

**PACIFIC HARBOUR CAPITAL LTD
(to be renamed Oceanic Iron Ore Corp.)**

**TECHNICAL REPORT ON THE
UNGAVA IRON PROPERTY
UNGAVA BAY REGION, QUEBEC
CANADA**

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1.0 SUMMARY

Pacific Harbour Capital Ltd (PACIFIC HARBOUR; to be renamed Oceanic Iron Ore Corp.) has acquired the Ungava Iron property (the "Property") from Peter Ferderber of Val D'or, Quebec and Pat Sheridan of Toronto, Ontario. As a result, PACIFIC HARBOUR has retained Micon International Limited (Micon) to prepare an independent National Instrument 43-101 (NI 43-101) compliant property of merit Technical Report. The review of this property is in support of a listing application on the TSX-Venture exchange.

The Ungava Iron property extends along the northeastern coast of the Nunavik region of Quebec from north of Payne Bay to Hopes Advance Bay, just inland of Ungava Bay in northern Canada. The properties consist of several blocks of claims on NTS sheets 24K, 24M, 24N, 25C and 25D and includes 2,949 claims covering an area of over 1,219 square kilometres¹. Registration dates range from July 7, 2004 to October 27, 2010. The property extends between latitude 59°06' N to 60°50' N and from longitude 69°42' W to 71°05' W.

PACIFIC HARBOUR entered into an agreement dated October 1, 2010 (the "Acquisition Agreement") with Sheridan and Ferderber (collectively the "Vendors") to acquire a 100% interest, subject to a 2% net smelter return royalty (the "NSR"), in the Ungava Iron property. The Property is currently subject to a dispute between Kataria Holdings Limited, a British Virgin Islands company, Atulkumar Patel and Ramzy Abdul-Majeed, both of Dubai, UAE, (collectively the "Kataria Group") and the Vendors. In relation to the acquisition of the Property, Pacific Harbour has also entered into agreements with the Vendors and the Kataria Group which provide that, upon closing under the Acquisition Agreement, the Vendors and the Kataria Group will dismiss all legal proceedings in respect of the Property and enter into full and final releases. Concurrently with closing under the Acquisition Agreement, Pacific Harbour will change its name to Oceanic Iron Ore Corp.

The Ungava Iron property covers extensive outcrops of iron formation that strike in a general north-south direction and contain several historically explored iron deposits. The claims cover over 300 km of iron formation along the northern extension of the Labrador Trough in the Nunavik Region of northern Quebec. Three groups of deposits (Roberts Lake, Morgan Lake, and Hopes Advance areas) were explored in the 1950s and 1960s and are within 50 km of the Ungava Bay coast.

All three of these groups of deposits have had extensive sampling, drilling, and metallurgical work completed in support of the planning and development of iron mines. However, none of the deposits were developed to production, and since the early 1970's to 2005 very little exploration or other work was completed on the property. From 2006 to 2009 extensive airborne geophysical surveys were completed by Sheridan and Ferderber over the extents of the iron formation.

¹ An additional 21 claims covering 901.49 ha are in process of registration, request number is 1066382. These claims are identified in Appendix 1.

The iron mineralization deposit type is a Lake Superior Type iron formation and is located at the northern end of the Paleoproterozoic (1,880 Ga) Labrador Trough. The iron formation has been extensively metamorphosed, faulted, and folded. Farther south, the Labrador Trough hosts the iron ore deposits of Schefferville and Wabush Lake. The mineralization at Morgan Lake is mostly magnetite with lesser hematite while at Hopes Advance it is both magnetite and hematite. Lake Superior Type magnetite ores are successfully mined and concentrated at mining operations in Michigan and Minnesota. Lake Superior Type hematite iron ores are successfully concentrated at operations farther to the south on the Labrador Trough.

The Hopes Advance and Morgan Lake areas contain fold-thickened portions of the iron formation. Previous metallurgical testwork on samples from these areas has shown promising iron recoveries. The iron formation in the Hopes Advance area can be traced over a length of approximately 30 km and contains at least eight iron deposits. The Morgan Lake area contains two potential magnetite iron deposits that occur along approximately 20 km of iron formation.

This report documents and summarizes the historic exploration and metallurgical work completed during the 1950's through the early 1970's on the Ungava Iron property. Ungava Iron Ores Company completed most of the exploration in Hopes Advance area (1951-1962) including 12,935 m of drilling in 185 holes in 8 deposits. Scoping and pre-feasibility studies were also completed. International Iron Ores Limited exploration of the Roberts Lake area (1952-1957) included 5,115 m in 97 holes in 6 deposits. Oceanic Iron Ores Company was active in the Morgan Lake area (1955-1957) and work included 3,611 m in 45 holes in 2 deposits. The work included development of extensive historical mineral resource estimates that do not comply with the current Canadian Institute of Mining, Metallurgy and Petroleum Resources (CIM) Definition Standards on Mineral Resources and Mineral Reserves as required by National Instrument 43-101 (NI 43-101) "Standards of Disclosure for Mineral Projects." Further work is required to locate and evaluate the full extent and nature of the iron mineralization contained within the Ungava Iron property.

Micon recommends that a two phase exploration drilling program be conducted to develop an inferred resource in the Hopes Advance area of the Ungava Iron property. PACIFIC HARBOUR determined that the minimum objective of the drilling program should be to establish an inferred resource size of at least 500 Mt. Micon has used that resource size as a guide in preparation of the proposed work program.

Very little of the historic drill core has survived in a usable state and the drill core sampling, preparation and analyses cannot be confirmed as being compliant with current industry standards. Therefore, a thorough program of drilling, assaying, and metallurgical analyses is recommended for the Hopes Advance area. Given the abundance of iron formation outcrop in the Hopes Advance area an inferred resource may be identified with drill holes on 600 m centers. The overall drilling program will require 41 holes with a cumulative length of 4,350 m. The drilling program will also help to understand the potential variation in mineralogy and in grain size of magnetite and/or hematite (liberation issues).

Phase 1 would require 16 drill holes totalling 1,750 m and would be completed within 2011. Phase 2 would be contingent on the success of the Phase 1 work and would include 25 drill holes totalling 2,600 m.

The work programs will include surveying, mapping, geophysics, drilling, and collection of some bulk samples for testwork. Core samples and bulk samples will be assayed and composites will also be analyzed using metallurgical tests that are commonly used in operations in Minnesota, Michigan and the Labrador Trough. The metallurgical test work will include Davis magnetic tube tests to determine the potential recovery of magnetite and Wilfley table tests to determine the potential recovery of hematite.

The cost of drilling, assaying and metallurgical testing for the Phase 1 program is estimated to be \$4.2 million (Canadian dollars). The entire program is planned to be completed within 2011. All drilling is planned to be conducted between the months of August and September. A breakdown of the budget is provided in Section 20.1 of this report.

The Phase 2 program is estimated to be at least \$4.0M but will be contingent on the Phase 1 results.

2.0 INTRODUCTION AND TERMS OF REFERENCE

At the request of Pacific Harbour Capital Ltd. (PACIFIC HARBOUR), Micon International Limited (Micon) was retained to provide an independent review and summary of the previous exploration and historical resource estimates for the Ungava Iron property located in the Ungava Bay region of northern Quebec, Canada. This report presents a review of the historical and more recent work completed and offers an opinion as to whether the property merits further exploration expenditures. The report does not constitute an audit of any previously estimated mineral resources on the Ungava Iron property.

The geological setting of the property, mineralization style and occurrences, and exploration history were described in various reports that were prepared during the 1950's through the early 1970's, as well as in various government and other publications listed in Section 21 "References" of this report. The relevant sections of those reports are reproduced or quoted herein where appropriate.

PACIFIC HARBOUR has not performed any physical work on the property to date. Geophysical studies were completed over the iron formation by Voisey Bay Geophysics Ltd. (of Longue-Pointe-de-Mingan, Quebec) for Sheridan and Ferderber covering more than 232,600 ha with 18,400 line kilometres flown. The company is in the process of conducting a comprehensive review of all the available data and then plans to commence an exploration program on the most prospective portions of the mineral claims. Planning for a field program must commence in the early winter of the year prior to the field season. Sufficient lead time is required for logistics to be completed for fuel, equipment and supplies that must be shipped to site at the start of the field season. Lead time is also required for the application to the provincial and federal governments for permitting approvals for exploration activities.

In this report all currency amounts are stated in Canadian dollars with commodity prices typically expressed in US dollars. Quantities are generally stated in SI units, the standard practice within Canada, including metric tonnes (t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, and hectares (ha) for area. Where applicable, imperial units have been converted to SI units, the standard Canadian and international practice. Table 2.1 provides a list of the various abbreviations used throughout this report.

Micon visited several locations within the Ungava Iron property from August 28th through August 31st, 2008. The Micon team consisted of Mr. Sam Shoemaker, mine engineer and team leader; Mr. Ron Mariani, metallurgist; Dr. Rodney Johnson, geologist; and Ms. Dayan Anderson, environmental. Also accompanying the Micon team was Mr. Doug Reddy of Endeavour Financial Limited (Endeavour). A small amount of the samples of drill core collected by previous operators remains at the property. While on site, Micon examined various iron formation outcrops at several historically identified iron resource areas.

Additional airborne geophysical work was completed in 2009 after Micon's site visit. The additional work provided further confirmation of the trace of the iron formation principally

on existing claims. Micon has reviewed the geophysical results and considers that the site visit and this report are current. Micon searched for assessment reports and news releases that mention the property and also conducted a search in publicly available information and has determined that no further work has been completed on the property.

The qualified person responsible for the preparation of this report and the opinion on the propriety of the proposed exploration program is Sam J. Shoemaker, Jr., member AUSIMM (AUSIMM # 229733).

The review of the Ungava Iron property is based on published material researched by Micon, as well as data, professional opinions and unpublished material originally submitted to Micon by PACIFIC HARBOUR.

Table 2.1
List of the Abbreviations

Name	Abbreviation
Acre(s) (imperial)	ac
Canadian Institute of Mining, Metallurgy and Petroleum	CIM
Canadian National Instrument 43-101	NI 43-101
Centimetre(s)	cm
Day	d
Degree(s)	°
Degrees Celsius	°C
Digital elevation model	DEM
Dollar(s), Canadian and US	\$, Cdn\$ and US\$
Endeavour Financial Ltd.	Endeavour
Foot or Feet (imperial units)	ft
Gram(s)	g
Grams per metric tonne	g/t
Greater than	>
ground magnetic survey	GMS
Hectare(s)	ha
Internal rate of return	IRR
Kilogram(s)	kg
Kilometre(s)	km
Less than	<
Litre(s)	l
Metre(s)	m
Micon International Limited	Micon
Mile(s)	mi
Million tonnes	Mt
Million ounces	Moz
Million years	Ma
Million metric tonnes per year	Mt/y
Milligram(s)	mg
Millimetre(s)	mm
North American Datum	NAD
Net present value	NPV
Net smelter return	NSR
Not available/applicable	n.a.
Ounces	oz
Ounces per year	oz/y
Parts per billion	ppb
Parts per million	ppm
Percent(age)	%
Pound(s)	lb

Name	Abbreviation
Qualified Person	QP
Quality Assurance/Quality Control	QA/QC
Second	s
Specific gravity	SG
Système International d'Unités	SI
Ton(s) (imperial)	ton
Tons (imperial) per day	tons/d
Tons(s) (long, imperial)	l.ton
Tonne (metric)	t
Tonnes (metric) per day	t/d
Universal Transverse Mercator	UTM
Year	y

3.0 RELIANCE ON OTHER EXPERTS

Micon has reviewed and analyzed data provided by PACIFIC HARBOUR, Ferderber and Sheridan, and the previous operators of the Ungava Iron property, and has drawn its own conclusions therefrom, augmented by its direct field examination. Micon has not carried out any independent exploration work, drilled any holes or carried out an extensive program of sampling and assaying on any of the iron deposits contained on the property. Several samples were taken during the Oceanic Iron site visit in 2008 in order to confirm the historically observed geology and mineralogy. Additionally, several mineralized outcrops were located and the observed geology matched the previous descriptions. Several drill hole locations were also identified, but due to the passage of time, no evidence of the drill hole numbers could be identified. Micon's program of sampling was not intended to duplicate the volume of data collected by PACIFIC HARBOUR's predecessor companies; however, it was adequate to independently confirm the presence of the relevant mineralization on the property.

Micon briefly reviewed the results of previously published resource estimates completed on the property. In the case of the historical resources, reports on the Kayak Bay deposits, Morgan Lake area, and the Hopes Advance deposits provided general resource estimates of the iron resource potential for these portions of the property. These estimates, however, do not comply with the current Canadian Institute of Mining, Metallurgy and Petroleum Resources (CIM) Definition Standards on Mineral Resources and Mineral Reserves as required by National Instrument 43-101 (NI 43-101) "Standards of Disclosure for Mineral Projects." Therefore PACIFIC HARBOUR should not rely solely on the previous data for planning a work program or to establish a mineral resource on the property. Further fieldwork is required to locate and evaluate the actual extent and nature of the mineralization at the Ungava Iron property.

While exercising all reasonable diligence in checking, confirming and testing, Micon has relied upon PACIFIC HARBOUR's presentation of the project data from previous operators for the Ungava Iron property in formulating its opinion.

The agreement under which PACIFIC HARBOUR holds title to the Ungava Iron property has been reviewed by Micon and appears to be in order; however, Micon offers no legal opinion as to the validity of the mineral title claimed. A description of the property, and ownership thereof, is provided for general information purposes only. Comments on the state of environmental conditions, liability and remediation have been made where required by NI 43-101. Micon offers no opinion on the state of the environment on the properties. The statements are provided for information purposes only. Legal counsel for PACIFIC HARBOUR checked the mineral claims list.

The descriptions of geology, mineralization, exploration and mineral resource estimation methodology used in this report are from reports prepared by various companies or their contracted consultants for the various components of the Ungava Iron property. The conclusions of this report rely on data available in published and unpublished reports

supplied by the various companies which have conducted the exploration on the properties and information supplied originally by PACIFIC HARBOUR. The companies completing work in the 1950s and 1970s were conducting their activities in accordance with industry standards at that time. Micon has no reason to doubt the validity of the information provided by PACIFIC HARBOUR.

Micon is pleased to acknowledge the helpful cooperation of PACIFIC HARBOUR personnel, all of whom made available any and all data that Micon requested and responded openly and helpfully to all questions, queries and requests for material.

4.0 PROPERTY DESCRIPTION AND LOCATION

The modern Ungava Iron property contains several significant, historically identified, undeveloped iron deposits. The locations of these iron deposits range from the Roberts Lake area north of Payne Bay to the Red Dog and Ford Lake areas near Hopes Advance Bay in the south. The properties consist of several blocks of claims on NTS sheets 24K, 24M, 24N, 25C and 25D and include an area of approximately 126,000 hectares. The property extends between latitude 59°06' N to 60°50' N and from longitude 69°42' W to 71°05' W. The location of the Ungava Iron property is shown in Figures 4.1 and 4.2.

Figure 4.1
Location of the Ungava Iron property in Northeastern Quebec, Canada

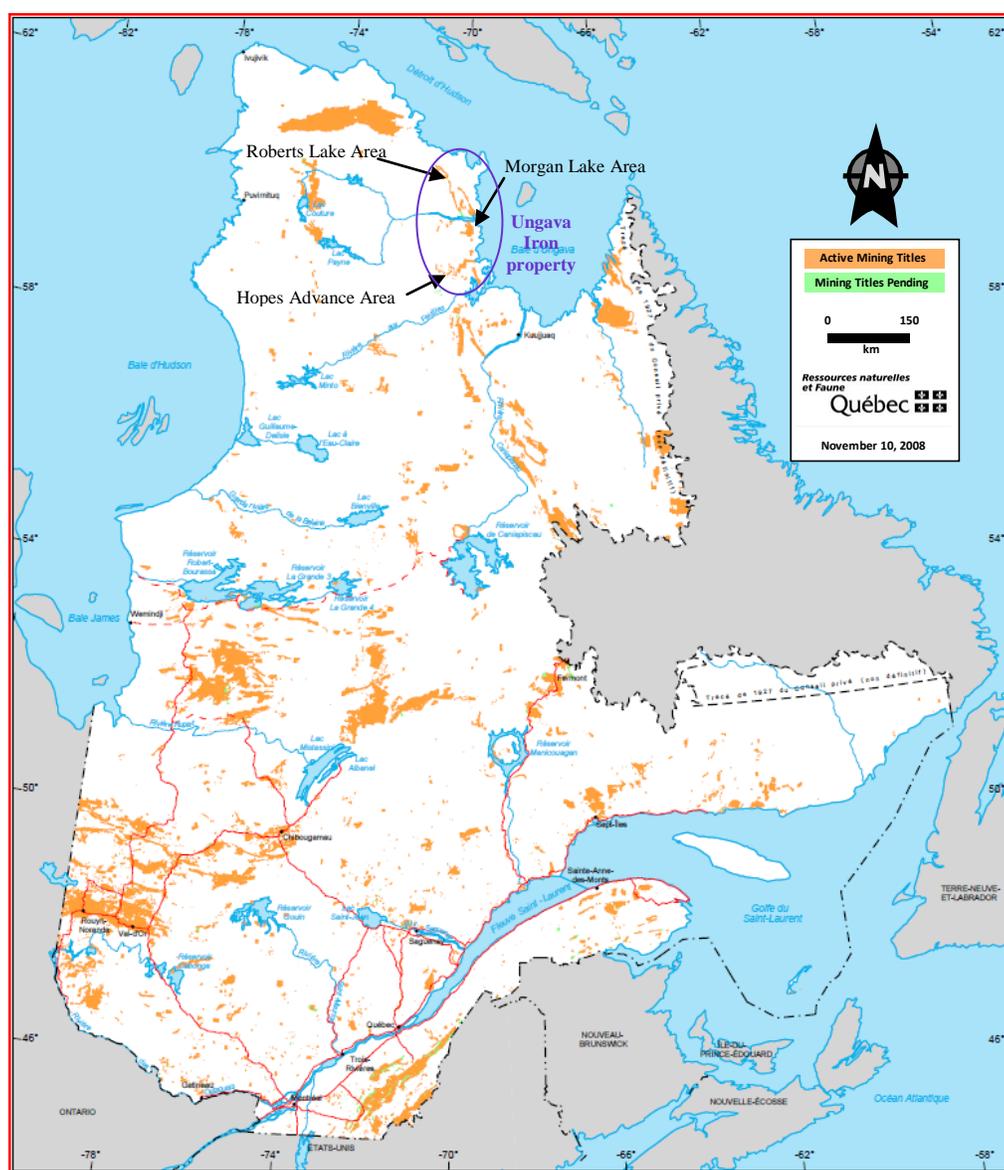
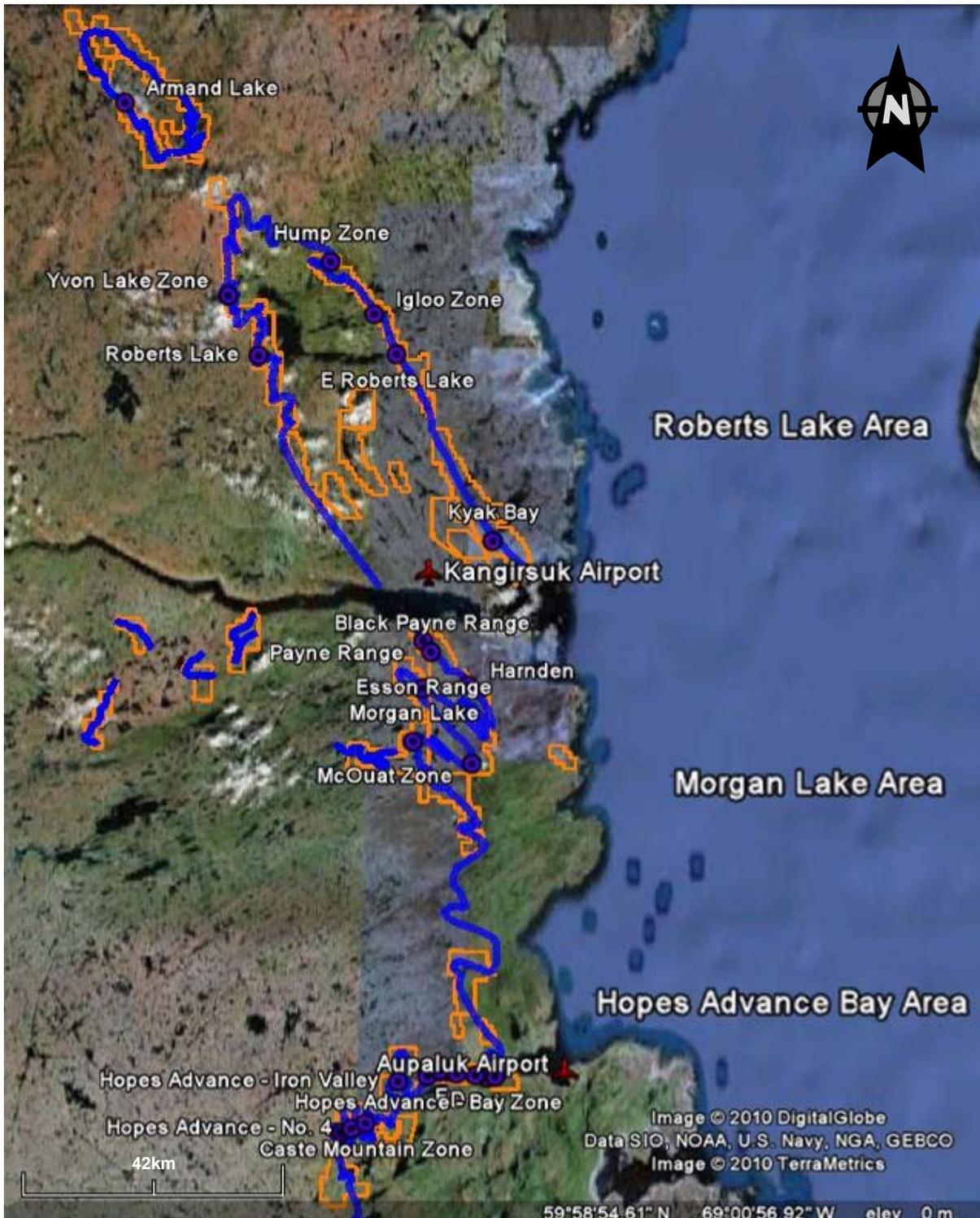


Figure 4.2
Detail of Ungava Iron property in Northeastern Quebec, Canada.



Blue line is the trace of the iron formation and orange outlines are the Ungava Iron property.

Areas with restrictions on exploration are shown on Figures 6.1, 6.2 and 6.3.

No current mineral resources, mineral reserves, mine workings, tailings ponds, waste deposits or improvements exist on the property. Important natural features include Ungava Bay to the east of the property (see Figure 5.1). The locations of the known mineralized zones relative to the property boundaries are noted on Figures 4.2, 6.1, 6.2 and 6.3. Establishing and confirmation the extents and dimensions of these zones is the purpose and intent of the proposed work programs described in this report. The outlines of the iron formation in the area of proposed work is shown on Figures 20.2, 20.3 and 20.4.

The Roberts Lake area located north of Payne Bay is described in several of the old reports as the former International Iron Ores Limited property. The iron formation in this area is on a large synclinal structure approximately 65 km long trending in a northwest direction. The iron formation can be traced along the two limbs more or less continuously for a total of 160 km. The distance from the outcrop of iron formation on one limb to the other limb is approximately 25 km at its widest point. Several iron deposits have been located on the limbs of the syncline, the most significant being the Kayak Bay deposit on the east limb, located along Kayak Bay, east of the small village of Kangirsuk on Payne Bay.

Just south of Payne Bay is the former Oceanic Iron property. This property is made up of two magnetite-bearing, historically identified iron deposits. The northernmost of these two iron deposits, the Payne Range, is located on the south side of Payne Bay, south of the town of Kangirsuk. The Payne Range deposit has a strike length of several kilometres. The second iron deposit, Morgan Lake, is centered on Morgan Lake about 25 km south of Kangirsuk. This iron deposit has an extensive outcrop with an approximate strike length of 20 km.

Even further south, inland from Hopes Advance Bay, is the Hopes Advance property which was explored by Atlantic Iron Ores Limited. This property is made up of a number of historically identified iron deposits north of Ford Lake, Red Dog Lake, and the Red Dog River. The deposits are a maximum of about 30 km inland from Hopes Advance Bay and the small village of Aupaluk. The strike length of the iron formation that hosts the Hopes Advance iron deposits is approximately 30 km long. The iron deposit contained on the property nearest to tidewater is within about 5 km of Hopes Advance Bay.

All three of the properties that make up the modern Ungava Iron property have extensive historical documentation available. The deposits at the Hopes Advance areas were the most advanced towards production with a detailed scoping study level report completed in the early 1960's (referred to as a feasibility study at that time). The other two areas (Roberts Lake and the Morgan Lake) were at a pre-scoping study level with limited exploration drilling and metallurgical work completed. The individual claims comprising the Ungava Iron property are listed in Appendix A.

Pacific Harbour Capital Ltd. ("Pacific Harbour") entered into an agreement dated October 1, 2010 (the "Acquisition Agreement") with John Patrick Sheridan of Toronto, Ontario and Peter Ferderber of Val D'or, Quebec (collectively the "Vendors") to acquire a 100% interest,

subject to a 2% net smelter returns royalty (the "NSR"), in approximately 3,000 mining claims (the "Property") located near Ungava Bay, Quebec.

As consideration for the acquisition, Pacific Harbour has agreed to issue to the Vendors 30,000,000 common shares which will be held in escrow and releasable on terms acceptable to the TSX Venture Exchange ("TSXV"), provided that the shares will not be releasable any sooner than: 20% of the shares on the date that is four months following the closing date and 20% on each of the dates that are 10 months, 16 months, 22 months and 28 months following the closing date. Commencing on the date that is one year following the closing date, Pacific Harbour must pay the Vendors minimum advance NSR payments of \$200,000 per year, which will be credited against all future NSR payments payable from production. Pacific Harbour may purchase 50% of the NSR by paying the Vendors \$3,000,000 at any time in the first two years following the commencement of commercial production from the Property.

The Property is currently subject to a dispute between Kataria Holdings Limited, a British Virgin Islands company, Atulkumar Patel and Ramzy Abdul-Majeed, both of Dubai, UAE, (collectively the "Kataria Group") and the Vendors. In relation to the acquisition of the Property, Pacific Harbour has also entered into agreements with the Vendors and the Kataria Group which provide that, upon closing under the Acquisition Agreement, the Vendors and the Kataria Group will dismiss all legal proceedings in respect of the Property and enter into full and final releases. In consideration therefore, Pacific Harbour has agreed to pay the Kataria Group U.S.\$2,000,000 on the closing date under the Acquisition Agreement and issue the Kataria Group 8,000,000 common shares on the closing date under the Acquisition Agreement, of which 4,000,000 common shares will be held in escrow and only released upon receipt of an independent report under National Instrument 43-101 which validates a resource equal to or greater than 450 million metric tonnes of 35% or higher iron content.

