

# GM 63110

REPORT ON PROSPECTING AND SAMPLING PROGRAM, MANICOUAGAN PROJECT

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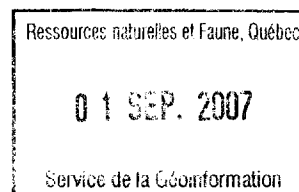
**REPORT ON PROSPECTING  
AND  
SAMPLING PROGRAM  
SUMMER 2006  
MANICOUAGAN PROJECT, QUEBEC**

**Prepared for**

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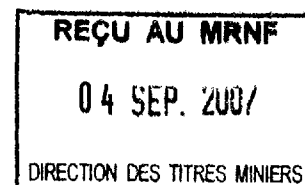
**By**

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&  
Lucy Thompson, Ph.D.**



**Quebec  
June 28<sup>th</sup>, 2007**

**GM 63110**



*Req. 702840*

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## INTRODUCTION

*Manicouagan Minerals Inc.* holds 1 362 claims covering some 713 km<sup>2</sup> over the 65 km diameter René Levasseur Island, 300 km north of Baie-Comeau, Québec. The island essentially comprises the inner crater of a larger, ~100 km diameter, near perfect circular structure, the Manicouagan Impact Structure and is the fourth largest meteorite impact site on earth. *Manicouagan Minerals Inc.* considers the project area to be a Sudbury analogue with the potential for copper, nickel and platinoids.

This report presents the results of the prospecting and sampling program carried out between July and August 2006 and completed in September 2006. The program was supervised by Roger Moar, P. Geo, assisted by Lucy Thompson, Ph.D. The field program covered selected magnetic airborne anomalies as well as lithological contacts between the Impact Melt Sheet (IMS) and the crater floor. These targets have been selected for potentially Cu-Ni-PGE mineralization.

There has been intensive multidisciplinary research concerning the relationship between meteorite impacts and mineral deposits. There is an increasing body of evidence that the largest meteorites or asteroids are important causative sources for large nickel deposits. Sudbury is the second largest terrestrial impact site and coincidentally the second largest (after Norilsk) nickel-copper and PGM (platinum-group metals) mining complex in the world, having produced \$120 billion of metals in the last 118 years.

*Jones et al. (2003)* hypothesise that the Ni-Cu ores associated with the Pechenga structure near the Russian/Finland border are the result of a meteorite impact. The authors also propose that meteorite impact may trigger volcanism, such as the Siberian Traps and therefore be responsible for the Ni ores at Norilsk. The Pechenga and Norilsk camps accounted for greater than 36% of the world Ni production in the year 2000 (*Jones et al., 2003*).

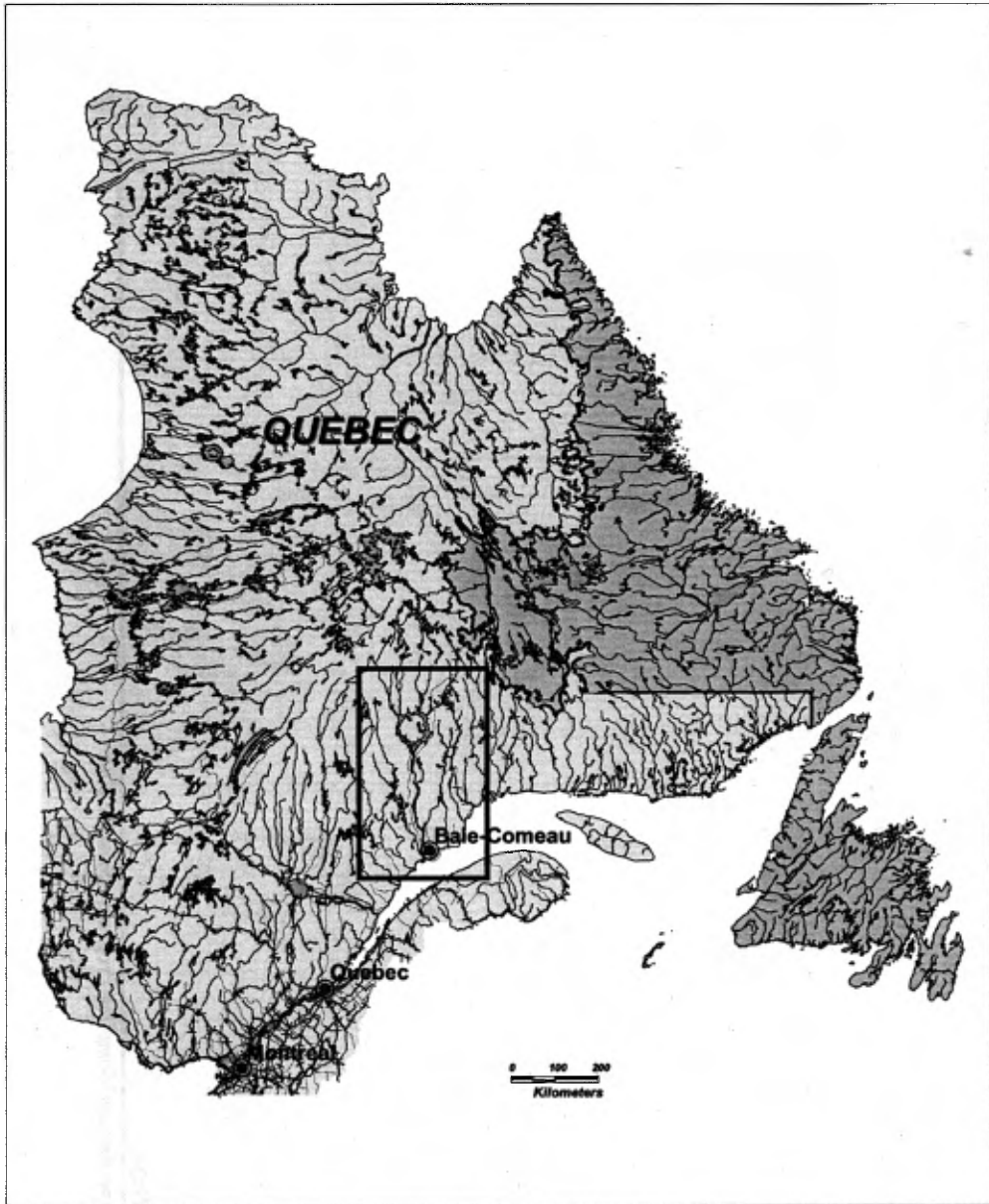
*Grieve (2003)* states that “It is estimated that in excess of \$5 billion per year in resources is extracted from North American impact sites alone. As the known record of terrestrial impacts is far from complete, many structures, and potentially resource deposits, remain to be found”. He goes on to say “that about 25% of known terrestrial impact structures have some form of associated economic resource and approximately 12% are currently being exploited or have been exploited in the past”.

It is presently thought that the host rock to the nickel deposits at Sudbury, known as the Sudbury Intrusive Complex (SIC) and associated Sublayer and Offset Dykes, is in fact the impact melt-sheet and associated lithologies. Deep seismic profiles have failed to identify a conduit to the SIC. The ore would have formed predominantly from the remobilization, melting and concentration of pre-existing sulfides within reasonably metalliferous Archean and Proterozoic basement. However, experiments at University College in London indicate that the SIC, Sublayer and Offset Dykes may still retain a mixture of materials from both the melted crust and the residues of the meteorite impact that has been redistributed around the crater.

The Manicouagan Impact Crater formed 214 million years ago. René Levasseur Island, located in the centre of the crater, is approximately 65 kilometres in diameter with the outer portion of the crater approximately 100-120 kilometres in diameter. By comparison, the Sudbury Impact Crater, located in northern Ontario, has an outer crater diameter of 175 kilometres. Both craters exhibit significant impact melt sheets, with 360 million pounds of annual nickel production from the Sudbury impact melt sheet and associated lithologies.

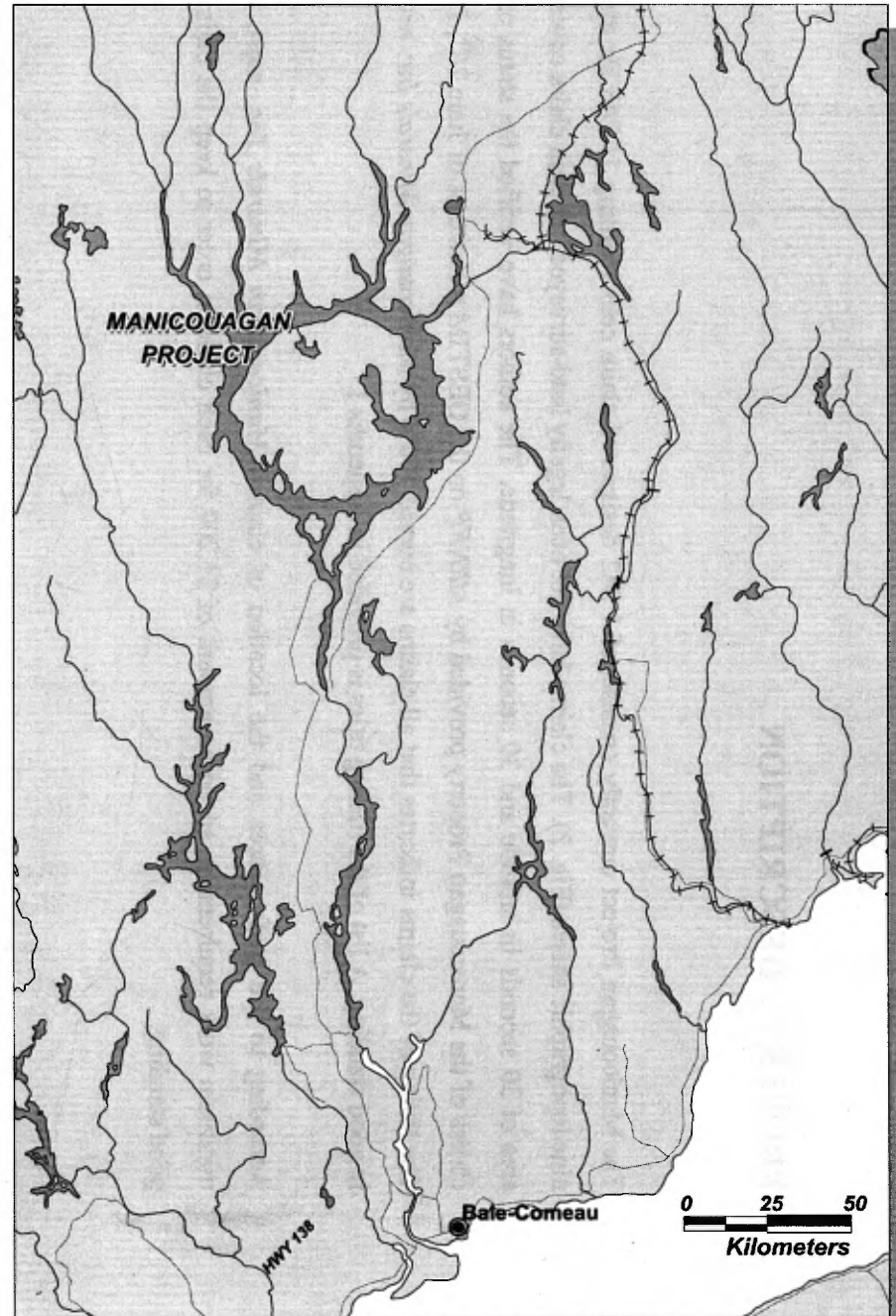
## **LOCATION**

The Manicouagan Project is located in the interior and periphery of the Manicouagan Impact Crater which is approximately 300 km due north of the city of Baie-Comeau, on the north shore of the St-Lawrence river in the eastern central part of the Province of Quebec (Fig. 1). The Manicouagan project is accessible from the company's base camp situated in the middle of René-Levasseur Island. Access to the company's base camp is by chartered float plane from the Lac Louise base during the summer months. Regional highway 138 leads to Baie-Comeau, located approximately 670 km north-east from Montreal. From Baie-Comeau, one proceeds along regional highway 389 north, which links Baie-Comeau to Fermont, until the Daniel-Johnson or Manic 5 hydroelectric dam is reached, some 235 km to the north of Baie-Comeau. The Company's base camp at Lac des Isles is approximately 80 km due north, in the middle of René-Levasseur Island. The camp sleeps 30 people and is made up of five permanent wooden buildings as well as three tent sites.



**LOCATION MAP**

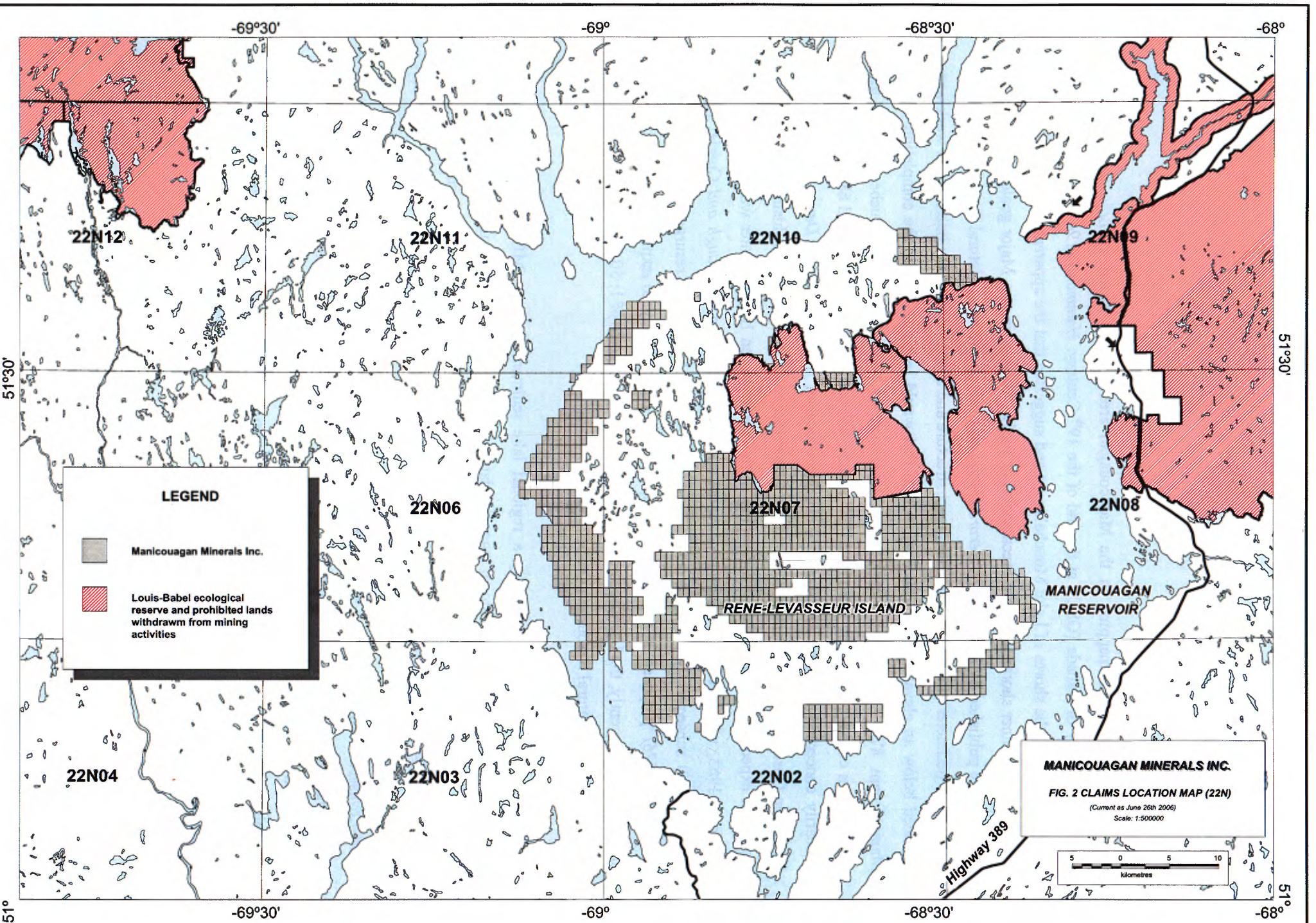
**ENLARGEMENT**





## PROPERTY DESCRIPTION

The Manicouagan Project currently consists of 1 362 designated claim cells totalling 71 246 Ha among nine topographic sheets (Fig. 2). The claims have not been legally land-surveyed but each claim covers an area of 30 seconds in latitude and 30 seconds in longitude. The authors have verified the status of the claims of the Manicouagan Property provided by *MRNFP* on the GESTIM website as of June 26<sup>th</sup>, 2007. The listing of the claims indicates that all claims are owned 100% by *Manicouagan Minerals Inc.* and are in good standing. A list of the mining titles is provided in Appendix I.

According to the surface area and the location of claims, *Manicouagan Minerals Inc.* must, as a minimum work requirement, spend an amount of \$1,200 for each claim in order to keep the claims in good standing.



**LEGEND**

-  Manicouagan Minerals Inc.
-  Louis-Babel ecological reserve and prohibited lands withdrawn from mining activities

**MANICOUAGAN MINERALS INC.**  
**FIG. 2 CLAIMS LOCATION MAP (22N)**  
(Current as June 26th 2006)  
Scale: 1:500000



## GOVERNMENT SURVEYS

The first reconnaissance mapping in the Manicouagan area was conducted by *Low (1897)*, of the Geological Survey of Canada (GSC), at the end of the 19<sup>th</sup> Century. *Hammond (1945)* briefly described the geology along the shores of Lake Mouchalagane and suggested that the apparently flay-lying igneous rocks along the inner shores were late Precambrian or Early Paleozoic in age. Major geologic features of the area were published by *Rose (1957)*. *Bérard (1962)*, of the Department of Natural Resources, Quebec, mapped the perimeter of the Manicouagan impact structure and a small part of the interior. His work was confined below an elevation of 1 200 feet, an area that would be flooded upon the completion of the Manic 5 dam. *Kish (1962, 1963, 1968)*, of the Department of Natural Resources, Quebec, mapped the north-eastern corner bounded by latitudes 51°30' and 51°45', and longitudes 68°00' and 68°30'. *Kish* was primarily concerned with the rocks east of the Manicouagan impact structure. *Dence (1964)* of the Dominion Observatory of Canada discovered the first evidence of shock metamorphism in the structure during an expedition in 1963. Detailed mapping of the Manicouagan Impact Crater was undertaken by *Currie* in 1963, which led to a preliminary report and map of the area (*Murtaugh and Currie, 1969*). *Currie (1972)* subsequently proposed a volcanic-tectonic model based on a resurgent caldera whereas *Murtaugh (1976)* proposed a hypervelocity impact of a cosmic body to explain the Manicouagan Structure. More recently, the Lac Lacoursière area was mapped at a scale of 1: 50 000 by *Gobeil (1997)* of the Department of Natural Resources, Quebec.

The area under study was covered by a regional lake sediments survey (MB 86-18) and national aeromagnetic surveys in 1968. Regional magnetic data over the study area was acquired at a nominal line spacing of 800 meters and a nominal mean terrain clearance of 305 meters. Survey products include total magnetic intensity contour maps at a scale of 1: 63 360 (one inch to one mile). The Mont de Babel aeromagnetic map indicated the signature of a wide elliptical magnetic anomaly in the central part of René-Levasseur Island. This magnetic anomaly was the basis of the study conducted by *Coles and Clark (1978)* suggesting that the highly magnetic field could be explain by an impact-generated magnetization of a mafic body which was subsequently uplifted. *Roest and Pilkington (1994)* proposed a method to determine the possible contribution of remanent magnetization on the shape of the magnetic anomalies in the areas characterized by induced magnetization. This approach was applied to the magnetic anomaly in the center of the Manicouagan Impact Structure.

The Triassic igneous rocks of the Manicouagan structure have been interpreted both as volcanic (*Currie, 1972*) and as the product of impact melting (*Dence, 1971; Murtaugh, 1976; Floran et al, 1976, 1978; Grieve and Floran, 1978*). *Grieve and Floran (1978)* favor the impact melting interpretation and present chemical arguments compatible with the impact origin. They comment on the composition of the melt and its relationship to the underlying basement units. In addition, they used the chemical and petrographic data to constrain a model for the formation of the melt and the Manicouagan structure during a hypervelocity impact event.

## **PREVIOUS EXPLORATION (TO 1997)**

Few companies have conducted exploration over Rene-Levasseur Island, but most of the work was carried out in the Central Manicouagan Property located in the central area of René-Levasseur Island, south of the Mont de Babel. The main interest was directed toward copper-nickel Sudbury-type mineralization. The following is a review of all exploration work completed and undertaken by previous owners or operators prior to *Manicouagan Minerals Inc.* involvement in the Central Manicouagan Property.

In the summer of 1990, a combined helicopter-borne magnetic, electromagnetic and VLF-EM survey (GM 51197) was carried out on behalf of Exploration Minière Lasarre Inc. by AERODAT Ltd over the Manicouagan Property. The survey area covers an area south of Mont de Babel and comprises approximately 1000 line km. Flight lines were oriented at N030°-210° and flown at a nominal spacing of 200 meters at a nominal mean terrain clearance of 60 m. The Airborne Electromagnetic Survey Interpretation map is detailed enough to locate massive sulphide deposits at shallow depth. It should be noted that the EM system used is limited to an exploration depth not exceeding 100 m. The helicopter-borne magnetic survey outlined a large ring-shaped magnetic body in the central part of the survey area with magnetic highs greater than 2 000 nt above background level and covering approximately a 60 km<sup>2</sup> area. The long axis of the magnetic structure is NW-SE. Magnetic profiles indicate a southwest dip on the NE end and a nearly vertical dip, with indications of NE and SW dip on the SW end of the magnetic structure. The central magnetic anomaly is clearly truncated by a major N-NW fault system, possibly forming a graben structure.

During the summer of 1990, 419947 Alberta Ltd conducted a geological survey (GM 51247). The same year, Exploration Minière Lasarre Inc. commissioned Podolsky and Associates Inc. to perform a four day

helicopter-assisted geological examination of the Manicouagan Impact Structure (GM 51166). The main objective of the examination was to interpret the geological setting of the oval-shaped magnetic anomaly located in the central part of the René-Levasseur Island.

In 1990 and 1991, Exploration Minière Lasarre Inc. and 419947 Alberta Ltd conducted MaxiProbe horizontal loop electromagnetic surveys (GM 51186 & GM 51168) as depth sounding over selected heliborne-magnetic targets. The survey indicated several conductors which could be grouped into two main types: basin or sub-horizontal-type and root or vertical component-type. Such anomalies are rather extensive and are continuous from one line to another. Basin-type anomalies may reflect near-surface conductive overburden or buried contacts between lithologic units. Root-type anomalies are discrete and may reflect deep conductive zones as favourable targets for the discovery of mineralization.

Following that work, one diamond drill hole (GM 51170) was bored in December 1990 by *Minéraux Manic Inc.* to test a Maxi-Probe EM anomaly with an airborne magnetic coincidence. This 471.5 m deep hole intersected shock-metamorphosed leucocratic quartzofeldspathic gneisses and mesocratic to melanocratic gneisses cross-cut by pegmatite dykes, late pseudotachylite veinlets as well as breccia dykes. No significant mineralization was found.

In the fall of 1997, a ground electromagnetic MELIS survey (GM 54951) was carried out over the NW part of the property. The purpose of this survey was to detect and delimit electric anomalies at depth as well as determine potential drill targets. The MELIS survey covers 17.8 linear km. The MELIS survey indicated the presence of a conductor. Recommendations were made to test this anomaly by drilling. Further work- such as AMT or TDEM was also recommended to validate the geophysical interpretation.

In 1997, *Minéraux Manic Inc.* completed a diamond drilling program (GM 56543) totalling 1525 m over its central Manicouagan property. Two diamond drillholes were collared on airborne magnetic targets. Both logs indicate the presence of an impact melt sheet overlying shock-metamorphosed leucocratic to mesocratic gneisses and gabbroic rocks cross-cut by pegmatites dykes and late pseudotachylite veinlets and breccias dykes. No significant sulphide mineralization was reported.

## GENERAL GEOLOGY

The Manicouagan impact structure is located within the Grenville Province of the south-eastern Canadian Shield (Fig. 3). The Grenville Province in this area comprises two distinct units; the Allochthonous Polycyclic belt and Parautochthonous belt (*Rivers et al., 1989*). The Allochthonous Polycyclic belt is characterized by extensively deformed and metamorphosed far-traveled rocks. This unit structurally overlies a less deformed and metamorphosed Parautochthonous belt, correlated with Archean rocks NW of the Grenville Front. The Manicouagan impact structure lies predominantly within the Allochthonous Polycyclic belt, with rocks from the Parautochthonous belt exposed only on the western edge of the island.

On the island, the Parautochthonous belt is represented by the Gagnon Terrane, which comprises reworked Paleoproterozoic supracrustal rocks overlying an Archean basement (*Rivers et al., 1983*). The supracrustal rocks are represented by quartzofeldspathic and pelitic metasedimentary rocks, marble, quartzite and iron formation. The Archean comprises granoblastic quartzofeldspathic gneisses with hornblende and pyroxene rich layers, and strongly deformed gneisses with varying degrees of layering migmatization.

The structurally overlying Polycyclic belt is represented by the Manicouagan Imbricate Zone (*Indares et al., 2000*) and the Manicouagan metamorphic complex (*Kish, 1968*) or Hart Jaune terrane (*Rivers et al., 1989*).

The Manicouagan Imbricate Zone is itself divided into the Lelukah and Tshenukutish terranes. The Lelukah terrane is exposed in the northern and western most parts of the island. It is composed of an anorthosite-mangerite-charnockite-granite (AMCG) complex intruded by a late leucogranite and mafic intrusions (*Indares et al., 1998; Indares et al., 2000; Hynes et al., 2000*). The Tshenukutish terrane is exposed in the north east and south of the island and also comprises an AMCG complex, diorite and supracrustal rocks (metapelite, marble and quartzite) intruded by metagabbroic rocks (*Indares et al., 1998; Hynes et al., 2000*). The Memory Bay (Mont de Babel) anorthosite is interpreted to belong to this terrane. Other lithologies include granitoid intrusions with minor metasedimentary rocks.

The Manicouagan metamorphic complex (*Kish, 1968*) or the Hart Jaune terrane (*Rivers et al., 1989*) is located on the north-eastern shore of the island. It consists mainly of granulite-facies metagabbroic rocks

and layered two-pyroxene metabasites, with minor calc-silicates and metapelites.

The structural fabric of the Grenville province is interrupted by the Manicouagan Triassic Impact Crater, outlined by the prominent circular form of the reservoir. René-Levasseur Island represents an annular plateau of exposed, impact-produced materials including shock-metamorphosed target rocks, impact melt rocks and breccias collectively known as impactites. U-Pb dating of zircons from the impact melt sheet

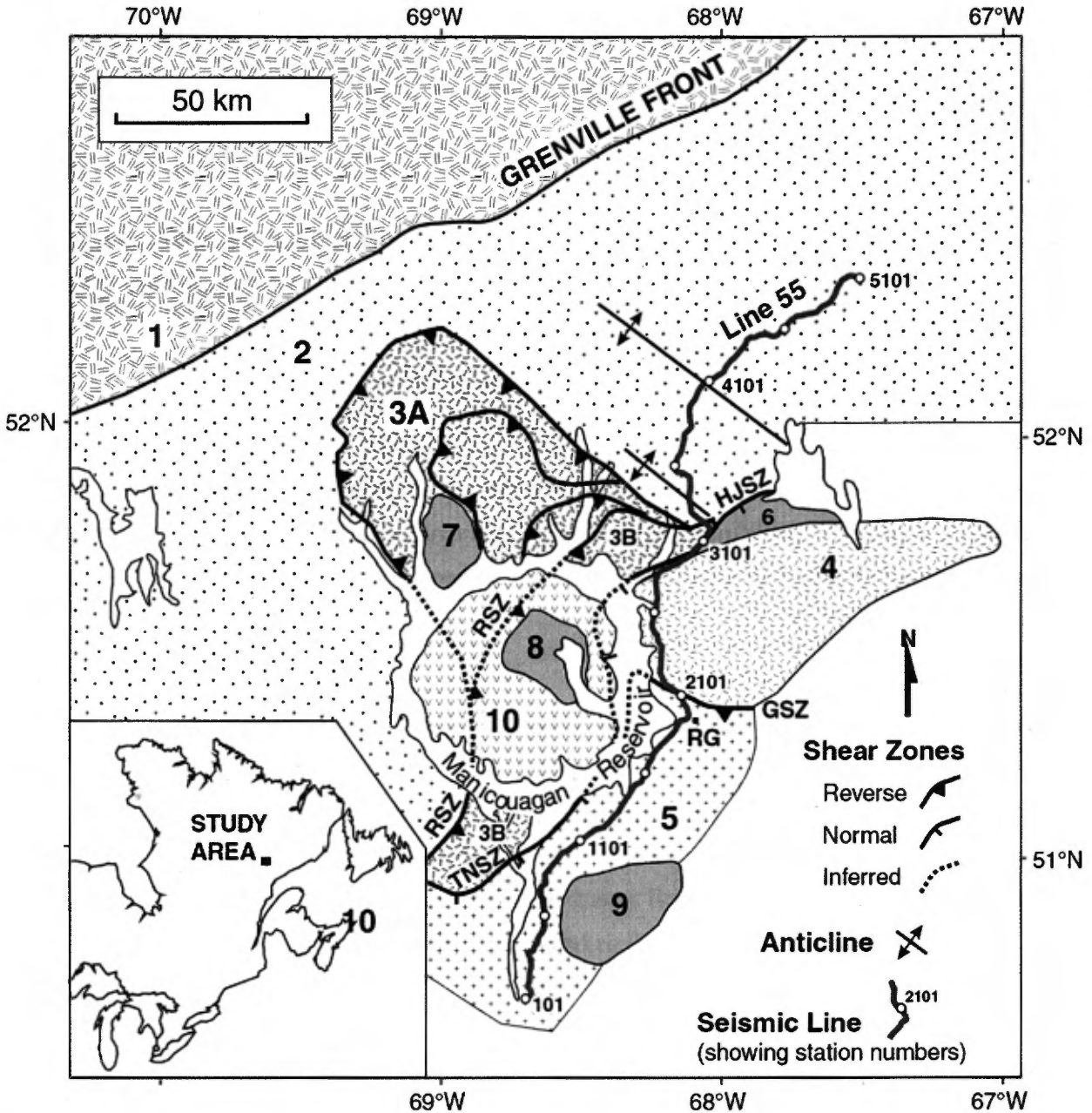


Figure 3 Simplified geology of the Manicouagan area

(Modified from Eaton and Hynes, 2000) showing 1: Superior Province; 2: Gagnon terrane; 3A: Lelukau terrane; 3B: Tshenukutish terrane; 4: Hart Jaune terrane (Manicouagan metamorphic complex; 5: Berthé terrane; 6: Lac Raudot anorthosite; 7: Seignelay anorthosite; 8: Mont de Babel anorthosite; 9: Berthé anorthosite; 10: impactites from the Manicouagan impact structure and unassigned Grenvillean gneisses; RSZ: Relais shear zone; TNSZ: Triple Notch shear zone; HJSZ: Hart Jaune Shear zone; RG: Relais Gabriel; GSZ: Gabriel shear zone.

has yielded a crystallisation age, and therefore time of impact, of  $214\pm 1$  Ma (*Hodych and Dunning, 1992*).

## PROPERTY GEOLOGY

The Manicouagan project is located entirely on René-Levasseur Island and lies within the Triassic Manicouagan Impact Crater. Six well defined lithostructural units have been distinguished within the Manicouagan Project area.

