

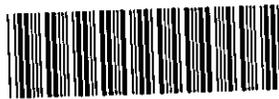
MANICOUAGAN MINERALS INC.  
Suite 405, 133 Richmond Street West  
Toronto, Ontario  
M5H 2L3  
(416) 542 - 3980

2007 JUL 25 P 12:57

July 23, 2007

Securities and Exchange Commission  
Office of International Corporate Finance  
100 F Street, N.E.  
Washington, D.C.  
USA 20549

**SUPL**



07025535

Attn: Room 3628.

Dear Sirs:

RE: Manicouagan Minerals Inc. - 12g(3)(b) exemption - 82-35067

In accordance with our ongoing filing obligations, please find enclosed a copy of the Technical Report filed on SEDAR on July 17, 2007

Sincerely,

Manicouagan Minerals Inc.

Per:

Joseph Baylis  
President and Chief  
Executive Officer

ENC: Technical Report - Brabant Lake

PROCESSED

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FINANCIAL

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12g(3)(b) exemption 82-35067

TECHNICAL REPORT  
ON THE  
BRABANT LAKE PROPERTY,  
SASKATCHEWAN, CANADA  
FOR  
MANICOUAGAN MINERALS INC.

September 15, 2006

Toronto, Ontario, Canada

Paul Chamois, M.Sc. (A), P.Geo.  
Gerald Harron, M.Sc., P.Geo.  
(C-2035)

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## 1.0 SUMMARY

The Brabant Lake property is located approximately 175 km north of La Ronge, Saskatchewan. It is accessible year round by a 1 km drill/winter road, which connects it to Provincial Highway 102 at a point just north of the settlement of Brabant Lake.

The Property consists of Mining Lease 5054, which includes 21 former contiguous claims (S-61073 to S-61087 and S-72187 to S-72192) and covers approximately 411 hectares. Manicouagan Minerals Inc. announced on June 28, 2006 that it had purchased a 100% undivided interest in the property ([www.manicouaganminerals.com](http://www.manicouaganminerals.com)).

Mining Lease 5054 is located within Crown Reserve 656, Block 4. The Peter Ballantyne Cree Nation made application in 1994 to purchase Crown Reserve 656, Block 4 from the Saskatchewan government under the terms of the Treaty Land Entitlement Program. The process of transferring the land to the Peter Ballantyne Cree Nation has not been advanced since the application was made, consequently Crown Reserve 656, Block 4 remains under active claim. Manicouagan Minerals Inc. is under no obligation to sell its interest in Mining Lease 5054 should the transfer be completed. No staking is allowed within Crown Reserve 656, Block 4.

Incentive liens totaling \$37,338.93 incurred by previous leaseholders must be repaid to the government from the net profits of any mineral production located on Mining Lease 5054. Assessment work worth \$6,680.46 must be filed within 90 days of Mining Lease 5054's anniversary date of December 13, 2006. Alternatively, a deficiency deposit for that amount may be made to maintain tenure.

The Brabant Lake property is located within the Reindeer Zone of the Early Proterozoic Trans-Hudson Orogen. The Reindeer Zone is comprised of a lithologically and structurally complex collage of arc-related volcanic and plutonic rocks, coeval or derived volcanogenic clastics, subordinate later arkosic mollasse assemblages and crustal melt fractions. The Reindeer Zone has been subdivided into a series of domains. The McLennan Lake Tectonic Zone separates the lower metamorphic grade volcanic and intrusive rocks of the La Ronge domain from the amphibolite to granulite facies gneisses of the MacLean Lake Belt to the east.

The Brabant Lake property is situated less than 5 km east of the McLennan Lake Tectonic Zone in the western part of the MacLean Lake Belt and straddles the boundary between the MacLean Lake Gneisses and the McLennan Group meta-arkoses. The MacLean Lake Gneisses are interpreted as representing mainly proximal volcanogenic greywackes with subordinate amounts of volcanic and volcanoclastic rocks and conglomeratic fan deposits. The McLennan Group is interpreted as a molasse assemblage with repetitious upward fining cycles of immature, fluvial, lithic and feldspathic sandstones and conglomerates. Metamorphic grades in the MacLean Lake Belt locally attain granulite facies.

The central part of the Brabant Lake property is covered by a thick blanket of Pleistocene to Recent lacustrine sediments. Outcrops are confined to northeast trending outcrop ridges in the northwestern and southeastern quadrants of the property. Biotite gneiss and semi-continuous bands of intercalated amphibolite (+/- biotite) and calc-silicate gneisses are assigned to the

McLennan Group and comprise the predominant lithologies on the property. Garnetiferous biotite gneiss/migmatite which underlies the easternmost part of the property is included in the MacLean Lake Gneisses. Pegmatites and other evidence of melt fractions are common, locally exceeding 50% by volume of the MacLean Lake Belt.

Prospecting in 1956 led to the discovery of what has become known as the McKenzie (a.k.a. Peg) deposit. Since its discovery, the property has been subjected to a variety of airborne and ground geophysical surveys, limited soil sampling, trenching, geological mapping and diamond drilling. To date 72 drill holes have tested the deposit and several others have tested targets elsewhere on the property. The most recent and comprehensive inferred resource estimate indicates that the McKenzie deposit contains some 4.8M tonnes averaging 5.19% Zn, 0.57% Cu, 0.28% Pb, 22.59 g/t Ag and 0.22 g/t Au (Deptuck, 1994).

The deposit consists of two parallel, generally north-northeasterly striking and moderately west-northwesterly dipping zones referred to as the Upper and Lower Zones. Limited tonnage has been included in the inferred resource estimate from a zone located structurally above the Upper Zone and referred to as the Hangingwall Zone. The mineralization has been traced along strike by drilling for over 1,000m and down dip for over 500m. Average true width of the mineralization at a 2% Zn cutoff and minimum 3m width is 4.9m in the Upper Zone and 5.15m in the Lower Zone (Stewart and Chamois, 1994).

The McKenzie deposit consists of variable amounts of pyrrhotite, sphalerite, pyrite, chalcopyrite and galena as tabular to lenticular bodies of disseminated to massive sulphide, sulphide-rich breccias, concordant to discordant veins and veinlets. Textures within the sulphide-rich breccias suggest that the deposit has been injected or, more likely, remobilized. The deposit shares many textural and metamorphic characteristics with other massive sulphide deposits found in higher metamorphic grade terranes such as those of the Manitowadge camp in Ontario and of the Sherridon area of Manitoba.

Limited petrography, micro-probe analyses and preliminary metallurgical testing indicate that the sphalerite is marmatitic, that efficient copper-zinc recoveries are possible and marketable grade zinc and copper concentrates can be produced. These preliminary flotation tests were not optimized and more bench scale testing is warranted.

Many of the historical diamond drill holes on the property did not go deep enough to intersect the Lower Zone. The McKenzie deposit remains open down plunge and five untested borehole transient domain EM responses have been identified.

The authors of this report consider that the potential to significantly increase the size of the McKenzie deposit is real, particularly in the Lower Zone where some of the higher grade intersections have been achieved.

A Phase I program consisting of line cutting, surveying of existing collar locations with differential GPS, diamond drilling (8 ddh/4,200m) as well as ground (mag and HLEM) and borehole EM surveying at an estimated cost of \$725,450 is recommended. A Phase II program consisting of additional diamond drilling, borehole EM surveying, computerization of all drill

hole and assay data as well as bench scale metallurgical testing totaling \$1,650,000 would be contingent upon achieving sufficiently encouraging results in Phase I.

## 2.0 INTRODUCTION AND TERMS OF REFERENCE

MPH Consulting Limited ("MPH") was retained by Rodney Thomas, M.Sc.(A), P.Geo., on behalf of Manicouagan Minerals Inc. ("Manicouagan" or the "Corporation") to prepare an independent Technical Report on the Brabant Lake property, located approximately 175 km by road northeast of the town of La Ronge, Saskatchewan. The report was commissioned by Manicouagan to comply with regulatory disclosure and reporting requirements and may be used in support of future financing efforts. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects.

Manicouagan is a Canadian base metal exploration company with projects in Quebec and Saskatchewan and is a reporting issuer in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Newfoundland and Labrador. The common shares of Manicouagan trade on the TSX Venture Exchange and the Corporation is under the jurisdiction of the Ontario Securities Commission.

Paul Chamois, M.Sc. (A), P.Geo., Geological Consultant (MPH) and Gerald A. Harron (G.A.Harron and Associates Inc.) served as the Qualified Persons responsible for the preparation of the Technical Report as defined in National Instrument 43-101, Standards and Disclosure for Mineral Projects, Companion Policy 43-101CP and in compliance with Form 43-101F1.

A site visit to the Brabant property was carried out by Paul Chamois on August 23<sup>rd</sup>, 2006. The purpose of the visit was to confirm previous geological observations, locate previous drill sites and landmarks and identify any other factors which might affect the project. Paul Chamois also has prior experience on the property. Discussions were held on August 9, 2006 between Rodney Thomas, M. Sc (A), P.Geo, acting on behalf of Manicouagan, and William Brereton, M.Sc (A), P.Eng, and Paul Chamois, M.Sc (A), P.Geo, on behalf of MPH.

In preparing this report, the authors reviewed and relied on geological reports, maps, and miscellaneous technical reports in the public domain and confidential geological reports, maps and technical reports supplied to them by Manicouagan. There were no limitations put on the authors in preparation of the Report with respect to exploration data held by Manicouagan. The documents reviewed are listed in Item 20 of the Report

The results and opinions expressed in the Report are conditional upon the aforementioned information being current, accurate and complete as of the date of this report and that no information has been withheld which would affect the conclusions made herein.

Units of measurement used in the Report conform to the SI (metric) system, unless otherwise indicated. The following is a list of abbreviations which may be used in this report and the meanings attached to them.

|     |                  |
|-----|------------------|
| °C  | degree Celsius   |
| C\$ | Canadian dollars |
| cm  | centimeter       |

|            |                                 |
|------------|---------------------------------|
| dia.       | diameter                        |
| EM         | electromagnetic                 |
| ft         | foot                            |
| g          | gram                            |
| g/t        | gram per tonne                  |
| ha         | hectare                         |
| HLEM       | horizontal loop electromagnetic |
| in         | inch                            |
| kg         | kilogram                        |
| km         | kilometre                       |
| L          | liter                           |
| m          | metre                           |
| M          | mega (million)                  |
| masl       | metres above sea level          |
| Mm         | millimeter                      |
| opt, oz/st | ounce per short ton             |
| oz         | troy ounce (31.1035g)           |
| ppb        | part per billion                |
| ppm        | part per million                |
| st         | short ton                       |
| t          | metric tonne                    |
| VLF        | very low frequency              |
| VMS        | volcanogenic massive sulphide   |
| yr         | year                            |

### 3.0 RELIANCE ON OTHER EXPERTS

The information, conclusions, opinions and estimates contained herein are based on:

- information available to MPH at the time of preparation of this report,
- assumptions, conditions and qualifications as set forth in this report, and,
- data, reports and other information supplied by Manicouagan and other third party sources.

Legal title to the property has been reviewed by examination of a Disposition Search Abstract provided by the Saskatchewan Ministry of Industry and Resources. MPH relies on the veracity of this document.

The results and opinions expressed in this report are based on MPH's review of the geological and technical information listed in section 21.0. While MPH has carefully reviewed all of the information provided by Manicouagan, and believes it to be reliable, MPH has not conducted an in-depth independent investigation to verify its accuracy and completeness.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1. Location

The Brabant Lake property is located 480 km northeast of Saskatoon, Canada, in the Brabant Lake area of northern Saskatchewan, Canada. The center of the property lies approximately 175 km northeast of the town of La Ronge, Saskatchewan. (Figures 4-1 and 4-2).

The Property is centered at approximately latitude 57° 08' N and longitude 103° 43' W or Universal Transverse Mercator ("UTM") coordinates 6 220 601 m N and 580 833 m E of Zone 13 with datum set to North American Datum 1927 (NAD27). The Property lies within the Canadian National Topographic System (NTS) sheet 64D/4 SE.

### 4.2. Property

The Brabant Lake property consists of Mining Lease 5054 ("M.L. 5054") that includes 21 former contiguous claims (S61073 to S61087 incl. and S72187 to S72192 incl.) and covers approximately 411 hectares. (Figure 4-3). The property is located within the Northern Mining District on Saskatchewan Mineral Claim map 64-D-4. M.L. 5054 has an effective date of December 13, 1997.

Mining leases in Saskatchewan are renewed every five years. M.L. 5054 must be renewed on or before December 12, 2007. Assessment credit must be filed annually and excess credits may be banked. An assessment work commitment of \$75/hectare per annum is required resulting in annual minimum expenditures of \$30,825 on M.L. 5054. As of the effective date of this report, available assessment expenditures for the property total \$24,144.54. In order to extend the tenure for one additional year, work totalling \$6,680.46 must be filed within 90 days of M.L. 5054's anniversary date. Alternatively a deficiency deposit of \$6,680.46 may be paid in lieu of work.

There is no legal requirement to do a legal survey of the perimeter, nor is there any record of one having been done.