Concurrently with closing under the Acquisition Agreement, Pacific Harbour will change its name to Oceanic Iron Ore Corp.

Exploration claims are established by "paper staking" and do not require that the limits be physically walked or marked. Until April of 2010, obtaining by map designation could be done by mail, fax, electronically or "in person" with the Ministry or at its regional centers. Since April 2010, this can only be done electronically. Another way of acquiring claims under the Mining Act would have been by "staking" done physically, on site. Sheridan and Ferderber stated that the claims were all obtained through map designation and not by physical staking.

The claim status and obligations were reviewed by legal counsel for Pacific Harbour. The property consists of 2,949 claims² on 16 mapsheets that extend along the known trace of the iron formation. The claims are valid but require annual fee payments and \$275,194.

² An additional 21 claims covering 901.49 ha are in process of registration, request number is 1066382. These claims are identified in Appendix 1.

Exploration activities require an application and approval of Quebec Ministry of Natural Resources. None of the claims are within parks, forest reserves or other areas that are restricted from exploration and mining. Areas that are restricted from staking or exploration are shown on Figures 6.1, 6.2 and 6.3.

Claims expiring in 2010 have been renewed and the soonest that any claims will expire is January 14, 2011. The annual holding cost for claims coming due in 2010 has already been paid and is \$132,370 for 2011. Work required in lieu of assessment fees is \$797,360. There are no pre-existing surface rights held on the property. A detailed description of the mineral claims making up the Ungava Iron property is listed in Appendix A.

The properties are currently held in the name of Peter Ferdeber, Daniel Ferderber or Annick Samvojski but are in the process of being transferred over to PACIFIC HARBOUR.

Exploration activities are subject to the 1988 Quebec Mining Act and the Quebec Environmental Quality Act. These statutes set out the requirements for mineral exploration and the environmental controls required to manage exploration activities on site. The Quebec Mining Act sets up the requirement for the exploration permit and any development permit if the project proceeds to that stage. The Quebec Environmental Quality Act is comprehensive and covers a broad range of protection measures including pollution control, environmental impact assessment, requirements for land protection and rehabilitation, quality of water and waste water, hazardous materials, air quality control, consultation, and residual and hazardous wastes.

The property is located in Nunavik, the arctic region of Quebec which falls under the jurisdiction of the James Bay and Northern Quebec Agreement (JBNQA). This agreement, negotiated in 1975 between the Government of Quebec, the Grand Council of the Crees of Quebec and the Northern Quebec Inuit Association, has led to specific provisions of Chapter II of the Quebec Environmental Quality Act (EQA). An environmental advisory committee, composed of Native, provincial and federal representatives, serves as the official forum to implement and address environmental protection and management in the region.

In 2005, the Nunavik Inuit Land Claims Agreement was reached between the Government of Canada and the Makivik Corporation, the development company that manages the heritage funds of the Nunavik Inuit as provided for in the JBNQA. The 2005 land claims agreement a) affirms the existing aboriginal and treaty rights as recognized under the Constitution Act of 1982; and b) provides additional certainty regarding land ownership and use of terrestrial and marine resources. Three new entities, the Nunavik Marine Region Wildlife Board (NMRWB), the Nunavik Marine Region Planning Commission (NMRPC), and the Nunavik Marine Region Impact Review Board (NMRIRB), have been established as a result of the aforementioned land claims agreement. Each board will play a significant role in assessing and approving any development in the Nunavik region.

Federal legislation will also need to be considered for any development in addition to the Inuit agreements, Nunavik agencies, and the Quebec legislation mentioned above.

Applicable federal legislation includes the Canadian Environmental Assessment Act, the Canadian Environmental Protection Act, the Canada Water Act, the Navigable Waters Protection Act, Migratory Birds Act, and the Metal Mining Effluent Regulations. Any federal and provincial environmental assessment would be harmonized under the Canada-Quebec Agreement on Environmental Assessment Cooperation. Tailing disposal in a natural water body should be avoided in project planning as legislated under the Metal Mining Effluent Regulations. In addition, exploration and potential development needs to consider species of special status that include caribou, beluga whale, and musk ox.

The only pre-existing environmental liability identified by Micon is the cost to a) inventory and remove all existing historic exploration debris; and b) to remediate small hydrocarbon or lubricant spills from the historic exploration drilling sites and base camps.

During exploration, an environmental baseline study (including a heritage resource study) should be developed if the project will proceed to the next assessment stage. To secure a social licence to operate ongoing consultation and stakeholder engagement is recommended during exploration and all subsequent phases of the project.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Ungava Iron property is accessible from Kangirsuk or Aupaluk, Quebec, via helicopter or float plane (Figure 5.1). Both of those communities are serviced by regularly scheduled flights by Air Inuit. First Air operates regularly scheduled flights to Kuujuaq originating out of Montreal.

The nearest road is about 10 km from the Hopes Advance area near Aupaluk. Aupaluk and Kangirsuk are not connected to each other or to any other community by road. Kangirsuk has a population of 465 (2006) while Aupaluk has a population of 174 (2006). The major population centre for the region is Kuujuaq, located about 150 km southeast of the property with a population of 2,130 in 2006.

Figure 5.1
Location Map of the Communities in Northeastern Quebec, Canada



As shown on Figure 4.2, the Hopes Advance area is located within 10 km of Aupaluk. The Morgan Lake area is midway between Aupaluk and Kangirsuk, about 50 km from either village. The Roberts Lake area extends from the immediate Kangirsuk area to 150 km northwest of the village. The closest accommodations are located in Aupaluk and Kangirsuk, both of which have both a motel and restaurant.

The Ungava Iron property is located in the treeless tundra of the Canadian sub-Arctic. Topographic relief can be up to a few hundred metres above sea level (generally less than 150 m). Much of the area is flat with local hills and ridges forming relatively prominent features. Numerous lakes and streams are throughout the region. The total annual precipitation is approximately 380 mm per year and the mean annual temperature is -6°C . Winds are steady and sometimes reach high velocities, with an average of about 30 km per hour throughout the year. Due to the moderating influence of the sea, winter temperatures are no colder than northern Minnesota or southern Manitoba. The winters are long and the summers are short and cool. These climatic conditions are severe, though no more so than other regions of northern Canada (A. T. Griffis, 1958).

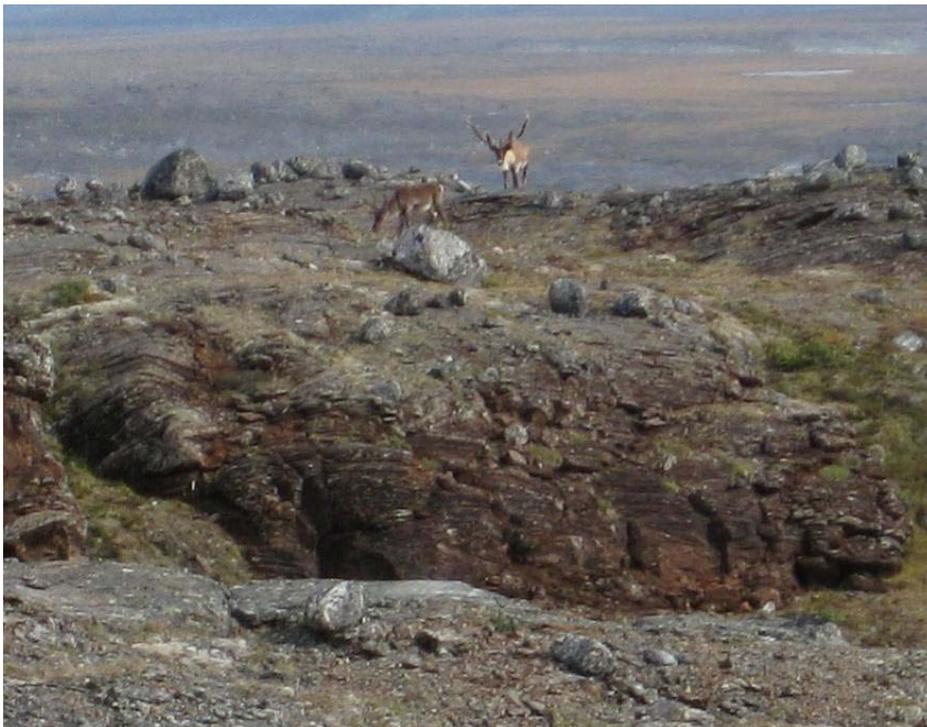
The vegetation on the Ungava Iron property is composed of sub-Arctic tundra species including various small plants, mosses, and lichens. Animal species present on the property include Caribou and Muskox. In Ungava Bay, a small population of Beluga Whales is also present. Figure 5.2 is a photograph of a typical view of the iron formation outcrops while Figure 5.3 shows some of the wildlife present on the property.

No surface rights are held on the property at this juncture. No power sources are available to the project. Water sources are abundant in all areas of the property. Potential port sites would be within 10 to 50 km on the coast of Ungava Bay. Experienced mining personnel would be sourced from mining centres in southern Quebec. Adequate space is likely available for potential tailings storage areas, waste disposal areas, and sites for facilities but the project is not at a stage that enables the scale of facilities or specific locations to be speculated upon.

Figure 5.2
Typical View of the sub-Arctic Tundra on the Ungava Iron property



Figure 5.3
Photograph of Caribou on the Ungava Iron property (Morgan Lake area)



6.0 HISTORY

The history of the discovery and early exploration of iron resources within the Labrador Trough (see Figure 7.1) is described by P. E. Auger in his 1958 report for the Ungava Iron Ores Company as follows:

The Labrador Trough is a stratigraphic and structural unit, which has been reported in northern Quebec as early as 1852, by Father Babel, an Oblate missionary. In the latter part of the 19th Century, A. P. Low of the Geologic Survey of Canada mentioned the presence of abundant iron formation and in his report published in 1895, he recommends that the area be prospected for iron. In 1929, iron ore was found in Labrador by J. E. Gill and W. F. James in the iron formation of the Trough on the present property of the Iron Ore Company of Canada and in 1936, Dr. J. A. Retty made the first discovery of iron ore in Quebec and began the systematic exploration of the Labrador Trough. His work was followed by that of numerous others, including the writer (Auger).

In the succeeding years from 1946 to date (1958) the Province of Quebec gave various companies large concessions covering most of the Labrador Trough from Knob Lake northward as far as Ungava Bay and southward as far as Mount Wright and Lake Mistassini. In 1951, a prospector, Ross Toms, staked the first claims in the Ford Lake region (Hopes Advance area). The samples collected on these claims were brought to Mr. Cyrus S. Eaton of Cleveland, Ohio USA, who foresaw the potential economic significance of ore of this type located near tidewater. Mr. Hugh Roberts, a well known consulting geologist from Duluth, examined the samples and recognized at once the economic value of the material under consideration and recommended that some geologic studies and exploratory drilling be done on the ground which is now the property of Atlantic Iron Ores Limited³.

In 1952 and 1953, exploration was pushed northward along the Labrador Trough and new outcrops of iron ore were discovered with the resultant acquisition by the Cyrus Eaton interests of the mineral rights on the International Iron Ores Properties, north and south of Payne River⁴. In the following years Oceanic Iron Ores Company (1953) and Quebec Explorers Limited (1956) obtained mining concessions on neighbouring grounds. This completed the granting of all the iron-bearing ground comprised within the Labrador Trough in Quebec.

The most active exploration period was between 1952 through 1961. Large iron mining operations were proposed in the Roberts Lake area near Kayak Bay, in the Morgan Lake area at Payne River, and at Hopes Advance Bay in the south. The project at Hopes Advance Bay was the most advanced with a detailed scoping study and pre-feasibility study being completed (called a feasibility study at that time).

During this same time period, large iron resources were developed southward along the Labrador Trough in Labrador and Quebec at Labrador City, Wabush, and Mount Wright.

³ Part of the modern Ungava Iron property.

⁴ Roberts Lake area, also part of the modern Ungava Iron property.

Additionally, large iron production plants (in Taconite) were brought into production in Minnesota and Michigan in the United States. All of this additional capacity was much closer to steel producing centers in the United States and Canada resulting in much lower overall production costs than could be achieved by mining the deposits in the Ungava Bay region. As a result, all of the projects in this area had been suspended or terminated by the mid-1960's.

Minor exploration work continued on the property until the early 1970's. Since that time, other than some minor metallurgical testing, the only exploration work completed by previous companies has been airborne geophysical surveys completed during the 1990's. Airborne geophysics (radiometrics and magnetometer surveys) have been completed in 2006, 2007, 2008 and 2009 by Voisey Bay Geophysics Ltd. as contracted by Ferderber and Sheridan.

6.1 GENERAL EXPLORATION HISTORY

6.1.1 Roberts Lake Area

The Roberts Lake area was first discovered in 1952 with active exploration commencing that same year and continuing through 1957. During this period of exploration work focused on the Kayak Bay deposit and consisted of surface mapping, channel sampling, exploration drilling (46 holes), and metallurgical testing. Additional work was completed during 1972 with a geophysical survey of the area and in the 1990's with additional metallurgical testing. Exploration work completed on the property includes exploration drilling, surface sampling, surface mapping, and metallurgical test work. At the Kayak Bay deposit, a preliminary pit was laid out to develop the drill indicated resource.

Exploration and drilling was also carried out in the Payne River zone (26 holes), Igloo Lake zone (11 holes), Hump zone (15 hole), and Roberts Lake zone (Figure 6.1). The iron formation can be traced along both limbs of the syncline. An extension to the northwest of the syncline was also identified and is the location of the Armand Lake zone (Figure 6.1).

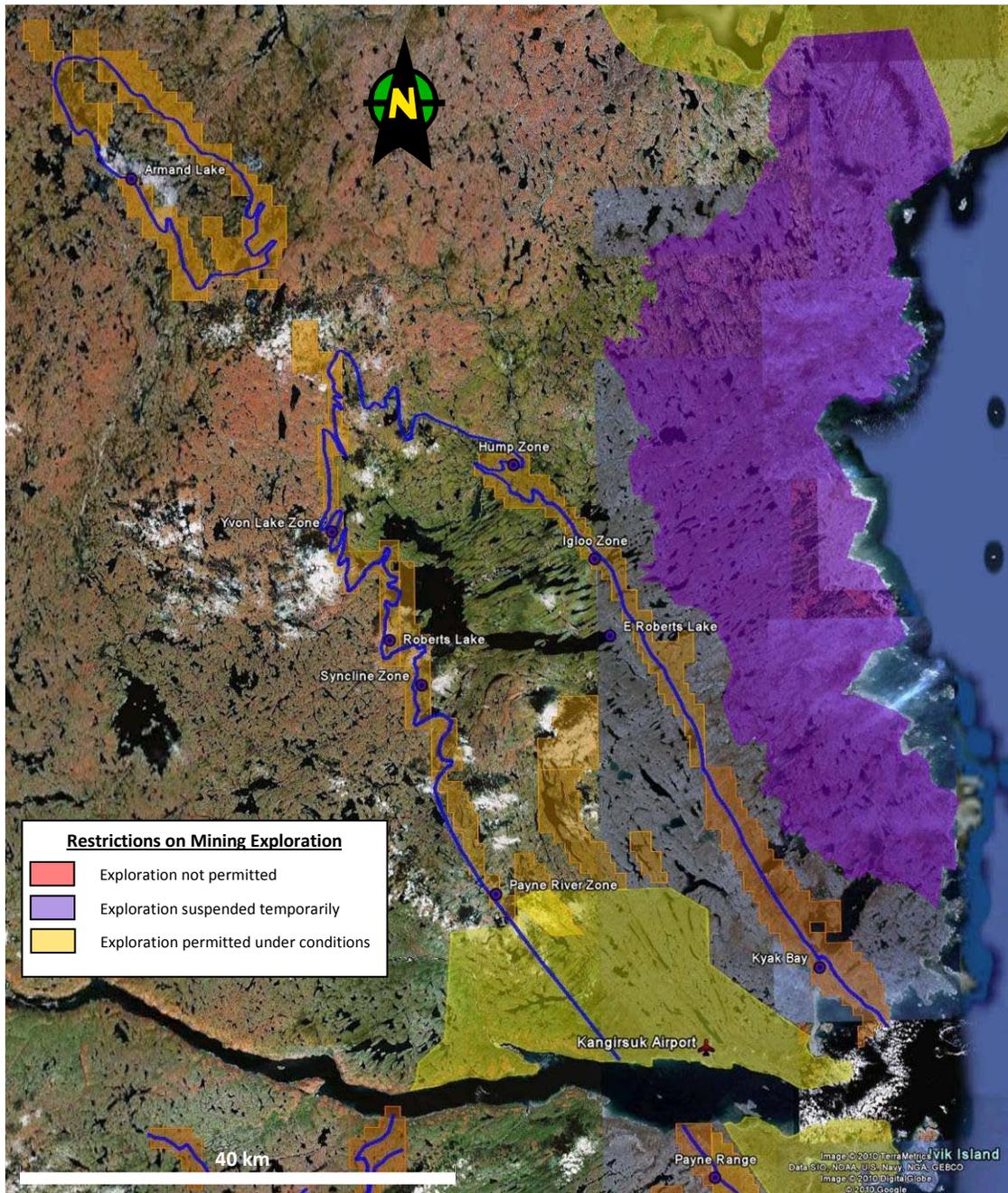
A total of 97 drillholes were completed in the Roberts Lake area totalling 5,115 m.

6.1.2 Morgan Lake Area

The Morgan Lake area iron deposits were first discovered in 1953 with active exploration commencing in 1955 and continuing through 1957. Exploration work completed on the property includes exploration drilling, surface sampling, surface mapping, and metallurgical test work. Detailed site layouts were completed for a processing plant and harbour near the Payne Range iron deposits. Drilling was completed on the Payne Range (29 holes) and Morgan Lake deposits (16 holes). Exploration was also conducted in the Black Payne South, Harnden Range, Esson Lake, and McOuat Range zones (Figure 6.2).

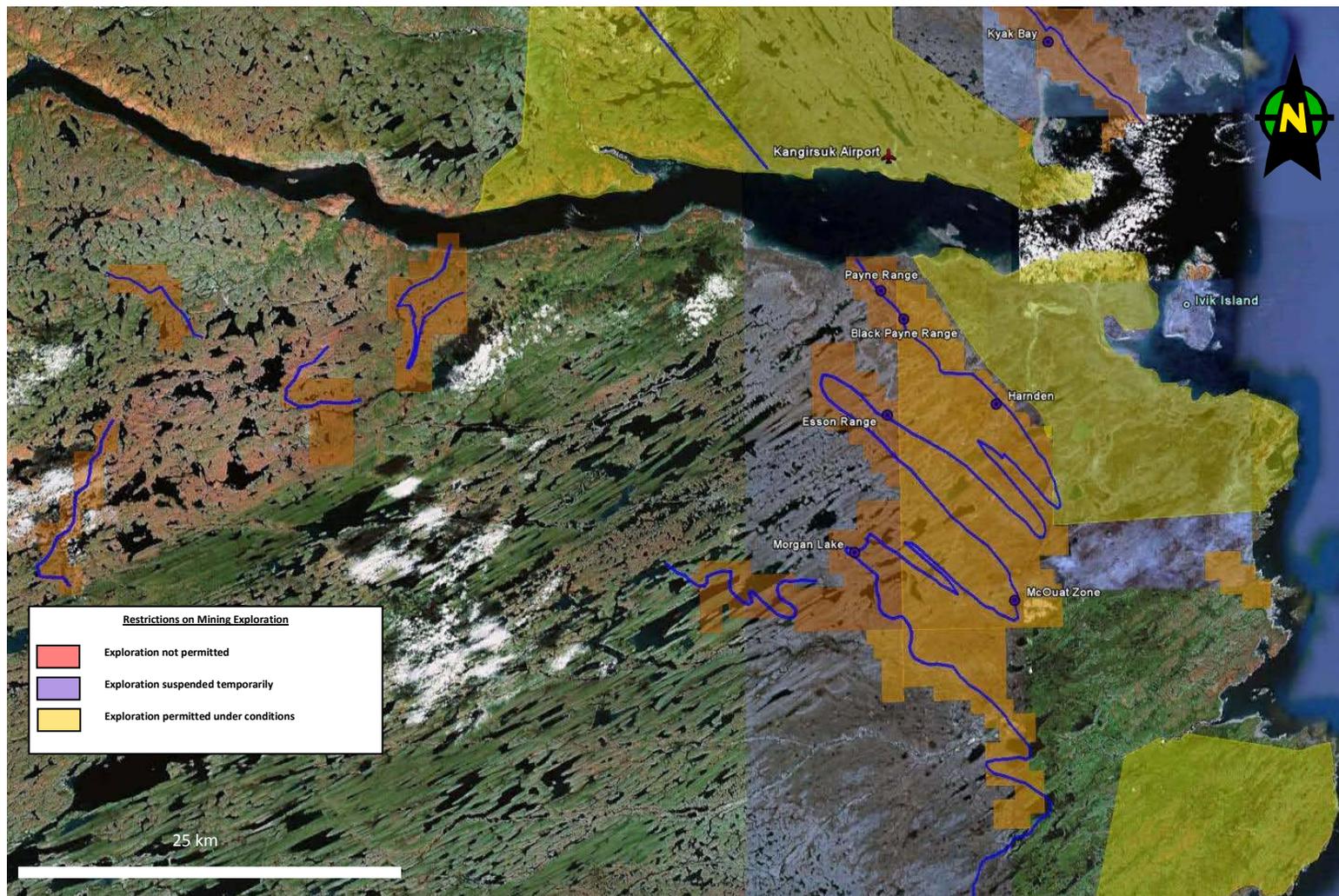
A total of 45 drillholes were completed in the Morgan Lake area totalling 3,611 m.

Figure 6.1
Trace of Iron Formation and Location of Iron Prospects in the Robert Lake Area



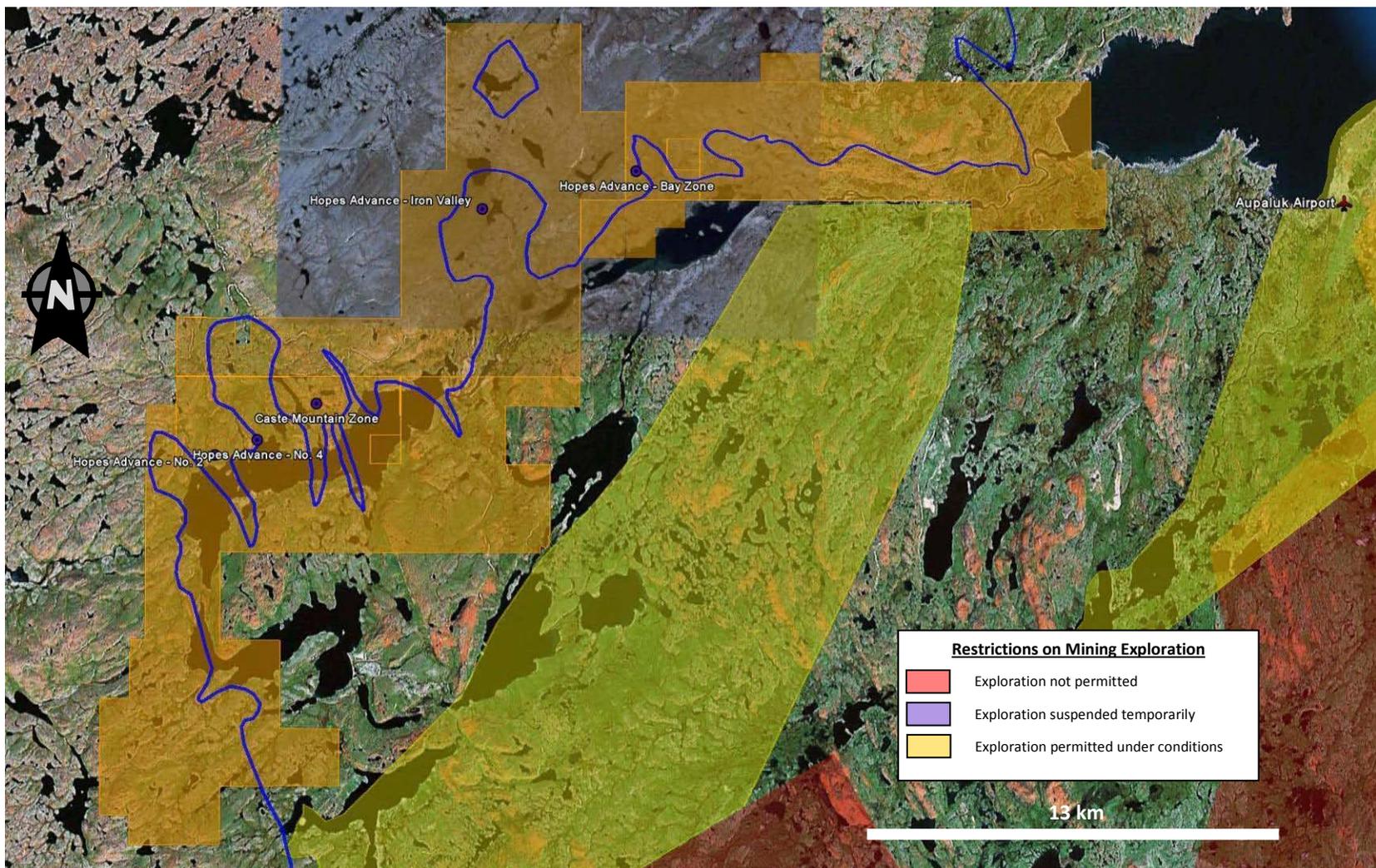
Blue line is the trace of the iron formation and orange outlines are the Ungava Iron property.

Figure 6.2
Trace of Iron Formation and Location of Iron Prospects in the Morgan Lake Area



Blue line is the trace of the iron formation and orange outlines are the Ungava Iron property.

Figure 6.3
Trace of Iron Formation and Location of Iron Prospects in the Hopes Advance Area



Blue line is the trace of the iron formation and orange outlines are the Ungava Iron property.

6.1.3 Hopes Advance Area

The Hopes Advance area iron deposits were first discovered in 1951 with active exploration from that time continuing through 1962. Exploration work completed on the property includes exploration drilling, surface sampling, surface mapping, and metallurgical test work. Detailed site layouts and pit designs were completed for a processing plant along the Red Dog River and a harbour on Hopes Advance Bay.

Eight of the deposits (Figure 6.3) have had some drilling including: Bay (54 holes), Castle Mountain (53), Iron Valley (16 holes), No.1 (3 holes), No.2 (22 holes), No.4 (27 holes), McDonald (7 holes), and Northwest Corner zones (3 holes). Other mineralization in the Hopes Advance area includes the No.3 and No.6 zones.

A total of 185 drillholes were completed in the Hopes Advance area totalling 12,935 m.

6.2 HISTORICAL RESOURCE ESTIMATES

The Ungava Iron property contains significant historic iron resources. However, the amount of exploration drilling in most cases is not enough to define the resource or determine a mineral resource under current reporting criteria. Thus, all of the reported historical iron resources are considered speculative and do not meet any standard of modern reportable resources or reserves. Further, an iron resource not only requires an iron head assay, but it also requires some metallurgical knowledge as to whether that assay can in fact have a reasonable expectation of producing a viable commercial product.