### *Gagnon Terrane*

As discussed earlier, the Gagnon terrane is located on the western margin of the Manicouagan reservoir and island. It consists of reworked Paleoproterozoic supracrustal rocks and Archean basement. The Gagnon terrane is represented by the Katsao Fm., Wapussakato Fm. and Nault Fm. in the region of the Manicouagan Project.

The Katsao Fm represents the oldest cycle in the Gagnon Terrane. The Katsao Fm. has been described by *Murtaugh (1976)* as a grey gneiss complex. This unit consists of medium-grained to coarse-grained, well foliated grey gneisses interlayered with large lenses of metamorphosed mafic and ultramafic rocks and unmappable smaller zones of compositionally and/or texturally different gneisses. Dykes of pegmatite crosscut the grey gneiss complex. Mineral assemblages indicate an almandine-amphibolite metamorphic facies. There is no systematic structural analysis reported but field evidence such as the presence of cross-folds in few localities suggests two periods of deformation.

The Wapussakato Fm. is confined to discontinuous zones in the western part of the Manicouagan Reservoir and island. It comprises white banded metaquartzite and brecciated metaquartzite.

The Nault Fm. has been described by *Murtaugh and Currie (1969)* as a mafic gneiss complex occurring as a margin around the Seignelay anorthosite.

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### ***Unassigned Precambrian rocks within the Manicouagan impact crater - Amphibolite-granulite transitional facies rocks***

The amphibolite-granulite transitional unit consists of a mixing of different types of gneisses that do not clearly belong to the amphibolite or the granulite metamorphic facies. *Murtaugh (1976)* distinguished two types of gneisses for this transitional zone, outcropping from north to south through the central part of René-Levasseur Island. The tan gneisses are granitic, syenitic, monzonitic and granodioritic in composition. The melanocratic gneisses are mixed with granitic and tan gneisses. The mineralogical paragenesis observed in the gneisses indicates metamorphism between amphibolite to granulite facies.

### ***Mont de Babel anorthosite (Tshenukutish Terrane)***

The Mont de Babel anorthosite is approximately 35 km long and 15 km wide. The intrusion occupies the center of the Manicouagan impact structure and extends toward the SE. The Mont de Babel anorthosite has been affected by shock and contact metamorphism. Zeolites are alteration products after plagioclase. *Murtaugh (1976)* suggested that this alteration is mainly due to the action of hydrothermal solutions related to the Manicouagan impact structure. The mineralogical assemblage observed within the Mont de Babel anorthosite indicates granulite facies retrograded to amphibolite facies metamorphism.

### ***Manicouagan metamorphic complex (Hart Jaune Terrane)***

The Manicouagan metamorphic complex is located on the north-eastern shore of the reservoir and island. It is represented by granulite-facies metagabbroic rocks and narrow bands of siliceous paragneisses and granulitic gneisses in the region of the Manicouagan Project.

### ***Ordovician sedimentary rocks***

At the time of impact, the Manicouagan area Precambrian rocks were unconformably overlain by a thin veneer of Ordovician limestone. Blocks of this limestone, up to one km in size, are preserved within the inner shorelines of the reservoir and probably represent blocks caught up in the fault and breccia systems generated immediately proceeding impact. Most of these outcrops are covered by water since the completion of the Daniel-Johnson dam.

### ***Manicouagan Impact Crater***

The 65 km diameter inner ring structure and outer disturbed 100-125 km diameter ring of the Manicouagan Impact Crater together represent one of the largest circular structures on Earth which has been attributed to a hypervelocity meteorite impact. The inner structure is outlined by the prominent circular form of the reservoir, which abruptly interrupts the structural fabric of the Grenville Province. The Manicouagan Impact Crater has been divided into six major lithological units, collectively known as impactites, in accordance with the mineralogical, chemical and structural changes during the development of the impact structure (*Murtaugh, 1976*). These lithological units can be grouped in four categories: shock metamorphosed country rocks, breccias, igneous rocks and contact metamorphosed rocks.

The shock metamorphosed country rocks are affected by a progressive breakdown in the structural order of minerals and rocks due to the passage of high-pressure shock waves that are generated at the point of impact and radiate outward through the country rocks. Shock features include planar deformation features in quartz and feldspar, shatter cones and the formation of diaplectic or solid state glasses.

The breccia units have been subdivided into three lithological sub-units according to their lithological characteristics and modes of occurrences. The autochthonous breccia is produced by the shattering and pulverizing of the country rock essentially in place and, is made up of rock and mineral fragments in a clastic groundmass of the same composition. Fragments of country rock or mineral tend to be angular to sub-rounded and are variable in size within one outcrop. The so called suevite or melt-fragment breccia is considered as an allogenic breccia made up of angular to sub-rounded shocked and unshocked fragments of rocks and minerals, and bodies of melt in a clastic, cryptocrystalline, or glassy matrix. Suevite crops out as thick sheets (up to 14 m thick) or dykes inside René-Levasseur Island near the base of the outer edge of the annular plateau of melt sheet. The red breccia is a monomict breccia composed shocked fragments and bodies of melt in a glassy or cryptocrystalline bright to dark red and usually vesicular matrix. The red breccia occurs at the same stratigraphical position as the suevite, it is thus considered as a facies of a single unit and, may represent hydrothermally altered and hematized suevite breccias. The pseudotachylite is an allochthonous breccia that occurs as irregular or anastomosing veins or veinlets in the target rocks. The pseudotachylite is composed of shocked and unshocked rock and mineral fragments in a glassy or cryptocrystalline matrix and is particularly abundant in the southern part of the Mont de Babel.

An extensive melt sheet is partly preserved inside the moat perimeter of the reservoir. The melt sheet is essentially contiguous and forms an annulus; the outer boundary defined by the moat of the reservoir and an inner boundary, approximately 25 km in diameter, defined by a central topographic high. According to *Murtaugh (1976)* and other workers, the melt sheet ranges up to 300 m thick in the east central portion of the structure (see exploration for new data on the melt sheet thickness). The preserved melt sheet volume is about 150 km<sup>3</sup> (*Grieve and Floran, 1978*). The chemical composition of the melt is consistent with derivation from a mixture of the basement rocks near the impact point. The melt sheet is subdivided into several distinct units by *Murtaugh (1976)*.

Impact melt described as basalt by *Murtaugh (1976)* occurs as dykes in the country rocks or as a discontinuous layer near the base of the outer edge of the annular plateau of melt sheet. The basalt is aphanitic and black in colour with a locally vesicular and glassy texture. It comprises microlites of plagioclase and small equant grains or laths of pyroxene in a cryptocrystalline matrix. The basalt is locally black, grey or red with a spherulitic texture and grades into red breccia or suevite.

The lower unit of the impact melt sheet is generally reddish-brown and grades from aphanitic to medium-grained near the contact with the upper unit. The dominant texture is intergranular. Inclusions are abundant and large near the base of the unit and decrease from the bottom to the top of the unit. No evidence of flow structure was described by *Murtaugh (1976)*.

The upper unit of the Manicouagan impact melt sheet is commonly brown, but is locally grey or red and medium to coarse-grained. The dominant texture is ophitic. Mafic minerals are partially altered to hematite. Small and rounded inclusions are present near the contact with the lower unit of the impact melt. According to the modal composition, the melt sheet is predominantly comprised of plagioclase and alkali feldspar, with pyroxene and minor quartz (*Murtaugh, 1976*).

The contact metamorphosed country rocks occur where heat has been directly transferred from the impact melt sheet and pseudotachylite to the surrounding shock metamorphosed country rocks by conduction or convection. The effects of contact metamorphism in the country rocks are decomposition of mafic minerals, zeolitization of anorthosite, transformation from anorthosite to hornfelsed anorthosite and development of melted and vesiculated gneisses.

## ECONOMIC GEOLOGY

Based on the structural environment, the mineral deposit type sought by *Manicouagan Minerals Inc.* on Rene-Levasseur Island is a Sudbury-type Cu-Ni-PGE deposit. Further exploration work is required to clarify the relationship between the geological setting, hypothetical mineralization and the associated impact structure.

The Sudbury-type deposit comprises syngenetic Cu-Ni-PGE sulfides derived from immiscible sulfide liquids within the impact melt sheet. The sulfides were originally associated with layered mafic-ultramafic intrusions within the Archean and Proterozoic target lithologies. Mafic and ultramafic clasts occur as inclusions within the Sublayer and Offset Dykes at Sudbury. Mineralization occurs either in the normal footwall contact or embayments of the melt sheet and alternatively in the offset dyke environment. Mineralization consists of pentlandite, chalcopyrite, cubanite, millerite, pyrrhotite, various PGE minerals, pyrite, sphalerite, and marcasite as massive sulfide minerals, sulfide-matrix breccias, interstitial sulfide networks, and disseminated sulfide minerals. Contamination of the magma was an important factor for sulfur saturation and formation of a sulphur-rich liquid.

As well as the correlation of the Manicouagan impact melt with that at Sudbury, field evidences suggest that the impact induced hydrothermal activity in the target rocks. The hydrothermal recirculation of fluids could thus remobilize ore elements which could be concentrated in favourable lithological and/or structural environments such as faults, shear zones and breccia zones. Mineral deposits formed and/or modified by these impact induced hydrothermal systems could also represent a significant economical interest.

Dr. Walter Peredery, consultant and expert on Sudbury geology, visited the project area in early September 2005 and concluded as follows in his report:

"The Manicouagan Impact Melt Sheet (IMS) is surprisingly similar to the Sudbury Igneous - looking Complex noritic member. Both are coarse grained, and consist of the same mineralogy and contain high content of alkaline feldspars. Both contain relatively small amounts of sulphides.

Manicouagan IMS (melt sheet) is a relatively thick sheet comparable to the norite in Sudbury.

Fine grained IMS phases exist at both Manicouagan and at Sudbury in the Onaping Formation. ... .. The presence of Basal Breccia unit both above and below the IMS at Manicouagan is similar to that found in the Sudbury structure.

The presence of sulphides in the basement rocks is a feature of both the Manicouagan and the Sudbury structures. As such it is another positive element that must be a contributing factor in the formation of economic mineralization in the Impact structures."

Petrographic and geochemical comparisons of the impact melt sheets at Sudbury and Manicouagan by Walter Peredery (2004) reveal that both are depleted in base metals and PGEs. At Sudbury the ores are concentrated at the very base of the impact melt, within the Sublayer and in Offset Dykes.

A Cu-Ni-PGE occurrence was discovered in 1990 near the N-NE shore of René-Levasseur Island. The mineralization is associated with brecciated mafic and ultramafic rocks. The best values reported are 0.90% Cu, 0.27% Ni, 0.96 g/T Pt, 2.3 g/T Pd, 0.50 g/T Au (GM 51455).

## **EXPLORATION WORK**

### **2003**

*Manicouagan Resources Inc.* initiated exploration work on its Central Manicouagan property in February 2003. The 2003 exploration campaign included old line cut refurbishing, surface Pulse Time Domain Electromagnetic (Pulse EM or PEM) and ground total field magnetic (*unpublished report, Crone Geophysics & Exploration Ltd, 2003*), magnetotelluric (MT) and audio-magnetotelluric (AMT) (*unpublished report, Phoenix Geophysics Ltd, 2004*), a deep penetrating airborne MEGATEM® electromagnetic and magnetic surveys (GM 60557). Six diamond drill holes totalling 2736 m were also drilled on the central Manicouagan Property (*Moar & Gagnon, 2003*).

During the months of March and April 2003, *Manicouagan Resources Inc.* commissioned *Géophysique TMC Inc.* to perform ground geophysical surveys on its Central Manicouagan Property. Fieldwork included a ground total field magnetic and a Pulse EM as well GPS surveys on selected grids referred to as

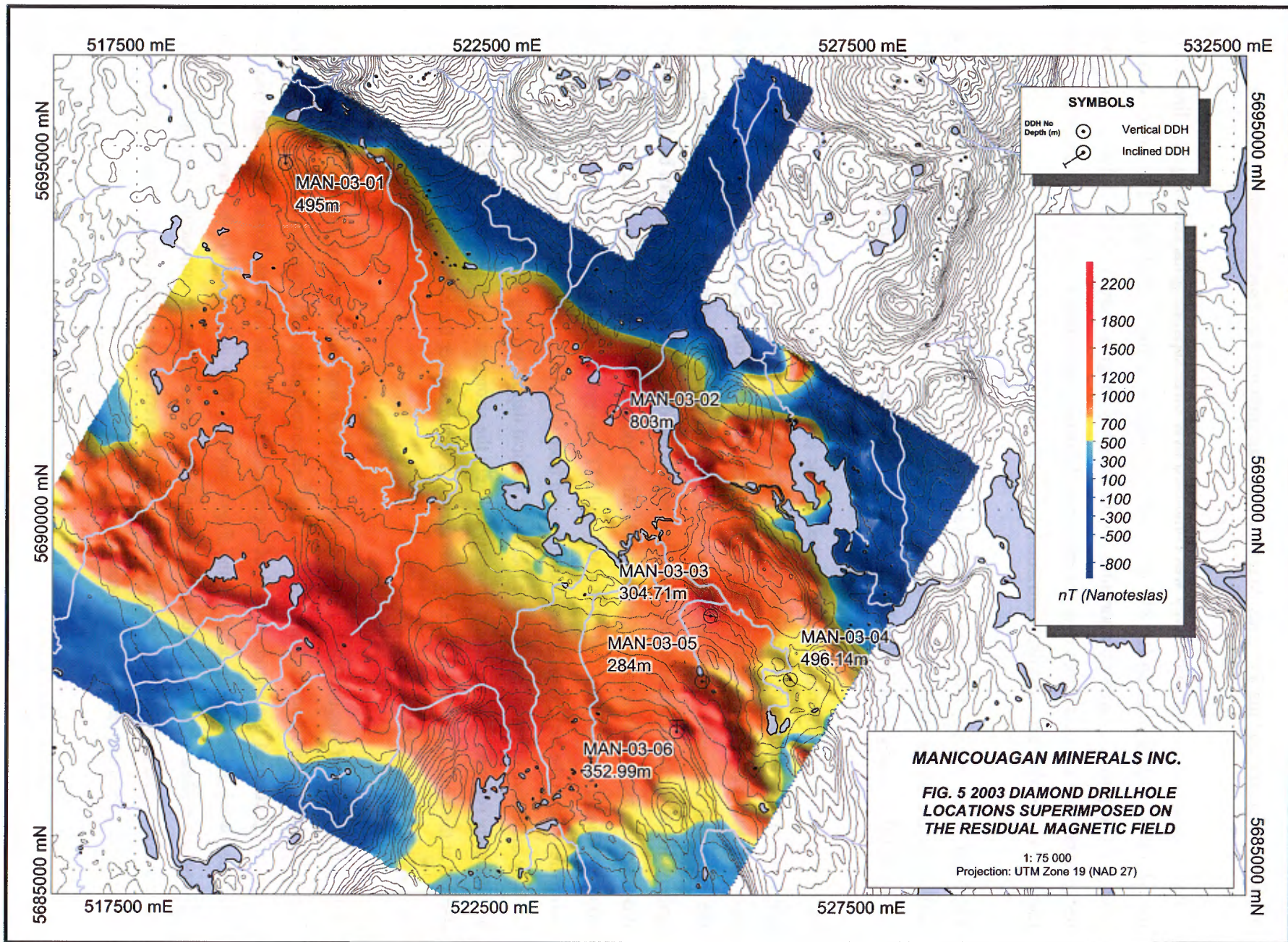
the NW, the Central and the SW grids. Magnetic data was interpreted by *Lambert Géosciences Ltée*.

The ground total field magnetic survey was completed over three separate grids covering 11.8 line-km on the NW grid; 10.4 line-km on the SW grid; and 7.6 line-km on the Central grid. The survey outlined several broad positive magnetic anomalies on the property ranging from 1 000 to 1 500 nt above the background level and continuous over several hundreds meters. According to the size and the amplitude of these anomalies, they are most likely attributable to gabbroic rocks.

The PEM winter survey, totalling 34.1 km, was undertaken over selected airborne magnetic targets as defined by the earlier AERODAT airborne magnetic survey covering the NW and the SW grids. The survey failed to clearly identify sizeable conductors within at least 500 m of the surface.

Because of the deep penetration of the magnetotelluric (MT) and audio-magnetotelluric (AMT) methods and location of a number of significant aeromagnetic anomalies near the Lac des Isles base camp, this technique was employed over three grid lines. The method is based on the fact that natural currents flow in the earth and may well extend deep below the crust. The current distribution is a function of the resistivities of the rocks encountered. Thus, low resistivity, deep, massive sulphides can be detected with this sounding method. Two surveys, covering 98 AMT and MT sites, were conducted in June and August 2003 by *Phoenix Geophysics Ltd*. The AMT and MT surveys located eight significant, low resistivity anomalies within the central grid, less than three km from the Lac des Isles base camp. Three of these are strongly indicative of conductors but are located at vertical depths varying from 1200 to 1800 m. A fourth MT anomaly referred to as the Camp anomaly is likely the strongest, but is deep (>1 000 m) and was not defined at the time. An additional orthogonal survey is required over the MT anomalies in order to define them better prior to drilling.

During the month of August 2003, *Fugro Airborne Surveys* was contracted by *Manicouagan Resources Inc.* to conduct an airborne combined MEGATEM<sup>®</sup> electromagnetic and magnetic survey (Fig. 5) within the central portion of the island. A total of approximately 603 line km was flown. Although nine EM anomalies were delineated in detail by the Fugro surveys, they were found to be caused by surficial features rather than bedrock conductors. No significant electromagnetic conductors were disclosed by these surveys. The MEGATEM<sup>®</sup> electromagnetic results were a significant improvement over the 1990 AERODAT surveys in terms of depth penetration.



During 2003, *Manicouagan Resources Inc.* conducted two phases of reconnaissance diamond drilling. Figure 5 shows the location of six diamond drillholes completed on the Central Manicouagan Property, within 5 km of the Lac des Iles base camp. The holes were drilled in order to investigate deep MELIS electrical anomalies, previously identified by *Mineraux Manic Inc.*, and broad magnetic anomalies. All drillholes are summarized in Appendix II.

## 2005

Following the initial public offering in December 2004, *Manicouagan Resources Inc.* initiated a two part exploration program in 2005, namely the evaluation of (1) deep anomalies in the central part of the crater and (2) shallower targets elsewhere within the 65 km diameter inner crater. The 2005 exploration campaign included a MEGATEM<sup>®</sup> electromagnetic and magnetic airborne surveys totalling 8184 line km at 200 m spacing, completed on June 30th, 2005; a surface Pulse Time Domain Electromagnetic (PEM) survey on selected airborne anomalies; additional magnetotelluric (MT) and audio-magnetotelluric (AMT) survey; and seventeen diamond drill holes totalling 8741 m were completed. A significant (~23%) part of the island is under the ecological reserve and was not surveyed with the Fugro MEGATEM<sup>®</sup> geophysical technique.

Preliminary analysis of the Fugro MEGATEM<sup>®</sup> airborne surveys led to follow-up PEM ground surveys. Thirteen anomalies were selected primarily near the western edge of Ile René Levasseur. An equal number of anomalies are located under water in the south and southeast part of the island. PEM surveys were completed over eight grids with test drilling following closely behind.

Additional MT and AMT surveys were carried out during the summer over four deep anomalies in the vicinity of the camp in the central part of the crater. The central part of the project (40 km<sup>2</sup>) was subjected to MT surveys because of the greater depth of the melt sheet and projected sulphides occurring near its contact with the Grenville target rocks. The surveys located twelve deep MT anomalies interpreted to be mineralized sulphides associated with pinching and swelling fault systems traversing the area. The strongest MT anomaly encountered within the Manicouagan Project is located 3 km north of the lake, on which the base camp sits, near the southern edge of the central uplift. The target was interpreted by the geophysical contractor to be at a vertical depth of 1,700m.

During the summer and fall of 2005, sixteen BQ diamond drill holes (DDH) and the extension of a 2003

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drill hole were completed (GM 62314). One diamond drill hole that commenced drilling in 2005 was completed in the spring of 2006 but will be discussed in this section. The drill holes are distributed between the central region of Ile René Levasseur and the western rim of the island (Fig. 5 and Appendix II).

## **2006**

Nine DDH were completed during the period from February to May 2006 (Fig. 7). The drilling program was designed to target remaining EM anomalies identified by the airborne Fugro MEGATEM<sup>®</sup> study as well as to further investigate an isolated magnetic anomaly within the centre of the island (MAN06-08). Once more, the mineralization, melt sheet characteristics as well as the lithologies of all 2006 drill holes are given in Appendix II.

## **SUMMER 2006 FIELD WORK PROGRAM**

This section presents the results of the prospecting and sampling program carried out between July and August 2006 and completed in September 2006. The program was supervised by Roger Moar, P. Geo, assisted by Lucy Thompson, Ph.D. The exploration program was helicopter supported from Manicouagan Minerals Inc.'s base camp located in the middle of Rene-Levasseur Island during period of July to August 2006; and from the Mouchalagane base camp located 115 km NW of René-Levasseur Island during month of September 2006. The field program covered selected magnetic airborne anomalies as well as lithological contacts between the Impact Melt Sheet (IMS) and the crater floor. These targets have been selected for potentially Cu-Ni-PGE mineralization.

At the Sudbury Impact Crater, the Ni, Cu and PGE ores are typically associated with the contact of the impact melt sheet and the footwall, as well as occurring within breccias in the footwall environment. The field work program was thus designed to further examine and characterise the basement-melt sheet contact at Manicouagan. Locations and transects were selected based on the presence of favourable basement and melt sheet geology in the vicinity and/or the presence of geophysical anomalies (see map in pocket for field locations). For example, a large proportion of the field work was carried out in the north, north east and eastern regions of Renee Levasseur Island owing to the presence of favourable gabbroic, troctolitic

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and ultramafic basement lithologies in those areas. A detailed study was made of the nature of the impact melt-basement contact and associated rocks including abundant suevitic basal breccias. Samples were collected for polished thin section examination as well as assaying. Particular attention was paid to more mafic and ultramafic basement and clast lithologies as well as impact melt and suevitic breccias in the immediate vicinity of such lithologies. Samples were also collected of lithologies deemed to exhibit any indication of mineralization. A total of 156 samples were collected; see map in pocket and Appendix III for sample details, including location, field description and whether samples were prepared for thin section and/or assay. A total of 117 grab rock samples were selected, split and sent to Activation Laboratories, Ontario for assay. Samples were crushed to better than 75% passing 2mm, split off up to 250g, pulverized and split to better than 85% passing 75  $\mu$ . All samples were assayed for gold, platinum and palladium using fire assay and ICP-OES (Inductively Coupled Plasma-Optical Emission Spectrometry) and trace level multi-elements employing HF, HClO<sub>4</sub>-HNO<sub>3</sub>-HCl acid digestion and ICP-MS. See Appendix IV for full assay results.

A total of 58 grab rock samples were selected for polished thin section preparation and petrographic microscopy investigation. See Appendix IV for thin section descriptions.

The majority of samples collected did not indicate the presence of significant mineralization as is reflected in the assay results. However, assaying did reveal that several samples contained anomalous levels of various precious and base metals. These samples are all examples of either footwall basement lithologies or clasts within basal suevite or impact melt. Where sampled, none of the associated impact melt contained anomalous values, or only weakly anomalous values of precious or base metals.

A hematized, mafic, gabbroic clast (06LT01003) within the basal impact melt from one of the islands off the east of the main island assays slightly anomalously in Pd, Pt (11 and 18 ppb respectively) and Ni (741 ppm). Another ultramafic basement clast (105394) from within basal impact melt/suevite from another small island off the east coast of the main island (south of the previously mentioned sample) is anomalous in Cr and Ni (1430 and 1140 ppm respectively). A breccia from the western rim of the main island, comprising predominantly ultramafic, originally pyroxenitic clasts, now consisting of amphibole and clinopyroxene (06LT01401) assays anomalously in Pd, Pt, Au, (147, 46 and 13 ppb respectively) and >5000 ppm Cr. This area may warrant further field investigation.

Of particular interest are a number of basement samples collected from the north-northeast of the island

(43354 – 43361). These meta-mafic to ultramafic lithologies comprise altered olivine, amphibole, clinopyroxene +/- biotite, possible orthopyroxene, plagioclase and up to 5% opaques. These basement samples consistently assay high in Pd, Pt, Au, Cr, Ni and Cu; with up to 1780 ppm Ni in sample 43354; up to 437, 151, 84 ppb Pd, Pt, Au and 2090 ppm Cu in sample 43359. The outcrop is reasonably extensive in this area and probably warrants further investigation. Time constraints and weather conditions were such that the impact melt sheet in the immediate vicinity of these lithologies was not examined. Future field work should focus in this region, where the target lithologies appear to have already been concentrated in PG and base metals.

## CONCLUSION AND RECOMMENDATIONS

The property held by *Manicouagan Minerals* on Rene Levasseur Island, Quebec, represents the innermost 65 km diameter structure of a larger 100-120 km circular structure; the 214 Ma Manicouagan Impact Structure, the fourth largest impact crater in earth.

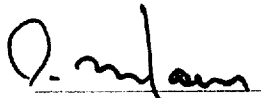
A number of impact craters have important natural resources associated with them as a result of the cratering process. The Redwing (North Dakota) and Steen River (Alberta) craters contain hydrocarbon reserves while Carswell (Saskatchewan) has associated uranium deposits. The second largest terrestrial impact site at Sudbury, Ontario, is host to extensive Ni, Cu and PGE deposits and represents the worlds' second largest Ni producing area after Norilsk, Russia, with 13% of world production.

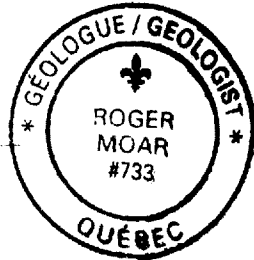
The Ni-Cu-PGE deposits at Sudbury are associated with the base of the impact melt sheet. The ores are predominantly contained within embayments at the base of the melt sheet, the so-called Sublayer, and within Offset Dykes, which are thought to represent early phases of the impact melt jetted into fractures within the crater floor. The ores are thought to have formed by the melting, concentration and remobilization of pre-existing sulfides within the Archean and Proterozoic target rocks.

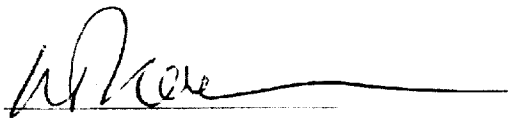
*Manicouagan Minerals* believes that the Manicouagan Impact Structure is analogous to the Sudbury Impact Structure and, as such, has the potential for extensive Cu, Ni and PGE exploration. Similarities between the two structures include their vast sizes; the presence of impact melts, which exhibit analogous textures and mineralogy; and the presence of sulfides in the basement target lithologies.

Given the size and prospectivity of the target area, despite the 2003, 2005 and 2006 drilling programs, the crater remains underexplored. The focus of future exploration work should be to further examine the nature of the impact melt sheet/basement contact over the entire island, targeting potential Sublayer and Offset Dyke-like structures. In particular, additional exploration could be focussed on deep magnetic targets largely on the southwest quadrant of the island as well as EM targets on the south and southeast margins.

It is also recommended that further reconnaissance field work be undertaken both on the central island and mainland. In particular, examination of the base of the impact melt sheet in the vicinity of the PGE showing associated with mafic and ultramafic lithologies in the NE of the island is recommended. Weather and time constraints were such that only the basement rocks were examined in this region. Also, geological maps indicate the presence of possible impact-related breccias and impact melt dykes on the mainland, which could potentially correlate with Offset Dyke structures. Seismic profiling across the structure, especially the central island, would probably aid in examining the nature of the impact melt sheet/basement contact and in identifying potential embayments and off shoots of the melt sheet, which could host Cu-Ni-PGE deposits.

  
Roger Moar, P. Geo



  
Lucy Thompson, Ph.D.