There are Incentive Liens totalling \$37,388.93 outstanding against the property which were incurred by previous leaseholders as follows:

**Table 4-1: Incentive Liens on Brabant Lake Property**

| COMPANY                                | DATE              | AMOUNT             |
|--|-------------------|--------------------|
| Bison Petroleum & Minerals Ltd.        | March 31, 1966    | \$27,571.78        |
| Rio Tinto Canadian Exploration Limited | March 31, 1967    | \$8,835.43         |
| Rio Tinto Canadian Exploration Limited | February 15, 1968 | \$981.71           |
| <b>Total</b>                           |                   | <b>\$37,388.93</b> |

Figure 4-1: Location Map

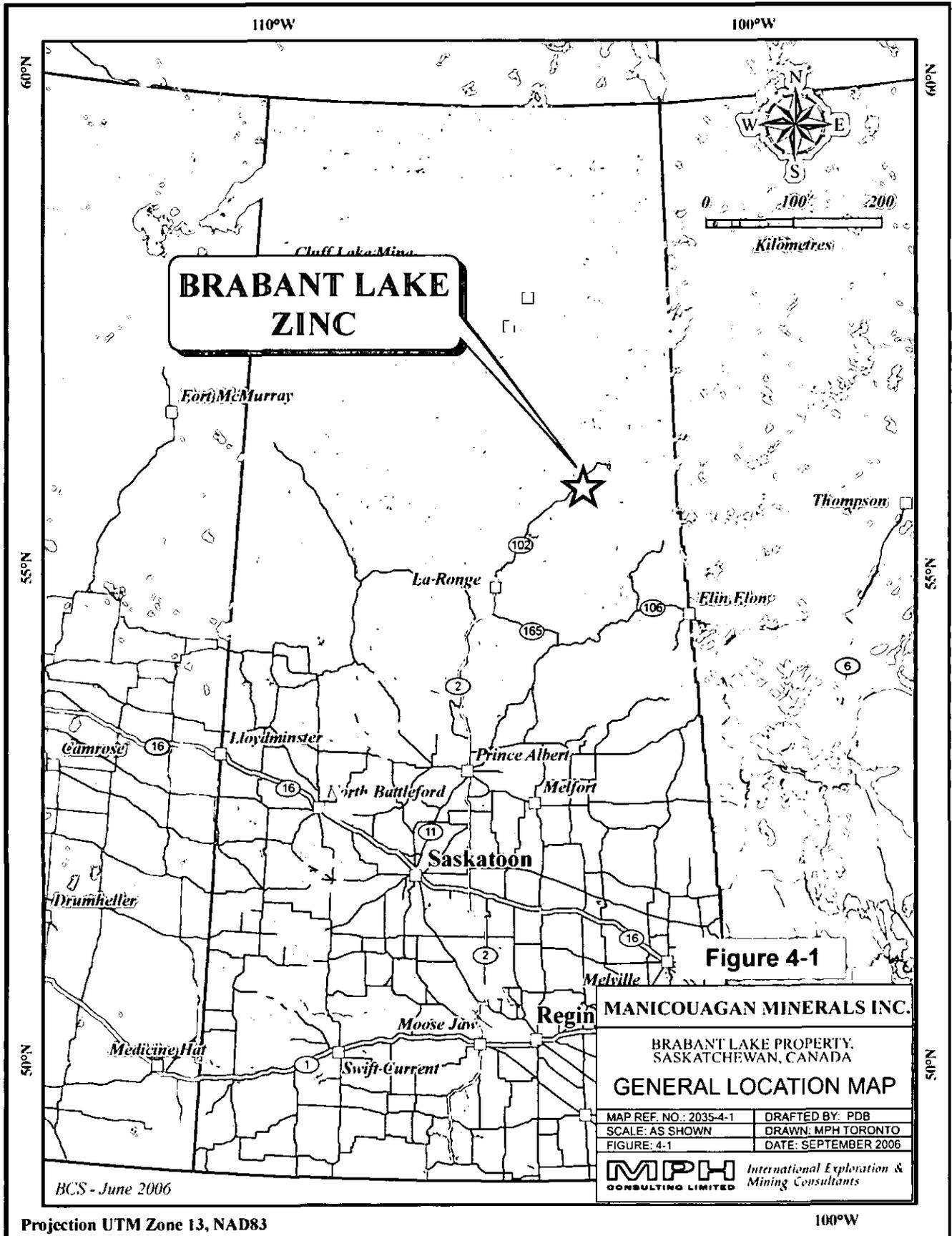


Figure 4-2: Property Location

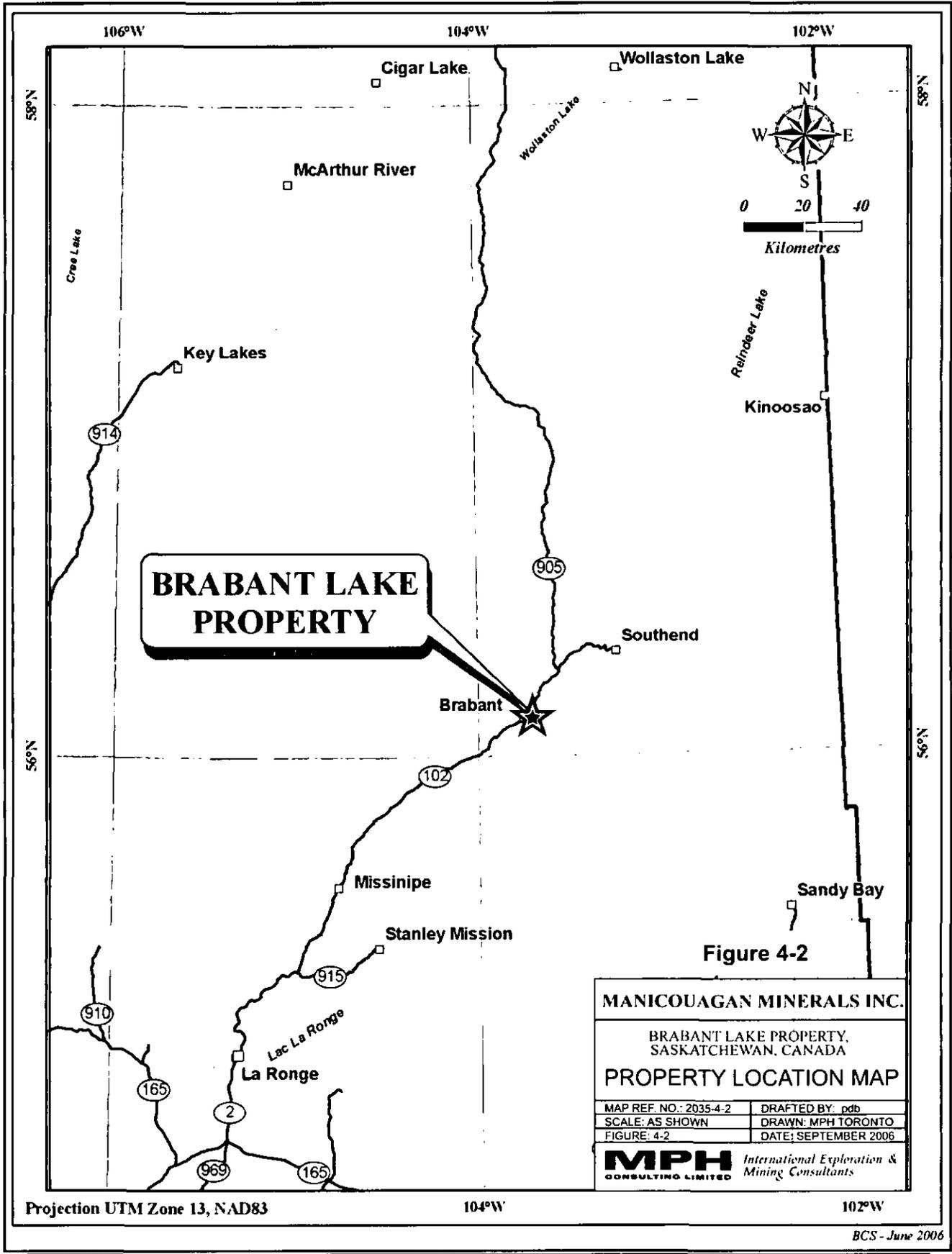
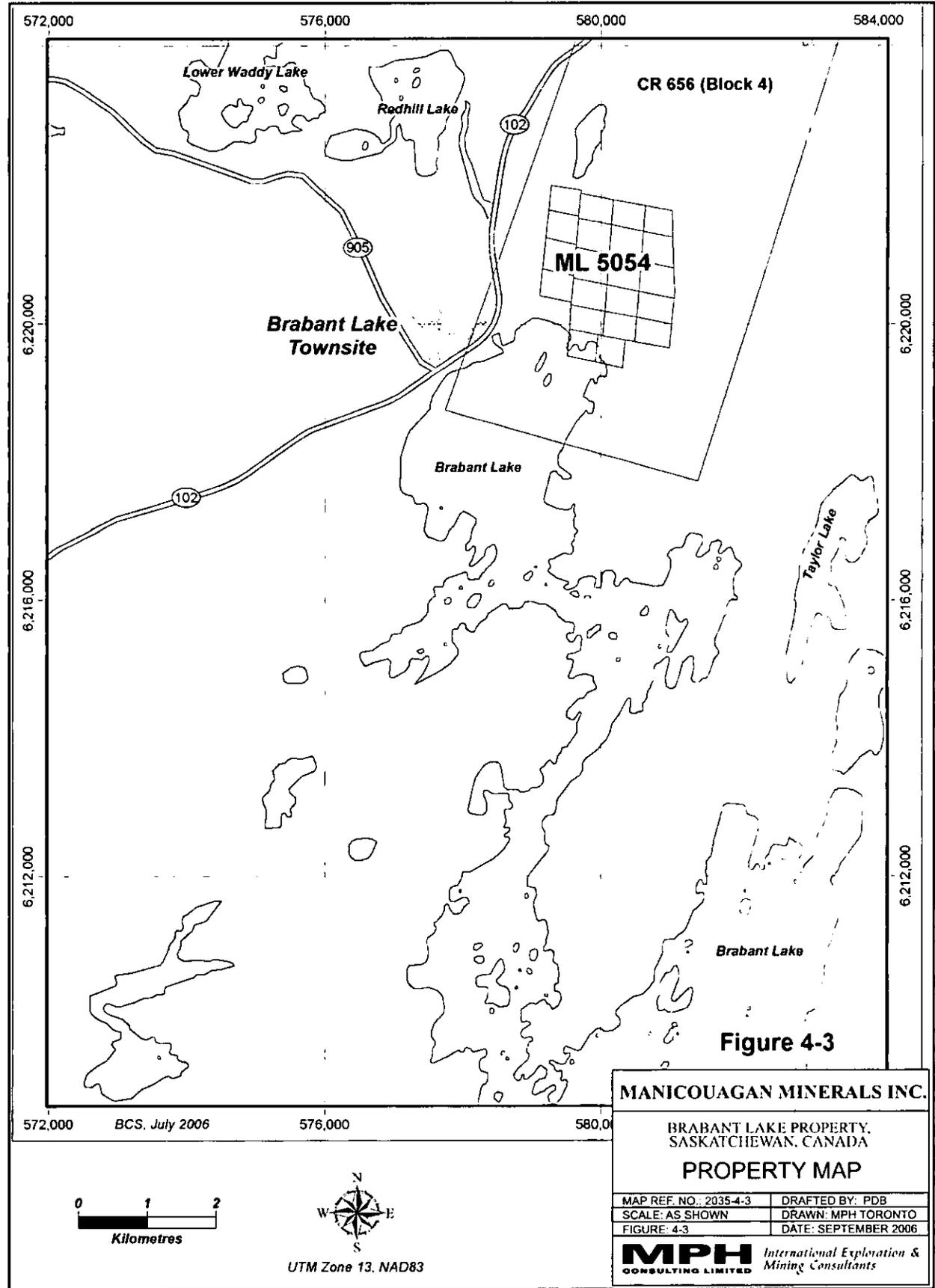


Figure 4.3: Property Map (M.L. 5054)



In the eventuality that mineral production is achieved on ML 5054, the Incentive Liens must be repaid to the government from 20% of net profits.

#### **4.3. History of Claims**

The original PEG group of 15 claims (S61073 to S61087 incl.) was staked for a syndicate by M. Murtak in December, 1956 and optioned to a joint venture consisting of Paramount Petroleum and Minerals Ltd. and Westore Mines Ltd. These companies later merged to become Prairie West Explorations, Ltd., ("Prairie West") a corporation controlled by Bison Petroleum and Minerals Ltd. ("Bison"), a subsidiary of Canadian Javelin Ltd. (Morton and Kleespies, 1990). Bison changed its name to United Bison Resources Ltd. ("United Bison") sometime later.

In 1965 Rio Tinto Canadian Exploration Limited ("Rio Tinto") optioned the property, which by this time included an additional six contiguous claims (S72187 to S72192 incl.) as well as claim blocks 25, 26 and 27 (Klemenchuk, 1966). Rio Tinto explored the property for one year. Claim blocks 25, 26 and 27 have since been allowed to lapse.

In August, 1988 Gamsan Resources Ltd ("Gamsan") negotiated with United Bison's parent company, Nalcap Holdings Inc., to acquire United Bison's subsidiary, Prairie West, whose sole asset was the property.

In May of 1991, Prairie West assigned all its rights in the property to Longyear Canada Inc. ("Longyear") pursuant to a Court Order to do so in lieu of payment for work performed for Gamsan. In September, 1992 Phelps Dodge Corporation of Canada, Limited ("PDC") optioned the property from Longyear but terminated the option on its second anniversary.

On July 28, 2006 Manicouagan announced that they had purchased a 100% undivided interest in the property from Longyear for a one time payment of \$300,000 ([www.manicouaganminerals.com](http://www.manicouaganminerals.com)). No advanced or production royalties are owed to Longyear.

#### **4.4. Treaty Land Entitlement Program**

M.L. 5054 is located within, and is completely surrounded by Crown Reserve #656, Block #4 ("C.R. 656") (Figure 4-3). C.R. 656 is subject to the Treaty Land Entitlement Program whereby money is made available to certain treaty Indian Bands to buy private and/or Crown lands to be designated as reserves as redress for unfulfilled treaty obligations. The Peter Ballantyne Cree Nation (the "First Nation") made application in 1994 to purchase certain crown resource land, including C.R. 656. The sale of C.R. 656 to the First Nation is subject to certain conditions, one being that the owner of any mineral rights must consent to the sale.

If Manicouagan does not consent to a sale, it will continue to hold the mineral lease but M.L. 5054 would be totally surrounded by a reserve. Agreements relating to surface access that are less than one year can be entered into with the Province of Saskatchewan. Agreements longer than one year must have the prior consent of the First Nation.

The First Nation has not advanced the acquisition process since making application in 1994 to acquire C.R. 656, which remains under active claim. The First Nation can continue to re-select C.R. 656 every 18 months.

#### **4.5. Environment and Socio-Economic Issues**

The author is not aware of any existing environmental liabilities on the property.

#### **4.6. Surface Rights**

M.L. 5054 does not include surface rights which are owned by the Crown.