Although a great deal of effort was expended on the various iron deposits during the 1950's, much work remains to determine if a viable commercial product can be produced. As a result, none of the historical iron deposits making up the current Ungava Iron property contain any mineral resource conforming to modern reporting standards.

However, the potential for iron resources contained within the property is considerable. The resources could be determined with a modern exploration, drilling and metallurgical testing program. Furthermore, nearly all of the significant iron resources identified on the property (Kayak Bay, Morgan Lake, and Hopes Advance) will require very minimal waste movement from any pits developed over the initial ten to twenty years of mine life. This is due to iron formation being in areas of high relief relative to surrounding flat-lying tundra. Waste stripping is expected to be very low with stripping ratios of less than 0.5 to 1 during the same time period.

6.2.1 Roberts Lake Area

The Roberts Lake area includes historically identified iron deposits at Kayak Bay, Payne River (the northern extension of the Payne Range deposit north of Payne Bay), Igloo Lake, Hump Zone, Synclinal Zone, and Yvon Lake. The historical estimated resource is 439 million metric tonnes at a grade of 36.8% Fe_{soluble} and was based on very limited exploration

drilling (97 drillholes, 5,115 m drilled), channel sampling, bulk samples, surface mapping, and economic studies. An additional potential resource of 813 million metric tonnes was reported in the historical documentation (Cavanagh, 1970) but has little supporting information. Table 6.1 below summarizes the historical resources identified in the Roberts Lake area.

Table 6.1
Historical Iron Resources in the Roberts Lake Area

Deposit	Crude Resource (million metric tonnes)	Head Iron (Sol. Fe)	Exploration Drillholes	Metres Drilled	Source	Date
Kayak Bay Zone (Zone 1)	111.7	35.3%	45	1,880	P.E. Cavanagh	1970
Payne River (Zone 2)	22.3	31.0%	26	2,535	P.E. Cavanagh	1970
Igloo Lake (Zone 3)	101.6	38.0%	11	248	P.E. Cavanagh	1970
Hump (Zone 4)	203.2	37.6%	15	452	P.E. Cavanagh	1970
<i>Total Drill Indicated</i>	<i>438.8</i>	<i>36.8%</i>	<i>97</i>	<i>5,115</i>	---	---
Synclinal (Zone 5)	203.2	36.0%	0	0	P.E. Cavanagh	1970
Yvon Lake (Zone 6)	101.6	36.8%	0	0	P.E. Cavanagh	1970
Pontential Zone 1	254.0	35.0%	0	0	P.E. Cavanagh	1970
Pontential Zone 2	254.0	35.0%	0	0	P.E. Cavanagh	1970
<i>Total Potential</i>	<i>812.8</i>	<i>35.5%</i>	<i>0</i>	<i>0</i>	---	---
<i>Total Roberts Lake Area</i>	<i>1,251.6</i>	<i>35.9%</i>	<i>97</i>	<i>5,115</i>	---	---

The historical data did not include any conceptual mine plans for the iron deposits in the Roberts Lake area. It is Micon's opinion that these historical resource estimates are speculative and are based on very limited exploration drilling and will require extensive new exploration and metallurgical efforts to validate.

The historical estimates presented above use categories other than the ones set out in sections 1.2 and 1.3 of NI 43-101 and have not been prepared to the standards required by the instrument or modern estimation practices. They should not be treated as current mineral resources or reserves or relied upon until confirmed by current exploration and a Qualified Person.

In the Roberts Lake area, the Micon team visited the Kayak Bay iron deposit.

6.2.2 Morgan Lake Area

The Morgan Lake area includes several historically identified iron deposits including the Payne Range, Morgan Lake, Black Payne South, Extension Southeast, Esson Lake Northeast, Slush Lake North, Harnden Range, McOuat Range, and McCracken River zones.

The historical estimated resource for the Payne Range and Morgan Lake deposits is slightly more than 510 million metric tonnes at a grade of 22.1% Fe_{magnetic} and was based on very limited exploration drilling (45 drillholes, 3,611 m), channel sampling, bulk samples, surface mapping, and economic studies. An additional “potential resource” of 101 million metric tonnes was reported in the historic documentation but with little supporting information. Table 6.2 below summarizes the historical iron resources identified in the Morgan Lake area.

Table 6.2
Historical Iron Resources in the Morgan Lake Area

Deposit	Crude Resource (million metric tonnes)	Head Iron (Mag. Fe)	Exploration Drillholes	Metres Drilled	Source	Date
Payne Range	72.4	23.9%	29	1,427	G.A. Gross	1964
Morgan Lake	437.8	21.8%	16	2,184	A.T. Griffis	1957
<i>Total Drill Indicated</i>	<i>510.2</i>	<i>22.1%</i>	<i>45</i>	<i>3,611</i>	---	---
<i>Morgan Lake Potential</i>	<i>101.6</i>	<i>22.7%</i>	<i>0</i>	<i>0</i>	<i>A.T. Griffis</i>	<i>1,957</i>
<i>Total Morgan Lake Area</i>	<i>611.8</i>	<i>22.2%</i>	<i>45</i>	<i>3,611</i>	---	---

The historical data did not provide any conceptual mine plans for the iron deposits in the Morgan Lake area. Significant outcrops of magnetite exist at Morgan Lake and the initial waste stripping is anticipated to be minimal. It is Micon’s opinion that the historical resource estimate is very speculative being based on a very limited exploration drilling and will require extensive new exploration and metallurgical efforts to validate.

The historical estimates presented above use categories other than the ones set out in sections 1.2 and 1.3 of NI 43-101 and have not been prepared to the standards required by the instrument or modern estimation practices. They should not be treated as current mineral resources or reserves or relied upon until confirmed by current exploration and a Qualified Person.

In the Morgan Lake area, the Micon team visited the Payne Range and Morgan Lake iron deposits.

6.2.3 Hopes Advance Area

The Hopes Advance area includes historically identified iron deposits including the Bay Zones A, B, C, D, E and F; Castle Mountain; Numbers 1, 2, 3, 4, 5, and 6 zones; the Northwest Corner, McDonald, and Iron Valley zones. The historical estimated resource is more than 590 million metric tonnes at a grade of 35.7% Fe_{soluble} and was based on extensive exploration drilling (182 drillholes, 12,826 m), channel sampling, bulk samples, surface mapping, and economic studies. An additional “potential resource” of 229 million metric tonnes was reported in the historical documentation but has very little documented support. Table 6.3 below summarizes the historical resources identified in the Hopes Advance area.

The historical work at Hopes Advance included mine plans including pit designs with ramps. All drill indicated areas had pits designed on them and waste stripping determined. No detailed annual mine plans were constructed and the overall stripping ratio was estimated to be about 0.32 to 1 on the drill indicated material. Initial mining would have been from the Castle Mountain and Bay Zone F deposits.

Table 6.3
Historical Iron Resources in the Hopes Advance Area

Deposit	Crude Resource (million metric tonnes)	Head Iron (Sol. Fe)	Exploration Drillholes	Metres Drilled	Source	Date
Bay Zones (A to F)	124.4	35.0%	54	3,929	P.E. Auger	1958
Castle Mountain	204.3	34.8%	53	3,966	P.E. Auger	1958
No. 2 Zone	80.8	36.4%	22	1,672	P.E. Auger	1958
No. 4 Zone	72.0	35.7%	27	1,435	P.E. Auger	1958
Northwest Corner	16.7	37.3%	3	252	P.E. Auger	1958
McDonald Zone	14.4	37.7%	7	443	P.E. Auger	1958
Iron Valley Zone	78.3	37.7%	16	1,129	P.E. Auger	1958
<i>Total Drill Indicated</i>	<i>590.9</i>	<i>35.7%</i>	<i>182</i>	<i>12,826</i>	---	---
No. 1 Zone	61.0	35.0%	3	109	P.E. Auger	1958
No. 2 Zone Western Part	40.6	35.0%	0	0	P.E. Auger	1958
No. 3 Zone	12.2	35.0%	0	0	P.E. Auger	1958
No. 6 Zone	10.2	35.0%	0	0	P.E. Auger	1958
Northwest Corner Possible	89.4	35.0%	0	0	P.E. Auger	1958
McDonald Zone Possible	15.2	35.0%	0	0	P.E. Auger	1958
<i>Total Potential</i>	<i>228.6</i>	<i>35.0%</i>	<i>3</i>	<i>109</i>	---	---
<i>Total Hopes Advance Area</i>	<i>819.5</i>	<i>35.5%</i>	<i>185</i>	<i>12,935</i>	---	---

It is Micon's opinion that the historical resource estimate is an advanced estimate for the time period in which it was made (late 1950's). However, since most of the original core is unavailable it will require new exploration drillholes to validate the previous work along with new metallurgical testing.

The historical estimates presented above use categories other than the ones set out in sections 1.2 and 1.3 of NI 43-101 and have not been prepared to the standards required by the instrument or modern estimation practices. They should not be treated as current mineral resources or reserves or relied upon until confirmed by current exploration and a Qualified Person.

In the Hopes Advance area, the Micon team visited the Castle Mountain, Number 2 zone, Number 4 zone, and the Iron Valley iron deposits. The team also viewed the other Hopes Advance deposits from the air.

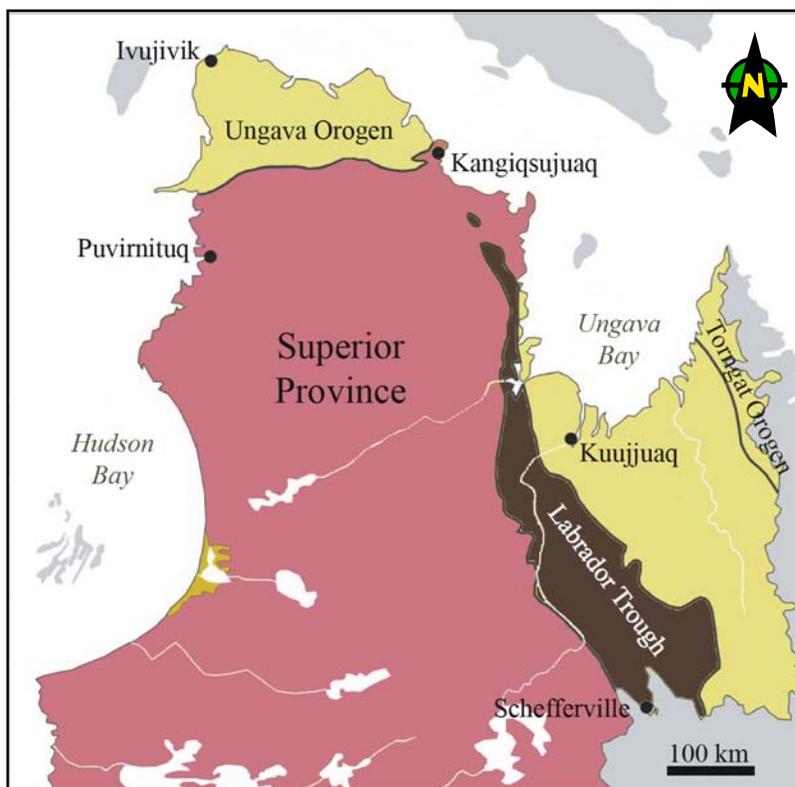
6.3 HISTORICAL PRODUCTION

There has been no historical production from any of the iron deposits contained within the Ungava Iron property.

7.0 GEOLOGICAL SETTING

The iron formation that comprises the deposits of the Ungava Iron property is situated at the northernmost extension of the approximately 1,000 km long Labrador Trough as shown in Figure 7.1. Farther south, the Labrador Trough hosts the iron ore deposits of Schefferville and Wabush Lake. The Labrador Trough or New Quebec Orogen is a Paleoproterozoic (1,840 Ga) fold and thrust belt that is situated between the Archean aged Superior and Rae Provinces. The iron formation in the Labrador Trough has been dated at 1,880 Ga \pm 2 Ma (Hoffman, 1988; Cheve and Machado, 1988).

Figure 7.1
Plan Map Showing Major Tectonic Subdivisions of Northern Quebec and the Ungava Peninsula
The Labrador Trough is also called the New Quebec Orogen



The general stratigraphic sequence observed in the Ungava Iron property (Table 7.1) is composed of an Archean age granite gneiss basement; unconformably overlying the granite gneiss is a succession of meta-sedimentary rocks. Immediately overlying the granite gneiss in most areas is quartzite of the Ford Lake Formation. The quartzite may contain magnetite, garnet and lenses or pods of mica schist. The quartzite grades upward into the Sokoman Iron Formation. The iron formation may be further subdivided based on variations in magnetite, hematite, carbonate and iron silicates. A conspicuous spotted iron silicate-carbonate-quartz bed caps the iron formation. Micaceous schist and slate that are intruded by gabbro sills overlie the Sokoman iron formation.

Table 7.1
Stratigraphic Sequence in the Hopes Advance Area

Hopes Advance					Metres Thick
Late Precambrian		Leaf Bay Group	Volcanic and sedimentary rocks. Diorite and gabbro sills and amphibolitic rocks.	--	
		Red Dog Formation	Micaceous schist and slate with minor carbonate and quartzose beds.	--	
		Sokoman Iron Formation	Iron silicate-carbonate-quartz iron formation		15-30
			Grunerite-magnetite-quartz iron formation		10-15
			Hematite-magnetite-quartz iron formation		45-60
Early Precambrian		Ford Lake Formation	Quartzite and garnet-biotite-chlorite schist		Up to 30
			Unconformity		
		Archean Complex	Granite and granite gneiss		

The Sokoman Iron Formation is the stratigraphic/geological control of the iron mineralization in the region. Strong folding has resulted in a structural influence on the iron formation. The iron formation in the Ungava Bay area appears to be more or less continuous along its considerable strike length of over 300 km. The iron formation is folded into a south-southeast plunging syncline with the closure of the fold located to the north of Payne Bay and just north of Roberts Lake. The limbs of this regional syncline are folded in a series of parasitic synclines and anticlines.

Thrusting and recumbent folding of the iron formation in several areas has led to limb thickening, thinning, and doubling up of the mineralized horizons in some locations. The known deposits or more prospective areas on the property are those areas where the iron formation has been deformed and is now flat-lying, raised above the surrounding non-mineralized rocks, deformed into anticlines or synclines, doubled up or otherwise thickened.

7.1 ROBERTS LAKE AREA

Micon observed the iron formation on outcrops along much of the length of the Kayak Bay deposit in the Roberts Lake area (Table 7.2).

The iron formation at Kayak Bay is located on the northeast limb of the Roberts Lake syncline. The traverse at Kayak Bay proceeded to the southeast along shallowly southeast plunging parasitic folds. Overall bedding dips moderately to the southwest. Chert-magnetite-hematite iron formation is overlain by spotted chert-magnetite-silicate-carbonate iron formation which in turn is overlain by spotted quartz-amphibole-carbonate rock. Beds of the chert-magnetite-hematite iron formation are typically 5 cm to approximately 30 cm thick. Specularite grains are approximately 125 microns in length and magnetite grains are approximately 50 microns in diameter (grain size was estimated from a grab sample and may not be representative of the average iron formation at Kayak Bay). The chert-specularite (hematite)-magnetite-silicate iron formation appears to be higher in iron grade and with relatively coarser-grained magnetite and hematite than at the Payne Bay outcrop that occurs across Payne Bay on the continuation of the southwest limb of the Roberts Lake syncline.

Table 7.2 lists the lengths, widths (observed on surface and not corrected to true thicknesses) and depths of mineralized zones as noted from the historic work conducted by the companies described in Section 6.0 of this report. A comment on the orientation and continuity of the deposits is also provided in the Table.

Table 7.2
Description of Length, Width, Depth and Continuity of Mineralized Zones

Area / Mineralized Zone	Length (m)	Width (m)	Known Depth (m)	Orientation	Continuity
ROBERTS LAKE					
Roberts Lake	>300		?	dip NE	west limb of syncline, good continuity, parasitic folds
Hump	~4500	120-150	>80	steep dip, variable	good continuity of iron formation
Igloo	~2400	75-125	>80	moderate dip SW	good continuity of iron formation
East Roberts Lake	>300		?	dip SW	east limb of syncline, good continuity, parasitic folds
Kyak Bay	>5000	100-120	>75	moderate dip SW	9 km very continuous trend of iron formation
MORGAN LAKE					
Payne Range	>1500	220-300	>100	moderate to NE	parallel iron formation units, good continuity
Black Payne Range	>1500	120-275	>75	moderate to NE	parallel iron formation units, good continuity
Hamden	~1200	30-40	?	steep, variable	continuous with parasitic folding
Esson Range	~1200	~240	?	variable on fold nose	fold nose and on both limbs
McOuat	300-400	30-40	?	moderate to W	near fold nose
Morgan Lake	~2500	~650	>70	shallow dip to NE	good continuity on limbs and thickened fold nose
HOPES ADVANCEBAY					
A	~1000	100-200	>50	moderate to S	continuous iron unit with deposits along 10km strike
B	>2000	150-300	>50	moderate to S	"
C	>2000	100-150	>50	moderate to S	"
D	>1200	50-150	>50	moderate to S	"
E	>1500	90-400	>50	moderate to S	"
F	>1400	90-400	>50	moderate to S	"
Iron Valley	~1400	~1300	~40-50	~flat lying	syncline, forms a bowl shape
Castle Mountain	~4000	200-800	50-75	low angle to flat lying	good continuity
No.2	~1000	~500	~50	low angle to flat lying	good continuity
No.4	~2600	150-300	>75	moderate to SW	folded, good continuity

7.2 MORGAN LAKE AREA

The iron formation on the Morgan Lake Range was observed at Morgan Lake and on outcrops on the southern shores of Payne Bay or the Payne Range zone (Table 7.2).

One stop was made on the the Payne Range zone on the south side of Payne Bay. The stratigraphy is moderately to steeply dipping to the northeast and is composed of lean quartzite overlain by chert-magnetite-silicate iron formation that is in turn overlain by spotted chert-carbonate iron formation. The magnetite grains average approximately 50 microns in diameter.

Three stops were made in the immediate vicinity of Morgan Lake. The iron formation in this area is immediately underlain by magnetite-garnet quartzite. The magnetite-garnet quartzite contains lean (without iron oxides) quartzite lenses and pods. Overlying the quartzite is thinly bedded, chert-magnetite-silicate (amphibole) iron formation. The chert-magnetite-silicate iron formation is thinly laminated with beds typically less than an inch thick. Overlying the chert-magnetite iron formation is thinly bedded chert-carbonate iron formation. Carbonate beds contain disseminated magnetite. Fibrous amphiboles were noted in the transition between the chert-magnetite-silicate iron formation and the overlying chert-carbonate rock.

The strata in the area of Morgan Lake are folded in a southeast plunging syncline. Tight folds were observed in this area and could present an opportunity for local thickening of the iron formation. An outcrop of magnetite-chert was identified to the southeast of Morgan Lake that was the site of a bulk sample. The exact part of the stratigraphy that this magnetite-chert outcrop occupies is uncertain at this time, but the outcrop occurs near the axis of the southeast plunging syncline.

7.3 HOPES ADVANCE AREA

Four stops were made in the Hopes Advance area: Castle Mountain, No. 4, No. 2, and Iron Valley (Table 7.2).

The Hopes Advance area is unusual in that it is the only portion of the iron formation with strikes that are generally east-west. All other areas are dominated by strikes that range from north-northwest to north-south.

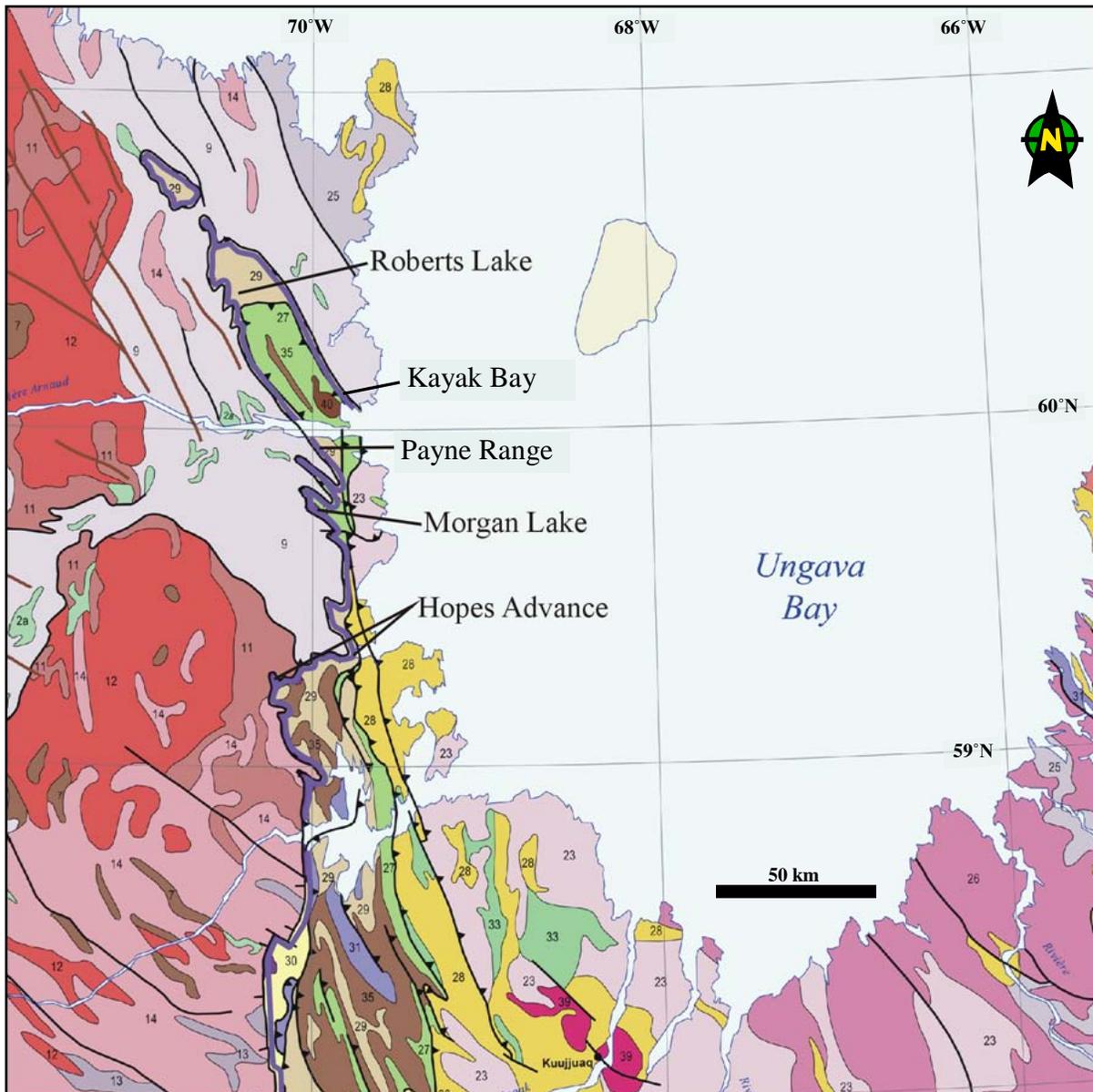
The bedding at Castle Mountain appears to form an open upright anticline plunging shallowly to the southeast. However, fold closures in the otherwise relatively flat-lying rocks suggest complex folding possibly associated with overturned beds. Lean chert-magnetite iron formation is locally overlain by higher-grade chert-magnetite-hematite iron formation. Bulk sample trenches apparently targeted this horizon. Beds in the chert-magnetite-hematite iron formation are up to several feet thick. The chert-magnetite-hematite iron formation is overlain by spotted chert-magnetite-silicate iron formation, which in turn is overlain by spotted chert-carbonate rock. Fibrous amphiboles were noted in the transition between the chert-magnetite-hematite- silicate iron formation and the overlying chert-carbonate rock.

The bedding at Hopes Advance No. 4 is folded into a southeast plunging syncline. Chert-magnetite-hematite-silicate iron formation is overlain by spotted chert-magnetite-silicate iron formation and spotted chert-carbonate rock. Beds in the chert-magnetite-hematite-silicate iron formation are up to 0.5 meters thick.

The bedding at Hopes Advance No. 2 defines a southeast plunging anticline. Bedding on the northeast limb dips 35 to 40° to the northeast. The chert-magnetite-silicate iron formation is overlain by spotted chert carbonate. Beds in the chert-magnetite-silicate iron formation are up to a couple of feet thick. Locally, there is evidence for thrusting where chert-magnetite-silicate iron formation overlies spotted chert-carbonate rock.

Outcrop at Hopes Advance Iron Valley was sparse. The distribution of outcrop in the area supports a syncline with Iron Valley lying on the axis. Chert-magnetite-hematite iron formation is overlain by spotted chert-carbonate rock. Two large float boulders of chert-specularite were observed. The float boulders were friable and may represent potential ores that do not crop out. Specularite grains are approximately 100 microns in length.

Figure 7.2
Plan Map Showing the General Geology in the area of the Ungava Iron property



Note: The iron formation is traced in purple. Note the south plunging syncline formed by the closure of the iron formation north of Roberts Lake, parasitic folds in the area of Morgan Lake and the west southwest trend of the iron formation at Hopes Advance.

8.0 DEPOSIT TYPES

The iron mineralization on the Ungava Iron property is of the Lake Superior Type⁵ and contains deposits that have characteristics of iron ores that require concentration to produce saleable products. Lake Superior Type iron formations are deposited in shallow waters on continental shelves and in shallow sedimentary basins. This type of iron formation contains a variety of ore types that can be grouped into two main categories: direct shipping and concentrating ores. Direct shipping ores have a natural Fe content greater than 51% and include the hard ores of northern Michigan and residual ores that have been mined in Australia, Brazil, Michigan, Minnesota and Canada. Hard ores are high grade, massive and composed of magnetite and hematite. Residual ores are typically composed of hematite and martite and may contain goethite and limonite. Residual ores have been upgraded by weathering processes that have concentrated iron by the removal of gangue minerals, principally quartz. Concentrating ores are typically composed of magnetite and or hematite and silicate minerals at relatively low grades (20-30% Fe) that require grinding to liberate magnetite and/or hematite from the silicate minerals. Magnetite is concentrated by magnetic methods and hematite is concentrated by gravity or flotation methods.

The value of concentrating ores is determined by a combination of Fe grade and ease of liberation. For example, a lower Fe grade ore may have a higher value than a higher Fe grade ore if it liberates at a coarser grind enabling greater throughput with lower grinding costs. The iron ore mining operations that are currently active in the Labrador Trough (IOC - Iron Ore Company of Canada, QCM - Quebec Cartier Mining Company, and Wabush Mines) all mine iron ores that are suitable for concentrating.

⁵ Deposit Type Model 34a; in U.S. Geological Survey Open-File Report 95-831.

9.0 MINERALIZATION

Exploration conducted during the 1950's (see description of historical exploration in section 6.0) identified several iron deposits from the Roberts Lake area north of Payne Bay to the Red Dog and Ford Lake areas near Hopes Advance Bay in the south.