June 28<sup>th</sup>, 2007

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## **APPENDIX I LIST OF CLAIMS**

**MANICOUAGAN PROJECT  
MINING TITLES LIST**

NTS	ROW	COLUMN	AREA (Ha)	TYPE	TITLE No	STATUS	REGISTRATION	EXPIRY	TITLEHOLDER
22N01	0027	0003	53.93	CDC	14897	A	2004-03-03	2008-03-02	Manicouagan Minerals Inc. (84324) 100 %
22N01	0027	0004	53.93	CDC	14898	A	2004-03-03	2008-03-02	Manicouagan Minerals Inc. (84324) 100 %
22N01	0030	0009	53.91	CDC	17848	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0030	0010	53.91	CDC	17849	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0030	0011	53.91	CDC	17850	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0029	0008	53.92	CDC	17853	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0029	0009	53.92	CDC	17854	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0029	0010	53.92	CDC	17855	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0029	0011	53.92	CDC	17856	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
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22N01	0028	0008	53.93	CDC	17860	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
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22N01	0027	0006	53.93	CDC	17865	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0027	0007	53.93	CDC	17866	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0026	0001	53.94	CDC	17867	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
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22N01	0026	0004	53.94	CDC	17870	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0026	0005	53.94	CDC	17871	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
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22N01	0026	0007	53.94	CDC	17873	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0001	53.95	CDC	17874	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0002	53.95	CDC	17875	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0003	53.95	CDC	17876	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0004	53.95	CDC	17877	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0005	53.95	CDC	17878	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0006	53.95	CDC	17879	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0025	0007	53.95	CDC	17880	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N01	0030	0013	53.91	CDC	98970	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N01	0029	0012	53.92	CDC	98971	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N01	0028	0012	53.93	CDC	98972	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N02	0030	0011	53.90	CDC	14921	A	2004-03-03	2008-03-02	Manicouagan Minerals Inc. (84324) 100 %
22N02	0030	0012	53.90	CDC	14922	A	2004-03-03	2008-03-02	Manicouagan Minerals Inc. (84324) 100 %
22N02	0030	0013	53.90	CDC	14923	A	2004-03-03	2008-03-02	Manicouagan Minerals Inc. (84324) 100 %







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22N02	0026	0012	53.94	CDC	36820	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0026	0013	53.94	CDC	36821	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0025	0013	53.95	CDC	36824	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0024	0013	53.96	CDC	36830	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0024	0014	53.96	CDC	36831	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0024	0015	53.96	CDC	36832	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0024	0016	53.96	CDC	36833	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0022	0008	53.98	CDC	46434	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N02	0021	0017	53.99	CDC	46437	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N02	0029	0010	53.91	CDC	95018	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0028	0010	53.92	CDC	95019	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0020	0047	54.00	CDC	95020	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N02	0020	0036	54.00	CDC	2061674	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N02	0020	0037	54.00	CDC	2061675	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N02	0021	0036	53.99	CDC	2061676	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N02	0021	0037	53.99	CDC	2061677	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N03	0030	0056	53.90	CDC	33335	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0030	0057	53.90	CDC	33336	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0030	0058	53.90	CDC	33337	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0030	0059	53.90	CDC	33338	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0030	0060	53.90	CDC	33339	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0029	0055	53.91	CDC	33340	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0029	0056	53.91	CDC	33341	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0029	0057	53.91	CDC	33342	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0029	0058	53.91	CDC	33343	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0029	0059	53.91	CDC	33344	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0028	0057	53.92	CDC	33347	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N03	0028	0058	53.92	CDC	33348	A	2004-08-25	2008-08-24	Manicouagan Minerals Inc. (84324) 100 %
22N06	0025	0057	53.66	CDC	15226	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0025	0058	53.66	CDC	15227	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0024	0057	53.67	CDC	15228	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0024	0058	53.67	CDC	15229	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0024	0059	53.67	CDC	15230	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0028	0055	53.63	CDC	36858	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0028	0056	53.63	CDC	36859	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0054	53.64	CDC	36864	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0055	53.64	CDC	36865	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0056	53.64	CDC	36866	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0057	53.64	CDC	36867	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0058	53.64	CDC	36868	A	2004-09-15	2008-09-14	Manicouagan Minerals Inc. (84324) 100 %









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22N06	0017	0053	53.74	CDC	46450	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0017	0054	53.74	CDC	46451	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0017	0055	53.74	CDC	46452	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0049	53.75	CDC	46454	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0050	53.75	CDC	46455	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0051	53.75	CDC	46456	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0052	53.75	CDC	46457	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0053	53.75	CDC	46458	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0054	53.75	CDC	46459	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0055	53.75	CDC	46460	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0016	0056	53.75	CDC	46461	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0051	53.76	CDC	46467	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0052	53.76	CDC	46468	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0053	53.76	CDC	46469	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0054	53.76	CDC	46470	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0055	53.76	CDC	46471	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0056	53.76	CDC	46472	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0057	53.76	CDC	46473	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0014	0055	53.77	CDC	46477	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0014	0056	53.77	CDC	46478	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N06	0030	0055	53.61	CDC	95024	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0028	0054	53.63	CDC	95025	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0026	0053	53.65	CDC	95026	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0025	0051	53.66	CDC	95027	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0022	0049	53.69	CDC	95028	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0020	0047	53.71	CDC	95029	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0018	0046	53.73	CDC	95030	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0015	0049	53.76	CDC	95031	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0009	0052	53.82	CDC	95032	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0001	0058	53.89	CDC	95033	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N06	0026	0059	53.65	CDC	2061678	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N06	0026	0060	53.65	CDC	2061679	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0059	53.64	CDC	2061680	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N06	0027	0060	53.64	CDC	2061681	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0036	53.76	CDC	5077	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0037	53.76	CDC	5078	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0038	53.76	CDC	5079	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0039	53.76	CDC	5080	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0040	53.76	CDC	5081	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0041	53.76	CDC	5082	A	2003-10-21	2007-10-20	Manicouagan Minerals Inc. (84324) 100 %



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22N07	0005	0004	53.86	CDC	15173	A	2004-03-11	2008-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0005	0005	53.86	CDC	15174	A	2004-03-11	2008-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0022	53.78	CDC	15237	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0023	53.78	CDC	15238	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0024	53.78	CDC	15239	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0022	53.79	CDC	15240	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0023	53.79	CDC	15241	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0024	53.79	CDC	15242	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0025	53.79	CDC	15243	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0026	53.79	CDC	15244	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0027	53.79	CDC	15245	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0011	0025	53.80	CDC	15246	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0011	0026	53.80	CDC	15247	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0011	0027	53.80	CDC	15248	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0012	53.83	CDC	15249	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0013	53.83	CDC	15250	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0014	53.83	CDC	15251	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0015	53.83	CDC	15252	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0016	53.83	CDC	15253	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0017	53.83	CDC	15254	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0058	53.81	CDC	15413	A	2004-03-05	2008-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0059	53.81	CDC	15414	A	2004-03-05	2008-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0060	53.81	CDC	15415	A	2004-03-05	2008-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0059	53.82	CDC	15417	A	2004-03-05	2008-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0060	53.82	CDC	15418	A	2004-03-05	2008-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0028	53.81	CDC	17620	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0029	53.81	CDC	17621	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0028	53.82	CDC	17888	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0029	53.82	CDC	17889	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0006	0001	53.85	CDC	37878	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0005	0001	53.86	CDC	37879	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0001	53.87	CDC	37880	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0002	53.87	CDC	37881	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0003	53.87	CDC	37882	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0004	53.87	CDC	37883	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0005	53.87	CDC	37884	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0001	53.87	CDC	37889	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0002	53.87	CDC	37890	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0003	53.87	CDC	37891	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0004	53.87	CDC	37892	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %

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22N07	0003	0005	53.87	CDC	37893	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0001	53.88	CDC	37898	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0002	53.88	CDC	37899	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0003	53.88	CDC	37900	A	2004-09-21	2008-09-20	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0010	53.81	CDC	38299	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0011	53.81	CDC	38300	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0012	53.81	CDC	38301	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0013	53.81	CDC	38302	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0014	53.81	CDC	38303	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0015	53.81	CDC	38304	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0016	53.81	CDC	38305	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0011	53.82	CDC	38307	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0011	53.83	CDC	38309	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0007	0013	53.84	CDC	38313	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0007	0014	53.84	CDC	38314	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0007	0015	53.84	CDC	38315	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0007	0016	53.84	CDC	38316	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0006	0014	53.85	CDC	38321	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0006	0015	53.85	CDC	38322	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0006	0016	53.85	CDC	38323	A	2004-09-17	2008-09-16	Manicouagan Minerals Inc. (84324) 100 %
22N07	0006	0017	53.85	CDC	38882	A	2004-09-20	2008-09-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0009	0005	53.82	CDC	46483	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0008	0005	53.83	CDC	46484	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0005	0012	53.86	CDC	46488	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0012	53.87	CDC	46491	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0013	53.87	CDC	46492	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0010	53.87	CDC	46493	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0011	53.87	CDC	46494	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0012	53.87	CDC	46495	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0003	0013	53.87	CDC	46496	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0004	53.88	CDC	46498	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0005	53.88	CDC	46499	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0006	53.88	CDC	46500	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0007	53.88	CDC	46501	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0008	53.88	CDC	46502	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0009	53.88	CDC	46503	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0010	53.88	CDC	46504	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0011	53.88	CDC	46505	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0012	53.88	CDC	46506	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %
22N07	0002	0013	53.88	CDC	46507	A	2004-11-22	2008-11-21	Manicouagan Minerals Inc. (84324) 100 %



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22N07	0017	0020	53.74	CDC	74649	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0021	53.74	CDC	74650	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0022	53.74	CDC	74651	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0023	53.74	CDC	74652	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0024	53.74	CDC	74653	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0016	53.72	CDC	74654	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0017	53.72	CDC	74655	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0018	53.72	CDC	74656	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0019	53.72	CDC	74657	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0020	53.72	CDC	74658	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0021	53.72	CDC	74659	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0022	53.72	CDC	74660	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0023	52.52	CDC	74661	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0024	6.31	CDC	74662	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0025	33.36	CDC	74663	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0026	42.77	CDC	74664	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0015	53.73	CDC	74668	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0016	53.73	CDC	74669	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0017	53.73	CDC	74670	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0018	53.73	CDC	74671	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0025	53.74	CDC	76181	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0026	53.74	CDC	76182	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0027	53.74	CDC	76183	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0028	36.41	CDC	76184	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0029	33.99	CDC	76185	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0030	48.52	CDC	76186	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0031	53.74	CDC	76187	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0032	53.74	CDC	76188	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0033	53.74	CDC	76189	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0034	53.74	CDC	76190	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0035	53.74	CDC	76191	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0015	53.75	CDC	76195	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0016	53.75	CDC	76196	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0017	53.75	CDC	76197	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0018	53.75	CDC	76198	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0019	53.75	CDC	76199	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0020	53.75	CDC	76200	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0021	53.75	CDC	76201	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0022	53.75	CDC	76202	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0023	53.75	CDC	76203	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %























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22N07	0013	0054	53.78	CDC	82534	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0055	53.78	CDC	82535	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0056	53.78	CDC	82536	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0057	53.78	CDC	82537	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0058	53.78	CDC	82538	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0059	53.78	CDC	82539	A	2005-07-19	2007-07-18	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0038	43.21	CDC	83076	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0039	51.53	CDC	83077	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0040	36.59	CDC	83078	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0041	53.61	CDC	83079	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0042	53.61	CDC	83080	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0043	53.61	CDC	83081	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0044	53.61	CDC	83082	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0039	49.65	CDC	83083	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0040	33.71	CDC	83084	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0041	34.44	CDC	83085	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0042	44.72	CDC	83086	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0043	38.39	CDC	83087	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0044	37.93	CDC	83088	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0045	19.75	CDC	83089	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0046	33.76	CDC	83090	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0047	34.05	CDC	83091	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0048	17.81	CDC	83092	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0040	29.11	CDC	83093	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0041	29.14	CDC	83094	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0042	29.16	CDC	83095	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0043	29.18	CDC	83096	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0044	29.19	CDC	83097	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0045	43.76	CDC	83098	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0046	53.72	CDC	83099	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0047	53.72	CDC	83100	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0048	28.03	CDC	83101	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0048	28.18	CDC	83102	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0048	28.32	CDC	83103	A	2005-07-20	2009-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0017	0058	53.74	CDC	95044	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0016	0059	53.75	CDC	95045	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0015	0060	53.76	CDC	95046	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0014	0060	53.77	CDC	95047	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0013	0060	53.78	CDC	95048	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N07	0012	0059	53.79	CDC	95049	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %





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22N07	0013	0036	53.78	CDC	1118840	A	2003-02-27	2009-02-26	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0037	30.14	CDC	1119703	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0038	29.05	CDC	1119704	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0039	29.08	CDC	1119705	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0031	34.05	CDC	1119706	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0032	34.39	CDC	1119707	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0033	34.64	CDC	1119708	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0034	34.86	CDC	1119709	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0020	0035	21.45	CDC	1119710	A	2003-03-11	2009-03-10	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0045	53.81	CDC	1121893	A	2003-04-14	2009-04-13	Manicouagan Minerals Inc. (84324) 100 %
22N07	0010	0046	53.81	CDC	1121894	A	2003-04-14	2009-04-13	Manicouagan Minerals Inc. (84324) 100 %
22N07	0014	0046	53.77	CDC	1121895	A	2003-04-14	2009-04-13	Manicouagan Minerals Inc. (84324) 100 %
22N07	0018	0024	0.01	CDC	1132986	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0024	0.52	CDC	1132987	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0024	0.31	CDC	1132988	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0024	0.03	CDC	1132989	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0024	0.01	CDC	1132990	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0022	0023	0.01	CDC	1132995	A	2005-06-16	2009-06-15	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0040	2.34	CDC	1133077	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0029	0041	0.04	CDC	1133078	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0039	0.02	CDC	1133079	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0040	6.03	CDC	1133080	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0030	0040	0.04	CDC	1133081	A	2005-07-20	2007-07-19	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0006	53.87	CDC	2061682	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0004	0007	53.87	CDC	2061683	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0005	0006	53.86	CDC	2061684	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0005	0007	53.86	CDC	2061685	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0019	0036	48.03	CDC	2061686	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0026	0001	53.65	CDC	2061687	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0027	0001	53.64	CDC	2061688	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0027	0006	53.64	CDC	2061689	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0027	0007	53.64	CDC	2061690	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0027	0008	53.64	CDC	2061691	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0028	0006	53.63	CDC	2061692	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0028	0007	53.63	CDC	2061693	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N07	0028	0008	53.63	CDC	2061694	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0004	53.82	CDC	17805	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0005	53.82	CDC	17806	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0006	53.82	CDC	17807	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0007	53.82	CDC	17808	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %



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22N08	0008	0002	53.83	CDC	18023	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0008	0003	53.83	CDC	18024	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0007	0001	53.84	CDC	18025	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0007	0002	53.84	CDC	18026	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0007	0003	53.84	CDC	18027	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0007	0004	53.84	CDC	18028	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0007	0005	53.84	CDC	18029	A	2004-04-19	2008-04-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0013	0001	53.78	CDC	95034	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0012	0001	53.79	CDC	95035	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0011	0002	53.80	CDC	95036	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0001	53.81	CDC	95037	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0005	53.81	CDC	95038	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0006	53.81	CDC	95039	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0011	53.82	CDC	95040	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0008	0014	53.83	CDC	95041	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N08	0011	0001	53.80	CDC	98966	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0011	0003	53.80	CDC	98967	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0007	53.81	CDC	98968	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0008	53.81	CDC	98969	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0008	53.82	CDC	2061695	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0009	53.82	CDC	2061696	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0009	0010	53.82	CDC	2061697	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0002	53.81	CDC	2061698	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0003	53.81	CDC	2061699	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N08	0010	0004	53.81	CDC	2061700	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0001	53.51	CDC	17792	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0002	52.99	CDC	17793	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0003	53.51	CDC	17794	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0004	53.51	CDC	17795	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0005	53.51	CDC	17796	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0012	0001	53.50	CDC	17797	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0012	0002	53.50	CDC	17798	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0012	0003	53.50	CDC	17799	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0012	0004	53.50	CDC	17800	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0012	0005	53.50	CDC	17801	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0013	0001	53.49	CDC	17802	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0013	0002	53.49	CDC	17803	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0013	0003	53.49	CDC	17804	A	2004-04-07	2008-04-06	Manicouagan Minerals Inc. (84324) 100 %
22N09	0010	0002	3.13	CDC	95021	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N09	0010	0003	41.76	CDC	95022	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %

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22N09	0010	0004	27.24	CDC	95023	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N09	0011	0006	51.96	CDC	98965	A	2005-10-19	2007-10-18	Manicouagan Minerals Inc. (84324) 100 %
22N09	0010	0002	0.01	CDC	1133667	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N10	0002	0001	53.59	CDC	15263	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N10	0002	0002	53.59	CDC	15264	A	2004-03-15	2008-03-14	Manicouagan Minerals Inc. (84324) 100 %
22N10	0012	0057	53.50	CDC	17752	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0012	0058	53.50	CDC	17753	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0012	0059	53.50	CDC	17754	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0012	0060	53.50	CDC	17755	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0053	53.49	CDC	17760	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0054	53.49	CDC	17761	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0055	53.49	CDC	17762	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0056	53.49	CDC	17763	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0057	53.49	CDC	17764	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0058	53.49	CDC	17765	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0059	53.49	CDC	17766	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0013	0060	53.49	CDC	17767	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0053	53.48	CDC	17772	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0054	53.48	CDC	17773	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0053	53.47	CDC	17778	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0054	53.47	CDC	17779	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0016	0053	53.46	CDC	17786	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0016	0054	53.46	CDC	17787	A	2004-04-06	2008-04-05	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0008	53.56	CDC	18193	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0008	53.55	CDC	18194	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0009	53.55	CDC	18195	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0010	53.55	CDC	18196	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0011	53.55	CDC	18197	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0008	53.54	CDC	18198	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0009	53.54	CDC	18199	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0010	53.54	CDC	18200	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0009	0017	53.53	CDC	18214	A	2004-04-21	2008-04-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0001	53.58	CDC	18606	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0002	53.58	CDC	18607	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0003	53.58	CDC	18608	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0004	53.58	CDC	18609	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0005	53.58	CDC	18610	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0001	53.57	CDC	18611	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0002	53.57	CDC	18612	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0003	53.57	CDC	18613	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %

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22N10	0004	0004	53.57	CDC	18614	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0005	53.57	CDC	18615	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0002	53.56	CDC	18616	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0003	53.56	CDC	18617	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0004	53.56	CDC	18618	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0005	53.56	CDC	18619	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0003	53.56	CDC	18620	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0004	53.56	CDC	18621	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0005	53.56	CDC	18622	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0006	53.56	CDC	18623	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0006	0007	53.56	CDC	18624	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0004	53.55	CDC	18625	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0005	53.55	CDC	18626	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0006	53.55	CDC	18627	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0007	0007	53.55	CDC	18628	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0005	53.54	CDC	18629	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0006	53.54	CDC	18630	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0008	0007	53.54	CDC	18631	A	2004-04-22	2008-04-21	Manicouagan Minerals Inc. (84324) 100 %
22N10	0001	0023	18.23	CDC	73987	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0001	0029	6.22	CDC	73988	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0001	0030	18.47	CDC	73989	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0002	0024	11.85	CDC	73990	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0002	0027	9.39	CDC	73991	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0002	0028	26.99	CDC	73992	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0003	0030	16.08	CDC	73993	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0030	32.92	CDC	73994	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0004	0031	36.82	CDC	73995	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0031	27.97	CDC	73996	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0033	6.25	CDC	73997	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0005	0035	10.44	CDC	73998	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0001	0029	0.13	CDC	1132999	A	2005-06-21	2007-06-20	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0055	53.48	CDC	2061701	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0056	53.48	CDC	2061702	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0057	53.48	CDC	2061703	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0058	53.48	CDC	2061704	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0014	0059	53.48	CDC	2061705	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0055	53.47	CDC	2061706	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0056	53.47	CDC	2061707	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0057	53.47	CDC	2061708	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N10	0015	0058	53.47	CDC	2061709	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %

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22N10	0015	0059	53.47	CDC	2061710	A	2007-03-05	2009-03-04	Manicouagan Minerals Inc. (84324) 100 %
22N11	0001	0057	53.60	CDC	95042	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %
22N11	0002	0058	53.59	CDC	95043	A	2005-09-15	2007-09-14	Manicouagan Minerals Inc. (84324) 100 %

## **APPENDIX II DIAMOND DRILLING SUMMARIES**

**MANICOUAGAN PROJECT - 2003**

**Table 1 Technical specifications of the 2003 diamond drill holes – BQ size**

DDH No	Date		UTM Coordinates NAD 83 - Zone 19		Grid Coordinates			Elevation (m)	Orientation		Length (m)
	Started	Ended	Easting	Northing	Grid	Line	Station		Azimuth	Plunge	
MAN-03-01	2003/04/05	2003/04/12	519 588	5 694 978	NW	L 4+00W	17+50 N	580	000°	-77°	495.00
MAN-03-02	2003/06/17	2003/06/28	524 083	5 691 570	SE	L 0+00	36+00 N	515	020°	-61°	803.00
MAN-03-03	2003/09/04	2003/09/07	525 402	5 688 742	SE	L 14+00E	8+50 N	551	012°	-90°	304.71
MAN-03-04	2003/09/13	2003/09/17	526 491	5 687 863	SE	BL 0+00	27+37.5E	542	000°	-90°	496.14
MAN-03-05	2003/09/22	2003/09/25	525 290	5 687 836	SE	L13+50E	1+00S	593	090°	-80°	284.00
MAN-03-06	2003/09/30	2003/10/04	524 944	5 687 141	SE	L10+00E	8+00S	660	000°	-63°	352.99
Total meterage:											<b>2735.84</b>

**Table 2 Mineralization, Melt Sheet and Lithology Detail for 2003 DDHs**

<b>DDH No</b>	<b>Depth (m)</b>	<b>Mineralization</b>	<b>Melt Sheet Depth down hole(m)</b>	<b>Basement Lithology</b>
MAN-03-01	495.00	No sulphides mineralization encountered	From 2-86m impact melt breccias composed of 45-75% inclusions.	Massive to foliated ferrodiorite cut by narrow aplitic dykes. Charnockite is the main constituent from 269.0 to 337.3 m. either aplite or massive diorite dykes which are frequently magnetized. Below 337.3 m, diorite and aplite dominate to 479.3 m. chloritized granodiorite from 479.3-495 m.
MAN-03-02	803.00	No sulphides mineralization encountered	From 5.5-149.4m impact melt sheet; Interval 149.4-153.3 m consisted of a breccia zone with 35% inclusions and matrix of impact melt rock.	The crater floor was intersected at 153.3m. It is composed of cut by bands/dykes of ferrodiorite as well as a late stage ensemble was cut by melt rock dykes as well as small vein pseudotachylite. The hole was stopped at 803m within a highly quartzitic ferrodiorite alternating with bands of massive ferrodiorite content up to 20% in thick sections explained the anomaly.
MAN-03-03	304.71	No sulphides mineralization encountered	From 28-159.5m impact melt sheet followed by an 8 m thick section of impact melt breccia with inclusions of meltrock, leucocratic rock and ferrodiorite.	The section between 167.5 and 304.7 m constitutes the floor of is composed of an assemblage of charnockitic rocks cut by basic ultramafic rock (garnet rich periodotite) from 167.5 to 170.0 m. stage aplite. The whole is cut by meltrock breccias as well as veins of pseudotachylite. The drillhole ended (304.7 m) in a mix of ferrodiorite and aplite. The magnetite contained in the ferrodiorite the magnetic anomaly.
MAN-03-04	496.14	No sulphides mineralization encountered	No melt sheet intersected	After casing to 18.3 m, the crater floor was intersected. It is composed of charnockites cut by dykes of ferrodiorite occasionally quartziferous to foliated, and moderately to strongly magnetic. This assemblage meltrock dykes and veins of pseudotachylite. A fault breccia was at 271.7 m. The fault breccia is 1.44 m thick and is composed of angular fragments of charnockite in a fine grained pulverized rock. The hole was stopped at 496.1 m within impact metamorphosed an charnockite with veinlets of pseudotachylite.
MAN-03-05	284.00	No sulphides mineralization encountered	No melt sheet intersected	After casing to 5.5 m, the crater floor is composed of ferrodiorite and charnockites to a depth of 282.6 m. The last 1.4 m (to 284.0 m) is a locus of a major fault striking NNE previously interpreted by magnetic survey.

**Table 2 Mineralization, Melt Sheet and Lithology Detail for 2003 DDHs**

<b>DDH No</b>	<b>Depth (m)</b>	<b>Mineralization</b>	<b>Melt Sheet Depth down hole(m)</b>	<b>Basement Lithology</b>
MAN-03-06	352.99	No sulphides mineralization encountered	After casing to 3.0 m, melt sheet was encountered to a depth of 65.5 m. Inclusions are rare.	The impact melt sheet is in contact with a green-grey massive rock. The magnetite is primarily coarse grained and constitutes up to 10% of the rock content. The ferrodiortite is brecciform, sheared and cut by dykes and persisted to the end of the hole at 352.99 m. The Ti anomaly was largely explained by the magnetite contained in the ferrodiortite.

**MANICOUAGAN PROJECT - 2005**

Prepared by Roger Moar, geo  
Lucy Thompson Ph. D.

**Table 3 Technical specifications of the 2005 diamond drill holes – BQ size**

DDH No	Date		UTM Coordinates NAD 83 - Zone 19		Grid Coordinates			Elevation (m)	Orientation		Length (m)	
	Started	Ended	Easting	Northing	Grid	Line	Station		Azimuth	Plunge		
MAN-03-04	24/09/05	09/10/05	529 491	5 687 863	SE	BL 0+00	27+37.5E	542	N/A	-90°	1303.96	
MAN-05-01	27/07/05	06/09/05	523 722	5 686 894	SE	L 2+00W	11+10 S	677	N/A	-90°	1606.79	
MAN-05-02	04/08/05	11/08/05	520 880	5 694 490	NW	N/A	N/A	571	N/A	-90°	495.35	
MAN-05-03	14/08/05	24/08/05	523 226	5 690 869	NW	N/A	N/A	500	225°	-60°	702.01	
MAN-05-04	26/08/05	01/09/05	496 186	5 686 029	E	L 0+00	2+81E	425	294°	-45°	510.69	
MAN-05-05	02/09/05	04/09/05	496 186	5 686 029	E	L 0+00	2+81E	425	114°	45°	141.00	
MAN-05-06	05/09/05	10/09/05	509 940	5 686 130	L	L 2+00S	2+50W	399	254°	-45°	543.00	
MAN-05-07	13/09/05	15/09/05	495 988	5 686 523	E	L 4+00N	0+95W	354	290°	-45°	336.00	
MAN-05-08	18/09/05	20/09/05	499 169	5 678 630	F	L 4+00N	2+50S	393	270°	-45°	273.00	
MAN-05-09	24/09/05	28/09/05	505 634	5 673 483	A	L 0+00	0+20W	400	200°	-45°	478.14	
MAN-05-10	03/10/05	07/10/05	496 220	5 684 402	M	L 4+00N	7+75W	552	081°	-70°	449.80	
MAN-05-11	13/10/05	11/12/05	522 506	5 694 037	NW	7+99N	24+82E	538	N/A	-90°	1373.80	
MAN-05-12	21/10/05	22/10/05	496 349	5 683 408	M	TL 8W	6+00S	543	264°	-45°	139.53	
MAN-05-12A	23/10/05	25/10/05	496 349	5 683 408	M	TL 8W	6+00S	543	264°	-50°	243.06	
MAN-05-13	27/10/05	28/10/05	496 359	5 683 606	M	L 4+00S	7+62W	564	263°	-45°	186.00	
MAN-05-14	31/10/05	04/11/05	494 071	5 698 652	N/A	N/A	N/A	355	290°	-45°	299.21	
MAN-05-15	06/11/05	07/11/05	495 111	5 700 345	N/A	N/A	N/A	362	290°	-45°	156.00	
											Previously drilled on MAN-03-04:	-496.00
											<b>Total meterage:</b>	<b>8741.34</b>

**Table 4 Mineralization, Melt Sheet and Lithology Detail for 2005 DDHs**

DDH No	Depth (m)	Mineralization	Melt Sheet Depth down hole(m)	Basement Lithology
MAN-05-01	1606.79	~ 0.5 - 1% chalcopryrite filling fractures and vesicles melt dyke @ 972.20 - 973.70m	571	mixed charnockitic and gabbroic gneisses with some pyro intruded by impact melt dykes, breccias and pseudotachyl core
MAN-05-02	495.35		126	meta-gabbroic, meta-anorthositic, charnockitic and me intruded by impact melt dykes, breccias and pseudotach core
MAN-05-03	702.01	"@ 190 m: chalcopryrite in two parallel fractures / veins (~5 mm)	>700	impact melt for length of hole; good quality core
MAN-05-04	510.69		0	grey to pink/grey gneisses ranging from granitic, dioritic to amphibolite gneisses with minor meta-mafic and ultramafi associated pegmatites; disrupted by thin, grey/green shea breccia zones as well as pseudotachylite; limestone and a present at 367-487m; gneisses and limestone highly fracti friable; poor quality core
MAN-05-05	141		0	same lithologies and quality of core as 05-04; limestone a
MAN-05-06	543		0	intercalated mesocratic, leucocratic and melanocratic gne hornblende and plagioclase with associated pegamтите; fin aplitic material highly fractured and shatter coned; disrupt grey/green shears and breccias and pseudotachylyte; spc by glass-bearing melt rock between >192m; quality of cori fractured and friable in places
MAN-05-07	336		0	same lithologies and quality of core as 05-04, 05-05; limes
MAN-05-08	273		0	predominantly grey to pink/grey mesocratic to leucocratic from granitic to dioritic; minor melanocratic bands and laye pegmatites; highly disrupted by thin, grey/green shears ar zones as well as pseudotachylite; very poor quality core
MAN-05-09	478.14	~ 5% pyrrhotite in meta-gabbroic rock @ 353.5 - 354.5m	0	same lithologies as 05-08 with more melanocratic gneisse 325-337m, 351-415m; disrupted by thin, grey/green shear zones and pseudotachylyte; crosscut by glassy melt <186 core

**Table 4 Mineralization, Melt Sheet and Lithology Detail for 2005 DDHs**

<b>DDH No</b>	<b>Depth (m)</b>	<b>Mineralization</b>	<b>Melt Sheet Depth down hole(m)</b>	<b>Basement Lithology</b>
MAN-05-10	449.8		129	same lithologies as 05-09; disrupted by thin, grey/green sh breccia zones and pseudotachylyte; crosscut by spherulitic limestone and shale at 163-178m; graphitic matrix breccia pyrrhotite at 247-248m; gneiss highly altered and friable at 400-416m; fair to poor quality of core
MAN-03-04	1303.96		0	predominantly charnockitic gneiss with minor bands and le gabbroic gneiss; crosscut by numerous pseudotachylyte v good quality core
MAN-05-11	1800		413	predominantly anorthositic gneisses with meta-gabbroic tc and layers (643-657m, 659-854m) and charnockitic gneiss; crosscut by impact melt dykes as well as pseudotachylyte good quality core
MAN-05-12	139.53	Up to 3% pyrite and 5% pyrrhotite @ 114-129.54 m	75	same lithologies as 05-09; highly altered (hematized and c immediately adjacent to melt sheet; disrupted by thin, grey thicker breccia zones and pseudotachylyte; graphitic matr pyrite +/-pyrrhotite at 114-129m; fair to poor quality core
MAN-05-12A	243.06	Up to 7% pyrite and 7% pyrrhotite @ 109.11-126.96 m	73	same as 05-12 with graphitic zone at 109-127m
MAN-05-13	186	Up to 7% pyrite and 7% pyrrhotite @ 171.31-180.55 m	128	same as 05-12 and 12A with graphitic zone at 176-181m
MAN-05-14	299.21		0	same as 05-09, 12, 12A with no graphite but particularly w grey/green shears and larger breccia zones (up to 50cm tl
MAN-05-15	156	Up to 5% pyrite and 15% pyrrhotite @ 144.00-150.75 m	0	same as 05-09, 12, 12A but generally altered, sheared an <122m and 149-156m; meta-ultramafic rock at 144-149m disseminated pyrrhotite; graphitic zone at 144-149m (sam

Table 5 Technical specifications of the 2006 diamond drill holes – BQ size

JTM NAD 83 - Zone 19		Title	Geophysical Targets			Grid Coordinates			Elev (m)	Orientation		
Easting	Northing		Flight Lines	Magnetic		Grid	Line	Station		Azimuth	Plunge	Length (m)
				Residual Field (g)	Estimated Depth (m)							
515 050	5 693 821	CDC 74639	L3096	300	100-230	n/a	n/a	n/a	481	N/A	-90°	270.26
512 647	5 692 881	CDC 74651	L3096	800	100-200	n/a	n/a	n/a	421	N/A	-90°	252.06
497 947	5 682 676	CDC 38170	L3073	500	140-280	n/a	n/a	n/a	530	N/A	-90°	322.00
496 954	5 682 328	CDC 38168	L3073	-	140-280	n/a	n/a	n/a	555	N/A	-90°	126.00
497 047	5 685 099	CDC 38151	L3086	250	315-400	n/a	n/a	n/a	516	N/A	-90°	436.00
496 850	5 700 319	CDC 36879	Sulphides mineralization at the base of the melt sheet			n/a	n/a	n/a	475	270°	-70°	347.46
Block C												
493 192	5 696 702	CDC 37661	PULSE EM anomaly			/ Grid 1	L 6+00S	5+50E	375	256°	-45°	276.82
522 850	5 690 601	CDC 5081	Magnetic & MT anomalies			n/a	n/a	n/a	496	N/A	-90°	1529.07
511 631	5 693 003	CDC 74650	L3098	-	121	n/a	n/a	n/a	416	075°	-75°	330.26
522 506	5 694 037	CDC 1041192	MT ANOMALY			NW	7+99N	24+82E	538	N/A	-90°	1802.71
											Previously drilled on MAN-05-11:	-1370.00
											Total meterage:	<b>4322.64</b>

*Table 5  
replaces page 11/17*

MANICOUAGAN PROJECT - 2006

Prepared by Roger Moar, OGQ  
Lucy Thompson Ph. D.

