have affected the FIOD.

The fold interference patterns outlined by the iron formation on the Property reflect the latest three deformational episodes. A generally northwest-striking set of folds (F2) refold shallowly to moderately dipping iron formation interpreted as recumbent fold limbs (F1). The early F1 folds are likely related to early Grenville Orogeny thrusting events. Thrust faults associated with the Grenville Orogeny are likely common in the area but are difficult to identify. The northwest trending F2 folds are refolded by northeast trending, upright, gentle to open folds (F3). Small scale isoclinal, chevron and drag folds and boudinage that reflect the large scale deformation are common.

The general trend of lineations are defined by gneissocity and minor fold plunges and generally trend to the northwest at dips of 50°. Although the general trend of many of the major fold structures is towards the northwest or north, several of the structures outlined by the iron formations in the southern part of the area have rather more complex relations. Turtleback Hill, for example, is underlain by a semi-recumbent anticline, with the axis trending to the northeast. This trend is found also west of the southeast arm of Tuttle Lake, where the structure forms a figure-eight fold interference pattern representing a refolded syncline, overturned towards the southwest.

The area as a whole is characterized by open to tight, upright and overturned folds that refold early recumbent folds. Dips of bedding and schistosity are rarely a guide to stratigraphic sequence and many of the units disappear by attenuation rather than faulting. Tectonic thickening of rock units is common and this is the most important structural factor economically as it is the thickened, near-surface, synclinal hinges that are most favourable for open pit mining.

A few late, brittle faults have been outlined by mapping programs. These faults are typically of high angle and small displacement, are later than the main folding events, and have little effect on the overall distribution of the local rock units.

7.0 DEPOSIT TYPES

The Harvey-Tuttle iron deposit can be classified as Lake Superior-type iron formations. Such iron formations are the principal sources of iron throughout the world. Iron formation deposits in the FIOD include ArcelorMittal's Mont Wright and Fire Lake Mines and Mont Reed iron deposit and Consolidated Thompson's Bloom Lake, Lamêlée and Peppler Lake iron deposits.

7.1 IRON FORMATIONS

Iron formations are classified as chemical sedimentary rock containing greater than 15 % iron consisting of iron-rich beds usually interlayered on a centimetre scale with chert, quartz, or carbonate. Ore is mainly composed of magnetite and hematite and commonly associated with mature sedimentary rocks.

Stratiform iron formations are distributed throughout the world in the major tectonic belts of the Precambrian shields and in many Paleozoic and Mesozoic fold belts as well as parts of the present day ocean floor. Gross (2009) noted that the enormous size of some of the Archean and Paleoproterozoic iron formations reflected the unique global tectonic features and depositional environments for iron formation that were distinctive of the time.

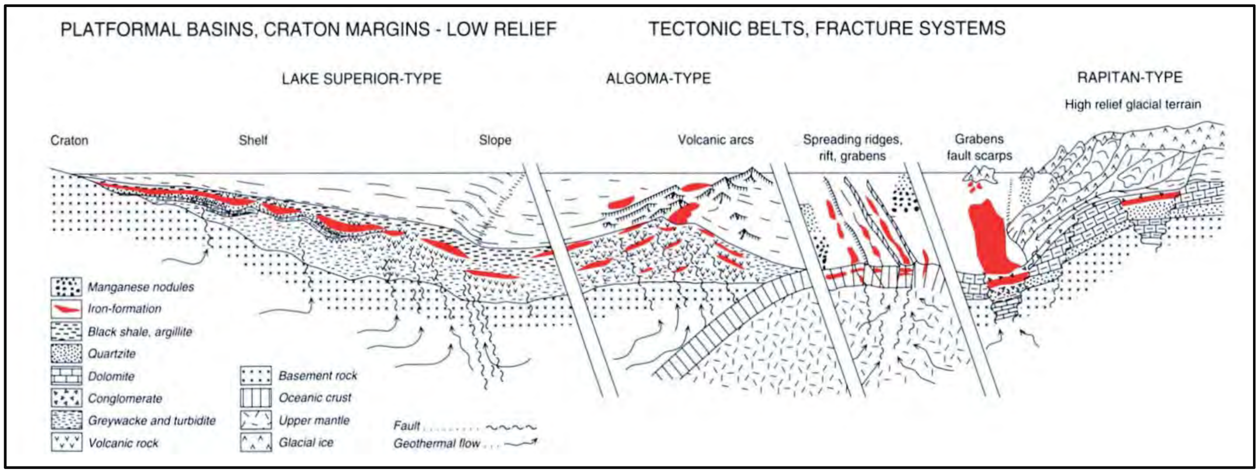
Although various models have been used to explain the deposition of iron formations in the past, current thinking (summarized in Cannon 1992, Gross 1996, Gross 2009) supports the idea of iron formation deposition resulting from the syngenetic precipitation of iron-rich minerals in a marine setting due to hydrothermal exhalative activity on the ocean floor. The iron is thought to have formed in tectonic-sedimentary environments where silica, iron, ferrous and non-ferrous metals were available in abundance, mainly from hydrothermal sources, and where conditions were favourable for their rapid deposition with minimal clastic sediment input.

Hydrothermal processes related to volcanism and major tectonic features are thought to be the principal source of iron and other metals. Deep fractures and crustal dislocations over hot spots and high thermal gradients penetrating the upper mantle enabled convective circulation, alteration and leaching of metals from the upper crust including possible contributions by magmatic fluids. Iron formations are not only important hosts of enriched iron and manganese ore but are also markers for massive sulphide deposits. Deposition of the iron was influenced by the pH and Eh of the ambient water and biogenic anaerobic processes may have also played a role (Gross 1996, Gross 2009).

Post depositional events such as weathering, groundwater circulation and hydrothermal circulation can modify the deposits and the mineralogy is usually recrystallized and coarsened by medium- to high-grade metamorphism. Protracted supergene alteration can be an important economic fact in upgrading the primary iron formation (Gross 1996).

Iron formations can be subdivided into two types, related to two major types of tectonic environments: the Lake Superior-type on continental shelf and marginal basins adjacent to deep seated fault and fracture systems and subduction zones along craton borders; and the Algoma-type along volcanic arcs and rift systems, and other major disruptions of the earth's crust (Figure 7-1). Development of Lake Superior-types was related to global tectonic systems that caused the breakup of cratons, shields or plates in the Paleoproterozoic. Rapitan-type have distinctive lithological features being associated with diamictite, and were deposited in grabens and fault scarp basins along rifted margins of continents or ancient cratons in sequences of Late Proterozoic and Early Paleozoic rocks.

Figure 7-1: Tectonic Environment for the Deposition of Iron Formation



From Gross (1996)

7.1.1 LAKE SUPERIOR-TYPE IRON FORMATIONS

Extensive Lake Superior-type iron formations occur on all continents, in parts of relatively stable sedimentary-tectonic systems developed along the margins of cratons or epicontinental platforms. Most of the thicker iron formations were deposited in shallow basins on continental shelves and platforms in neritic environments, interbedded with mature sedimentary deposits (Gross 2009).

The following are definitive characteristics of ore deposits of the Lake Superior-type iron formations (Gross 1996):

- Iron content is 30 % or greater,
- Discrete units of oxide lithofacies iron formation are clearly segregated from silicate, carbonate or sulphide facies and other barren rock,
- Iron is uniformly distributed in discrete grains or grain-clusters of hematite, magnetite and goethite in a cherty or granular quartz matrix,
- Iron formations, repeated by folding and faulting, provide thick sections amenable to mining, and
- Metamorphic enlargement of grain size has improved the quality of the ore for concentration and processing.

Iron formation deposition coincided with volcanism in linear tectonic belts along the continental margins. Most of the sedimentary-tectonic belts in which they were deposited were characterized by extensive volcanic activity that coincided with deepening of the linear basins or trough in the offshore areas and by extrusion and intrusion of mafic and ultramafic rocks throughout the shelf and marginal rift belts near the close or after the main periods of iron formation deposition (Gross 2009).

8.0 MINERALIZATION

8.1 FIOD MINERALIZATION

Lake Superior-type iron formations form a major part of the succession of folded Proterozoic sedimentary and volcanic rocks that were deposited within extensive basin, some interconnected, along the northeastern and southwestern craton margins of the Superior Province of the Canadian Shield. The Labrador-Québec fold belt, consisting of sedimentary and volcanic sequences and intrusions deposited in smaller interconnected sub-basins, is the largest continuous stratigraphic-tectonic unit that extends along the eastern margin of the Superior-Ungava craton.

The principal iron formation unit of the Labrador-Québec fold belt, the Sokoman Formation, extends for more than 1,000 km and includes those iron formations in the FIOD which were subjected to deformation and regional metamorphism associated with the Grenville Orogeny (1.3 Ga to 1.0 Ga). The metamorphic grade ranges from greenschist facies near the Grenville Front to amphibolite-granulite facies farther south. As a result of deformation and metamorphism, the iron formation was structurally thickened in fold hinges and coarsely recrystallized to a quartz specular hematite with varying amounts of magnetite.

The Sokoman Formation occupies a stratigraphic position between shallow-water, high-energy sediments (Wishart) and deep-water, largely lower-energy sediments (Menihek). Stratigraphic relationships indicate that the Sokoman Formation is part of a transgressive sequence (Clark and Wares 2006). The deposits consist of banded sedimentary units composed of bands of iron oxides within quart (chert)-rich rock.

The principle iron deposits found in the FIOD can be grouped into two types: quartz specular hematite and quartz specular hematite-magnetite.

The iron in the UIF, MIF and LIF is for the most part in its oxide form, mainly as specular hematite (Fe_2O_3) and specularite in its coarse-grained form and to a lesser extent, as magnetite (Fe_3O_4). Some of the iron is in iron silicates such as amphiboles (grunerite, $Fe_7Si_8O_{22}(OH)_2$) and in carbonates such as ankerite ($Ca[Fe,Mg,Mn][CO_3]_2$). The main gangue mineral in the iron formation deposits is quartz that constitutes approximately 50 % of the ore.

The Sokoman Formation is classified as a Lake Superior-type iron formation (Clark and Wares 2006). This type is composed mainly of magnetite and hematite and is commonly associated with mature sedimentary rocks. Generally little metamorphosed and altered, the Sokoman can be termed ‘taconite’, however, in the Grenville Province where the FIOD is situated, the iron formation is more strongly metamorphosed and recrystallized.

The increased grain size of the FIOD ores makes mining and beneficiation easier; however, the additional episode(s) of folding have complicated the structural pattern in the FIOD.

Several models to explain the origin of the Sokoman Formation are presented in Clark and Wares (2006) and include an oxidizing shallow-marine paleoenvironment for iron deposition (e.g. Dimroth 1975); a volcanic-hydrothermal source (e.g. Gross 1996); and a sea rich in reduced iron that was used up during the accumulation of the sediments (e.g. Kirkham and Roscoe 1993).

8.2 HARVEY-TUTTLE PROPERTY MINERALIZATION

The principal iron formation targets consist of curvilinear, re-folded, moderately to steeply dipping, upright and overturned Sokoman Formation units. Champion's exploration program is focused on the 37 km of magnetite- and specularite-bearing iron formation that comprise part of the Sokoman Formation, which underlies the Property. The economic mineralization consists of quartz-magnetite (± specularite) gneiss, which locally contains accessory actinolite. The magnetite and specularite occur as disseminated subhedral to euhedral crystals and as 1 to 10 cm wide semi-massive bands in amounts varying from 20 to 45 %.

Although the majority of the magnetite occurs within the MIF unit of the Sokoman Formation, amounts of up to 10 % are present in the UIF and the LIF. These three members of the Sokoman Formation contain varying amounts of accessory actinolite.

9.0 EXPLORATION

9.1 2008 EXPLORATION PROGRAM

The 2008 program consisted of an airborne geophysical survey and field-reconnaissance.

GPR Geophysics International Inc. of Longueil, Québec completed a 3,855 line-km airborne magnetic and electromagnetic (VLF-EM) geophysical survey over the Fermont Holdings in July 2008. Areas of iron mineralization were evident from the airborne magnetic survey with magnetic highs identifying magnetite-rich iron formations whereas magnetic lows tend to be hematite-rich iron formations and zones of secondary iron enrichment due to near surface oxidation. Magnetic signatures from the geophysical survey reveal extensive and highly folded horizons. The iron formations have average variable widths from 20 to 100 m, and up to 100 to 200 m where structurally thickened, with the proportions of specular hematite and quartz varying along and across strike. One end member of the spectrum of the quartz specular hematite iron formations displays granular and friable layers that disaggregate to iron-oxide fragments quite readily to a more massive and highly silicified end member.

A helicopter-aided field reconnaissance program was completed between October 21 to 25, 2008. The objective of the field reconnaissance program was to investigate the extent of the iron formation on the Property, to locate features identified from historical works, to sample outcrops in the vicinity of magnetic anomalies and to prioritize iron formation targets for drilling.

9.2 2010 EXPLORATION PROGRAM

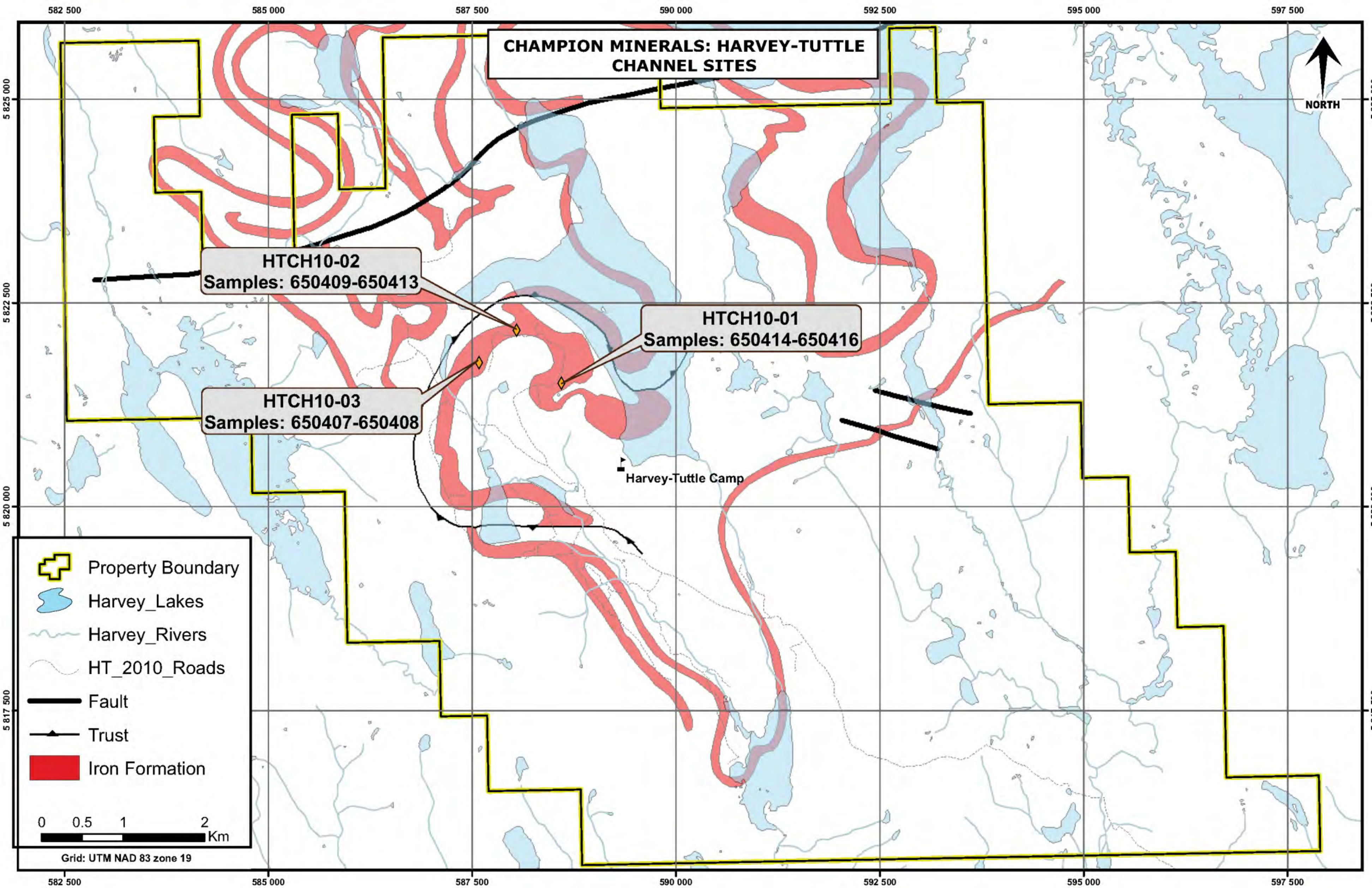
Three outcrops in the Turtle Back Mountain area were cleared of overburden and channel samples taken across the exposure, orthogonal to the bedding strike direction. The three outcrops are labelled HTBS-01, 02 and 03 (Figure 9-1). Eight channel samples (plus two duplicates) were collected from the three cleared outcrops, with individual samples varying from 1.80 to 4.00 m in length. Champion noted that the XRF analytical results of the channel samples replicates assay values obtained from adjacent and undercutting drill core samples (Table 9.1).

Table 9.1: Results from the 2010 Channel Sampling Program

Channel No.	Easting (UTM)	Northing (UTM)	Sample No.	From (m)	To (m)	Width (m)	Fe total
HTCH10-01	588592	5821518	650414	0.0	4.0	4.0	21.46
HTCH10-01	588592	5821518	650416	4.0	6.4	2.4	20.55
HTCH10-02	588039	5822170	650409	0.0	1.8	1.8	23.42
HTCH10-02	588039	5822170	650411	1.8	5.8	4.0	38.58
HTCH10-02	588039	5822170	650412	5.8	9.8	4.0	41.03
HTCH10-02	588039	5822170	650413	9.8	12.5	2.7	45.37
HTCH10-03	587581	5821769	650407	0.0	3.0	3.0	22.16
HTCH10-03	587581	5821769	650408	3.0	6.0	3.0	25.65

Bulk samples of magnetite / specular hematite iron mineralization were also collected from the three cleared outcrops (HTBS-01: 501 kg, HTBS-02: 2001 kg, HTBS-03: 527 kg). The samples were collected in 5 gallon pails, dried and stored in Champion's Wabush warehouse. Analysis has yet to be conducted on the bulk sample material.

Figure 9-1: Location of Channel and Bulk Samples



10.0 DRILLING

A total of 13,164.87 m were drilled by Champion in 61 diamond drill holes in 2010 (Table 10.1 and Figure 10-1).

The diamond drilling program for 2010 was completed in two stages. The first stage occurred from January 23 to March 31, with the drilling conducted by Boart Longyear utilizing three ground-based diamond drill rigs (two 'Super' LYR-150 rigs and one FLY1200 rig) drilling HQ and NQ core. Boart Longyear completed 3012.80 m of drilling.

The second stage of drilling was completed by Lantech Drilling Services, of Dieppe New Brunswick ("Lantech"), from June 6 to October 29. Lantech completed 10,136.10 m utilizing two small fly rigs (LDS-1000) drilling HQ and NQ core. This second drill program was conducted from the remote fly camp located at the south end of Harvey Lake and was supported by a B2 helicopter owned and operated by Heli-excel of Sept-Isle, Quebec and several fixed-wing float aircraft owned by Air Saguenay, operating from their Wabush Lake, Labrador float plane base.

The location of the drill holes was guided by magnetic inversion interpretations and aimed at outlining the maximum mineral resources for a potential open pit scenario. Areas of re-folding resulting in structural thickening of the iron formation were targeted for drilling. These re-folded patterns are created by two major phases of regional scale folding and are one of the main variables that contribute to building volume and creating basin-shaped geometry optimal for open pit mining methods.