#### **4.7. Work Permits**

Prior to the initiation of field work, a Mineral Exploration Application must be submitted to Saskatchewan Environment outlining the timing, location, type and scope of work to be performed. A closure report may be required upon termination of the work, depending on the nature and extent of the proposed work. More information regarding the Mineral Exploration Applications and best practices in Saskatchewan is available on Saskatchewan Industry and Resources' web site ([www.ir.gov.sk.ca](http://www.ir.gov.sk.ca)).

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1. Accessibility**

The Property is located 2.5 km northeast of the settlement of Brabant Lake, Saskatchewan, which is located about 175 km by road north of the town of La Ronge along Provincial Highway 102. This all-weather gravel road passes to within 1 km west of the Property. Year round access to the property is via an approximately 2 km long bulldozed winter/drill road from Highway 102 at a point just north of the settlement of Brabant Lake, about 500m north of the Waddy River. Alternatively, a winter/drill road leads northeasterly across the property from a point at the northeast corner of Brabant Bay.

The property can also be reached by floatplane or helicopter available for charter in La Ronge.

### **5.2. Climate**

The property is located within the Northern Forest ecological region as defined in Marshall and Schut (1999). The region is classified as having a sub-humid, high- to mid- boreal ecoclimate marked by short, cool summers and long, very cold winters. The mean monthly temperatures range from -25°C in January to 17°C in July. Extreme maximum temperatures for the same period are 6°C to 10°C in January and 30°C to 36°C in July. Extreme minimum temperatures for these months were -49°C and 1°C, respectively during the years from 1951 to 1980. The mean annual precipitation at Brabant Lake is 530mm. In excess of 250mm of snow remains for a period of 160 days and the median depth of maximum snow cover is about 500millimetres.

Lakes are usually frozen until May and freeze-up is generally in early November. Exploration and development can be carried out year round.

### **5.3. Local Resources and Infrastructure**

Provincial Highway 102 passes to within 1 km west of the property. Local accommodations, food and fuel are available at an outfitter's camp in the settlement of Brabant Lake. Brabant Lake has a population of about 100.

The closest community of any significance is La Ronge, located about 175 km by road south of Brabant Lake. La Ronge is the largest community in northern Saskatchewan and has a population of 3,500 in the town itself and about 2,000 people on the adjacent First Nations lands of the Lac La Ronge Indian Band and some 1,000 people residing in the bordering settlement of Air Ronge. It is serviced by daily scheduled flights.

### **5.4. Physiography, Flora and Fauna**

The property has a base elevation of 486 masl. It is characterized by generally flat topography except for the southeastern portion of the property where elongated outcrop ridges have a local relief of about 10 m (Figure 5.1).

Most of the property is characterized by an extensive cover of grey, lacustrine clays, silts and littoral sands left stranded after the recession of glacial Lake Agassiz, 8500-9000 years B.P. Bedrock exposures are confined to elongate *roches moutonnées* ridges with a minor cover of autochthonous till and/or beach gravels which emerge from the lacustrine sediment infilled lowlands (Morton and Kleespies, 1990). Outcrop is limited and is concentrated in the northwestern and southeastern quadrants of the property. See Figure 5.2.

Morton & Kleespies (1990) report that the property was burned by forest fires in the late 1960's. Vegetation is essentially black spruce and pine with occasional aspen groves. A variety of willows, bog birches and occasional alders form narrow bands about the perimeters of muskegs.

Species inhabiting this ecoregion include moose, black bear, wolf, mink, muskrat, otter, beaver and snowshoe hare.

**Figure 5.1: Drill Road**



## 6.0 HISTORY

The reader is cautioned that the authors have not undertaken an independent investigation of the previous resource estimates done on the McKenzie deposit as described in this section of the report by Byers (1962), Kirkland (1968), Knowles (1968) and Hawkins and Naas (1989), nor have they independently analyzed the assay results of the previous exploration results to verify the resource database and therefore, these historical estimates should not be relied upon. These historical estimates are not current estimates made in compliance with National Instrument 43-101 and the authors are not treating these historical resource estimates as a resource or reserve within the meaning of National Instrument 43-101. The authors view these historical estimates as a conceptual indication of the potential size of the resource.

However, the resource estimate by Deptuck (1994) has been reviewed by the authors. The database consists of coded data which reflects the actual drill logs and assay data. Deptuck (1994) estimated the resource using the polygonal method in plan view with a 2% Zn cutoff, a minimum true width of 3.00 m and a Specific Gravity of 3.00. Deptuck (1994) did not attempt to distinguish inferred or indicated resources. The authors are of the opinion that the entire resource can be classified as an inferred resource as defined by the CIM Standards on Mineral Resources and Reserves.

The earliest geological mapping of the Brabant Lake areas was by Alcock (1939) of the Geological Survey of Canada.

The mineralized zone on the Brabant Lake property was discovered by Lawrence McKenzie, a trapper and prospector from nearby Stanley, Saskatchewan. The original PEG claims were staked for a syndicate by M. Murtack and optioned to a joint venture consisting of Paramount Petroleum Corporation Limited ("Paramount") and Westore Mines Limited ("Westore") in 1956. These companies later merged to become Prairie West Explorations Ltd., a corporation then controlled by Bison Petroleum and Minerals Ltd. (Bison), a subsidiary of Canadian Javelin Ltd. ("Javelin").

During 1957-1958, Paramount and Westore completed preliminary exploration consisting of an airborne magnetic and electromagnetic survey of the surrounding area, five trenches and ground magnetic and electromagnetic surveys. The trenching revealed a sulphide bearing mineralized zone varying from 2.2m to 6.4m in width (Morton and Kleespies, 1990). This was followed by thirty nine diamond drill holes for a total of 4,267m. The drilling tested the McKenzie deposit over a strike length of about 1,000m and to vertical depth of about 290m.

Kirkland (1959) included the property in his 1:31,360 scale geological map of the Brabant Lake Area. Byers (1959) examined the deposit as part of his study of base metal mineralization associated with pegmatites in northern Saskatchewan.

Byers (1962) estimated a historical resource of 5,052,000 tonnes averaging 4.84% Zn and 0.57% Cu using a 3% combined Cu + Zn cutoff.

In 1964, Bison completed two diamond drill holes totaling 962m. In 1965, Bison commissioned the Department of Mines and Technical Surveys to run a series of preliminary flotation tests on a

72.73 kilogram sample of low grade material. The sample was apparently oxidized and although a concentrate running 26% Cu with 75% recovery was achieved, difficulty was experienced in rejecting the Zn from the concentrate (Berry, 1965). Later in 1965 the property was optioned to Rio Tinto Canadian Exploration Limited ("Rio Tinto") which completed and additional 15 diamond drill holes totaling 3,686m, the results of which did not prove sufficiently encouraging (Klemenchuk, 1966).

In 1968, D.M. Knowles estimated an unclassified, "geological and drill indicated" resource of 3,327,000 tonnes averaging 4.42% Zn, 0.64% Cu for Javelin. Knowles identified 5 apparently southwesterly plunging shoots within the tabular McKenzie deposit. Also in 1968, S.T.J. Kirkland estimated an unclassified "geological and drill indicated" resource of 3,674,000 tonnes grading 4.42% Zn and 0.64% Cu (Morton and Kleespies, 1990).

In 1970, W.G.Q. Johnston of the Saskatchewan Department of Mineral Resources covered the property as part of a regional soil survey. A Zn-Cu soil anomaly coincided with the McKenzie deposit. A second anomaly measuring 350m long by 120 m wide was identified to the southeast of the deposit. The results of the survey, as well as a geology map of the McKenzie deposit, were published in 1972.

Sangster (1978) included a sample of galena from the McKenzie deposit in a larger study of lead ores of the circum-Kisseynew volcanic belt.

In 1984, Mr. A.M. Frew was contracted by Bison to carry out ground magnetic and VLF-EM surveys over 40 line km. A strong VLF-EM conductor coincident with the 350m x 120m Zn-Cu soil anomaly outlined by Johnston (1972) was identified and interpreted to represent a possible extension to the McKenzie deposit. The VLF-EM conductors identified at that time were further investigated with a biogeochemical survey using the gold content in alder twigs (Morton and Kleespies, 1990).

In 1988, Gamsan Resources Ltd. ("Gamsan") purchased Prairie West Explorations Ltd. (Prairie West) from United Bison Resources Ltd. Prairie West's only asset was the Brabant property. Gamsan commissioned MPH to prepare an independent assessment and summary of all existing databases. Hawkins and Neale (1988) concluded that the historical resource calculations of Knowles (1968) and Kirkland (1968) were acceptable with regard to methodology, and that potential existed for the delineation of additional mineralization.

Gamsan initiated their ground work with a modest program of soil and lithogeochemical sampling followed by some trenching. Subsequently a new 100 line km grid was cut and ground geophysical surveys consisting of magnetics (96.4 km), VLF-EM (96.4 km) and HLEM (45 km) were completed. In December 1988 Gamsan undertook an 18 hole drill program totaling 3,716m (Chamois, 1992). This program tested the mineralized zone to a vertical depth of 446 m and along strike for about 500m (Morton and Kleespies, 1990).

In 1989, MPH was contracted to generate a new "geological and drill indicated" mineral resource. This study estimated an geological and drill indicated resource of 3,489,212 tonnes grading 4.49% Zn, 0.54% Cu, 0.17% Pb, 17.17 g/t Ag and 0.19 g/t Au at a 2% Zn cutoff. MPH

also concluded that the property had "good potential for an economic polymetallic deposit" (Hawkins and Naas, 1989). Subsequently Gamsan completed detailed geological mapping of the property as well as an 8 line orientation humus and B-horizon soil sampling program. Based on the results of the orientation program a larger B-horizon sampling program was completed. However, because of thick clay/silt cover deposited by glacial Lake Agassiz elsewhere, the survey was only successful in the southeasterly portion of the property. The survey successfully identified the McKenzie deposit as well a lateral strike extension to the southwest and a new anomaly parallel to the McKenzie deposit to the southwest (Morton and Kleespies, 1990).

In 1992, Longyear Canada, Inc. ("Longyear") was awarded title to the property, pursuant to a court order, in lieu of payment for work performed.

The property lay dormant until 1992 when Phelps Dodge Corporation of Canada, Limited ("PDC") negotiated an option agreement with Longyear and initiated ground work by re-establishing the grid (47 line km) and completing a HLEM survey (27 line km). PDC completed a 7 hole drilling program totaling 820 m in the spring of 1993 designed to test geophysical targets outside of the immediate McKenzie deposit area. Although sulphides were intersected, no base metal values were returned (Durocher, 1993a). That summer PDC completed a review of the previous drilling and detailed structural mapping (Barclay, 1993). Based on that work, a second drilling program consisting of 4 holes for a total of 2,233m was completed to test the depth potential of the Upper Zone as well as to confirm the existence of the Lower Zone. (Durocher, 1993b). BR-196-8 intersected 13.92% Zn, 0.83% Cu and 43 g/t Ag across 6.3 m in the Lower Zone.

Four drill holes (BR-196-8 to BR-196-11 incl.) were surveyed using a Crone borehole transient domain EM system in 1993. The survey detected sulphide- or graphite-bearing intervals in each hole as either "in-hole" or "off-hole" signatures. The following conductors were identified (Jagodits, 1994) (Table 6-1).

**Table 6-1: Borehole Pulse-EM Targets**

| HOLE      | DEPTH (m)   | TARGET DESCRIPTION   |
|-----------|-------------|--|
| BR-196-08 | 370         | Off-hole conductor below and to the right  |
| BR-196-09 | 480         | More conductive parts of the conductor may be located above and to the left                        |
| BR-196-10 | 525 to 530  | Increased conductivity may occur above and to the right  |
| BR-196-10 |             | Late channel in-hole response near end of hole may indicate a conductor beyond the end of the hole |
| BR-196-11 | 400 and 545 | More conductors may be located below and to the left   |

In 1994, PDC completed preliminary metallurgical testing at its metallurgical laboratory in Tucson, Arizona based on three drill core composites from hole BR-196-8. Test work on a higher grade composite yielded marketable Zn concentrates with good recoveries. Upgrading the Cu concentrate without unacceptable losses of recovery was not demonstrated however. A lower

grade composite did not respond as well as the higher grade composite sample, but a lead-silver rich concentrate was produced using a very simple reagent scheme. The test work was preliminary and improvements were thought to be attainable with additional work (Hanks and Rood, 1993).

PDC initiated a compilation and re-interpretation of all the drilling completed and estimated an inferred resource using the polygonal method in plan view of 4,857,800 tonnes grading 5.19% Zn, 0.57% Cu, 0.28% Pb, 22.59 g/t Ag and 0.22% Au using a 2% Zn cutoff and a minimum true width of 3.00m (Deptuck, 1994).

PDC concluded that there was potential to increase the size of the mineral resource and proposed a seven hole drilling program totaling 3,800 m to further evaluate the Lower Zone in particular (Stewart and Chamois, 1994). Given PDC's criteria for development at the time however, the option was terminated and the property returned to Longyear.

### 6.1. Drilling

Table 6-2 summarizes the historical drilling carried out by others on the property prior to its acquisition by Manicouagan:

**Table 6-2: Summary of Drilling on Brabant Lake Property**

| COMPANY                         | DATE    | HOLES | METERAGE |
|---------------------------------|---------|-------|----------|
| Paramount-Westore Joint Venture | 1956    | 39    | 4,267    |
| Bison                           | 1964    | 2     | 962      |
| Rio Tinto                       | 1965-66 | 15    | 3,686    |
| Gamsan                          | 1988-89 | 18    | 3,716    |
| Phelps Dodge Canada             | 1993    | 11    | 3,053    |
|                                 |         | 85    | 15,684   |

Of the 85 holes drilled on the property, 72 have been drilled to test the McKenzie deposit. Figure 6-1 illustrates the collar locations of these holes.

By and large very few of the holes from the historical drilling on the property exist. Only those holes now stored at the Saskatchewan Energy and Mines Precambrian Geological Laboratory in La Ronge as listed in Table 6-3 are known to have been preserved (Costa, 2006). Core from pre-1988 drilling is AXT size.