Table 5 Technical specifications of the 2006 diamond drill holes – BQ size

DDH No	Date		UTM NAD 83 - Zone 19		Title	Geophysical Targets			Grid Coordinates			Elev (m)	Orientation		
	Started	Ended	Easting	Northing		Flight Lines	Magnetic Residual Field (g)	Estimated Depth (m)	Grid	Line	Station		Azimuth	Plunge	Length (m)
MAN-06-01	21/02/06	25/02/06	515 050	5 693 821	CDC 74639	L3096	300	100-230	n/a	n/a	n/a	481	N/A	-90°	270.26
MAN-06-02	02/03/06	04/03/06	512 647	5 692 881	CDC 74651	L3096	800	100-200	n/a	n/a	n/a	421	N/A	-90°	252.06
MAN-06-03	08/03/06	12/03/06	497 947	5 682 676	CDC 38170	L3073	500	140-280	n/a	n/a	n/a	530	N/A	-90°	322.00
MAN-06-04	23/03/06	25/03/06	496 954	5 682 328	CDC 38168	L3073	-	140-280	n/a	n/a	n/a	555	N/A	-90°	126.00
MAN-06-05	27/03/06	30/03/06	497 047	5 685 099	CDC 38151	L3086	250	315-400	n/a	n/a	n/a	516	N/A	-90°	436.00
MAN-06-06	03/04/06	06/04/06	496 850	5 700 319	CDC 36879	Sulphides mineralization at the base of the melt sheet			n/a	n/a	n/a	475	270°	-70°	347.46
MAN-06-07	07/04/06	10/04/06	493 192	5 696 702	CDC 37661	PULSE EM anomaly			Block C / Grid 1	L 6+00S	5+50E	375	256°	-45°	276.82
MAN-06-08	07/04/06	30/04/06	522 850	5 690 601	CDC 5081	Magnetic & MT anomalies			n/a	n/a	n/a	496	N/A	-90°	1529.07
MAN-06-09	12/04/06	23/04/06	511 631	5 693 003	CDC 74650	L3098	-	121	n/a	n/a	n/a	416	075°	-75°	330.26
MAN-05-10	13/10/05	03/04/06	522 506	5 694 037	CDC 1041192	MT ANOMALY			NW	7+99N	24+82E	538	N/A	-90°	1802.71
														Previously drilled on MAN-05-11:	-1370.00
														Total meterage:	<b>4322.64</b>

**Table 6 Mineralization, Melt Sheet and Lithology Detail for 2006 DDHs**

<b>DDH No</b>	<b>Depth (m)</b>	<b>Mineralization</b>	<b>Melt Sheet Depth down hole(m)</b>	<b>Basement Lithology</b>
MAN-06-01	270.26		0	mixed leucocratic, mesocratic and melanocratic gneisses with pe crosscut by pseudotachylyte veins and dykes, and green/grey m cataclastic veins and breccias; fair to good quality core
MAN-06-02	252.06		0	same lithologies as 06-01; crosscut by impact melt and glass dyk predominantly grey to pink/grey mesocratic to leucocratic gneiss from granitic to dioritic; minor melanocratic bands and layers; as pegmatites; variously sheared, cataclased and vesiculated; cut b melt dykes, impact melt breccia, glass and green/grey cataclastic fair to poor quality core
MAN-06-03	322.00	minor pyrrhotite within some of the breccias; e.g., 136.10, 138.10, 138.20	116	
MAN-06-04	126.00		89	same lithologies as 06-03 but highly disrupted, altered (hematize chloritized) and brecciated, particularly from 111-126m with inter between altered melt, cataclastic breccia, gneiss and limestone c to poor quality core
MAN-06-05	436.00		0	same lithologies and quality of core as 06-03; sporadic meta-ultra layers; poor quality core
MAN-06-06	347.46		105	predominantly mesocratic gneisses with pegmatite, the same as green/grey shears and cataclastic breccias as well as some glas (pseudotachylyte and/or impact melt) dykes variously well develc quality core
MAN-06-07	276.82	pyrite and pyrrhotite (up to 30%) within the graphitic gneiss	0	mesocratic gneisses with pegmatite to 158m; limestone and shal 188m and 212-277m; metasedimentary graphite, plagioclase anc gneiss from 188-208m; all rocks disrupted by shears and breccia particularly at the contacts of the limestone; poor quality core

**Table 6 Mineralization, Melt Sheet and Lithology Detail for 2006 DDHs**

<b>DDH No</b>	<b>Depth (m)</b>	<b>Mineralization</b>	<b>Melt Sheet Depth down hole(m)</b>	<b>Basement Lithology</b>
MAN-06-08	1529.07	trace chalcopyrite associated with anhydrite/celestite veins at 550m; pyrrhotite and chalcopyrite (~30% over 8cm) associated with a melt breccia at 1103m	1086	from 1086-1430m impact melt breccias and possible cataclastic I 1430 - 1529m predominantly melanocratic, metamorphosed micr and gabbro with minor mesocratic gneisses, pyroxenitic layers ar anorthopsitic horizon at 1473-1478m; cross cut by impact melt (1 and pseudotachylyte veins and dykes; good quality core
MAN-06-09	330.26		0	same lithologies as 06-01; more melanocratic towards end of hol by impact melt and glass dykes as well as pseudotachylyte veins dykes, and green/grey matrix cataclastic veins and breccias; fair quality core

## **APPENDIX III SAMPLE DESCRIPTIONS AND LOCATIONS**

lay, Mag Anom	534006	5686301	Meta-gabbro/leucogabbro; 50-60% plag, ~ 40% mafic minerals (hornblende, nematized) with some garnet; white on weathered surface and grey on fresh surface; minor quartz? fine to medium grained; foliated; cut by pt veinlets	
lay, Mag Anom	533981	5686289	same as 06RM00101	
lay, Mag Anom	534047	5686111	same as 06RM00101	
lay, Mag Anom	534528	5686323	same as 06RM00101	
lay, Mag Anom	534007	5686433	same as 06RM00101	
lay, Mag Anom	533977	5686405	same as 06RM00101; pt veinlets White/beige weathering impact melt sheet; reddish grey on fresh surface; mesocratic to leucocratic; 10-15% mafic minerals, some hematized; ~80% grey feldspar; medium grained; subhorizontal layering; trace magnetite and pyrite	
lay, Mag Anom	533662	5686292		
lay, Mag Anom	533608	5686277	same as 06RM007	
lay, Mag Anom	533556	5686279	same as 06RM007	
lay, Mag Anom	533521	5686265	same as 06RM007	
lay, Mag Anom	533509	5686349	same as 06RM007	
lay, Mag Anom	533480	5686370	same as 06RM007	
lay, Mag Anom	533515	5686363	same as 06RM007	
lay, Mag Anom	533633	5686405	same as 06RM007	
lay, Mag Anom	533664	5686387	same as 06RM007	
fjord, Block B	529591	5675394	Fine grained, red to brownish grey, buff weathering lower impact melt sheet (IMS) with ~ 2% clasts ranging from mm to 3 cm in size; varied clast lithologies	
fjord, Block B	529567	5675571	same as 06RM016 with subhorizontal layering and less clasts	
fjord, Block B	529535	5675895	reddish grey, very fine grained matrix breccias with <30% clasts ranging from mm - 5 cm across; subangular to rounded and fluidal well banded mesocratic gneiss; white leucocratic and hematized mafic bands; disrupted and cross cut by red veins (cm - 10 cm)	
fjord, Block B	529535	5675895		
fjord, Block B	529515	5675935	Base of IMS, very fine grained grey/red matrix	
lay, Mag Anom	534220	5686985	hematized mesocratic gneiss	Y
lay, Mag Anom	534062	5686890	same as previous sample	
lay, Mag Anom	533536	5686625	massive, brown, medium grained impact melt sheet	Y
lay, Mag Anom	533594	5686542	same as previous sample	Y
lay, Mag Anom	533594	5686542	hematized mesocratic gneiss	Y
of main island	545573	5706373	base of IMS	Y
of main island	545545	5706838	same as 06LT00501 but redder	Y
of main island	545529	5706386	same as 06LT00501 but redder and more vesicular	Y
of main island	545475	5706440	altered/brecciated basement	Y
of main island	545459	5706462	more coherent black and white, mesocratic gneiss	Y
of main island	545437	5706474	base of IMS; same as 06LT00503	Y
of main island	545437	5706474	cruddy basement	Y
of main island	545437	5706474	thin, black matrix breccia @ contact of MS and basement	Y Y
of main island	545437	5706474	IM 20 cm above contact 06LT00801	Y Y
of main island	545437	5706474	cruddy basement; soil like	Y
of main island	545437	5706474	hematized basement gneiss with red veins, just below contact	Y Y
of main island	545424	5706515	grey/red IM 2 m above contact	Y
of main island	545424	5706515	IM @ contact	Y

Sample descriptions and locations; and indication of samples prepared for thin sectioning (TS) and assay

Sample Number	Location	UTM NAD83 Zone 19		Sample Description	Thin Section	Assay
		Easting	Northing			
				Meta-gabbro/leucogabbro; 50-60% plag. ~ 40% mafic minerals (hornblende, hematized) with some garnet; white on weathered surface and grey on fresh surface; minor quartz? fine to medium grained; foliated; cut by pt veinlets		
06RM00101	Memory Bay, Mag Anom	534006	5686301			
06RM00201	Memory Bay, Mag Anom	533981	5686289	same as 06RM00101		
06RM00301	Memory Bay, Mag Anom	534047	5686111	same as 06RM00101		
06RM00401	Memory Bay, Mag Anom	534528	5686323	same as 06RM00101		
06RM00501	Memory Bay, Mag Anom	534007	5686433	same as 06RM00101		
06RM00601	Memory Bay, Mag Anom	533977	5686405	same as 06RM00101; pt veinlets		
				White/beige weathering impact melt sheet; reddish grey on fresh surface; mesocratic to leucocratic; 10-15% mafic minerals, some hematized; ~80% grey feldspar; medium grained; subhorizontal layering; trace magnetite and pyrite		
06RM00701	Memory Bay, Mag Anom	533662	5686292			
06RM00801	Memory Bay, Mag Anom	533608	5686277	same as 06RM007		
06RM00901	Memory Bay, Mag Anom	533556	5686279	same as 06RM007		
06RM01001	Memory Bay, Mag Anom	533521	5686265	same as 06RM007		
06RM01101	Memory Bay, Mag Anom	533509	5686349	same as 06RM007		
06RM01201	Memory Bay, Mag Anom	533480	5686370	same as 06RM007		
06RM01301	Memory Bay, Mag Anom	533515	5686363	same as 06RM007		
06RM01401	Memory Bay, Mag Anom	533633	5686405	same as 06RM007		
06RM01501	Memory Bay, Mag Anom	533664	5686387	same as 06RM007		
				Fine grained, red to brownish grey, buff weathering lower impact melt sheet (IMS) with ~ 2% clasts ranging from mm to 3 cm in size; varied clast lithologies		
06RM01601	S island, fjord, Block B	529591	5675394			
06RM01701	S island, fjord, Block B	529567	5675571	same as 06RM016 with subhorizontal layering and less clasts		
				reddish grey, very fine grained matrix breccias with <30% clasts ranging from mm - 5 cm across; subangular to rounded and fluidal		
06RM01801	S island, fjord, Block B	529535	5675895			
				well banded mesocratic gneiss; white leucocratic and hematized mafic bands; disrupted and cross cut by red veins (cm - 10 cm)		
06RM01802	S island, fjord, Block B	529535	5675895			
06RM01901	S island, fjord, Block B	529515	5675935	Base of IMS, very fine grained grey/red matrix		
06LT00101	Memory Bay, Mag Anom	534220	5686985	hematized mesocratic gneiss		Y
06LT00201	Memory Bay, Mag Anom	534062	5686890	same as previous sample		
06LT00301	Memory Bay, Mag Anom	533536	5686625	massive, brown, medium grained impact melt sheet		Y
06LT00401	Memory Bay, Mag Anom	533594	5686542	same as previous sample		Y
06LT00402	Memory Bay, Mag Anom	533594	5686542	hematized mesocratic gneiss		Y
06LT00501	Island off E of main island	545573	5706373	base of IMS		Y
06LT00502	Island off E of main island	545545	5706838	same as 06LT00501 but redder		Y
06LT00503	Island off E of main island	545529	5706386	same as 06LT00501 but redder and more vesicular		Y
06LT00601	Island off E of main island	545475	5706440	altered/brecciated basement		Y
06LT00701	Island off E of main island	545459	5706462	more coherent black and white, mesocratic gneiss		Y
06LT00801	Island off E of main island	545437	5706474	base of IMS; same as 06LT00503		Y
06LT00802	Island off E of main island	545437	5706474	cruddy basement		Y
06LT00803	Island off E of main island	545437	5706474	thin, black matrix breccia @ contact of MS and basement	Y	Y
06LT00804	Island off E of main island	545437	5706474	IM 20 cm above contact 06LT00801	Y	Y
06LT00805	Island off E of main island	545437	5706474	cruddy basement; soil like		Y
06LT00806	Island off E of main island	545437	5706474	hematized basement gneiss with red veins, just below contact	Y	Y
06LT00901	Island off E of main island	545424	5706515	grey/red IM 2 m above contact		Y
06LT00902	Island off E of main island	545424	5706515	IM @ contact		Y
06LT00903	Island off E of main island	545424	5706515	IM 50 cm above contact		Y
06LT00904	Island off E of main island	545424	5706515	cruddy gneiss @ contact		Y

Sample descriptions and locations; and indication of samples prepared for thin sectioning (TS) and assay

Sample Number	Location	UTM NAD83 Zone 19		Sample Description	Thin Section	Assay
		Easting	Northing			
06LT00905	Island off E of main island	545424	5706515	coherent basment with red melt veins; 2.5 m below contact		Y
06LT01001	Island off E of main island	545376	5706546	IM with apparent flow layering, veiscles and elongate clasts		Y
06LT01002	Island off E of main island	545376	5706546	shocked? vesiculated pegmatite clast		
06LT01003	Island off E of main island	545342	5706579	hematized, mafic, gabbroic clast	Y	Y
06LT01101	Island off E of main island	545600	5706365	IM 1 m above 1st clast		Y
06LT01102	Island off E of main island	545600	5706365	IM @ contact with 1st		Y
06LT01103	Island off E of main island	545600	5706365	altered 1st @ contact		Y
06LT01201	NE island (E of PGE showing)	534995	5717513	altered/brecciated and cruddy pyroxenite?		Y
06LT01301	NE island (E of PGE showing)	536240	5716845	black and white, hornblende, plagioclase mesocratic gneiss; brecciated and rusty		Y
06LT01302	NE island (E of PGE showing)	536240	5716845	breccia		Y
06LT01401	NW island inlet	496300	5700000	dark green, originally ultramafic?	Y	Y
06LT01402	NW island inlet	496300	5700000	suevitic basal breccia?		Y
LT06090101	Shocked An gneiss? Mainland	507103	5731937	anorthositic gneiss; shocked?		
LT06090102	Shocked An gneiss? Mainland	507090	5731938	anorthositic gneiss; shocked?		
LT06090103	Shocked An gneiss? Mainland	507090	5731938	anorthositic gneiss; shocked?		
LT06090104	Shocked An gneiss? Mainland	507090	5731938	anorthositic gneiss; shocked?		
105351	NW island IM; plateau	504273	5710712	medium grained, brown IM from cliff	Y	Y
105370	NW island IM/plateau	504017	5710469	medium grained, brown IM from plateau	Y	Y
105352	SW island, logging, IM dyke	510215	5674964	5 cm thick IM dyke in mesocratic gneiss		Y
105353	SW island, logging, IM dyke	510248	5674979	glassy IM dyke in mesocratic gneiss		Y
105354	SW island, logging, IM dyke	510248	5674979	basement mesocratic gneiss		Y
105355	SW island, logging, IM dyke	510248	5674979	larger IM dyke; fine grained igneous texture	Y	Y
105356	SW island, logging, IM dyke	510248	5674979	contact IM dyke and mesocratic gneiss		
105357	SW island, logging, IM dyke	510248	5674979	gneiss with magnetite @ contact with IM dyke	Y	Y
105358	SW island, IM/basement	510176	5674055	pinkish grey, fine grained basal IM; on road	Y	Y
105359	SW island, IM/basement	510131	5673689	medium grey, fine grained IM; cliff	Y	Y
105360	SW island, IM/basement	510131	5673689	coarser grained IM (boulder from higher up cliff)	Y	Y
105361	SW island, IM/basement	510131	5673689	same as 105360 with ovoids of resorbed material		Y
105362	SW island, IM/basement	510114	5673650	medium grained IM		Y
LT091201	SW island, IM/basement	510114	5673650	basement clast?		
105363	IM - Observation Lake	510721	5693697	medium grained IM	Y	Y
105364	IM - Observation Lake	510721	5693697	medium grained IM		Y
105365	IM - Observation Lake	510720	5693775	medium grained IM		Y
105366	IM - Observation Lake	510720	5693775	medium grained IM	Y	Y
105367	IM - Observation Lake	510724	5693803	weathered, rotten IM		Y
105368	IM - Observation Lake	510958	5694850	fine/medium grained IM with clasts (waterfall)		Y
105369	IM - Observation Lake	510972	5694876	fine/medium grained IM with clasts (waterfall)	Y	Y
105371	Island off E of main island	544472	5705467	basal IM; clast laden	Y	Y
105372	Island off E of main island	544472	5705467	mafic clast		Y
105373	Island off E of main island	544533	5705457	finer grained, more mafic looking melt	Y	Y
105374	Island off E of main island	544683	5705399	gabbroic basement with green/grey shears and knobby texture	Y	Y
105375	Island off E of main island	544683	5705399	IM 1 m above basment	Y	Y
105376	Island off E of main island	544683	5705399	same as 105375 but with different texture; spheroidal weathering		Y
105377	Island off E of main island	544672	5705405	spheroidal weathering, magnetic IM	Y	Y
105378	Island off E of main island	544672	5705405	IM ~ 5 m above contact; similar to 105371		Y
105379	Island off E of main island	544659	5705417	gabbroic basement	Y	Y

Sample descriptions and locations; and indication of samples prepared for thin sectioning (TS) and assay

Sample Number	Location	UTM NAD83 Zone 19		Sample Description	Thin Section	Assay
		Easting	Northing			
105380	Island off E of main island	544659	5705417	IM in contact with gabbroic basment	Y	Y
105381	Island off E of main island	544659	5705417	gabbro clast in IM dyke	Y	Y
LT160900601	Island off E of main island	544659	5705417	thin IM dyke within basement		
105382	Next island south	545890	5704482	suevite with rusty spots	Y	Y
105383	Next island south	545890	5704482	gabbro		Y
105384	Next island south	545828	5704326	gabbro/troctolite clast in suevite	Y	Y
105385	Next island south	545828	5704326	suevite immediately next to 105384	Y	Y
105386	Next island south	545828	5704326	simialr clast to 105384 with manganese and hematite		Y
105387	Next island south	545828	5704326	clast?	Y	Y
105388	Next island south	545828	5704326	IM	Y	Y
105389	Next island south	545821	5704370	IM with layering just above suevite		Y
105390	Next island south	545868	5704401	IM dyke	Y	Y
105391	Next island south	545868	5704401	rusty, altered and brecciated gabbroic basment	Y	Y
105392	Next island south	545868	5704401	black matrix brecciated basement	Y	Y
105393	Next island south	545868	5704401	mineralized basement next to pegmatite		Y
105394	Next island south	545935	5704542	ultramafic? Basement/clast?		Y
105395	Next island south	545935	5704542	IM 2 m above 105394		Y
105396	Next island south	545979	5704887	magnetic basment clast; weathers like a cannonball	Y	Y
105397	Next island south	545979	5704887	IM close to 105396	Y	Y
105398	Next island south	546020	5704865	large, magnetic, gneissic clast		Y
105399	Next island south	546020	5704865	IM @ contact with 105398		Y
105400	Next island south	546026	5704776	mafic, magnetic clast		Y
LT17090601	Next island south	546026	5704776	IM @ contact with 105400		
LT17090602	Next island south	546026	5704776	ultramafic layer in magnetic gneiss clast	Y	
LT17090603	Next island south	546015	5704720	IM @ contact with LT17090602	Y	
LT17090604	Next island south	546031	5704684	magnetic, mafic/ultramafic clast		
LT17090605	Next island south	546031	5704684	IM near LT17090604		
43351	NE island (near PGE showing)	533347	5718870	garnet amphibolite		Y
43352	NE island (near PGE showing)	533347	5718870	same as 43351 with green/grey shears		
43353	NE island (near PGE showing)	532979	5718975	strange white breccia	Y	Y
43354	NE island (near PGE showing)	532937	5718917	fine grained, massive, magnetic basment; minor Po?	Y	Y
43357	NE island (near PGE showing)	532937	5718917	UM island	Y	Y
43358	NE island (near PGE showing)	532639	5718981	medium grained, amphibole, mica, magnetite basment; rusty	Y	Y
43359	NE island (near PGE showing)	532639	5718981	coarser grained, amphibole, mica, magnetite basment; rusty	Y	Y
43360	NE island (near PGE showing)	532678	5718942	massive, granular, magnetic, ultramafic rock?	Y	Y
43361	NE island (near PGE showing)	532762	5718896	massive, granular, magnetic, ultramafic rock?		Y
43362	NE island (near PGE showing)	532889	5718873	pyrite in felsic gneiss (ASS) and amhpibolite gneiss (TS)		Y
43363	River above Mem Bay and camp	531868	5689202	medium grained grey/brown IM		Y
43364	River above Mem Bay and camp	531880	5689244	medium grained grey/brown IM	Y	
43365	River above Mem Bay and camp	531870	5689302	medium grained grey/brown IM		Y
LT23090601	Just S from above, on Mem Bay	532755	5688799	basement gneiss		
43366	SE island, S Mem Bay	542897	5684133	brown, flow layered? fluidal IM		Y
43367	SE island, S Mem Bay	542897	5684133	spheroidal weathering, brown IM	Y	Y
43368	SE island, S Mem Bay	542971	5684109	hematized clast		Y
43369	SE island, S Mem Bay	542971	5684109	IM matrices		Y
43370	SE island, S Mem Bay	542971	5684109	lighter grey/green weathering IM breccia		Y

Sample descriptions and locations; and indication of samples prepared for thin sectioning (TS) and assay

Sample Number	Location	UTM NAD83 Zone 19		Sample Description	Thin Section	Assay
		Eastings	Northing			
43371	SE island, S Mem Bay	542971	5684109	breccia between two different melts		Y
43372	SE island, S Mem Bay	543057	5684100	anorthosite clast		Y
43373	SE island, S Mem Bay	543057	5684100	IM		Y
43374	SE island, S Mem Bay	543084	5684099	magnetite, plagioclase clast	Y	Y
43375	SE island, S Mem Bay	543084	5684099	IM adjacent to 43374	Y	Y
43376	SE island, S Mem Bay	543106	5684098	contact of 1st with IM; weird texture		
43377	SE island, S Mem Bay	543106	5684098	IM immediately adjacent to 43376		Y
43378	SE island, S Mem Bay	543106	5684098	limestone		
43379	SE island, S Mem Bay	543286	5683953	clast free IM	Y	Y
43380	SE island, S Mem Bay	543286	5683953	contact of clast free and clast laden IM	Y	Y
LT24090601	SE island, S Mem Bay, but N of above	539305	5685424	anorthosite clast with breccia and knobby texture		
43381	SE island, S Mem Bay, but N of above	539290	5685429	blueish grey, magnetic, fine grained, clast free IM	Y	Y
43382	SE island, S Mem Bay, but N of above	539290	5685429	contact of 43381 with more typical clast laden IM	Y	Y
43383	SE island, S Mem Bay, but N of above	539290	5685429	more typical IM breccia	Y	Y
43384	SE island, S Mem Bay, but N of above	539167	5685399	IM		Y
43385	SE island, S Mem Bay, but N of above	539117	5685411	fine grained, clast free IM dyke		Y
43386	SE island, S Mem Bay, but N of above	539117	5685411	clast laden, green IM adjacent to 43385	Y	Y
43387	SE island, S Mem Bay, but N of above	539845	5685393	red hematized IM breccia? Cruddy	Y	Y
43388	SE island, S Mem Bay, but N of above	540051	5685381	spheroidally weathering IM breccia	Y	Y
43389	SE island, S Mem Bay, but N of above	540061	5685395	spheroidally weathering, more hematized melt breccia	Y	Y
43390	SE island, S Mem Bay, but N of above	540200	5685368	IM breccia, less clasts	Y	Y
43391	SE island, S Mem Bay, but N of above	540200	5685368	larger IM dyke, clast free	Y	Y
43392	SE island, S Mem Bay, but N of above	540200	5685368	smaller, thinner IM dyke, also clast free	Y	Y
43393	SE island, S Mem Bay, but N of above	540358	5685340	hematite, magnetite, amphibole, garnet basement rock; strongly magnetic	Y	Y

**APPENDIX IV ASSAYS DATA 2006 PROSPECTING & SAMPLING  
PROGRAM**

ASSAYS DATA FOR MANICOUAGAN MAPPING SAMPLING PROGRAM - 2006

Sample	Pd ppb	Pt ppb	Au ppb	Li ppm	B ppm	Na %	Mg %	Al %	K %	Ca %	Cd ppm	V ppm	Cr ppm	Mn ppm	Fe %	Hf ppm	Ni ppm	Er ppm	Be ppm	Ho ppm	Ag ppm	Cs ppm	Co ppm	Eu ppm	Bi ppm	Se ppm	Zn ppm	Ga ppm	As ppm	Rb ppm
06LT00101	< 4	< 5	< 2	15.4	< 1	3	2.26	8.41	2.15	4.76	0.2	135	77.4	1260	5.44	0.6	33.4	2.8	1.4	1	< 0.05	0.6	22.6	1.96	< 0.02	2.7	85	21.2	< 0.1	59.2
06LT00301	< 4	< 5	< 2	7.3	< 1	2.81	2.09	7.89	2.43	4.14	< 0.1	103	112	1050	4.96	5.6	49.9	2.6	1.4	0.9	< 0.05	0.35	20.9	1.91	< 0.02	1.7	77.6	22	< 0.1	58.3
06LT00401	< 4	< 5	< 2	6.6	2	2.9	2.16	7.56	2.7	4.25	< 0.1	99	105	931	5	5.9	54.2	2.7	1.3	0.9	< 0.05	0.36	21.3	1.87	< 0.02	1.2	108	19.4	< 0.1	58.9
06LT00402	< 4	< 5	< 2	7.6	< 1	> 3.00	2.16	5.28	1.56	5.17	0.1	149	86.8	1340	5.81	2.3	32.8	1.9	1.2	0.7	< 0.05	0.09	22.7	1.75	< 0.02	0.9	94.9	23.3	< 0.1	13.4
06LT00501	< 4	< 5	< 2	9.3	< 1	2.6	1.56	3.57	2.17	3.4	< 0.1	102	82.9	585	4.4	4.3	38.1	1.6	1.3	0.5	< 0.05	0.24	18.3	1	< 0.02	0.8	41.9	18.3	< 0.1	26.7
06LT00502	< 4	< 5	< 2	7.9	< 1	3	2.29	8.94	2.55	4.29	< 0.1	120	75.5	771	5.25	3.7	42.9	3.4	1.4	1.2	< 0.05	0.42	20.2	2.33	< 0.02	0.9	40.3	21.4	< 0.1	69.3
06LT00503	< 4	< 5	< 2	6.8	2	2.57	2.3	8.84	2.64	4.54	< 0.1	120	62.9	823	5.31	5.1	41.4	3.5	1.3	1.2	< 0.05	0.22	20.2	2.16	< 0.02	1.5	46.7	21	< 0.1	70.9
06LT00601	< 4	< 5	< 2	5.1	2	1.88	4.7	9.39	0.38	6.39	< 0.1	101	254	735	6.2	0.4	144	1.5	0.4	0.5	< 0.05	0.41	38.8	0.85	< 0.02	0.5	64.1	16.6	< 0.1	8
06LT00701	< 4	< 5	< 2	5.5	< 1	1.81	4.55	8.69	0.61	5.49	0.1	164	185	1970	9.69	0.9	174	3.7	38.9	1.3	< 0.05	4.01	47.9	1.97	0.09	1.2	89.1	21.3	< 0.1	33.3
06LT00801	< 4	< 5	< 2	4.9	1	2.76	2.09	8.72	2.67	3.85	< 0.1	116	68.7	904	5.28	3.7	43.4	2.8	1.3	1	< 0.05	0.2	22.8	2.09	< 0.02	0.6	79.4	21.3	< 0.1	63.4
06LT00802	< 4	< 5	< 2	3.8	< 1	1.77	4.54	> 10.0	0.4	6.68	< 0.1	105	283	656	6.07	0.4	122	1.7	0.7	0.6	< 0.05	0.22	36.7	0.91	< 0.02	1.1	80.3	17.8	< 0.1	7.7
06LT00803	< 4	< 5	< 2	10.5	1	2.32	1.88	4.35	1.97	3.06	< 0.1	113	164	1110	5.7	2.8	49.8	6.1	4.8	2	< 0.05	0.86	19	1.53	< 0.02	0.5	74.4	21	< 0.1	40.3
06LT00804	< 4	< 5	< 2	5.1	< 1	2.72	1.56	3.52	2.35	3.74	< 0.1	113	77	736	5.24	2.8	44.2	1.7	1	0.6	< 0.05	0.13	19.4	0.95	< 0.02	0.4	36.4	22.3	< 0.1	27.3
06LT00805	< 4	< 5	< 2	6.3	1	1.76	3.74	5.34	0.31	5.95	< 0.1	79	353	751	5.46	0.5	129	1.2	0.4	0.5	< 0.05	0.19	32.9	0.68	0.08	1	50.3	16.3	< 0.1	1.6
06LT00806	< 4	< 5	< 2	4.7	< 1	1.94	4.11	6.89	0.56	6.28	< 0.1	93	348	1020	5.66	0.5	114	1.8	1	0.6	< 0.05	0.62	33.7	0.8	0.03	1	63.6	18.3	< 0.1	14.9
06LT00901	< 4	< 5	< 2	5.7	< 1	2.81	1.86	4.96	1.96	4.33	< 0.1	122	77.3	831	5.14	4.6	40.4	2.3	1.2	0.8	< 0.05	0.28	20	1.41	< 0.02	0.6	93.8	21.4	< 0.1	19.6
06LT00902	< 4	< 5	< 2	7.9	< 1	2.73	2.19	8.67	2.71	3.77	< 0.1	104	90.1	854	5.63	3.1	45.7	2.8	1.2	1	< 0.05	0.17	19	2.04	< 0.02	0.8	40.1	20.1	< 0.1	63.2
06LT00903	< 4	< 5	< 2	4.4	< 1	2.8	1.8	5.53	2.19	3.94	< 0.1	115	57.7	1030	4.7	3.8	40.6	2.2	1.2	0.8	< 0.05	0.16	21.8	1.74	< 0.02	0.5	52.2	21.5	< 0.1	19.7
06LT00904	< 4	< 5	< 2	10.3	< 1	1.9	4.94	9.81	0.54	5.49	< 0.1	103	274	875	6.22	0.5	113	2	0.7	0.7	< 0.05	0.75	35.5	0.93	< 0.02	0.5	52	17.6	< 0.1	17.8
06LT00905	< 4	< 5	< 2	3	2	1.98	4.85	8.61	0.43	6.7	< 0.1	105	296	1100	6.3	0.3	119	1.9	0.6	0.6	< 0.05	0.24	36.6	0.96	< 0.02	0.4	70.2	18.4	< 0.1	8.5
06LT01001	< 4	< 5	< 2	8.2	< 1	2.9	1.83	3.93	2.23	4.16	< 0.1	115	94	858	5.26	4.4	40.5	2	1.3	0.7	< 0.05	0.22	20.9	1.25	< 0.02	0.1	55.1	21.9	< 0.1	25.9
06LT01003	11	18	< 2	13.5	5	0.612	> 10.0	3.5	0.42	7.22	0.1	141	801	1870	8.72	1.6	741	1.2	0.4	0.5	0.12	0.61	95.2	1.14	0.09	0.7	91.7	8.5	< 0.1	19
06LT01101	< 4	< 5	< 2	7.5	< 1	2.25	2.07	5.15	3.54	3.65	0.2	120	68.1	956	4.36	3.1	41.1	2.1	1.2	0.7	< 0.05	0.16	16.7	1.24	0.08	0.6	48.4	21.4	< 0.1	41.7
06LT01102	< 4	< 5	< 2	7.7	2	2.43	2.53	3.93	3.24	3.91	0.1	159	40.2	1470	5.58	2.4	31.4	2.5	1.3	0.9	< 0.05	0.38	21.5	1.43	0.05	0.6	48.4	22.1	< 0.1	25.9
06LT01103	< 4	< 5	< 2	26.9	< 1	1.16	2.56	5.12	> 5.00	1.53	0.7	93	69.4	836	3.67	2.5	27.7	1.6	1.3	0.5	0.11	2.26	10.3	0.88	0.38	1.1	115	23.2	0.4	71.3
06LT01201	< 4	< 5	< 2	20.1	< 1	0.915	5.36	7.17	0.92	6.16	< 0.1	134	293	1450	7.64	0.8	124	3	0.6	1	< 0.05	0.24	41.1	1.08	< 0.02	0.2	61.1	14.2	< 0.1	31.2
06LT01301	< 4	< 5	< 2	3.1	< 1	> 3.00	0.04	3.85	3.37	2.62	0.1	3	64	2180	8.52	2.2	2.2	3.5	0.8	1.2	< 0.05	0.07	2.9	2.92	< 0.02	0.9	99.8	36.5	0.3	26.4
06LT01302	< 4	< 5	< 2	2.6	1	> 3.00	0.03	3.54	3.16	2.51	0.1	3	37.4	1990	9.58	3	2.4	4.5	0.9	1.6	< 0.05	0.1	1.9	2.78	< 0.02	0.6	78.9	36.7	0.1	28.5
06LT01401	147	46	13	10	< 1	1.38	9.21	5.57	0.63	9.06	< 0.1	204	> 5000	1310	6.92	1.4	338	1.8	0.5	0.6	0.07	0.06	53.8	0.74	< 0.02	0.4	81.9	12.2	< 0.1	13.3
06LT01402	< 4	< 5	< 2	10.1	< 1	2.7	3	8.08	2.76	4.25	< 0.1	108	214	1300	4.92	3.9	79.8	2.7	1	0.9	< 0.05	0.18	24.4	1.61	< 0.02	0.7	119	20.1	< 0.1	24.8
105351	< 4	< 5	< 2	8.6	< 1	2.79	1.7	4.93	2.15	3.47	0.1	103	118	839	4.8	6.6	47.4	2.9	1.1	1	< 0.05	0.29	22	1.97	0.4	0.1	77.3	18	2.9	35.9
105352	< 4	< 5	< 2	15.3	< 1	> 3.00	1.98	6.8	2.32	3.21	0.1	95	152	1190	5.19	6	51.9	3.1	1.1	1.1	< 0.05	0.33	23	2.31	2.42	0.3	92.2	17.2	4.3	60.7
105353	< 4	< 5	< 2	11.6	< 1	2.9	2.25	7.16	2.3	3.42	0.1	105	188	1330	5.48	6.6	54.6	3.4	1.1	1.2	0.06	0.41	24.6	2.65	1.08	0.3	91.2	17.2	3.7	67.9
105354	< 4	< 5	< 2	2.9	< 1	> 3.00	0.11	4.83	4.23	0.72	0.1	12	53.5	739	4.93	1.5	0.6	2	0.8	0.7	< 0.05	0.13	2.1	2.54	0.18	0.1	106	28	1.1	43.6
105355	< 4	< 5	< 2	6.7	< 1	2.69	1.92	5.26	2.04	3.22	< 0.1	100	95.5	1190	5.01	6.4	50.9	2.8	1	1	< 0.05	0.34	23.1	2.19	0.25	0.2	80.5	17.5	1.5	46.3
105357	< 4	< 5	< 2	24.1	< 1	2.7	3.76	7.32	0.8	5.28	0.2	200	60.6	1670	9.41	1.7	94	3.3	0.3	1.2	< 0.05	0.23	53.5	1.72	0.33	0.3	135	18.9	2.2	19.2
105358	< 4	< 5	< 2	6.7	< 1	2.59	2.17	6.9	2.1	4.79	< 0.1	92	75.3	918	4.7	3.5	47.9	2.9	1	1	< 0.05	0.38	21.9	2.14	0.11	0.2	64.3	15.8	1.1	64.1
105359	< 4	< 5	< 2	4.3	< 1	2.59	1.64	3.93	1.89	3.45	< 0.1	87	78.7	1060	4.58	3.7	45.2	2.7	0.9	1	< 0.05	0.26	19.1	2.11	0.14	0.2	79.9	15.8	0.9	21.1
105360	< 4	< 5	< 2	7.9	< 1	2.66	2	5.6	2.01	4.84	< 0.1	94	82.5	972	4.83	2.3	50.7	3	1	1.1	< 0.05	0.32	22.3	2.13	0.14	0.3	60.4	16.2	0.7	47.7
105361	< 4	< 5	< 2	6.9	2	2.68	2.18	6.88	2.16	4.84	< 0.1	92	81.9	950	4.82	2.4	50.6	3.2	0.9	1.1	< 0.05	0.38	22.5	2.32	0.14	0.3	54.7	15.5	0.7	66.7
105362	< 4	< 5	< 2	5.6	< 1	2.56	2.03	6.72	2.03	3.33	< 0.1	95	80.6	983	4.85	6.1	48.1	3.2	0.8	1.1	< 0.05	0.29	22.4	2.41	0.08	0.6	61.1	15.7	0.4	61.3
105363	< 4	< 5	< 2	7.7	< 1	2.57	1.82	6.64	2.07	3.2	0.1	93	100	805	4.6	6.6	44.6	3.1	0.9	1.1	< 0.05	0.29	21.1	2.34	0.06	0.7	71.8	15	2	67.2
105364	< 4	< 5	< 2	8.2	< 1	2.52	1.92	6.55	2.02	3.14	< 0.1	95	105	709	4.41															