Table 10.1: 2010 Champion Drill Program

Drill Hole	Easting (UTM)	Northing (UTM)	Elevation	Length	Dip	Azimuth
HT10-01	591457.59	5818296.01	651.88	457.00	-50.00	255.00
HT10-02	591076.32	5818823.01	630.94	299.00	-45.00	245.00
HT10-03A	589386.00	5819112.00	609.00	101.00	-60.00	225.00
HT10-03B	589386.00	5819112.00	609.00	100.00	-60.00	225.00
HT10-04A	590762.00	5819279.00	627.00	68.00	-50.00	233.00
HT10-04B	590604.20	5819169.15	637.85	328.00	-47.00	53.00
HT10-05	589722.00	5818665.00	560.00	43.00	-45.00	225.00
HT10-06	589980.91	5818195.36	614.32	293.00	-55.00	215.00
HT10-07	588048.59	5821342.41	727.03	314.00	-50.00	255.00
HT10-08	590409.22	5817901.63	587.86	257.00	-60.00	220.00
HT10-09	589938.75	5817862.50	654.43	200.00	-48.00	228.00
HT10-10	587024.21	5820721.24	701.54	149.00	-56.00	90.00
HT10-10B	587221.65	5820764.68	676.61	179.00	-55.00	270.00
HT10-11	588405.95	5821463.14	779.46	188.30	-48.00	160.00
HT10-12	588306.06	5821244.08	768.20	203.00	-47.00	160.00
HT10-13	587531.84	5821731.45	775.08	231.40	-45.00	135.00
HT10-14	587823.75	5822137.46	753.55	185.00	-60.00	30.00
HT10-15	588294.34	5822252.22	763.48	292.59	-65.00	210.00
HT10-16	588576.14	5821982.59	768.39	248.60	-80.00	200.00
HT10-17	588729.98	5821782.66	757.77	170.00	-45.00	170.00
HT10-18	588204.45	5821711.48	726.82	221.00	-45.00	180.00

Drill Hole	Easting (UTM)	Northing (UTM)	Elevation	Length	Dip	Azimuth
HT10-19	587981.97	5822197.50	748.33	197.00	-45.00	135.00
HT10-20	588543.98	5819923.25	665.22	248.00	-45.00	160.00
HT10-21	588131.92	5822254.96	763.64	221.00	-45.00	160.00
HT10-22	589340.96	5818946.63	628.51	80.00	-50.00	240.00
HT10-22B	589356.53	5818892.91	628.34	95.00	-50.00	270.00
HT10-22C	589356.53	5818892.91	628.34	299.00	48.00	270.00
HT10-23	592143.12	5823512.63	658.56	225.30	-45.00	70.00
HT10-24	591395.86	5823501.86	684.96	63.00	-45.00	215.00
HT10-24B	591394.96	5823500.89	684.57	278.00	-45.00	215.00
HT10-25	592904.88	5822623.33	645.13	281.00	-45.00	70.00
HT10-26	589180.59	5818844.83	658.66	286.12	-55.00	225.00
HT10-27	589569.93	5818336.18	659.22	248.00	-45.00	228.00
HT10-28	592264.24	5823124.20	650.93	158.00	-45.00	235.00
HT10-29	593120.67	5823124.59	667.83	113.00	-45.00	220.00
HT10-30	589754.33	5818614.16	604.71	70.50	-55.00	230.00
HT10-31	587282.04	5823349.18	726.73	377.00	-55.00	270.00
HT10-32	592501.12	5822189.97	654.25	180.00	-55.00	125.00
HT10-33	593326.49	5821762.23	664.15	224.00	-60.00	130.00
HT10-34	586858.19	5824047.23	656.84	170.00	-45.00	230.00
HT10-35	591603.77	5820693.12	662.84	189.00	-70.00	170.00
HT10-36	587447.95	5824310.01	680.82	261.00	-55.00	140.00
HT10-37	591326.58	5824723.07	679.28	247.00	-45.00	180.00
HT10-38	587373.40	5825245.16	724.50	347.00	-55.00	270.00
HT10-39	588274.98	5825114.72	661.13	394.00	-50.00	170.00
HT10-40	587616.79	5825378.41	705.76	242.00	-65.00	270.00
HT10-41	588139.76	5822210.74	776.28	304.00	-45.00	360.00
HT10-42	588249.01	5822185.97	780.07	235.00	-45.00	30.00
HT10-43	587315.97	5821104.50	652.18	143.00	-50.00	270.00
HT10-44	587343.80	5820397.33	671.82	200.50	-50.00	270.00
HT10-45	587472.31	5820166.07	665.57	193.00	-65.00	180.00
HT10-46	587962.99	5820247.20	643.99	224.00	-65.00	200.00
HT10-47	590417.92	5819646.46	658.18	115.00	-45.00	90.00
HT10-47B	590418.00	5819649.00	631.00	100.00	-45.00	90.00
HT10-48	588566.62	5821968.56	769.20	305.00	-60.00	30.00
HT10-49	588576.91	5821579.50	772.62	338.00	-55.00	140.00
HT10-50	588385.32	5821980.55	743.16	233.00	-45.00	30.00
HT10-51	588688.91	5821854.70	752.18	231.00	-45.00	45.00
HT10-52	588853.74	5821396.34	753.95	142.06	-55.00	180.00
HT10-53	588686.56	5821852.42	752.08	230.00	-45.00	225.00
HT10-54	587101.10	5821078.02	682.99	149.50	-45.00	90.00
TOTAL				**13,164.87**		

Thirty two of the 61 holes drilled reported significant intercepts (Table 10.2). Significant assay results from the 2010 program included a 168.4 m drill core interval with 30.3 % total iron and three other intervals more than 92 m long containing over 32 % total iron. Among 26 drill holes, there are ten, 35 m intervals with over 30 % total iron (Champion News Release, January 13, 2011). The long, iron-rich intersections typically reflect structurally thickened parts of the complexly folded iron deposits that are characteristic of the FIOD.

Figure 10-1: Location of Drill Holes on the Harvey-Tuttle Property

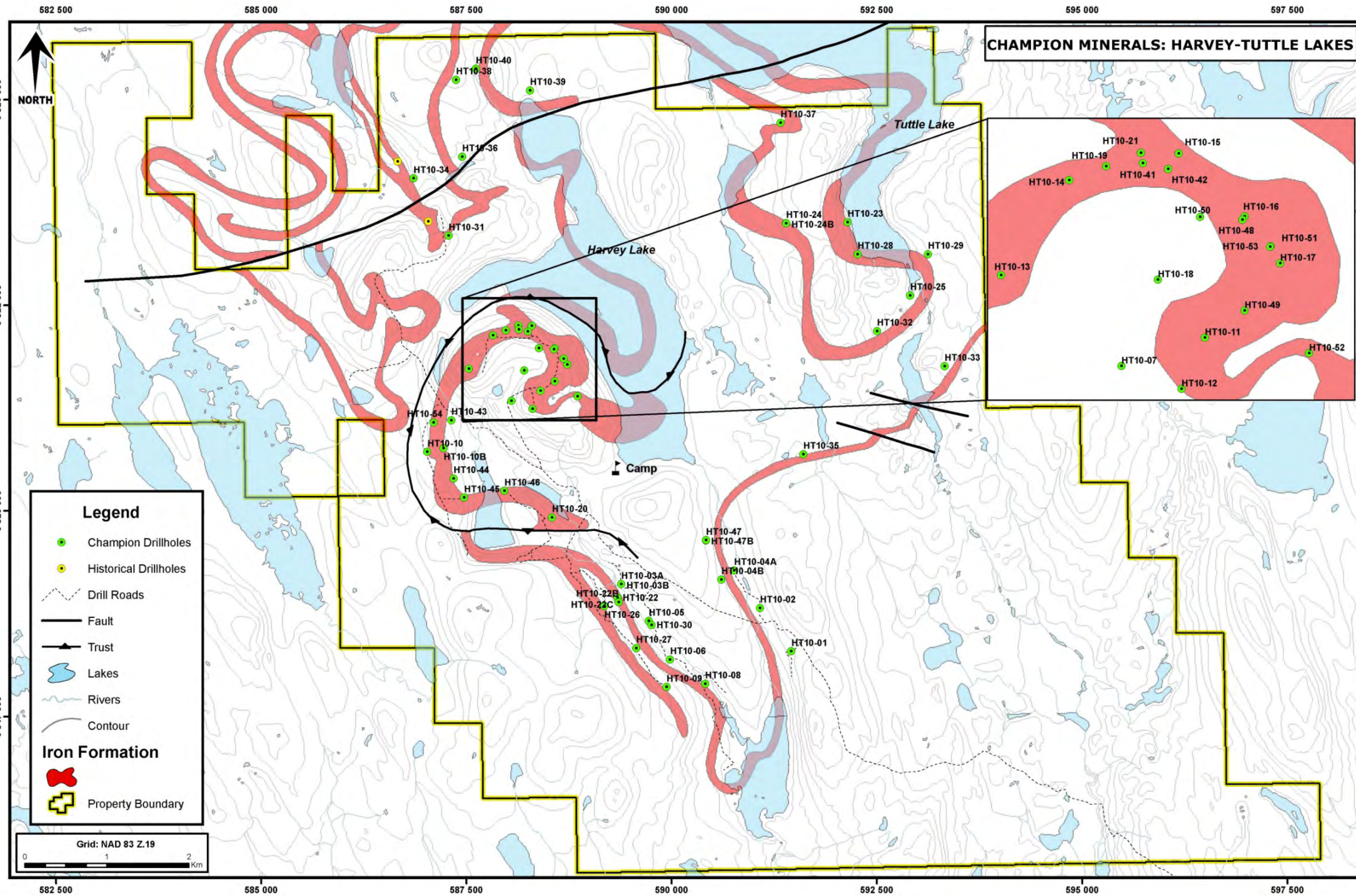


Table 10.2: Significant Drill Hole Intervals From the 2010 Drill Program

Drill Hole No.	From (m)	To (m)	Core Length (m)*	Total Iron (% Fe)
HT10-01	269.00	314.00	45.00	28.7
HT10-02	94.70	130.20	35.50	30.4
HT10-04B	56.80	128.80	72.00	25.4
	258.60	302.50	43.90	28.2
HT10-06	41.60	121.60	80.00	22.4
	237.90	273.70	35.90	32.6
HT10-07	43.00	277.00	234.00	26.7
incl.	43.00	211.40	168.40	30.3
incl.	74.20	167.40	93.20	35.6
incl.	107.40	135.40	28.00	40.7
HT10-08	22.00	57.00	35.00	24.5
HT10-09	12.50	48.60	36.10	32.8
	74.70	101.90	27.20	31.0
HT10-12	89.90	111.60	21.80	22.4
HT10-13	3.45	227.50	224.05	21.6
incl.	23.30	70.04	46.74	27.0
HT10-14	51.90	79.50	27.60	22.4
HT10-15	1.24	121.00	119.76	28.4
incl.	35.26	113.00	77.74	31.0
HT10-17	1.50	38.40	36.90	20.8
HT10-18	6.53	98.68	92.15	22.9
HT10-19	39.30	132.00	92.70	34.4
HT10-21	2.00	142.73	140.73	29.5
incl.	42.00	138.00	96.00	32.2
incl.	42.00	118.00	76.00	34.1
HT10-23	38.80	85.65	46.85	27.8
	117.90	164.26	46.36	21.8
incl.	117.90	150.20	32.30	25.1
HT10-25	179.00	260.50	81.50	26.7
incl.	179.00	239.00	60.00	30.8
HT10-28	0.75	31.00	30.25	22.5
HT10-32	82.35	131.50	49.15	30.7
HT10-33	101.00	133.36	32.36	29.3
HT10-36	62.30	92.00	29.70	28.7
HT10-38	183.50	211.00	27.50	23.3
HT10-39	25.50	375.75	321.45	20.6
incl.	144.00	217.30	73.30	25.9
incl.	277.60	365.00	87.40	23.1
HT10-41	1.20	168.00	166.80	28.6
HT10-42	0.30	165.37	165.07	23.6
incl.	44.00	112.00	68.00	27.9
HT10-44	70.00	174.20	104.20	21.5
HT10-46	51.00	177.00	126.00	20.7
incl.	51.00	143.00	92.00	23.5
HT10-48	221.00	255.25	34.25	24.6

Drill Hole No.	From (m)	To (m)	Core Length (m)*	Total Iron (% Fe)
HT10-50	27.25	121.08	93.83	21.9
incl.	51.00	107.00	56.00	23.9
HT10-51	14.50	40.22	25.72	20.5
	170.00	196.95	26.95	24.7
HT10-53	3.26	29.15	25.89	20.1
HT10-54	95.72	148.00	52.28	24.3

* Core lengths are approximately equal to true width.

A full description of the drill hole geology for the 2010 program is given in Appendix I.

11.0 SAMPLING METHOD AND APPROACH

11.1 CORE HANDLING, LOGGING AND SAMPLING

Core handling at the drill was controlled by the drill contractor. All drill core was placed into wooden core boxes from the drill core tube. Depth markers were placed after emptying the wire line drill core tube. Once full, the boxes were secured for shipment. Core boxes were opened at the request of the geologist to ‘quick log’ the hole in order to determine final depth of hole.

The core was then brought to the base camp, where a team of senior geologists, project geologists and sampling technicians executed the drill campaign, logistics, supervision, logging and sampling of all drill core.

Sample lengths averaged four metres, however, the range of sample lengths may have occasionally varied based on geology. All drill core that contained visible Fe mineralization was sampled and a sample was also taken adjacent to the iron formation both above and below the mineralized section.

Samples were outlined by geologists logging the core and split by sampling technicians using a hydraulic rock splitter at the camp. Samples were tagged with a unique tag number, bagged and placed into large nylon bags, ready for transportation by truck or float plane to Wabush.

12.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

12.1 SAMPLE PREPARATION AND ASSAYING

All drill core logging and sample preparation was conducted by qualified company personnel under NI 43-101 standards at Champion's core logging facilities. For the winter 2010 drill program, logging was done at the Peppler Lake camp, which was a private camp rented by Champion. For the summer program, core logging and sampling were completed at the Harvey-Tuttle camp, which was established on the Harvey-Tuttle Property.

The NQ-sized drill core was split in half and one-half of the drill core was kept in the core box for reference purposes and the other half core was individually bagged, tagged, sealed and packed in large nylon bags which were securely closed. For the winter drill program, samples were delivered to the trucking firm Hodge Brothers Transport ("Hodge Brothers", a division of Transport Thibodeau) in Wabush and from there they were trucked to the COREM Laboratories in Québec City for analysis.

For the summer drill program, core samples were flown by Air Saguenay to Wabush Lake, where they were picked up by Champion personnel and delivered to Hodge Brothers. Toward the end of the summer drill program, Heli Excel took over from Air Saguenay, and all samples were flown by helicopter to the Bellechasse camp and from there they were trucked to Hodge Brothers.

COREM Laboratories is a private research consortium in Quebec City. The laboratories conform to two quality management systems to ensure its laboratory services meet the highest standards of the mining industry. The pyrometallurgical characterization laboratory is certified ISO 9001:2008 and the analytical services laboratory is accredited ISO 17025:2005.

All split core samples were analyzed for a suite of whole rock elements including: FeT, SiO_2, TiO_2, Al_2O_3, Fe_2O_3, MnO, MgO, CaO, Na_2O, K_2O, P_2O_5 and loss on ignition ("LOI"). Analysis was done on borate fused pressed pellets by x-ray fluorescence ("XRF") following sample crushing and pulverization.

13.0 DATA VERIFICATION

13.1 SITE VISIT AND INDEPENDENT SAMPLING

The Harvey-Tuttle Property was visited by Ms. Tracy Armstrong, P. Geo., an independent QP as defined by NI 43-101, on January 18 and 19, 2011. Six samples were collected from six drill holes. The samples were then documented, bagged and sealed with packing tape and were taken by Ms. Armstrong to Air Canada Cargo in Wabush where they were shipped to the offices of P&E in Brampton, Ontario. From there they were couriered to AGAT Laboratories in Mississauga, Ontario for analysis. Total Fe was analyzed using sodium peroxide fusion, ICP-OES.

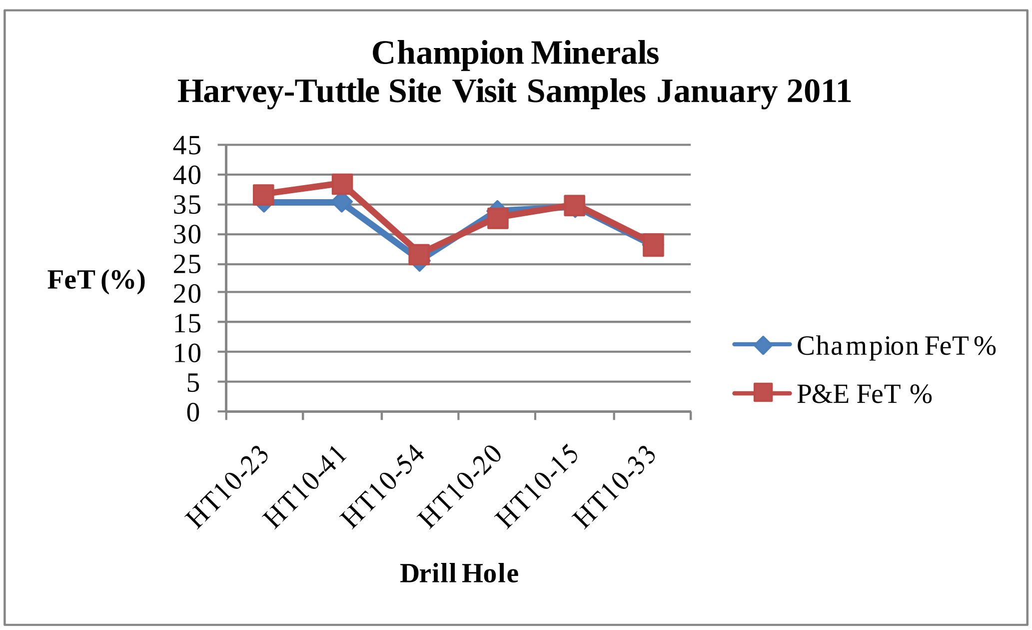
AGAT Laboratories employs a quality assurance system to ensure the precision, accuracy and reliability of all results. The best practices have been documented and are, where appropriate, consistent with:

- The International Organization for Standardization's ISO/IEC 17025 'General Requirements for the Competence of Testing and Calibration Laboratories' and the ISO 9000 series of 'Quality Management standards'.
- All principles of Total Quality Management ("TQM").
- All applicable safety, environmental and legal regulations and guidelines.
- Methodologies published by the ASTM, NIOSH, EPA and other reputable organizations.
- The best practices of other industry leaders.

At no time, prior to the time of sampling, were any employees or other associates of Champion advised as to the location or identification of any of the samples to be collected.

A comparison of the P&E independent sample verification results versus the original assay results for Fe can be seen in Figure 13-1. The P&E results demonstrate that the results obtained and reported by Champion were reproducible.

Figure 13-1: P&E Site Visit Verification Samples for Iron



13.2 QUALITY ASSURANCE QUALITY CONTROL

Certified reference materials ("CRM") and blanks were inserted approximately every 25 samples for quality assurance and quality control ("QA/QC"). In addition, field duplicates consisting of ¼ core were collected every 25 samples and coarse reject and pulp duplicates were prepared at the laboratory.

There were three different CRM used for the Harvey-Tuttle drill program. For the winter drill program, OREAS 43P and OREAS 44P were used, and for the summer drill program an additional CRM, SCH-1 was also purchased and used.

The two OREAS standards were developed by Ore Research and Pty, Australia and were purchased through a Canadian Supplier. Both are composite standards produced from a range of oxidized materials including Blackwood greywacke (central Victoria), Bulong laterite (Yilgarn, Western Australia), Iron Monarch hematite ore (Whyalla, South Australia), Hilton North gossan and Mount Oxide ferruginous mudstone (Mount Isa region, Queensland). The dominant constituent was obtained from the flank of a mineralized shear zone within Ordovician flysch sediments in the Blackwood area of central Victoria. The sedimentary succession hosting the shear zone consists predominantly of medium-grained greywackes together with subordinate interbedded siltstone and slate. Hydrothermal alteration in the vicinity of the mineralization is indicated by the development of phyllite. The shear zone is manifested by foliated sericitic and chloritic fault gouge and goethitic quartz veins.

The SCH-1 CRM was purchased from CANMET in Ottawa. The material for reference ore SCH-1 was donated to the C.C.R.M.P. by the Iron Ore Company of Canada in 1973. The ore is from the Schefferville, Quebec area and is comprised of hematite with a mixture of unidentified hydrous oxides of iron, minor magnetite and trace pyrolusite. The gangue consists mainly of quartz with minor amounts of feldspar and traces of biotite, chlorite and amphibole.

The author considers the data to be of good quality and satisfactory for use in a resource estimate.

13.2.1 PERFORMANCE OF CERTIFIED REFERENCE MATERIALS

There were 28 data points for Oreas 43P, 26 data points for Oreas 44P and 16 data points for SCH-1. All data were graphed and compared to the certified mean and the minus two and three standard deviations from the between-laboratory round robins. All data points passed the quality control ("QC"), remaining within two standard deviations from the mean. It is to be noted that all but one data point was below the mean, indicating bias and the possibility that the Harvey-Tuttle analyses are reporting slightly lower than they should.

13.2.2 BLANKS

The blank material was obtained from barren marble drilled in the Bellechasse area. A blank sample was inserted, where practical, every 25th sample into the stream of core samples. All blank data were graphed, with no issues to report.

13.2.3 DUPLICATES

Three types of duplicates were produced; field (1/4 core), coarse reject and pulp. All three duplicate types were scatter graphed and all were found to have excellent precision at all levels. There was essentially no difference between the precision at the field level and the precision at the pulp level.