**Table 6-3: Core stored at Saskatchewan Precambrian Geological Laboratory, La Ronge**

| DRILLED BY | HOLE     | CORE AVAILABLE<br>(m)    |
|------------|----------|--------------------------|
| Bison      | 40       | 106.7-114.3              |
|            | 41       | 365.8-381.0, 403.0-411.0 |
| Rio Tinto  | 42       | 14.0-350.0               |
|            | 43       | 30.0-352.6               |
|            | 44       | 327.0-335.0              |
|            | 45       | 129.5-137.2, 228.0-260.0 |
|            | 46       | 297.0-304.0              |
| Gamsan     | 88-08    | 20.3-185.0               |
|            | 88-12    | 15.3-392.0               |
|            | 88-13    | 7.0-122.0                |
|            | 88-16    | 20.0-92.0                |
|            | 88-17    | 14.0-88.1                |
|            | 88-18    | 20.0-98.0                |
| PDC        | BR-196-8 | 389.2-411.5              |

The authors cannot comment on the drilling practices for those holes completed prior to 1988.

The 1988-1989 Gamsan drilling was contracted to Longyear. The holes were sited to test geological targets. NQ diameter core was drilled and drill hole trajectories were monitored by acid tests only. All casings were pulled. Gamsan marked its collar locations with aluminum dymo tape on wooden pickets but only a few of these pickets have been located. The drill logs do not record significant core loss. Faulting occurs in the hangingwall but a review of the logs suggests that the integrity of the mineralized zones is not compromised.

Table 6-4 lists the drill hole locations, attitudes and statistics for the 1988-1989 Gamsan drilling. Table 6-5 lists intersections of economic significance achieved by Gamsan.

The 1993 PDC drilling was contracted to Longyear. The holes were sited to test geological and geophysical targets. NQ diameter core was drilled and drill hole trajectories were monitored by acid tests in all but drill hole BR-196-11, which was surveyed with a Tropari instrument. Casings were pulled in all but the last four holes drilled (BR-196-8 to BR-196-11 incl.). The drill logs record some faulting in the hanging wall but a review of the logs suggests that the integrity of the mineralized zones is not compromised. True widths vary from 80-90% of actual widths.

Figure 6-1: Plan of Drill Hole Collars, McKenzie Deposit

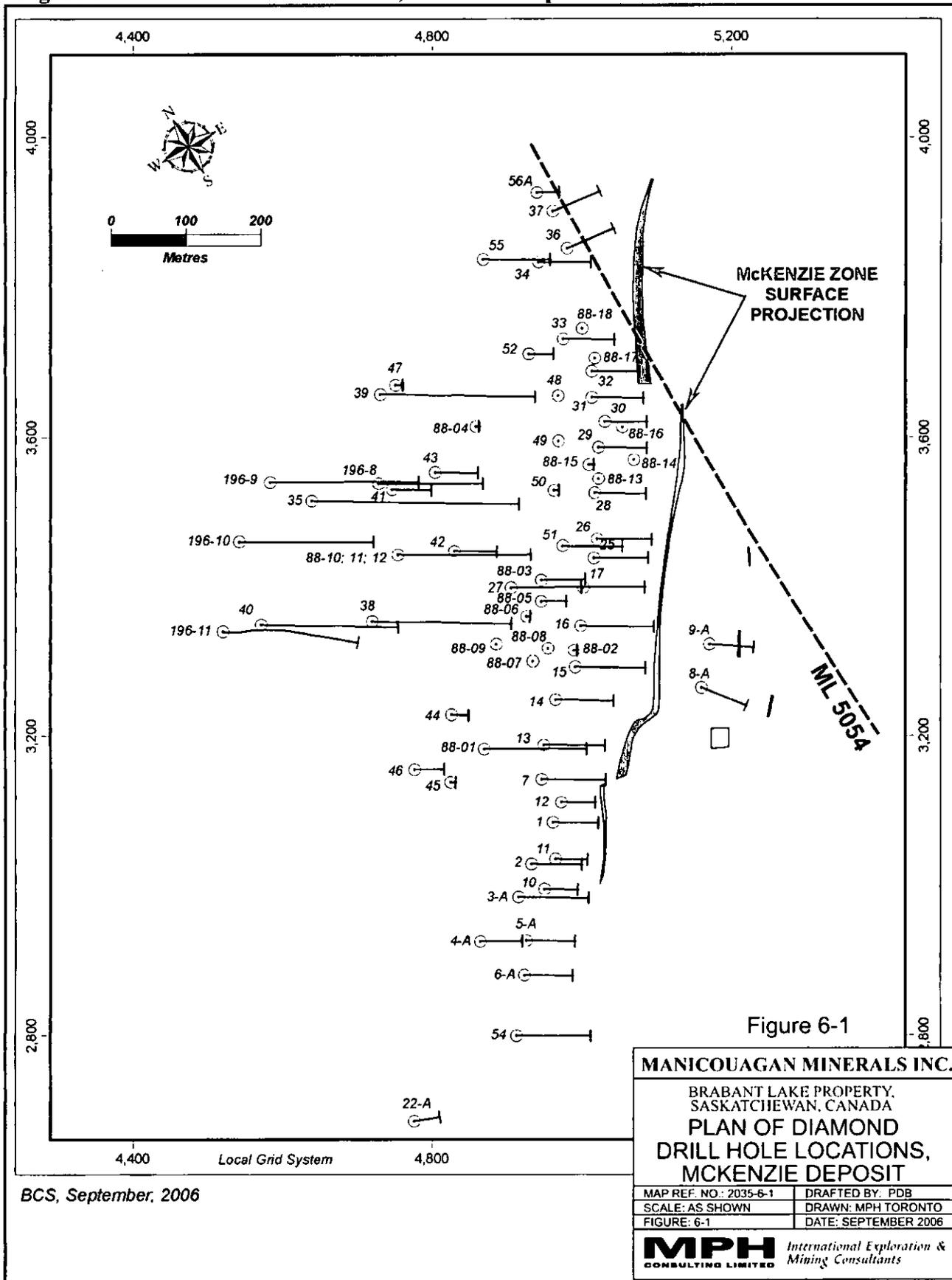


Figure 6-1

**MANICOUAGAN MINERALS INC.**  
 BRABANT LAKE PROPERTY,  
 SASKATCHEWAN, CANADA  
**PLAN OF DIAMOND  
 DRILL HOLE LOCATIONS,  
 MCKENZIE DEPOSIT**

|                        |                      |
|------------------------|----------------------|
| MAP REF. NO.: 2035-6-1 | DRAFTED BY: PDB      |
| SCALE: AS SHOWN        | DRAWN: MPH TORONTO   |
| FIGURE: 6-1            | DATE: SEPTEMBER 2006 |

**MPH** International Exploration & Mining Consultants  
 CONSULTING LIMITED

BCS, September, 2006

Table 6-4: 1988-1989 Gamsan Drilling Data

| HOLE         | LOCATION      | AZIMUTH/DIP | LENGTH<br>(m)  |
|--------------|---------------|-------------|----------------|
| 88-1         | 13+95N/ 7+45E | 120°/-60°   | 236.0          |
| 88-2         | 14+50N/ 9+15E | Vertical    | 146.0          |
| 88-3         | 5+55N/ 9+25E  | 120°/-70°   | 182.0          |
| 88-4         | 17+75N/ 9+52E | Vertical    | 186.0          |
| 88-5         | 15+30N/ 9+10E | 120°/-80°   | 220.0          |
| 88-6         | 15+22N/ 8+83E | Vertical    | 224.0          |
| 88-7         | 14+65N/ 8+60E | Vertical    | 218.0          |
| 88-8         | 14+70N/ 8+86E | Vertical    | 185.0          |
| 88-9         | 15+10N/ 8+30E | Vertical    | 327.0          |
| 88-10        |               | 120°/-80°   | 410.0          |
| 88-11        | 16+80N/ 7+75E | Vertical    | 446.0          |
| 88-12        | 16+80N/ 7+75E | 120°/-65°   | 392.0          |
| 88-13        | 16+14N/10+60E | Vertical    | 122.0          |
| 88-14        | 16+32N/11+12E | Vertical    | 84.0           |
| 88-15        | 16+66N/10+62E | Vertical    | 56.0           |
| 88-16        | 16+ / 11+ E   | Vertical    | 92.0           |
| 88-17        | 17+75N/11+35E | Vertical    | 92.0           |
| 88-18        |               | Vertical    | 98.0           |
| <b>Total</b> |               |             | <b>3,716.0</b> |

Only PDC's drilling procedures and practices can be documented with confidence. Core was delivered to a temporary logging facility established at CanAm Outfitters in Brabant Lake on a daily basis by the drilling contractor. The length of core recovered was compared to the position of depth markers in the core boxes by the drill contractor's personnel in order to check for misplaced markers and to calculate the amount of core loss, if any. The core was logged and sampled by PDC staff and contract geologists. Sampling of the core was based on visual observations of sulphide mineralization and samples were collected within lithologically homogeneous intervals with due regard for varying mineralogy and textures. Sample intervals did not cross geological boundaries.

In general the sample length within the mineralized zones was on the order of 1.0 metre or less. The core was manually split and bagged with the first part of a three-part assay tag bearing a unique identifier number. The other half of the core was stored on site with the second part of the three part assay tag bearing an identical unique identifier number placed the core box at the beginning of the sample interval. Records of the sampled intervals and sample numbers were recorded in the logs, on a sampling sheet, and on the third part of a three part assay tag bearing an identical identifier number as the other two parts of the assay tag. The third part of the assay tag was kept with the geologist's records.

Table 6-5: 1988-1989 Gamsan Drilling Significant Intersections

| HOLE  | FROM<br>(m) | TO<br>(m) | LENGTH<br>(m) | Zn<br>(%) | Cu<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Au<br>(g/t) |
|-------|-------------|-----------|---------------|-----------|-----------|-----------|-------------|-------------|
| 88-01 | 196.5       | 197.5     | 1.00          | 3.80      | 0.10      | tr        | 0.10        | tr          |
| 88-02 | 99.0        | 102.0     | 3.00          | 2.40      | 0.40      | 0.01      | 6.90        | 0.01        |
|       | 127.5       | 129.5     | 2.00          | 3.50      | 0.20      | 0.09      | 10.30       | tr          |
| 88-03 | 143.5       | 154.1     | 10.60         | 5.30      | 0.70      | 0.08      | 20.60       | 0.10        |
| 88-05 | 148.8       | 150.6     | 1.80          | 8.80      | 0.69      | 0.01      | 15.10       | tr          |
|       | 157.5       | 164.0     | 6.50          | 5.26      | 0.99      | 1.92      | 65.80       | 0.20        |
|       | 166.0       | 168.7     | 2.70          | 5.46      | 1.43      | 0.10      | 38.90       | 0.20        |
|       | 174.8       | 176.7     | 1.90          | 7.99      | 0.38      | 0.19      | 13.70       | 0.10        |
| 88-06 | 205.2       | 211.7     | 6.50          | 6.50      | 0.63      | 0.05      | 3.80        | tr          |
| 88-07 | 164.3       | 165.5     | 1.20          | 5.00      | 0.64      | 0.01      | 19.10       | 0.20        |
|       | 197.3       | 199.6     | 2.30          | 6.23      | 0.20      | 0.02      | 4.50        | tr          |
|       | 200.7       | 202.1     | 1.40          | 4.79      | 0.71      | 0.04      | 7.40        | tr          |
| 88-08 | 111.7       | 114.6     | 2.90          | 1.01      | 1.12      | 0.03      | 23.30       | 0.20        |
|       | 166.8       | 168.5     | 1.70          | 5.36      | 0.25      | 0.02      | 4.50        | tr          |
|       | 169.5       | 170.6     | 0.90          | 2.38      | 0.30      | 0.01      | 7.00        | tr          |
| 88-09 | 209.5       | 211.0     | 1.50          | 0.27      | 0.01      | 1.16      | 17.00       | tr          |
|       | 272.1       | 276.6     | 4.50          | 1.56      | 0.48      | 0.50      | 20.40       | tr          |
| 88-10 | 339.8       | 342.0     | 2.20          | 5.95      | 0.67      | 1.28      | 52.30       | 0.50        |
|       | 369.9       | 373.0     | 3.10          | 7.71      | 2.16      | 0.79      | 116.10      | 0.20        |
| 88-11 | 369.7       | 373.0     | 3.30          | 4.89      | 0.23      | 2.06      | 91.90       | 0.50        |
|       | 374.0       | 375.6     | 1.60          | 0.38      | 0.94      | 1.88      | 187.00      | 3.40        |
|       | 381.7       | 384.4     | 2.50          | 0.60      | 0.50      | 3.27      | 198.30      | 2.90        |
|       | 385.2       | 387.5     | 2.30          | 6.03      | 0.54      | 0.35      | 42.70       | 1.20        |
|       | 390.0       | 394.2     | 4.20          | 5.99      | 0.76      | 0.42      | 55.30       | 0.20        |
|       | 397.0       | 401.3     | 4.30          | 0.06      | 0.10      | 2.20      | 79.30       | 1.80        |
| 88-12 | 288.8       | 297.7     | 8.90          | 2.74      | 0.38      | 1.29      | 74.10       | 0.70        |
|       | 330.0       | 341.5     | 11.50         | 5.09      | 0.75      | 1.35      | 76.90       | 1.30        |
|       | 347.4       | 347.7     | 0.30          | 0.03      | 0.04      | 5.63      | 749.50      | 6.30        |
| 88-13 | 103.7       | 107.9     | 4.20          | 10.60     | 0.99      | 0.01      | 16.00       | 0.04        |
| 88-14 | 60.0        | 65.4      | 5.40          | 5.64      | 0.51      | tr        | 8.00        | 0.04        |
| 88-15 | 36.9        | 39.2      | 2.30          | 2.96      | 0.31      | tr        | 3.90        | 0.02        |
| 88-16 | 74.0        | 78.1      | 4.10          | 5.30      | 1.56      | tr        | 18.67       | 0.09        |
| 88-17 | 84.2        | 87.8      | 3.60          | 5.23      | 1.16      | tr        | 18.54       | 0.20        |
| 88-18 | 63.8        | 67.2      | 3.40          | 2.32      | 0.29      | tr        | 3.00        | 0.15        |
| 88-18 | 77.3        | 80.6      | 3.30          | 6.17      | 2.22      | tr        | 25.60       | 0.30        |

Sample bags were sealed and placed in rice bags for commercial transportation to Bondar Clegg & Company Ltd ("Bondar Clegg") in Ottawa for analysis. The samples were analyzed for Cu-Pb-Zn-Ag-Au using a four acid digestion and fire assay with atomic absorption finish. No

QA/QC program was initiated by PDC but Bondar Clegg relied upon QA/QC best practices of the day including internal standards and duplicates.