**ASSAYS DATA FOR MANICOUAGAN MAPPING SAMPLING PROGRAM - 2006**

Sample	Pd ppb	Pt ppb	Au ppb	Li ppm	B ppm	Na %	Mg %	Al %	K %	Ca %	Cd ppm	V ppm	Cr ppm	Mn ppm	Fe %	Hf ppm	Ni ppm	Er ppm	Be ppm	Ho ppm	Ag ppm	Cs ppm	Co ppm	Eu ppm	Bi ppm	Se ppm	Zn ppm	Ga ppm	As ppm	Rb ppm	
105368	< 4	< 5	< 2	5.3	< 1	2.53	0.97	4.1	2.59	2.16	< 0.1	60	91.1	635	3.33	7.7	29.4	3.2	0.7	1.1	< 0.05	0.14	13.7	1.26	0.04	< 0.1	50.1	16.3	0.8	25.4	
105369	< 4	< 5	< 2	4.8	< 1	2.38	1.67	4.46	1.73	2.95	< 0.1	102	94.7	780	4.7	6.1	47.2	2.8	0.8	1	< 0.05	0.26	22.4	1.89	0.03	< 0.1	65.8	14.8	0.5	35.7	
105370	< 4	< 5	< 2	8	< 1	> 3.00	1.75	6.48	2.46	4.44	< 0.1	110	131	1090	5.28	6	45.1	2.9	0.9	1	0.07	0.28	20.6	1.99	< 0.02	0.5	72.1	21.6	< 0.1	41.2	
105371	< 4	< 5	< 2	8.3	< 1	2.64	1.75	6.34	1.75	3.13	< 0.1	100	73.7	893	4.59	5.9	38.2	2.9	0.7	1	< 0.05	0.35	21.4	2.13	< 0.02	0.1	59	14	< 0.1	60.1	
105372	< 4	< 5	< 2	4.7	< 1	2.48	1.59	5.98	1.7	2.96	0.2	90	58.2	893	4.21	5.9	37.7	3	0.7	1	< 0.05	0.35	21.6	2.14	0.02	0.1	79.2	12.4	0.7	59.3	
105372A	6	< 5	< 2	8	< 1	1.84	3.75	4.88	0.98	6.81	0.1	199	193	798	4.52	4.4	142	1.9	0.7	0.7	< 0.05	0.24	32.7	1.86	0.51	< 0.1	69.3	14.5	0.4	32.2	
105373	< 4	< 5	< 2	5.7	< 1	2.41	1.59	6.06	1.83	3.08	0.2	96	69.7	864	4.47	2.3	38.6	3.8	0.7	1.3	< 0.05	0.55	20.2	2.45	0.12	0.4	77.5	13.5	1.2	72.5	
105374	< 4	< 5	< 2	10.5	< 1	> 3.00	1.35	6.36	0.79	2.87	< 0.1	110	21.1	1480	5.12	0.7	5	3.5	1.2	1.3	< 0.05	3.73	15.9	2.48	0.13	0.2	94.3	18.9	1.6	32.8	
105375	< 4	< 5	< 2	5.1	< 1	2.52	1.68	6.42	1.57	3.08	< 0.1	100	69.7	749	4.34	2.8	31.5	2.7	0.7	1	< 0.05	0.37	15.9	2.14	0.02	0.2	61.6	13.2	1.8	53.8	
105376	< 4	< 5	< 2	6.1	< 1	2.34	1.86	6.4	1.55	3.03	< 0.1	102	69.2	859	4.44	3.1	36	2.7	0.8	1	< 0.05	0.36	18	2.22	< 0.02	0.3	71	13.8	2.4	56	
105377	< 4	< 5	< 2	4.8	< 1	2.45	1.73	6.47	1.6	2.9	0.2	101	62.6	692	4.21	1.9	32.5	2.9	0.7	1.1	< 0.05	0.41	16.3	2.24	< 0.02	0.3	82.6	12.9	2.6	57.3	
105378	< 4	< 5	< 2	4.2	< 1	2.28	1.21	3.82	1.51	2.63	< 0.1	90	65.4	703	3.94	3.6	30	2.2	0.5	0.8	< 0.05	0.26	16.4	1.7	< 0.02	< 0.1	56.6	12.8	< 0.1	34.2	
105379	< 4	< 5	< 2	14.5	< 1	1.83	3.11	5.55	0.29	5.3	0.2	231	30.6	2080	8.04	1.2	100	2.5	0.3	0.9	< 0.05	0.18	56.4	2.09	0.04	0.2	111	19.4	< 0.1	5.1	
105380	< 4	< 5	< 2	3.6	< 1	2.48	1.55	6.34	2.03	2.86	0.1	98	54.9	807	3.96	2.6	34.5	2.9	0.8	1.1	< 0.05	0.39	18.2	2.31	0.02	0.2	62.8	12.5	0.2	73.9	
105381	< 4	< 5	< 2	19.7	< 1	1.1	3.21	6.24	0.72	5.8	1.5	290	41.6	1500	7.94	2.2	91.4	3.3	0.2	1.2	< 0.05	0.31	65.7	2.25	0.08	0.3	160	18	< 0.1	20.4	
105382	< 4	< 5	< 2	7.2	< 1	2.58	2.17	6.38	1.68	3.19	0.1	108	50.6	1010	4.34	3.9	37.8	3.5	0.8	1.3	< 0.05	0.25	20.3	2.51	0.04	0.3	39.9	14.6	0.7	58.1	
105383	< 4	< 5	3	< 0.5	< 1	1.75	1.51	1.68	0.42	3.38	0.2	265	91.3	1760	11	1	7.9	6.3	0.8	2.2	< 0.05	0.6	18.7	2.95	0.12	0.8	207	20.1	1.2	6	
105384	< 4	< 5	6	30.7	< 1	1.11	1.8	4.27	2.65	1.8	< 0.1	179	112	3050	10.5	1.5	80.4	5.3	0.9	1.8	< 0.05	0.63	40	1.45	0.02	0.1	26.1	18.4	0.3	40.1	
105385	< 4	< 5	< 2	6.7	< 1	2.56	1.73	6.15	1.84	2.76	< 0.1	92	39.1	1500	4.1	3.9	32	3.4	0.9	1.2	< 0.05	0.56	16.7	2.38	< 0.02	0.2	36.9	14.3	< 0.1	65.6	
105386	< 4	< 5	< 2	64.4	< 1	1.02	1.49	4.07	0.98	0.46	< 0.1	78	116	1310	6.57	1.2	29.8	2.3	1.1	0.8	< 0.05	4.56	14.6	0.96	< 0.02	< 0.1	7.1	18.5	1.3	47.1	
105387	< 4	< 5	< 2	36.6	< 1	1.31	2.3	5.06	1.16	2.16	< 0.1	215	149	2460	11.5	1.3	63	5.6	0.5	2	0.06	1.08	42.2	2.39	< 0.02	0.5	32.5	21.2	0.3	27.7	
105388	< 4	< 5	< 2	3.9	< 1	2.34	1.94	6.09	1.65	2.88	< 0.1	98	47	1030	4.28	3.4	40.1	3.3	0.6	1.2	< 0.05	0.19	18.2	2.35	< 0.02	0.2	34.8	12.4	0.3	50.8	
105389	< 4	< 5	< 2	7.5	< 1	1.92	2.44	5.57	1.48	4.69	0.1	87	38.1	1000	4.42	5.9	37.4	3.8	0.9	1.3	< 0.05	0.22	19.1	2.11	< 0.02	0.4	60.2	11.6	0.6	63.4	
105390 Sample spoiled during Preparation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
105391	< 4	< 5	< 2	23.8	< 1	1.67	2.99	4.21	0.32	3.76	0.4	193	51.7	1400	9.05	2.7	51.3	4.1	0.7	1.4	< 0.05	0.45	38	2.04	< 0.02	0.9	271	17	0.9	7.9	
105392	< 4	< 5	< 2	8.3	< 1	2.12	2.32	6.49	0.26	4.34	< 0.1	167	51.7	761	6.43	0.5	55	3.8	0.9	1.3	< 0.05	< 0.05	30.8	2.08	< 0.02	0.1	40.8	20.6	< 0.1	2	
105393	< 4	< 5	< 2	9	< 1	2.46	0.91	3.79	0.93	2.7	< 0.1	91	76.5	761	4.44	1.3	16.2	2.7	2.5	0.9	< 0.05	4.06	15.9	1.32	0.11	0.8	51.9	23.9	6.2	40.9	
105394	5	< 5	< 2	11.2	< 1	0.142	> 10.0	1.27	0.03	1.62	< 0.1	77	1430	1730	10.1	0.2	1140	0.5	< 0.1	0.2	< 0.05	0.12	138	0.23	< 0.02	< 0.1	57.2	3.5	< 0.1	1	
105395	< 4	< 5	< 2	5.2	< 1	2.43	2.2	6.5	1.79	3.23	< 0.1	101	39.1	1250	4.46	3.5	47.1	3.4	1.1	1.2	< 0.05	0.24	22.8	2.35	< 0.02	0.3	72.6	14.6	0.2	68.4	
105396	< 4	< 5	< 2	< 0.5	< 1	1.26	2.11	2.23	0.07	5.45	0.4	706	7	2030	13	1.8	5.9	1.8	0.4	0.6	< 0.05	< 0.05	80.3	1.16	< 0.02	0.7	192	23.4	0.6	< 0.2	
105397	< 4	< 5	< 2	7.3	< 1	2.4	1.78	6.03	1.64	3.02	< 0.1	101	53.2	637	4.4	3	38.7	3	0.9	1.1	< 0.05	0.34	20.2	2.29	< 0.02	< 0.1	48.4	14.6	< 0.1	57.1	
105398	< 4	< 5	< 2	0.8	< 1	2.41	0.6	4.16	1.97	1.68	< 0.1	61	64	699	2.83	0.7	9.8	2.7	1.2	0.9	< 0.05	0.42	9.8	1.36	< 0.02	< 0.1	50.2	13.4	0.2	64.5	
105399	< 4	< 5	< 2	3.6	< 1	2.39	1.02	3.98	1.51	2.42	< 0.1	86	46.7	688	3.48	3	30.4	2	0.6	0.7	< 0.05	0.23	17.1	2.06	< 0.02	< 0.1	124	9.1	< 0.1	33.6	
105400	< 4	< 5	< 2	1.2	< 1	1.01	2.08	3.54	0.47	4.47	0.1	56	49	2120	16.9	1.9	25.6	8.2	0.9	3.2	0.43	0.2	55.4	6.04	0.04	2.8	65.2	21.1	< 0.1	14.3	
43351	< 4	< 5	< 2	11.8	< 1	1.6	3.52	6.53	0.1	5.78	< 0.1	186	147	1370	7.82	0.8	151	1.9	< 0.1	0.6	< 0.05	1.27	59.9	0.75	< 0.02	0.2	72	15	< 0.1	7	
43353	< 4	< 5	< 2	6.9	< 1	1.62	1.07	3.18	2.37	0.2	< 0.1	2	50.7	147	2.4	13.4	1	3.5	1.7	1.2	< 0.05	0.39	1.2	3.27	0.04	0.4	27	24.1	0.4	41.2	
43354	32	15	4	31	< 1	0.224	> 10.0	1.26	0.11	1.67	< 0.1	68	1480	2240	9.09	0.7	1780	0.6	< 0.1	0.2	0.08	0.08	136	0.31	0.02	0.1	76.4	4.8	< 0.1	5.6	
43357	258	93	24	1	< 1	0.185	> 10.0	1.26	0.09	1.08	0.1	79	1370	1410	10.3	0.6	1200	0.8	< 0.1	0.3	0.18	0.08	156	0.32	0.06	0.3	70.4	3.9	< 0.1	4.9	
43358	95	45	11	1.3	< 1	0.486	7.64	2.06	0.45	5.52	< 0.1	107	1190	1760	9.13	1.1	740	2.1	0.5	0.7	< 0.05	0.84	114	0.51	0.05	0.3	80	7.4	< 0.1	32.3	
43359	437	151	84	4	< 1	0.787	> 10.0	3.35	0.52	5.01	0.1	225	2890	1500	12.6	2.1	1320	9.3	0.3	3.4	0.17	0.75	133	1.35	0.06	3.4	101	12	< 0.1	17.1	
43360	53	32	11	2	< 1	0.409	> 10.0	2.25	0.13	7.76	< 0.1	158	1300	1570	8.53	1.8	677	1.3	< 0.1	0.5	0.09	0.44	103	0.44	0.02	0.5	54.2	6.1	< 0.1	7.6	
43361	34	25	7	4	< 1	0.377	> 10.0	2.15	0.11	8.24	< 0.1	168	1180	1470	7.61	0.7	561	1.3	< 0.1	0.4	0.09	0.49	89.4	0.46	< 0.02	< 0.1	49.2	5.7	< 0.1	7.5	
43362	< 4	< 5	< 2	0.8	< 1	1.49	0.2	3.52	2.52	1.04	< 0.1	7	123	775	6.42	5.3	11.3	11.8	0.8	3.8	< 0.05	0.06	5.9	3.68	< 0.02	3.7	45	21.6	0.7	72.5	
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**ASSAYS DATA FOR MANICOUAGAN MAPPING SAMPLING PROGRAM - 2006**

Sample	Pd ppb	Pt ppb	Au ppb	Li ppm	B ppm	Na %	Mg %	Al %	K %	Ca %	Cd ppm	V ppm	Cr ppm	Mn ppm	Fe %	Hf ppm	Ni ppm	Er ppm	Be ppm	Ho ppm	Ag ppm	Cs ppm	Co ppm	Eu ppm	Bi ppm	Se ppm	Zn ppm	Ga ppm	As ppm	Rb ppm
43365	< 4	< 5	< 2	7.2	< 1	2.35	1.63	5.17	1.88	3.16	< 0.1	92	85.5	788	4.34	6	45.3	3	0.7	1	< 0.05	0.26	21.3	2.13	< 0.02	0.1	64.8	15.1	< 0.1	47.1
43366	< 4	< 5	< 2	4.3	< 1	1.9	2.19	5.98	0.65	4.01	< 0.1	84	63.4	916	4.49	1.7	106	2.4	0.3	0.9	< 0.05	0.18	30.3	1.33	< 0.02	< 0.1	72.2	16.3	< 0.1	26.4
43367	< 4	< 5	< 2	5.6	< 1	1.89	2.69	7.52	0.83	4.21	< 0.1	87	49.7	827	4.61	2.7	132	2.3	0.6	0.8	< 0.05	0.18	33.8	1.42	< 0.02	< 0.1	58.6	14.8	< 0.1	33.6
43368	< 4	< 5	< 2	11.7	< 1	1.11	3.09	7.78	0.07	5.65	< 0.1	36	78.5	984	4.49	0.4	298	0.5	< 0.1	0.2	< 0.05	0.1	56	0.35	< 0.02	< 0.1	61	12.7	< 0.1	3
43369	< 4	< 5	< 2	5.6	< 1	1.76	2.35	5.47	0.38	4.16	< 0.1	115	55.4	915	5.42	1.4	110	2	0.6	0.7	< 0.05	0.11	35.8	1.44	< 0.02	< 0.1	61.9	15.9	< 0.1	10.5
43370	< 4	< 5	< 2	6.5	< 1	1.36	2.16	5.19	0.21	4.27	< 0.1	125	63.2	962	5.32	1.4	142	1.8	0.2	0.6	< 0.05	0.11	39.4	1.09	< 0.02	< 0.1	53	14.3	< 0.1	5.5
43371	< 4	< 5	< 2	2.9	< 1	2.62	1.05	3.93	0.43	3.57	< 0.1	67	45.3	564	2.96	0.6	58.8	1.1	0.2	0.4	< 0.05	0.19	19.5	0.99	< 0.02	< 0.1	72.1	14.8	< 0.1	5.4
43372	< 4	< 5	< 2	14.8	< 1	1.97	2.78	6.03	0.06	4.66	1	32	44.3	857	3.71	0.4	255	0.5	< 0.1	0.2	< 0.05	0.5	45.5	0.38	< 0.02	< 0.1	73.5	12.5	< 0.1	2.8
43373	< 4	< 5	< 2	4.8	< 1	1.76	2.5	6.04	0.64	4.15	< 0.1	81	56.7	707	4.49	2.4	144	2	0.4	0.7	< 0.05	0.14	35.1	1.28	< 0.02	0.1	50.9	14	< 0.1	20.2
43374	< 4	< 5	< 2	9.8	< 1	1.8	2.21	5.64	0.25	5.71	< 0.1	183	64.5	1240	6.54	1	34.7	3.6	0.5	1.3	< 0.05	0.15	35.9	1.67	< 0.02	0.2	80.6	18.3	0.6	2.9
43375	< 4	< 5	< 2	6.9	< 1	1.57	2.72	7	0.41	4.72	< 0.1	70	50.6	1010	4.57	1.1	193	1.4	0.2	0.5	< 0.05	0.24	41.6	0.99	< 0.02	< 0.1	100	13.2	< 0.1	16.1
43377	< 4	< 5	< 2	7.2	< 1	2.41	3.02	9.06	0.87	6.29	< 0.1	94	82	1090	5.69	1.9	143	2	1	0.8	< 0.05	0.22	37	1.28	< 0.02	3.4	64.9	19	< 0.1	23.1
43379	< 4	< 5	< 2	7.6	< 1	2.15	2.7	6.52	0.92	5.39	< 0.1	228	38.2	1420	11.4	4.1	40.8	6.2	2	2.2	< 0.05	0.22	41.4	3.61	< 0.02	3.1	85.5	24.3	< 0.1	24.9
43380	< 4	< 5	< 2	6.4	< 1	2.4	3.69	9.18	0.68	5.82	< 0.1	89	98.4	870	5.61	1.8	155	1.7	0.7	0.6	< 0.05	0.19	40	1.13	< 0.02	1.5	69.1	16.8	< 0.1	14.9
43381	< 4	< 5	< 2	19.6	< 1	> 3.00	2.05	6.21	1.03	2.84	< 0.1	91	80.3	2470	3.61	3.7	108	1.8	1	0.6	< 0.05	1.94	26.3	1.25	< 0.02	1.2	46.8	15.4	< 0.1	9.9
43382	< 4	< 5	< 2	5.1	< 1	> 3.00	1.84	6.17	1.86	2.5	0.1	112	77.3	1270	4.44	6	48	2.8	1.2	1	< 0.05	2.87	21.1	1.96	< 0.02	1	58	17.7	< 0.1	21.6
43383	< 4	< 5	< 2	29.5	1	2.89	2.96	> 10.0	0.21	7.4	< 0.1	28	58.8	1680	3.44	0.3	166	0.6	0.2	0.2	< 0.05	0.38	31.3	0.55	< 0.02	0.5	49.4	14	< 0.1	3.9
43384	< 4	< 5	< 2	4.8	< 1	2.33	2.57	8.47	0.89	5.47	< 0.1	82	79.6	863	4.67	1.5	107	1.9	0.8	0.7	< 0.05	0.11	28.8	1.31	< 0.02	0.8	68.5	18.4	< 0.1	16.4
43385	< 4	< 5	< 2	9	< 1	2.2	3.11	8.94	0.76	6.18	0.1	103	78.5	960	5	1.9	160	2.2	0.6	0.8	< 0.05	0.16	37	1.2	< 0.02	0.5	68	17.2	0.3	26.4
43386	< 4	< 5	< 2	8.5	1	2.78	2.6	9.65	2.14	4.65	0.1	105	82.2	1110	5.47	5.4	68.5	3	1.2	1.1	< 0.05	0.38	25	2.13	< 0.02	0.8	86.3	21.8	< 0.1	55.7
43387	< 4	< 5	< 2	18.4	< 1	> 3.00	4.67	> 10.0	0.24	4.03	< 0.1	55	102	1690	4.86	0.7	190	1	0.5	0.4	< 0.05	1.78	44.5	0.73	< 0.02	0.6	62.1	15.5	< 0.1	8.3
43388	< 4	< 5	< 2	9.1	< 1	2.29	3.72	9	0.51	6.28	< 0.1	84	87.5	1400	5.51	1.2	174	1.3	0.9	0.5	< 0.05	0.32	44.7	1.1	< 0.02	0.9	62.6	16.1	< 0.1	9
43389	< 4	< 5	< 2	9.6	2	> 3.00	3.54	7.98	0.2	2.75	< 0.1	79	77.2	1510	5.55	0.9	163	1.4	0.6	0.6	< 0.05	1.19	40.4	1.01	< 0.02	0.9	98	15.3	< 0.1	4.2
43390	< 4	< 5	< 2	7.6	< 1	> 3.00	3.47	7.6	0.33	3.01	< 0.1	74	104	1540	5.59	0.9	138	1.4	0.5	0.5	< 0.05	1.05	39.6	1.04	< 0.02	0.6	86.5	16.3	< 0.1	5.8
43391	< 4	< 5	< 2	4.3	< 1	2.98	1.83	6.53	2.46	3.91	< 0.1	102	93	834	4.97	5.8	38.6	2.9	1.1	1	< 0.05	0.26	21.2	2.1	< 0.02	1.2	66.9	22.2	< 0.1	35.9
43392	< 4	< 5	< 2	3.9	< 1	> 3.00	1.9	5.76	2.62	3.74	< 0.1	101	79	793	5.03	6.1	34.9	2.9	1	1	< 0.05	0.26	20	2.19	< 0.02	0.6	55.2	22.1	< 0.1	38.4
43393	< 4	< 5	< 2	1.4	< 1	0.33	> 10.0	2.82	0.13	1.34	< 0.1	251	781	2410	23.9	0.4	600	0.5	< 0.1	0.2	< 0.05	0.17	206	0.25	< 0.02	0.4	220	9.1	< 0.1	1.9