Photomicrographs were prepared for samples collected from sites that were visited by Micon (Figure 9.1). The photomicrographs show the relatively simple mineralogy of the iron formation of the Ungava Iron property. The figure also demonstrates the potential variation in grain size affecting the potential liberation and recovery of iron oxides.

At Kayak Bay the chert-magnetite-hematite iron formation contains specularite with average lengths of approximately 125 microns and magnetite with average diameters of approximately 50 microns. The relative abundance of magnetite and hematite as well as the grain size are likely to vary across the deposit.

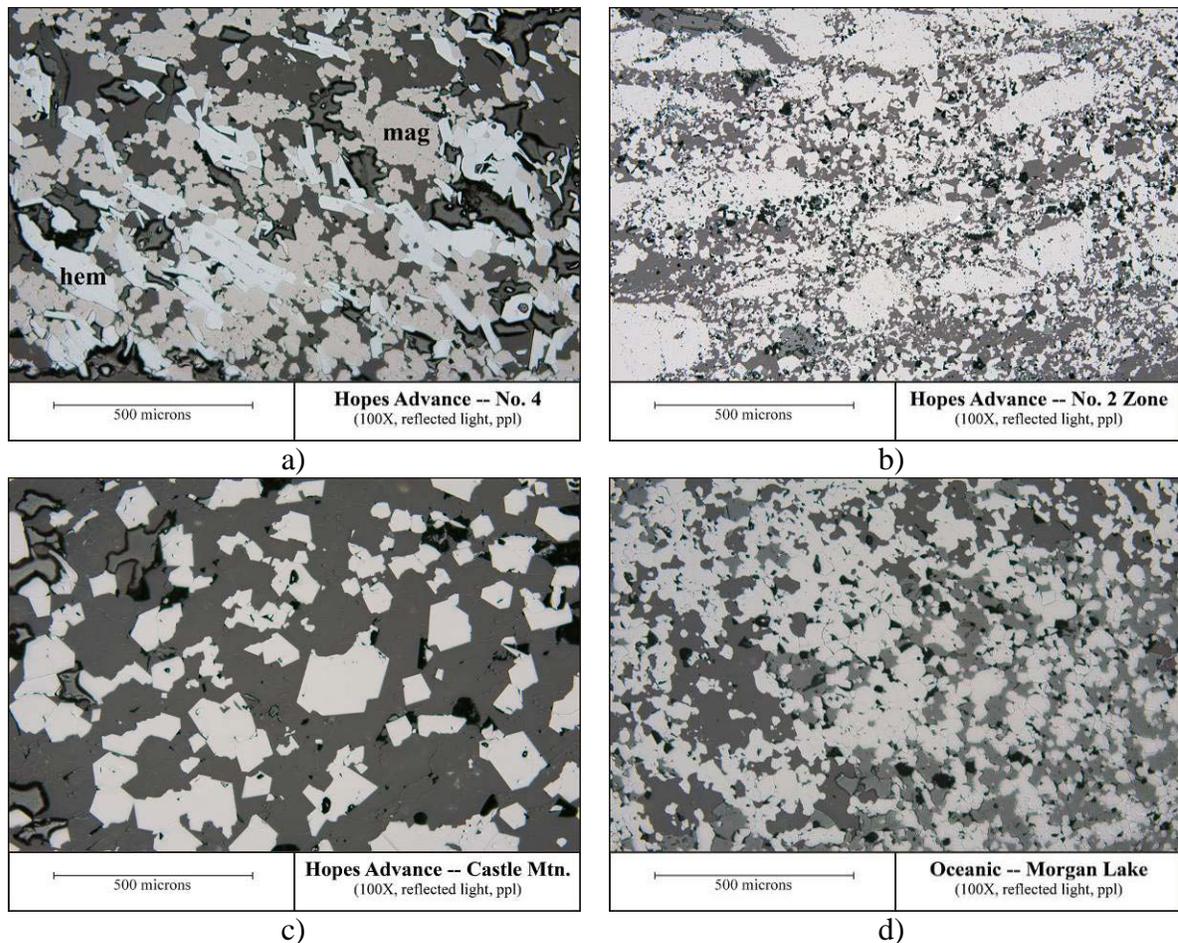
At Morgan Lake, magnetite in the chert-magnetite portion of the iron formation is very fine-grained (Figure 9.1 d) and may require grinds as fine as 400 or 500 mesh to achieve an acceptable product (<5% SiO₂).

At the Hopes Advance Castle Mountain iron deposit, the potential iron resource is composed of a mixture of magnetite and hematite. Magnetite grains (Figure 9.1 c) range in size from 60 to 125 microns in diameter. Locally, the iron formation appears to be higher grade and relatively coarser-grained than at the occurrences visited to the north in the Morgan Lake area.

At the Hopes Advance No. 4 iron deposit, the relative proportion of magnetite to hematite varies across and along strike in the chert-magnetite-hematite-silicate iron formation. Magnetite grains are approximately 50 to 75 microns in diameter and hematite grains are approximately 100 microns in length (Figure 9.1 a).

At the Hopes Advance No. 2 iron deposit, the grain size and grade of the chert-magnetite-silicate iron formation appears to be similar to other deposits at Hopes Advance (Figure 9.1 b).

Figure 9.1
Photomicrographs of Grab Samples from Ungava Iron property Hopes Advance and Morgan Lake Areas



a) Photomicrograph of grab sample from No. 4 Zone. Equant grains of magnetite (brown) intergrown with tabular hematite (white) and gangue minerals (gray). b) Photomicrograph grab sample from No. 2 Zone. Equant, granular disseminated and blocky aggregates (granules) of magnetite (brown) and gangue minerals (gray). c) Photomicrograph of grab sample from Hopes Advance Castle Mountain. Equant, euhedral, disseminated magnetite in a matrix of gangue minerals (gray). d) Photomicrograph of grab sample from Anomaly area from Morgan Lake. Equant disseminated magnetite in a matrix of gangue minerals (gray). All photomicrographs are at the same magnification. Note the variation in the grain size of magnetite. The grab sample from Castle Mountain contains magnetite with an average grain size of 65 μ . The grab sample from No. 2 Zone contains magnetite with an average grain size of 12 μ . The Morgan Lake grab sample contains magnetite with an average grain size of 35 μ .

10.0 EXPLORATION

A description of the historical exploration work conducted on the property is provided in Section 6.0.

Remnants of two exploration camps were noted during the site visit. A camp was located just south of the Payne Range zone. Another camp was located immediately west of the Castle Mountain deposit.

More recent work conducted between 2006 to 2009 was predominantly airborne magnetometer and radiometrics surveys. The work was conducted by Voisey Bay Geophysics Ltd., of Longue-Pointe-de-Mingan, Quebec for Sheridan and Ferberber. The surveys include:

2006

24M01 - airborne magnetometer and radiometrics

24M08 - airborne magnetometer and radiometrics

24N05 - airborne magnetometer and radiometrics

2007

24C10 - airborne magnetometer and radiometrics

24M15 - radiometrics

24M16 - airborne magnetometer and radiometrics

24N12 - radiometrics

24N13 - radiometrics

24M09 - radiometrics

25C04 - radiometrics

25D01 - radiometrics

25D07 - radiometrics

25D08 - radiometrics

2008

24M01 - airborne magnetometer and radiometrics

24M08 - airborne magnetometer and radiometrics

24N05 - airborne magnetometer and radiometrics

2009

24M15 - airborne magnetometer and radiometrics

24N12 - airborne magnetometer and radiometrics

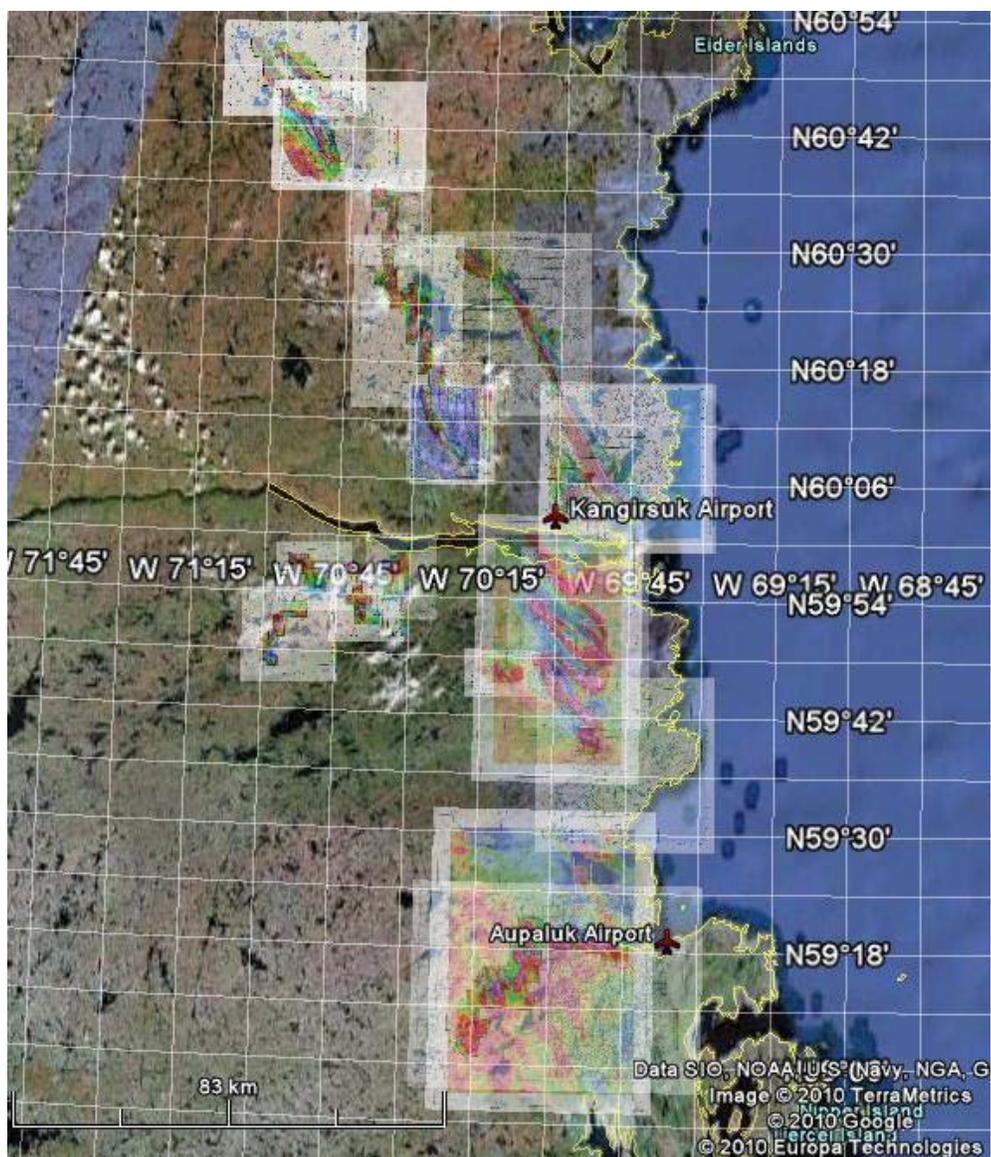
24N13 - airborne magnetometer and radiometrics

25C04 - airborne magnetometer and radiometrics

- 25D07 - airborne magnetometer and radiometrics
- 25D08 - airborne magnetometer and radiometrics
- 25D10 - airborne magnetometer and radiometrics
- 25D14 - airborne magnetometer and radiometrics
- 25D15 - airborne magnetometer and radiometrics

The surveys covered more than 232,600 hectares and comprised over 18,400 kilometres of flight lines. The grid coverage was 100 m x 1000 m or 200 m x 1000 m on East-West or North-South oriented lines. The results of the surveys were used to outline the iron formation and assist in locating or determine whether to retain the claims (see Figure 10.1).

Figure 10.1
Compilation of Airborne Total Field Magnetometer Geophysical Surveys on the Ungava Iron property



Appendix C is a series of airborne geophysical surveys over the property showing the claim boundaries and the locations of the deposits identified by work in the 1950's and 1960's. The magnetic anomalies generally confirm the interpreted trace of the iron formation unit.

2006 Airborne Geophysical Surveys

A multiple-discipline geophysical survey was completed on three claim blocks: Block I (Main) – claims on mapsheets 24N05, 24M08 and 24M01; Block II (North) – claims on 24N05; and Block III (South) – claims on 24N05. The program consisted of high-resolution, helicopter airborne magnetic and radiometric surveys. Data acquisition for the airborne phase was initiated on July 3, 2006 and completed on July 7, 2006. A total of 3,159.9 line-kilometres of magnetic and radiometric data were acquired. The aircraft used for the towed, bird-magnetometer system was a Robinson R44 Raven. The spectrometer pack was mounted in the rear, passenger compartment of the helicopter. Flight lines were oriented east-west with a line separation of 150 metres and tie lines were oriented north-south with a line separation of 1500 metres.

The magnetic anomalies correspond with the trace of an iron formation unit and confirms the location of the iron deposits that were the focus of work completed in the area in the 1950's and 1960's.

Invoices for the work completed in 2006 totaled \$398,549 for 3,160 line kilometers covering a survey area of 345 sq km. The portion of the survey area covered by the claims is approximately 72%.

2007 Airborne Geophysical Surveys

In 2007 a series of multiple-discipline geophysical surveys were completed on:

- Block I to IV claims on 24M16 - 9 June 2007 to 14 June 2007
- Block I and II on 25D08 - June 23, 2007 to June 26, 2007
- Block I and II on 24N13 - 26 June 2007 to 29 June 2007
- Block I on 25D01 - July 17 2007 to July 18 2007
- Block I on 25C04 - 20 July, 2007 to 21 July, 2007
- Blocks I, II, III, and IV on 24M15 - 21 July 2007 to 24 July, 2007
- Block I on 25D07 - July 18 2007 to July 19 2007 (radiometric only)
- Block I on 24N12/24M09 and Block II on 24N12 - 22 July, 2007 to 23 July, 2007 (radiometric only)

The programs consisted of high-resolution, helicopter-airborne magnetic and radiometric surveys. The areas covered, flight lines orientations, line separation, tie line separation, total line-kilometres of magnetic and radiometric data acquired are summarized in Table 10.1. The surveys utilized the same aircraft and equipment as described for the 2006 programs.

Table 10.1
Summary of Airborne Geophysical Surveys

Date	Line Orientation	Map Sheet	Block	Area Name	Number of Claims	Approx. Claim Area (ha)	Survey Area (SqKm)	% on Claims	Survey Grid	Survey Lines (km)	Tie Lines (km)	Subtotal (km)	Total (km)	Total C\$
2006	east-west	24M01/24M08/24N05	I	Main	501	20,040	240	84%	150x1500	2,321	350	2,671		
2006	east-west	24N05	II	North	102	4,080	75	54%	150x1500	311	58	369		
2006	east-west	24N05	III	South	18	720	30	24%	150x1500	102	18	120		
2006					621	24,840	345	72%		2,735	425		3,160	\$ 398,549
2007	east-west	24M16	I	Property 1	30	1,200	20	60%	100x1000	147	15	162		
2007	east-west	24M16	II	Property 2	77	3,080	31	100%	100x1000	392	44	435		
2007	east-west	24M16	III	Property 3	74	2,960	30	100%	100x1000	366	42	408		
2007	east-west	24M16	IV	Property 4	38	1,520	16	95%	100x1000	183	20	203		
2007	north-south	25D08	1	Property 1	138	5,520	59	94%	100x1000	750	79	829	1,208	\$ 183,364
2007	north-south	25D08	2	Property 2	96	3,840	41	94%	150x1000	299	45	344		
2007	east-west	24N13	1	Property 1	406	16,240	176	92%	150x1000	1,279	196	1,475	1,173	\$ 145,549
2007	east-west	24N13	2	Property 2	32	1,280	14	92%	150x1000	109	15	125		
2007	north-south	25D01	1	Property 1	57	2,696	39	68%	150x1000	263	37	300	1,600	\$ 190,774
2007	north-south	25C04	1	Property 1	80	3,438	77	45%	150x1000	513	76	589	300	\$ 47,735
2007	east-west	24M15	1	Property 1	35	1,512	18	84%	150x1000	120	16	136	589	\$ 100,062
2007	east-west	24M15	2	Property 2	77	3,329	39	86%	150x1000	257	44	301		
2007	east-west	24M15	3	Property 3	44	1,906	22	88%	150x1000	141	22	162		
2007	east-west	24M15	4	Property 4	49	2,123	27	78%	150x1000	181	31	212		
2007	north-south	25D07	1	Property 1	104	4,388	66	67%	150x1000	436	71	506	812	\$ 115,714
2007	north-south	24N12/24M09	1	Property 1	61	2,653	29	92%	150x1000	288	30	318	506	\$ 75,891
2007	north-south	24N12/24M09	2	Property 2	36	1,569	18	87%	150x1000	119	20	140		
2007					1434	59,254	721	82%		5,843	804		6,646	\$ 937,310
2008	east-west	24M01/24M08/24N05	I	Property 1	501	20,040	288	70%	150x1000	2,143	297	2,440		
2008	east-west	24N05	II	Property 2	102	4,080	63	65%	150x1000	417	62	479		
2008					603	24,120	351	69%		2,560	359		2,919	\$ 430,769
2009		25D10	1		130	5,200	66	79%	200x1000	331	79	409		
2009		25D10	2		84	3,360	39	86%	200x1000	310	76	386	795	\$ 157,951
2009		25D10	3		64	2,560	32	80%	200x1000	159	32	191	191	\$ 45,063
2009		24N12/24N13	1		467	18,680	204	92%	200x1000	1,022	210	1,231	1,231	\$ 176,166
2009		25D07/25D08	1		225	9,000	111	81%	200x1000	567	138	706		
2009		25D07/25D08	2		197	7,880	104	76%	200x1000	523	110	633		
2009		24M15	1		71	2,840	33	85%	200x1000	172	34	206	1,338	\$ 189,625
2009		24M15	2		54	2,160	25	88%	200x1000	124	28	152		
2009		24M15	3		62	2,480	28	89%	200x1000	140	30	170		
2009		24M15	4		77	3,080	35	87%	200x1000	177	38	215		
2009		25D14/25D15	1	Part 1						175	40	215	742	\$ 114,457
2009		25D14/25D15	1	Part 2	174	6,960	97	72%	200x1000	219	45	263		
2009		24N12	1		36	1,440	16	87%	200x1000	159	82	241	478	\$ 81,282
2009		25C04	1		254	10,160	119	85%	200x1000	611	124	736	241	\$ 51,364
2009					1895	75,800	910	83%		4,687	1,065		5,753	\$ 971,598
TOTAL						184,014	2,327	79%		15,825	2,653		18,478	\$ 2,738,227
						<i>ha</i>	<i>SqKm</i>			<i>km</i>	<i>km</i>		<i>km</i>	<i>Total C\$</i>

The surveys highlighted a series of uranium anomalies (radiometrics) and magnetic anomalies for additional study. Again the magnetic anomalies correspond with the trace of an iron formation unit and confirms the location of the iron deposits that were the focus of work completed in the area in the 1950's and 1960's.

Invoices for this work completed in 2007 totaled \$937,310 for 6,646 line kilometers covering a survey area of 721 sq km. The portion of the survey area covered by the claims is approximately 82%.

2008 Airborne Geophysical Survey

During 2008 a multiple-discipline geophysical survey was completed on Blocks I and II on mapsheets 24M01/24M08/24N05 between September 05, 2008 and September 25, 2008.

The programs consisted of high-resolution, helicopter-airborne magnetic and radiometric surveys. The areas covered, flight lines orientations, line separation, tie line separation, total line-kilometres of magnetic and radiometric data acquired are summarized in Table 10.1. The surveys utilized the same aircraft and equipment as described for the 2006 programs.

Invoices for this work completed in 2008 totaled \$430,769 for 2,919 line kilometers covering a survey area of 351 sq km. The portion of the survey area covered by the claims is approximately 69%.

2009 Airborne Geophysical Survey

In 2009 a series of multiple-discipline geophysical surveys were completed on:

- Blocks I & II on 25D10 completed on July 6, 2009
- Block III on 25D10 completed on July 7, 2009
- Block I on 24N12 and 24N13 - July 7, 2009 to July 10, 2009
- Blocks I-II on 25D07/25D08 - July 10, 2009 to July 15, 2009
- Blocks I-IV on 24M15 completed on July 27, 2009
- Block I on 25D14/25D15 completed on August 5, 2009
- Block I & II Claims on 25C04 - August 1, 2009 to August 9, 2009
- Block I Claims on 24N12 completed on August 11, 2009

The programs consisted of high-resolution, helicopter-airborne magnetic and radiometric surveys. The areas covered, flight lines orientations, line separation, tie line separation, total line-kilometres of magnetic and radiometric data acquired are summarized in Table 10.1. The surveys utilized the same aircraft and equipment as described for the 2006 programs.

Invoices for this work completed in 2009 totaled \$971,578 for 5,753 line kilometers covering a survey area of 910 sq km. The portion of the survey area covered by the claims is approximately 83%.

Summary of 2007-2009 Geophysical Surveys

The cost of the geophysical surveys for the most recent three years is \$2.339 million and the proportion of the 1,982 square kilometers of surveyed area that is covered by the property is approximately 80%. Approximately \$1.88 million can be attributed to the claims for the period 2007 to 2009.

A report was produced for each survey to document the work completed and the geophysical interpretations. The surveys identified numerous radiometric and magnetic targets for additional study and the anomalies are summarized as high, moderate and low priority.

The claims were registered between July 7 2004 and October 27 2010. The majority of the claims were registered prior to completing the geophysical surveys however some were allowed to lapse or were acquired on the basis of the extents of the geophysical anomalies.

11.0 DRILLING

All of the drilling on the various deposits contained within the Ungava Iron property was conducted in the 1950s and 1960s. The drilling practices may have been in compliance with industry standards in place at that time but they cannot be validated or compared to current norms. A description of the historical drilling conducted on the property is provided in Section 6.0.

Amongst the remnants of the exploration camp nearest to the Castle Mountain deposit is a rack of diamond drill core boxes. Approximately 70 boxes of core remain in the rack and it may even be possible to relog some of the core in those boxes. Unfortunately most of the core that was stored on site has been disturbed and a further 100 or more boxes have been spilled and emptied of their contents.

Based on the core boxes and core it was possible to determine the following:

- Core was placed in metal trays.
- Drill core diameter was typically small diameter (22 mm; AX or EX diameter).
- Drill hole number and hole depths were marked on the trays.
- Core was split in half for sampling, with one half retained in the core box.

At the various locations during the traverses it was noted that some collar locations were marked with a piece of drill steel, a metal spike or rebar. Drill pad locations can sometimes be distinguished by the flat platforms that were prepared for the drill rig. A resurvey of the old drill hole sites may enable some of the information from the old drill hole programs to be used in some way to assist in geological interpretations.

Based on the reports that describe the drilling programs in the 1950s and 1960s, no downhole surveys were completed. Most holes were relatively short (i.e. average of less than 70 m).

Information on drill hole collar locations, hole orientations, core recoveries, apparent dip of stratigraphy, geological logs, assays, collar maps, and sections are available for several of the programs.

Micon considers that if PACIFIC HARBOUR collects new drillhole data for use in resource estimation then the drilling program should utilize:

- NQ or HQ diameter core (sufficiently diameter to ensure a reasonable sample size).
- Collar surveying using a differential GPS or total station.
- Core should be stored on site in a secure and protected facility.
- Down hole surveys should be completed for all holes, at the end of the holes and at regular intervals (depending on the length of hole and amount of deviation observed).

- Oriented core should be completed in some holes in order to provide certainty for interpretations, and orientations of textures and structural features.
- Core photographs, geologic logs, core recoveries, and geotechnical data should be collected on all core.

12.0 SAMPLING METHOD AND APPROACH

All of the samples taken from the various deposits contained within the Ungava Iron property were collected in the 1950s and 1960s. The sampling practices may have been in compliance with industry standards in place at that time but they cannot be validated or compared to current norms. A description of the historical exploration work is contained within this report in Section 6 “*History*”.

Observations of the remnants of the core in one of the exploration camps shows that the core was split in half for sampling, with one half retained in the core box. Sample lengths were variable but 5 foot (1.52 m) intervals appear to be the most commonly used. None of the historical sampling can be documented to ensure it is compliant with the current standards.

Micon considers that during sample collection the following should be considered:

- Sampling methods should be documented.
- Core should be sawn (with half retained on site in a secure and protected facility).
- Sample lengths should be consistent (or if samples intervals are determined by changes in lithology then a minimum sample length should be adopted i.e. 1 m).
- Compositing methodologies should be documented,.
- Chain of custody procedures should be established and followed.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

All of the samples taken from the various deposits contained within the Ungava Iron property were prepared and analyzed in the 1950s and 1960s. The practices that were used may have been in compliance with industry standards in place at that time but they cannot be validated or compared to current sample preparation and analytical methods. A description of the historical exploration work is contained within this report in Section 6 “*History*”.

The old reports describe a variety of analytical methods used for samples and/or composites including Satmagan and Davis Tube tests and analyses for total iron, soluble iron, phosphorous, silica, manganese, aluminum, sulphur, calcium, magnesium, and loss on ignition. The results are not available for all of the samples and much of the data is poorly documented.

Micon recommends that drill core samples for new drilling should be submitted to an accredited and independent analytical and metallurgical laboratory for processing and analyses. Each sample will be subjected to a bulk density, whole rock analysis and full chemical analysis. Samples will be composited for additional metallurgical testwork. Concentrates from the testwork will be analyzed to determine the liberation size of the iron minerals and metallurgical response.

Micon considers that metallurgical work on the Ungava Iron property should include two specific test procedures. The samples and composites for Morgan Lake area will be analyzed utilizing Davis Magnetic Tube testing, since it is predominately magnetite, while the samples and composites from the Hopes Advance and Roberts Lake areas will require gravity/magnetic separation tests.

If PACIFIC HARBOUR plans to conduct sample preparation at the site then a qualified consultant should review the equipment and methods that are to be used. The consultant should ensure that the protocols are adequate for this mineralization and that the equipment is capable of producing a quality subsample to be shipped from site. Pulverization and analyses should be completed in the independent laboratory.

Data security shall be the responsibility of the selected professional laboratory. PACIFIC HARBOUR should take delivery of digital assay files and also the signed final assay certificates.

14.0 DATA VERIFICATION

No data verification or quality control/quality assurance (QAQC) program was in place during the drilling program conducted on site in the 1950s and 1960s.

Since the assaying and metallurgical testing of samples from the Ungava Iron property was conducted over several decades and no sample remains were available, Micon was unable to request additional work to verify the earlier results. Hence, Micon's findings are based entirely on documentation of previous assays and testwork. Although no verification work is possible, Micon considers that the groups involved with the earlier metallurgical testing are considered to be competent, respected and experienced in this field.

Micon considers that future drilling programs should include the following data verification steps:

- QAQC program including certified standard reference samples, blanks, duplicates, external check assays.
- Duplicates in some of the sample preparation steps.
- Twin holes to check old drill hole data.
- Analytical duplicates.
- Comparison of composite of individual data against the analytical results of the composite samples.