Table 6-6 lists the locations, attitudes and statistics for those holes drilled by PDC in 1993. Table 6-7 lists intersections of economic significance achieved by PDC.

**Table 6-6: 1993 PDC Drilling Data**

| HOLE         | LOCATION     | AZIMUTH/DIP | LENGTH<br>(m)  |
|--------------|--------------|-------------|----------------|
| BR-196-1     | 11+30N/1+90E | 125°/-45°   | 100.0          |
| BR-196-2     | 5+85N/1+30E  | 125°/-45°   | 101.0          |
| BR-196-3     | 5+85N/3+00E  | 125°/-45°   | 101.0          |
| BR-196-4     | 2+10N/2+38E  | 125°/-45°   | 134.0          |
| BR-196-5     | 3+20N/8+45E  | 130°/-45°   | 101.0          |
| BR-196-6     | 17+60N/4+25W | 135°/-45°   | 152.0          |
| BR-196-7     | 20+50N/1+10E | 310°/-45°   | 131.0          |
| BR-196-8     | 17+75N/8+00E | 120°/-75°   | 479.0          |
| BR-196-9     | 18+00N/6+00E | 120°/-75°   | 596.0          |
| BR-196-10    | 17+10N/5+20E | 120°/-75°   | 590.0          |
| BR-196-11    | 18+50N/6+75E | 120°/-75°   | 568.0          |
| <b>Total</b> |              |             | <b>3,053.0</b> |

**Table 6-7: 1993 PDC Drilling Significant Intersections**

| HOLE      | FROM<br>(m) | TO<br>(m) | LENGTH<br>(m) | Zn<br>(%) | Cu<br>(%) | Pb<br>(%) | Ag<br>(g/t) | Au<br>(g/t) |
|-----------|-------------|-----------|---------------|-----------|-----------|-----------|-------------|-------------|
| BR-196-8  | 360.90      | 368.10    | 7.20          | 5.49      | 0.53      | 0.02      | 13.96       | 0.14        |
|           | 398.00      | 404.30    | 6.30          | 13.92     | 0.83      | 0.04      | 43.00       | 0.16        |
| BR-196-9  | 470.70      | 472.65    | 1.95          | 0.70      | 0.10      | tr        | 2.85        | 0.02        |
|           | 479.35      | 479.65    | 0.30          | 9.93      | 0.05      | 0.04      | 24.20       | 0.23        |
|           | 525.38      | 527.02    | 1.64          | 0.77      | 0.04      | 0.11      | 7.63        | 0.02        |
| BR-196-10 | 529.92      | 533.52    | 3.60          | 2.33      | 0.23      | 0.01      | 10.98       | 0.06        |
|           | 535.75      | 539.33    | 3.58          | 2.30      | 0.13      | 0.02      | 6.14        | 0.04        |
|           | 542.90      | 546.70    | 3.80          | 6.57      | 0.15      | 0.02      | 11.39       | 0.04        |

## 6.2. Mineral Processing and Metallurgical Testing

### 6.2.1 Preliminary Metallurgical Testing (1964)

In 1964, Bison commissioned the Department of Mines and Technical Surveys in Ottawa to carry out preliminary flotation testing on a sample of material from the

Property. A 72.73 kg sample of weathered material was supplied to the Department, an analysis of which yielded 2.28% Zn, 0.66% Cu, 0.55 oz/ton Ag and 0.0025 oz/ton Au.

The sample contained disseminated of pyrite, chalcopyrite, sphalerite, marcasite, galena and pyrrhotite along with quartz, feldspar, a fibrous amphibole, biotite and chlorite and minor goethite.

Despite the oxidized nature of the sample, a series of four flotation tests indicated that copper concentrates running as high as 26% Cu with recoveries of up to 75% were possible. It was difficult however to separate the Zn from these concentrates. It was concluded that work on an unoxidized sample might yield better grades and recoveries of Cu and Zn. It was recommended that further work be carried out on a higher grade sample (Berry, 1965).

### **6.2.2 Ore Petrography (1993)**

In 1993 PDC commissioned Lakefield Research to complete specific gravity determinations and reflected light petrography of seven zinc-rich samples and electron microprobe analyses of selected sphalerite grains from four of the samples. The provenance of these seven samples is not recorded.

The microscopy indicated excellent potential for liberation of sphalerite from the dominant gangue sulphide, that being pyrrhotite. Sphalerite and pyrrhotite were coarse-grained and the latter occurred interstitially to sphalerite. Chalcopyrite occurred as fine-grained blebs, typically interstitial to, or along grain margins of, sphalerite. Minor coarse chalcopyrite was noted (Davison and Davison, 1993).

The electron microprobe analyses indicated very little variation between or within samples with the Zn content ranging from 56.7-58.9 wt%, averaging 58 wt%. Iron ranged from 7.82-9.67 wt%, averaging 8.5 wt%. The sphalerite composition reported as marmatitic ( $Zn_{0.85}Fe_{0.15}S$ ). Copper values were <0.20 wt%. The analyses did not encounter any disseminated chalcopyrite blebs within the sphalerite (Davison and Davison, 1993).

It was concluded that the iron content of the sphalerite would limit the zinc concentrates to a theoretical maximum of approximately 57-58 wt% Zn and that concentrates of > 55 wt% Zn might be attainable with optimum metallurgy (Davison and Davison, 1993).

The specific gravities of the seven samples varied between 2.90 and 4.15.

### **6.2.3 Preliminary Metallurgical Testing (1994)**

Subsequent to their second drill program on the Property, PDC shipped crushed rejects from sulphide-bearing core samples to Phelps Dodge's metallurgical laboratory in Tucson for preliminary grinding and flotation testing. Three composites were made up as follows:

**Table 6-8: Preliminary Flotation Test Composites (1994)**

| COMPOSITE |              | ASSAYS |       |      |      |        |        |
|-----------|--------------|--------|-------|------|------|--------|--------|
| Number    | Description  | % Cu   | % Zn  | % Fe | % Pb | OPT Au | OPT Ag |
| 1         | Pb + Ag      | 0.22   | 0.09  | 4.6  | 2.06 | 0.020  | 2.66   |
| 2         | High Zn + Cu | 1.14   | 16.90 | 31.5 | 0.05 | 0.008  | 0.71   |
| 3         | Low Zn + Cu  | 0.42   | 6.50  | 15.8 | 0.09 | 0.004  | 0.60   |

Complete grind-grade-recovery curves could not be developed because of limited sample material but the liberation size for selective copper-zinc flotation appears to be fairly coarse and all three composites were very easy to grind (Hanks and Rood, 1994).

Two flotation tests were run on Composite #1.

**Table 6-9: PDC Flotation Test Results – Composite #1**

| TEST | CONCENTRATE GRADE |      |        | RECOVERY TO LEAD CONC. % |      |      |
|------|-------------------|------|--------|--------------------------|------|------|
|      | % Cu              | % Pb | OPT Ag | Cu                       | Pb   | Ag   |
| BL5  | 4.50              | 39.0 | 50.0   | 79.2                     | 81.6 | 77.5 |
| BL7  | 6.25              | 57.3 | 61.2   | 73.6                     | 78.8 | 65.2 |

These results were judged to be encouraging for preliminary tests but additional work is required to improve the concentrate grade. There was insufficient sample available to attempt a copper-lead separation.

Two flotation tests were run on Composite #2.

**Table 6-10: PDC Flotation Test Results – Composite #2**

| TEST | COPPER CONCENTRATE GRADE |      |       |         | RECOVERY TO Cu CONC. % |      |       |
|------|--------------------------|------|-------|---------|------------------------|------|-------|
|      | % Cu                     | % Zn | % Fe  | % INSOL | % Cu                   | % Zn | % Fe  |
| BL1  | 4.30                     | 2.90 | 51.30 | 2.90    | 85.40                  | 3.90 | 38.20 |
| BL2  | 12.50                    | 5.50 | 33.50 | 4.20    | 11.90                  | 0.33 | 1.10  |
| BL3  | 24.20                    | 6.00 | 24.30 | 9.60    | 36.70                  | 0.54 | 1.20  |

| TEST | ZINC CONCENTRATE GRADE |       |      |         | RECOVERY TO Zn CONC. % |       |      |
|------|------------------------|-------|------|---------|------------------------|-------|------|
|      | % Cu                   | % Zn  | % Fe | % INSOL | % Cu                   | % Zn  | % Fe |
| BL1  | 0.26                   | 55.60 | 8.50 | 0.70    | 5.30                   | 77.00 | 6.50 |
| BL2  | 0.28                   | 56.00 | 8.00 | 0.60    | 3.30                   | 42.30 | 3.40 |
| BL3  | 1.40                   | 51.70 | 9.30 | 0.60    | 27.70                  | 63.00 | 6.00 |

These results indicated that an efficient copper-zinc recovery with a marketable grade of zinc concentrate could be expected and that an additional 10% zinc recovery could be expected in a continuous operation. The copper did not respond as well as expected and additional work would be required to determine if the results could be improved.

Two tests were run on Composite #3.

**Table 6-11: PDC Flotation Test Results – Composite #3**

| TEST | COPPER CONCENTRATE GRADE |      |       |         | RECOVERY TO Cu CONC.% |      |      |
|------|--------------------------|------|-------|---------|-----------------------|------|------|
|      | % Cu                     | % Zn | % Fe  | % INSOL | % Cu                  | % Zn | % Fe |
| BL4  | 11.00                    | 9.10 | 31.00 | 13.00   | 32.40                 | 1.67 | 2.50 |
| BL6  | 6.50                     | 2.78 | 10.80 | 47.10   | 11.50                 | 0.30 | 0.50 |

| TEST | ZINC CONCENTRATE GRADE |       |       |         | RECOVERY TO Zn CONC.% |       |      |
|------|------------------------|-------|-------|---------|-----------------------|-------|------|
|      | % Cu                   | % Zn  | % Fe  | % INSOL | % Cu                  | % Zn  | % Fe |
| BL4  | 0.49                   | 45.10 | 6.50  | 1.50    | 14.70                 | 84.30 | 5.30 |
| BL6  | 2.20                   | 45.80 | 14.30 | 1.50    | 54.80                 | 73.10 | 9.10 |

The results for these tests did not give comparable results for those performed on Composite #2. There was insufficient sample material available to investigate the reasons for this but it was thought that zinc concentrate grades could be improved with additional regrinding.

Additional bench scale tests were recommended (Hanks and Rood, 1994).

### 6.3. Inferred Mineral Resource Estimate

PDC reviewed all available drill holes in detail and constructed a series of 27 cross sections at 1:500 scale and a nominal 40 metres spacing showing drill hole traces of a total of 72 holes. The orientation of the cross sections was on Azimuth 120°. They were viewed looking northerly in the 030° Azimuth direction. Cross sections were correlated and interpreted. The interpreted cross section geology was transferred to two plan views and interpreted. Using a 2% Zn cutoff, a specific gravity of 3.00 and a minimum width of 3m, the mineral resource inventory for the HW (hanging wall), Upper and Lower Zones was estimated using the polygonal method in plan view (Deptuck, 1994). See Table 6-12.

**Table 6-12: Summary of Inferred Resource Estimate (Deptuck, 1994)**

| <b>ZONE</b>  | <b>TONNES</b>    | <b>% Zn</b> | <b>% Cu</b> | <b>% Pb</b> | <b>g/t Ag</b> | <b>g/t Au</b> |
|--------------|------------------|-------------|-------------|-------------|---------------|---------------|
| HW           | 211,657          | 5.71        | 0.23        | 0.61        | 27.77         | 0.10          |
| Upper        | 3,423,696        | 4.86        | 0.60        | 0.15        | 16.09         | 0.18          |
| Lower        | 1,222,498        | 6.05        | 0.54        | 0.58        | 39.09         | 0.35          |
| <b>TOTAL</b> | <b>4,857,851</b> | <b>5.19</b> | <b>0.57</b> | <b>0.28</b> | <b>22.59</b>  | <b>0.22</b>   |

The authors have reviewed the database which consists of coded data which reflects the actual drill logs and assay data. Original assay certificates have been destroyed / lost and were not available for examination. The authors were able to compare assays typewritten on historical drill logs and the coded data. Where discrepancies were noted an educated guess was made based on adjacent assay data. Eight of 102 data entries were handled in this fashion. The authors rely on the integrity, experience and reputation of the estimator, a colleague of many years.

#### 6.4. Exploration History Summary

The exploration history is outlined in the summary below:

- 1956            Lawrence McKenzie  
                   -discovery by prospecting  
                   -15 contiguous claims staked  
                   -property optioned to Paramount Petroleum and Mineral Corporation Limited and Westore Mines Limited joint venture
- 1956-58        Paramount-Westore Joint Venture  
                   -ground geophysics (mag, EM)  
                   -prospecting, trenching  
                   -airborne magnetic and electromagnetic survey  
                   -diamond drilling  
                   -39 holes totaling 4,267m
- 1959            Saskatchewan Dept. of Mineral Resources  
                   -1" to ½ mile geological map of Brabant Lake area (Kirkland, 1959)
- 1964            Bison Petroleum and Minerals Ltd.  
                   -diamond drilling  
                   -2 holes totaling 962m  
                   -property optioned to Rio Tinto Canadian Exploration Limited
- 1965-66        Rio Tinto Canadian Exploration Limited  
                   -diamond drilling  
                   -15 holes totaling 3,686m
- 1970            Saskatchewan Dept. of Energy and Mines

- soil and rock geochemical survey, Brabant Lake area (Johnston, 1972)
- 1978 Geological Survey of Canada
  - Pb-Pb isotope analysis of one galena sample (Sangster, 1978)
- 1984 Bison Petroleum and Minerals Limited
  - ground geophysics
    - mag, VLF-EM (40 km)
  - biogeochemical (alder twig) survey
- 1988 Gamsan Resources Ltd.
  - review of mineral inventory (Hawkins and Neale, 1988)
  - soil and lithogeochem sampling
  - trenching
  - line cutting (100 km)
  - ground geophysics
    - HLEM (45 km)
    - mag, VLF (96.4 km)
- 1988-89 Gamsan Resources Ltd.
  - diamond drilling
    - 18 holes totaling 3,716m
  - updated mineral inventory calculation (Hawkins and Naas, 1989)
- 1989 Gamsan Resources Ltd.
  - detailed geological mapping
  - soil sampling (b-horizon, humus)
- 1992 Phelps Dodge Corporation of Canada, Limited
  - line cutting (47 km)
  - ground geophysics
    - HLEM (27 km)
- 1993 Phelps Dodge Corporation of Canada, Limited
  - diamond drilling of geophysical/geochemical anomalies outside of McKenzie Deposit area (Durocher, 1993a)
    - 7 holes totaling 820.0m
    - no base metals intersected
  - detailed geological mapping in the vicinity of MacKenzie Deposit (Barclay, 1993)
  - diamond drilling to test depth potential of Upper Zone and existence of Lower Zone (Durocher, 1993b)
    - 4 holes totaling 2,233.0m
  - bore hole transient domain EM survey
  - preliminary metallurgical testing

- reflected light petrography, electron microprobe analysis and specific gravity determinations for seven samples (Davison and Davison, 1994)
- compilation and re-interpretation of drilling data including inferred mineral resource estimate (Deptuck, 1994)

## 7.0 GEOLOGICAL SETTING

### 7.1. Regional Geology

The following is modified from Stewart and Chamois (1994).