14.0 ADJACENT PROPERTIES

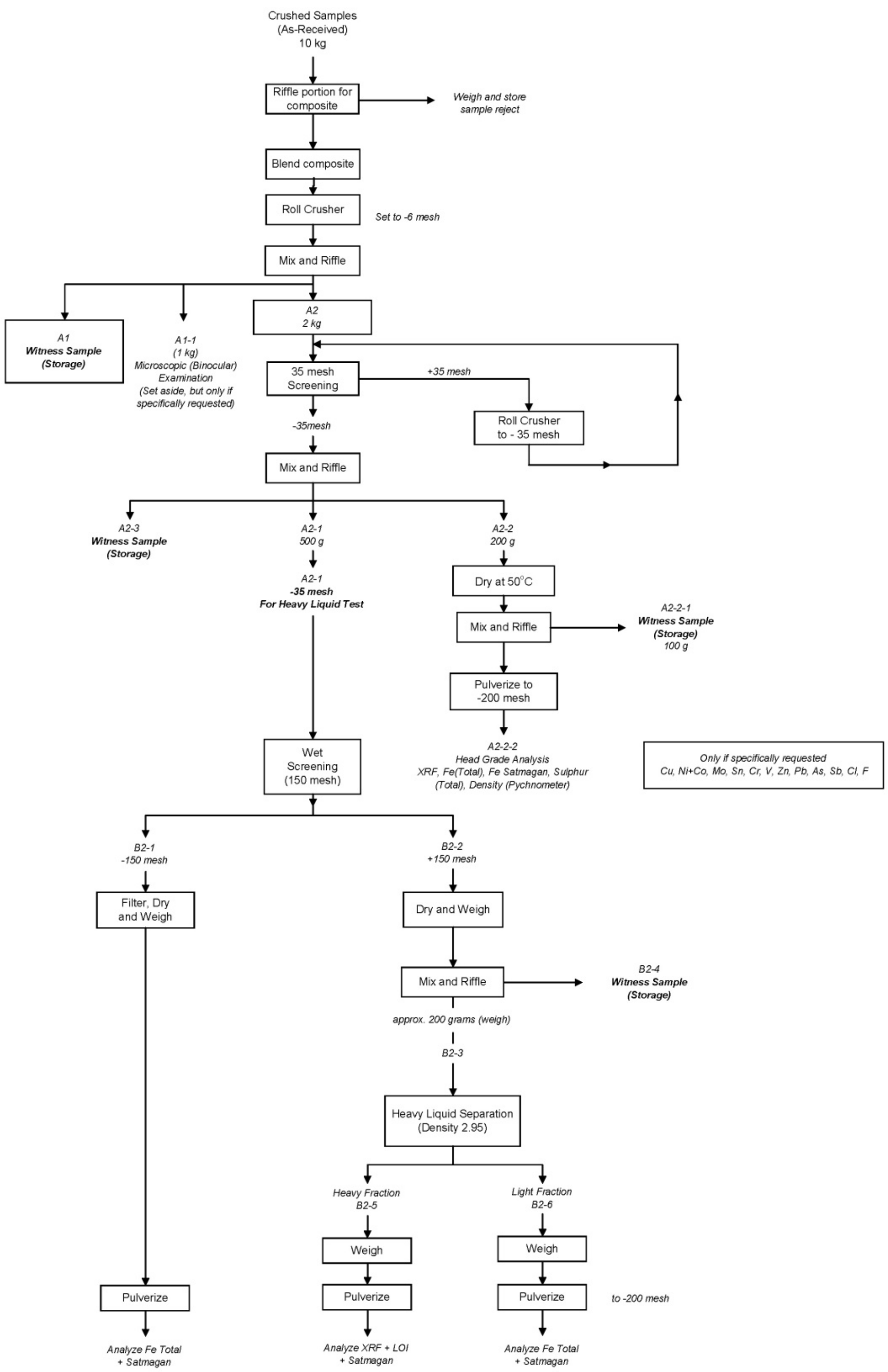
The Harvey-Tuttle Property is immediately adjacent to Consolidated Thompson's Lamêlée-Peppler Iron property (refer to Figure 3-2 for the location of the property). Resources were calculated and have been reported for two deposits on the property, the Lamêlée and the Peppler Lake deposits. An indicated resource of 302 Mt at 28.4 % Fe and an inferred resource of 4.2 Mt at 24.1 % Fe was reported for the Peppler Lake deposit (Risto et al. 2008). The Lamêlée deposit is located approximately 10 km north of Peppler Lake. Resources for the Lamêlée deposit have been reported for a high and a low grade zone with Indicated Resources of 642 Mt at 30.3 % Fe and Inferred Resources of 70 Mt at 28.63 % Fe reported for the High Grade Zone and an indicated resource of 37 Mt at 17.5 % Fe and an inferred resource of 2.7 Mt at 15.39 % Fe reported for the Low Grade Zone at a 15 % total Fe oxide cut-off (Lyons et al. 2009).

P&E has been unable to verify the information on the Lamêlée-Peppler Iron property and the reader is cautioned that the above information is not necessarily indicative of the mineralization on Champion's Harvey-Tuttle Property. P&E are not aware of any other exploration work currently being carried out on lands immediately surrounding the Harvey-Tuttle Property.

15.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Eleven 5 to 10 kg composite samples obtained from 540 samples of 2010 drill core have been submitted to SGS Mineral Services at Lakefield, Ontario for metallurgical testing. Composite samples are to be crushed and screened for chemical analyses and heavy liquid separation as detailed in Figure 15-1. At the time of writing of this Report, the results were still pending.

Figure 15-1: Harvey-Tuttle Laboratory Flowsheet for Heavy Liquid Separation and Chemical Analyses



16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

16.1 INTRODUCTION

A. S. Horvath Engineering Inc. of Ottawa, Ontario, developed the 3D geological wireframe model for the Harvey-Tuttle Property from a GEMS 6.2 project database supplied by MRB & Associates ("MRB"), Val d'Or, Quebec. Review and confirmation of the Harvey-Tuttle 3D geological wireframes and development of the resource estimate block model was carried out by Eugene Puritch, P. Eng., of P&E, who is an independent QP in terms of NI 43-101. A draft copy of this report was reviewed by Champion for factual errors.

The effective date of this mineral resource estimate is February 25, 2011.

The mineral resource estimate presented herein is reported in accordance with the Canadian Securities Administrators' NI 43-101 and have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Reported mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. The quantity and grade of the reported Inferred resources may not be realized.

16.2 RELIANCE ON OTHER EXPERTS

Champion provided P&E with the GEMS project database and 3D geological wireframes for the Harvey-Tuttle Property. P&E has relied on the data and information supplied by Champion, and no additional validation of the data was completed by P&E with respect to the origin, validity or accuracy of the data used for the mineral resource estimate contained in this report except for the FeT %, CaO % and MgO % assays which were validated against original laboratory certificates of analysis from COREM of Québec City.

16.3 DATA VALIDATION

The GEMS project contained a drill hole database, digital surface topography and property boundary line. In addition to the GEMS project database, a digital surface geology plan and a series of processed airborne magnetic contour maps including total magnetic field, 1st vertical derivative, 2nd vertical derivative and tilt derivative were provided.

Prior to commencing any work on the Harvey-Tuttle Property, the GEMS project drill hole database was validated by Champion using the GEMS system database validation routines to check for the most common and critical data errors. Champion reconciled all identified errors with MRB and the original data source and all reported errors were accordingly corrected by Champion.

P&E imported and validated all collar, geology and sampling data into an Access format GEMS database. P&E typically validates a mineral resource database by checking for duplicate entries, interval, length or distance values less than or equal to zero, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. No significant errors were noted. P&E additionally independently validated all 2010 assay results from original assay laboratory digital files. P&E believes that the supplied databases are suitable for mineral resource estimation.

16.4 HARVEY-TUTTLE 2011 RESOURCE ESTIMATE

16.4.1 GEOLOGICAL MODEL

The Harvey-Tuttle 3D geological model was developed by Champion using a combination of diamond drill hole geology, 2nd vertical derivative airborne magnetic contours, airborne magnetic inversion results, and surface topography to develop a 3D representation of the host iron formation ("IF") units.

The drill hole collar co-ordinates and elevations for sixty one (61) 2010 series drill holes in the database were combined by Champion with area topography taken from the 1:50,000 National Topographic Database and used to generate a digital topographic surface of the Harvey-Tuttle Property.

The overburden intersections in the 61 drill holes are highly variable from <1m to >40m in depth. Within areas of high topographic relief (i.e. > 720 m elevation) the surface topographic contours were lowered 2 m while within areas of low relief (i.e. < 690 m elevation) the surface topographic contours were lowered 20 m and the intervening contour elevations were adjusted accordingly. The drill hole overburden intersection points and adjusted contours were used to generate the bedrock topographic surface.

The 2nd vertical derivative airborne magnetic contour results were found by Champion to correlate reasonably well with the IF surface expression, especially along strike. The thickness of the IF indicated by the zero magnetic contour however often exceeds the actual thickness indicated by the projected drill hole intersections.

The zero value contour line of the 2nd vertical derivative magnetics was digitized by Champion to produce an initial interpretation of the IF at surface. A series of cross-sections were generated across all drill holes and polylines of the interpreted IF were digitized on each section from surface to depths in excess of 300 m below surface. The resulting cross-sectional polygons were further constrained within the limits of continuous down the hole total iron ("FeT") assay mineralization of 15 % or higher. The surface magnetic contours were then scaled and adjusted to respect the cross-section IF polygons at surface as interpreted from the drill hole results. Successive polylines were connected and 3D wireframes of the interpreted IF domains were generated.

The Property boundary was used to clip any portion of the IF domains that occurred outside the limits of the Property in order to ensure that no mineral resources would be reported outside the limits of the Property.

The total volume of all interpreted IF domain model blocks at Harvey-Tuttle Property is on the order of 323 Mm^3 and represents a maximum possible volume for mineral resource estimation of the modelled domains.

16.4.2 ROCK TYPES, ROCK CODES AND BULK DENSITIES

The rock codes with bulk densities used for resource estimation are listed in Table 16.1.

Table 16.1: Rock Codes and Bulk Density Values for Harvey-Tuttle

Rock Type	Rock Code	Bulk Density (t/m^3)
Air	0	0
Overburden	98	1.8
Sediments (Waste)	99	2.8
IF – East Limb	100	3.3
IF – West limb	200	3.3
IF – NW Extension	300	3.3
IF – Turtleback	400	3.3
IF – North Harvey	500	3.3
IF – NW Harvey	600	3.3
IF – Figure 8	700	3.3
IF – South Tuttle	800	3.3

16.4.3 ASSAY STATISTICS

The Harvey-Tuttle drill hole database contains a total of 61 drill holes from 2010 by Champion. Historic holes on the Property were not utilized in the Harvey-Tuttle resource estimate.

Geological logs of the 61 drill holes utilized contain complete records for location, survey, geology and analysis for FeT %, CaO % and MgO %.

Summary statistics were calculated for the FeT % raw assay values and composites. Figure 16-1 displays the histogram for the Harvey-Tuttle FeT % assay sample population, while Figure 16-2 displays the histogram for the FeT % composite population. The summary statistics are shown below in Table 16.2.

Table 16.2: Summary Statistics for Harvey-Tuttle FeT % Raw Assays and Composites

	Raw Assays (Fe %)	Composites (Fe %)
Number of Values	1,131	1,029
Minimum	0.9	3.2
Maximum	47.4	45.9
Mean	22.9	23.4
Median	22.8	22.9
Standard Deviation	8.5	7.6
Coefficient of Variation	0.37	0.32

Figure 16-1: Histogram for Harvey-Tuttle FeT % Raw Assays

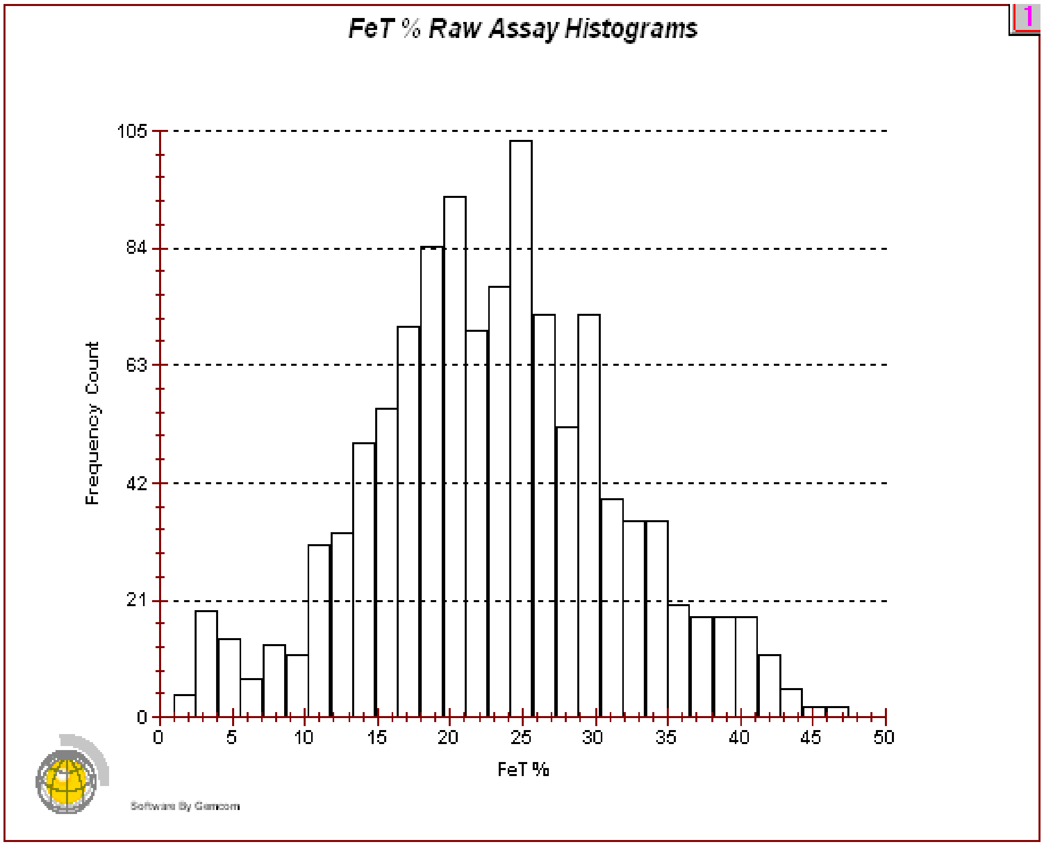
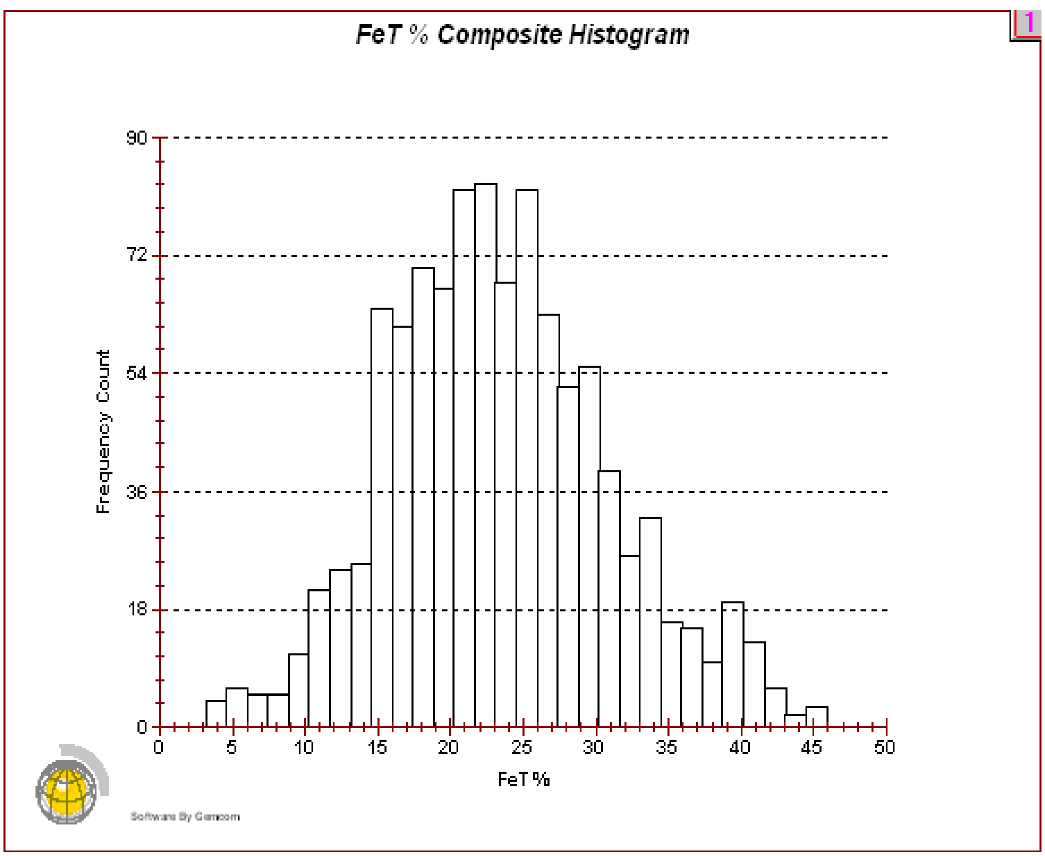


Figure 16-2: Histogram for Harvey-Tuttle FeT % Composites



16.4.4 COMPOSITES

Drill hole sample lengths were composited to 4.0 m equal interval lengths within the limits of the defining mineralization domains. The compositing process started at the first point of intersection between the drill hole and the domain intersected, and halted upon exit from the domain wireframe. The wireframes that represented the interpreted mineralization domains were also used to back-tag a rock code field into the drill hole workspace. Each assay and composite record was assigned a domain rock code value based on the domain wireframe that the interval midpoint fell within. The composite data were then exported to Gemcom extraction files for grade estimation. Figure 16-2 displays the histogram and summary statistics calculated for the 4.0 m FeT % composite samples within all defined domains.

In addition to the FeT % composites, CaO % and MgO % composite values were also calculated from the assay sample data. Figures 16-3 and Figure 16-4 display the histograms and Table 16.3 displays the summary statistics of the MgO % and CaO % 4.0 m composites.

Table 16.3: CaO % and MgO % Summary Statistics for Harvey-Tuttle Composites

	CaO %	**MgO %**
Number of Values	1,029	1,029
Minimum	0.03	0.07
Maximum	18	12
Mean	6.4	5.2
Median	5.9	5.3
Standard Deviation	4.1	2.8
Coefficient of Variation	0.64	0.54

Figure 16-3: Histogram for CaO % 4.0 m Composites

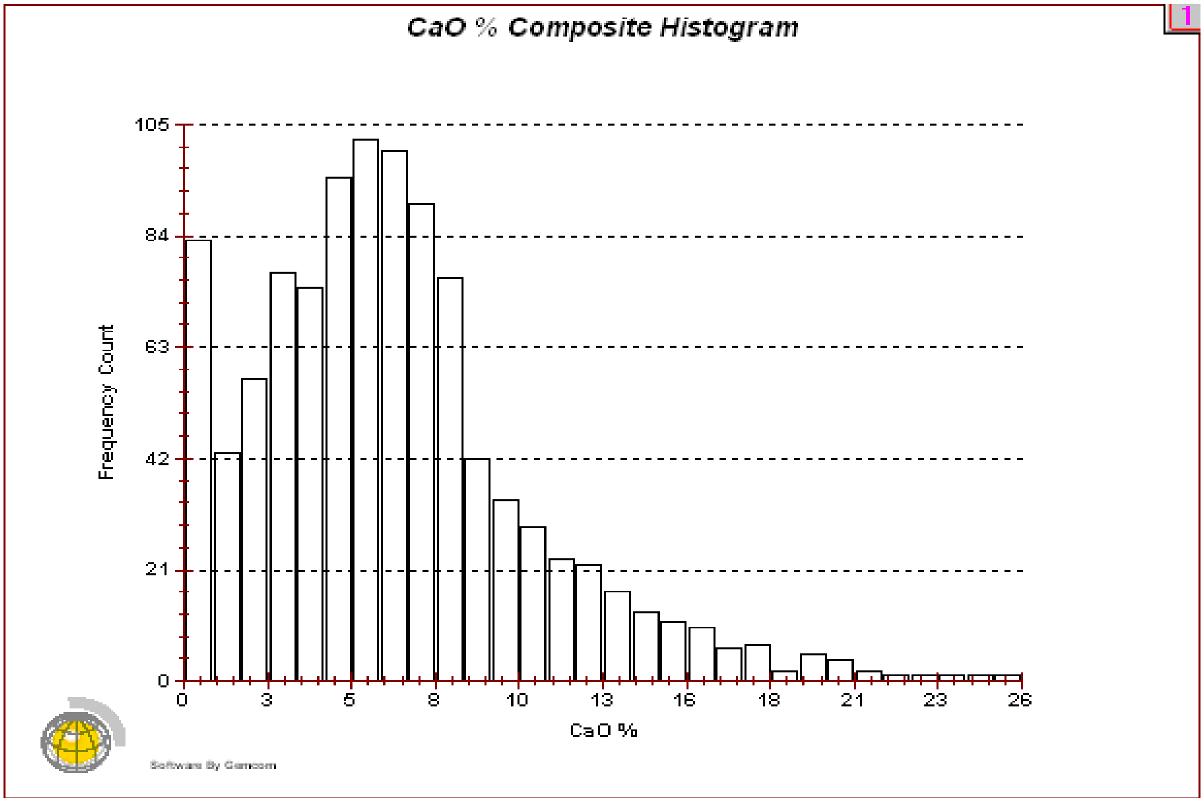
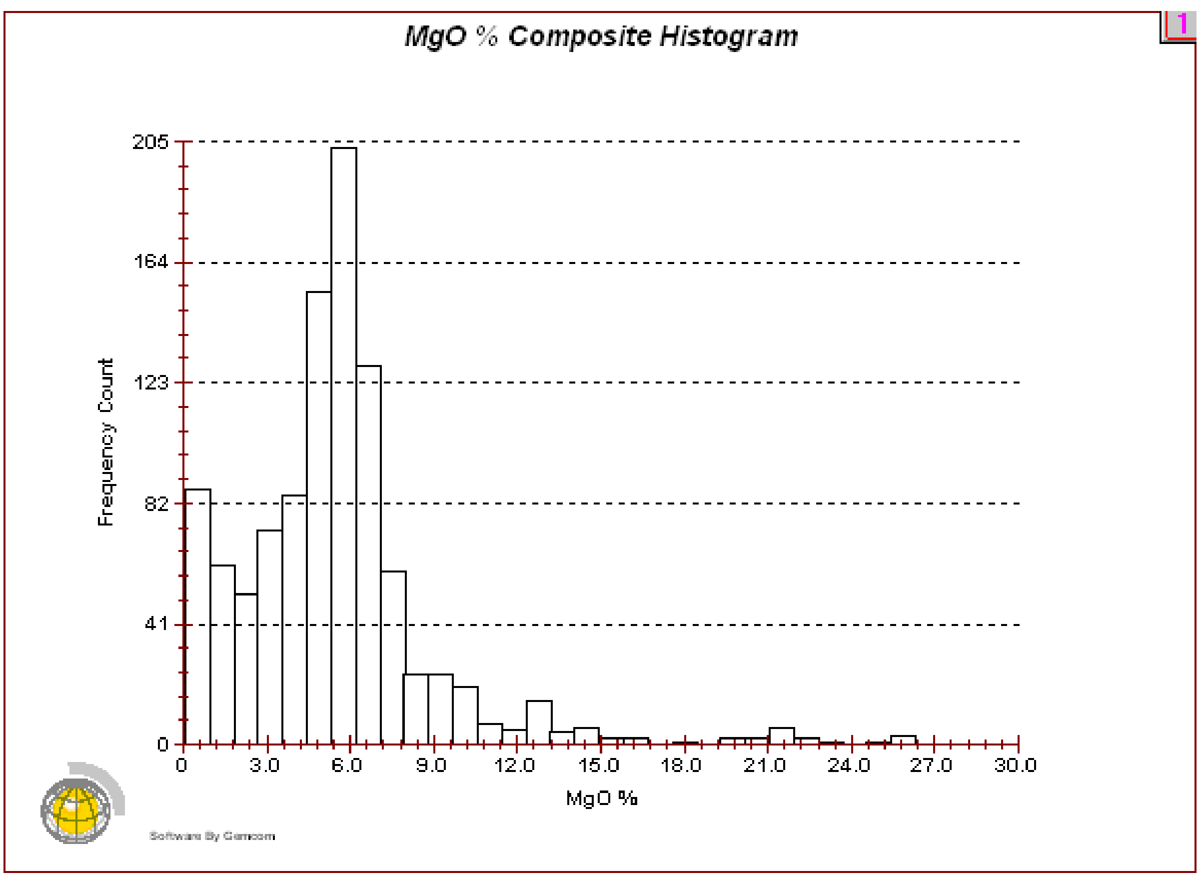