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Sample	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
06LT00101	24.7	737	16	6.7	0.5	< 0.1	< 1	< 0.1	0.6	1460	38.4	70.2	10.6	40.9	7.8	6.3	0.8	4.9	20.3	0.2	0.4	2.2	0.3	0.3	< 0.1	< 0.001	0.32	10.2	2.6	0.4
06LT00301	23	514	243	8.1	1	< 0.1	< 1	< 0.1	0.7	1550	40	65.4	10	37.5	7.1	5.9	0.8	4.6	21.6	0.2	0.4	2	0.2	0.2	< 0.1	0.004	0.27	11.6	3.2	0.6
06LT00401	23.5	520	260	8.5	0.6	< 0.1	< 1	< 0.1	0.6	1580	38.3	62.6	9.5	35.8	6.9	5.6	0.8	4.8	43.9	0.2	0.4	2	0.2	0.2	< 0.1	< 0.001	0.27	10.9	2.9	0.5
06LT00402	14.9	785	101	5.5	0.8	< 0.1	< 1	< 0.1	0.8	1970	24.9	43.3	6.7	26.5	5	4.5	0.6	3.4	29.2	0.1	0.3	1.2	< 0.1	0.2	< 0.1	0.005	0.14	10.2	0.4	0.2
06LT00501	10.9	464	172	8.2	0.6	< 0.1	< 1	< 0.1	0.7	1410	16.5	30.3	4.5	17.2	3.4	3	0.4	2.6	26.6	0.1	0.2	1.1	< 0.1	0.6	1	0.002	0.29	10.7	1.4	0.7
06LT00502	29.8	585	151	10.1	0.9	< 0.1	1	< 0.1	0.5	1650	54.3	85	13	48.7	9.1	7.6	1	6.1	40.2	0.2	0.5	2.6	0.3	0.3	< 0.1	< 0.001	0.33	12.4	4.9	0.7
06LT00503	30.3	552	206	9.9	0.5	< 0.1	1	< 0.1	0.6	1420	50.4	79.1	12.7	46.9	8.5	6.9	1	6	46.4	0.3	0.5	2.8	0.3	0.3	< 0.1	0.003	0.21	8.4	4.9	0.8
06LT00601	12.6	361	8	1.6	0.6	< 0.1	< 1	< 0.1	0.6	231	8.6	13.2	2.2	8.7	2	2.1	0.3	2.3	27.1	< 0.1	0.2	1.4	0.2	< 0.1	< 0.1	0.003	< 0.05	2.5	0.5	< 0.1
06LT00701	32.1	280	16	9	0.9	< 0.1	< 1	0.1	0.8	362	17.1	31.3	5.2	22.8	5.9	6.3	1	6.2	68.9	0.6	0.5	3.3	0.5	0.5	< 0.1	0.006	0.1	6	1.8	0.6
06LT00801	22.9	586	149	9	0.7	< 0.1	< 1	< 0.1	0.4	1550	43.4	69.9	10.9	40	7.6	6.1	0.8	5	143	0.2	0.4	1.9	0.2	0.3	< 0.1	0.005	0.19	11.5	4	0.8
06LT00802	14.2	381	7	2	0.4	< 0.1	< 1	< 0.1	1	228	9.2	14.8	2.5	9.9	2.2	2.3	0.4	2.7	51.1	< 0.1	0.3	1.5	0.2	< 0.1	< 0.1	0.001	< 0.05	2.4	0.6	2.3
06LT00803	43.9	161	85	18.4	1.5	0.2	3	< 0.1	0.5	669	26.6	50.6	8.1	32	7.6	7.3	1.2	8.8	16.3	0.3	1	5.8	0.8	0.7	< 0.1	0.005	0.32	11.4	4.3	0.8
06LT00804	11.9	499	119	8.2	0.5	< 0.1	< 1	< 0.1	0.6	1490	16.5	31.1	4.4	16.8	3.3	2.9	0.4	2.7	46.4	0.5	0.3	1.1	< 0.1	0.3	< 0.1	0.001	0.15	11.8	0.9	0.3
06LT00805	8.2	386	8	2.2	1.3	< 0.1	< 1	0.1	0.7	247	6	10.5	1.9	7.1	1.7	1.7	0.3	1.9	31.1	< 0.1	0.2	1	0.2	< 0.1	0.1	0.003	0.14	3.8	1	0.1
06LT00806	13.6	376	14	5.2	0.7	< 0.1	< 1	< 0.1	0.8	307	7.9	14.6	2.4	9.5	2.3	2.2	0.4	2.7	30.7	< 0.1	0.3	1.6	0.2	0.4	0.3	0.002	0.16	6.3	0.7	0.5
06LT00901	16.3	622	197	7.7	0.8	< 0.1	1	< 0.1	0.8	1490	24.5	43.9	6.9	27	5.3	4.5	0.6	3.8	36.7	0.1	0.3	1.4	< 0.1	0.2	< 0.1	0.001	0.21	9.7	1.4	0.4
06LT00902	24.8	597	132	8.7	0.7	< 0.1	< 1	< 0.1	0.4	1620	47.9	72.9	10.9	40.2	7.6	6.2	0.8	5.1	16	0.2	0.4	1.8	< 0.1	0.3	< 0.1	0.003	0.18	15.1	3.7	0.5
06LT00903	13.6	555	166	9	0.4	< 0.1	< 1	< 0.1	0.4	1530	29.1	58.3	8.6	33.1	6.4	5.2	0.7	4.1	194	< 0.1	0.3	1.3	< 0.1	0.3	< 0.1	< 0.001	0.19	10	2.7	0.4
06LT00904	16.6	365	13	2.9	0.7	< 0.1	1	< 0.1	0.8	251	13.9	21	3.3	13.2	2.8	2.8	0.4	3	25.4	< 0.1	0.3	1.8	0.2	0.1	< 0.1	< 0.001	0.15	6.7	1.8	0.2
06LT00905	15.3	378	7	2.5	0.4	< 0.1	< 1	< 0.1	1.3	286	11.2	18.8	3	12.2	2.8	2.8	0.4	2.8	61.7	< 0.1	0.3	1.6	0.2	< 0.1	< 0.1	< 0.001	< 0.05	3	0.5	0.1
06LT01001	13.8	551	183	9	1	< 0.1	1	< 0.1	0.5	1420	24.6	41.1	6.4	23.7	4.7	3.7	0.5	3.3	39.6	0.2	0.3	1.1	< 0.1	0.3	< 0.1	0.003	0.24	10.8	1.3	1
06LT01003	10.4	304	56	1.9	0.2	< 0.1	< 1	0.1	2.5	473	14.9	24.2	4.1	16.8	3.8	2.9	0.4	2.3	24.5	0.1	0.2	0.7	< 0.1	< 0.1	< 0.1	0.002	0.09	3.3	2.2	0.5
06LT01101	13.7	495	130	8.9	0.6	< 0.1	< 1	< 0.1	0.6	1460	24.4	41	6.6	24.5	4.8	3.9	0.6	3.5	47.2	0.2	0.3	1.1	< 0.1	0.3	< 0.1	0.004	0.38	10.6	1.4	0.6
06LT01102	16.5	> 1000	96	8.3	0.6	< 0.1	2	< 0.1	0.6	1360	19.5	43	6.9	27.7	5.8	4.7	0.7	4.3	30.7	0.1	0.3	1.5	< 0.1	0.3	< 0.1	< 0.001	0.7	13.7	1.3	0.5
06LT01103	9.1	> 1000	99	9.1	0.8	< 0.1	2	< 0.1	0.6	1160	11.8	25.1	4.3	16.6	3.7	2.8	0.4	2.7	30	0.1	0.2	0.7	< 0.1	0.4	< 0.1	0.001	0.99	30.8	3.6	1
06LT01201	25.8	189	23	2.3	0.3	< 0.1	< 1	< 0.1	0.7	479	14.8	26	4.3	18.1	4.5	4.5	0.7	4.8	30.9	< 0.1	0.4	2.5	0.3	< 0.1	< 0.1	0.002	0.12	3.3	2.1	0.9
06LT01301	20.5	77	73	13.1	1.6	0.3	< 1	< 0.1	0.2	1180	10.4	30.8	4.9	23	6.2	6	0.9	6	14.8	0.4	0.5	3.1	0.4	0.7	< 0.1	0.003	0.11	2.7	0.2	< 0.1
06LT01302	26.9	48.3	105	19.6	2.5	0.4	< 1	< 0.1	< 0.1	648	13.4	36.9	6.7	31.3	8.6	7.8	1.2	7.7	12.4	0.8	0.7	4.7	0.8	0.8	< 0.1	< 0.001	0.11	3.2	0.1	0.1
06LT01401	11.9	187	46	3.7	0.4	< 0.1	< 1	< 0.1	1.8	370	12	19.1	3.3	13	3	2.6	0.4	2.8	37.2	< 0.1	0.3	1.4	0.1	0.1	< 0.1	0.009	0.1	2.6	5.8	0.5
06LT01402	21.7	452	163	8.6	0.8	< 0.1	< 1	< 0.1	0.7	1530	45.4	66.8	10.5	37.5	6.9	5.4	0.7	4.6	74.3	0.2	0.4	1.3	< 0.1	0.2	< 0.1	0.004	0.16	15	2.9	0.5
105351	22	506	276	8.8	2.7	< 0.1	1	< 0.1	0.4	1540	32.7	67.7	9	34.8	6.2	6.2	0.8	5.2	31	< 0.1	0.4	2	< 0.1	0.3	2.2	0.004	0.16	15.2	2.5	0.5
105352	28.2	499	262	10	3.7	< 0.1	1	0.1	0.2	1460	45.2	90.5	11.5	43.5	7.4	7.3	0.9	5.4	33	< 0.1	0.5	2.3	0.1	0.3	10.6	0.007	0.39	14.2	2.7	0.6
105353	29	520	285	9.5	5.3	< 0.1	1	< 0.1	0.2	1610	48.1	95.4	12.1	46.2	7.9	7.9	1	5.8	26.4	< 0.1	0.5	2.5	0.1	0.3	11.8	0.004	0.65	17.1	2.8	0.6
105354	10.6	123	44	10.5	3.9	0.1	1	0.1	< 0.1	1350	13.1	31.4	4.4	18.7	3.7	3.6	0.5	3.3	1	0.5	0.3	1.2	< 0.1	0.4	0.8	0.001	0.45	18.4	0.6	4.5
105355	22.7	481	279	9.4	1.3	< 0.1	< 1	< 0.1	0.1	1490	35.4	74.4	9.6	36.8	6.5	6.9	0.8	5.1	33.3	< 0.1	0.4	1.9	< 0.1	0.3	0.9	0.003	0.38	14	2	0.5
105357	28.6	308	45	2.3	1.4	0.1	< 1	< 0.1	0.4	560	12	25.7	3.7	16.8	4	5.3	0.8	5.4	32.9	< 0.1	0.5	2.9	0.4	< 0.1	0.6	0.004	0.15	6.3	0.4	0.2
105358	26.3	516	127	9.3	1.3	< 0.1	< 1	0.1	0.6	1310	47.2	90.9	11.3	42.7	7.3	7.3	0.9	5.4	26.6	< 0.1	0.4	2	0.1	0.3	0.3	0.002	0.18	8.5	3.3	0.6
105359	21.8	477	152	10.2	1.2	< 0.1	< 1	< 0.1	0.4	1400	31.6	67.6	9.2	36.1	6.5	6.6	0.8	5.1	25.3	< 0.1	0.4	2	< 0.1	0.4	1	0.001	0.2	10.4	1.7	0.5
105360	25.8	529	64	10.5	1.5	< 0.1	< 1	< 0.1	0.4	1370	42.7	86.2	11	41.5	7.2	7.1	0.9	5.5	33.8	< 0.1	0.4	2.2	0.1	0.4	0.7	0.003	0.17	9.2	2.9	0.9
105361	28	540	68	9.9	1.6	< 0.1	< 1	< 0.1	0.4	1390	49.4	96.4	12.1	45.3	7.8	7.7	0.9	5.6	29.3	< 0.1	0.4	2.1	0.1	0.3	0.4	0.003	0.19	8	3.4	0.6
105362	27.8	491	253	9.4	1	< 0.1	< 1	< 0.1	0.2	1490	48.9	95.2	12	45.5	7.8	7.6	0.9	5.6	27.2	< 0.1	0.5	2.2	< 0.1	0.3	0.6	0.005	0.24	12.5	3	0.5
105363	27.3	514	285	8.8	3.4	< 0.1	1	0.2	0.2	1530	47.9	92.2	11.7	44.5	7.6	7.6	0.9	5.5	36.6	< 0.1	0.5	2.2	< 0.1	0.3	0.3	0.003	0.23	13.3	3	0.5
105364	26.7	507	268	7.7	2.6	< 0.1	< 1	< 0.1	< 0.1	1520	47.4	90.9	11.6	44	7.4	7.2	0.9	5.4	31.4	< 0.1	0.4	2	< 0.1	0.3	0.3	0.003	0.2	13.9	2.8	0.4

**ASSAYS DATA FOR MANICOUAGAN MAPPING SAMPLING PROGRAM - 2006**

Sample	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
105368	21.8	377	323	11.1	2.8	< 0.1	< 1	0.1	0.2	1130	23.6	56.3	7.6	31.2	6	6.2	0.9	5.5	65.9	< 0.1	0.5	2.2	0.1	0.4	0.3	0.003	0.24	13.7	1.4	0.4	
105369	22.1	534	255	9.6	1.8	< 0.1	1	< 0.1	0.3	1450	32.5	68.3	8.8	34.8	6.3	6.3	0.8	5.1	44.5	< 0.1	0.4	1.8	< 0.1	0.3	0.2	0.006	0.26	13.8	1.9	0.4	
105370	24.5	556	276	8.8	1.5	< 0.1	1	< 0.1	< 0.1	1620	42	59.6	10.3	39.2	7.5	6.2	0.8	4.9	38.3	0.3	0.4	1.3	< 0.1	0.2	< 0.1	< 0.001	0.09	12.9	2.4	0.3	
105371	24.5	592	242	9	2.2	< 0.1	1	< 0.1	0.2	1540	45.2	87	11.2	42.5	7.3	7	0.8	5.1	18.6	< 0.1	0.4	1.8	< 0.1	0.3	0.2	0.005	0.22	12.7	2.8	0.4	
105372	23.9	587	230	8.4	1.3	< 0.1	1	0.1	0.2	1580	45.4	89.6	11.1	42.6	7.2	7.3	0.8	5.1	30.3	< 0.1	0.4	1.7	< 0.1	0.3	1.8	0.005	0.23	48.2	3.2	0.4	
105372A	17.5	403	162	5.1	2.5	< 0.1	1	< 0.1	0.6	864	30.3	61.9	8.3	33.9	6.1	5.8	0.7	3.7	30.1	< 0.1	0.3	1.2	< 0.1	0.2	4.6	0.003	0.11	8.9	1.7	0.3	
105373	32	526	85	11.2	2	< 0.1	1	< 0.1	0.2	1510	58.2	114	14.3	53.6	9.2	8.7	1.1	6.7	39.5	0.1	0.5	2.7	< 0.1	0.5	0.7	< 0.001	0.3	18.3	5.2	0.7	
105374	29.5	930	24	8.5	1.4	< 0.1	2	< 0.1	0.2	1300	38.6	83.9	11.7	47.6	8.9	8.6	1	6.4	33.3	0.2	0.5	2.1	< 0.1	0.2	1	0.005	< 0.05	8.8	0.6	0.2	
105375	23	624	98	9.3	1.1	< 0.1	1	0.1	0.1	1470	44.8	88.1	11.1	42.7	7.2	6.9	0.8	4.9	37.1	0.1	0.4	1.6	< 0.1	0.5	0.4	0.005	0.21	12.2	2.6	0.4	
105376	23.7	594	106	8.6	0.8	< 0.1	1	< 0.1	0.2	1470	48	93.2	11.7	44.8	7.6	7	0.8	5.1	35.5	< 0.1	0.4	1.5	< 0.1	0.3	0.2	0.004	0.22	12.8	3	0.4	
105377	25.5	593	58	8.8	1.6	< 0.1	< 1	0.1	0.3	1480	48.8	95.2	12.1	46.6	7.8	7.4	0.9	5.3	37.1	< 0.1	0.4	1.7	< 0.1	0.3	0.1	0.006	0.2	13.4	2.8	0.4	
105378	16	524	128	8.8	0.7	< 0.1	1	< 0.1	0.2	1460	30	63.2	8	31.6	5.6	5.4	0.6	4	18.2	< 0.1	0.3	1	< 0.1	0.3	0.2	0.002	0.22	15.4	1.7	0.3	
105379	20.8	657	27	6.8	1.4	< 0.1	1	0.2	0.3	730	22.6	47.8	6.6	27.7	5.8	6.1	0.7	4.7	92.6	< 0.1	0.3	1.6	< 0.1	0.3	0.3	< 0.001	0.11	8.1	0.3	0.1	
105380	23.5	617	96	9.1	1.1	< 0.1	1	0.2	< 0.1	1610	54	104	13.1	49.9	8.1	7.8	0.9	5.4	53.7	< 0.1	0.4	1.3	< 0.1	0.3	0.2	0.003	0.3	20.1	4.1	0.4	
105381	29.8	225	66	5.5	2	< 0.1	1	< 0.1	0.4	551	19.5	48.6	7.1	31	7.1	7.9	1	6.3	80.5	< 0.1	0.5	2.5	0.2	0.2	73.5	0.008	0.13	19.7	0.8	0.2	
105382	29.4	541	162	9.8	0.9	< 0.1	1	0.2	0.2	1470	47.3	95.6	12.4	47.7	8.3	8.1	1	6.2	42.7	< 0.1	0.5	2.1	< 0.1	0.4	1.4	0.004	0.26	14.8	3.8	0.6	
105383	41.7	315	19	12.6	3.2	0.2	1	0.1	0.2	456	35.2	80.1	10.7	44.7	9.3	10.2	1.5	10.4	19.9	< 0.1	0.9	5.4	0.6	0.5	1.1	0.004	0.29	14.1	0.7	0.2	
105384	35.9	175	42	7.9	2	< 0.1	1	< 0.1	< 0.1	598	15	35.6	4.6	20.9	5.2	7.2	1.2	8.4	8.9	0.4	0.8	4.8	0.5	0.5	0.4	0.005	0.16	2.3	1.3	0.6	
105385	28.5	513	172	10.6	0.5	< 0.1	1	0.3	0.1	1480	53.8	93.6	11.9	45.6	7.7	7.6	0.9	5.8	33.6	< 0.1	0.5	2	< 0.1	0.4	0.3	0.003	0.2	12	3.7	0.6	
105386	15.5	56.1	22	14.1	4.5	< 0.1	< 1	0.1	< 0.1	114	12.4	26.7	3.6	15.3	3.3	3.5	0.5	3.6	7.6	0.6	0.3	2.3	0.3	1.8	0.3	0.002	0.22	4.1	4.2	1.4	
105387	44	160	28	7	3.8	0.1	2	0.1	< 0.1	396	13.3	33.9	4.6	21.4	6.4	8.4	1.4	9.6	9.9	0.3	0.8	5.4	0.6	0.4	0.2	0.001	0.14	5.3	2.1	0.8	
105388	27.3	495	137	9.3	0.9	< 0.1	1	< 0.1	0.2	1420	51	96.1	12.7	48.4	8.2	7.8	1	6	45.2	< 0.1	0.4	1.8	< 0.1	0.4	0.1	0.005	0.16	12.5	3.8	0.7	
105389	31.9	441	239	12	0.5	< 0.1	1	< 0.1	0.3	965	46.5	93.6	12	44.8	8.1	7.8	1	6.4	31.2	< 0.1	0.5	2.8	0.2	0.5	0.2	0.007	0.13	8.7	6.2	2.5	
105390 Sample spoiled during Preparation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
105391	32.8	231	96	8.5	0.3	< 0.1	1	< 0.1	0.2	301	27.3	60.6	8.2	33.2	6.8	7.2	1	6.9	62.7	< 0.1	0.6	3.6	0.4	0.4	< 0.1	0.003	0.27	13.6	1.6	0.2	
105392	31.2	325	10	8.8	0.2	< 0.1	1	< 0.1	0.4	177	26.7	58.3	8	34.2	7.1	7	1	6.5	46.9	< 0.1	0.5	3.5	0.5	0.3	< 0.1	0.001	< 0.05	7.5	0.3	0.6	
105393	18.8	264	24	15.2	1.2	< 0.1	1	0.6	0.1	250	12.3	28.9	4.1	18.1	3.8	4	0.6	4	10.5	< 0.1	0.4	2.9	0.4	1.2	0.3	0.001	0.36	28.8	1.2	5.3	
105394	3.2	34.9	6	0.6	< 0.1	< 0.1	< 1	0.2	4.8	70	5.4	8.6	1	3.6	0.7	0.8	0.1	0.7	3.7	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1	0.003	0.07	1.5	0.1	0.2	
105395	29.6	521	145	9.7	0.3	< 0.1	1	0.1	0.3	1440	47.8	94.6	12.3	47.1	8.2	7.7	1	6	40.9	< 0.1	0.5	2	< 0.1	0.4	< 0.1	0.005	0.27	13.3	3.9	0.8	
105396	11.5	254	52	6.1	2.7	0.1	3	0.2	0.3	70	24.5	50.8	5.8	22	4	4	0.5	3.2	156	< 0.1	0.2	1.5	0.2	0.3	< 0.1	0.003	0.54	27.2	0.2	0.4	
105397	23.8	580	102	8.9	0.3	< 0.1	1	< 0.1	0.1	1510	51.1	99.3	12.5	47.1	8	7.4	0.9	5.3	37.7	0.1	0.4	1.2	< 0.1	0.3	< 0.1	0.002	0.2	13.3	3.4	0.6	
105398	20	435	18	10.9	0.5	< 0.1	2	< 0.1	< 0.1	1150	42.6	90.1	10.9	40.1	6.7	5.9	0.7	4.7	23.4	0.2	0.4	1.7	< 0.1	0.4	< 0.1	< 0.001	0.22	15.7	0.9	0.3	
105399	14.6	589	131	8	0.4	< 0.1	1	< 0.1	0.2	2670	44.3	87.2	10.3	38.4	6	5.9	0.6	3.7	32.8	0.2	0.3	< 0.1	< 0.1	0.4	< 0.1	0.001	0.14	14.8	2.1	0.5	
105400	67.9	261	36	17.3	4.5	0.2	5	0.1	0.1	256	59	137	20.2	92	20.4	21.2	2.8	16.9	219	0.3	1.1	6.4	0.8	0.9	0.1	0.004	0.09	11.8	1.7	0.6	
43351	15.3	82.8	19	0.9	1	< 0.1	< 1	< 0.1	0.4	57	2.3	6	1	5	1.7	2.4	0.4	3	54	< 0.1	0.3	1.8	0.3	< 0.1	< 0.1	0.002	< 0.05	1.1	0.5	0.8	
43353	17.7	47	382	27.9	2	< 0.1	6	0.2	0.1	1290	54.4	113	13.9	53.5	9.1	8	1	6.1	74.5	< 0.1	0.5	2.6	< 0.1	0.9	< 0.1	< 0.001	0.41	25.8	6.8	1.1	
43354	4.7	31.4	16	1.3	0.1	< 0.1	< 1	< 0.1	3.8	42	7.5	9.9	1.1	4.5	0.9	1.1	0.2	1.1	168	< 0.1	0.1	0.6	< 0.1	< 0.1	0.2	0.001	2.48	3.2	0.5	0.4	
43357	6.3	24.5	18	1.2	0.2	< 0.1	< 1	0.1	4.4	89	4.1	8	1.1	4.6	1.1	1.2	0.2	1.3	337	< 0.1	0.1	0.8	< 0.1	< 0.1	0.1	0.004	1.65	3	0.7	0.4	
43358	17	40	31	4.1	0.3	< 0.1	1	< 0.1	0.8	96	6.2	14.5	2.1	9.1	2.3	2.8	0.5	3.3	116	< 0.1	0.3	2.2	0.3	0.2	0.4	0.005	0.2	4.5	0.6	1.4	
43359	80.2	42.1	48	5.7	0.5	0.1	2	0.2	2.9	96	10.3	32.1	6.1	32.5	11.2	14.8	2.4	16.7	2090	< 0.1	1.3	7.7	1	0.2	0.2	0.035	0.28	5.8	1.8	0.7	
43360	10.5	41.8	72	1	0.1	< 0.1	< 1	< 0.1	2	48	3.2	7.1	1.1	4.9	1.4	1.9	0.3	2.1	244	< 0.1	0.2	1.3	0.2	< 0.1	0.2	0.008	0.05	2.7	1.2	0.9	
43361	10.3	41.1	20	0.8	0.4	< 0.1	< 1	< 0.1	3.4	56	2.7	6.2	1	4.8	1.5	1.8	0.3	2.1	192	< 0.1	0.2	1.2	0.2	< 0.1	0.1	0.003	0.71	1.7	0.6	0.5	
43362	79.4	76.4	188	14	2.2	0.2	2	0.1	< 0.1	67	28.2	70	9.4	40.6	9.4	12.5	2.1	16.7	16.3	< 0.1	1.8	12.5	1.9	0.3	< 0.1	0.005	0.74	28.3	2.2	0.9	
43363	23.5	530	272	9.2	0.5	< 0.1	1	< 0.1	0.1	1520	43.6	88	10.7	41.1	6.9	6.7	0.8	5.3	32.5	< 0.1	0.4	1.2	< 0.1	0.3	< 0.1	0.005	0.14	12.2	2.5	0.5	

**ASSAYS DATA FOR MANICOUAGAN MAPPING SAMPLING PROGRAM - 2006**

Sample	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
43365	24	499	260	8.8	0.4	<0.1	1	<0.1	0.1	1520	43.2	86	10.5	40	7	6.8	0.8	5.2	38.3	0.2	0.4	1.1	<0.1	0.3	<0.1	0.002	0.13	13	2.5	0.5
43366	19.7	329	63	7.5	0.4	<0.1	<1	<0.1	0.3	499	26.9	53.5	6.8	25.5	4.8	4.7	0.6	4.2	95.2	0.2	0.3	1.8	0.1	0.3	0.1	0.006	0.12	7	3.4	1
43367	20.1	386	106	8	0.3	<0.1	<1	<0.1	0.4	626	28.8	55.1	7	26.6	4.8	4.7	0.6	4	39.4	<0.1	0.3	1.6	<0.1	0.3	0.2	0.002	0.14	7.5	2.7	0.6
43368	4.7	268	13	0.7	0.5	<0.1	<1	<0.1	0.5	130	2.5	4.1	0.6	2.7	0.6	0.8	0.1	0.8	61.8	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	0.003	<0.05	5.8	0.2	0.2
43369	16.6	413	41	7.8	0.4	<0.1	<1	0.2	0.2	500	21.4	40.3	5.4	21.4	4.3	4.2	0.6	3.6	51	<0.1	0.3	1.4	<0.1	0.4	0.2	0.003	0.06	6	1.7	0.6
43370	14.7	262	42	5.8	0.4	<0.1	<1	0.1	0.3	195	11.9	22.5	3.5	14.5	3.2	3.5	0.5	3.2	53.8	<0.1	0.3	1.5	0.1	0.3	0.3	0.008	<0.05	5	1	0.8
43371	7.9	460	19	4.8	0.6	<0.1	<1	<0.1	0.1	461	14.2	22.5	3.6	14	2.6	2.5	0.3	1.9	84.9	<0.1	0.2	0.6	<0.1	0.3	0.2	0.007	<0.05	5.5	1.1	0.4
43372	3.4	359	12	0.9	0.2	<0.1	<1	0.3	0.4	113	2.7	4.9	0.6	2.6	0.6	0.7	0.1	0.8	101	<0.1	<0.1	0.3	<0.1	<0.1	0.2	0.001	<0.05	2.6	0.2	0.1
43373	16.4	365	93	7	0.4	<0.1	<1	0.1	0.3	600	25.6	48.4	6.3	23.7	4.1	4.2	0.5	3.6	46	<0.1	0.3	1.3	<0.1	0.3	0.1	0.008	0.08	7.1	2.2	0.5
43374	29.7	470	22	4.2	0.6	<0.1	1	0.8	0.4	278	22.8	51.1	8.2	35.1	7.5	7.1	1	6.6	97.3	<0.1	0.5	3.1	0.3	0.1	0.3	0.002	<0.05	6.3	0.3	0.3
43375	13	336	43	5.7	0.3	<0.1	<1	<0.1	0.6	365	17	30.5	4.2	16	3	3	0.4	2.5	53.4	<0.1	0.2	0.9	<0.1	0.3	0.2	0.005	<0.05	5.8	1.3	0.5
43377	17.6	427	72	6.3	0.3	<0.1	<1	<0.1	<0.1	587	24.2	30.3	5.9	22.1	4.7	4.1	0.6	3.5	66.6	0.1	0.3	1.4	<0.1	0.3	<0.1	0.009	0.15	5.2	3.6	0.6
43379	52.4	289	137	23.8	1.4	0.1	3	<0.1	0.1	379	37	54.7	11	49.3	12.6	11.6	1.7	11	102	0.8	0.8	4.9	0.6	1.8	<0.1	0.003	0.11	5.8	3.8	1.5
43380	13.8	413	63	7.2	0.4	<0.1	<1	<0.1	0.1	529	22.1	27.8	5.3	20	4.2	3.5	0.5	3	47.6	<0.1	0.2	1.1	<0.1	0.3	<0.1	0.004	0.08	5.9	2.8	0.6
43381	13.9	286	156	8.1	0.1	<0.1	<1	<0.1	<0.1	936	19.1	25.8	4.9	19.3	3.9	3.3	0.4	2.9	82.3	0.2	0.3	1.2	<0.1	0.3	<0.1	0.001	0.08	7.3	1.6	0.2
43382	22	318	266	8.9	0.2	<0.1	1	<0.1	0.1	1930	34.7	49.3	9.3	34.2	6.7	5.6	0.7	4.8	37.4	0.2	0.4	1	<0.1	0.3	<0.1	0.005	0.1	23.2	2.1	0.4
43383	6.9	369	12	1.2	0.2	<0.1	<1	<0.1	<0.1	218	4.8	3.9	1.2	5.2	1.1	1.2	0.2	1.1	21.7	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	0.003	0.05	2.2	0.4	0.2
43384	16.4	418	58	5	0.1	<0.1	<1	<0.1	<0.1	584	30.8	37.5	7.1	26.5	5.1	4.1	0.5	3.4	36.8	0.2	0.3	1.2	<0.1	<0.1	<0.1	0.001	0.11	8.6	2.2	0.5
43385	16.9	376	65	6.6	0.5	<0.1	<1	<0.1	0.5	446	22.3	41.8	5.3	20.1	4.3	3.8	0.6	3.2	39.1	0.1	0.3	1.1	<0.1	0.3	0.2	0.006	0.08	6.1	3.6	0.7
43386	25.4	502	229	8.4	0.2	<0.1	1	<0.1	<0.1	1420	44.6	58.8	10.2	40.5	8	6.4	0.8	5.2	35.5	0.3	0.4	1.7	<0.1	0.3	<0.1	0.003	0.26	13.3	3	0.5
43387	8.9	508	23	3.1	<0.1	<0.1	<1	<0.1	<0.1	213	9.3	10.4	2.2	8.7	2	1.7	0.3	1.7	32.1	0.2	0.1	0.7	<0.1	0.1	<0.1	<0.001	0.05	5.7	1.4	1.4
43388	11.6	447	46	5.6	0.1	<0.1	<1	<0.1	<0.1	535	16.9	22.5	4.5	17.3	3.4	2.8	0.3	2.3	42.5	<0.1	0.2	0.7	<0.1	0.3	<0.1	0.005	0.06	8.6	1.5	8
43389	12	256	28	4.5	0.4	<0.1	<1	<0.1	<0.1	305	13	15.1	3.2	12.7	2.9	2.7	0.4	2.4	47.8	<0.1	0.2	0.9	<0.1	0.2	<0.1	0.002	<0.05	6.1	1.7	1.3
43390	11.1	324	30	6.8	0.3	<0.1	<1	<0.1	<0.1	371	11.8	15.7	3.2	12.7	3.1	2.6	0.4	2.4	88.8	<0.1	0.2	1	<0.1	0.3	<0.1	<0.001	<0.05	4	1.2	0.5
43391	22.9	532	256	8.7	0.2	<0.1	1	<0.1	<0.1	1690	40.4	56.6	9.7	37.4	7.5	6.1	0.8	5	34.7	0.3	0.4	1.2	<0.1	0.2	<0.1	0.003	0.11	12.2	2.5	0.3
43392	21.8	508	263	8.4	0.2	<0.1	1	<0.1	<0.1	1720	41	58.4	10.1	38.8	7.7	5.9	0.8	4.8	73.6	0.3	0.4	1.2	<0.1	0.2	<0.1	0.001	0.19	12.8	2.4	0.4
43393	3.8	67.8	14	1.4	0.5	<0.1	<1	<0.1	<0.1	118	4.3	4.3	1.1	4.3	0.9	0.8	0.1	0.8	18.6	0.2	<0.1	0.5	<0.1	<0.1	<0.1	0.004	<0.05	1.4	1.3	0.3

## **APPENDIX V THIN SECTION DESCRIPTIONS**

**PROSPECTING AND SAMPLING PROGRAM MANICOUAGAN 2006  
THIN SECTION DESCRIPTIONS**

<b>Sample Number</b>	<b>Thin Section Description</b>
06LT00803	Thin, black matrix breccia @ contact of IMS and basement. Clasts comprised predominantly of a deep brown pleochroic amphibole (kaersutite?) and plagioclase with kspar and qtz +/- bte and garnet; 1% opaques. Clasts are mostly angular to subrounded and range in size from ~1cm to <0.5mm. Smaller clasts tend to be monomineralic. Breccia is clast supported; matrices appear to comprise predominantly finely comminuted amphibole and feldspar.
06LT00804	Basal, red IMS, 20cm above previous sample. Fine grained, cryptocrystalline, hematized matrices support ~5%, mostly subangular to subrounded clasts; typically <2mm in size and comprised of recrystallised, plastic feldspar clasts, more angular, non-recrystallized qtz (with pdfs) and feldspar and rare pyroxene. <1% coarser opaques, clasts?
06LT00806	Hematized basement gneiss with red veins, just below contact. Granoblastic, brown, pleochroic amphibole (kaersutite?), biotite, pale pink/green pleochroic opx, cpx, plag and kspar; amorphous reddish brown areas and <1% opaques
06LT01003	Mafic, hematized gabbroic clast; same as 105396 but opaques are more red, hematite?
06LT01401	UM rock? Actually a breccia. Clast within breccia, predominantly green pleochroic amphibole; clear and colourless in ppl, high relief and brightly birefringent cpx; plag. Breccia is composed of fragments of the same minerals, predominantly green amphibole and cpx in a fine grained brownish (in ppl) matrix. Angular fragments appear to be almost in place, some comprising qtz and feldspar.
105351	Medium grained IMS from cliff. Predominantly plagioclase (~60%) and subophitic euhedral to subeuhedral cpx (~15%) partially enclosing feldspar laths; kspar (~10%), opx (5-10%) and minor interstitial qtz (~2-5%); trace opaques (~1-2%) and altered mafic minerals; occasional acicular crystals; no obvious clasts; upto 2mm grainsize; plag is predominantly andesine to labradorite in composition
105370	Top of the hill, from the cliff of the previous sample. Similar textures and mineralogy as the previous sample; possibly slightly coarser grained with subophitic cpx crystals up to 5mm in size. Altered mafics are reddish orange and preserve euhedral crystal shapes. They are generally finer grained than the coarse cpx and plagioclase crystals. Occasional finer grained acicular cpx crystals. Intergrowth textures at margins of some feldspars, as well as zoning. Qtz is less abundant.
105355	IM dyke from the SW. Fine grained (<1mm), acicular, radiating crystals of feldspar and cpx; patches and/or clasts of devitrified glass? Spherulitic to variolitic textures.
105357	Gneiss at contact with IM dyke above. Granoblastic, hb (green/brown pleochroic) and plag; with kspar and minor garnet and bte. Some more hb rich layers. Cross cut by <0.5mm thick veins
105358	Pink/grey, fine grained basal IMS in the SW. Cryptocrystalline plag and cpx; 1% opaques; coarse, serrate grains are likely incompletely melted mineral grains/clasts; indistinct, brownish masses likely represent recrystallised mafic clasts
105359	same location as above; even finer grained IM; indistinct matrices with more abundant and obvious clasts (20%); vary from angular to subrounded; subrounded clasts exhibit textures indicative of recrystallization and assimilation; clasts are feldspar>qtz>mafics; majority of clasts exhibit some form of reaction rim; finely disseminated opaques within matrices
105360	same location as above; similar to 105358 but more abundant clasts; mafic clast with relatively wide reaction zone within the melt, defined by very fine grained yellowish brown mineral (amphibole or cpx?); clast itself also exhibits a fine grained rim comprised predominantly of the same mineral
105363	Medium grained IMS from cliff by Observation Lake; similar to 105351 and 105370; slightly more qtz rich; alteration of mafic minerals results in cloudy, dull, brownish patches probably comprising some hematite
105366	Cliff by Observation Lake; same as previous sample
105369	Waterfall by Observation Lake, below previous two samples; finer grained (1mm) but the same mineralogy and textures as previously described; less qtz, some bte and possibly exhibits more alteration
105371	Island off Ecoast; fine grained basal IM similar to 105358 and 105360; some of the larger, completely recrystallised clasts exhibit clusters and concentrations of fine and coarser opaques