The Property is located within the Reindeer Zone of the Early Proterozoic Trans-Hudson Orogen. The Reindeer Zone in Saskatchewan is a collage of juvenile, arc-related crustal domains (Rottenstone, La Ronge, Flin Flon, Glennie Lake, Kiseynew and Hanson Lake Block) bounded by the Rae-Hearn and Archean Superior structural provinces (Figure 7-1). The La Ronge, Flin Flon and Hanson Lake Block domains represent the vestiges of arc-related volcanism and plutonism in the Reindeer Zone. These domains broadly envelope the clastic meta-sedimentary-dominated inter-arc Kiseynew Domain. The Glennie Lake domain consists primarily of orthogneisses with lesser supracrustal gneisses, including minor metavolcanic rocks.

The McLennan Lake Tectonic Zone ("MLTZ") separates the lower metamorphic grade volcanic and intrusive rocks of the La Ronge Domain (*a.k.a.* Central Volcanic Belt) ("CVB") from amphibolite to granulite facies gneisses of the MacLean Lake Belt ("MLB") to the east (Figure 7-2). The MLB consists mainly of paragneisses similar to those of the Kiseynew domain. The MLB is divided into psammitic (arkosic) gneisses of the McLennan Group which are inferred to overlie the pelitic to psammitic (greywacke-derived) MacLean Lake Gneisses (Lewry, 1983). Migmatitic gneiss and other melt-derived units are significant components (up to 50%) and amphibolites and calc-silicate rocks are minor components of the MLB. The Property is located less than 5 km east of the MLTZ and straddles the boundary between the McLennan Group and the MacLean Lake Gneisses (Figure 7-2).

The MLB has undergone a polyphase ductile deformation history. The earliest events (D<sub>1</sub> and D<sub>2</sub>) are likely related to thrust tectonics, including thrusting in the La Ronge domain over the MLB along the MLTZ (Lewry, 1983). Primary layering (S<sub>0</sub>) and the earliest tectonic fabric? (S<sub>1</sub>) are strongly transposed into the NE-striking, NW-dipping S<sub>2</sub> foliation which is axial planar to recumbent overturned F<sub>2</sub> structures (Figure 7-3). Open, north-trending D<sub>3</sub> fold axes east of Brabant Lake exhibit an axial planar S<sub>3</sub> foliation locally. Poulsen *et al.* (1987) suggest that, although the down-dip lineation found throughout in the MLTZ may attest to earlier recumbent nappe folding and thrust tectonics as proposed by Lewry (1983), the strain fabrics presently viewed in the MLTZ record predominantly dextral strike-slip movement.

Although peak metamorphic conditions likely occurred syn-D<sub>2</sub> thrusting (Abbas-Hasanie *et al.*, 1992) and gneissic fabrics are common, many rocks in the MLB exhibit granoblastic textures, (Durocher, 1992, Barclay 1993). Sillimanite in McLennan Group gneiss is typically to completely retrogressed adjacent to the MLTZ (Poulsen *et al.* 1987, Abbas-Hasanie *et al.* 1992) suggesting that the transpressive movement on this structure accompanied a retrogressive event which occurred post-D<sub>2</sub>.

Figure 7-1: Subdivisions of the Trans Hudson Orogeny

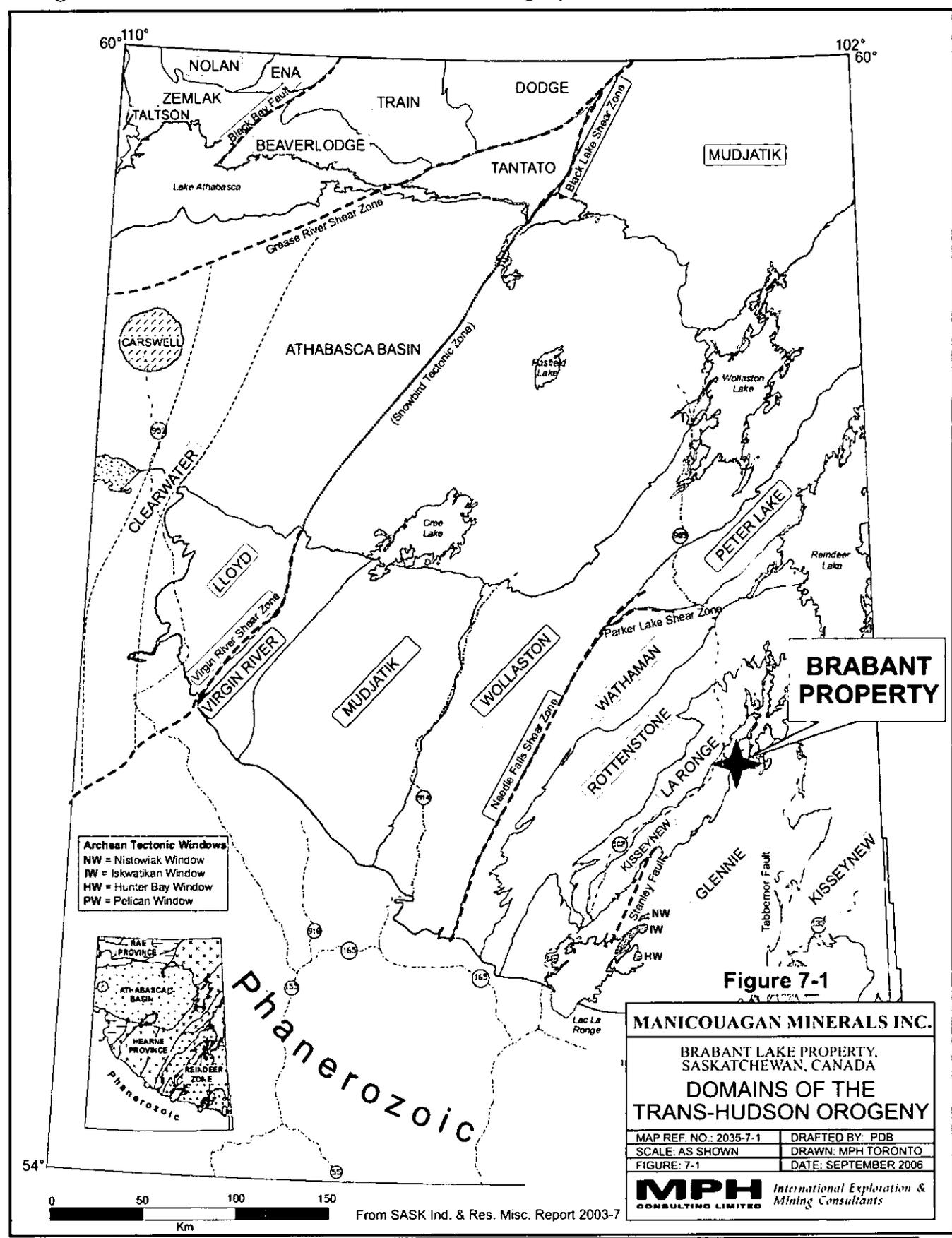
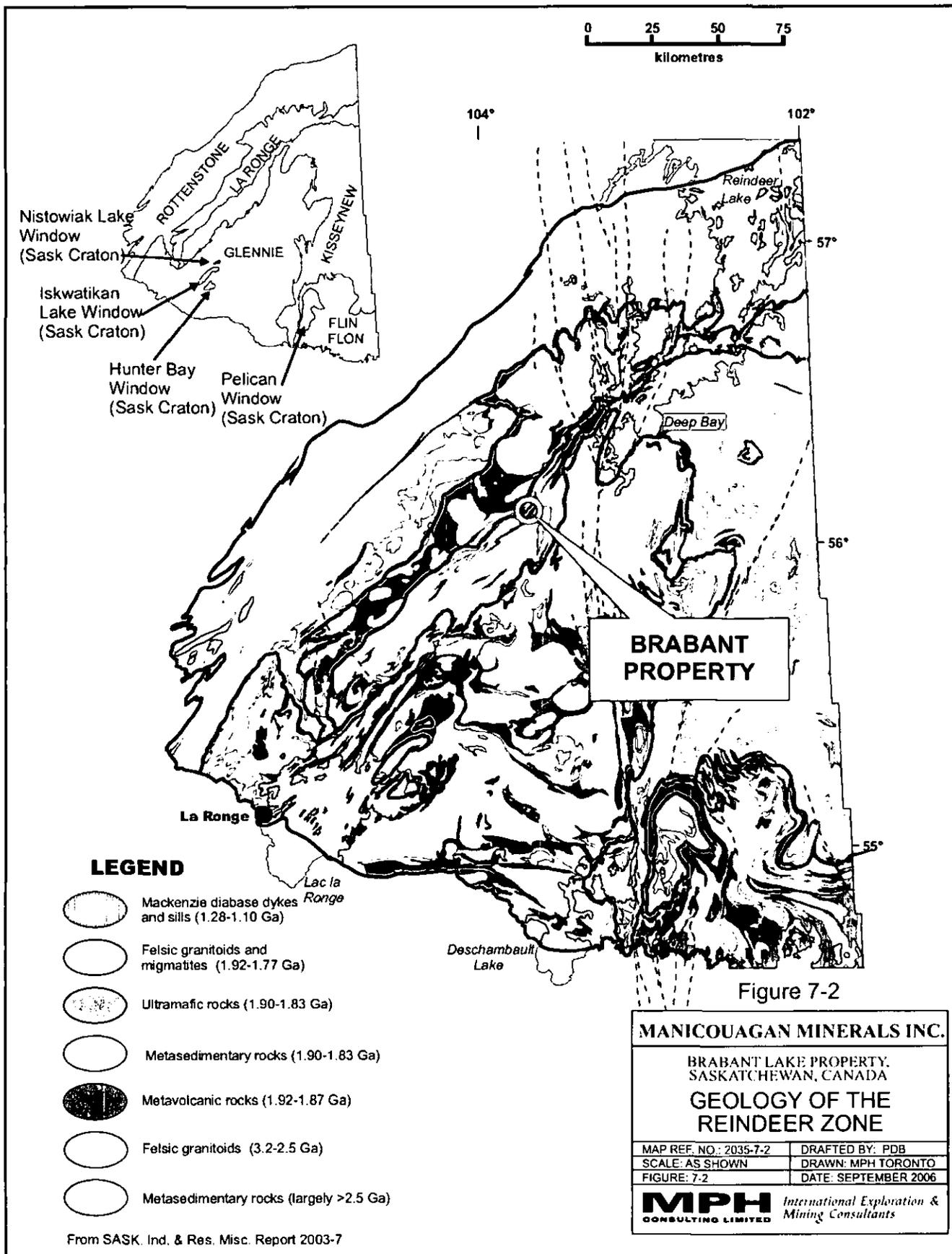


Figure 7-2: Geology of the Reindeer Zone in Northern Saskatchewan



## 7.2. Property Geology

The property is located within the western part of the MLB and straddles the boundary between the McLean Lake Gneisses and the McLennan Group meta-arkoses. The central portion of the property is covered by a thick blanket of Pleistocene to Recent lacustrine sediments with northeast trending outcrop ridges confined to the northwestern and southeastern quadrants.

The geology of the property and its immediate surroundings can be found in Kirkland (1959), Byers (1959), Johnston (1972), Kleespies (1989), Morton and Kleespies (1990) and McCombe *et al.* (1991). Barclay (1993) mapped the northern portion of the southeastern outcrop ridge in detail. More recently Harper (1996, 1997) mapped an area generally to the northeast of, but including parts, of the property in an attempt to better define the contact between the CVB and the MLB.

Figure 7-3 is a generalized geology map of the property (Morton and Kleespies, 1990).

Biotite gneisses with semi-contiguous bands and intercalated amphibolite (+/- biotite) and calc-silicate gneisses are the dominant lithologies on the property and are assigned to the McLennan Group. Thicker and more continuous bands of amphibolite are also intercalated with biotite gneiss units in the southwestern portion of the property and can be inferred from ground magnetic surveys to underlie the covered, central portion of the property. Coombe (1991) reports "unequivocal pillow-like structures" in amphibolitic rocks on the property, indicating their derivation, at least in part, from mafic lavas. Garnetiferous biotite gneiss/migmatite which underlies the easternmost part of the property is included in the MacLean Lake gneisses. Pegmatitic sill-like bodies and dykes are common, locally exceeding 50% by volume of the MLB. In the northwestern portion of the property there are several small isolated ridges of biotite gneiss, amphibolite and biotite granodiorite/migmatite (Durocher, 1993, Stewart and Chamois, 1994).

Foliations and lithological banding generally strike northeasterly and dip moderately (45°-70°) to the northwest. The McKenzie deposit occurs within a northeast trending, northwest dipping homocline which may represent the eastern limb of a northeast striking overturned synform (Stewart and Chamois, 1990).