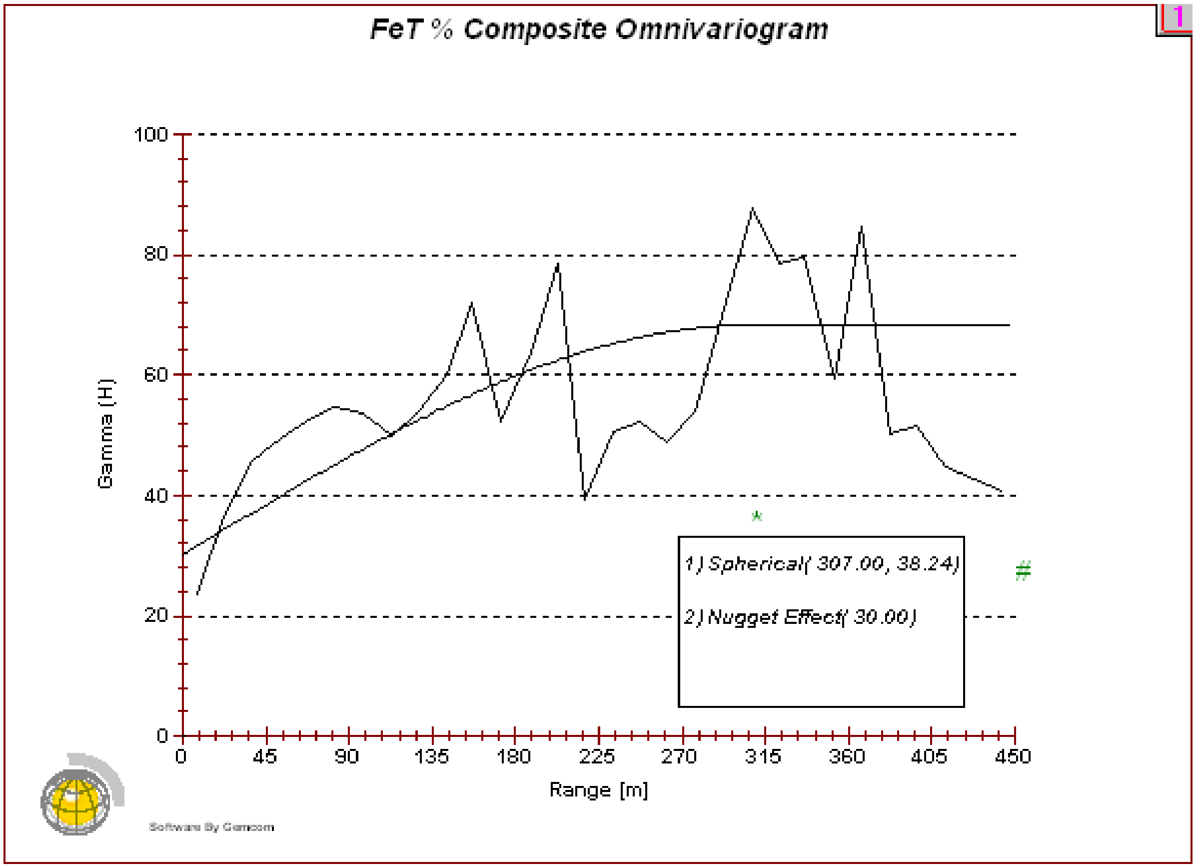
Figure 16-4: Histogram for MgO % 4.0 m Composites



16.4.5 VARIOGRAPHY

An omnivariogram was modelled to provide an indication of the expected nugget effect at Harvey-Tuttle. Figure 16-5 displays the result of the omnivariogram search calculated for the FeT % 4.0 m composites.

Figure 16-5: Omnivariogram for Harvey-Tuttle 4.0 m FeT % Composites



16.4.6 GRADE CAPPING

Grade capping was investigated on the raw assay values in the database within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Extraction files were created for the constrained FeT %, CaO % and MgO % data. From these extraction files, normal histograms were generated. It was deemed unnecessary to cap FeT % composites. CaO % and MgO % composite values were capped respectively at 18 % and 12 %.

16.4.7 MODEL GRADE ESTIMATION PARAMETERS

The GEMS block model was developed by P&E as detailed in Table 16.4.

Table 16.4: Harvey-Tuttle Block Model Definition

	Origin	Blocks	Block Size
X	586,000E	400	20
Y	5,816,000N	550	20
Z	800 m	30	20
Rotation	0°		

The results from the variography were used to define search and estimation ellipses for grade estimation by providing orientations and ranges for the two principal axes of the ellipse. Ranges for the ellipse axes used for estimation as identified from the variography are defined in Table 16.5. Since no directional variography was achieved, the range indicated from the omnivariogram was used for along strike and down dip search ranges. A two pass interpolation approach was taken as indicated in Table 16.5.

Table 16.5: Harvey-Tuttle Search Ellipse Definitions for FeT %, CaO % and MgO %

	Inferred Pass 1	Inferred Pass 2
Axis Range	50%	100 %
Major Semi-axis	150m	300 m
Intermediate Semi-axis	150m	300 m
Minor Semi-axis	150m	300 m

Due to the drill hole data at Harvey-Tuttle being generally clustered with many samples occurring in the down hole direction and fewer along strike and down dip, additional parameters were established in order to de-cluster the data and obtain a representative number of samples within the search ellipse used for grade estimation. These parameters included a minimum and maximum number of samples for estimation and a maximum number of samples per drill hole. The values used are tabulated with all other parameters used for grade estimation in Table 16.6.

Table 16.6: Harvey-Tuttle Grade Estimation Parameters

Minimum Samples	2
Maximum Samples	20
Max Samples / Drill Hole	4

16.4.8 BLOCK MODELING

For mineral resource estimation, several individual block model attributes were used to store data and facilitate mineral resource estimation.

ROCK TYPE BLOCK MODEL

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to barren sediments. The bedrock topographic surface was then used to assign rock code 98, corresponding to overburden, to all blocks 50 % or greater above the bedrock surface. Similarly, the surface topography was used to reset all blocks that were 50 % or greater above the surface topography to the default rock code 0, corresponding to air.

The eight IF domains were used to select all blocks within the rock block model that contained by volume 1 % or greater IF. These blocks were then assigned their appropriate individual domain rock codes 100 though 800.

BULK DENSITY

The bulk densities utilized for the resource estimate were as follows:

Overburden .... 1.8 t/m^3
Waste Rock (Sediments) ..... 2.8 t/m^3
IF .... 3.3 t/m^3

Recent testwork received since the resource disclosure press release on February 28, 2011 suggests that the average bulk density of the IF is approximately 3.5 t/m^3.

PERCENT BLOCK MODEL

A percent block model was set up to accurately represent the volume and tonnage that was contained by each block within the constraining IF domain. As a result, domain boundaries were properly represented by the percent model's capacity to measure infinitely variable inclusion percentages within a specific domain.

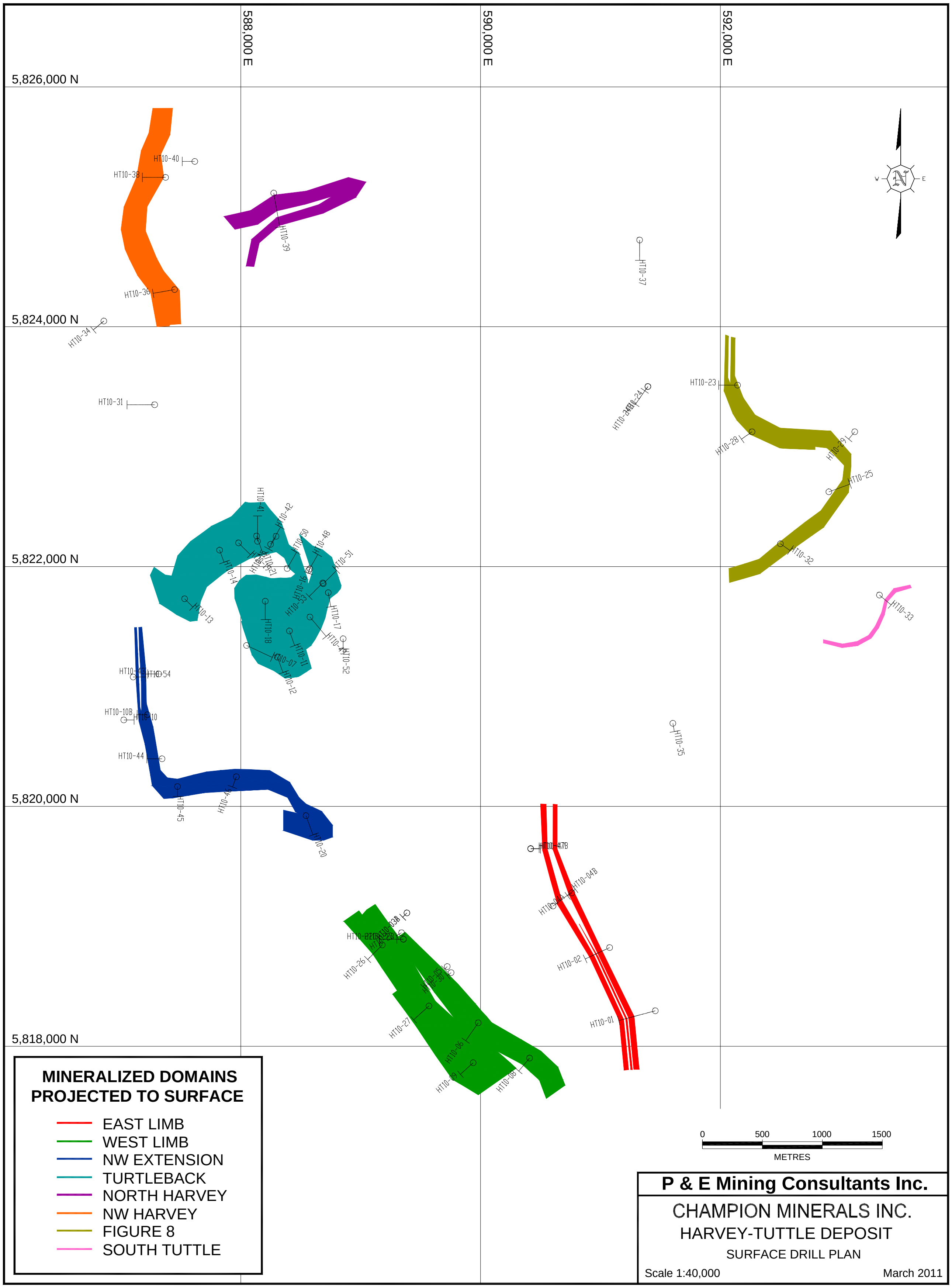
DOMAIN BLOCK MODEL

Due to the highly variable local strike of the IF, a spherical two pass inferred ellipse search was incorporated to code the FeT %, CaO % and MgO % grade blocks. In order to facilitate more precise estimation along the various trends of the deposit, the eight IF domains in Table 16.1 were subdivided into a series of 24 domains where local grade interpolations by the search ellipse could be established for each sub domain to best fit the interpreted geology. Figure 16-6 displays a plan view of the domain coded IF blocks. The search ellipse orientations defined the domains are listed in Table 16.5.

GRADE BLOCK MODELS

FeT %, CaO % and MgO % grade block models were populated from a series of estimation profiles for each of the domains using the search and estimation parameters as described. The CaO % and MgO % models utilized the same search ellipse parameters as FeT %.

Figure 16-6: Rendered Plan View of the Harvey-Tuttle IF Block Coded Domains



16.4.9 GRADE ESTIMATION

Grade estimation was completed by using inverse distance squared linear estimation of composite samples within a search ellipse. Two estimation passes were used to populate each of the FeT %, CaO % and MgO % grade models.

For the two estimation passes, the search ellipsoids were set to 50 % and 100 % of the maximum ranges defined by the experimental semi-variograms. In addition, the minimum number of samples required to estimate the grade was set at two. Approximately 29 % of the Harvey-Tuttle IF units were not estimated due to large gaps between some drill holes.

16.4.10 HARVEY-TUTTLE MINERAL RESOURCE ESTIMATE

Based on the mineral resource model, the total Inferred mineral resources for the Harvey-Tuttle deposit at a 15 % FeT cut-off are estimated at 947 Mt grading 23.2 % FeT, 6.3 % CaO and 5.2 % MgO.

The sensitivity of the Inferred mineral resource estimate to the incremental cut-off grade is presented in Table 16.7.

Table 16.7: Harvey-Tuttle FeT % Inferred Cut-Off Grade Sensitivity[1,2,3]

FeT Cut-Off Grade (%)	Tonnes (Mt)	FeT %	CaO %	MgO %
20 %	717	25.0	5.4	4.7
15 %	947	23.2	6.3	5.2
10 %	1,049	22.3	6.7	5.4

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

16.4.11 MODEL VALIDATION

P&E confirmed the volumetrics calculations and grade estimate for Harvey-Tuttle using two tests to validate the mineral resource model as based on the methodology selected for mineral resource estimation:

- the economic sensitivity of the mineral resource was evaluated by constraining the Inferred mineral resource within an optimized pit shell; and
- a comparison of estimated block grades at a 0.01 % FeT cut-off were compared to length weighted FeT %, CaO % and MgO % averages for constrained raw assays and composites (Table 16.8).

Table 16.8: Comparison of Block Grades to Raw Assays and Composites

	FeT %	CaO %	MgO %
Raw Assays	22.9	6.4	5.4
Composites	23.1	6.4	5.2
Blocks	22.0	6.5	5.3

P&E examined the economic sensitivity of the mineral resource model by generating an optimized pit shell (Figure 16-7) around the Inferred resources, based on the cost parameters listed in Table 16.9.

Figure 16-7: Harvey-Tuttle Optimized Pit Shell

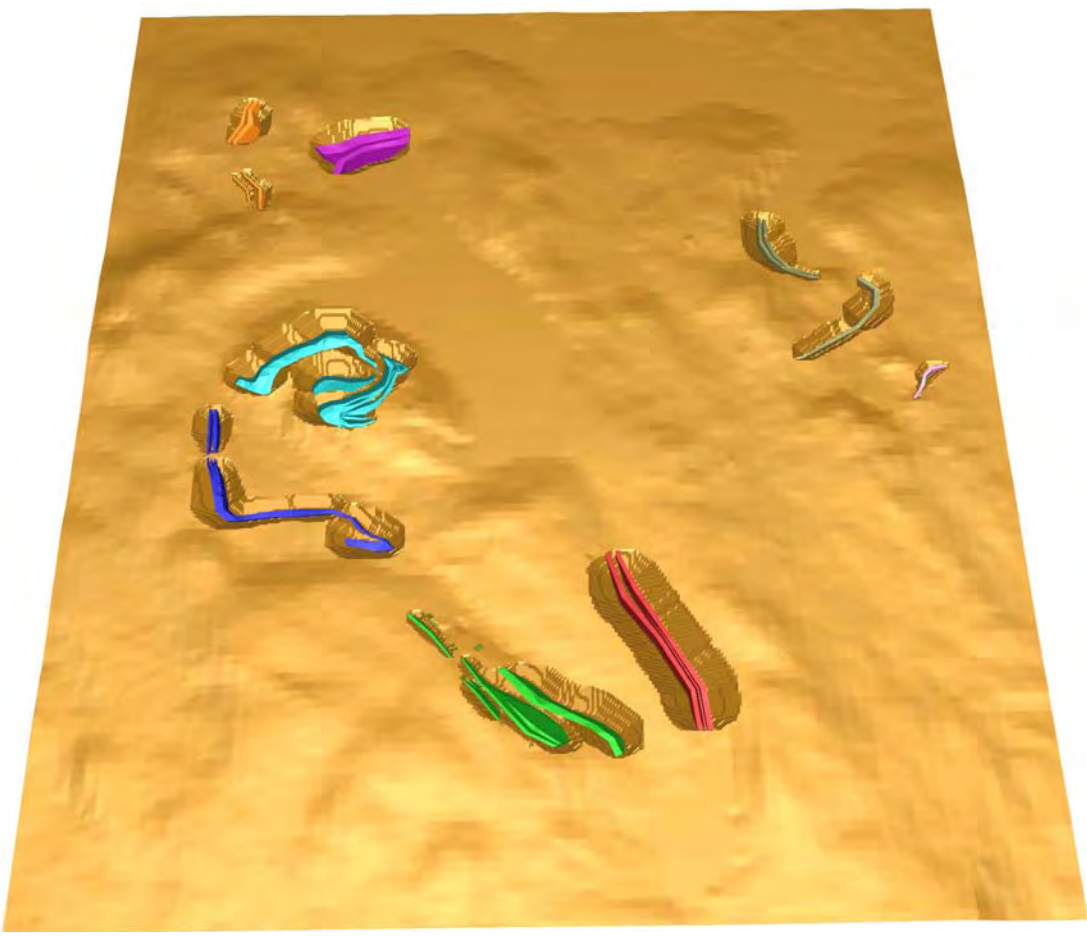


Table 16.9: Pit Shell Optimization Parameters

Parameter	Value (US$)
Fe	$1.14/dmtu
Mining (Ore & Waste)	$1.76/t
Processing	$1.67/t
Transport	$4.75/t
G&A	$0.75/t
Process Recovery	82 %

At a cut-off grade of 15 % FeT, a total of 749 Mt at a grade of 23.6 % FeT are contained within the pit shell, a reduction of approximately 21 % to the total reported Harvey-Tuttle global tonnage (Table 16.10).

Table 16.10: Results of the Total In-Pit Optimized Inferred Mineral Resource Estimate[1,2,3]

FeT Cut-Off Grade (%)	Million Tonnes (Mt)	FeT (%)
20 %	581	25.3
15 %	749	23.6
10 %	793	23.1

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

17.0 OTHER RELEVANT DATA AND INFORMATION

There are no other data considered relevant to this Report that have not previously been included.

18.0 INTERPRETATION AND CONCLUSIONS

The Harvey-Tuttle Property was historically active in the 1950's and 1960's but has been dormant since then. Historic exploration activity recognized the complexly deformed iron formation, however, the limited access to the area made the iron ore a difficult target to develop, and it has remained essentially unexplored since the mid-1960's.

Champion's exploration program is focused on the 37 km of magnetite- and specularite-bearing iron formation that comprise part of the Sokoman Formation, which underlies the Property. The location of the iron formation is well defined by a 2008 airborne geophysical survey that outlined numerous, significant airborne magnetic signatures on the Property. Iron mineralization on the Property is predominantly magnetite-quartz rich, with local high-grade, specularite-magnetite zones.

The geology underlying the Harvey-Tuttle Property is characterized by open to tight, upright and overturned folds that refold early recumbent folds. At least three phases of folding are evident from fold-interference patterns. Dips of bedding and schistosity are rarely a guide to stratigraphic sequence, and many of the units disappear by attenuation. Locally, folded thrust faults, occurring at the iron formation-wallrock contact have disrupted the iron formation unit and possibly truncated it. The magnetic signatures of the iron formation, which are readily outlined by geophysical surveys, can be misleading as the anomalies disappear where the host rocks are non-magnetic (e.g., hematite-rich). It is apparent from the 2008 airborne geophysical survey, and the 2010 drill program, that tectonic thickening of rock units has occurred locally. This is a major factor economically, as it is the thickened, near-surface, synclinal hinges that are most favourable for open pit mining.

Diamond-drilling comprising 61 completed drill holes totalling 13,164 m was completed in 2010. The exploration drilling program was well planned and was carried out in a prudent and careful manner. All drill core logging and sampling was done by trained and professional personnel. Champion has made a concerted effort to ensure good sample quality and has maintained a careful chain of custody and ensured sample security from the drill rig to the assay laboratory.

The drill core was carefully logged and core samples were taken and tested by XRF-analytical methods. Typical core sample intervals were 4 m long. The density of samples was based on benchmark industry standards for iron ore resource calculations. Magnetic susceptibility readings and rock quality designation measurements were obtained as part of the logging procedure.

P&E is of the opinion that the analytical work performed on the core samples by COREM Laboratories was suitable for use in resource estimation. The XRF analytical method combined with a certified QA/QC program is an acceptable method of analysis for iron analysis. The check samples run at COREM Laboratories have produced verifiable results within the level of accuracy expected.

Champion conducted a modern QA/QC program including standard certified reference material, blanks and duplicate check assays on drill core from the two 2010 Harvey-Tuttle drilling programs. This QA/QC program meets current CIM guidelines. The results of the QA/QC program indicate that the reported analytical results meet the standards of precision and accuracy required to support the current resource estimation.

The 2010 exploration program successfully delineated a total Inferred mineral resources of 717 Mt grading 25.0 % FeT at a 20 % cut-off and 947 Mt grading 23.2 % FeT at a 15 % cut-off (Table 18.1).

Table 18.1: Results of the Total Inferred Mineral Resource Estimate[1,2,3]

FeT Cut-Off Grade (%)	Tonnes (Mt)	FeT %	CaO %	MgO %
20 %	717	25.0	5.4	4.7
15 %	947	23.2	6.3	5.2
10 %	1,049	22.3	6.7	5.4

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

The total Inferred mineral resource estimates are presented at incremental cut-off grades of 10 %, 15 % and 20 %, utilizing mining costs of $1.76/t and $7.17/t for the processing, G&A and freight costs. The processing recovery level is estimated to be 82 %, using an iron price of $1.14/dmtu ("dry metric tonne unit") applied to the pit optimization algorithms employed to estimate the in-situ Inferred mineral resources.