15.0 ADJACENT PROPERTIES

The Ungava Iron property is part of the Labrador Trough, which contains several current iron mining operations along with several historical iron mining operations. The nearest active iron mining operation to the property is at Labrador City, approximately 800 km to the southeast. Immediately to the south of the Ungava Iron property is the Fenimore property containing several historically identified iron deposits. This area was also explored during the 1950's. No other significant iron properties are known in the area surrounding the Ungava Iron property.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Low-grade iron formations such as those present in the Ungava Bay region of Northern Quebec occur predominately as oxides with silica as the principal impurity. The iron oxides occur in two forms, magnetite, in which the iron mineral is magnetic, and hematite, a non-magnetic form of iron oxide.

Mineral processing operations involve the crushing and grinding of the ores to a size fine enough to free the iron mineral from the silica waste. The medium of transport of the ground product is water, which plays a vital role in the separation processes that follow grinding. The amount of size reduction required is determined by the size of the individual mineral particles and can be quite variable, even within the same ore body.

Once the iron minerals are ground fine enough to liberate the iron oxide particles from the silica waste, processing steps are introduced to reject the waste product. With magnetic ores, mechanical separation of the iron and silica is accomplished primarily using magnets (magnetic separators) to trap the iron while the non-magnetic silica is washed away.

Hematite processing can present more of a challenge. If the hematite particles are coarse enough, the difference in specific gravity between heavier iron minerals, and the silica can be exploited and gravity separation utilized. Typical equipment such as spirals and thickening tanks are employed to segregate the heavier, iron rich stream from the waste. For finer iron mineralization, froth flotation is used on the iron oxide-silica slurry. This process utilizes reagents that have a specific affinity for iron or silica. The reagents, along with flotation machines, are used to mechanically separate the two minerals. In a flotation machine, utilizing the proper chemicals, air is introduced to the iron oxide-silica slurry. The air, along with the process chemicals, causes one of the two mineral species to attach itself to an air bubble and float to the surface.

The iron ore concentrate is then dewatered and usually formed into 10 mm diameter balls. The soft or “green” balls are hardened by firing in a special furnace to produce pellets for transport to blast furnaces where the process of converting the iron ore pellets into steel begins.

Micon reviewed documentation of testwork conducted on the various iron deposits of the Ungava Iron property. The documented work was essentially completed in the period from 1953 through 1961 with a minor amount of work conducted on samples from the Kayak Bay region in the early 1990’s. Other than summary documentation, no additional work was found to have been recorded after that date. The objective of the work undertaken was to characterize the resource in each location and assess its potential for use as blast furnace feed, sinter product or lump ore based on the quality parameters of that era. The studies concluded that the magnetite resource in the Morgan Lake area and the magnetite/hematite deposit at Hopes Advance appear to be the superior prospects in the region.

16.1 METALLURGICAL RESPONSE OF UNGAVA BAY IRON MINERALIZATION

Documentation of the metallurgical testwork on the various iron deposits in the Ungava Bay region of northwestern Quebec was reviewed. The documented work was essentially completed in the period from 1953 through 1961, although some work was conducted on samples from the Kayak Bay area in the early 1990's. Other than summary documentation, no additional work was found to have been recorded after that date. A number of feasibility studies were published in the years following the test work, but all were completed based largely on unproven process flowsheets. The emphasis of this early work was primarily to characterize the resource in each location and assess its potential as blast furnace feed, sinter product, or fine ore based on the quality specifications of that period. While the documents make some reference to pelletizing the concentrates, the first pelletizing facilities were just being constructed at that time and present day pellet quality specifications were not as yet available. The emphasis of the work was to create a final product for direct shipment or sinter. The product reported at that time was higher in silica than the acceptable norm for today's blast furnaces.

Today's chemical quality specifications for iron ore pellets generally require that the pellet be less than 5% silica and contain minor amounts of the trace elements that are detrimental to the steel making process. Critical trace elements include phosphorus and sulphur. Typically, sulphur will be driven off in the pelletizing furnace. Low concentrate sulphur content is critical to avoid dealing with sulphur emissions, especially in the Sub-Arctic region.

Concentrate sulphur content of less than 0.01% is desirable. Phosphorus content is somewhat dependent on customer specifications but is rarely higher than 0.04%. Typically, pellets made from ores of the Mesabi Range in Minnesota average 0.01 to 0.02% P. Recently, steel producers have shown an interest in a higher grade product called a DRI (Direct Reduced Iron) pellet that commands a higher price than the standard pellets described above. Generally, these pellets must be less than 3% in total impurities.

A significant amount of detailed mineral processing study was documented, particularly on samples from the Hopes Advance region but all areas will require additional sampling, bench testing and pilot studies to better identify the costs and process requirements to produce a final product which will meet the quality specifications of today's market.

16.2 ROBERTS LAKE METALLURGY AND PROCESS TESTING

The Roberts Lake region showed an iron formation comprised of both hematite and magnetite with acceptable head grade. A limited amount of work on samples from the area focused on hematite recovery using spirals as well as magnetite recovery via magnetic separators designed after the processing scheme used at Carol Lake near Labrador City. The samples were taken from the Hump zone, located south of the Trail River and the Igloo zone between Esker and Igloo Lakes in the Robert's Lake area. The limited work completed

generally showed positive metallurgical results. More work is required on this deposit before further conclusions can be drawn.

A significant amount of work was conducted on a bulk sample from the Kayak Bay zone which is located at the south end of the Robert's Lake region along the coast near the village of Kangirsuk. Orotech labs completed the most recent work on ores of this area in 1991. Samples from test pits in the Kayak Bay zone were taken to Orotech for flowsheet development work. The samples were comprised of magnetite and hematite with the magnetite/hematite ratio of approximately 70/30. Results indicated that fine grinding will be required (as fine as 400 mesh) to achieve acceptable concentrate quality (66% Fe) due to the fine grained magnetite component. Some test work to evaluate the magnetic roasting process was also undertaken but this process has never proven commercially viable.

16.3 MORGAN LAKE METALLURGY AND PROCESS TESTING

Metallurgical work conducted in the mid 1950's by the Canadian Department of Mines indicated that fine grained magnetite predominates here and magnetic separation of the product followed by fine grinding (i.e. finer than the Mesabi range ores of Northern Minnesota which are 90% -325 mesh) has shown promise in producing quality concentrate. Concerns regarding the economic viability of processing Morgan Lake ores remain. Low head iron in the test samples resulted in a weight recovery in the 25 percent range. Little metallurgical information is available on the Payne Range deposit but geological observations suggest processing characteristics similar to that of the Morgan Lake deposit.

The location of this iron formation is in an area well suited for a processing plant site and suggests that additional work be done to further define the size of the resource and its processability. The presence of minor amounts of sulphur in the concentrate as well as the mention of traces of amphiboles occurring in the gangue is a concern that requires further study.

16.4 HOPES ADVANCE METALLURGY AND PROCESS TESTING

The Hope Advance area is located immediately west of Hopes Advance Bay on Ungava Bay within a rectangular area approximately 30 km east to west by 20 km north to south including Red Dog and Ford Lakes. The mineralization at this site is comprised of 12 zones with variable proportions of magnetite and hematite. A significant amount of test work under the coordination of the Quebec Ministry of Natural Resources was undertaken in the 1950's and 1960's employing various research and development groups to produce a process flowsheet for the Hopes Advance deposits. Organizations and companies participating in the extensive work included: Michigan Tech Institute of Mineral Research, Ontario Research Foundation, Steep Rock Iron Mines, Cleveland-Cliffs Iron Company, Ferrum Partners and Rana-Gruber of Norway.

The work focused on bulk samples obtained from the Castle Mountain and the Bay Zone iron deposits. Weekly reports were published summarizing the joint efforts undertaken in 1961.

Testing included the assessment of grinding and processing schemes including spirals followed by magnetic separation patterned after IOC's Carol Lake process at Labrador City. In addition, flotation of non-magnetic tails and additional alternatives for dry processing of the ore were researched.

Good results were realized with spirals and magnetic separation without flotation. This is significant since the operation of a flotation circuit requires tight control of water chemistry and temperature, with associated added costs for reagents and tailings management issues. A summary report by Lone Star published in 1973 demonstrates that concentrate weight recoveries of 40 percent at 5 percent silica were achieved with the spirals and magnetite separation alone.

Engineering studies were completed and include recommended locations for the processing plant, ancillary facilities, employee housing, product storage, and a harbour.

While this region shows promise for the economic development of the resource, additional study is required. The work completed, while extensive and detailed, focused primarily on samples from the Castle Mountain and Bay Zone areas. The bulk samples from these regions showed wide variations in the proportions of magnetite to hematite and more work is necessary to better understand the liberation size required to achieve concentrate grade meeting today's market demands. Additional sampling and testing to determine the metallurgical response of the resources contained in the remaining zones of interest in the Hopes Advance region is also required.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

As discussed in Section 6.3, documentation exists for historical resource estimates on the Ungava Iron property. Micon has reviewed the resource estimates completed on the various iron deposits during the 1950's for the Ungava Iron property and notes that these provide a resource potential for the property but the estimates do not conform to the presently accepted CIM Definition Standards for Mineral Resources and Mineral Reserves, as required by NI 43-101 regulations.

Therefore PACIFIC HARBOUR should not rely solely on the previous data for planning a work program or to establish a mineral resource on the property. Further fieldwork is required to locate and evaluate the true extent and nature of the mineralization at the Ungava Iron property.

As exploration progresses on the Ungava Iron property further economic and technical evaluation of the resource potential for this project will need to be performed in accordance with present industry practices and standards as set out in NI 43-101.

18.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data (with the exception of Section 18.1 below) and information regarding PACIFIC HARBOUR's Ungava Iron property is included in other sections of this report.

18.1 GENERAL SOCIAL AND ENVIRONMENTAL CONDITIONS

There were no fatal flaws identified concerning the environmental and social components of these properties. The only pre-existing liability identified is the cost to a) inventory and remove all existing exploration debris, and b) to remediate small hydrocarbon or lubricant spills from the historic exploration drilling sites and base-camps. A group of 30 exploration companies known as the Fonds RestorAction Nunavik recently collaborated with the Kativik Regional Government, the Makivik Corporation and the Ministère des Ressources naturelles et de la Faune to rehabilitate 18 abandoned mineral exploration sites in Nunavik.⁶ Micon recommends that PACIFIC HARBOUR assess and remediate any historic exploration sites within its control in consultation with the surrounding communities to benefit from the lessons learned and relationships forged during the aforementioned multi-stakeholder process.

Potential environmental and social issues for project development are likely to include:

- Special Status Species-caribou, beluga whale, muskox.
- Tailing disposal-use of natural water bodies should be avoided.

It is recommended that PACIFIC HARBOUR:

- Participate in the multi-stakeholder caribou conservation project immediately.
- Initiate baseline environmental monitoring and social impact assessments.
- Conduct a cultural heritage resource study.
- Develop and initiate a stakeholder engagement strategy for exploration and all subsequent project development phases.

18.1.1 Regulatory Framework

Canada has extensive legislation and regulations that work to protect the environment and the health and safety of workers and communities. The properties under consideration are located in Nunavik, the arctic region of Quebec which falls under the jurisdiction of the James Bay and Northern Quebec Agreement (JBNQA). This agreement, negotiated in 1975 between the Government of Quebec, the Grand Council of the Crees of Quebec and the

⁶ Ressources naturelles et Faune. "The agreement to rehabilitate abandoned mineral exploration sites in Nunavik rewarded." Gouvernement du Québec, <http://www.mrn.gouv.qc.ca/english/mines/quebec-mines/2008-06/fran.asp> (accessed August 31, 2010).

Northern Quebec Inuit Association, has led to specific provisions of Chapter II of the Environmental Quality Act (EQA). An environmental advisory committee, composed of Native, provincial and federal representatives, serves as the official forum to implement and address environmental protection and management in the region.

In 2005, the Nunavik Inuit Land Claims Agreement was reached between the Government of Canada and the Makivik Corporation, the development company which manages the heritage funds of the Nunavik Inuit as provided for in the JBNQA. The 2005 land claims agreement a) affirms the existing aboriginal and treaty rights as recognized under the Constitution Act of 1982, and b) provides additional certainty regarding land ownership and use of terrestrial and marine resources. Three new entities, the Nunavik Marine Region Wildlife Board (NMRWB), the Nunavik Marine Region Planning Commission (NMRPC), and the Nunavik Marine Region Impact Review Board (NMRIRB), have been established as a result of the aforementioned land claims agreement. Each board will play a significant role in assessing and approving any development in the Nunavik region.

In August 2007, an Agreement-in-Principle between the governments of Quebec, Canada and the administrative region of Nord-du-Québec was signed to establish a Regional Government of Nunavik. The proposed timeline for ratification, transition and implementation of the Nunavik Regional Government (NRG) is provided in Appendix B. Ratification is scheduled for 2010, followed by transition periods in 2011 and 2012, with final implementation scheduled for 2013.⁷ According to Indian and Northern Affairs Canada (INAC), the land and natural resources management regimes of the JBNQA will not be modified by the final agreement.⁸ However, the extent to which the NRG implementation process might directly or indirectly impact timelines for any license submittals, impact assessments and approvals of the Ungava Iron property is unknown at this time; professional counsel should be retained to monitor progress and advise on this issue further.

18.1.2 Potential Issues for Property Development

18.1.2.1 Species at Risk

Although there are numerous special status species in Canada for which environmental assessments may be required under both federal and provincial statutes, the potential impacts of industrial development on the following higher-profile species warrant special mention within the scope of this property of merit report.

⁷ Nunavik Government Canada, “Proposed Timeline for the Creation of the Nunavik Regional Government.” Nunavik Government Canada. http://www.nunavikgovernment.ca/en/documents/NRG_Proposed_Timeline_En_jan_2010.pdf (accessed August 31, 2010).

⁸ Indian and Northern Affairs Canada, “Technical summary of the Agreement-in-principle on the Nunavik Regional Government.” Indian and Northern Affairs Canada, <http://www.ainc-inac.gc.ca/ai/mr/nr/s-d2007/2-2975-smm-eng.asp> (accessed August 31, 2010).

18.1.2.2 Migratory Tundra Caribou (*Rangifer tarandus*)

Three distinct herds of northern caribou are found in the taiga and tundra habitats of the Nunavik region; the Torngat Mountain herd, the George River herd and the Leaf River herd. The iron properties under review are located between the calving and summer ranges of the George River and Leaf River herds, estimated at 400,000 and 600,000 respectively.⁹ During Micon's site visit, small groups and individual caribou were observed along two of the outcrops of the Morgan Lake area.

Beginning in 2001, a Caribou migration project to monitor these two significant herds was initiated by the Ministère des Ressources Naturelles, de la Faune et des Parcs. Multiple private and public sector organizations are cooperating on this long-term large-scale project, including the Makivik Corporation, Hydro-Québec Production, the Québec Outfitters Federation and Xstrata Nickel. If any further development of these iron properties is considered, it is recommended that participation in this multi-stakeholder caribou conservation project begin immediately.

18.1.2.3 Beluga Whale (*Delphinapterus leucas*)

Roughly 72,000 to 144,000 beluga whales are estimated to range within Canadian waters. The whale population most likely to be impacted by the proposed iron developments is the Ungava Bay population which summers on the southern shores of the Ungava Bay and migrates north to the Hudson Strait in the winter. Estimated at less than 100, this population received *endangered* status from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and is under consideration for listing under the Canadian Species at Risk Act. In 2002, the management plan for the Ungava Bay population was revised such that subsistence hunting has been closed to allow this small population to recover. A decline in habitat quality and food supply for beluga whale has been attributed to dredging and pollution associated with industrial activity. Commercial shipping, ice breaking and recreational whale watching are also presumed to interfere with the echo-location used by belugas for hunting in deeper, darker waters.¹⁰ Therefore, the increased shipping activity that would be associated with these proposed developments will most likely be scrutinized during the environmental assessment and permitting process.

18.1.2.4 Muskox (*Ovibos moschatus*)

Muskoxen naturally range in Greenland and the tundra of northern Canada. However, many populations have been domesticated and introduced in various regions of Alaska, Russia and Québec. A free-ranging muskoxen herd, introduced to northern Quebec in the 1980s, is

⁹ COUTURIER S., D. JEAN, R. OTTO and S. RIVARD. 2004. Demography of the migratory tundra caribou (*Rangifer tarandus*) of the Nord-du-Québec region and Labrador. Ministère des Ressources naturelles, de la Faune et des Parcs, Direction de l'aménagement de la faune du Nord-du-Québec and Direction de la recherche sur la faune. Québec. 68 p.

¹⁰ Fisheries and Oceans Canada. "Aquatic Species at Risk – Beluga Whale (Ungava Bay)," Government of Canada. <http://www.dfo-mpo.gc.ca/species-especes/species-especes/belugaUngava-eng.htm> (accessed August 31, 2010).

estimated at over 2,000. This herd is open to controlled hunting, with priority placed on Inuit subsistence harvesting. During the site visit, multiple groups of musk ox were observed near Kangirsuk and at various locations near Morgan Lake, Hopes Advance and the North Finger Lake iron deposits.

18.1.3 Water and Waste Management

The Nunavik region (north of the 55th parallel) is made up of permafrost, occurring in sporadic discontinuous zones to the south, and more continuous zones to the north. The iron properties are found above the tree line, within the zone of continuous permafrost which will introduce additional challenges in water management and foundation construction.

Each deposit is adjacent to a significant natural lake or river way. If these natural waters are considered for aqueous tailings disposal, the difficulty of obtaining permits under the Canadian Fisheries Act will increase significantly. Depending on the location of the processing plant, and the processing method used for each deposit, identifying an adequate site to accommodate surface tailings may be a challenge. The iron deposits are not expected to include significant sulfides and as a result waste rock and tailings are not expected to have acid generating potential.

18.1.4 Heritage Resources

As provided for by the JBNQA, the Nunavik region is divided into the following land categories:

- Category I Lands: Lands surrounding villages that are set aside for exclusive use and benefit of the native populations.
- Category II Lands: Public lands owned by the Crown-in-right-of-Québec with hunting, fishing and trapping rights exclusive to the Native people, and for which forestry, mining and tourism development authority is shared.
- Category III Lands: Public lands with some rights to the Native people for hunting, fishing and trapping without a permit or limit, subject to conservation principles.

The property maps provided were inadequate to determine a) the land-category status of each property, b) their proximity to Category I lands or c) their proximity to any archeological or cultural heritage sites. Identification of archeological and designated heritage resources should be included within the scope of the review of land ownership.

18.1.5 Community and Stakeholder Consultation

The population of the Nunavik region is approximately 10,000 distributed among 15 coastal Inuit communities. While each of these communities may become directly or indirectly involved in the public participation process, the three communities located in closest

proximity to the properties under consideration are Kangirsuk, Aupaluk and Tasiujaq. The profit-sharing, job-training and environmental management provisions of the Raglan Agreement negotiated in 1995 between Xstrata Nickel and the Makivik Corporation currently serve as a benchmark in community engagement for any future mining investment in the region.

19.0 INTERPRETATION AND CONCLUSIONS

PACIFIC HARBOUR has acquired all the available property data that was collected during the historical exploration programs completed during the 1950's and 1960's. This data indicates that the potential for significant iron resources exists at several locations on the Ungava Iron property. In order to delineate these potential iron resources, Micon recommends that PACIFIC HARBOUR complete an exploration program on the property. This program focuses on the iron deposits at the Hopes Advance area. The iron deposits in the Roberts and Morgan Lake areas are not considered in this phase of exploration.

19.1 CONCLUSIONS

At the Ungava Iron property, PACIFIC HARBOUR has acquired a property containing extensive outcrops of iron formation with several potential significant iron deposits. Specifically in the Morgan Lake area a large zone of magnetite bearing iron formation exists that would be amenable to magnetic separation. In the Hopes Advance area, a large zone of mixed hematite/magnetite iron formation exists that would be amenable to gravity separation methods.

All of the drilling on the various deposits contained within the Ungava Iron property was conducted in the 1950s and 1960s. The drilling practices may have been in compliance with industry standards in place at that time but they cannot be validated or compared to current norms. This previous drillhole data cannot be used to develop a mineral resource in compliance with CIM or NI43-101 standards. Thus, all of the reported historical iron resources are considered speculative and do not meet any standard of modern reportable resources or reserves. Further, an iron resource not only requires an iron head assay, but it also requires some metallurgical knowledge as to whether that assay can in fact have a reasonable expectation of producing a viable commercial product.

Given that all of the information on the Ungava Iron property was collected before the early 1970's, and a limited amount of the original samples of drill core remains, the property will require extensive exploration before an inferred resource can be determined. The known exploration targets and areas of significant potential should be regarded as an early stage project, with a significant economic potential should the mineralization prove to be consistent with the historical exploration results.

Micon has reviewed the historical exploration results and developed an exploration program to validate those results as outlined in Section 20.1 for the Ungava Iron property. It is Micon's opinion that the Ungava Iron property merits further exploration and that the proposed exploration plans are properly conceived and justified.

20.0 RECOMMENDATIONS

Micon recommends that a two phase exploration drilling program be conducted to develop an inferred resource in the Hopes Advance area of the Ungava Iron property. PACIFIC HARBOUR determined that the minimum initial objective of the drilling program should be to establish an inferred resource size of at least 500 Mt. Micon has used that resource size as a guide in preparation of the proposed work program.

Very little of the historic drill core has survived in a usable state and the methods used for drill core sampling, preparation and analyses cannot be confirmed as being compliant with current industry standards. Therefore, a thorough program of drilling, assaying, and metallurgical analyses is recommended for the Hopes Advance area. Given the abundance of iron formation outcrop at Hopes Advance a drill hole spacing of 600 meters along strike may be adequate to identify an inferred resource. The drilling program will require 41 holes with a cumulative length of 4,350 m. The drilling program will also help understand the potential variation in mineralogy and in grain size of magnetite and/or hematite (liberation issues).

Phase 1 would require 16 drill holes totalling 1,750 m and would be completed within 2011. Phase 2 would be contingent on the success of the Phase 1 work and would include 27 drill holes totalling 2,600 m.

The work programs will include surveying, mapping, geophysics, drilling, and collection of some bulk samples for testwork. Core samples and bulk samples will be assayed and composites will also be analyzed using metallurgical tests that are commonly used in operations in Minnesota, Michigan and the Labrador Trough. The metallurgical test work will include Davis magnetic tube tests to determine the potential recovery of magnetite and Wilfley table tests to determine the potential recovery of hematite.

The cost of drilling, assaying and metallurgical testing for the Phase 1 program is estimated to be \$4.2 million (Canadian dollars). The entire program is planned to be completed within 2011. All drilling is planned to be conducted between the months of June and September.

The Phase 2 program is estimated to be at least \$5.0M but will be contingent on the Phase 1 results.

20.1 DRILLING PROGRAMS

The Hopes Advance Area is located on the west end of Hopes Advance Bay and extends 30 km to the west along the Red Dog River, Red Dog Lake and Ford Lake. Mapping conducted during exploration programs during the 1950's identified eighteen potential commercial iron deposits along this relatively continuous segment of iron formation. Eleven thousand metres of drilling was completed in 156 holes on a total of nine of the iron deposits (Bay Zones A to F, Castle Mountain, No. 2 and No.4 zones).

A review of available data (plan maps, drill logs and cross sections) indicate drilling on 150 m centers on lines spaced at 300 m is sufficient to define the distribution and metallurgical response of magnetite and hematite and the major structures controlling the thickness of the iron formation and identify a probable or proven resource. The historical drilling was performed at a variety of drill hole spacings.

20.1.1 Hopes Advance Area

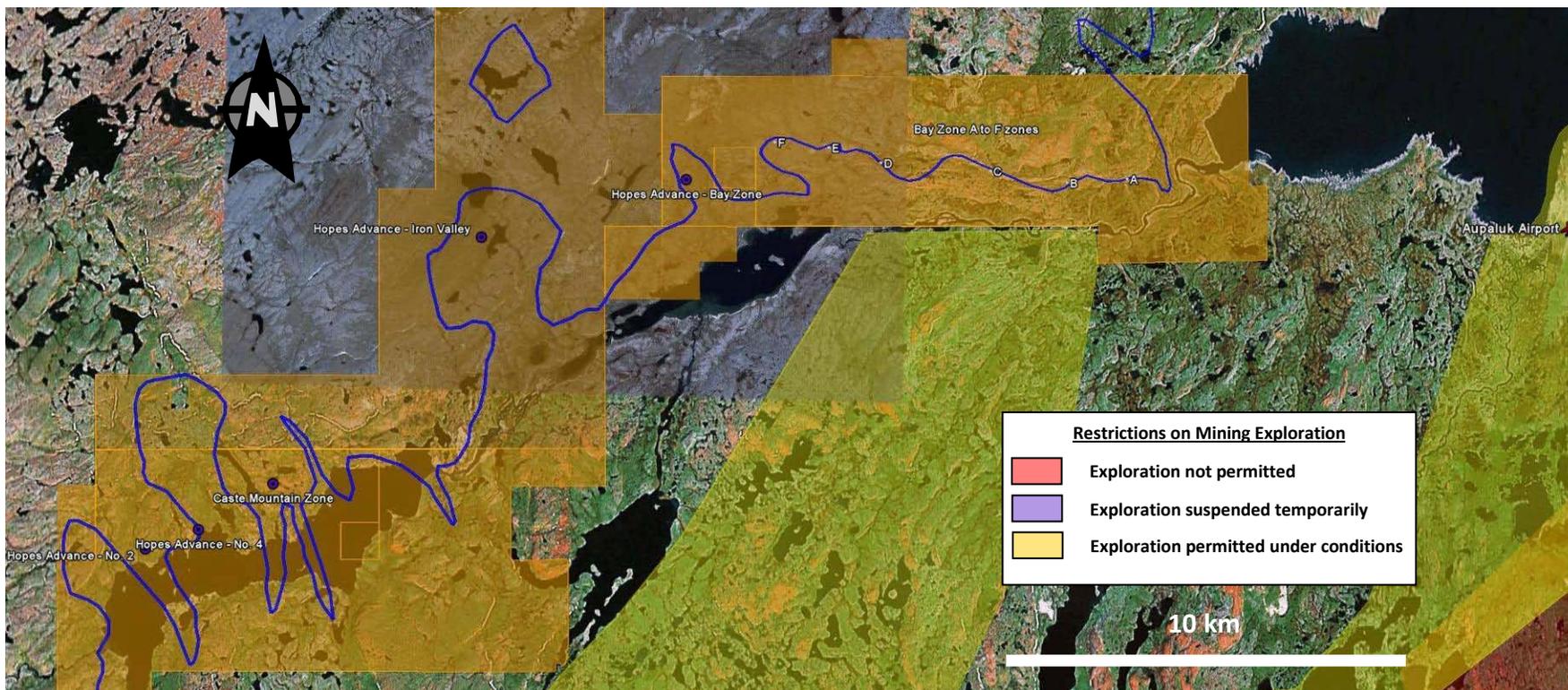
The iron formation in the Hopes Advance Area is folded but can be traced over a length of approximately 30 km. This iron formation has dips ranging from shallow to moderately steep in a southeast direction. The iron resource in this area is composed of magnetite and hematite. Exploration conducted in the 1950's identified eighteen potential commercial iron deposits associated with thickened portions of the iron formation. Thickening along the iron formation is due to folding or stacking by thrust faults. Thickening could also be the result of thickening in fault bounded basins (growth faults) during the deposition of the iron formation. Historical drilling was targeted on thickened portions of the iron formation identified by mapping. No drilling was conducted on the thinner portions of the iron formation or down dip along the exposures of the thinner segments of iron formation.