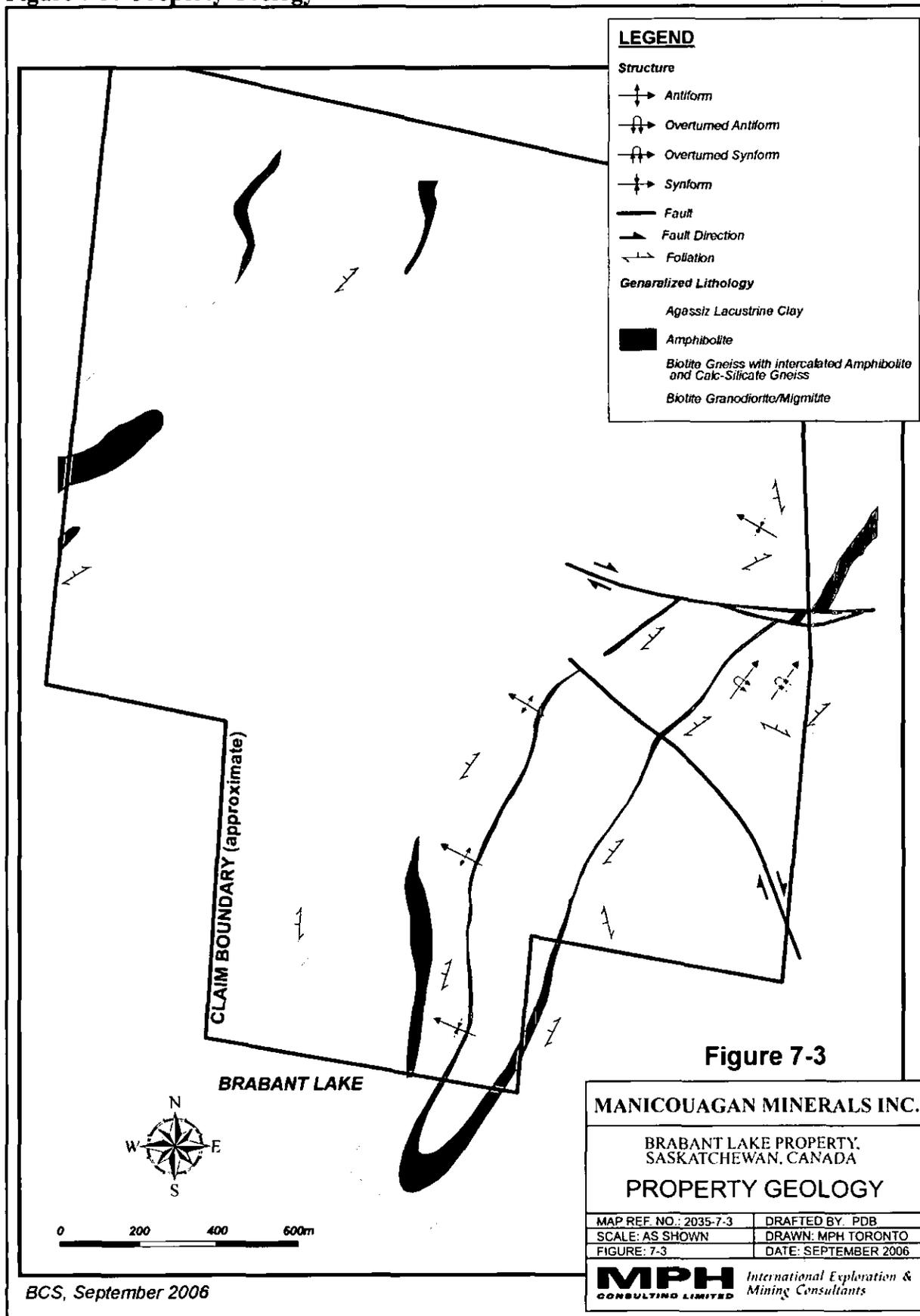
## 7.3. Lithologies

The following descriptions of the major lithologies found on the Property are taken from Durocher (1992).

### 7.3.1 Biotite and Garnet-Biotite Gneiss

These rocks are grey-brown in colour, fine to coarse grained and usually exhibit a well developed gneissosity. The gneissosity is often accentuated by thin (3-10 cm) stringers and lenses of white pegmatitic material. Quartz-feldspar porphyroblasts measuring several cm in diameter are also quite common. Mineralogically these rocks comprise of quartz, plagioclase, biotite +/- garnet, +/- sillimanite, +/- microcline, +/- hornblende.

Figure 7-3: Property Geology



## 8.0 DEPOSIT TYPES

The McKenzie Deposit is interpreted to be a metamorphosed and deformed volcanogenic massive sulphide ("VMS") deposit, similar in many ways to deposits of the Manitouwadge, ON and Sherridon, MB mining camps. The following is taken from Galley et al. (2006).

VMS deposits typically form at or near the seafloor in submarine volcanic environments. They form from metal-enriched fluids associated with seafloor hydrothermal convection. Their immediate host rocks can be either volcanic or sedimentary. The most common feature among all types of VMS deposits is that they occur in extensional tectonic settings, including both oceanic seafloor spreading and arc environments. Most, but not all, significant VMS mining districts are defined by deposit clusters formed within rifts or calderas.

The majority of VMS deposits in Canada form in either bimodal-mafic or bimodal-felsic volcanic terranes dominated by basalt-basaltic andesite and rhyolite-rhyodacite. Prospective VMS-hosting arc terranes are characterized by bimodal volcanic successions that have a tholeiitic to transitional tholeiitic-calc alkaline composition. The felsic volcanics are characterized by low Zr/Y (<7) and low (La/Yb)<sub>N</sub> (<6), with elevated high field strength element contents (Zr >200 ppm, Y >30 ppm, and elevated LREE and HREE,) typical of high-temperature, reduced magmas derived from partially hydrated crust.

VMS deposits are typically mound-shaped to tabular, stratabound bodies composed principally of massive (>40%) sulphide, quartz and subordinate phyllosilicates and iron oxide minerals and altered silicate wallrock. Idealized, undeformed and unmetamorphosed stratabound bodies are commonly underlain by discordant to semi-concordant stockwork veins and disseminated sulphides. The stockwork vein systems, or "pipes", are enveloped in distinctive alteration halos, which may extend into the hanging-wall strata above the VMS deposit. The stockwork zones are the conduits through which the hydrothermal fluids rose and occur at the centers of more extensive, discordant alteration zones. They form by interaction between rising hydrothermal fluids, circulating seawater and sub-seafloor rocks. The alteration zones and attendant stockwork vein systems may extend vertically below a deposit for several hundred metres.

Proximal hanging-wall alteration can manifest itself as a semi-conformable halo up to tens of meters thick.

When both proximal and regional semiconformable alteration zones are affected by amphibolite grade regional or contact metamorphism, the originally strongly hydrated alteration mineral assemblages change into a coarse-grained quartz-phyllosilicate-aluminosilicate assemblages that may be very distinct from the surrounding unaltered strata. At Sherridon, MB, cordierite-garnet-anthophyllite gneiss is thought to represent metamorphic equivalents of hydrothermally altered rocks.

In some cases, VMS deposits do not form on the seafloor but develop as a result of shallow sub-seafloor replacement. This occurs when hydrothermal fluids infill primary pore space in either extrusive, autoclastic, volcanoclastic or epiclastic successions below an impermeable cap.

VMS deposits have been classified by various authors according to their tectonic settings, metal ratios and host rocks.

Exploration methods for this type of mineralization on a property scale include geological mapping and magnetics to differentiate rock types and identify structures. Electrical methods (electromagnetics and induced polarization) are used for direct detection of mineralized bodies. Lithological sampling of available outcrops and whole rock analysis can identify and quantify alteration types. Geochemically anomalous concentrations of base and precious metals in the secondary environment, mainly soils and tills, may be present if favourable conditions exist.

### 8.1. Deposit Classification

The McKenzie deposit occurs within a highly deformed and transposed terrane which makes its classification more difficult.

Because of the spatial association of the Upper Zone mineralization with greenish pegmatites, early workers suggested an epigenetic origin for the sulphides related to metamorphic mobilization and deposition along a metamorphic front (Byers 1959, Johnston 1972, Kirkland 1959).

Sangster (1986) suggested that the deposit is a part of, and coeval with the volcanic, or volcanic derived, rocks in which they occur.

Coombe (1991) reports "unequivocal pillow-like structures" in the amphibolitic rocks on the property, indicating their derivation, at least in part, from mafic lavas. Deptuck (1994) notes the spatial relationship of the Lower Zone with amphibolitic rocks.

Coombe (1991) suggests a pre-metamorphic origin for the mineralization based on the presence of gahnite which would have formed as a result of a zinc sulphide-silicate reaction during metamorphism.

Kleespies (1993) also presents evidence for a metamorphosed rather than a metamorphogenic origin. He suggests that a pre-metamorphic, likely syngenetic model is appropriate. He invokes the stratabound nature of the mineralization, the fact that it is hosted dominantly by clastic sediments in a fore-arc tectonic setting and metal ratios in support of the deposit having been formed mid way between Besshi and Kuroko type deposits on the VMS continuum.

Based on textural evidence, Barclay (1993) suggests that the deposit has either been injected, or at least, remobilized. Durocher (1993) suggests that the mineralization formed initially as a stratabound deposit in a distal volcanic or sedimentary environment and was subsequently recrystallized and possibly remobilized during regional metamorphism and deformation. *Durchbewegung* sulphide breccias and associated stockworks would have developed along reverse or thrust faults during the waning stages of metamorphism and deformation (Durocher, 1993).

Over most of the length of the Upper Zone, both the immediate hangingwall and footwall rocks consist of biotite +/- felsic gneisses but in several areas amphibolitic rocks and garnetiferous biotite +/- felsic gneisses are also present in the immediate structural hangingwall. In places where the pegmatite lenses thin or pinch out, sheared biotite +/- felsic gneisses or amphibolitic gneisses host the Upper Zone sulphide mineralization (Durocher, 1993b).

### 9.1. Upper Zone

The continuity of the Upper Zone mineralization has been tentatively correlated over a strike length of 1,100m but more confidently interpreted for 800m at about 50m below surface (Deptuck, 1994). The Upper Zone has continuity from the surface down dip for about 500m. The true width of the Upper Zone ranges from less than 3m to 13.01m and averages 4.90m, based on a 2% Zn minimum grade, a 3m minimum width and 0% dilution (Stewart and Chamois, 1994). Of the 72 holes drilled on the McKenzie deposit, 43 Upper Zone intersections meet the minimum requirements for inclusion in the inferred resource estimate.

### 9.2. Lower Zone

The Lower Zone is located 25-30m below the Upper Zone. Only seven Lower Zone intersections meet the criteria for inclusion in the inferred resource estimate because most of the holes from the early drill campaigns did not go deep enough to intersect the Lower Zone. It has a strike length of 400m and appears to have down-dip continuity for about 520m. There is a suggestion that the Lower Zone's dip steepens with depth. True widths of the Lower Zone vary from 3.00m diluted to 10.15m and averages 5.15m based on a 2% Zn cutoff, 3m minimum width and 0% dilution.

### 9.3. Structure

The dominant structural features recorded in the drill logs are foliation, banding and gneissosity, plus local instances of small isoclinal folds in the core and variations in dip. Most drill logs record evidence of increased deformation such as where foliations are variable, irregular and/or stronger as well as the existence of chloritic slips or partings (Stewart and Chamois, 1994). Durocher (1993b) interpreted low angled reverse or thrust faults based on graphitic and/or chloritic mylonite intervals, slips, partings, shears or fault gouge that dip generally subparallel to the foliation and banding. Some faults have been interpreted based on evidence seen in sections but the correlation of these structures is difficult because of the lack of detail in the older logs (Deptuck, 1994).

The *durchbewegung* textures evident in the sulphide-rich breccias are indicative of the incorporation of less ductile, non-sulphidic wallrock fragments into the more ductile sulphide matrix during metamorphism.

#### 9.4. Alteration

Durocher (1992) suggested that the presence of sillimanite and/or cordierite might be indicative of pre-metamorphic hydrothermal alteration. Abbas-Hasanie *et al.* (1992) however documented that sillimanite and cordierite are common throughout the MLB and Kisseynew Domain.

Chlorite with carbonate +/- pyrite commonly coats late fractures oriented at a high angle to the foliation. However, chlorite-rich zones are generally quite removed from the mineralized zones and are unlikely to express hydrothermal alteration related to the mineralization. More significant possibly is the common occurrence of pervasive green colourations in pegmatites and other lithologies proximal to the mineralized zones. This greenish colour is caused by epidote +/- sericite alteration of plagioclase. This colouration is different from the chlorite occurrences noted above and these pervasive green zones are more silicified and more massive than adjacent rocks (Stewart and Chamois, 1994).

Coombe (1991) notes an increase in garnet in the footwall rocks and suggests that this might be related to footwall alteration.

## 10.0 EXPLORATION

As of the effective date of this report, Manicouagan has not carried out any exploration work on the property.

## 11.0 DRILLING

As of the effective date of this report, Manicouagan has not carried out any drilling on the property.

## 12.0 SAMPLING METHOD AND APPROACH

As of the effective date of this report, Manicouagan has not collected any samples from the property.

### 13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

As of the effective date of this report, Manicouagan has not collected any samples from the property for analyses.

A description of the sample preparation, analyses and security of those samples taken by MPH can be found in section 14.0.

## 14.0 DATA VERIFICATION

On August 24<sup>th</sup>, 2006, Paul Chamois examined a portion of PDC's drill hole BR-196-8 stored at the Saskatchewan Precambrian Geological Laboratory in La Ronge. The logging was found to be accurate and sufficiently detailed. Four samples of mineralized core were quarter sawn from the originally split core. The samples were bagged, tagged and sealed in a larger rice bag and remained in the author's possession for the trip back to Oshawa. The samples were sent by courier to the SGS Minerals laboratory in Don Mills, ON. The samples were assayed for Cu, Pb and Zn by sodium peroxide fusion and Inductively Coupled Plasma – Optical Emission Spectroscopy ("ICP-OES"). The gold and silver were determined by fire assay with a gravimetric finish. Assay results are listed in Table 14-1.

SGS Minerals are accredited to the ISO 17025 Standard by Certificate number 456. The analytical procedures used by SGS Minerals are outlined in Appendix I.