Results presented in Table 18.2 are for the same incremental cut-off grades of 10 %, 15 % and 20 % and are the estimates of the portion of the mineral resources that may be economically exploited.

Table 18.2: Results of the Total In-Pit Optimized Inferred Mineral Resource Estimate[1,2,3]

FeT Cut-Off Grade (%)	Tonnes (Mt)	FeT (%)
20 %	581	25.3
15 %	749	23.6
10 %	793	23.1

1. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
2. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.
3. The mineral resources in this Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

The exploration program carried out by Champion Minerals was well thought out, conducted in a professional manner, and meets current industry standards. The diamond drilling was conducted by reputable drill contactors. All of the exploration project data were established to have been collected and documented by appropriate techniques and verified by current standards.

It is the opinion of P&E that the work done on the Harvey-Tuttle Property to date has been adequate in demonstrating the presence of a significant iron-ore resource on the Property. The data collected by Champion is consistent and reliable, and the authors are not aware of any uncertainties related to these data.

Based on the results from the 2010 exploration work by Champion, which corroborated and expanded on historically estimated iron resources on the Property, the Harvey-Tuttle Property is one of merit with regard to potential iron-ore resources, and should be the subject of continued exploration.

19.0 RECOMMENDATIONS

P&E offers the following two phase exploration program to include:

Phase I:

- **Drill program totalling 12,500 m**
  Continue to explore remaining untested magnetic anomalies.
  Commence in-fill and strike-extension drilling of identified higher grade zones within the current mineral resource to increase quality and quantity of resources and identify maximum up-side potential for resources.

- **Gravity / Magnetic / LIDAR surveying totalling 700 line-km**
  These airborne surveys will be used to enhance geological interpretation in order to assist with drill target identification of non-magnetic, potentially high grade, specularite iron formation zones.

- **Preliminary Economic Assessment**

Phase II:

- **Drill program**
  To include delineation / definition drilling.

- **Feasibility Study**

The following budget is proposed to complete these recommended works (Table 19.1).

Table 19.1: Budget for Proposed Works

PHASE I				
Contractor	**Component**	**Units (m)**	**Price per Unit**	**Cost**
Landdrill or Lantech Drilling	12,500 m exploration drill program ($440/m- from Champion's 2010 program)	12,500	$440	$5,500,000
Airborne Gravity/Mag/Lidar		**Units (km)**		
Fugro	Airborne Gravity/Mag/Lidar	700	$150	$105,000
	Mobilization			$15,000
Geophysics Data Processing and Interp.		**Units (days)**		
Abitibi	Analysis, database integration, levelling	5	$560	$2,800
	Processing, Inversion, interpretation	5	$720	$3,600
	2D inversion	7	$480	$3,360
	3D inversion	50 km	$3500 + $20/km (minimum of $4500)	$4,500
Exploration Project Supervision				
Mercator Geological Services	Project supervision and management	10	$850	$8,500
		travel/accomm expenses		$6,000
BBA Inc.	Preliminary Economic Assessment			$300,000
			Subtotal (Phase I)	**$5,948,760**
PHASE II				
Contractor	**Component**	**Units (m)**	**Price per Unit**	**Cost**
Landdrill or Lantech Drilling	12,500 m delineation / definition drill program ($440/m - from Champion's 2010 program)	12,500	$440	$5,500,000
To Be Determined	Feasibility Study			$10,000,000
			Subtotal (Phase II)	**$15,500,000**
			Subtotal (Phase I and II)	$21,448,760
			~20% contingency	$3,100,000
			TOTAL	**$24,548,760**

20.0 REFERENCES

Brown, B., Rivers, T. and Calon, T. (1992) A Structural Analysis of a Metamorphic Fold-Thrust Belt, Northeast Gagnon Terrane, Grenville Province. Canadian Journal of Earth Sciences, vol. 29, p. 1915-1927.

Cannon, W.F. (1992) Descriptive Model of Superior Fe. *In*: Cox, D.P. and Singer, D.A. *(eds)* Mineral Deposit Models. USGS Bulletin 1693, pp. 228-230.

Clark, T. and Wares, R. (2006) Lithotectonic and Metallogenic Synthesis of the New Québec Orogen (Labrador Trough). Ministère des Ressources Naturelles et de la Faune, MM 2005-1.

Dimroth, E. (1970) Evolution of the Labrador Geosyncline. Geological Society of American Bulletin, vol. 81, p. 2717-2742.

Dimroth, E. (1975) Paleo-Environment of Iron-Rich Sedimentary Rocks. Sonderdruck aus der Geologischen Rundschau, vol. 64, p. 751-767.

Fahrig, W.F. (1967) Shabogamo Lake Map-Area, Newfoundland-Labrador and Québec 23 G El/2. Geological Survey of Canada, Memoir 354, 23p.

Gillett and Meikle (1957) Project 185, Harvey Lake Claim Group, Mount Wright Area, P.Q. Geological and Dip Needle Survey. Report Prepared for M.J. Boylen Engineering Offices. Ministère des Ressources Naturelles et de la Faune, Report GM 08183.

Gross, G.A. (1968) Geology of the Iron Deposits in Canada, Volume III: Iron Ranges of the Labrador Geosyncline. Geological Survey of Canada, Economic Geology Report, no. 22, 179p.

Gross, G.A. (1996) Stratiform Iron. *In*: Eckstrand, O.R., Sinclair, W.D. and Thorpe, R.I. *(eds)* Geology of Canadian Mineral Deposit Types. Geological Survey of Canada, Geology of Canada, no. 8, p. 41-54.

Gross, G.A. (2009) Iron Formation in Canada, Genesis and Geochemistry. Geological Survey of Canada, Open File 5987, 164p.

Hunting Geophysics Ltd. (1959) Aerial Magnetic Survey of the Harvey, Star, O'Keefe, Audrey, East Lakes Areas. Report Prepared for Canadian Javelin Ltd. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 09317.

Hydron Report (2008) Hydron Regional Economic Development Corp. Strategic Economic Plan 2008-2011: Economic Zone 2 – Wabush, Labrador City, Churchill Falls. Submitted to Atlantic Canada Opportunities Agencies Innovation Trade and Rural Development, March 10, 2008.

Jubilee Iron Corporation (1961) 2 Plans of DDH Section. Ministère des Ressources Naturelles et de la Faune, Report GM 11404B.

Kirkham, R.V. and Roscoe, S.M. (1993) Atmosphere Evolution and Ore Deposit Formation. Resource Geology, Special Issue, no. 15, p. 1-17.

Klein C. (1978) Regional Metamorphism of Proterozoic Iron-Formation, Labrador Trough, Canada. American Mineralogist, vol. 63, no. 9-10, p. 898-912.

Knowles, D.M. (1959) Exploration Report, Harvey Lake. Report Prepared for Canadian Javelin Ltd. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 09321.

Lacombe, P.G. (1963) General Report on the Properties of Jubilee Iron Corporation. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 13528.

Langton, J. and Clark, D. (2010) National Instrument 43-101 Technical Report: Harvey-Tuttle Lakes Iron Property, Province of Québec. NI 43-101 techncial report prepared for Champion Minerals Inc. by MRB & Associates, dated April 28, 2010.

Lyons, E., Rioux, N. and Robert, M. (2009) Diamond Drilling & Resource Estimation on the Lamêlée-Peppler Iron Property, Faber & Malapart Cantons, MRC Caniapiscau, Québec. NI 43-101 technical report prepared for Consolidated Thompson Iron Mines Limited, dated August 28, 2009.

Malloch, K., Puritch, E., Brown, F.H., Armstrong, T. and Yassa, A. (2009) Technical Report and Resource Estimate on the Bellechasse and Fire Lake North Properties, Fermont Project Area, Québec, Canada. . NI 43-101 technical report prepared for Champion Minerals Inc. by P&E Mining Consultants Inc., dated December 23, 2009.

Malloch, K., Puritch, E., Brown, F.H., Armstrong, T., Yassa, A., Allaire, A. and Vachon, A. (2010) Updated Resource Estimate and Preliminary Economic Assessment on the Fire Lake North Property, Fermont Project Area, Québec, Canada. NI 43-101 technical report prepared for Champion Minerals Inc. by P&E Mining Consultants Inc., dated December 17, 2010.

Muwais, W. (1974) Stratigraphy of the Wabush Lake Area with Special Reference to the Wabush Iron Formation. Internal report prepared for Iron Ore Company of Canada, Technical Services Division, Mining Engineering Department, Exploration and Development Section, Report No. CR 74-4.

Risto, R.W., Kociumbas, M.W. and El-Rassi, D. (2008) Technical Report on the Peppler Lake Iron Project, Québec. NI 43-101 technical report prepared for Quinto Mining Corp. by Watts, Griffis & McOuat.

Québec Cartier Mining Company (1957a) Report on Area 13E. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07240.

Québec Cartier Mining Company (1957b) Tuttle Lake Area – 13B, C, D. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07245.

Québec Cartier Mining Company (1958) Isobel Lake, Area 13A. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07231.

Québec Cartier Mining Company (1959a) Area 13A – Kendrick Lake. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07968.

Québec Cartier Mining Company (1959b) Area 13B – Tuttle Lake. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07981.

Québec Cartier Mining Company (1959c) Area 13E – Fina Lake. Ministère des Ressources Naturelles et de la Faune, Assessment Report GM 07986.

St-Pierre, M. (1998) Final Report of the 1998 Heavy Mineral Sampling Program on the Superior Reconnaissance Project, Area 3, Québec, Canada, Reported Prepared for BHP Minerals Canada Ltd. Ministère des Ressources Naturelles et de la Faune, Report GM 59085.

van Gool, J.A.M., Rivers, T. and Calon, T. (2008) Grenville Front Zone, Gagnon Terrane, Southwestern Labrador: Configuration of a Mid-Crustal Foreland Fold-Thrust Belt. Tectonics, vol. 27, TC1004.

Williams, G.E. and Schmidt, P.W. (2004) Paleomagnetism of the 1.88 Ga Sokoman Formation in the Schefferville-Knob Lake Area, Québec, Canada, and Implications for the Genesis of Iron Oxide Deposits in the Central New Québec Orogen. Precambrian Research, vol. 128, p. 167-188.

Zuran, R.J. (2003) Report for Mineral Exploration Assistance Grant, Project Grenville Zinc, Gagnon Area, Québec, Report Prepared for Anglo American Exploration (Canada) Ltd. Ministère des Ressources Naturelles et de la Faune, Report GM 61232.

21.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

KIRSTINE MALLOCH, MAUSIMM

I, Kirstine Malloch, MAusIMM, do hereby certify that:

1. I am an independent geological consultant employed by P&E Mining Consultants Inc., Suite 202, 2 County Court Boulevard, Brampton, Ontario L6W 3W8.
2. This certificate applies to the technical report entitled "Technical Report and Resource Estimate on the Harvey-Tuttle Property, Québec, Canada" (the "Technical Report") with an effective date of February 25, 2011.
3. I am a graduate of Canterbury University, Christchurch, New Zealand with a Bachelor of Science degree in Geological Sciences (1996), and a Master of Science (with first class honours) degree in Geological Sciences (1999). I am a Member of the Australasian Institute of Mining and Metallurgy (AusIMM member number 301578). I have worked as a geologist for a total of 12 years since obtaining my Bachelor of Science degree;

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation 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. My relevant experience for the purpose of the Technical Report is:

   - Consulting Geologist .... since 2009
   - Senior Geologist, Western Prospector Group Ltd... 2005-2008
   - Geologist, Geological Survey of NSW, Australia... 2002-2005

4. I have not visited the Harvey-Tuttle Property.
5. I am responsible for authoring Sections 1 to 10, 14, 15, 17, 20 and the executive summary and co-authoring Sections 18 and 19 of the Technical Report.
6. I am independent of the issuer applying the test in Section 1.4 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: February 25, 2011
Signed Date: April 13, 2011

{SIGNED AND SEALED}
[Kirstine Malloch]

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Kirstine Malloch, MAusIMM

CERTIFICATE OF QUALIFIED PERSON

TRACY J. ARMSTRONG, P. GEO.

I, Tracy J. Armstrong, P.Geo., residing at 2007 Chemin Georgeville, res. 22, Magog, QC J1X 0M8, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the technical report entitled "Technical Report and Resource Estimate on the Harvey-Tuttle Property, Québec, Canada" (the "Technical Report") with an effective date of February 25, 2011.
3. I am a graduate of Queen's University at Kingston, Ontario with a B.Sc (HONS) in Geological Sciences (1982). I have worked as a geologist for a total of 25 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No. 566), the Association of Professional Geoscientists of Ontario (License No. 1204) and the Association of Professional Engineers and Geoscientists of British Columbia (License No. 34720).

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation 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.

   My relevant experience for the purpose of the Technical Report is:

   - Underground production geologist, Agnico-Eagle Laronde Mine 1988-1993
   - Exploration geologist, Laronde Mine 1993-1995
   - Exploration coordinator, Placer Dome 1995-1997
   - Senior Exploration Geologist, Barrick Exploration 1997-1998
   - Exploration Manager, McWatters Mining 1998-2003
   - Chief Geologist Sigma Mine 2003
   - Consulting Geologist 2003-present.

4. I have visited the Harvey-Tuttle Property on January 18-19, 2011.
5. I am responsible for Sections 11, 12 and 13 and co-authoring Section 18 of the Technical Report.
6. I am independent of the Issuer applying the test in Section 1.4 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective date: February 25, 2011
Signing Date: April 13, 2011

{SIGNED AND SEALED}
[Tracy Armstrong]

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Tracy J. Armstrong, P. Geo.

CERTIFICATE OF QUALIFIED PERSON

EUGENE J. PURITCH, P .ENG.

I, Eugene J. Puritch, P. Eng., residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the technical report entitled "Technical Report and Resource Estimate on the Harvey-Tuttle Property, Québec, Canada" (the "Technical Report") with an effective date of February 25, 2011.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency. I am a mining consultant currently licensed by the Professional Engineers of Ontario (License No. 100014010) and registered with the Ontario Association of Certified Engineering Technicians and Technologists as a Senior Engineering Technologist. I am also a member of the National and Toronto Canadian Institute of Mining and Metallurgy.

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation 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.

   I have practiced my profession continuously since 1978. My summarized career experience is as follows:

   - Mining Technologist - H.B.M.& S. and Inco Ltd., 1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
   - Self-Employed Mining Consultant – Timmins Area, 1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
   - President – P & E Mining Consultants Inc, 2004-Present

4. I have not visited the Harvey-Tuttle Property.
5. I am responsible for Section 16 and co-authoring Sections 18 and 19 of the Technical Report.
6. I am independent of the issuer applying the test in Section 1.4 of NI 43-101.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: February 25, 2011
Signing Date: April 13, 2011

{SIGNED AND SEALED}
[Eugene Puritch]

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Eugene J. Puritch, P. Eng.

APPENDIX I:

DRILL HOLE DESCRIPTIONS

DDH	Description
HT10-01	This hole collared into a thick sequence of medium to coarse grained **Gabbro** described as banded dark grey to black and faint pink with leucocratic zones . The texture is locally augen-like and has more massive zones of k-feldspar and quartz with minor foliated biotite and quartz up to 0.5m width. Also see minor carbonate slips with foliated faces. There is local contorted schistosity in the finer grained zones. Garnets start to appear at 61m and continue down hole and range in size from mm to cm scale. A 2.5m mafic dyke cuts the Gabbro and the lower section of Gabbro becomes blockier in a possible late stage fault zone. The Gabbro is followed by a narrow unit of **Granite Gneiss** described as medium grained foliated with mm scale mafic bands at 3-4cm intervals at 60 deg ca. A **Diorite** zone follows the Granite consisting of a fine-medium grained mottled black (grey) and white "salt and pepper" texture, with anhedral crystals, relatively massive but with local gneissic textures and becoming coarse grained with depth to **Quartz-Biotite Gneiss**. More **Gabbro** occurs below this, which is then followed by a **Quartzite** unit described as faintly gneissic with salt and pepper textures, fine grained with 1-3% very disseminated biotite. This if then followed by a thick sequence of **Iron Formation** described as green and grey banded (40-50% amphibole), with 1% garnet bands of 2-3mm widths with iron mineralization consisting mainly of magnetite with lesser reddish specularite. Magnetite often has distinct crystals aligned and disseminated. Iron content ranges from trace to 25%. The IF is followed by a thin unit of **Quartzite** and **Pelitic Quartzite** that is cut by a mixed **Metadiorite-Quartz-Amphibole** with felsic xenoliths before going back into more **Banded Iron Formation** with up to 25% magnetite as heavy disseminations and 6-10cm bands. Magnetite is subhedral to cubic. The hole ends in **Quartz/Calc-Silicate** beds described as interbedded grey and very light grey with 1-3% biotite disseminated throughout and occasional garnets.
HT10-02	This hole collared in a **Quartz-Biotite-Gneiss** described as soft and hard sections, very blocky, with 20-30% fault gouge. Rare competent zones show foliation at 50-55 deg ca in a possible "tumbled" provenance, granite and mafic rounded clasts in gouge at 56.3-59m. This unit was followed by an altered **Quartz-Sericite** unit with 60% greenish-white clay, very blocky core, banding shows orientations of 40-60 deg ca, and shears at 15-25 deg ca. Unit was originally a quartz-sericite gneiss/schist. Below this was a **Brown Clayey Rock** described as soft, barely consolidated matrix hinting of originally gneissic form, occasional clasts of quartz/calcite and possible tremolite. Next was a unit of white to pinkish **Quartzite** that was coarse grained white, still blocky, with max. 1-3% biotite. Pinkish hue becomes stronger with depth. A **Grey Quartzite** unit followed this described as fine grained, banded grey-green at 1-3cm intervals with trace to 3% biotite to lepedolite. This in turn graded into a red and grey banded **Quartzite**, followed by a **Quartzite-Biotite Gneiss** that was fine grained, banded, grey to locally black at 1-3cm cycles, biotite bands often with amphibole of 3-5mm size, plus local garnet 1-2mm, hematized shear coating. Below this, the hole goes into **Iron Formation** that was fine grained, medium grey-green with very dark grey mm scale bands, Magnetite 5-8% in upper 4m and stronger with depth. A **Lean-Quartzite** unit occurs below this before going back into a **Quartz-Magnetite-Actinolite Gneiss** Iron Formation with mottled and banded magnetite bands with 10% Actinolite, 10% biotite and strong 20-25% Magnetite. This unit is followed by a **Pegmatite Dyke** with 30% K-feldspar and 70% Quartz, which in turn goes into a **Garnet-Biotite Gneiss**. A unit of **Quartz-Magnetite +/- Amphibole Gneiss** Iron Formation occurs below the Biotite Gneiss which is described as a medium grained dark-grey to green, to dark green within Actinolite rich zones with up to 25% Magnetite and 5% Specularite. A medium grained **Metadiorite** unit occurs below this that has stretched "salt and pepper" fabric with 40% quartz, 60% amphibole and biotite and trace garnet. The hole goes back into a **Quartz-Magnetite Gneiss** Iron Formation below this with 15-20% Magnetite, and then into an **Amphibole** and altered **Amphibole Gneiss** that was weakly magnetic, before getting back into the **Quartz-Biotite-Garnet Gneiss** Iron Formation described as banded grey, fine to medium grained with 3-5cm cycle of garnet in upper 0.7m and less with depth. This unit is followed by a **Massive Quartz-Muscovite Granite** unit and then another **Metadiorite** unit before getting back into more **Quartz-Magnetite Gneiss** Iron Formation with 15-20% Magnetite and up to 3% Specularite. This unit is followed by a **Quartz-Actinolite (Amphibole) Gneiss** with 30% Magnetite, 40% Quartz and 50% Amphibole. The hole goes into a Quartzite and Schist unit with interbedded quartzite and quartz-muscovite schist, and then into a grey Quartzite unit before ending in a Marble.
HT10-03A	This hole collared in an altered **Quartz-Biotite Gneiss** that was very deuterically altered, followed by a **Quartz-Biotite Gneiss** and then an altered soft brown zone (fault zone). Below this was a **Quartz-Feldspar Gneiss** that was described as very blocky and locally very soft. The hole was abandoned due to bad ground in a very altered brown **Fault Zone** within what may have originally been a **Gneissic** unit.
HT10-3B	Hole abandoned after drilling 100m of overburden.
HT10-04A	Hole abandoned after drilling 68m of overburden.
HT10-4B	This hole collared in a **Quartz-Actinolite-Specularite-Magnetite Gneiss** unit described as fine grained grey, quartz rich gneiss with local bands of whitish feldspar, quartz, Actinolite and magnetite. Specularite is disseminated and very fine grained throughout the unit. Below this is a **Grunerite-Quartz-Magnetite Gneiss** with a buff green colour and grey quartz and feldspar bands associated with magnetite and rare garnet crystals and trace of specularite. Below this is a unit of **Quartz-Biotite-Garnet Gneiss** described as grey-fine grained with local chlorite alteration. Biotite increases down hole. A **Quartz-Magnetite-Biotite Gneiss** occurs below this unit having a grey banded appearance with biotite, Actinolite, and specular hematite. Magnetite is banded and disseminated and is associated with 3-5% specularite. This is followed by another unit of **Quartz-Biotite-Garnet Gneiss**, and a unit of **Amphibole-Quartz-Garnet Gneiss.** Below this is more **Quartz-Biotite-Garnet Gneiss** before going back into an **Amphibole-Quartz-Garnet Gneiss** and then enters into a narrow unit **Quartz-Chlorite-Biotite Gneiss** described as a fine grained green gneiss with rare local stretched garnets with trace Pyrite and Pyrrhotite. This unit is followed by a **Quartz-Grunerite-Magnetite Gneiss** with up to 20% Magnetite and 5% Specularite. Below this is another unit of **Quartz-Biotite-Garnet Gneiss**, followed by **Quartz-Amphibole-Magnetite Gneiss** with 10% Magnetite and 1-2% Specularite. This unit is followed by a **Granite Dyke** described as whitish-pink coarse grained with rare zenoliths, below which occurs another unit of **Grunerite-Quartz-Magnetite Gneiss** described as a dark greyish green, fine grained banded gneiss with weak magnetite.