The proposed drilling program at the Hopes Advance area is designed to evaluate nine potential ore bodies: Bay Zone A, Bay Zone B, Bay Zone C, Bay Zone D, Bay Zone E, Bay Zone F, Castle Mountain, No. 2 Zone, and the No. 4 Zone. Figure 20.1 shows a plan map of the Hopes Advance area while Table 20.1 shows historic and proposed exploration drilling.

Table 20.1
Summary of Historical and Proposed Drilling for the Hopes Advance Area
The potential for expanding the resource of each area is also included

Area	Historic		Proposed		Potential
	Number	Metres	Number	Metres	
Bay Zone A	6	---	3	300	Open - down dip
Bay Zone B	11	---	5	500	Open - down dip
Bay Zone C	11	---	4	400	Open - down dip
Bay Zone D	5	---	5	500	Open - down dip
Bay Zone E	10	---	4	400	Open - down dip
Bay Zone F	11	---	4	400	Open - down dip
<i>Total Bay Zone</i>	54	3,929	25	2500	---
Castle Mountain	52	3,966	7	875	Open -- down dip northeast
No. 2 Zone	22	1,672	3	375	Closed
No. 4 Zone	27	1,435	6	600	Open - down dip
<i>Total Hopes Advance Area</i>	<u>155</u>	<u>11,002</u>	<u>41</u>	<u>4,350</u>	---

Figure 20.1
Plan Map of the Hopes Advance Area



The trend of the iron formation is highlighted in blue. Potential resources referred to in this report are indicated along the trend of the iron formation (base image from Google Earth).

20.1.1.1 Bay Zone

The Bay Zone area is located west of Hopes Advance Bay. The iron formation in this area strikes east-west and dips to the south. The drilling program is designed to evaluate six potential iron deposits; Bay Zone A, Bay Zone B, Bay Zone C, Bay Zone D, Bay Zone E and Bay Zone F as shown in Figure 20.2. In all cases, the potential iron deposits are open down dip. The physical limit of the resource is determined to the south by the location of the Red Dog River and Red Dog Lake and the depth of the iron formation. The proposed program for the Bay Zone includes 25 drill holes and 2,600 m of drilling. Phase 1 includes 10 drill holes and 1,050 m of drilling on the Bay Zone.

20.1.1.2 Castle Mountain

The iron formation in the Castle Mountain area is folded into an open upright anticline that plunges shallowly to the southeast. The drilling program as shown in Figure 20.3 is designed to confirm the resource defined in the 1950's. Although the resource is limited by the location of Ford Lake to the west and the Red Dog River to the south, there is some potential to expand the resource with drilling down dip on the northeast limb of the Castle Mountain resource. The proposed program for Castle Mountain includes 7 drill holes and 875 m of drilling. Phase 1 includes 3 drill holes and 375 m of drilling at Castle Mountain.

20.1.1.3 No. 2 Zone

Exploration in the 1950's determined that the No. 2 Zone iron resource is a fault bounded southeast plunging synform. The drilling program as shown in Figure 20.4 is designed to confirm the resource identified by the 1950's drilling. The physical limits of the No. 2 Zone resource were reasonably defined by the 1950's drilling. The location of the resource relative to Ford Lake prevents expansion of the resource other than under Ford Lake. The proposed program for the No. 2 Zone includes 3 drill holes for 375 m of drilling. Phase 1 includes 1 drill hole and 125 m of drilling on No.2 Zone.

20.1.1.4 No. 4 Zone

The No. 4 Zone is located on the northeast limb of a relatively narrow southeasterly plunging synform. Two small lakes lie on the axis of the synform. The drilling program as shown in Figure 20.4 is designed to confirm the historical resource and test the down dip and northwest extension of the resource. The resource is limited by the location of Ford Lake along the southeast end of the northwest limb. The northwest extension of the resource along the syncline is open. The iron formation appears to thin to the northwest, but the potential for thickening of the iron formation down dip should be evaluated during the drilling program. The proposed program for the No. 4 Zone includes 6 drill holes for 600 m of drilling. Phase 1 includes 2 drill holes and 200 m drilling on No. 4 Zone.

Figure 20.2
Plan Maps of Bay Zone Area Zones A Through F Showing Historic and Proposed Drill Hole Locations

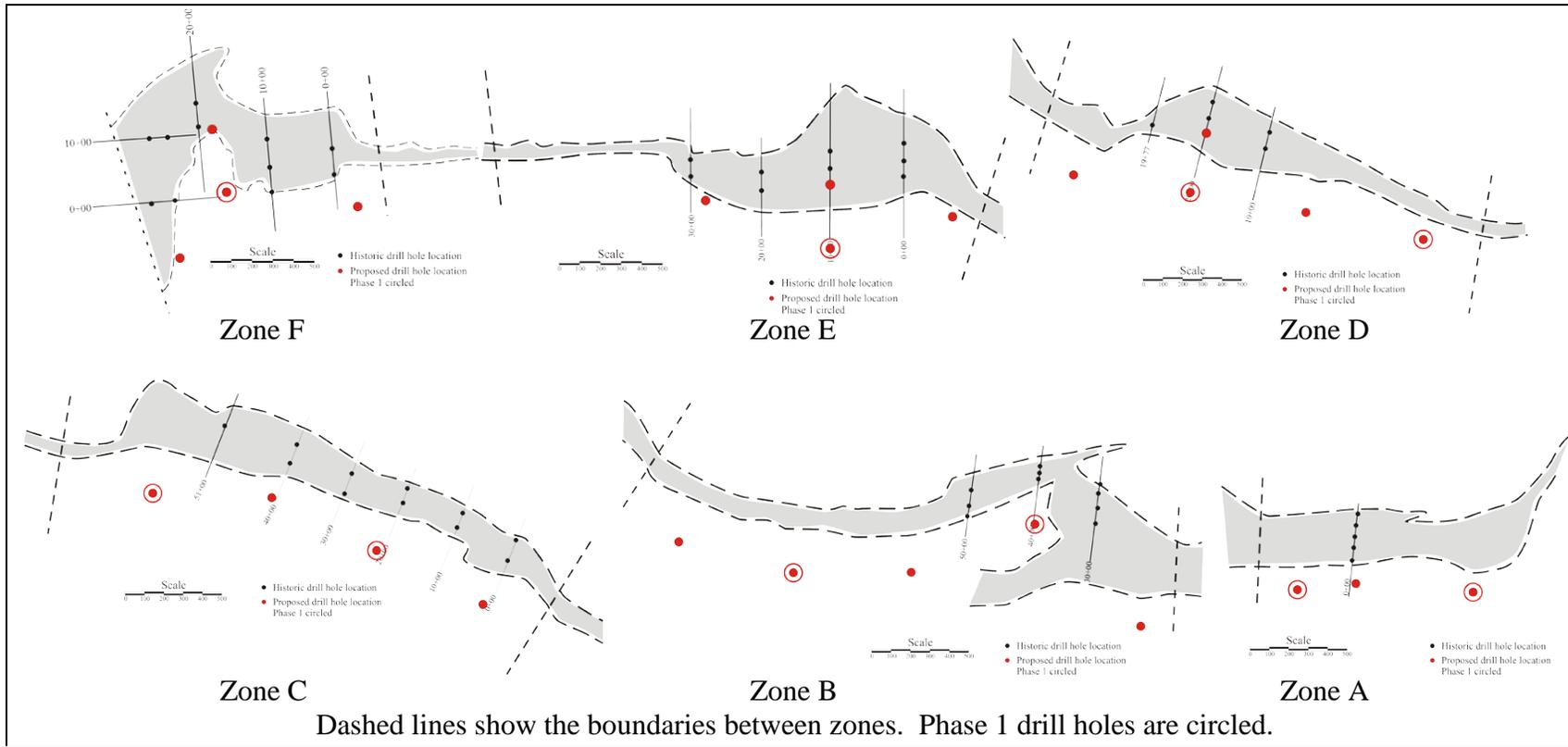
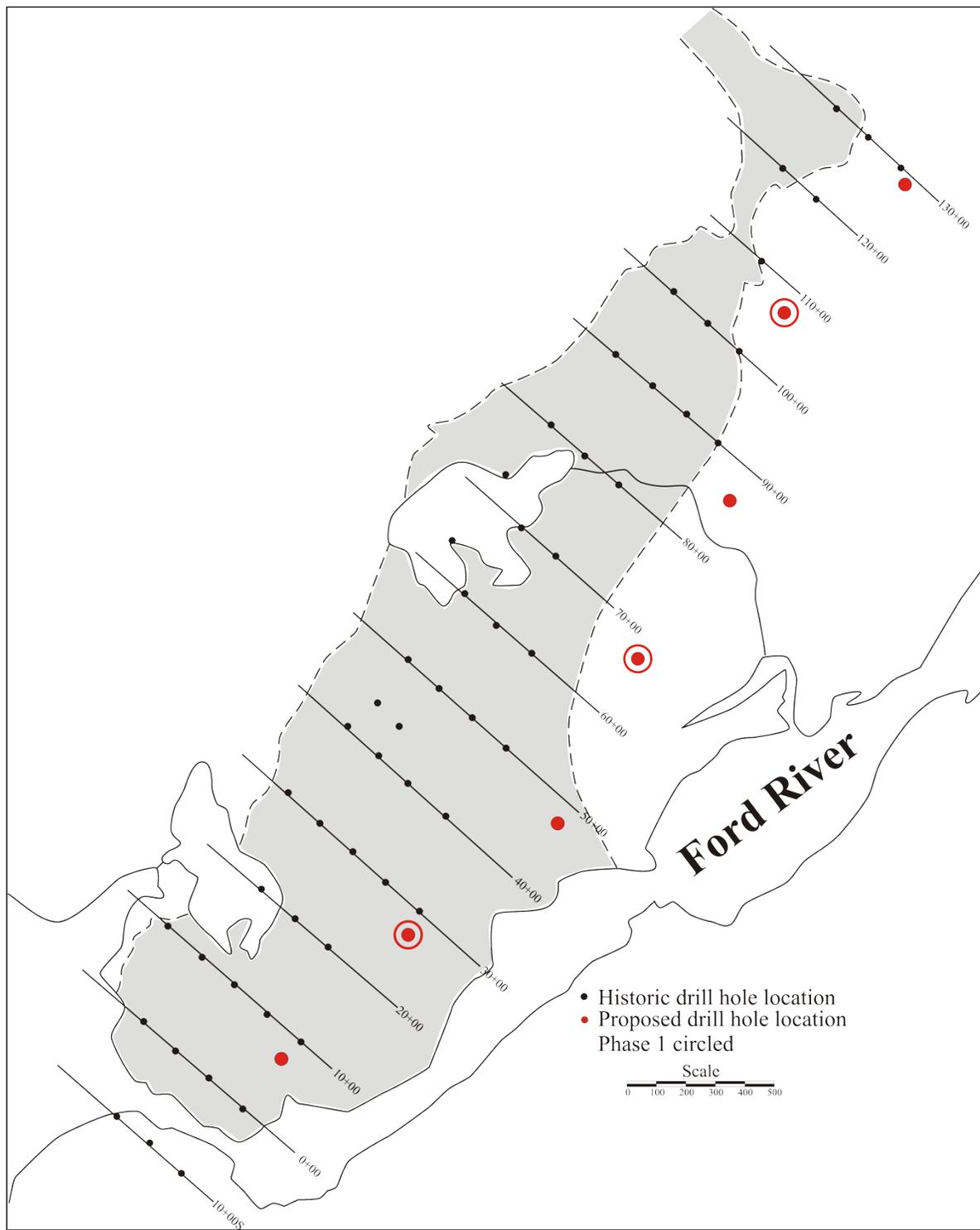
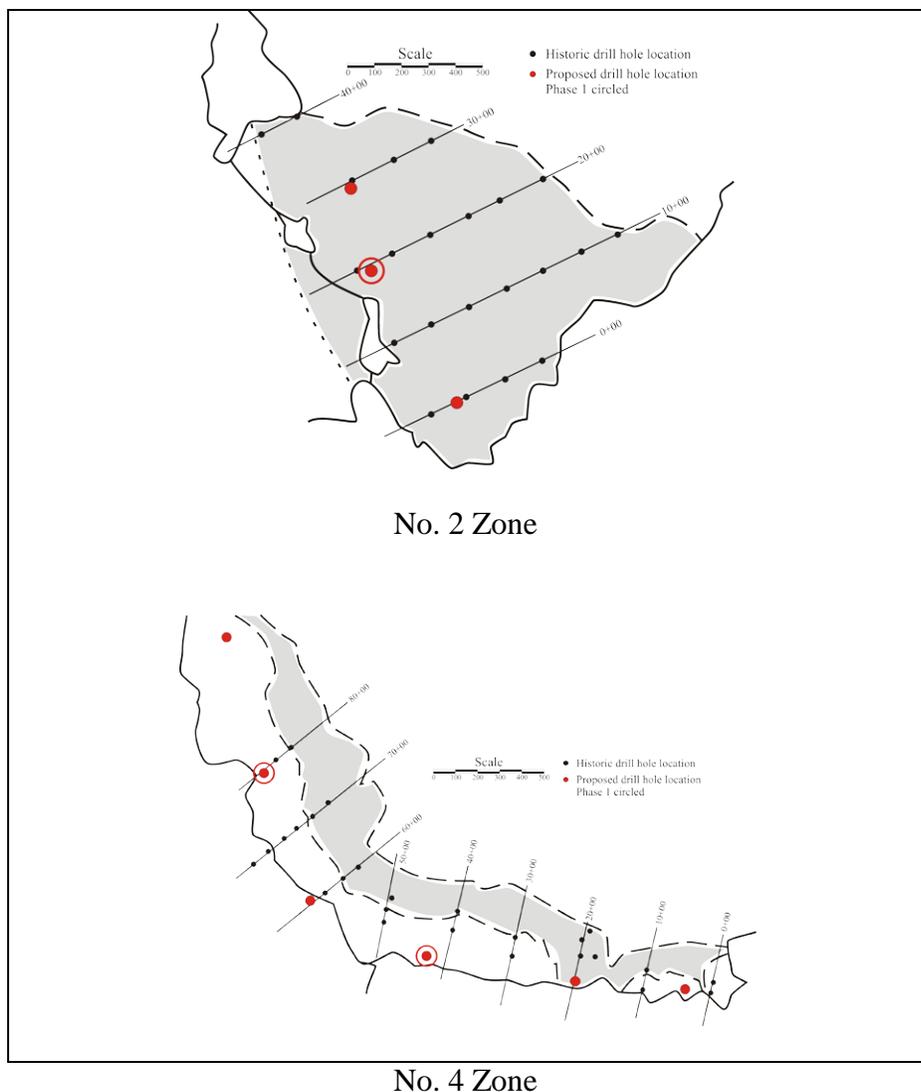


Figure 20.3
Plan Map of Castle Mountain Showing Historic and Proposed Drill Hole Locations



Castle Mountain

Figure 20.4
Plan Map of Zone 2 and Zone 4 Showing Historic and Proposed Drill Hole Locations



20.1.2 Work Program Timeline

The field season in the Ungava Region is short and extends from June through September. While it is possible to drill during the winter, it becomes very inefficient when drilling shorter holes. Winter drilling in the Ungava region requires that rigs be enclosed, drill water must be heated, and salt must be added to the drilling water. While this may be practical for deep drilling, more time and cost would be spent enclosing rigs and preparing water for the short holes that are proposed in this program. Access to drilling water could also become a problem in the winter.

A two phase, two year, exploration program is proposed to complete the drilling necessary to confirm a CIM and NI 43-101 compliant inferred mineral resource in the Hopes Advance area. If metallurgical results are favourable, then further drilling at closer spacing will be required to identify a measured or indicated resource. It is proposed that the drilling program begin next year (2011).

In 2011 geologic field work will begin in July. A camp will be established midway through the field season. Preparatory fieldwork would be completed in advance of the commencement of drilling. The Hopes Advance camp will be expanded to provide sufficient housing for the drilling crews. One drill rig and fuel will be brought in by ship for the beginning of drilling by August. If necessary, during drilling on the Bay Zone the drillers could be housed in Aupaluk until the Hopes Advance camp is expanded and adequately outfitted.

During the winter of 2011 selected samples will be assayed. Samples and composites will be prepared for additional assaying and for metallurgical testing. The results of the metallurgical testing will be assessed in the spring of 2012. If the metallurgical testing shows that the Hopes Advance area has good metallurgical characteristics then drilling could continue during the 2012 field season.

20.1.3 **Work Program**

The drilling program will be conducted with a helicopter portable drill rig (LY 38 e.g.). The location of drill holes will be surveyed using differential GPS with sufficient horizontal and vertical accuracy to enable use of the data for resource estimation. NQ (47.6 mm diameter) core will be adequate for providing large enough samples for sampling and composites for metallurgical testing. Core will be sawed in half with one-half of the core retained and stored on site. Lithologic and geotechnical core logging will be conducted on site. Samples will be collected based on geologic (mineralogical) units.

20.1.4 **Personnel**

The drilling program will require at least one senior geologist, one junior geologist, and two technicians. In addition, a geologist familiar with magnetite and hematite iron ore deposits and the processing of those ores should be available on a consulting basis to provide expertise in logging, sampling and compositing of samples.

The senior geologist will provide oversight of the drilling program, core logging, and sampling. The junior geologist will be responsible for overseeing drill rig moves, logging core and sampling. Technicians will be responsible for organizing core, sawing or splitting core, and crushing of core and subsample preparation (if necessary).

Each drill rig will have two drillers (one on dayshift and one on nightshift) and two helpers. The drilling company will also have a drilling supervisor on site. The camp will also require a cook and helper(s). Technicians and camp helpers could be hired from the local villages.

20.1.5 Assays and Metallurgical Analyses

20.1.5.1 Assays

Core samples will be collected for submission to the independent commercial laboratory. All core with over 10% iron as magnetite and or hematite will be sampled and analyzed. This is estimated to be 60% of the core and approximately 1,305 samples. Following phase 1 drilling approximately 30% of the samples will be submitted for analysis. The remaining samples will be submitted for analysis during Phase 2.

Sample intervals will be determined by field geology and will not exceed 2-m intervals. PACIFIC HARBOUR may decide to expedite the assays of the individual samples and also reduce the amount of material being shipped from site by crushing and subsampling the samples on site. A small portion of the crushed material can be sent off site by air cargo. A larger split of the same sample can shipped to the metallurgical lab for composite preparation and testwork.

All sample intervals submitted to the laboratory will be subjected to the following analyses:

1. Whole rock chemical analysis (by XRF) - SiO_2 , Al_2O_3 , Fe_2O_3 , MgO , CaO , Na_2O , K_2O , TiO_2 , P_2O_5 , MnO , Cr_2O_3 , V_2O_5 .
2. Loss on ignition (LOI).
3. Fe^{++} by titration.
4. CO_2 (carbonates).
5. Total S by combustion.

20.1.5.2 Metallurgical Tests

Metallurgical testing will be performed on 10-m composites of split core (NQ core). Up to 28.5 kg of each composite sample will be available for metallurgical testing. These samples will be submitted to a competent metallurgical laboratory for the following ore characterization and concentrating tests.

The metallurgical work on the composites of the iron formation samples will consist of two specific procedures. The Hopes Advance Area composites will require both gravity and magnetic separation tests. Based on the available geologic information, a total of 261 samples of drill core will require testing.

Of the 261 samples:

- 51 will be magnetic iron formation requiring Davis Magnetic Tube Tests.

-- 210 will be magnetite/specular hematite requiring gravity separation tests and Davis Magnetic Tube Tests.

Micon recommends that each 10-m drill core composite be characterized by performing the following analyses:

1. Bulk density.
2. Whole rock chemical analysis (by XRF) - SiO₂, Al₂O₃, Fe₂O₃, MgO, CaO, Na₂O, K₂O, TiO₂, P₂O₅, MnO, Cr₂O₃, V₂O₅.
3. Loss on ignition (LOI).
4. Fe⁺⁺ by titration.
5. CO₂ (carbonates).
6. Total S by combustion.
7. SATMAGAN - magnetic iron determination.

The drill core characterization work will cost approximately \$500 per composite sample.

20.1.5.3 Hopes Advance Metallurgical Testing

Since the Hopes Advance resource is composed of both specular hematite and magnetite in varying proportions, laboratory procedures must include an initial step that separates the two ore minerals. The ore characterization work described above, along with ore microscopy observations of in situ liberation size will be critical to specifying the mineralogy and subsequent bench testwork employed on each individual sample of core. After reducing each sample to -10 mesh, an initial magnetic cobbing stage will be required to separate magnetite from the specular hematite fraction. Geologic information currently available indicates that the specular hematite liberates at a much coarser size (nominally + 200 mesh) than the magnetite.

In order for Davis Magnetic Tube Tests to provide an accurate estimate of grade and recovery, knowledge of the optimum grind for liberation needs to be determined. Combining results of the ore characterization work described above with ore microscopy observations of in situ liberation size, and a series of timed rod mill grind tests would be performed to determine the grind/ grade curves necessary for evaluating the magnetite portion of the Hopes Advance mineralization. Weight recoveries would be determined from the Davis Magnetic Tube Tests and the Davis Magnetic Tube concentrate would undergo the same chemical analyses and LOI tests as recommended for each drill core sample. Davis Tube tailings would also be analyzed for residual iron.

The hematite fraction will be subjected to heavy liquid tests (SG = 3.3) to determine the size reduction required for liberation of the iron. Once liberation size is determined, Wilfley table tests, which continue as the standard concentrating test for coarse specular hematite, will be performed on a ground sample to assess recovery. The concentrate will then undergo chemical analysis by XRF and the tails will be analyzed for iron content.

20.1.5.4 Metallurgical Process Testing Cost Estimates

Discussions were held with the technical group from SGS Lakefield based in Toronto to obtain budgetary estimates for various testwork, ore characterization and chemical analyses. A summary of metallurgical test costs is presented in Table 20.2 below. Technician charges of \$100/hr are assumed based on experience and current industry cost structures. Costs shown are in CDN dollars.

Table 20.2
Budgets for Drill Core Characterization and Metallurgical Testing Costs

Item	Cost Per Test	Number of Tests	Estimated Cost
	(\$ CDN)		(\$ CDN)
Drill Core Composite Analyses	\$500	160	\$79,000
6 DMTT per day	\$133	51	\$1,000
3 Gravity, Table/DMTT per Day	\$267	210	\$6,000
Sample Prep & Product Analysis	\$300	261	\$9,000
Contingency (@10%)*			\$10,000
Subtotal			\$105,000
Management and Reporting (@15%)			\$16,000
Total			\$121,000

Note : DMTT – Davis Magnetic Tube Test

Contingency not factored into management and reporting charges.

The Hopes Advance Area contains an iron resource that is a combination of magnetite and hematite. It will be necessary to recover both hematite and magnetite in order to have an economic operation in this area. Metallurgical testing must evaluate the potential recovery of both magnetite and hematite at reasonable grinds. The estimation of magnetite recovery is straight forward and can be predicted well by the Davis Tube Magnetic Test. Hematite recovery can be estimated and can be predicted by table tests. Head and concentrate samples will be analyzed for a suite of elements critical to evaluating iron ore concentrate.

20.1.6 Logistical Support

Drill rigs, camps and fuel can be brought into Aupaluk and Kangirsuk by ship. Drill rigs will be lifted by helicopter into the Hopes Advance Area. One helicopter will be required for the field season. The supplies to establish the camp supporting the Hopes Advance drilling will be flown in.

20.1.7 Drill Program Budget

The proposed drilling program can be completed in two field seasons and will require 4,350 m of drilling. This budgetary figure includes direct drilling costs, helicopter transport, fuel, camp facilities and staff, geologic staff, sampling and analyses. The proposed drilling program would cost C\$9.73 million dollars (C\$8.84 million dollars plus 10% contingency) and is shown in Table 20.3. A detailed breakdown of costs is shown in Table 20.4.

Table 20.3
Budgets for Proposed Phase 1 and 2 Exploration Programs

Phase	Item	Hopes Advance
1	16 holes	
	1,750 metres total	
	\$217/m	
	Drilling Costs	\$1,655,000
	Other program costs	\$2,179,000
<i>Total Phase 1</i>		\$3,834,000
2	25 holes	
	2,600 metres total	
	\$217/m	
	Drilling Costs =	\$1,926,000
	Other program costs	\$4,085,000
<i>Total Phase 2</i>		\$5,011,000
<i>Total Phase 1 and 2</i>		\$8,845,000
<i>Phase 1 and 2 with Contingency</i>	10% Contingency	\$885,000
		<u>\$9,730,000</u>

Table 20.4
Summary of Costs for Proposed Phase 1 Exploration Program

Drilling		
	Mobilization	
	Mobilization contractor's base to port	\$ 40,000
	Helicopter to first site	\$ 14,000
	Labor	\$ 14,000
	Footage cost (includes consumables)	\$ 380,000
	Fuel	\$ 84,000
	Helicopter (includes fuel)	\$ 791,000
	Rig standby	\$ 108,000
	Camp costs	\$ 225,000
		\$ 1,655,000

Helicopter		
	Mobilization	\$ 8,000
	Demobilization	\$ 8,000
		\$ 16,000
Camp set up		
	Material costs	\$ 176,000
	Mobilization (material and men)	\$ 110,000
	Construction	\$ 69,000
	Fuel (generators)	\$ 65,000
		\$ 421,000
Staffing		
Camps		
	Cook (with Industrial First Aid Training)	\$ 26,000
	Bull cook (local hire)	\$ 20,000
Geology		
	Senior (1)	\$ 68,000
	Junior geologist (1)	\$ 45,000
	Technicians (2 local hire)	\$ 60,000
	Camp costs	\$ 270,000
Consultants		
	Geology (1)	\$ 15,000
	Metallurgist (1)	\$ 15,000
Travel		
		\$ 16,000
		\$ 535,000
Project costs		
	Topo and orthophotos	\$ 52,000
	Surveying - ground control	\$ 15,000
Computers		
	GIS workstation	\$ 2,000
	Laptops (field and core logging)	\$ 6,000
Software		
	GIS software	\$ 2,000
	Geology/geophysics modeling	\$ 4,000
	Photo software	\$ 2,000
	Digital camera, lens and copy stand	\$ 1,000
	Magnetometer rental	\$ 4,000
	Core saws and supplies	\$ 4,000
	Core boxes and storage	\$ 8,000
	GPS - survey quality	\$ 4,000
	Helicopter (includes fuel)	\$ 791,000
	Camp costs	\$ 135,000
	Travel	\$ 8,000
		\$ 1,037,000
Analytical costs		
	Metallurgical analysis	\$ 121,000
Shipping		
	Camp to Kuujjuaq	\$ 6,000
	Kuujjuaq to Montreal	\$ 43,000
		\$ 171,000
	Total	\$ 3,834,000

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22.0 DATE AND SIGNATURE PAGE

The undersigned prepared this Technical Report, titled Technical Report on the Ungava Iron property, Ungava Bay Region, Quebec, Canada, with an effective date of October 20, 2010, in support of the public disclosure of technical aspects of the acquisition of the property by PACIFIC HARBOUR. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 (NI 43-101) of the Canadian Securities Administrators.