Although the number of samples taken is too small for a statistically valid comparison, clearly there is significant base metal mineralization in the drill core analysed. Differences compared to the original PDC assays are not significant and may be attributable to local inhomogeneities of the mineralization.

During the visit four drill hole casings (BR-196-8, BR-196-9, BR-196-10 and BR-196-11) were located and their positions recorded with a handheld Global Positioning System ("GPS") unit. These are the only 4 casings known to have been left on the property. Other drill hole set ups were found but their exact collar locations were not as precisely located because casings were not left.

## 15.0 ADJACENT PROPERTIES

There are no adjacent properties for comparison with the Brabant Lake deposit. However there are other analogous deposits in other parts of the Canadian Shield.

The property hosts a massive sulphide deposit similar in many respects to those of the Manitouwadge, Ontario and Sherridon, Manitoba mining camps. Massive sulphide deposits tend to cluster and as such, the adjacent ground may have the potential to host similar mineralization but insufficient work has been completed to properly evaluate its potential.

The McKenzie deposit is still open to the northeast and appears to run off M.L. 5054 onto C.R. 656. No staking is allowed within C.R. 656 however.

## 16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

As of the effective date of this report, Manicouagan has not commissioned any metallurgical testing or mineral processing of samples from the property. .

## 17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

Manicouagan has not undertaken any further resource or reserve estimates on the property. The authors of this report believe that the Deptuk (1994) inferred resource estimate meets the requirements of an inferred resource as defined in National Instrument 43-101.

## 18.0 OTHER RELEVANT DATA AND INFORMATION

No other relevant data or information has been provided to the authors that should be included in this Report.

## 19.0 INTERPRETATION AND CONCLUSION

The Brabant Lake property hosts a significant base metal deposit within the Reindeer Zone of the Trans-Hudson Orogen. The Property is situated within the western part of the McLean Lake Belt and straddles the boundary between the McLean Lake Gneisses and the McLennan Group meta-arkoses. These rocks are transitional from upper amphibolite to granulite facies in the area of the property.

The central part of the property is covered by a thick blanket of Pleistocene to Recent lacustrine (clay/silt) sediments deposited by glacial Lake Agassiz. The property is underlain by a northeast striking homoclinal sequence of moderately dipping biotite-quartz-feldspar +/- hornblende gneiss which is interlayered with garnetiferous (+/- sillimanite, +/- cordierite) biotite gneiss, amphibolitic gneisses, calc-silicate gneisses and pegmatites.

At a 2% Zn cutoff and a 3m minimum true width, the McKenzie deposit has been calculated to host an inferred resource of some 4.8 million tonnes averaging 5.19% Zn, 0.57% Cu, 0.28% Pb, 22.59 g/t Ag and 0.22 g/t Au (Deptuck, 1994). The mineralization is contained within three roughly subparallel, northeast striking and moderately northwest dipping zones. The mineralization has been traced over a strike length of more than 1,000m and down dip for about 500m. It consists of variable amounts of pyrrhotite, sphalerite, pyrite, chalcopyrite and galena as tabular to lenticular bodies of disseminated to massive sulphide, sulphide-rich breccias, concordant and discordant veins and veinlets.

The McKenzie deposit exhibits *durchbewegung* textures indicative of the incorporation of less ductile, non-sulphidic wallrock fragments into the more ductile matrix during tectonism.

The McKenzie deposit is interpreted to be a highly metamorphosed and deformed VMS deposit, similar in many ways to VMS deposits of the Manitouwadge, Ontario and Sherridon, Manitoba mining camps.

Preliminary ore petrography and un-optimized bench scale metallurgical testing indicates that the sphalerite is marmatitic but that efficient copper-zinc recoveries with marketable grade zinc and copper concentrates can be produced from the deposit.

Of the 72 holes drilled on the McKenzie Deposit, only a few have tested the Lower Zone. Most of the holes drilled early in the property's history were designed to test the Upper Zone and were terminated before intersecting the Lower Zone.

Bore hole TDEM surveying of the last four holes drilled on the property indicates that five untested off hole EM conductors exist, and may be associated with sulphide mineralization. The McKenzie Deposit remains open down plunge.

## 20.0 RECOMMENDATIONS

The authors of this report suggest that there is excellent potential to increase the size of the mineral resource of the Brabant Lake deposit and that a substantial Phase I work program is warranted.

It is recommended that the Phase I program be initiated by establishing a new cut grid over the eastern portion of M.L. 5054 using a co-ordinate system similar that used by Deptuck (1994) to estimate the inferred resource. This grid should be properly located with differential GPS and all relevant landmarks such as drill casings, claim posts and relevant topographic features should be tied into it so as to locate the grid as confidently as possible with respect to the boundaries of M.L. 5054. Ground geophysical (magnetics and HLEM) surveys should be completed over the new grid.

An 8 hole, 4,270 m NQ Phase I drill program is recommended. This program is designed to 1) locate the best possible intersections as indicated by Deptuck's (1994) interpretation, particularly in the Lower Zone, 2) twin certain higher grade holes that may, or may not, have been included in the mineral resource estimate, and 3) test certain assumptions made by Deptuck (1994) in formulating his interpretation. The program is essentially that proposed by Deptuck (1994) with one additional hole designed to twin BR-196-8 (5.49% Zn, 0.53% Cu, 0.02% Pb, 13.96 g/t Ag, 0.14 g/t Au across 7.20m in the Upper Zone and 13.92% Zn, 0.83% Cu, 0.04% Pb, 43.00 g/t Ag, 0.16 g/t Au across 6.30m in the Lower Zone).

Table 20-1 lists the proposed holes and their coordinates with respect to the grid used for the inferred resource estimate.

**Table 20-1: Proposed Phase I Drill Program**

| SETUP        | LOCATION      | AZIMUTH/DIP | LENGTH<br>(m) | PRIORITY | REMARKS         |
|--------------|---------------|-------------|---------------|----------|-----------------|
| A            | 35+90N/47+30E | 120°/-75°   | 450           | 1        | Twin BR-196-8   |
| B            | 36+60N/46+76E | 120°/-75°   | 550           | 2        |                 |
| C            | 36+00N/47+60E | 120°/-75°   | 440           | 5        | Contingent on A |
| D            | 35+35N/48+33E | 120°/-75°   | 355           | 6        |                 |
| E            | 34+52N/49+19E | 120°/-75°   | 295           | 7        |                 |
| F            | 35+38N/45+20E | 120°/-75°   | 640           | 3        |                 |
| G            | 36+00N/44+74E | 120°/-75°   | 725           | 8        | Contingent on E |
| H            | 34+80N/44+00E | 120°/-75°   | 745           | 4        |                 |
| <b>Total</b> |               |             | <b>4,200</b>  |          |                 |

Casings should be left in all holes in order to facilitate subsequent borehole Pulse-EM surveying.

Table 20-2 outlines the budget for the proposed Phase I program.

**Table 20.2: Proposed Phase I Budget**

|   |                   |
|---|-------------------|
| Line cutting (35 km @ \$850/km)                       | \$ 29,750         |
| Differential GPS surveying                            | 10,000            |
| Drilling (4,200m @ \$120/m all up incl. mob/de-mob)   | 504,000           |
| Borehole Pulse EM (6 days @ \$2,500/day + mob-de-mob) | 17,500            |
| Magnetic Survey (35 km @ \$150/km)                    | 5,250             |
| HLEM Survey (32 km @ \$250/km)                        | 8,000             |
| Geophysics (interpretation, reporting)                | 5,000             |
| Geology (supervision, logging, sampling, reporting)   | 50,000            |
| Food, Lodging, Travel                                 | 10,000            |
| Truck rental + fuel                                   | 5,000             |
| Assays (including shipping)                           | 10,000            |
| Field Supplies  | 5,000             |
| Contingency @ 10%                                     | <u>65,950</u>     |
| <b>Total</b>  | <b>\$ 725,450</b> |

A Phase II program would be contingent upon achieving sufficiently positive results in Phase I. It would include additional drilling, borehole Pulse-EM surveying, bench scale metallurgical testing and the computerization of all drill hole and assay data. The locations of the holes have yet to be determined but a minimum 10,000m of drilling would be recommended.

Table 20-3 outlines the budget for the proposed Phase II program.

**Table 20-3: Proposed Phase II Program Budget**

|  |                     |
|--|---------------------|
| Drilling (10,000m @ \$120/m all up incl. mob/de-mob)     | \$1,200,000         |
| Geology (supervision, logging, sampling)                 | 100,000             |
| Food Lodging, Travel                                     | 25,000              |
| Truck Rental + fuel                                      | 15,000              |
| Assays (including shipping)                              | 25,000              |
| Differential GPS surveying                               | 10,000              |
| Borehole Pulse EM  | 10,000              |
| Geophysics (interpretation, reporting)                   | 5,000               |
| Bench Scale Metallurgical Testing                        | 50,000              |
| Drill hole/assay data computerization and interpretation | 50,000              |
| Field Supplies   | 10,000              |
| Contingency @ 10%  | <u>150,000</u>      |
| <b>Total</b>   | <b>\$ 1,650,000</b> |

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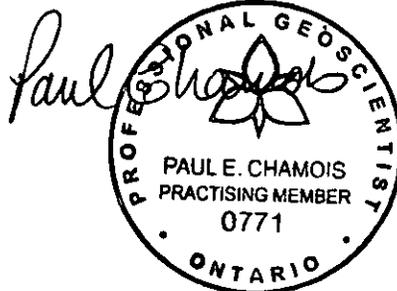
## 22.0 DATE AND SIGNATURE

The undersigned, Paul Chamois, prepared all or portions of all sections of the technical report titled Technical Report on the Brabant Lake Property, Saskatchewan, Canada with an effective date of September 15, 2006 in support of the public disclosure of technical aspects of the Brabant Lake property. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 of the Canadian Securities Administrators.

Signed

*"Paul Chamois"*

Paul Chamois



September 15, 2006

The undersigned, Gerald Harron, assisted in the prepared all sections and provided peer review of the technical report titled Technical Report on the Brabant Lake Property, Saskatchewan, Canada with an effective date of September 15, 2006 in support of the public disclosure of technical aspects of the Brabant Lake property. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 of the Canadian Securities Administrators.

Signed

*"Gerald Harron"*

Gerald Harron



September 15, 2006

### 23.0 CERTIFICATE OF QUALIFICATION

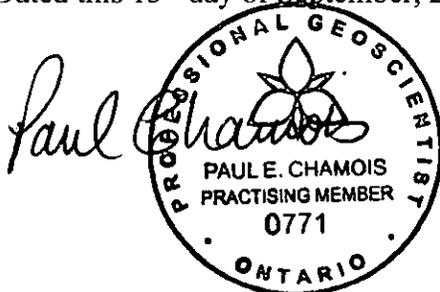
PAUL CHAMOIS

I, Paul Chamois, M.Sc (A), P.Geo., as an author of this report entitled Technical Report on Brabant Property, Saskatchewan, Canada, prepared for Manicouagan Minerals Inc. and dated September 15, 2006, do hereby certify that:

1. I am a Consulting Geologist with MPH Consulting Ltd of Suite 501, 133 Richmond Street West, Ontario M5H 2L3.
2. I am a graduate of Carleton University, Ottawa, Ontario, Canada in 1977 with a Bachelor of Science (Honours) in Geology degree and McGill University, Montreal, Quebec, Canada in 1979 with a Master of Science (Applied) in Mineral Exploration degree.
3. I am registered as a Professional Geoscientist in the Province of Ontario (Reg. #0771) and as a Professional Geoscientist in the Province of Newfoundland and Labrador (Reg. #03480). I have worked as a professional geologist for a total of 27 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Review and report on exploration and mining projects for due diligence and regulatory requirements
  - Vice President, Exploration with a junior Canadian mineral exploration and development company responsible for technical aspects of exploration programs and evaluation of new property submissions
  - District Geologist with a major Canadian mining company in charge of technical and budgetary aspects of exploration programs in Central and Eastern Canada
  - Project Geologist with a major Canadian mining corporation responsible for field mapping and sampling, area selection and management of drilling projects
  - Experience on numerous short courses, conferences and field trips concerning VMS camps and individual deposits
  - Surface and/or underground visits to most significant VMS deposits in Canada, including Geco.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.

5. I visited the property on October 16, 1993 and on August 23, 2006
6. I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.
7. I directly supervised the work performed on the property in 1993-1994 as Phelps Dodge Corporation Canada, Limited's District Geologist for Eastern Canada.
8. I have read National Instrument 43-101F1 and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.
9. To the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public of the Technical Report.

Dated this 15<sup>th</sup> day of September, 2006



"Paul Chamois"

Paul Chamois, M.Sc. (A), P.Geo.

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*Certificate of Author*

I, Gerald A. Harron, M.Sc., P.Eng. do hereby certify that:

1. I am the President of:  
G.A. Harron & Associates Inc.  
Suite 501, 133 Richmond Street West  
Toronto, Ontario, Canada M5H 2L3
2. I graduated with a Bachelor of Science degree in Geology from Carleton University in 1969 and also graduated from the University of Western Ontario with a Master of Science degree in Economic Geology in 1972.
3. I am a member of the Association of Professional Engineers of Ontario, the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories and Nunavut.
4. I have worked as a geologist for over 35 years since my graduation from university and have been involved in minerals exploration for base, precious and noble metals and uranium throughout North America, South America and Africa, during which time I directed, managed and evaluated regional and local exploration programs.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for a peer review of the entire technical report titled "Technical Report on the Brabant Lake Property, Saskatchewan, Canada, for Manicouagan Minerals Inc." dated September 15, 2006, (the "Technical Report"). Most of the technical information in the Technical Report is based on examination of public and private documents pertaining to the Brabant Lake Property. The sources of all information not based on personal examination or knowledge are referenced in the Technical Report. In the disclosure pertaining to claim status I have relied on information provided by the Saskatchewan Ministry of Industry and Resources. I have relied on the integrity of this ministry for such information, as found in Item 4 of the Technical Report.
7. I have had no prior involvement with the property that is the subject of the Technical Report.

- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
- 10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public of the Technical Report.

Dated this 15th day of September, 2006

*"Gerald A Harron"*  
*Gerald A. Harron*  
Signature of Qualified Person

Association of Professional Engineers of Ontario

Gerald A. Harron M.Sc., P. Eng  
Print name of Qualified Person



*END*