DDH	Description
	Magnetite is always associated with quartz/feldspar bands in this unit that is seen throughout most other holes on the property. Below this is a similar unit of **Quartz-Grunerite-Magnetite Gneiss** with 20% banded Magnetite, followed by more **Amphibole-Quartz-Magnetite Gneiss** with 5-10% Magnetite. The hole ends in a **Quartz-Mica Gneiss** with local chlorite and Actinolite and minor magnetite and local stretched garnets.
HT10-05	Hole abandoned at 43.0m in overburden.
HT10-06	This hole collared in Iron formation in the form of a thick **Quartz-Grunerite-Magnetite Gneiss** unit described as light grey to beige, fine grained with fine grained to locally medium and typically banded and weakly disseminated Magnetite throughout, 10-20% Magnetite. This was followed by a unit of **Quartz-Feldspar-Biotite-Muscovite Schist**, and then a unit of **Granite Intrusive** described as a fine to locally coarse grained grey/pink early granitic dyke before going back into the **Quartz-Feldspar-Biotite-Muscovite Schist**. Below this was a unit of **Quartz-Muscovite +/- Garnet Gneiss**, medium grained, dark green with <1mm garnets and a similar unit of **Quartz-Muscovite +/- Garnet Gneiss** containing a narrow shear zone with chlorite. These units were followed by a **Quartz-Magnetite-Specularite Gneiss** Iron Formation, very similar to the upper unit but with intermixed banded magnetite and specularite, 15% specularite and 10% magnetite. Below this was another unit of **Quartz-Feldspar-Biotite-Muscovite Schist**, light grey, fine to medium grained with rare garnet crystals up to 2cm. The hole then goes back into more Iron Formation in the form of a **Quartz-Magnetite-Specularite Gneiss** with rare Actinolite, 25% Specularite and 5% Magnetite. This is followed by a unit of **Orthoquartzite Gneiss**, medium grey, fine to coarse grained with what looks to be trace to 1% Sphalerite and trace chlorite. Below this is another narrow unit of **Quartz-Feldspar-Biotite-Muscovite Schist**, before going back into the **Orthoquartzite Gneiss** unit and ending in **Calcite Marble +\- Tremolite** described as medium to coarse grained with local Actinolite and bands of amphibole, including garnet up to 10cm thick with 1-2cm garnet crystals. Local bands rich in quartz contain 4-5% Pyrite and Pyrrhotite.
HT10-07	This hole collared in basement **Granite/Pegmatite** described as a coarse grained feldspathic granite with Actinolite and biotite phenocrysts and a coarse grained quartz and feldspar rich matrix. Below this, the hole went into a thick sequence of Iron formation of alternating **Quartz-Magnetite-Grunerite Gneiss**, **Quartz-Magnetite Gneiss**, **Quartz-Feldspar-Magnetite-Grunerite Gneiss**, and **Quartz-Carbonate-Magnetite Gneiss** consisting of up to 5-40% fine disseminated/interstitial, and locally massive magnetite bands, Actinolite, and local chlorite alteration in mottled buff coloured patches. This thick sequence is underplayed by an **Amphibolite-Carbonaceous Gneiss** described as dark green with cloudy white carbonaceous patches, medium to coarse grained, weakly magnetic with disseminated magnetite and locally massive amphibole. Below this is a unit of more **Quartz-Feldspar-Magnetite Gneiss** with 5-10% magnetite and accessory amphiboles. The holes gets back into more Iron Formation below this, as above, with alternating units of **Quartz-Feldspar-Magnetite Gneiss**, **Quartz-Magnetite Gneiss** and **Quartz-Feldspar-Magnetite-Grunerite Gneiss** with 10-35% of disseminated and locally massive magnetite. This sequence is followed by a unit of white **Calcite Marble +/- Tremolite** with dark green chlorite lenses and a 2m section of **Fault Gouge**, before passing through a narrow unit of **Quartz-Feldspar-Magnetite Gneiss** with trace to 1% magnetite. The hole ends in another unit of white crystalline **Calcite Marble +/- Tremolite** with quartz lenses.
HT10-08	This drill hole collared in Iron Formation in a **Quartz-Amphibole-Magnetite Gneiss** described as light grey, fine grained with local feldspar, fault zone, 7-8% magnetite. This unit is followed by a unit of **Quartz-Biotite-Muscovite Gneiss**, light grey and grades from fine to medium grained down hole. The hole then goes back into Iron Formation in the form of a **Quartz-Actinolite-Grunerite-Magnetite Gneiss** described as a banded, grey-beige-green magnetite rich gneiss with 10% magnetite. Below this is a unit of **Quartz-Biotite Gneiss**, non-magnetic, light grey mottled appearance with minor muscovite and feldspar. This is followed by a unit of **Amphibole-Quartz-Garnet Gneiss** with a salt and pepper texture, medium grained, non-magnetic. Below this is another unit of **Quartz-Biotite Gneiss**, light grey, medium to coarse grained, non-magnetic. The hole ended in an **Amphibole-Quartz-Garnet Gneiss** with a salt and pepper texture, medium to fine grained and non-magnetic.
HT10-09	This hole also collared in Iron Formation in the form of a **Quartz-Specularite-Magnetite-Actinolite Gneiss** described as grey to dark grey with black (magnetite) and metallic (specularite) bands, coarse to medium grained, hard, with hematite staining on fractured surfaces, moderately to strongly magnetic, 25% specularite and 10% magnetite. This is followed by a unit of **Feldspar-Quartz-Biotite-Chlorite Gneiss**, cloudy white with black speckled biotite crystals, local crystalline carbonates. Below this is a unit of **Quartz-Biotite-Garnet-Muscovite Gneiss** described as a medium grained, black and white salt and pepper textured unit with 20% dark pink subhedral to anhedral garnets 1-25mm. A series of more Iron Formation units occur below this in the form of **Quartz-Magnetite-Specularite-Actinolite Gneiss** with 20% specularite and 15% magnetite, followed by Quartz-Biotite-Actinolite Garnet-Magnetite Gneiss with 4% magnetite and 3%specularite, followed by another unit of **Quartz-Specularite-Magnetite-Actinolite Gneiss** with 25% massive specularite and 10% interstitial magnetite. The hole then goes into a narrow unit of **Lean-Quartz Iron Formation** described as pale grey with local coarse grained biotite crystals along fracture surfaces. This is followed by a thin unit of **Calcite Marble +/- Tremolite** and then into a unit of **Quartz-Biotite-Garnet-Muscovite Gneiss**. Below this is a unit of **Quartz-Actinolite-Biotite Gneiss**, a **Feldspar-Quartz-Biotite-Garnet Gneiss**, and a unit of **Quartz-Feldspar-Chlorite-Biotite-Garnet Gneiss**. The hole ended in a unit of **Quartz-Biotite Gneiss**.
HT10-10	This hole collared in a unit of **Quartz-Biotite-Muscovite Gneiss** described as light grey, fine to locally medium grained with weak banding, local quartz veins, and no mineralization. Local white and pink feldspar crystals become more quartz-rich down hole. Hole was terminated at 149m before reaching target due to early spring break-up.
HT10-10B	The hole is collared in Quartz-Magnetite-Silicate Gneiss and contains patches of disseminated Magnetite. Thin fractures through the unit are filled with carbonates, Serpentine, and trace Garnets. Chlorite alteration is moderate and occurs in bands up to 2.5 cm. Magnetite patches occur within the silicate bands. This is followed by a coarse to fine grained, magnetic Gabbro. Actinolite alteration is strong in bands and veins, and (15%) Magnetite is disseminated through the unit. The hole then goes back into Quartz-Magnetite-Silicate Gneiss with banded (10%) Magnetite and strongly banded

DDH	Description
	Chlorite alteration. An 80 cm Mafic Dyke containing large Plagioclase crystals (1 cm) and large fragments from the above unit cuts into the Magnetite Gneiss. The dyke has a sharp lower contact, rich in garnets. The Magnetite gneiss continues with an increase in the (20%) Magnetite content and remains well banded. Another Gabbro unit follows, but does not contain any of the disseminated Magnetite. A second Mafic Dyke occurs at the base of the Gabbro, similar to the Dyke seen up the hole. The hole then goes into a Quartz-Magnetite-Silicate-Carbonate Gneiss with banded (10%) Magnetite and strings of Garnet (3 mm). The hole finishes in Quartz-Feldspar-Biotite Gneiss, which is Mica rich with multiple quartz veins. (1-10 cm)
HT10-11	This hole also collared in Iron Formation as a **Quartz-Grunerite-Magnetite Gneiss** described as greyish green with buff patches (grunerite). Medium grained, hard, trace to 10% magnetic, followed by a unit of **Quartz-Biotite-Garnet Gneiss**, dark grey with dark pink sub-rounded garnets, coarse grained, with minor chlorite and carbonate alteration, non-magnetic. Below this is a unit of **Lean-Quartz-Actinolite Gneiss**, cloudy white to pale grey, medium grained, hard and non-magnetic followed by a unit of **Quartz-Biotite-Muscovite-Grunerite Gneiss**, grey medium grained, local chlorite alteration along fracture surfaces, non-magnetic. This is followed by another unit of **Lean-Quartz-Actinolite-Garnet Gneiss**, as above with subrounded garnets and local dark green patches, medium to coarse grained, minor sulphides. Below this is more Iron Formation in the form of a **Quartz-Amphibole-Actinolite-Garnet Magnetite Gneiss** described as pale grey with dark pink sub-rounded garnets and light green patches/wisps of Actinolite? Medium to coarse grained and weakly to strongly magnetic, 15% disseminated magnetite. This is followed by a **Quartz-Grunerite-Magnetite Gneiss**, light grey, medium grained, with buff patches and lenses of grunerite?, and 10% disseminated magnetite, and then a **Quartzite** unit, which in turn is followed by a **Quartz-Biotite-Muscovite-Garnet Gneiss**, black and white salt and pepper appearance ranging from soft to hard, medium to coarse grained, local garnets and sulphides. Below this is more **Lean-Quartz-Actinolite Gneiss** and **Quartz-Biotite-Garnet Gneiss** before going back into more Iron Formation as **Quartz-Feldspar-Grunerite-Actinolite-Magnetite Gneiss** with 3% disseminated magnetite and a **Quartz-Feldspar-Magnetite-Grunerite Gneiss** with up to 20% interstitial magnetite as subhedral crystals 1.2mm in size. Below this is a another unit of **Quartz-Feldspar-Biotite-Garnet-Actinolite Gneiss**, pale grey with black mm-size biotite bands and light green Actinolite patches, 1% disseminated magnetite, and then back in a **Quartz-Grunerite-Magnetite-Actinolite Gneiss**, grey with large (0.2 to 10cm) patches of 35% Grunerite, coarse to medium grained, hard, 15% disseminated magnetite. Then a **Quartz-Feldspar-Actinolite-Grunerite-Biotite Gneiss** that is non-magnetic, followed by a **Quartz-Feldspar-Garnet-Actinolite-Biotite Gneiss**. The hole passed through another unit of Iron Formation as a **Quartz-Feldspar-Garnet-Magnetite-Actinolite-Biotite Gneiss** with 10% disseminated magnetite before ending in a **Quartz-Feldspar-Garnet-Actinolite-Biotite Gneiss** described as grey with dark pink garnets and interstitial Actinolite and disseminated biotite crystals, coarse to medium grained, moderately hard. A small fault with chlorite in-fills occurs at 182.3m.
HT10-12	This hole collared in Quartz-Feldspar-Biotite Gneiss with a speckled black and white appearance with local white feldspar bands, medium grained. The hole then went into several sequences of Iron Formation that varied from a Quartz-Feldspar-Grunerite-Magnetite Gneiss described as grey with buff colored (grunerite), medium to fine grained with local coarse grained sections, locally rusty, strong to moderately magnetic; then into Quartz-Feldspar-Amphibole-Actinolite-Magnetite Gneiss?, altered medium grained, pale beige with local chlorite-rich zones becoming coarser grained with depth, mottled texture. Then it goes into another Feldspathic Dyke, pale pink to white, hard, coarse grained – pegmatitic, before going back into Iron Formation in a Quartz-Feldspar-Grunerite-Magnetite-Actinolite Gneiss described as medium to fine grained with local coarse grained sections and strongly to moderately magnetic. Below this, the hole goes into a unit of Quartz-Biotite-Garnet Gneiss, black and white with subrounded, scattered, euhedral to subhedral garnets, coarse to medium grained, soft before going back into more Iron Formation as a Quartz-Feldspar-Grunerite-Biotite-Magnetite-Actinolite Gneiss that was strongly to moderately magnetic with 10% disseminated magnetite, then into a narrow unit of Quartz-Garnet-Actinolite-Amphibole Gneiss described as having a mottled appearance, dark green with dark pink blotches and local chlorite on fractured surfaces. More Iron Formation occurs below this as several more sequences of Quartz-Feldspar-Grunerite-Biotite-Magnetite-Actinolite Gneiss with 5-10% disseminated magnetite; Quartz-Feldspar-Amphibole-Actinolite-Magnetite Gneiss with up to10% disseminated magnetite and finally back into the Quartz-Feldspar-Grunerite-Biotite-Magnetite-Actinolite Gneiss still with 10% disseminated magnetite. The hole ends in a unit of Marble described as cloudy white, crystalline with deformed quartz bands/lenses.
HT10-13	This hole collared in a **Quartz-Silicate Iron Formation** described as very siliceous, fine to medium grained, dark grey-greenish in siliceous zones. Pale beige-brown in Actinolite/grunerite rich zones. Local narrow quartz-feldspar-hornblende veins. 12% disseminated magnetite. The Iron Formation was cut by a medium to coarse grained potassium feldspar rich **Felsic Dyke** with reddish pink garnets but then goes back into the **Iron Formation** as above with up to 12% disseminated magnetite, followed by another unit of **Iron Formation** containing up to 15% disseminated magnetite before passing into a unit of **Quartzite** described as pale greenish, very fine-grained, siliceous, containing minor garnets and non-magnetic. The **Quartzite** is followed by a unit of **Silicate-Carbonate Iron Formation** similar to the above units with prominent dark green to black chlorite along fracture faces and as fracture filling and 15-25% Actinolite/grunerite, 15% banded magnetite. The hole ended in a **Calcite Marble** unit described as pale greenish, silicified towards upper contact, but grading into softer calcite/marble at depth.
HT10-14	The hole collared in a dark greenish-grey, medium to coarse-grained, weakly magnetic, **Gabbro**. Few carbonate veins occur at the lower contact. The Gabbro contains 7 % fine-grained magnetite. The hole then intersects a **Quartz-Magnetite-Silicate Gneiss,** dark to gray in colour, fine-grained, banded (with few magnetite bands of up to 70% magnetite), 25% Magnetite, and 10% Actinolite. The preceding unit is a **Silicate-Carbonate Gneiss**, fine-grained, alternating gray and greenish brown bands (grunerite-Actinolite-magnetite). Magnetite is mostly concentrated in the Actinolite-grunerite bands, 5 to 10% Magnetite, 15 to 20 % Actinolite-Grunerite, 10% Carbonate, 5% Garnet and 1%

DDH	Description
	chlorite as alteration minerals. Increase carbonate with decreasing silicate content towards the lower contact. The hole then intersects a **Marble**; whitish, fine to medium-grained, and crystalline with uniform composition. This unit is followed by a coarse-grained **Quartz-Feldspar-Biotite Gneiss** with trace coarse-grained pyrite. The next unit is **Quartzite**; smoky and crystalline, with 7% Actinolite stock work, and 1% Garnet. The hole then intersects a **Quartz-Silicate Gneiss**; poorly defined banding with silicate and quartz, 7 % magnetite, 3 to 5% Pyrrhotite, and 25 % Actinolite-Grunerite.
HT10-15	This hole collared in **Quartz-Magnetite-Silicate-Carbonate Gneiss**, this unit varies in texture and composition, and the magnetite content is noted to increase progressively with depth. It is grey, banded, fine to medium-grained, alternation of magnetite free silica (quartz) bands and brownish green bands of Actinolite, carbonate and magnetite, 17% Magnetite, 20% Actinolite, 15% carbonate; greenish grey, banded, fine grained to very limited massive patches, 20% magnetite, 21% Actinolite-Grunerite and 7% Carbonate. Most of the Quartz rich bands are magnetite free. This unit grades into **Quartz-Magnetite-Carbonate Gneiss**; grey, coarse-grained to massive, 50 to 70% magnetite, 10 to 15% Carbonate, Strongly Metamorphosed. Coarse- grained Magnetite in recrystalised carbonate veins. This unit is followed by **Quartz-Magnetite-Specularite Gneiss**; grey, fine-grained to massive, medium to coarse-grained in sheared veins, chlorite alteration, spotted leached carbonate with scoraceous texture, 50% Magnetite, 30% Specularite, 10% Carbonate, 2% fine-grained disseminated garnet. This unit grades back into **Quartz-Magnetite-Carbonate Gneiss**, whitish grey in colour, fine-grained to massive, medium to coarse magnetite in recrystallised carbonate bands, patches of leached carbonate gives small scale scoraceous texture. 35 % Magnetite, 12% carbonate, and 1% Chlorite. The last unit in this mineralization zone is a **Quartz-Magnetite-Silicate Gneiss**, brownish grey, alternating stockwork of Actinolite and quartz, fine to coarse-grained disseminated magnetite, 30% Magnetite, 20% silicates. The hole then intersects a **Gabbro**, greenish to purple grey, fine-grained, weakly altered, gradually transitioning to coarse-grained. The fine-grained section is bedded with 2% pyrite. The unit contains a zone, altered and recrystallised filled with reddish white carbonate. The coarse-grained gabbro is more magnetite bearing than the fine-grained, interstitial and discrete porphyroblast magnetite crystals. The composition becomes more of a Gabbro-Anorthosite down hole, magnetite-hornblende +/- sulphide (Pyrrhotite and pyrite, coarse-grained) vein. Carbonate and felspathic veins were noted, as were brief transitions into coarse-grained gabbro with 25% Magnetite. This zone is in contact with a lower carbonate unit. Below this unit is a medium to fine-grained **Quartz Gabbro** that continues to the end of the hole. 7% magnetite for the entire gabbro unit.
HT10-16	This hole collared in a thick sequence of **Olivine Gabbro** described as pale grey to white on dry surface, fine to medium grained, has a spotted, patchy appearance caused by irregular concentrations of fine plagioclase and mafic (hornblende/olivine) rich minerals. Olivine altered to serpentine along fracture faces and show slickensides, 10% disseminated/interstial magnetite. This unit is followed by a thick unit of **Gabbro**, similar to the above in colour and texture but with a well-developed foliation and chlorite rich zones and higher carbonate content. Trace to 1% magnetite. A thin **Amphibolite Dyke** occurs below the Gabbro followed by another thin **Mafic Dyke** described as very dark green to black, fine grained Diabase with approx. 20% 2mm garnets. The hole ends in a light grey to white medium grained **Quartz-Feldspar-Mica Schist** with chlorite along fracture faces and a trace of pyrite.
HT10-17	This hole is collared in **Silicate-Carbonate Gneiss**, whitish grey, containing: Quartz Grunerite Carbonate, and Magnetite, fine-grained disseminated magnetite, moderately magnetic, 13% Magnetite, 19% Grunerite and 5 to 10% carbonate, both the silica and silicate bands are magnetite bearing. However, the silicate bands are richer in magnetite as compared to the silica bands, This unit is followed by a **Quartz-Carbonate Gneiss**; greyish-white, fine to medium grained, banding, and magnetite free (except for a brief band of amphibole skarn with trace magnetite). Garnet veins also contain 30% Carbonate, and trace chlorite. The hole then intersects a **Biotite Schist**, whitish grey, strong sericitization along cleavage plains, and a disseminated sulphide vein. There exist bands of dominantly, if not solely, biotite, and it is along these bands that cleavages occur. The lithology is more or less homogeneous. Bands of sericite and biotite are common, no noticeable magnetite in this lithology. This unit grades into a **Garnet-Biotite Schist**, reddish black, coarse-grained (porphyroblastic schistose) with rounded garnet grains, 35% Garnet, and 30% Biotite. The preceding unit is a **Mica Schist**, light grey, medium grained, books, lineation and ptygmatic folds of biotite and muscovite, cleavage common along mica laminae, bleached surfaces, sericitization, fault gouge, quartz veins with books and blebs of biotite, and shock quartz boudins re-occurring throughout this unit. Towards the lower contact the schist is bedded with well defined laminae of mica. This unit grades back into **Garnet-Biotite Schist**, and then a **Mica Schist**, followed by **Quartzite** with accessory muscovite, trace sulphides, white, glassy, crystalline, shock quartz with accessory muscovite common along fractures. And back into **Mica Schist** till the end of the hole.
HT10-18	This hole collared in **Quartz-Magnetite-Silicate-Carbonate Gneiss**, brownish grey, fine-grained to massive, 21% Magnetite, 30% Grunerite(-Actinolite), 10% Carbonate, moderately to strongly magnetic, alternating bands of silica and silicate. The later is more magnetite bearing, the richest part of this iron formation, massive bands of magnetite, up to 65% magnetite. Silicate content is also higher in this zone. Intermittent fracture zones filled with mafic and carbonaceous materials, and recrystallised carbonate bands are also common. Silicate bands create a stockwork towards the lower contact. Moderate to strong fractures are infilled with dark green mafic content, slightly carbonaceous. The hole then contacts a light greenish-grey **Gabbro**; fine to coarse-grained, with poorly developed lamination. Two minor reddish white Felsic dykes occur through this unit. The biotite content increases and then changes back to more of a quartz gabbro at the end of the hole.
HT10-19	The hole is collared in a fine grained, magnetic **Gabbro**. The unit contains patches of Grunerite, (10%) Magnetite, and traces of carbonates. Mica is also very abundant. This is followed by a **Quartz-Magnetite-Silicate Gneiss** with disseminated (15%) Magnetite, (25%) Actinolite, and trace carbonates. The hole then intersects a medium to fine grained, banded **Quartz-Magnetite-Specularite Gneiss**. Bands of Grunerite and trace Carbonates are common within the bands of Magnetite and Specularite, which range from: 5% and disseminated, to 70% and locally massive. This unit grades into a **Quartz-Magnetite-Silicate-Carbonate Gneiss** with large Magnetite bands. The (15%) Magnetite is