Signed,

MICON INTERNATIONAL LIMITED

“Sam J. Shoemaker, Jr.”

Sam J. Shoemaker, Jr., Member AUSIMM
Senior Mining Engineer

October 29, 2010

CERTIFICATE OF AUTHOR
Sam Shoemaker, Jr.

As a co-author of this report entitled “Technical Report on the Ungava Iron Property Ungava Bay Region, Quebec Canada”, dated October 29, 2010, I, Sam Shoemaker, Jr. do hereby certify that:

1. I am the Principal of Shoemaker Mining Services Inc., 109 Canberra Street, Gwinn, Michigan 49841, USA, and carried out this assignment as an Associate of Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, tel. (416) 362-5135, fax (416) 362-5763, e-mail sshoemaker@micon-international.com.
2. I hold the following academic qualifications:
 B.Sc., Mine Engineering, Montana College of Mineral Science and Technology, 1982
3. I am a member of Australasian Institute of Mining and Metallurgy (Member Number 229733); as well, I am a member in good standing of other technical associations and societies, including the Society for Mining, Metallurgy, and Exploration, Inc.
4. I have worked as a mining engineer in the minerals industry for 28 years.
5. I have read NI 43-101 and Form 43-101F1 and, by reason of education, experience and professional registration, I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 10 years as a mining engineer with Cleveland Cliffs Inc. and 17 years with other mining companies where I was responsible for completing geologic models, reserve estimates, economic analysis, slope designs, pit optimization, pit design, long term scheduling, short term scheduling and reserve validation.
6. In this report I am responsible for all sections of this report.
7. This Report has been prepared in compliance with the criteria set forth in NI43-101 and Form 43-101F1.
8. I have had no prior involvement with the properties that are the subject of this Technical Report.
9. I have visited the properties from August 28th through August 31st, 2008.
10. I am independent of Pacific Harbour Capital Ltd and the vendors (Peter Ferderber and Pat Sheridan), as defined in Section 1.4 of NI 43-101, other than providing consulting services.
11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical report that is required to be disclosed to make this report not misleading.

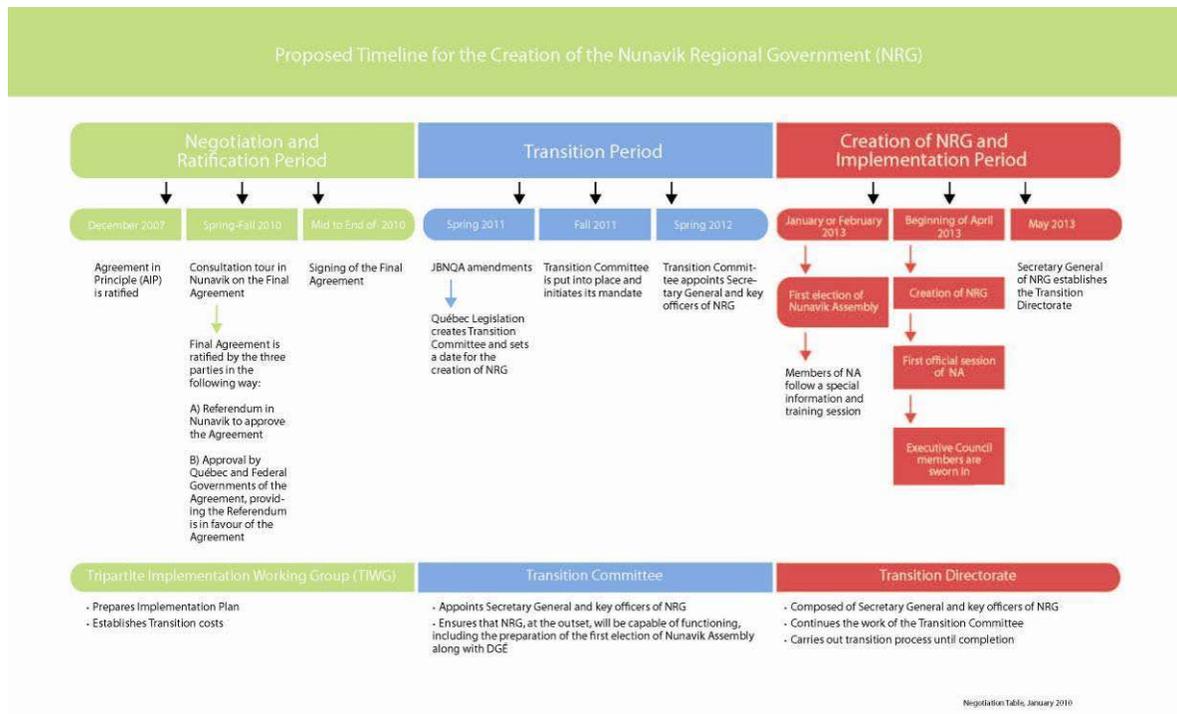
Dated this 29th day of October, 2010

“Sam Shoemaker, Jr.”

Sam Shoemaker, Jr., B.Sc., MAusIMM

APPENDIX A - CLAIM LISTING

APPENDIX B - PROPOSED TIMELINE FOR THE CREATION OF THE NUNAVIK REGIONAL GOVERNMENT (NRG)

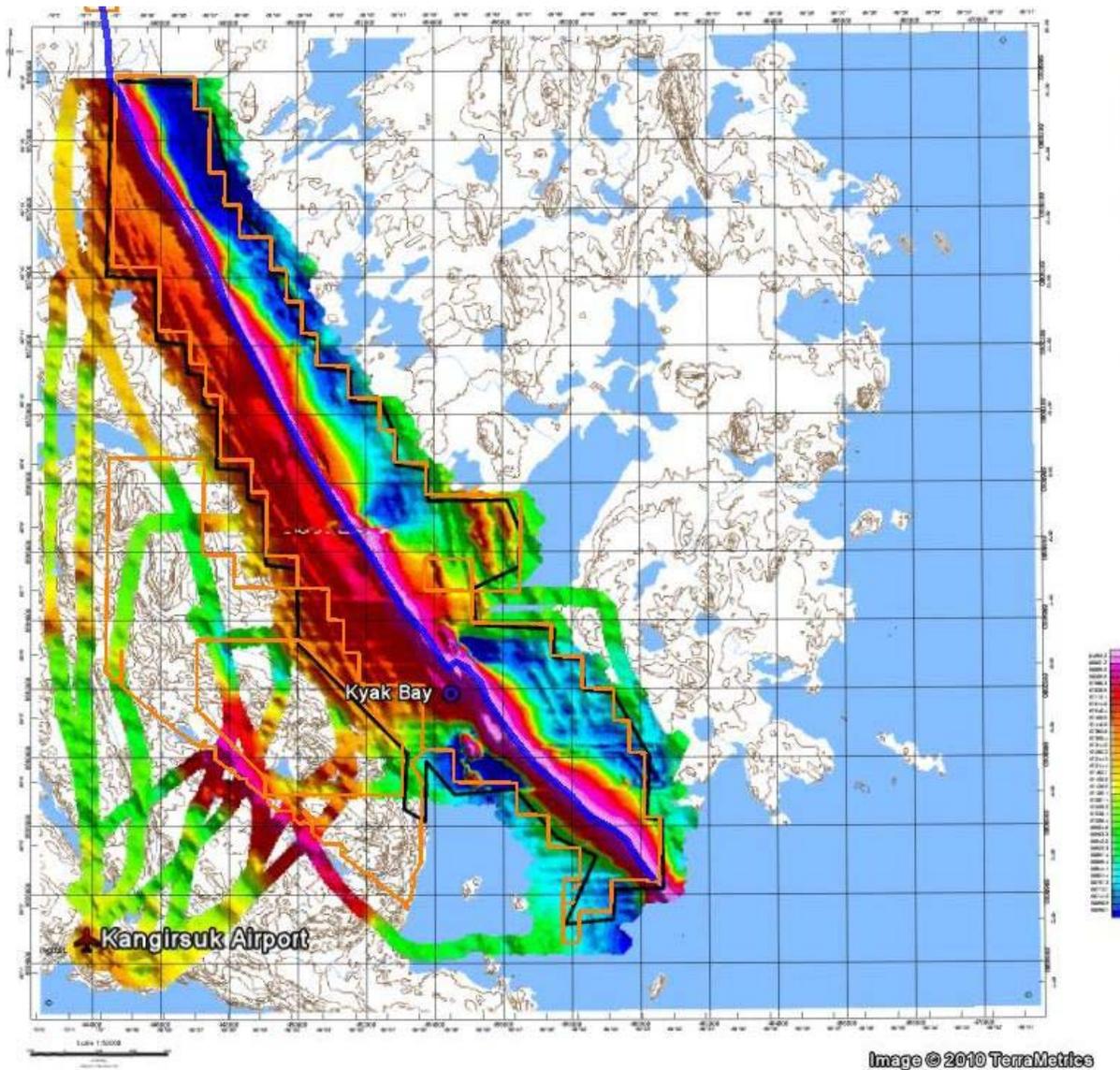


APPENDIX C – AIRBORNE GEOPHYSICAL SURVEYS ON THE UNGAVA IRON PROPERTY

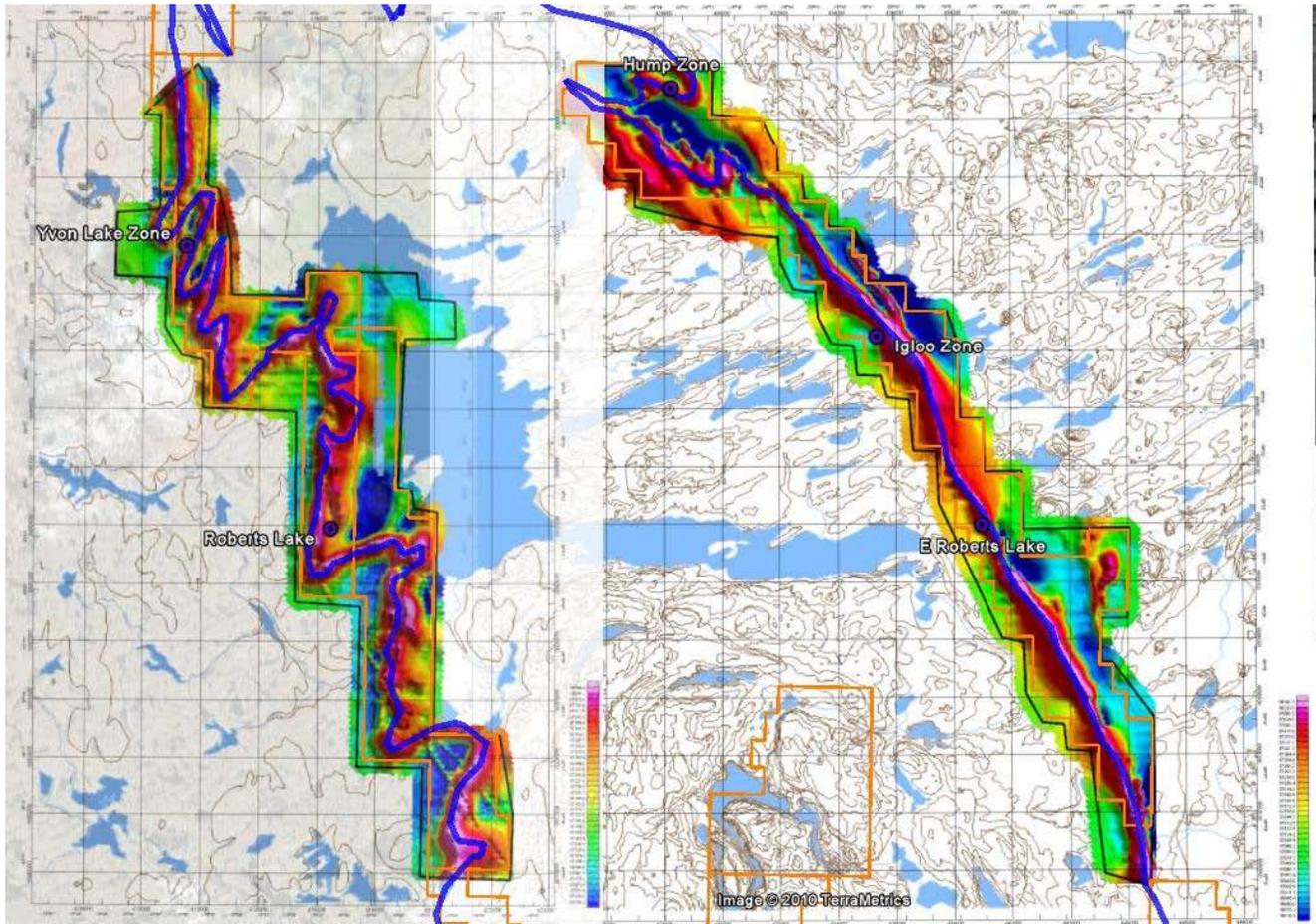
Blue line is the interpreted trace of the iron formation and orange outlines are the Ungava Iron property. Some earlier surveys were incorporated into larger surveys and therefore the earlier info is not presented here.

ROBERTS LAKE AREA

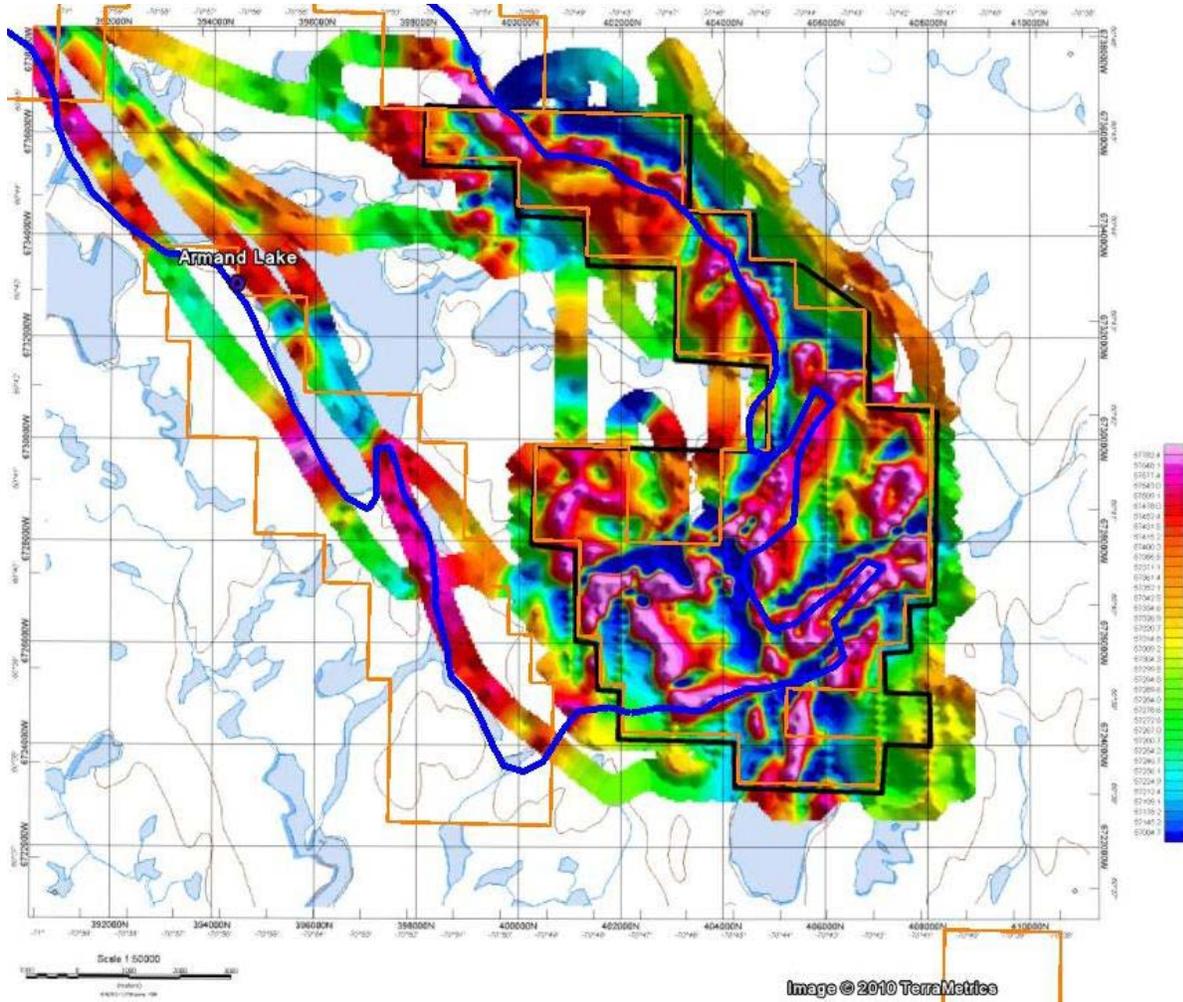
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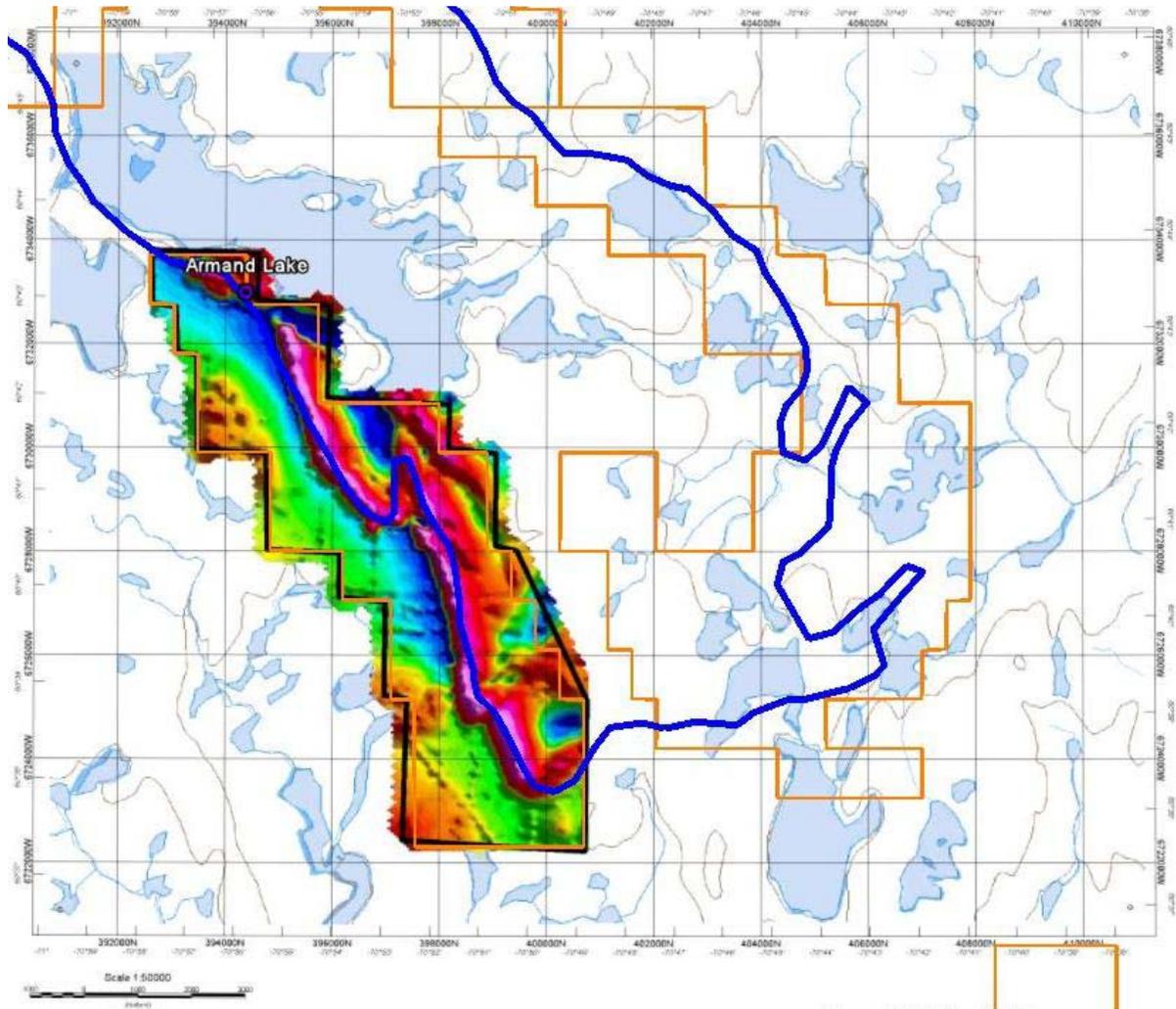
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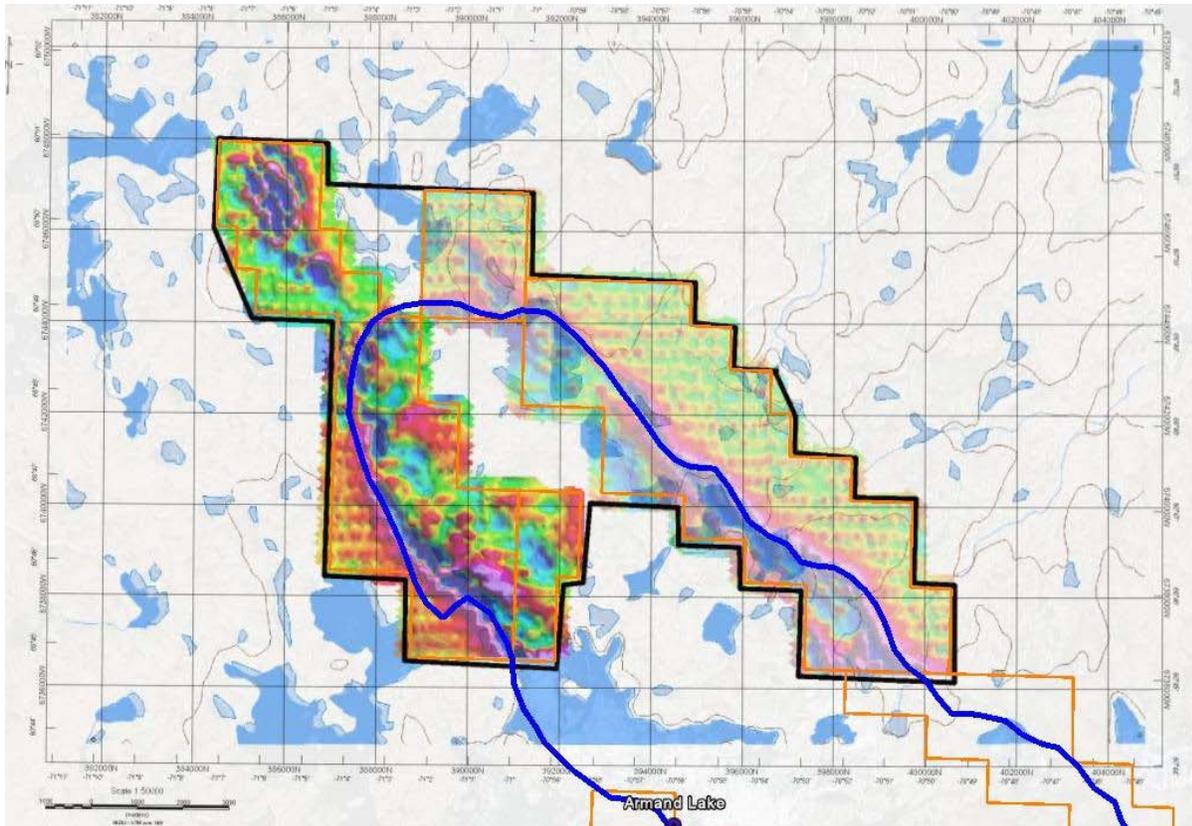
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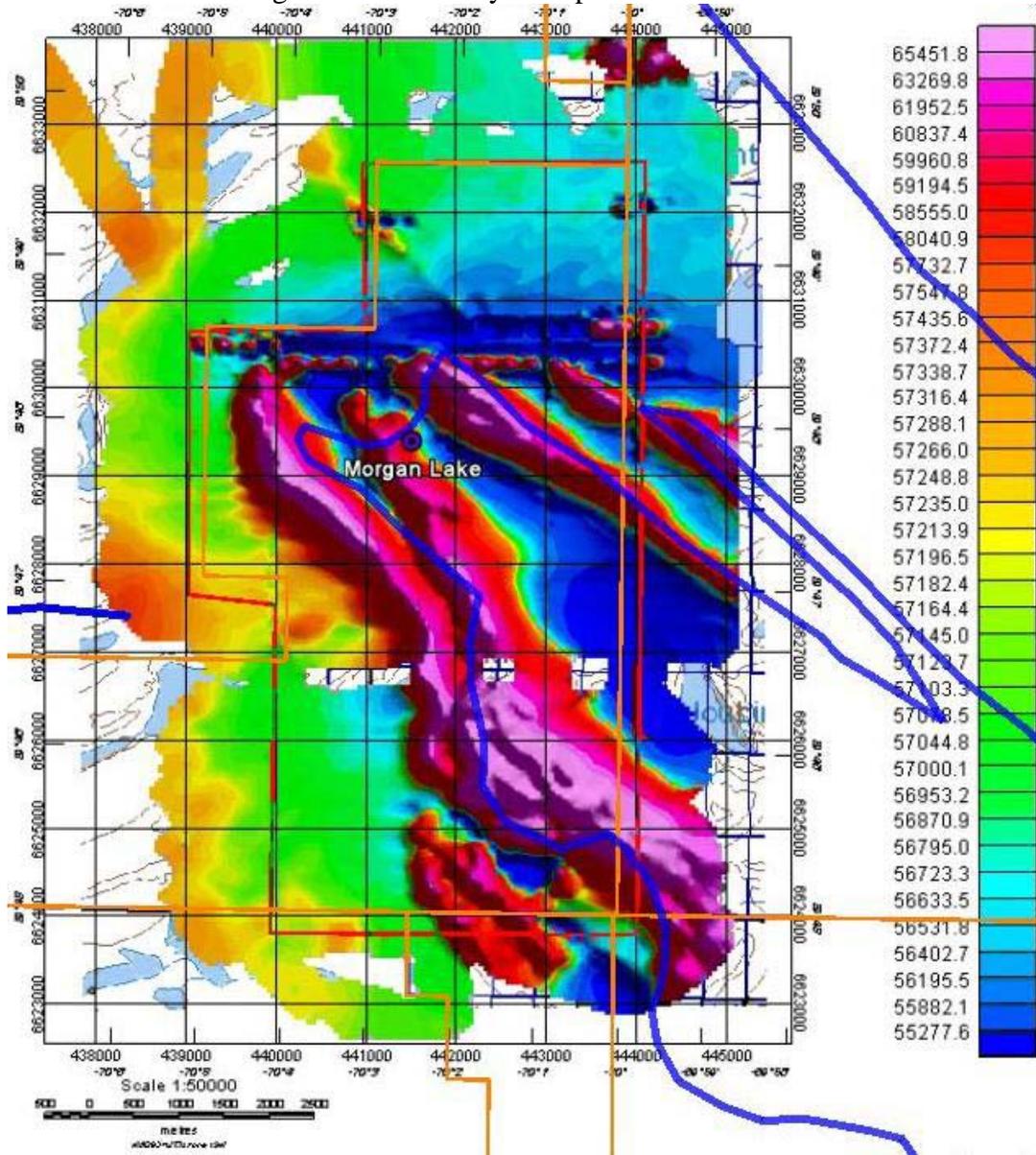