**PROSPECTING AND SAMPLING PROGRAM MANICOUAGAN 2006**  
**THIN SECTION DESCRIPTIONS**

**Sample Number    Thin Section Description**

- 105373    same location as above; basal suevite? basal IM; holding TS up to the light, one observes darker brown and green patches within a slightly lighter matrix; patches themselves envelop clasts; apparently fluidal interaction between two matrices; lighter matrices are similar to 105358, 105360 and 105371 although more clast rich (30%); darker matrices are similar to 105359; clasts more recrystallized in darker matrices
- 105374    Same location as above; gabbroic basement? Predominantly medium grained, equigranular, granoblastic plag and kspars? Minor biotite and cpx, but the majority of the mafic minerals have been replaced by magnetite? Pseudomorphing both mica (elongate and platy) and more euhedral garnet? Feldspars are typically sericitized/sausseritized; they exhibit a mottled, polygonal recrystallisation texture close to the contact with a green/grey shear
- 105375    IM immediately above previous sample; very fine grained, microcrystalline IM similar to 105371, but less patchy and less clasts (~5%); finely disseminated opaques (magnetite?)
- 105377    same location as previous sample; spheroidally weathering, magnetic basal IM or basal suevite; patchy texture; matrices not easily distinguished from 20% clast content; everything obscured by fine grained, brown mineral; qtz clasts typically exhibit inclusions of epidote forming rings within the clasts; 5% opaques (magnetite?)
- 105379    gabbro basement, somewhat similar to 105374 but more mafic, which are more altered to dusty opaques; remnant bte, cpx and amphibole? Starting to melt? Similar textures in places to the suevite described above (105377)
- 105380    basal IM in contact with gabbroic basement; similar to 105359 except matrices are a little darker brown in colour and clasts appear more fluidal/plastic; 10-20% clasts, mostly rounded to subrounded although some angular clasts present; recrystallised, ductile feldspar clasts, qtz clasts; angular clasts tend not to be as recrystallised
- 105381    gabbro clast in IM dyke; cpx, bte (but replaced, bright orange but doesn't change colour in ppl, looks almost amorphous), and almost opaque, high relief mineral (possibly altered opx); melting?
- 105382    next island south; basal suevite with rusty spots; 30-40% clasts and range from angular to rounded and vary in composition from qtz with pdfs, recrystallised and ductile feldspars, cpx, amphibole etc., fine needles are distinguishable in some of the matrices; different matrices are intermingled; some sections are very clast rich with more angular clasts; others are more glassy looking; matrices are varying shades of brown to orange; clasts are feldspar > qtz > amph > bte > cpx > composite
- 105384    gabbro/troctolite clast within suevite; very altered; feldspar completely recrystallised and large areas are obscured by fuzzy, brown opaques; some remnant bte and garnet; ~ 2% coarse opaques
- 105385    suevite immediately adjacent to the previous clast; similar to 105382
- 105387    clast in suevite; similar to 105384 but even more recrystallised with some qtz
- 105388    IM in contact with clast; IM similar to 105380 although matrices are more reddish brown; fine crystallites at contact with clasts; large clast comprises completely recrystallised feldspar with spherulitic textures, garnet, amph and glassy areas, coarse to fine opaques
- 105390    IM dyke; fairly heterogeneous textured, fine grained matrices vary from reddish brown to orange; similar to 105389 but matrices less distinct (fuzzy looking in places) and less clasts
- 105391    Brecciated gabbroic basement; plag, cpx, amph, fine garnets as well as more granitic areas; cataclastic looking breccia veins crosscut; mafic minerals are being transformed to melt and glass
- 105392    black matrix brecciated basement; breccia with abundant (upto 30%) angular clasts in a finegrained matrix; clasts range in size and the smaller clasts are dominated by garnet; larger clasts tend to be feldspathic or composite; more mafic composite clasts comprise cpx, plag, garnets, kspars, qtz?, altered (mica/clay) mafic minerals and opaques; in the larger clasts, the garnets appear to be intimately associated with the opaques and typically rim them

**PROSPECTING AND SAMPLING PROGRAM MANICOUAGAN 2006  
THIN SECTION DESCRIPTIONS**

Sample Number	Thin Section Description
105396	magnetic basement clast; weathers like a cannonball; mafic to ultramafic; predominantly pyx with somewhat amorphous, bulbous blebs of finely crystalline minerals, greenish yellow in ppl with very fine and dark opaques (magnetite?); some coarser opaques (total coarse and fine 30%); also yellowish, finely crystalline areas; finely crystalline feldsp? and some bte
105397	IM close to the previous sample; somewhat similar to 105375
LT17090602	Ultramafic layer in magnetic gneiss clast; pale green/brownish pleochroic amphibole, cpx, opx; granoblastic texture with melt veins; <5% opaques and ~5% green in ppl, isotropic mineral
LT17090603	IM in contact with previous sample; very fine grained, microcrystalline, brownish, spotty matrices with fine grained, disseminated opaques (5%); ~5-10% clasts, predominantly Qtz and feldsp, minor pyx; rounded to subangular; some finely crystalline
43353	NE island near UM showing; strange white breccia; plag, antiperthite and Qtz, with bte concentrated along reddish veins/alteration (granitic); more mafic layer comprising more bte and cpx; <1% opaques; veins/breccia appear to be concentrated at boundary between granitic and mafic layers, although also within each
43354	Fine grained, massive magnetic basement with minor Po? Predominantly altered olivine, amphibole (colourless in ppl) and cpx? ~5% opaques (magnetite and pyrrhotite?)
43357	Ultramafic island; altered olivine with minor cpx/amph and ~5% opaques; brecciated (similar to previous sample)
43358	UM? medium grained, amph, pyx, mica, magnetite basement; rusty; granoblastic; ~1% opaques; clastic breccia veins
43359	similar to previous sample but coarser grained with some bte, some plag and two pyxs; somewhat similar association to 43353
43360	massive granular ultramafic rock; same mineralogy as previous sample but less altered
43364	River above Memory Bay; medium grained IMS; similar to 105351, 105370, 105363 and 105366
43367	SE Island, S Memory Bay; spheroidally weathering brown IM; probably basal suevite; similar to 105377
43374	same location as previous sample; magnetite/plagioclase clast; plag, garnet, cpx with granoblastic texture; magnetite/hematite reddish opaques replacing mafic minerals, in particular garnet; altered biotite
43375	IM or suevite (probably) adjacent to previously described clast; suevite similar to 43367 but more hematized/reddish matrices
43379	clast laden IM; actually appears to be comprised almost completely of partially melted/recrystallized clasts?; extremely heterogeneous, patchy texture; recrystallized feldspar, cpx, opx and 20-30% opaques with very fine, indistinct greyish brown areas/matrices
43380	IM in contact with previous sample; somewhat similar to 105360 but redder matrices and more clast rich; <1% opaques
43381	Memory Bay but N of previous samples; bluish grey, magnetic IM; fine grained exhibiting well developed spherulitic and crystallite textures; relatively clast free (<1%); in sharp contact with more typical clast laden suevite (similar to 105382, 43383); appear to be clasts of this suevitic material within the spherulitic melt
43382	Contact between spherulitic, relatively clast free, magnetic IM and clast laden suevite; similar to previous sample; both clast laden suevite and IM look plastic
43383	Typical IM breccia/suevite; similar to suevite in 43381
43386	Fine grained, clast free IM dyke; very fine feldspar crystallites (grey, acicular) in a yellowy brown, cryptocrystalline matrix with ~ 1% opaques; <0.5% clasts which vary from rounded to subrounded and comprise predominantly feldspar; some clasts appear molten with spherulitic crystals, glass or cryptocrystalline
43387	red, hematized IM? Breccia; similar to 43383 but more hematized; suevitic; ~40% clasts of various sizes
43388	spheroidally weathering IM breccia/suevite; similar to 43387 but less hematized; fine, microcrystalline melt matrices in places
43389	spheroidally weathering IM breccia/suevite; same as 43387 and similar to 43388 but more hematized

**PROSPECTING AND SAMPLING PROGRAM MANICOUAGAN 2006**  
**THIN SECTION DESCRIPTIONS**

**Sample Number    Thin Section Description**

- 43390    suevite; same as 43387 and 43389 but less clasts
- 43391    IM dyke; similar to 105355 but less spherulitic; <1% clasts (one example of toasted qtz/pdfs)
- 43392    Thin IM dyke; somewhat similar to 43381, but more of a reddish brown colour and finer grained; exhibits spherulitic to variolitic textures
- 43393    strongly magnetic basement rock; coarse grained pyroxenite comprising cpx and opx; fine network of fine opaque veins (hematite and magnetite?); crosscut by a thicker vein, outer edge of which comprises opx with amph and garnet in the centre

## **APPENDIX VI CERTIFICATES OF ASSAYS**

Quality Analysis ...



Innovative Technologies

Date Submitted: 24/10/2006 2:12:47 PM  
Invoice No.: A06-4068  
Invoice Date: 16/11/2006  
Your Reference: MOUCHALAGANE

Manicouagan Minerals Inc.  
116 Rue St. Pierre  
Suite 200  
Quebec QC G1K 4A7  
Canada

ATTN: Roger Moaf

## CERTIFICATE OF ANALYSIS

87 Rock samples were submitted for analysis.

The following analytical packages were requested: Code 1C-Exp Fire Assay-ICP/MS  
Code UT-4 Total Digestion ICP/MS

REPORT A06-4068

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Eric Hoffman", written over a horizontal line.

Eric Hoffman, Ph.D.  
President/General Manager

ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd. Report: A06-4068

Analyte Symbol	Pd	Pt	Au	Li	B	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	4	5	2	0.5	1	0.001	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05
Analysis Method	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
105351	< 4	< 5	< 2	8.6	< 1	2.79	1.70	4.93	2.15	3.47	0.1	103	118	839	4.80	6.6	47.4	2.9	1.1	1.0	< 0.05	0.29	22.0	1.97
105352	< 4	< 5	< 2	15.3	< 1	> 3.00	1.98	6.80	2.32	3.21	0.1	95	152	1190	5.19	6.0	51.9	3.1	1.1	1.1	< 0.05	0.33	23.0	2.31
105353	< 4	< 5	< 2	11.6	< 1	2.90	2.25	7.18	2.30	3.42	0.1	105	188	1330	5.48	6.6	54.6	3.4	1.1	1.2	0.06	0.41	24.6	2.65
105354	< 4	< 5	< 2	2.9	< 1	> 3.00	0.11	4.83	4.23	0.72	0.1	12	53.5	739	4.93	1.5	0.6	2.0	0.8	0.7	< 0.05	0.13	2.1	2.54
105355	< 4	< 5	< 2	6.7	< 1	2.69	1.92	5.26	2.04	3.22	< 0.1	100	95.5	1190	5.01	6.4	50.9	2.8	1.0	1.0	< 0.05	0.34	23.1	2.19
105357	< 4	< 5	< 2	24.1	< 1	2.70	3.76	7.32	0.80	5.28	0.2	200	60.6	1670	9.41	1.7	94.0	3.3	0.3	1.2	< 0.05	0.23	53.5	1.72
105358	< 4	< 5	< 2	6.7	< 1	2.59	2.17	6.90	2.10	4.79	< 0.1	92	75.3	918	4.70	3.5	47.9	2.9	1.0	1.0	< 0.05	0.38	21.9	2.14
105359	< 4	< 5	< 2	4.3	< 1	2.59	1.64	3.93	1.89	3.45	< 0.1	87	78.7	1060	4.58	3.7	45.2	2.7	0.9	1.0	< 0.05	0.26	19.1	2.11
105360	< 4	< 5	< 2	7.9	< 1	2.66	2.00	5.60	2.01	4.84	< 0.1	94	82.5	972	4.83	2.3	50.7	3.0	1.0	1.1	< 0.05	0.32	22.3	2.13
105361	< 4	< 5	< 2	6.9	2	2.68	2.18	6.88	2.16	4.84	< 0.1	92	81.9	950	4.82	2.4	50.6	3.2	0.9	1.1	< 0.05	0.38	22.5	2.32
105362	< 4	< 5	< 2	5.6	< 1	2.56	2.03	6.72	2.03	3.33	< 0.1	95	80.6	983	4.85	6.1	48.1	3.2	0.8	1.1	< 0.05	0.29	22.4	2.41
105363	< 4	< 5	< 2	7.7	< 1	2.57	1.82	6.64	2.07	3.20	0.1	93	100	805	4.60	6.8	44.8	3.1	0.9	1.1	< 0.05	0.29	21.1	2.34
105364	< 4	< 5	< 2	8.2	< 1	2.52	1.92	6.55	2.02	3.14	< 0.1	95	105	709	4.41	6.3	45.6	3.1	0.8	1.1	< 0.05	0.27	21.2	2.29
105365	< 4	< 5	< 2	7.3	< 1	2.45	1.79	6.36	2.01	3.07	< 0.1	88	97.9	788	4.39	6.9	42.0	3.2	0.8	1.1	< 0.05	0.43	20.2	2.29
105366	< 4	< 5	< 2	7.4	< 1	2.42	1.82	6.60	1.79	3.22	< 0.1	95	98.5	738	4.37	6.2	43.4	2.9	0.7	1.0	< 0.05	0.28	21.3	2.13
105367	< 4	< 5	< 2	6.1	< 1	2.49	1.93	6.86	1.93	3.91	< 0.1	86	83.9	832	4.51	5.2	49.2	3.1	0.8	1.1	< 0.05	0.30	21.2	2.24
105368	< 4	< 5	< 2	5.3	< 1	2.53	0.97	4.10	2.59	2.16	< 0.1	60	91.1	635	3.33	7.7	29.4	3.2	0.7	1.1	< 0.05	0.14	13.7	1.26
105369	< 4	< 5	< 2	4.8	< 1	2.38	1.67	4.46	1.73	2.95	< 0.1	102	94.7	780	4.70	6.1	47.2	2.8	0.8	1.0	< 0.05	0.26	22.4	1.89
105370	< 4	< 5	< 2	8.0	< 1	> 3.00	1.75	6.48	2.46	4.44	< 0.1	110	131	1090	5.28	6.0	45.1	2.9	0.9	1.0	0.07	0.28	20.6	1.99
105371	< 4	< 5	< 2	8.3	< 1	2.64	1.75	6.34	1.75	3.13	< 0.1	100	73.7	893	4.59	5.9	38.2	2.9	0.7	1.0	< 0.05	0.35	21.4	2.13
105372	< 4	< 5	< 2	4.7	< 1	2.48	1.59	5.98	1.70	2.96	0.2	90	58.2	893	4.21	5.9	37.7	3.0	0.7	1.0	< 0.05	0.35	21.6	2.14
105372A	6	< 5	< 2	8.0	< 1	1.84	3.75	4.88	0.98	6.81	0.1	199	193	798	4.52	4.4	142	1.9	0.7	0.7	< 0.05	0.24	32.7	1.86
105373	< 4	< 5	< 2	5.7	< 1	2.41	1.59	6.06	1.83	3.08	0.2	96	69.7	864	4.47	2.3	38.6	3.8	0.7	1.3	< 0.05	0.55	20.2	2.45
105374	< 4	< 5	< 2	10.5	< 1	> 3.00	1.35	6.36	0.79	2.87	< 0.1	110	21.1	1480	5.12	0.7	5.0	3.5	1.2	1.3	< 0.05	3.73	15.9	2.48
105375	< 4	< 5	< 2	5.1	< 1	2.52	1.68	6.42	1.57	3.08	< 0.1	100	69.7	749	4.34	2.8	31.5	2.7	0.7	1.0	< 0.05	0.37	15.9	2.14
105376	< 4	< 5	< 2	6.1	< 1	2.34	1.86	6.40	1.55	3.03	< 0.1	102	69.2	859	4.44	3.1	36.0	2.7	0.8	1.0	< 0.05	0.36	18.0	2.22
105377	< 4	< 5	< 2	4.8	< 1	2.45	1.73	6.47	1.60	2.90	0.2	101	62.6	692	4.21	1.9	32.5	2.9	0.7	1.1	< 0.05	0.41	16.3	2.24
105378	< 4	< 5	< 2	4.2	< 1	2.28	1.21	3.82	1.51	2.63	< 0.1	90	65.4	703	3.94	3.6	30.0	2.2	0.5	0.8	< 0.05	0.26	16.4	1.70
105379	< 4	< 5	< 2	14.5	< 1	1.83	3.11	5.55	0.29	5.30	0.2	231	30.6	2080	8.04	1.2	100	2.5	0.3	0.9	< 0.05	0.18	56.4	2.09
105380	< 4	< 5	< 2	3.6	< 1	2.48	1.55	6.34	2.03	2.86	0.1	98	54.9	807	3.96	2.6	34.5	2.9	0.8	1.1	< 0.05	0.39	18.2	2.31
105381	< 4	< 5	< 2	19.7	< 1	1.10	3.21	6.24	0.72	5.80	1.5	290	41.6	1500	7.94	2.2	91.4	3.3	0.2	1.2	< 0.05	0.31	65.7	2.25
105382	< 4	< 5	< 2	7.2	< 1	2.58	2.17	6.38	1.68	3.19	0.1	108	50.6	1010	4.34	3.9	37.8	3.5	0.8	1.3	< 0.05	0.25	20.3	2.51
105383	< 4	< 5	3	< 0.5	< 1	1.75	1.51	1.68	0.42	3.38	0.2	265	91.3	1760	11.0	1.0	7.9	6.3	0.8	2.2	< 0.05	0.60	18.7	2.95
105384	< 4	< 5	6	30.7	< 1	1.11	1.80	4.27	2.65	1.80	< 0.1	179	112	3050	10.5	1.5	80.4	5.3	0.9	1.8	< 0.05	0.63	40.0	1.45
105385	< 4	< 5	< 2	6.7	< 1	2.56	1.73	6.15	1.84	2.76	< 0.1	92	39.1	1500	4.10	3.9	32.0	3.4	0.9	1.2	< 0.05	0.56	16.7	2.38
105386	< 4	< 5	< 2	64.4	< 1	1.02	1.49	4.07	0.98	0.46	< 0.1	78	116	1310	6.57	1.2	29.8	2.3	1.1	0.8	< 0.05	4.56	14.6	0.96
105387	< 4	< 5	< 2	36.6	< 1	1.31	2.30	5.06	1.16	2.16	< 0.1	215	149	2460	11.5	1.3	63.0	5.6	0.5	2.0	0.06	1.08	42.2	2.39
105388	< 4	< 5	< 2	3.9	< 1	2.34	1.94	6.09	1.65	2.88	< 0.1	98	47.0	1030	4.28	3.4	40.1	3.3	0.6	1.2	< 0.05	0.19	18.2	2.35
105389	< 4	< 5	< 2	7.5	< 1	1.92	2.44	5.57	1.48	4.69	0.1	87	38.1	1000	4.42	5.9	37.4	3.8	0.9	1.3	< 0.05	0.22	19.1	2.11
105390 Sample spoiled during Preparation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
105391	< 4	< 5	< 2	23.8	< 1	1.67	2.99	4.21	0.32	3.76	0.4	193	51.7	1400	9.05	2.7	51.3	4.1	0.7	1.4	< 0.05	0.45	38.0	2.04
105392	< 4	< 5	< 2	8.3	< 1	2.12	2.32	6.49	0.26	4.34	< 0.1	167	51.7	761	6.43	0.5	55.0	3.8	0.9	1.3	< 0.05	< 0.05	30.8	2.08
105393	< 4	< 5	< 2	9.0	< 1	2.46	0.91	3.79	0.93	2.70	< 0.1	91	76.5	761	4.44	1.3	16.2	2.7	2.5	0.9	< 0.05	4.06	15.9	1.32
105394	5	< 5	< 2	11.2	< 1	0.142	> 10.0	1.27	0.03	1.62	< 0.1	77	1430	1730	10.1	0.2	1140	0.5	< 0.1	0.2	< 0.05	0.12	136	0.23
105395	< 4	< 5	< 2	5.2	< 1	2.43	2.20	6.50	1.79	3.23	< 0.1	101	39.1	1250	4.46	3.5	47.1	3.4	1.1	1.2	< 0.05	0.24	22.8	2.35
105396	< 4	< 5	< 2	< 0.5	< 1	1.26	2.11	2.23	0.07	5.45	0.4	706	7.0	2030	13.0	1.8	5.9	1.8	0.4	0.6	< 0.05	< 0.05	80.3	1.16
105397	< 4	< 5	< 2	7.3	< 1	2.40	1.78	6.03	1.64	3.02	< 0.1	101	53.2	637	4.40	3.0	38.7	3.0	0.9	1.1	< 0.05	0.34	20.2	2.29
105398	< 4	< 5	< 2	0.8	< 1	2.41	0.60	4.16	1.97	1.68	< 0.1	61	64.0	699	2.83	0.7	9.8	2.7	1.2	0.9	< 0.05	0.42	9.8	1.36
105399	< 4	< 5	< 2	3.6	< 1	2.39	1.02	3.98	1.51	2.42	< 0.1	86	46.7	688	3.48	3.0	30.4	2.0	0.6	0.7	< 0.05	0.23	17.1	2.06
105400	< 4	< 5	< 2	1.2	< 1	1.01	2.08	3.54	0.47	4.47	0.1	56	49.0	2120	16.9	1.9	25.6	8.2	0.9	3.2	0.43	0.20	55.4	6.04
43351	< 4	< 5	< 2	11.8	< 1	1.60	3.52	6.53	0.10	5.78	< 0													

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Analyte Symbol	Pd	Pt	Au	Li	B	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	4	5	2	0.5	1	0.001	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05
Analysis Method	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
43353	< 4	< 5	< 2	8.9	< 1	1.82	1.07	3.18	2.37	0.20	< 0.1	2	50.7	147	2.40	13.4	1.0	3.5	1.7	1.2	< 0.05	0.39	1.2	3.27
43354	32	15	4	31.0	< 1	0.224	> 10.0	1.26	0.11	1.67	< 0.1	68	1480	2240	9.09	0.7	1780	0.6	< 0.1	0.2	0.08	0.08	136	0.31
43357	258	93	24	1.0	< 1	0.185	> 10.0	1.26	0.09	1.08	0.1	79	1370	1410	10.3	0.6	1200	0.8	< 0.1	0.3	0.18	0.08	156	0.32
43358	95	45	11	1.3	< 1	0.486	7.64	2.06	0.45	5.52	< 0.1	107	1190	1760	9.13	1.1	740	2.1	0.5	0.7	< 0.05	0.84	114	0.51
43359	437	151	84	4.0	< 1	0.787	> 10.0	3.35	0.52	5.01	0.1	225	2890	1500	12.6	2.1	1320	9.3	0.3	3.4	0.17	0.75	133	1.35
43360	53	32	11	2.0	< 1	0.409	> 10.0	2.25	0.13	7.76	< 0.1	158	1300	1570	8.53	1.8	677	1.3	< 0.1	0.5	0.09	0.44	103	0.44
43361	34	25	7	4.0	< 1	0.377	> 10.0	2.15	0.11	8.24	< 0.1	168	1180	1470	7.61	0.7	561	1.3	< 0.1	0.4	0.09	0.49	89.4	0.46
43362	< 4	< 5	< 2	0.8	< 1	1.49	0.20	3.52	2.52	1.04	< 0.1	7	123	775	6.42	5.3	11.3	11.8	0.8	3.8	< 0.05	0.06	5.9	3.68
43363	< 4	< 5	< 2	7.9	< 1	2.46	1.57	4.71	1.83	3.35	< 0.1	92	95.0	789	4.64	6.3	50.3	2.9	0.8	1.0	< 0.05	0.26	22.7	2.12
43365	< 4	< 5	< 2	7.2	< 1	2.35	1.63	5.17	1.88	3.16	< 0.1	92	85.5	788	4.34	6.0	45.3	3.0	0.7	1.0	< 0.05	0.26	21.3	2.13
43366	< 4	< 5	< 2	4.3	< 1	1.90	2.19	5.98	0.65	4.01	< 0.1	84	63.4	916	4.49	1.7	106	2.4	0.3	0.9	< 0.05	0.18	30.3	1.33
43367	< 4	< 5	< 2	5.6	< 1	1.89	2.69	7.52	0.83	4.21	< 0.1	87	49.7	827	4.61	2.7	132	2.3	0.6	0.8	< 0.05	0.18	33.8	1.42
43368	< 4	< 5	< 2	11.7	< 1	1.11	3.09	7.78	0.07	5.65	< 0.1	36	78.5	984	4.49	0.4	298	0.5	< 0.1	0.2	< 0.05	0.10	56.0	0.35
43369	< 4	< 5	< 2	5.6	< 1	1.76	2.35	5.47	0.38	4.16	< 0.1	115	55.4	915	5.42	1.4	110	2.0	0.6	0.7	< 0.05	0.11	35.8	1.44
43370	< 4	< 5	< 2	6.5	< 1	1.36	2.16	5.19	0.21	4.27	< 0.1	125	63.2	962	5.32	1.4	142	1.8	0.2	0.6	< 0.05	0.11	39.4	1.09
43371	< 4	< 5	< 2	2.9	< 1	2.62	1.05	3.93	0.43	3.57	< 0.1	67	45.3	564	2.96	0.6	58.8	1.1	0.2	0.4	< 0.05	0.19	19.5	0.99
43372	< 4	< 5	< 2	14.8	< 1	1.97	2.78	6.03	0.06	4.66	1.0	32	44.3	857	3.71	0.4	255	0.5	< 0.1	0.2	< 0.05	0.50	45.5	0.38
43373	< 4	< 5	< 2	4.8	< 1	1.78	2.50	6.04	0.64	4.15	< 0.1	81	56.7	707	4.49	2.4	144	2.0	0.4	0.7	< 0.05	0.14	35.1	1.28
43374	< 4	< 5	< 2	9.8	< 1	1.80	2.21	5.64	0.25	5.71	< 0.1	183	64.5	1240	6.54	1.0	34.7	3.6	0.5	1.3	< 0.05	0.15	35.9	1.67
43375	< 4	< 5	< 2	8.9	< 1	1.57	2.72	7.00	0.41	4.72	< 0.1	70	50.6	1010	4.57	1.1	193	1.4	0.2	0.5	< 0.05	0.24	41.6	0.99
43377	< 4	< 5	< 2	7.2	< 1	2.41	3.02	9.06	0.87	6.29	< 0.1	94	82.0	1090	5.69	1.9	143	2.0	1.0	0.8	< 0.05	0.22	37.0	1.28
43379	< 4	< 5	< 2	7.6	< 1	2.15	2.70	6.52	0.92	5.39	< 0.1	228	38.2	1420	11.4	4.1	40.8	6.2	2.0	2.2	< 0.05	0.22	41.4	3.61
43380	< 4	< 5	< 2	6.4	< 1	2.40	3.69	9.18	0.68	5.82	< 0.1	89	98.4	870	5.61	1.8	155	1.7	0.7	0.6	< 0.05	0.19	40.0	1.13
43381	< 4	< 5	< 2	19.6	< 1	> 3.00	2.05	6.21	1.03	2.84	< 0.1	91	80.3	2470	3.61	3.7	108	1.8	1.0	0.6	< 0.05	1.94	26.3	1.25
43382	< 4	< 5	< 2	5.1	< 1	> 3.00	1.84	6.17	1.86	2.50	0.1	112	77.3	1270	4.44	6.0	48.0	2.8	1.2	1.0	< 0.05	2.87	21.1	1.96
43383	< 4	< 5	< 2	29.5	1	2.89	2.96	> 10.0	0.21	7.40	< 0.1	28	58.8	1680	3.44	0.3	166	0.6	0.2	0.2	< 0.05	0.38	31.3	0.55
43384	< 4	< 5	< 2	4.8	< 1	2.33	2.57	8.47	0.89	5.47	< 0.1	82	79.6	863	4.67	1.5	107	1.9	0.8	0.7	< 0.05	0.11	28.8	1.31
43385	< 4	< 5	< 2	9.0	< 1	2.20	3.11	8.94	0.76	6.18	0.1	103	78.5	960	5.00	1.9	160	2.2	0.6	0.8	< 0.05	0.16	37.0	1.20
43386	< 4	< 5	< 2	8.5	1	2.78	2.80	9.65	2.14	4.65	0.1	105	82.2	1110	5.47	5.4	68.5	3.0	1.2	1.1	< 0.05	0.38	25.0	2.13
43387	< 4	< 5	< 2	18.4	< 1	> 3.00	4.67	> 10.0	0.24	4.03	< 0.1	55	102	1690	4.86	0.7	190	1.0	0.5	0.4	< 0.05	1.78	44.5	0.73
43388	< 4	< 5	< 2	9.1	< 1	2.29	3.72	9.00	0.51	6.28	< 0.1	84	87.5	1400	5.51	1.2	174	1.3	0.9	0.5	< 0.05	0.32	44.7	1.10
43389	< 4	< 5	< 2	9.6	2	> 3.00	3.54	7.98	0.20	2.75	< 0.1	79	77.2	1510	5.55	0.9	163	1.4	0.6	0.6	< 0.05	1.19	40.4	1.01
43390	< 4	< 5	< 2	7.6	< 1	> 3.00	3.47	7.60	0.33	3.01	< 0.1	74	104	1540	5.59	0.9	138	1.4	0.5	0.5	< 0.05	1.05	39.6	1.04
43391	< 4	< 5	< 2	4.3	< 1	2.98	1.83	6.53	2.46	3.91	< 0.1	102	93.0	834	4.97	5.8	38.6	2.9	1.1	1.0	< 0.05	0.26	21.2	2.10
43392	< 4	< 5	< 2	3.9	< 1	> 3.00	1.90	5.76	2.62	3.74	< 0.1	101	79.0	793	5.03	6.1	34.9	2.9	1.0	1.0	< 0.05	0.26	20.0	2.19
43393	< 4	< 5	< 2	1.4	< 1	0.330	> 10.0	2.82	0.13	1.34	< 0.1	251	781	2410	23.9	0.4	800	0.5	< 0.1	0.2	< 0.05	0.17	206	0.25