DDH	Description
	banded and is locally (50%) massive. Bands of (15%) Grunerite and trace Carbonates occur throughout the unit. This is followed by a fine- to medium-grained **Quartzite**. Minor Grunerite and Chlorite alterations are weak. Garnets and Mica compose the sharp lower contact. The hole ends in a fine to medium grained **Gabbro**. There is evidence of **Gabbro dyking** within the host **Gabbro**, with (10%) Magnetite and minor Chlorite alteration.
HT10-20	This hole is collared in **Quartz-Magnetite-Silicate Gneiss**; greenish grey, fine-grained, alternating Silica and silicate+magnetite+carbonate bands. Most of the pure silica bands at the upper portion of this iron formation are Magnetite free, with 23% Magnetite, 25% Grunerite, 3 to 5% carbonate, 3 to 5% garnet. This unit grades into **Quartz-Magnetite-Specularite Gneiss**; whitish gray, banded, medium-grained to semi-massive, 33% Magnetite, 7% Specularite, 5% Carbonate, 3 to5% Silicate. The style of mineralization is dominant magnetite bands and quartz bands with disseminated Magnetite+Specularite. Well developed laminations. Carbonate associated more with magnetite. A **Gabbro** intrusion precedes this unit, light-grey, coarse-grained, magnetite alteration, with re-occurring fractures. 3% Magnetite locally 5%. The upper composition is more of a hornblende gabbro. **Quartz-Carbonate Gneiss**, with alternating bands of quartz +/- silicate stockwork and bands of carbonate+silicate+magnetite, 10% Magnetite, 20% Grunerite, and 17% Carbonate, moderate to strong garnet alteration towards the lower contact and weak chlorite alteration. A Garnet-biotite-hornblende amphibolite dyke, bearing (7%) magnetite (mafic dyke) intrudes this unit. The hole then grades into a **Quartz-Magnetite-Specularite Gneiss**; light to dark grey, fine to coarse-grained, 30% Magnetite, 13% specularite, 15% carbonate, +/- silicate, massive and small scale scoraceous texture locally, from carbonate leaching. Specularite occur as massive bands, and disseminated in magnetite and Magnetite+carbonate bands. Fractures common in bands where carbonate have been leached. This unit grades back into a **Quartz-Carbonate Gneiss** which contacts the lower unit of **Marble**; whitish, medium to coarse-grained, trace sulphides (Py>Po) in fracture zones with intense chlorite alteration. The fractures are in filled with chloritised impure carbonates.
HT10-21	The hole is collared in fine grained **Quartz-Magnetite-Silicate Gneiss**. Magnetite occurs through the unit (10%) disseminated and locally (60%) banded. Actinolite/Grunerite and trace Carbonates occur banded throughout the unit. The hole then grades into a coarse grained **Quartz-Magnetite-Specularite Gneiss** with bands of (50%) Magnetite and (10%) Specularite. (10%) Actinolite occurs as bands with minor disseminated magnetite. The unit is intruded by two coarse grained **Felsic Dykes** containing fragments of the host rock, and they are abundant in (60%) Mica. The unit grades into **Quartz-Magnetite-Carbonate Gneiss**, defined by the disappearance of Specularite. (20%) Magnetite, (20-30%) Actinolite and (5%) Carbonates are banded throughout the unit. The hole ends in a medium grained **Gabbro**, containing (50%) Garnet at the upper contact, and disseminated (10-30%) Magnetite. Locally, (90%) Chlorite alteration is strong and Calcite veins occur throughout the unit.
HT10 -22	The hole is collared in a **Fault Zone**, rich in Quartz, Muscovite, and Biotite, but all highly weathered. Chlorite alteration is also present. The hole then passes through a **Fault Zone**, rich in clay and sand, and is very loosely consolidated. The hole finishes in a **Quartz-Feldspar-Biotite Gneiss**, with (50%) Mica and (30%) clay.
HT10 -22B	The hole is collared in a medium grained **Quartz-Magnetite-Specularite Gneiss**. Fine bands of (20%) Magnetite and (5%) Specularite occur throughout the unit, with (5%) Chlorite alteration. The hole continues into a coarse grained **Hornblende-Quartz Gneiss**, with (10%) Garnets and (30%) Mica. This is followed by a coarse grained **Quartz-Feldspar-Mica-Garnet Gneiss** with (5%) Muscovite, (30%) Biotite, and trace Sulphides. The hole ends in a **Hornblende-Quartz** unit similar to the previous **Hornblende** unit.
HT10 -22C	The hole is collared in a medium grained **Gabbro**, with thin bands of Amphibole, Biotite, and Feldspar. Garnets occur, but are less than 2mm. The next unit is a fine grained, strongly foliated **Schist**. This is followed by another unit of **Gabbro**, then back into the **Schist**. This is followed by a fine to medium grained **Quartz-Magnetite-Silicate-Carbonate Gneiss**. Bands of (20%) Magnetite are wide. This grades into the following unit, a fine to medium grained **Quartz-Specularite Gneiss**. (30%) Specularite is banded and (3%) Magnetite is disseminated, with trace Carbonates. The hole then intersects a package of medium grained **Lean-Quartz**. Trace disseminated Specularite and bands of (3%) Magnetite. This is followed by a white **Dolomite Marble** unit. The unit is pale greenish and contains minor Carbonates. The hole then intersects another unit of strongly foliated **Schist**, followed by another unit of **Dolomite Marble**. Ending in this marble, it shows more prominent green alterations, as well as a few bands of smokey quartz and traces of Magnetite.
HT10 -23	The hole is collared in a fine grained Quartz-Magnetite-Silicate Gneiss. The unit contains (20%) Actinolite, and (5-20%) Magnetite. It grades into the next unit, a fine grained Quartz-Magnetite Gneiss. Here, the (20%) Magnetite is banded, the trace Specularite is disseminated and the Actinolite alteration is weak. The hole then grades into a fine grained Quartz-Magnetite-Carbonate Gneiss. The unit contains strong (60%) Actinolite and (10%) Magnetite banding throughout, with disseminated Carbonates. This is followed by a fine grained Gabbro that contains (30-40%) Garnets. A high of (15%) Magnetite is disseminated in the Gabbro, and Carbonates occur in patches. The hole then intersects a fine grained Quartz-Magnetite-Silicate-Carbonate Gneiss. (30%) Magnetite occurs in bands from 0.5mm to 10cm, as does (40%) Actinolite. The entire unit is very siliceous. This is followed by another unit of fine grained Gabbro. The Gabbro is similar to the previous unit, but is rich in Mica, contains (3%) Garnets, and disseminated (8%) Magnetite. The hole then intersects a Lean-Quartz, with (5%) Garnets, (5%) Magnetite, (10%) Actinolite, and (3%) Sulphides. The hole ends in a fine grained Quartz-Feldspar-Biotite Gneiss that contains (2%) Garnets, and locally (2%) Carbonates. (70%) Mica rich zones occur with altering layers of Quartz blebs.
HT10-24B	This hole collared in **Quartz-Specularite-Magnetite Gneiss**; whitish grey, fine-grained disseminated to locally massive bands. Banding varies from micro to meso in specularite dominated zones and dominantly meso and limited macro-bands in magnetite dominated zones, 28% Specularite, 20% Magnetite, 10% Carbonate, up to 7% Silicate in the magnetite dominated zone. Magnetite is locally coarse-grained. This is followed by a **Hornblende-Quartz Gneiss**; grey, coarse-grained, 20 to 25% Hornblende, 20 to 25% Biotite, 20% Garnet, and 15% Plagioclase. The hole then intersects a **Quartz-Feldspar-Mica-Garnet Gneiss**; grey, coarse-grained, 30% Mica (dominantly biotite), 25%

DDH	Description
	Plagioclase, up to 7% Garnet, with moderate to strongly magnetic minor intervals. This grades back to a **Hornblende-Quartz Gneiss** and back into a **Quartz-Feldspar-Mica-Garnet Gneiss**. This is followed by another set of **Hornblende-Quartz Gneiss** and **Quartz-Feldspar-Mica-Garnet Gneiss**, which is followed by a **Marble** with accessory amphibole and biotite bands, white to greenish white, coarse-grained, cleavage along bands of biotite. This unit is followed by a **Quartzite**, a **Marble**, and a **Hornblende-Quartz Gneiss**. The hole then contacts a **Quartz-Magnetite-Specularite-Silicate-Carbonate Gneiss**; greenish gray, medium-grained, laminated, and strongly magnetic. 45% Magnetite, 3 to 5% Specularite, 7% Silicate, 7% Carbonate. This unit is followed by a **Hornblende-Quartz Gneiss**, then back into the **Quartz-Magnetite-Specularite-Silicate-Carbonate Gneiss**. The hole intersects a **Quartzite** before coming back into the **Quartz-Magnetite-Specularite-Silicate-Carbonate Gneiss**, which grades into a **Quartz-Specularite-Magnetite Gneiss**; grey, fine-grained, laminated, 23 to 27% Specularite, 3 to 5 % Magnetite, 4% Carbonate, and 2% Silicate. The hole then intersects a **Quartz-Feldspar-Mica-Garnet Gneiss**; whitish-grey, coarse-grained, non-magnetic. This is followed by a **Hornblende-Quartz Gneiss**; grey, coarse-grained, 20 to 25% Hornblende, 20 to 25% Biotite, 20% Garnet, and 15% Plagioclase. The hole goes back into a **Quartz-Feldspar-Mica-Garnet Gneiss** followed by a **Dolomite Marble**; white, coarse-grained, crystalline, with accessory mica and silicates. The hole intersects another unit of **Quartz-Feldspar-Biotite Gneiss** and ends in a rose-grey, medium to coarse-grained **Granodiorite Gneiss**.
HT10-25	The hole collared in a **Biotite Schist**, whitish grey, medium to coarse-grained. Rock cleavage is common along books of biotite, 30% Biotite, up to 12% amphibole, and up to 10% plagioclase. This unit is followed by an intensely altered **Felsic Dyke**, which is followed by a **Gabbro**. The hole then intersects a **Quartz-Specularite-Magnetite Gneiss**, grey, fine to medium-grained, and scoraceous texture from leached carbonate. The rock is fragmented and banded with limonitic alteration. 25% Specularite, 18% Magnetite, 5% Carbonate (+/-). The unit is Specularite dominant with a minor magnetite dominant zone near the base. The unit has well developed massive bands. Limonite alteration increases towards the lower contact, as this unit grades into a **Quartz-Specularite Gneiss**; strong limonite alteration with colour varying from rusty red to dark yellow. Geodes are also common, alternating very hard and soft bands. This unit is followed by a **Quartzite**; white, glassy psammite and psephites, with accessory muscovite.
HT10-26	This hole collared in a thin unit of **Marble** described as pale green, fine to medium grained, moderately hard with several 2-10cm wide quartz rich bands containing 2% magnetite. This was followed by a unit of **Lean-Quartz** Iron Formation, fine to medium grained, siliceous, smoky grey to dark grey, weakly banded with 10% banded specularite and 5% disseminated magnetite. Below this is a thick unit of **Schist** described as light to medium grey, fairly hard, moderately to strongly foliated, non-magnetic. More Iron Formation occurs below this in the form of a **Quartz-Magnetite-Specularite Gneiss** that is medium to dark grey, moderately hard, with minor Actinolite and carbonate, and up to 20% banded specularite and 10% disseminated magnetite. This is followed by a unit of **Quartz-Feldspar-Biotite Gneiss**, medium to dark grey, moderately hard, fine to medium grained, weakly to moderately banded. The hole then goes back into a **Silicate-Carbonate Iron Formation** described as pale to dark olive green, moderately hard except within carbonate rich zones towards top of unit. Narrow 2-5mm bands of quartz and magnetite become more concentrated towards the middle of the unit, with 5% magnetite. Another unit of **Schist** occurs below this similar to what was described above followed by a medium to dark grey, fine grained **Gabbro** with a weak foliation and non-magnetic. More **Silicate-Carbonate Iron Formation** was intersected below this described as a pale olive green, fine to medium grained, moderately hard, weakly foliated and non-magnetic, followed by another unit of **Schist** similar to above but lighter in colour with more quartz and feldspar and minor green Actinolite. The hole then goes back into more **Silicate-Carbonate Iron Formation** that is non-magnetic, back into the **Schist** as above before ending in a unit of **Quartz-Feldspar-Biotite Gneiss** described as white to dark grey/black, moderately hard, medium to coarse grained, well banded.
HT10-27	This hole collared in **Hornblende-Quartz Gneiss** described as medium to dark green mottled texture, moderately hard, fine to medium grained, weakly to locally moderately thinly banded, and then went into a **Quartz-Feldspar-Mica-Garnet Gneiss**, medium to dark green mottled texture, moderately hard, fine to medium grained, locally thinly banded before passing back into a **Hornblende-Quartz Gneiss** as above, and then into a **Schist** described as light to medium grey, moderately hard, fine to medium grained. More **Hornblende-Quartz Gneiss** occurs below this, and then the holes goes into a **Quartz-Specularite-Magnetite Iron Formation** described as medium to dark grey, very siliceous to locally chalcedonic, locally semi-massive specularite-magnetite. 25% banded specularite and 15% banded magnetite. The hole then passes into a **Marble** unit, white to pale greenish, fine to medium grained, moderately hard, 5% carbonate, and below this into another unit of **Quartz-Feldspar-Mica-Garnet Gneiss** as above. This is followed by a thin unit of **Lean-Quartz** Iron Formation described as light to medium grey, locally smokey grey, very siliceous, weak banding, minor pinkish potassium feldspar, unit is non-magnetic, and then goes into a **Quartz-Specularite-Magnetite Iron Formation** similar to above with 20% magnetite and 25% specularite. Below this is a unit of **Granodiorite Gneiss**, medium to coarse grained, moderately hard, medium to locally dark grey-whitish in quartz-plagioclase rich zones. Then the hole goes back into a unit of **Quartz-Specularite-Magnetite Iron Formation** with 35% banded specularite and 20% banded magnetite before going into more **Lean-Quartz** Iron Formation with 7% banded magnetite, 3% disseminated magnetite and a trace of specularite. Below this are several alternating units of; **Quartz-Feldspar-Mica-Garnet Gneiss**, **Hornblende-Quartz Gneiss**, more **Quartz-Feldspar-Mica-Garnet Gneiss**, back into **Hornblende-Quartz Gneiss** and finally ending in a **Quartz-Feldspar-Mica-Garnet Gneiss**.
HT10-28	This hole collared in a **Silicate-Carbonate Gneiss;** light brownish grey, fine-grained, banded weak to moderately magnetic, 10% Magnetite, 27% Actinolite, and 13% Carbonate. The hole then intersects a **Gabbro**; light greenish grey, coarse-grained, semi-schistose, weakly to moderately magnetic, and contains laminations of biotite. This section of the gabbroic unit is made up of bands and/or laminations of amphibole+magnetite, and plagioclase dominated bands. The lower contact of this unit is gradational with garnet alteration, and with increased quartz content close to the contact.

DDH	Description
	This unit is followed by a **Quartz-Feldspar-Biotite Gneiss**; light grey, coarse-grained, 20% Biotite, and 15% Hornblende, foliated and weakly schistose, with shock quartz eyes, boudins and veins. The quartz eyes are very common resulting in augen texture. It is along these augens where shistosity is well developed. This grades into a **Hornblende-Quartz Gneiss**; light reddish black, medium-grained, non-magnetic and homogeneous, 30% Amphibole, 20% Biotite, 15% Feldspar, and 15% Garnet. The hole intersects another **Quartz-Feldspar-Biotite Gneiss,** then back into **Hornblende-Quartz Gneiss,** and finally ends in a **Quartz-Feldspar-Biotite Gneiss**.
HT10-29	Abandoned in overburden before intersecting the iron formations
HT10-30	Hole abandoned in overburden.
HT10-31	The hole is collared in a fine to medium grained **Quartz-Feldspar-Mica-Garnet Gneiss**, with (5%) Garnet. (5%) Magnetite occurs locally disseminated in a quartz vein. Unit is strongly foliated. The hole then enters a fine to medium grained **Schist**, containing (70%) Mica and (2%) Garnets. The **Schist** contains thin units of **Quartz-Feldspar-Mica-Garnet Gneiss** and **Hornblende-Quartz Gneiss**. This is followed by a fine grained **Quartz-Magnetite-Silicate Gneiss**, with (25%) Magnetite, occurring in bands, and (15%) Actinolite, occurring in patches. The hole then intersects another unit of **Schist**, similar to the previous **Schist**, and another **Quartz-Feldspar-Mica-Garnet Gneiss** with (10%) Garnets. Another unit of fine grained **Quartz-Magnetite-Silicate Gneiss** is contacted next, with (20%) Magnetite occurring in bands, (20%) Chlorite, (0-5%) Garnets, (0-5%) Pyrite, and (2-5%) Serpentine. The hole then intersects a medium grained **Quartz-Feldspar-Biotite Gneiss**. This is followed by a fine grained **Quartz-Feldspar-Mica-Garnet Gneiss**, with (10%) Garnets. The hole then intersects a fine grained **Schist**, similar to the previous Schist, but with (4%) Garnets and trace Pyrite. The hole then goes back into the **Quartz-Feldspar-Mica-Garnet Gneiss** with (10%) Garnets, and then back into the **Schist**. This is followed by another unit of fine grained **Quartz-Feldspar-Biotite Gneiss** with (3-5%) Garnets, and trace Pyrite. The hole then intersects a unit of **Quartz-Feldspar-Mica-Garnet Gneiss** with (15%) Garnets. Calcite veins through the unit are weak. The hole finishes in a coarse grained **Calcite Marble**. Calcite occurs in weak patches throughout the unit.
HT10-32	The hole collared in **Schist**; whitish grey, coarse-grained, 30-40% mica, +/- plagioclase and hornblende. The lower part of this unit, is defined by 10% amphibole, 5% magnetite, and 2% Pyrite>Chalcopyrite. Next, the hole intersected a **Gabbro**; light grey, coarse-grained, weakly magnetic, fractures in-filled with greenish white carbonaceous material. Magnetite alteration is spotted towards the lower contact. The hole grades into a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; light-grey, fine to dominantly coarse-grained with few massive bands, moderate to strongly magnetic. Magnetite bands and grain size increases in recrystallized carbonate bands, 18% Magnetite, 12% Carbonate, 6% Silicate, 3% Plagioclase. Silicate and Plagioclase occur only locally at the indistinct upper contact with the gabbro. This unit grades into a **Quartz-Specularite-Magnetite Gneiss**; grey to dark grey, fine to coarse-grained, moderate to strongly magnetic. Limited scoraceous texture from leached carbonate, alternating bands and laminations of Specularite+Magnetite and Specularite+Magnetite+Quartz, 23% Specularite, 11% Magnetite, <3% Carbonate. Moderate to strong limonite alteration near the lower contact. This unit is followed by a **Quartzite**; whitish, deeply altered, highly fragmented with blocky to limited sub-rounded fragments. This unit grades into a **Calcite Marble**; dull white, deeply altered, fine to coarse-grained, with spotted oolitic texture, laminations of limonite alteration is noted. The hole ends in a **Granodiorite Gneiss**; light pinkish grey, dominantly medium to coarse-grained, banded, 20% Feldspars, 18% Biotite, 15% Hornblende, <1% garnet and negligible carbonate. The melanosomes consist dominantly of Biotite and Hornblende, and the leucosome consist of Quartz, K-feldspar and plagioclase feldspar.
HT10-33	The hole is collared in a coarse grained **Dolomite Marble**, with traces of Mica and Calcite. This is followed by a fine grained **Quartzite** with trace Chlorite. The hole then intersects a fine grained **Quartz-Magnetite-Silicate Gneiss**. The unit contains: banded (15-20%) Magnetite, banded (30%) Actinolite, (5%) Garnets, (1%) Pyrite and trace Chlorite. The lower contact is conformable and transitions into a coarse grained **Quartz-Specularite-Magnetite Gneiss**. The (50%) Specularite is massive, with bands of (15%) Magnetite, and bands of (10%) Actinolite. The hole then intersects a fine grained **Quartz-Feldspar-Mica-Garnet Gneiss** with (5%) Garnets and (3%) Chlorite locally. The foliation in this unit is strong and continuous. This is followed by a medium grained **Hornblende-Quartz Gneiss** unit. This unit contains (10%) Garnets and they increase in size and quantity near both upper and lower contacts. The hole then intersects a **Quartz-Feldspar-Mica-Garnet Gneiss** with disseminated (10%) Actinolite and (5%) Garnet. The hole then enters a fine grained **Quartz-Magnetite-Silicate Gneiss** with banded (20%) Magnetite, banded (30%) Actinolite, and (5%) Garnets. This is followed by a coarse grained **Calcite Marble** with slight disseminated Chlorite alteration. The hole finishes in a medium grained **Quartz-Feldspar-Biotite Gneiss** with (5%) Actinolite and trace Pyrite.
HT10-34	The hole is collared in **Lean-Quartz** with disseminated (1%) Specularite, followed by a (75%) Mica rich **Schist**. The hole then intersects a medium to coarse grained **Quartz-Specularite Gneiss**. The (40%) Specularite is banded, as is the (4%) Magnetite. The unit is weakly magnetic, and contains (1%) Pyrite. Highly weathered at both upper and lower contacts. The hole intersects a thin unit of strongly magnetic, medium grained **Quartz-Magnetite Gneiss**, with banded (20%) Magnetite and (10%) Limonite. This is followed by a medium grained (65%) Mica **Schist** and then a fine grained **Quartz-Feldspar-Mica-Garnet Gneiss**. The unit contains (5%) Garnets, thin bands of Biotite, and joints containing Limonite. The hole then intersects a fine grained **Quartz-Feldspar-Biotite Gneiss**, with (20%) Biotite, and (10%) Muscovite. Limonite and Clay fill weathered voids throughout the unit. This is followed by a medium grained **Hornblende-Quartz Gneiss** with (10%) Garnets. The hole then intersects another fine grained **Quartz-Feldspar-Biotite Gneiss**, similar to the previous **Quartz-Feldspar-Biotite Gneiss**. This is followed by another **Quartz-Feldspar-Mica-Garnet Gneiss**, but with fewer Garnets than the previous **Quartz-Feldspar-Biotite Gneiss**. The hole intersects another fine grained **Quartz-Feldspar-Biotite Gneiss**, showing the same weathering and clay content. This is followed by a fine to medium grained **Hornblende-Quartz Gneiss** with (5%) Garnets. The hole then enters a fine to coarse grained **Quartz-Magnetite-Specularite Gneiss**. The banded (30%) Magnetite occurs throughout, and the banded (10%) Specularite occurs in the lower half of the unit. This is followed by a fine grained **Hornblende-Quartz Gneiss** with