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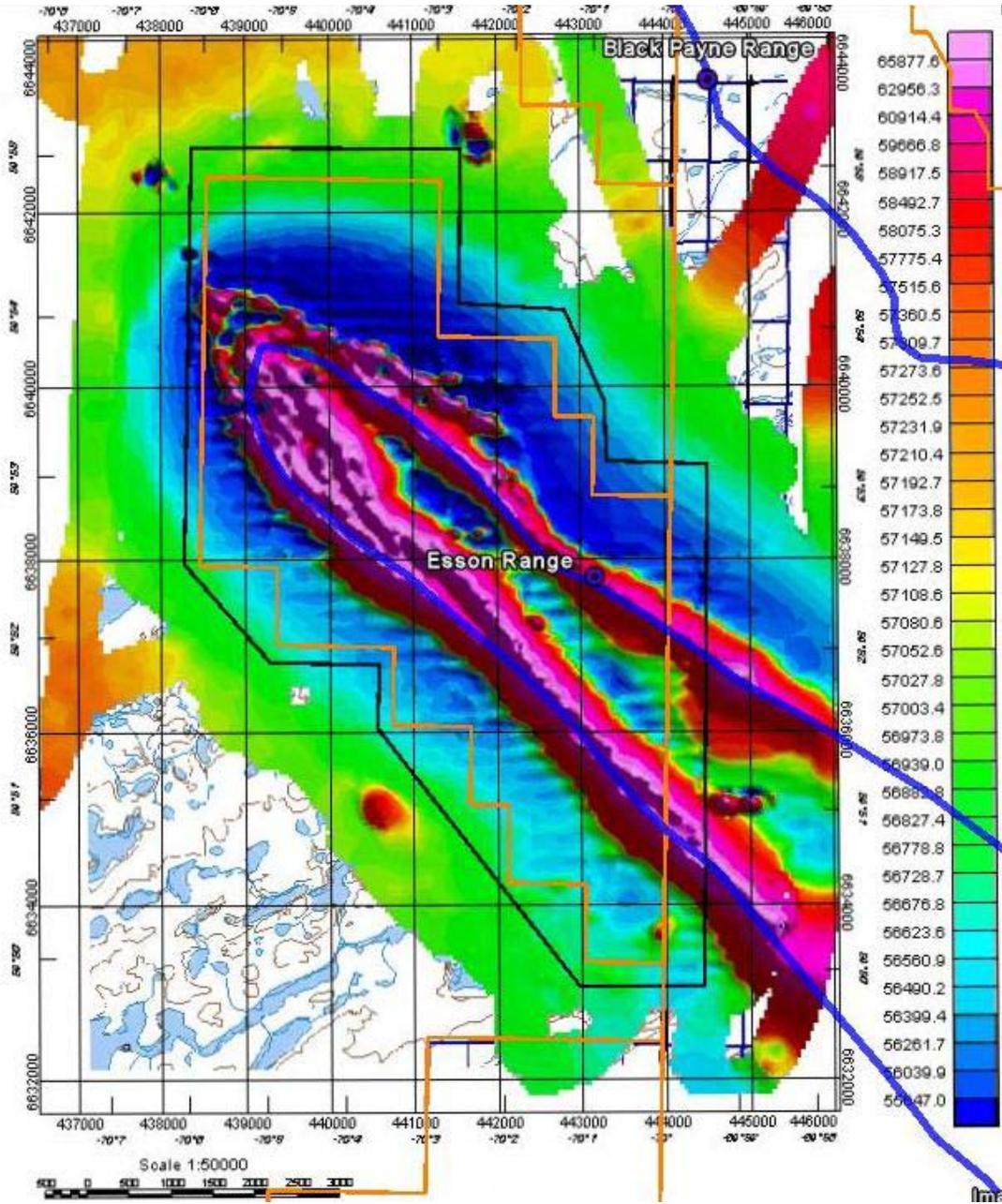


MORGAN LAKE AREA

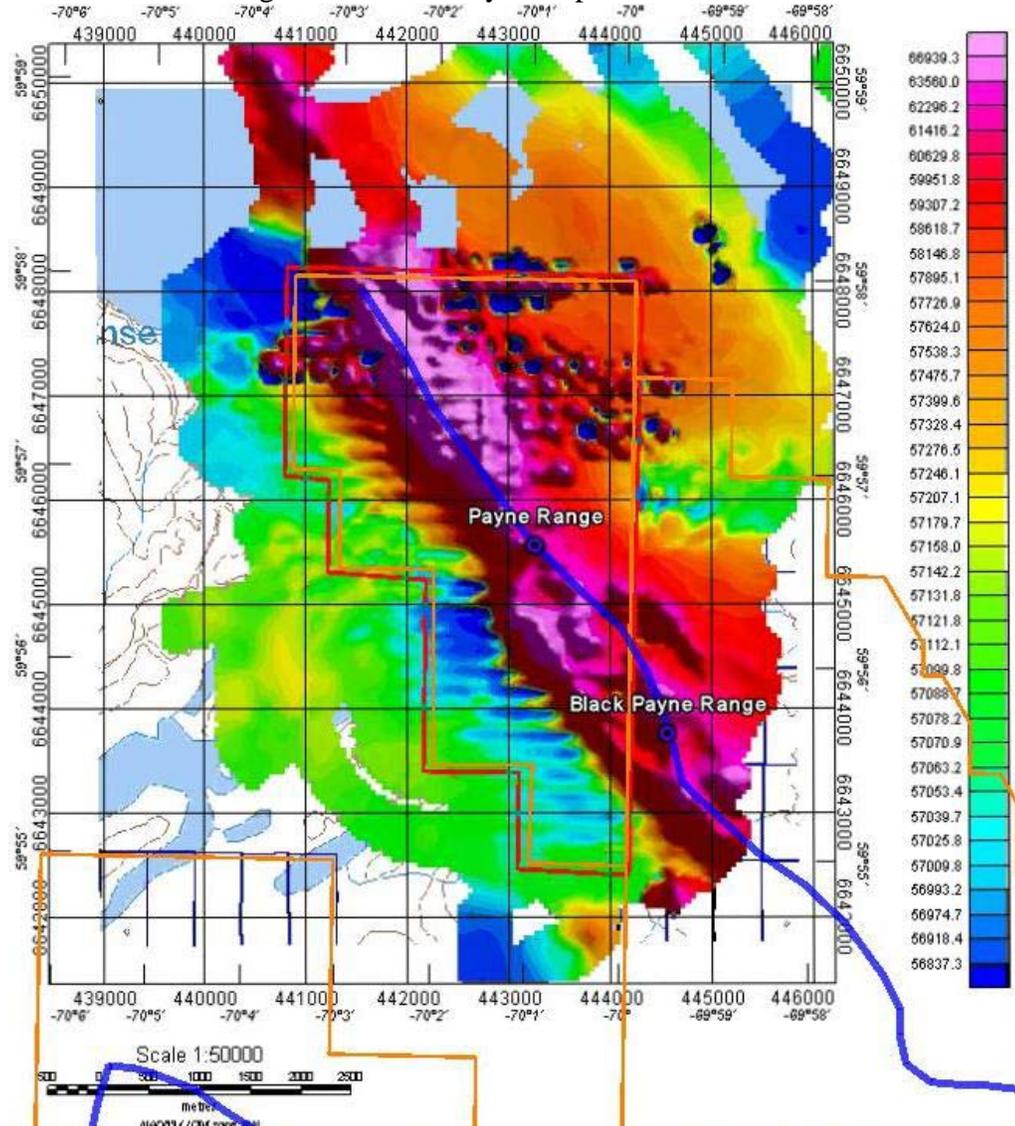
2007 Magnetometer Survey – Mapsheet 24M16 - Block III



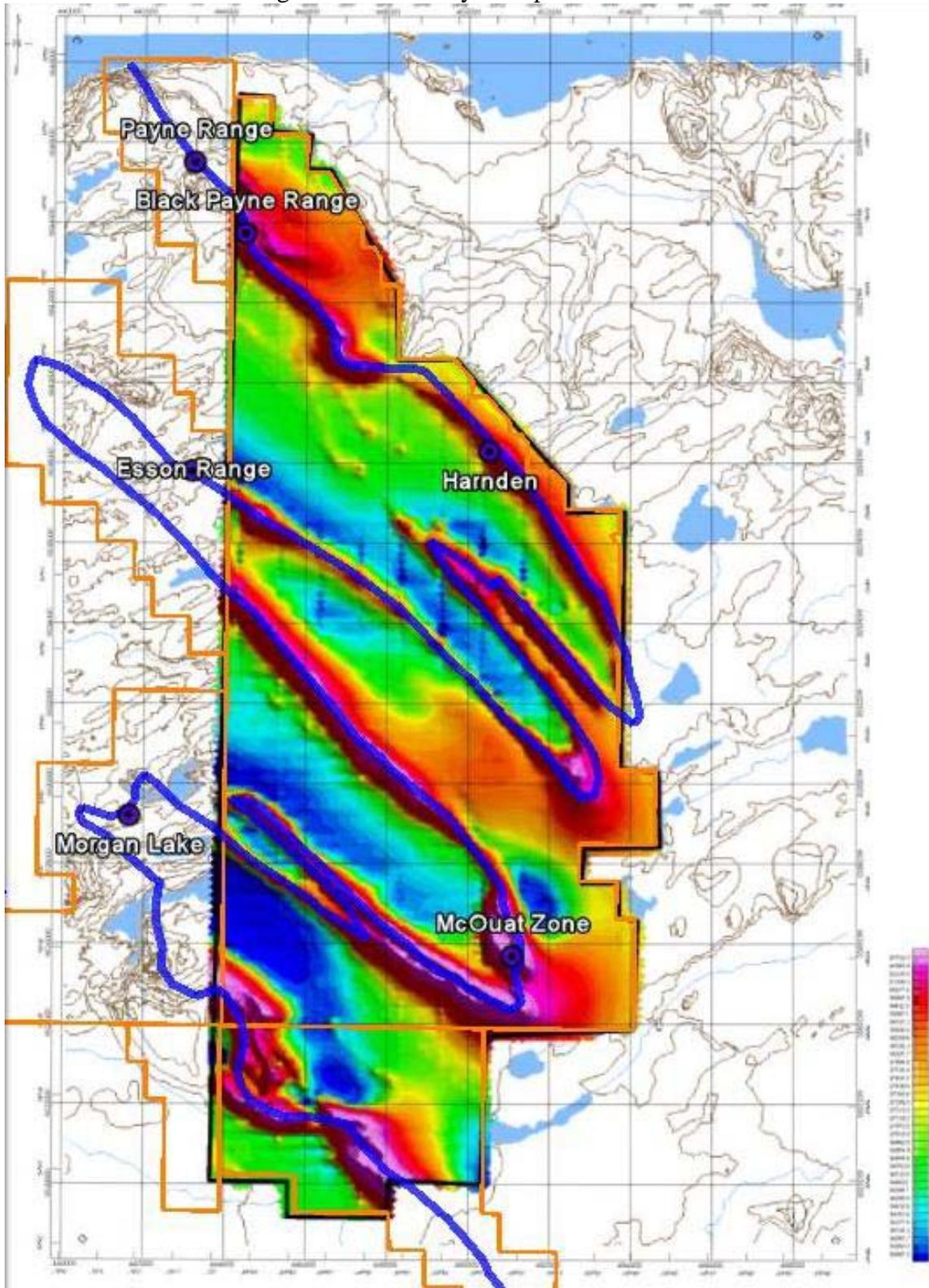
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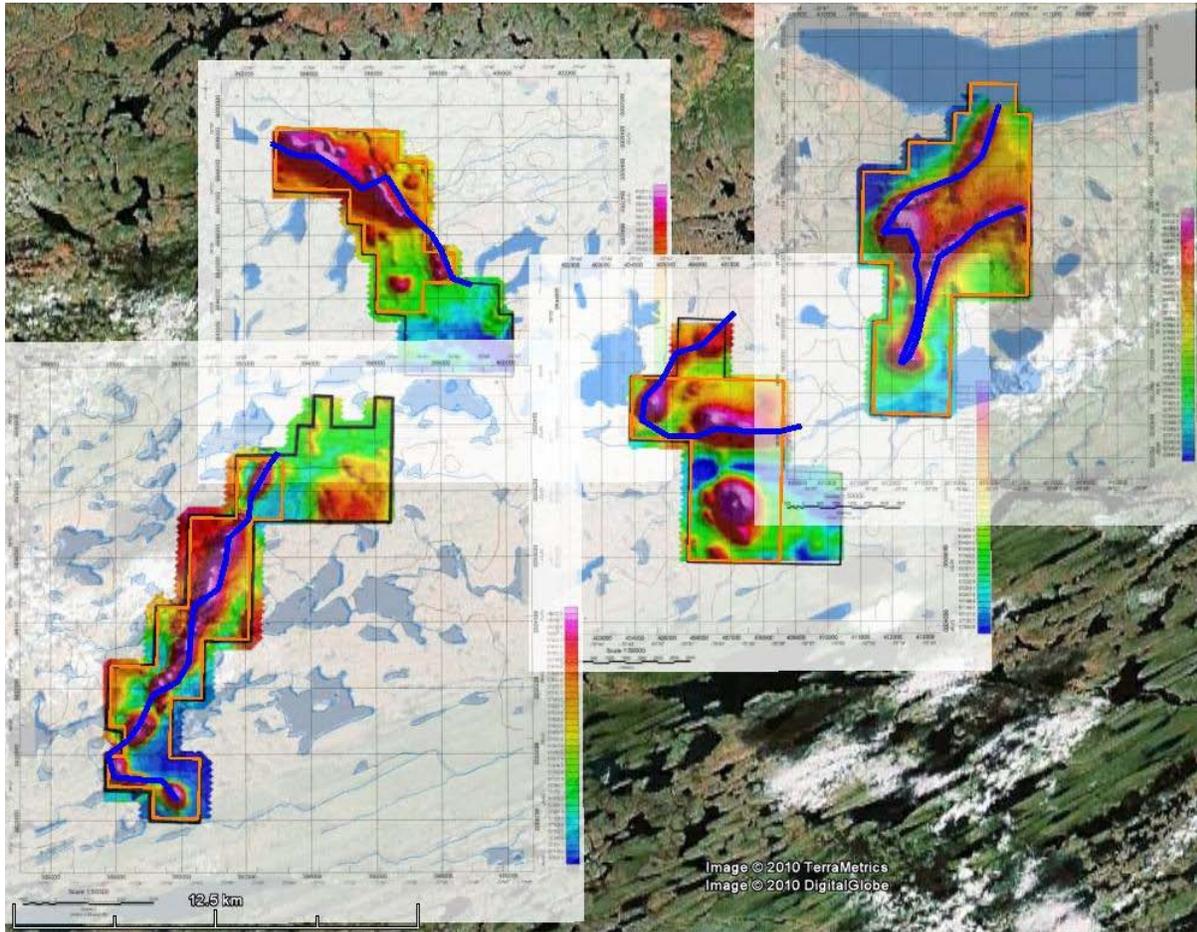
2007 Magnetometer Survey – Mapsheet 24M16 - Block I



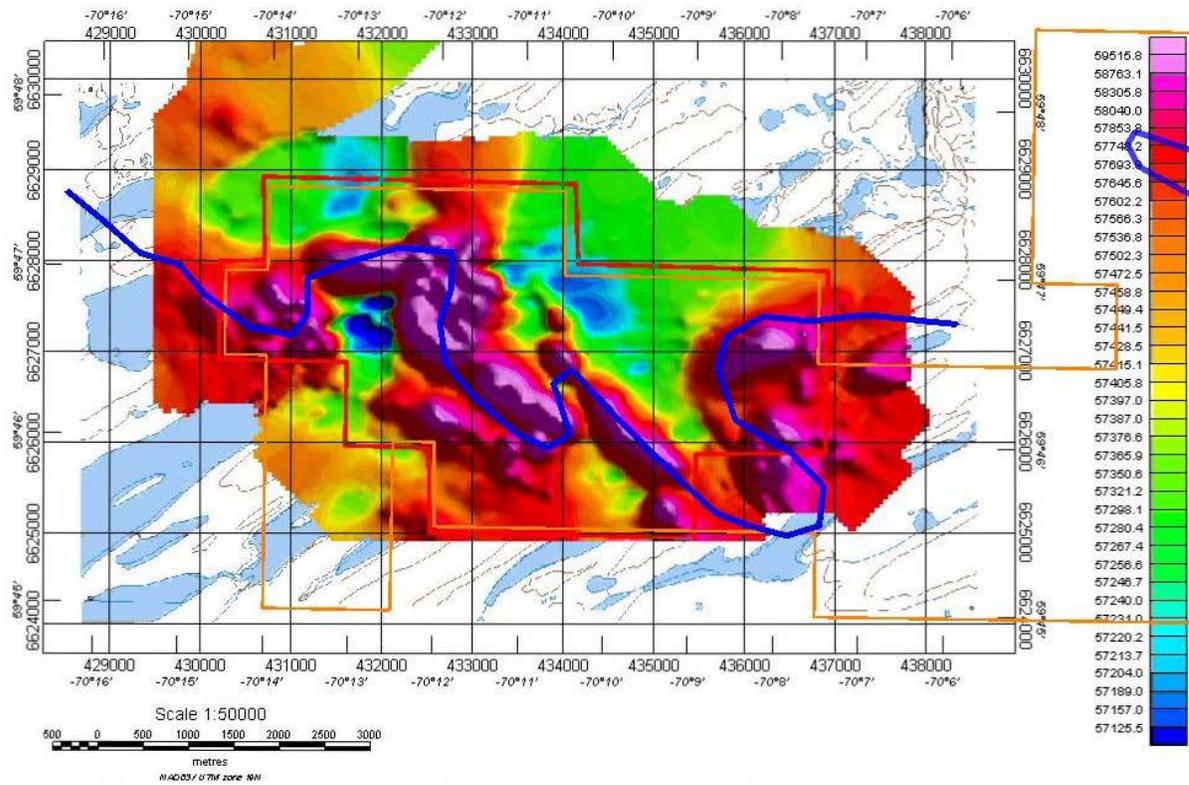
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2009 Magnetometer Survey – Mapsheet 24M15 - Blocks I - IV
(Compilation of Survey on Blocks I to IV)

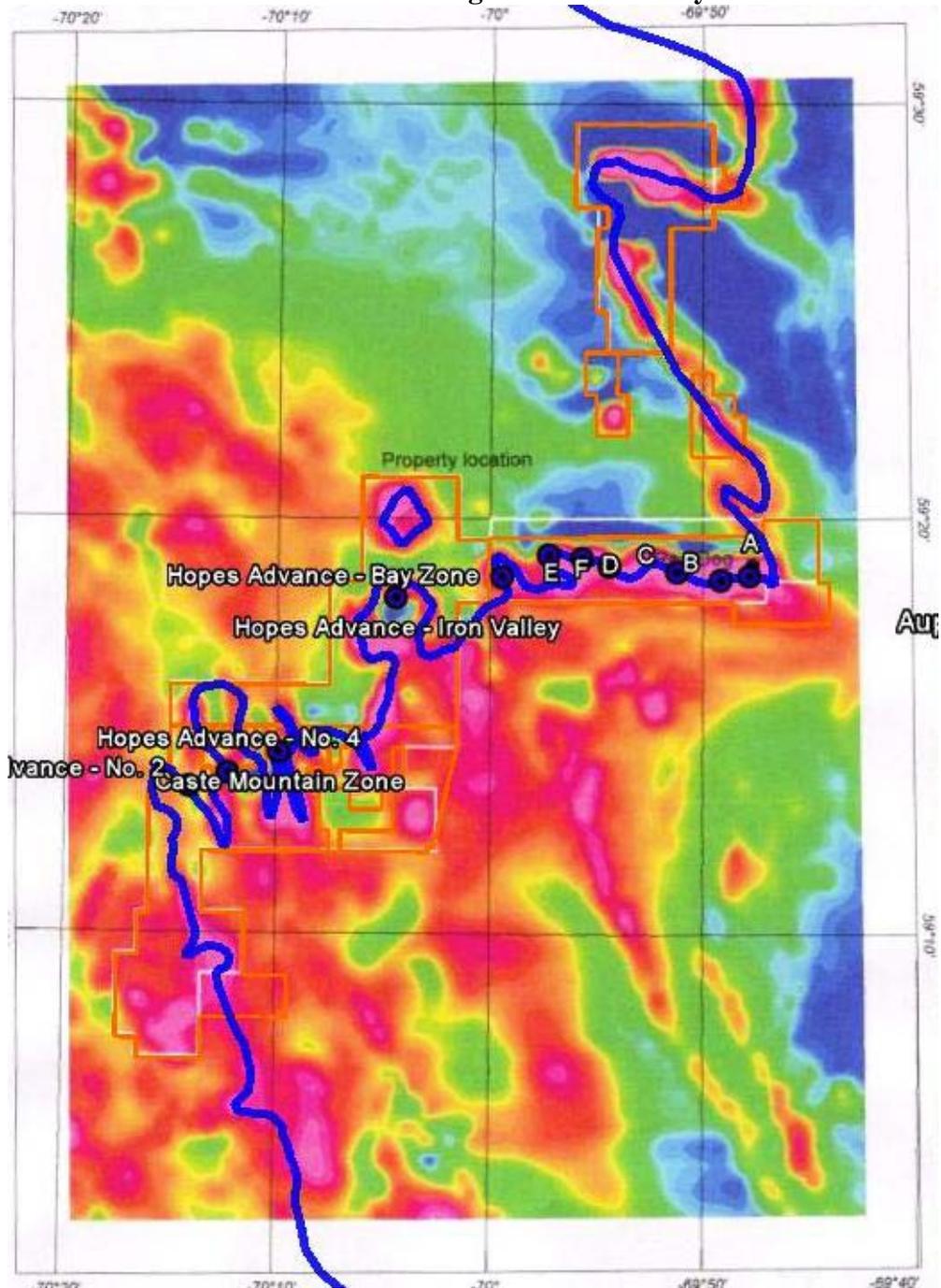


2007 Magnetometer Survey – Mapsheet 24M16 - Block IV

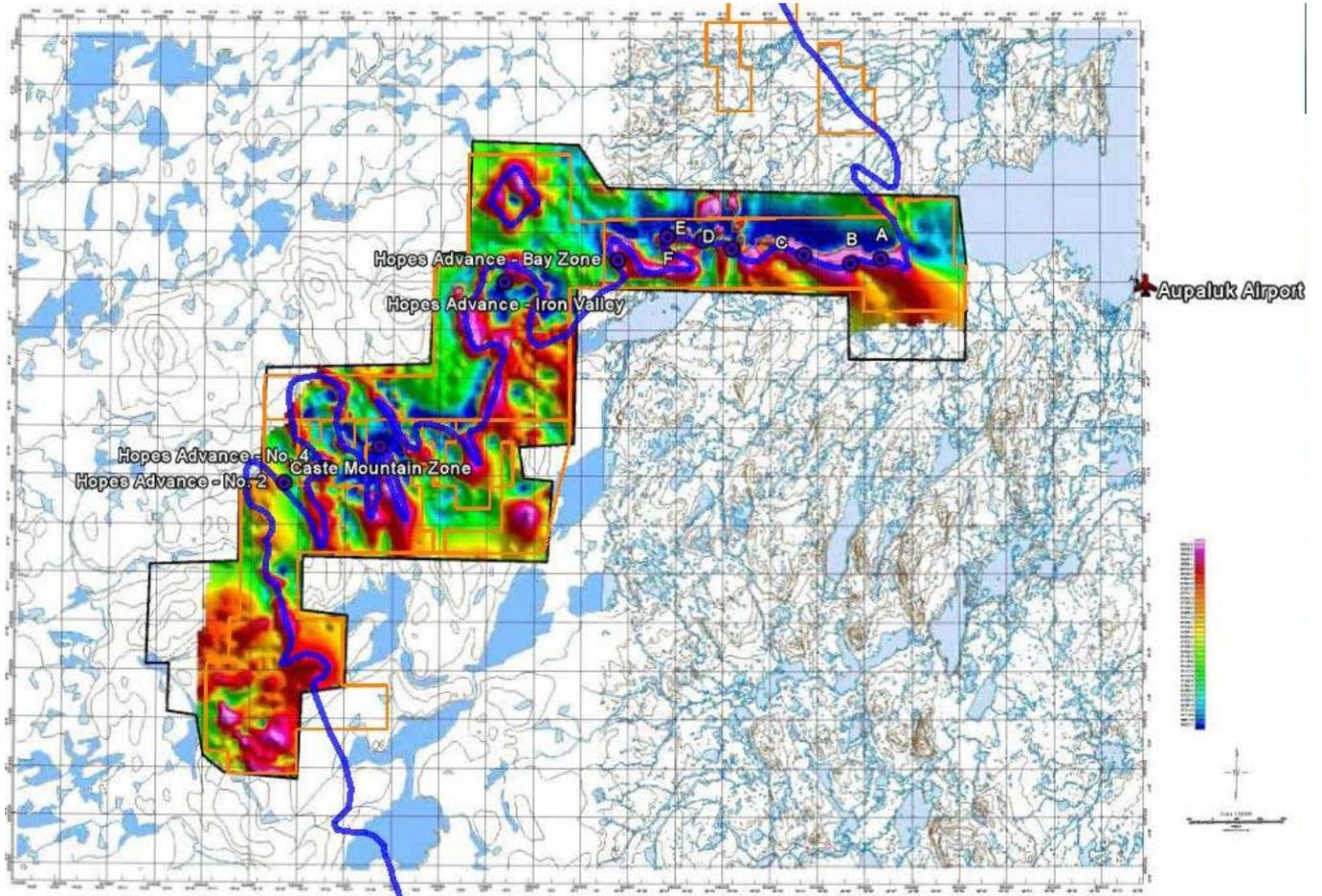


HOPES ADVANCE BAY AREA

GSC Airborne Magnetometer Survey



2006/2008 Magnetometer Survey – Mapsheet 24M01/24M08/24N05 - Blocks I



2009 Magnetometer Survey – Mapsheet 24N12 - Block I