DDH	Description
	only (1%) Garnets. The hole then intersects a fine grained **Quartz-Magnetite-Silicate Gneiss**, with banded (15%) Magnetite and (1%) Pyrite. This is followed by another unit of fine grained **Quartz-Feldspar-Mica-Garnet Gneiss**. The unit contains (5%) Chlorite, (3%) Limonite, (2%) Magnetite, and (1%) Pyrite. This unit is cut by a Pegmatite composed of large pinkish-orange crystals. The dyke contains (2%) Chlorite and large (5%) Amphibole crystals. The hole ends in the **Quartz-Feldspar-Mica-Garnet Gneiss**.
HT10-35	The hole is collared in a coarse grained **Dolomite Marble** with minor (2%) Chlorite alteration. This is followed by a coarse grained **Quartzite** with minor Chlorite alteration. The hole then intersects a fine grained **Schist**. This unit is rich in (65%) Mica, as well as (4%) Garnet and (1%) Pyrite. This is followed by a fine grained **Quartz-Magnetite-Silicate Gneiss**. The unit contains banded (15%) Magnetite, (3%) Pyrite, and (2%) Garnets. The hole then intersects a fine grained **Quartz-Feldspar-Mica-Garnet Gneiss**, with (5%) Garnets. This is followed by another unit of **Quartz-Magnetite-Silicate Gneiss**. The hole then intersects a medium grained **Quartzite**. The unit contains (15%) Actinolite and (1%) Garnet. This is followed by a unit of medium grained **Dolomite Marble**. The unit has slight Actinolite alteration and contains patches of disseminated Mica. The hole then intersects a fine to medium grained **Quartz-Feldspar-Biotite Gneiss**, which contains (5%) Garnet and trace Pyrite. This is followed by a fine grained **Granodiorite Gneiss** that is strongly foliated and has local Actinolite alteration. The hole ends in the **Quartz-Feldspar-Biotite Gneiss**.
HT10-36	The hole is collared in a fine grained **Quartz-Muscovite Schist**. This is followed by a fine grained **Quartz-Specularite Gneiss**, with banded (20%) Specularite, and (2%) Magnetite. The unit is highly weathered due to strong oxidation. The hole again intersects the fine grained **Quartz-Muscovite Schist**, which is locally rusty and weathered. This is followed by a unit of **Lean-Quartz**. This unit is extremely broken and contains (5%) Specularite, located in fractures. The hole then intersects a fine **grained Quartz-Feldspar-Biotite Gneiss** with (2-5%) Garnets. This is followed by a fine grained **Quartz-Magnetite-Silicate Gneiss**. The (15-20%) Magnetite is banded, as is the (10-15%) Actinolite. The hole then intersects a fine to medium **Calcite Marble**. The unit contains local traces of sulphides. The hole ends in a fine to medium grained **Quartz-Feldspar-Biotite Gneiss**.
HT10-37	This hole collared in **Quartz-Feldspar-Biotite Gneiss** described as whitish to medium grey, moderately hard, mottled appearance, minor pinkish potassium feldspar, and non-magnetic. Below this, the hole went into a dark grey, moderately hard, biotite rich **Schist** before passing in a unit of **Calcite Marble**, white to pale green (Tremolite), moderately hard, crystalline with local smokey grey quartz veining up to 5cm wide, unit is non-magnetic. The hole goes back into the **Schist** unit before entering into more **Lean-Quartz** described as fine to medium grained, medium to dark smokey grey, moderately hard, garnet rich close to upper and lower contacts, and trace fine disseminated magnetite. Below this is a unit of **Quartzite**, fine to medium grained, white to pale yellowish to locally smokey grey and moderately hard. Following the quartzite is a **Quartz-Magnetite-Silicate Iron Formation** that is medium grey to pale greenish within Actinolite rich bands, moderately hard, and weakly to moderately banded with 25% banded magnetite, below which was a unit of **Quartz-Magnetite Iron Formation** described as medium grey, siliceous, weak to locally moderately banded with minor Actinolite and fine to medium grained disseminated magnetite and specularite, plus medium to coarse grained magnetite +/- specularite. 25% Magnetite and 7% Specularite. This is followed by a **Quartz-Magnetite-Silicate-Carbonate Iron Formation**, dark grey to pale green within Actinolite rich zones, locally very siliceous zones, moderately hard. Quartz-Actinolite-Magnetite forms moderately developed banding, 30% banded and disseminated magnetite. The hole then passes into a unit of **Quartz-Feldspar-Mica-Garnet Gneiss** described as medium to dark grey, moderately hard, medium to coarse grained. Weakly developed foliation, unit is non-magnetic. Below this the hole goes back into more **Quartz-Magnetite-Silicate-Carbonate Iron Formation** with up to 23% banded and disseminated magnetite, and then into a unit of **Marble**, white to pale greenish grey, moderately hard, medium to coarse grained. Minor carbonate patches and actinolite-grunerite-+/-chlorite veins. Unit is non-magnetic. Below this is a **Hornblende-Quartz Gneiss** described as medium to dark grey, fine to medium grained, medium hardness, and trace magnetite. Below this is more **Quartz-Feldspar-Biotite Gneiss**, light to medium grey, medium hardness, medium grained, and local potassium feldspar. Unit is non-magnetic. The hole then goes into another unit of **Hornblende-Quartz Gneiss** as above, and finally ends in a unit of **Marble** described as whitish to pale green, moderately hard, medium to coarse grained, and is non-magnetic.
HT10-38	The hole is collared in a fine grained **Quartz-Feldspar-Biotite Gneiss**. The unit contains minor Garnets and Muscovite, and is locally refolded. This is followed by a fine to medium grained **Quartz-Magnetite-Silicate-Carbonate Gneiss**. The unit contains (15%) Magnetite, which is banded, and (2-5%) Garnets. A sharp contact takes the hole back into the fine grained **Quartz-Feldspar-Biotite Gneiss**, with (5%) Garnet and minor Epidote alteration. This is followed by another unit of **Quartz-Magnetite-Silicate-Carbonate Gneiss**. The (30%) Magnetite and the (30%) Actinolite alteration are both banded, and the unit contains minor carbonates. The hole then intersects a fine to coarse grained **Gabbro**. It contains (20%) Amphibole, (2-3%) Garnets, and disseminated (5%) Magnetite. This unit is followed by a **Quartz-Magnetite-Silicate-Carbonate Gneiss** with (25-30%) Actinolite alteration. Magnetite is strong in this unit, banded up to (75%) Magnetite locally. The hole ends in a fine grained **Dolomite Marble** with minor Calcite and spots of (2%) Amphibole.
HT10-39	This hole collared in a very thick unit of **Quartz-Magnetite-Silicate Iron Formation** described as grey to light olive color, fine-grained and locally banded with 50-60% quartz, 15-20% Actinolite, <10% magnetite as fine disseminated grains, with local coarse crystals. This unit is followed by a **Gabbro** described as grey to green grey, massive, homogeneous, fine to medium-grained with >30% amphibole (Actinolite-hornblende), 10% plagioclase, 10-15% magnetite, <2% quartz. Below this is a unit of **Quartz-Feldspar-Mica-Garnet Gneiss**, dark grey, fine-grained, 40% biotite, 20% quartz, 10% feldspar 5% garnet . Sulphide traces locally. This is followed by another thick sequence of **Quartz-Magnetite-Silicate Iron formation** described as grey to grey greenish, fine-grained. 50-60% quartz, 20% Actinolite 5-10% magnetite, minor carbonate, local faulting within unit. The hole ends in a **Quartz-Feldspar-Mica-**

DDH	Description
	Garnet Gneiss described as light grey; fine-grained, with 45% Quartz, 30% Biotite, 15% Feldspar, 10% Garnet, and trace pyrite.
HT10-40	The hole collared in **Schist**; whitish grey, coarse-grained, 25% Biotite, 23% Hornblende, 23% Feldspar, 2% Garnet, foliated and schistose. The hole then intersects a **Gabbro**; whitish grey, coarse-grained, non-magnetic, foliated and semi schistose. This is followed by another unit of **Schist** and another **Gabbro**. The hole then intersects, and terminates in, **Quartz-Feldspar-Mica-Garnet Gneiss**; whitish grey, coarse-grained, 20 to 30% Plagioclase, 25 to 30% Mica, 7% Hornblende, 5% Garnet. Patches and bands of Hornblende-Quartz Gneiss are common.
HT10-41	This hole collared in a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; grey, fine-grained to massive, 23% Magnetite, 15% Silicate (Grunerite, Actinolite, and Hornblende), 7% Carbonate. This unit is followed by a **Quartz-Magnetite-Silicate Gneiss**; dark grey, fine- to medium-grained, massive beds of magnetite with minor silicates, 35% Magnetite and 10% Actinolite. This unit grades back into the **Quartz-Magnetite-Silicate-Carbonate Gneiss** The hole ends in a **Gabbro**; light grey, fine-grained, beds of magnetite, 15-20% Magnetite, and 30% Garnet locally.
HT10-42	This hole collared in a thick unit of **Quartz-Magnetite-Silicate Iron Formation** described as light grey, fine to medium grained with 20% Magnetite, 15% Actinolite, and 5% Carbonate. The magnetite occurs in massive beds and disseminated layers. The Iron formation is followed by a thick sequence of light grey, fine grained **Gabbro** with 15% magnetite. The hole ends within this Gabbro unit.
HT10-43	This hole collared in a thick sequence of coarse grained **Quartzite** described as greyish white, extremely altered, strongly rusted, broken core with poor recovery from 55.50 m to 95.00 m, coarse-grained with over 90% quartz, minor mica and numerous open fractures. The hole then intersected a major **Fault Zone** and was abandoned.
HT10-44	This hole collared in a **Quartz-Muscovite Schist** described as yellow brown, fine-grained, with 60% mica, 30% quartz, minor garnet, and moderately altered. This unit is followed by a **Quartzite** unit which is light brown, coarse-grained with extremely fractured, broken core with poor recovery. Below this the hole enters a **Fault Zone** containing a green dark, soft rock, possibly an altered mafic dyke that is fine-grained extremely fractured and strongly altered. The hole then goes into a **Quartz-Magnetite-Silicate Iron Formation** described as light green, fine-grained, locally banded with 35% quartz, 20-30% Actinolite, 10-15% magnetite, minor carbonate and minor garnets. Magnetite occurs as thin bands and disseminated fine grains throughout section, local felsic dykes. The hole ended in a fine grained light grey to locally pinkish **Quartz-Feldspar-Biotite Gneiss** with 30% biotite/ muscovite, 20% quartz, 10% plagioclase, 5-10% K-feldspar, and 1-2% garnet.
HT10-45	The hole collared in **Quartz-Feldspar-Mica-Garnet Gneiss**; grey, coarse-grained, 28% Mica, 20% Feldspar (Plagioclase), 3% Garnet. The hole intersects a **Quartz-Silicate Gneiss**; grey, banded, silicate stockwork, weakly to moderately magnetic, 10% Magnetite, 20% Actinolite & Hornblende, 7% Garnet. Garnet is coarse-grained and dominantly at the top of the unit. This unit is followed by a **Gneiss**; whitish grey, medium grained, 15% Biotite, 15% Hornblende, 15% Carbonate, and 5% plagioclase. The hole then intersects a **Silicate-Carbonate Gneiss**; greenish grey, banded, weak to locally moderately magnetic, 7% Magnetite, 20% Actinolite, 15% Carbonate, and 2% garnet. The unit contains patches of 18% Magnetite. Disseminated magnetite is also common within the recrystalised carbonate bands. This unit grades into the final unit, a **Quartz-Feldspar-Mica-Garnet Gneiss**; grey, coarse-grained, and non-magnetic.
HT10-46	The hole collared in **Quartzite**; white, crystalline with local muscovite. The hole then intersected a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; grey, banded, locally massive, moderately to strongly magnetic, 11% Magnetite, 28% Actinolite+Grunerite, 5% Carbonate, accessory pyrite at the lower contact. The Magnetite grain size increases in recrystallised carbonate bands. The hole ends in a **Quartz-Feldspar-Biotite Gneiss**; grey, coarse-grained, >30% Feldspar (plagioclase), 30% Biotite, accessory Garnet, ptygmatic folds and foliation are common.
HT10-47	This hole collared in a **Quartz-Feldspar-Biotite Gneiss** described as grey dark, fine-grained, schistose with 40% biotite, 30% quartz, 5-10% plagioclase and minor garnet. Below this is a unit of **Dolomite Marble**, white milky, fine to medium grained, locally coarse green Actinolite grains up to 10 cm throughout unit, 30% quartz, 60% carbonate 5 to 10% green Actinolite. This unit is followed by an **Amphibolite** described as green olive, fine-grained, 90% hornblende 5% Actinolite before entering into a **Fault Zone** with extremely altered, locally clay rich soft rock. The hole then goes through another unit of **Dolomite Marble**, and then back into a major **Fault Zone** containing brown, yellow and white, locally strongly oxidized and extremely weathered broken core. The hole was abandoned in this fault zone.
HT10-47B	This hole collared in a unit of **Dolomite Marble** described as white milky, locally yellowish; fine to medium-grained with 60% carbonate, 30% quartz, and 5-10% green Actinolite with Actinolite occurring as coarse grains up to 10 cm. It then passed into another major **Fault Zone** as in hole HT10-47 and was abandoned as well.
HT10-48	The hole collared in a **Gabbro**; grey, coarse-grained, weakly magnetic with interstitial and locally limited disseminated magnetite. The hole then intersects a **Quartz-Magnetite-Silicate Gneiss**; grey, fine-grained, disseminated, 15% Magnetite, 30% Grunerite+Actinolite, <5% Carbonate, moderately magnetic. Silicate stockwork, and magnetite is closely associated with silicate and carbonate solely associated with silicates. This unit is preceded by a **Gabbro** intrusion; grey, coarse-grained, weak to locally strongly magnetic in zones with segregated magnetite. The magnetite segregation is represented by localised isolated to repeated mesobands. The hole grades into a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; grey, banded, 17% Magnetite, 30% Silicate (Actinolite+Grunerite), 3 to 5% Carbonate, locally moderate to strongly magnetic. It is mostly the silicate bands that are magnetite bearing. The hole then intersects a white, crystalline **Marble**; with accessory quartz bands and biotite. This unit is followed by a **Quartzite** with accessory biotite and locally garnet, and grades back into **Marble** that continues to the end of the hole.
HT10-49	This hole collared in a unit of **Gabbro** described as grey to green, fine to medium grained, massive to locally ophitic texture, slightly foliated locally, . 40% hornblende, 20% plagioclase, 10% pyroxene, 5% quartz, 5%garnet, 2-5% magnetite. The hole then goes into a **Quartz-Magnetite-Silicate Iron Formation** described as grey green to olive grey, fine-grained to locally banded, 30% quartz, 20%actinolite, 10% hornblende, <15% magnetite as fine disseminated

DDH	Description
	grains and bands, local pyrrhotite as coarse crystals. The hole then goes into a unit of grey fine grained **Quartz-Feldspar-Mica-Garnet Gneiss** with 40% biotite, 20% quartz, 10% feldspar, and 5% garnet. Before entering into a unit of **Quartz-Silicate Iron Formation** described as grey greenish, fine-grained with 60% quartz, 20% amphibole (actinolite+hornblende), 5% garnet, <2% magnetite, and then into a unit of **Quartz-Carbonate Iron Formation**, grey light to whitish, fine-grained with 50% quartz, 30% carbonate, 2% green amphibole, minor biotite, and non-magnetic. Then the hole intersects a **Hornblende-Quartz Gneiss**, dark green, fine to medium grained and massive with 60% Hornblende, 15-20% garnet, 10% biotite, minor quartz and feldspar. Below this is a unit of **Dolomite Marble** described as massive, whitish color, fine-grained with >40% carbonate (dolomite), 20-30% quartz, minor green amphibole and biotite. The hole then goes back into the **Hornblende-Quartz Gneiss** as above, before going into a **Schist** unit described as pink to greenish coarse-grained with 90% garnet and 10% mica (biotite and muscovite). Below this is a unit of **Quartzite**, grey light to white granular, medium-grained, locally coarsely crystalline, >90%quartz, 5% mica locally, minor carbonate, biotite and garnet. The hole then went back into a unit of **Hornblende-Quartz Gneiss** described as reddish grey, coarse-grained to porphyroblastic, with rounded garnet porphyroblasts in groundmass of biotite and feldspar, before going back into **Quartzite** and ending in a unit of **Marble**.
HT10-50	The hole collared in a **Quartzite**; greyish white with rusty staining, blocky, crystalline, concoidal fracture, includes minor Feldspar, Amphibole, Biotite, Garnet, and Carbonate. The hole then intersects a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; grey, crystal size varies from fine to coarse-grained, with massive bands, 18-23% Magnetite, 30% Silicate (Fe-Amphiboles), 5-7% Carbonate. The hole ends in a **Gabbro**; grey, coarse-grained, 5 to 10% interstitial and disseminated magnetite, weakly to moderately magnetic, negligible pyrite.
HT10-51	The hole collared in a **Gabbro**; greenish grey, coarse-grained and banded, with 10% Magnetite, 30-35% Hornblende, 30% Plagioclase, 20% Biotite. The hole then intersects a **Quartz-Magnetite-Silicate-Carbonate Gneiss**; grey, fine-grained to locally massive bands, 18-20% Magnetite, 1% Pyrrhotite, 30% Silicate (Grunerite, Actinolite), 5-7% Carbonate, weakly to locally strongly magnetic. This unit is followed by a **Gabbro** intrusion; grey, coarse-grained, homogeneous, 5to10% interstitial and disseminated Magnetite, weakly to moderately magnetic. The hole then intersects another **Quartz-Magnetite-Silicate-Carbonate Gneiss** followed by a **Gabbro** intrusion, and back into the **Quartz-Magnetite-Silicate-Carbonate Gneiss**. The hole finishes in a **Marble**; white to pale green, medium to coarse grained.
HT10-52	This hole collared in a **Gabbro** logged as light to medium grey to greenish-grey, medium hardness, fine to medium grained. Moderate amounts of pale green amphibole (hornblende +/- Actinolite) with 40% plagioclase, 30% amphibole, 15% biotite, and 5-10% magnetite. This is followed by a **Quartzite** unit, light to medium grey, hard, fine grained, with local patches of rose quartz, and below this it goes into a **Quartz-Magnetite-Silicate Iron Formation** described as dark grey to pale to olive green, moderately hard with 30% Amphibole (Actinolite and hornblende), 20% Feldspar, 15% Quartz, 20% Magnetite, 10% Garnets. Magnetite occurs as fine disseminated grains and patches, locally up to 30%. More **Quartzite** occurs below the Iron Formation and then the hole goes into a dark green to black fine to medium grained **Amphibolite** that is of medium hardness with abundant fine disseminated garnets and trace magnetite. The hole ends in another unit of **Quartzite** similar to the above.
HT10-53	This hole collared in **Gabbro** described as medium to dark grey, moderately hard, fine to medium grained and weakly foliated with 50% plagioclase, 25% amphibole, 15% biotite and is weakly magnetic. This is followed by a **Quartz-Magnetite-Silicate Iron Formation** described as medium to dark grey-greenish, moderately hard and silicified, fine to medium grained, with Actinolite rich sections and local fault zones, 15% banded magnetite and 5% disseminated magnetite. The hole then intersects a **Fault Zone** that is medium to dark grey on fresh surface, locally moderately hard but very rubbly and sheared over 70% of the section before going back into a **Quartz-Magnetite-Silicate Iron Formation** as light to medium grey, moderately hard (silicified), fine grained, and moderately fractured, 12% banded magnetite. Then the hole goes back into a thick unit of **Gabbro** as above before ending in more **Amphibolite**.
HT10-54	This hole collared in **Gabbro** that was light to medium grey, fine to medium grained, medium hardness, locally moderately sheared and non-magnetic. Then it goes into a unit if **Quartz-Silicate Iron Formation** described as light to medium grey-green, moderately hard and siliceous, weakly banded and moderately fractured. Magnetite is fine grained within 2-5cm wide bands and also finely disseminated, 35% Quartz, 30% Actinolite, 15% Feldspar, 15% Magnetite. The hole then goes back into more **Gabbro** as above before going into a unit of **Quartz-Magnetite-Silicate Iron Formation**, medium to dark grey to locally dark green, moderately hard and siliceous, locally black in colour, due to abundant amphibole (hornblende and Actinolite +/- grunerite) and lesser biotite, 35% Amphibole, 30% Quartz, 10% Feldspar, 18-25% banded and disseminated magnetite. Below this the hole ends in a **Fault Zone** within a unit of **Quartzite** described as rusty white, blocky, essentially quartz with trace goethite, non-magnetic.