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Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.1	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
105351	0.40	0.1	77.3	18.0	2.9	35.9	22.0	506	276	8.8	2.7	< 0.1	1	< 0.1	0.4	1540	32.7	67.7	9.0	34.8	6.2	6.2	0.8	5.2
105352	2.42	0.3	92.2	17.2	4.3	60.7	28.2	499	262	10.0	3.7	< 0.1	1	0.1	0.2	1460	45.2	90.5	11.5	43.5	7.4	7.3	0.9	5.4
105353	1.08	0.3	91.2	17.2	3.7	67.9	29.0	520	285	9.5	5.3	< 0.1	1	< 0.1	0.2	1610	48.1	95.4	12.1	46.2	7.9	7.9	1.0	5.8
105354	0.18	0.1	106	28.0	1.1	43.6	10.6	123	44	10.5	3.9	0.1	1	0.1	< 0.1	1350	13.1	31.4	4.4	18.7	3.7	3.6	0.5	3.3
105355	0.25	0.2	80.5	17.5	1.5	46.3	22.7	481	279	9.4	1.3	< 0.1	< 1	< 0.1	0.1	1490	35.4	74.4	9.6	36.8	6.5	6.9	0.8	5.1
105357	0.33	0.3	135	18.9	2.2	19.2	28.6	308	45	2.3	1.4	0.1	< 1	< 0.1	0.4	560	12.0	25.7	3.7	16.8	4.0	5.3	0.8	5.4
105358	0.11	0.2	64.3	15.8	1.1	64.1	26.3	516	127	9.3	1.3	< 0.1	< 1	0.1	0.6	1310	47.2	90.9	11.3	42.7	7.3	7.3	0.9	5.4
105359	0.14	0.2	79.9	15.8	0.9	21.1	21.8	477	152	10.2	1.2	< 0.1	< 1	< 0.1	0.4	1400	31.6	67.8	9.2	36.1	6.5	6.6	0.8	5.1
105380	0.14	0.3	60.4	16.2	0.7	47.7	25.8	529	64	10.5	1.5	< 0.1	< 1	< 0.1	0.4	1370	42.7	86.2	11.0	41.5	7.2	7.1	0.9	5.5
105381	0.14	0.3	54.7	15.5	0.7	66.7	28.0	540	68	9.9	1.6	< 0.1	< 1	< 0.1	0.4	1390	49.4	96.4	12.1	45.3	7.8	7.7	0.9	5.6
105362	0.08	0.6	61.1	15.7	0.4	61.3	27.8	491	253	9.4	1.0	< 0.1	< 1	< 0.1	0.2	1490	48.9	95.2	12.0	45.5	7.8	7.6	0.9	5.6
105363	0.06	0.7	71.8	15.0	2.0	67.2	27.3	514	285	8.8	3.4	< 0.1	1	0.2	0.2	1530	47.9	92.2	11.7	44.5	7.6	7.6	0.9	5.5
105364	0.06	< 0.1	61.6	14.8	0.7	63.4	26.7	507	268	7.7	2.6	< 0.1	< 1	< 0.1	< 0.1	1520	47.4	90.9	11.6	44.0	7.4	7.2	0.9	5.4
105365	0.17	< 0.1	67.1	14.0	0.9	68.1	27.2	486	284	9.2	2.2	0.2	1	< 0.1	< 0.1	1510	48.0	93.0	11.7	44.1	7.5	7.4	0.9	5.6
105366	0.04	0.3	61.7	13.8	0.3	59.1	24.0	549	256	8.0	2.2	< 0.1	< 1	0.2	0.1	1440	42.9	84.7	10.6	40.5	6.7	6.8	0.8	5.0
105367	0.06	0.5	65.5	14.0	< 0.1	60.5	27.0	530	208	9.6	1.7	< 0.1	< 1	< 0.1	0.3	1410	48.6	94.2	11.8	44.8	7.4	7.2	0.9	5.5
105368	0.04	< 0.1	50.1	16.3	0.8	25.4	21.8	377	323	11.1	2.8	< 0.1	< 1	0.1	0.2	1130	23.6	56.3	7.6	31.2	6.0	6.2	0.9	5.5
105369	0.03	< 0.1	65.8	14.8	0.5	35.7	22.1	534	255	9.6	1.8	< 0.1	1	< 0.1	0.3	1450	32.5	68.3	8.8	34.8	6.3	6.3	0.8	5.1
105370	< 0.02	0.5	72.1	21.6	< 0.1	41.2	24.5	556	276	8.8	1.5	< 0.1	1	< 0.1	< 0.1	1620	42.0	59.6	10.3	39.2	7.5	6.2	0.8	4.9
105371	< 0.02	0.1	59.0	14.0	< 0.1	60.1	24.5	592	242	9.0	2.2	< 0.1	1	< 0.1	0.2	1540	45.2	87.0	11.2	42.5	7.3	7.0	0.8	5.1
105372	0.02	0.1	79.2	12.4	0.7	59.3	23.9	587	230	8.4	1.3	< 0.1	1	0.1	0.2	1580	45.4	89.6	11.1	42.6	7.2	7.3	0.8	5.1
105372A	0.51	< 0.1	69.3	14.5	0.4	32.2	17.5	403	162	5.1	2.5	< 0.1	1	< 0.1	0.6	864	30.3	61.9	8.3	33.9	6.1	5.8	0.7	3.7
105373	0.12	0.4	77.5	13.5	1.2	72.5	32.0	526	85	11.2	2.0	< 0.1	1	< 0.1	0.2	1510	58.2	114	14.3	53.6	9.2	8.7	1.1	6.7
105374	0.13	0.2	94.3	18.9	1.6	32.8	29.5	930	24	8.5	1.4	< 0.1	2	< 0.1	0.2	1300	38.6	83.9	11.7	47.6	8.9	8.6	1.0	6.4
105375	0.02	0.2	61.6	13.2	1.8	53.8	23.0	624	98	9.3	1.1	< 0.1	1	0.1	0.1	1470	44.8	88.1	11.1	42.7	7.2	6.9	0.8	4.9
105376	< 0.02	0.3	71.0	13.8	2.4	56.0	23.7	594	106	8.6	0.8	< 0.1	1	< 0.1	0.2	1470	48.0	93.2	11.7	44.8	7.6	7.0	0.8	5.1
105377	< 0.02	0.3	82.6	12.9	2.6	57.3	25.5	593	58	8.8	1.6	< 0.1	< 1	0.1	0.3	1480	48.8	95.2	12.1	46.6	7.8	7.4	0.9	5.3
105378	< 0.02	< 0.1	56.6	12.8	< 0.1	34.2	16.0	524	128	8.8	0.7	< 0.1	1	< 0.1	0.2	1460	30.0	63.2	8.0	31.6	5.6	5.4	0.6	4.0
105379	0.04	0.2	111	19.4	< 0.1	5.1	20.8	657	27	6.8	1.4	< 0.1	1	0.2	0.3	730	22.6	47.8	6.6	27.7	5.8	6.1	0.7	4.7
105380	0.02	0.2	62.8	12.5	0.2	73.9	23.5	617	96	9.1	1.1	< 0.1	1	0.2	< 0.1	1610	54.0	104	13.1	49.9	8.1	7.8	0.9	5.4
105381	0.08	0.3	160	18.0	< 0.1	20.4	28.8	225	66	5.5	2.0	< 0.1	1	< 0.1	0.4	551	19.5	48.6	7.1	31.0	7.1	7.9	1.0	6.3
105382	0.04	0.3	39.9	14.6	0.7	58.1	29.4	541	162	9.8	0.9	< 0.1	1	0.2	0.2	1470	47.3	95.6	12.4	47.7	8.3	8.1	1.0	6.2
105383	0.12	0.8	207	20.1	1.2	6.0	41.7	315	19	12.6	3.2	0.2	1	0.1	0.2	456	35.2	80.1	10.7	44.7	9.3	10.2	1.5	10.4
105384	< 0.02	0.1	26.1	18.4	0.3	40.1	35.9	175	42	7.9	2.0	< 0.1	1	< 0.1	< 0.1	598	15.0	35.6	4.6	20.9	5.2	7.2	1.2	8.4
105385	< 0.02	0.2	36.9	14.3	< 0.1	65.6	28.5	513	172	10.6	0.5	< 0.1	1	0.3	0.1	1480	53.8	93.6	11.9	45.6	7.7	7.6	0.9	5.8
105386	< 0.02	< 0.1	7.1	18.5	1.3	47.1	15.5	56.1	22	14.1	4.5	< 0.1	< 1	0.1	< 0.1	114	12.4	26.7	3.6	15.3	3.3	3.5	0.5	3.6
105387	< 0.02	0.5	32.5	21.2	0.3	27.7	44.0	160	28	7.0	3.8	0.1	2	0.1	< 0.1	398	13.3	33.9	4.6	21.4	6.4	8.4	1.4	9.6
105388	< 0.02	0.2	34.8	12.4	0.3	50.8	27.3	495	137	9.3	0.9	< 0.1	1	< 0.1	0.2	1420	51.0	96.1	12.7	48.4	8.2	7.8	1.0	6.0
105389	< 0.02	0.4	60.2	11.6	0.6	63.4	31.9	441	239	12.0	0.5	< 0.1	1	< 0.1	0.3	965	46.5	93.6	12.0	44.8	8.1	7.8	1.0	6.4
105390 Sample spoiled during Preparation	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
105391	< 0.02	0.9	271	17.0	0.9	7.9	32.8	231	96	8.5	0.3	< 0.1	1	< 0.1	0.2	301	27.3	60.6	8.2	33.2	6.8	7.2	1.0	6.9
105392	< 0.02	0.1	40.8	20.6	< 0.1	2.0	31.2	325	10	8.8	0.2	< 0.1	1	< 0.1	0.4	177	26.7	58.3	8.0	34.2	7.1	7.0	1.0	6.5
105393	0.11	0.8	51.9	23.9	6.2	40.9	18.8	264	24	15.2	1.2	< 0.1	1	0.6	0.1	250	12.3	28.9	4.1	18.1	3.8	4.0	0.6	4.0
105394	< 0.02	< 0.1	57.2	3.5	< 0.1	1.0	3.2	34.9	6	0.6	< 0.1	< 0.1	< 1	0.2	4.8	70	5.4	8.6	1.0	3.6	0.7	0.8	0.1	0.7
105395	< 0.02	0.3	72.6	14.6	0.2	68.4	29.6	521	145	9.7	0.3	< 0.1	1	0.1	0.3	1440	47.8	94.8	12.3	47.1	8.2	7.7	1.0	6.0
105396	< 0.02	0.7	192	23.4	0.6	< 0.2	11.5	254	52	6.1	2.7	0.1	3	0.2	0.3	70	24.5	50.8	5.8	22.0	4.0	4.0	0.5	3.2
105397	< 0.02	< 0.1	48.4	14.6	< 0.1	57.1	23.8	580	102	8.9	0.3	< 0.1	1	< 0.1	0.1	1510	51.1	99.3	12.5	47.1	8.0	7.4	0.9	5.3
105398	< 0.02	< 0.1	50.2	13.4	0.2	64.5	20.0	435	18	10.9	0.5	< 0.1	2	< 0.1	< 0.1	1150	42.6	90.1	10.9	40.1	6.7	5.9	0.7	4.7
105399	< 0.02	< 0.1	124	9.1	< 0.1	33.6	14.6	589	131	8.0	0.4	< 0.1	1	< 0.1	0.2	2670	44.3	87.2	10.3	38.4	6.0	5.9	0.6	3.7
105400	0.04	2.8	65.2	21.1	< 0.1	14.3	67.9	261	36	17.3	4.5	0.2	5	0.1	0.1	256	59.0	137	20.2	92.0	20.4	21.2	2.8	16.9
43351	< 0.02	0.2	72.0	15.0	< 0.1	7.0	15.3	82.8	19	0.9	1.0	< 0.1	< 1	< 0.1	0.4	57	2.3	6.0	1.0	5.0	1.7	2.4	0.4	3.0

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Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.1	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
43353	0.04	0.4	27.0	24.1	0.4	41.2	17.7	47.0	382	27.9	2.0	< 0.1	6	0.2	0.1	1290	54.4	113	13.8	53.5	9.1	8.0	1.0	6.1
43354	0.02	0.1	78.4	4.8	< 0.1	5.8	4.7	31.4	16	1.3	0.1	< 0.1	< 1	< 0.1	3.8	42	7.5	9.9	1.1	4.5	0.9	1.1	0.2	1.1
43357	0.06	0.3	70.4	3.9	< 0.1	4.9	6.3	24.5	18	1.2	0.2	< 0.1	< 1	0.1	4.4	89	4.1	8.0	1.1	4.6	1.1	1.2	0.2	1.3
43358	0.05	0.3	80.0	7.4	< 0.1	32.3	17.0	40.0	31	4.1	0.3	< 0.1	1	< 0.1	0.8	96	6.2	14.5	2.1	9.1	2.3	2.8	0.5	3.3
43359	0.06	3.4	101	12.0	< 0.1	17.1	80.2	42.1	48	5.7	0.5	0.1	2	0.2	2.9	96	10.3	32.1	6.1	32.5	11.2	14.8	2.4	16.7
43360	0.02	0.5	54.2	6.1	< 0.1	7.8	10.5	41.8	72	1.0	0.1	< 0.1	< 1	< 0.1	2.0	48	3.2	7.1	1.1	4.9	1.4	1.9	0.3	2.1
43361	< 0.02	< 0.1	49.2	5.7	< 0.1	7.5	10.3	41.1	20	0.8	0.4	< 0.1	< 1	< 0.1	3.4	56	2.7	6.2	1.0	4.8	1.5	1.8	0.3	2.1
43362	< 0.02	3.7	45.0	21.6	0.7	72.5	79.4	76.4	188	14.0	2.2	0.2	2	0.1	< 0.1	67	28.2	70.0	9.4	40.6	9.4	12.5	2.1	16.7
43363	< 0.02	< 0.1	68.1	15.6	0.2	42.0	23.5	530	272	9.2	0.5	< 0.1	1	< 0.1	0.1	1520	43.6	88.0	10.7	41.1	6.9	6.7	0.8	5.3
43365	< 0.02	0.1	64.8	15.1	< 0.1	47.1	24.0	489	260	8.8	0.4	< 0.1	1	< 0.1	0.1	1520	43.2	86.0	10.5	40.0	7.0	6.8	0.8	5.2
43366	< 0.02	< 0.1	72.2	16.3	< 0.1	26.4	19.7	329	63	7.5	0.4	< 0.1	< 1	< 0.1	0.3	499	26.9	53.5	6.8	25.5	4.8	4.7	0.6	4.2
43367	< 0.02	< 0.1	58.6	14.8	< 0.1	33.6	20.1	386	106	8.0	0.3	< 0.1	< 1	< 0.1	0.4	626	28.8	55.1	7.0	26.6	4.8	4.7	0.6	4.0
43368	< 0.02	< 0.1	61.0	12.7	< 0.1	3.0	4.7	268	13	0.7	0.5	< 0.1	< 1	< 0.1	0.5	130	2.5	4.1	0.6	2.7	0.6	0.8	0.1	0.8
43369	< 0.02	< 0.1	61.8	15.9	< 0.1	10.5	16.6	413	41	7.8	0.4	< 0.1	< 1	0.2	0.2	500	21.4	40.3	5.4	21.4	4.3	4.2	0.6	3.6
43370	< 0.02	< 0.1	53.0	14.3	< 0.1	5.5	14.7	262	42	5.8	0.4	< 0.1	< 1	0.1	0.3	195	11.9	22.5	3.5	14.5	3.2	3.5	0.5	3.2
43371	< 0.02	< 0.1	72.1	14.8	< 0.1	5.4	7.9	460	19	4.8	0.6	< 0.1	< 1	< 0.1	0.1	461	14.2	22.5	3.6	14.0	2.6	2.5	0.3	1.9
43372	< 0.02	< 0.1	73.5	12.5	< 0.1	2.8	3.4	359	12	0.9	0.2	< 0.1	< 1	0.3	0.4	113	2.7	4.9	0.6	2.6	0.6	0.7	0.1	0.8
43373	< 0.02	0.1	50.9	14.0	< 0.1	20.2	16.4	365	93	7.0	0.4	< 0.1	< 1	0.1	0.3	600	25.6	48.4	6.3	23.7	4.1	4.2	0.5	3.6
43374	< 0.02	0.2	80.6	18.3	0.6	2.9	29.7	470	22	4.2	0.6	< 0.1	1	0.8	0.4	278	22.8	51.1	8.2	35.1	7.5	7.1	1.0	6.6
43375	< 0.02	< 0.1	100	13.2	< 0.1	16.1	13.0	336	43	5.7	0.3	< 0.1	< 1	< 0.1	0.6	365	17.0	30.5	4.2	16.0	3.0	3.0	0.4	2.5
43377	< 0.02	3.4	64.9	19.0	< 0.1	23.1	17.6	427	72	6.3	0.3	< 0.1	< 1	< 0.1	< 0.1	587	24.2	30.3	5.9	22.1	4.7	4.1	0.6	3.5
43379	< 0.02	3.1	85.5	24.3	< 0.1	24.9	52.4	289	137	23.8	1.4	0.1	3	< 0.1	0.1	379	37.0	54.7	11.0	49.3	12.6	11.6	1.7	11.0
43380	< 0.02	1.5	69.1	16.8	< 0.1	14.9	13.8	413	63	7.2	0.4	< 0.1	< 1	< 0.1	0.1	529	22.1	27.8	5.3	20.0	4.2	3.5	0.5	3.0
43381	< 0.02	1.2	46.8	15.4	< 0.1	9.9	13.9	286	156	8.1	0.1	< 0.1	< 1	< 0.1	< 0.1	936	19.1	25.8	4.9	19.3	3.9	3.3	0.4	2.9
43382	< 0.02	1.0	58.0	17.7	< 0.1	21.6	22.0	318	266	8.9	0.2	< 0.1	1	< 0.1	0.1	1930	34.7	49.3	9.3	34.2	6.7	5.6	0.7	4.8
43383	< 0.02	0.5	49.4	14.0	< 0.1	3.9	6.9	369	12	1.2	0.2	< 0.1	< 1	< 0.1	< 0.1	218	4.8	3.9	1.2	5.2	1.1	1.2	0.2	1.1
43384	< 0.02	0.8	68.5	18.4	< 0.1	16.4	16.4	418	58	5.0	0.1	< 0.1	< 1	< 0.1	< 0.1	584	30.8	37.5	7.1	26.5	5.1	4.1	0.5	3.4
43385	< 0.02	0.5	68.0	17.2	0.3	26.4	16.9	376	65	6.6	0.5	< 0.1	< 1	< 0.1	0.5	446	22.3	41.8	5.3	20.1	4.3	3.8	0.6	3.2
43386	< 0.02	0.8	86.3	21.8	< 0.1	55.7	25.4	502	229	8.4	0.2	< 0.1	1	< 0.1	< 0.1	1420	44.6	58.8	10.2	40.5	8.0	6.4	0.8	5.2
43387	< 0.02	0.6	62.1	15.5	< 0.1	8.3	8.9	508	23	3.1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	213	9.3	10.4	2.2	8.7	2.0	1.7	0.3	1.7
43388	< 0.02	0.9	62.6	16.1	< 0.1	9.0	11.6	447	46	5.6	0.1	< 0.1	< 1	< 0.1	< 0.1	535	16.9	22.5	4.5	17.3	3.4	2.8	0.3	2.3
43389	< 0.02	0.9	98.0	15.3	< 0.1	4.2	12.0	256	28	4.5	0.4	< 0.1	< 1	< 0.1	< 0.1	305	13.0	15.1	3.2	12.7	2.9	2.7	0.4	2.4
43390	< 0.02	0.6	86.5	16.3	< 0.1	5.8	11.1	324	30	6.8	0.3	< 0.1	< 1	< 0.1	< 0.1	371	11.8	15.7	3.2	12.7	3.1	2.6	0.4	2.4
43391	< 0.02	1.2	66.9	22.2	< 0.1	35.9	22.9	532	256	8.7	0.2	< 0.1	1	< 0.1	< 0.1	1690	40.4	56.6	9.7	37.4	7.5	6.1	0.8	5.0
43392	< 0.02	0.6	55.2	22.1	< 0.1	38.4	21.8	508	263	6.4	0.2	< 0.1	1	< 0.1	< 0.1	1720	41.0	58.4	10.1	38.8	7.7	5.9	0.8	4.8
43393	< 0.02	0.4	220	9.1	< 0.1	1.9	3.8	67.8	14	1.4	0.5	< 0.1	< 1	< 0.1	< 0.1	118	4.3	4.3	1.1	4.3	0.9	0.8	0.1	0.8

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
105351	31.0	< 0.1	0.4	2.0	< 0.1	0.3	2.2	0.004	0.16	15.2	2.5	0.5
105352	33.0	< 0.1	0.5	2.3	0.1	0.3	10.6	0.007	0.39	14.2	2.7	0.6
105353	26.4	< 0.1	0.5	2.5	0.1	0.3	11.8	0.004	0.65	17.1	2.8	0.6
105354	1.0	0.5	0.3	1.2	< 0.1	0.4	0.8	0.001	0.45	18.4	0.6	4.5
105355	33.3	< 0.1	0.4	1.9	< 0.1	0.3	0.9	0.003	0.38	14.0	2.0	0.5
105357	32.9	< 0.1	0.5	2.9	0.4	< 0.1	0.6	0.004	0.15	6.3	0.4	0.2
105358	26.6	< 0.1	0.4	2.0	0.1	0.3	0.3	0.002	0.18	8.5	3.3	0.6
105359	25.3	< 0.1	0.4	2.0	< 0.1	0.4	1.0	0.001	0.20	10.4	1.7	0.5
105360	33.8	< 0.1	0.4	2.2	0.1	0.4	0.7	0.003	0.17	9.2	2.9	0.9
105361	29.3	< 0.1	0.4	2.1	0.1	0.3	0.4	0.003	0.19	8.0	3.4	0.6
105362	27.2	< 0.1	0.5	2.2	< 0.1	0.3	0.6	0.005	0.24	12.5	3.0	0.5
105363	36.6	< 0.1	0.5	2.2	< 0.1	0.3	0.3	0.003	0.23	13.3	3.0	0.5
105364	31.4	< 0.1	0.4	2.0	< 0.1	0.3	0.3	0.003	0.20	13.9	2.8	0.4
105365	26.6	< 0.1	0.5	2.2	< 0.1	0.3	0.5	0.002	0.24	13.7	3.0	0.5
105366	34.0	< 0.1	0.4	1.8	< 0.1	0.3	0.4	0.003	0.19	12.3	2.5	0.4
105367	31.8	< 0.1	0.4	2.1	< 0.1	0.4	0.3	< 0.001	0.18	8.9	3.0	0.6
105368	65.9	< 0.1	0.5	2.2	0.1	0.4	0.3	0.003	0.24	13.7	1.4	0.4
105369	44.5	< 0.1	0.4	1.8	< 0.1	0.3	0.2	0.006	0.26	13.8	1.9	0.4
105370	38.3	0.3	0.4	1.3	< 0.1	0.2	< 0.1	< 0.001	0.09	12.9	2.4	0.3
105371	18.6	< 0.1	0.4	1.8	< 0.1	0.3	0.2	0.005	0.22	12.7	2.8	0.4
105372	30.3	< 0.1	0.4	1.7	< 0.1	0.3	1.8	0.005	0.23	48.2	3.2	0.4
105372A	30.1	< 0.1	0.3	1.2	< 0.1	0.2	4.6	0.003	0.11	8.9	1.7	0.3
105373	39.5	0.1	0.5	2.7	< 0.1	0.5	0.7	< 0.001	0.30	18.3	5.2	0.7
105374	33.3	0.2	0.5	2.1	< 0.1	0.2	1.0	0.005	< 0.05	8.8	0.6	0.2
105375	37.1	0.1	0.4	1.6	< 0.1	0.5	0.4	0.005	0.21	12.2	2.6	0.4
105376	35.5	< 0.1	0.4	1.5	< 0.1	0.3	0.2	0.004	0.22	12.8	3.0	0.4
105377	37.1	< 0.1	0.4	1.7	< 0.1	0.3	0.1	0.006	0.20	13.4	2.8	0.4
105378	18.2	< 0.1	0.3	1.0	< 0.1	0.3	0.2	0.002	0.22	15.4	1.7	0.3
105379	92.6	< 0.1	0.3	1.6	< 0.1	0.3	0.3	< 0.001	0.11	8.1	0.3	0.1
105380	53.7	< 0.1	0.4	1.3	< 0.1	0.3	0.2	0.003	0.30	20.1	4.1	0.4
105381	80.5	< 0.1	0.5	2.5	0.2	0.2	73.5	0.008	0.13	19.7	0.8	0.2
105382	42.7	< 0.1	0.5	2.1	< 0.1	0.4	1.4	0.004	0.26	14.8	3.8	0.6
105383	19.9	< 0.1	0.9	5.4	0.6	0.5	1.1	0.004	0.29	14.1	0.7	0.2
105384	8.9	0.4	0.8	4.8	0.5	0.5	0.4	0.005	0.16	2.3	1.3	0.6
105385	33.6	< 0.1	0.5	2.0	< 0.1	0.4	0.3	0.003	0.20	12.0	3.7	0.6
105386	7.6	0.6	0.3	2.3	0.3	1.8	0.3	0.002	0.22	4.1	4.2	1.4
105387	9.9	0.3	0.8	5.4	0.6	0.4	0.2	0.001	0.14	5.3	2.1	0.8
105388	45.2	< 0.1	0.4	1.8	< 0.1	0.4	0.1	0.005	0.16	12.5	3.8	0.7
105389	31.2	< 0.1	0.5	2.8	0.2	0.5	0.2	0.007	0.13	8.7	6.2	2.5
105390 Sample spoiled during Preparation	--	--	--	--	--	--	--	--	--	--	--	--
105391	62.7	< 0.1	0.6	3.6	0.4	0.4	< 0.1	0.003	0.27	13.6	1.6	0.2
105392	46.9	< 0.1	0.5	3.5	0.5	0.3	< 0.1	0.001	< 0.05	7.5	0.3	0.6
105393	10.5	< 0.1	0.4	2.9	0.4	1.2	0.3	0.001	0.36	28.8	1.2	5.3
105394	3.7	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1	0.003	0.07	1.5	0.1	0.2
105395	40.9	< 0.1	0.5	2.0	< 0.1	0.4	< 0.1	0.005	0.27	13.3	3.9	0.8
105396	156	< 0.1	0.2	1.5	0.2	0.3	< 0.1	0.003	0.54	27.2	0.2	0.4
105397	37.7	0.1	0.4	1.2	< 0.1	0.3	< 0.1	0.002	0.20	13.3	3.4	0.6
105398	23.4	0.2	0.4	1.7	< 0.1	0.4	< 0.1	< 0.001	0.22	15.7	0.9	0.3
105399	32.8	0.2	0.3	< 0.1	< 0.1	0.4	< 0.1	0.001	0.14	14.8	2.1	0.5
105400	219	0.3	1.1	6.4	0.8	0.9	0.1	0.004	0.09	11.8	1.7	0.6
43351	54.0	< 0.1	0.3	1.8	0.3	< 0.1	< 0.1	0.002	< 0.05	1.1	0.5	0.8

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
43353	74.5	< 0.1	0.5	2.6	< 0.1	0.9	< 0.1	< 0.001	0.41	25.8	6.8	1.1
43354	168	< 0.1	0.1	0.6	< 0.1	< 0.1	0.2	0.001	2.48	3.2	0.5	0.4
43357	337	< 0.1	0.1	0.8	< 0.1	< 0.1	0.1	0.004	1.65	3.0	0.7	0.4
43358	116	< 0.1	0.3	2.2	0.3	0.2	0.4	0.005	0.20	4.5	0.6	1.4
43359	2080	< 0.1	1.3	7.7	1.0	0.2	0.2	0.035	0.28	5.8	1.8	0.7
43360	244	< 0.1	0.2	1.3	0.2	< 0.1	0.2	0.008	0.05	2.7	1.2	0.9
43361	192	< 0.1	0.2	1.2	0.2	< 0.1	0.1	0.003	0.71	1.7	0.6	0.5
43362	16.3	< 0.1	1.6	12.5	1.9	0.3	< 0.1	0.005	0.74	28.3	2.2	0.9
43363	32.5	< 0.1	0.4	1.2	< 0.1	0.3	< 0.1	0.005	0.14	12.2	2.5	0.5
43365	38.3	0.2	0.4	1.1	< 0.1	0.3	< 0.1	0.002	0.13	13.0	2.5	0.5
43366	95.2	0.2	0.3	1.8	0.1	0.3	0.1	0.006	0.12	7.0	3.4	1.0
43367	39.4	< 0.1	0.3	1.6	< 0.1	0.3	0.2	0.002	0.14	7.5	2.7	0.6
43368	61.8	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1	0.003	< 0.05	5.8	0.2	0.2
43369	51.0	< 0.1	0.3	1.4	< 0.1	0.4	0.2	0.003	0.06	6.0	1.7	0.6
43370	53.8	< 0.1	0.3	1.5	0.1	0.3	0.3	0.008	< 0.05	5.0	1.0	0.8
43371	84.9	< 0.1	0.2	0.8	< 0.1	0.3	0.2	0.007	< 0.05	5.5	1.1	0.4
43372	101	< 0.1	< 0.1	0.3	< 0.1	< 0.1	0.2	0.001	< 0.05	2.8	0.2	0.1
43373	46.0	< 0.1	0.3	1.3	< 0.1	0.3	0.1	0.008	0.08	7.1	2.2	0.5
43374	97.3	< 0.1	0.5	3.1	0.3	0.1	0.3	0.002	< 0.05	6.3	0.3	0.3
43375	53.4	< 0.1	0.2	0.9	< 0.1	0.3	0.2	0.005	< 0.05	5.8	1.3	0.5
43377	66.6	0.1	0.3	1.4	< 0.1	0.3	< 0.1	0.009	0.15	5.2	3.6	0.6
43379	102	0.8	0.8	4.9	0.6	1.8	< 0.1	0.003	0.11	5.8	3.8	1.5
43380	47.6	< 0.1	0.2	1.1	< 0.1	0.3	< 0.1	0.004	0.08	5.9	2.8	0.6
43381	82.3	0.2	0.3	1.2	< 0.1	0.3	< 0.1	0.001	0.08	7.3	1.6	0.2
43382	37.4	0.2	0.4	1.0	< 0.1	0.3	< 0.1	0.005	0.10	23.2	2.1	0.4
43383	21.7	< 0.1	< 0.1	0.4	< 0.1	< 0.1	< 0.1	0.003	0.05	2.2	0.4	0.2
43384	36.8	0.2	0.3	1.2	< 0.1	< 0.1	< 0.1	0.001	0.11	8.6	2.2	0.5
43385	39.1	0.1	0.3	1.1	< 0.1	0.3	0.2	0.006	0.08	6.1	3.6	0.7
43386	35.5	0.3	0.4	1.7	< 0.1	0.3	< 0.1	0.003	0.26	13.3	3.0	0.6
43387	32.1	0.2	0.1	0.7	< 0.1	0.1	< 0.1	< 0.001	0.05	5.7	1.4	1.4
43388	42.5	< 0.1	0.2	0.7	< 0.1	0.3	< 0.1	0.005	0.06	8.6	1.5	8.0
43389	47.8	< 0.1	0.2	0.9	< 0.1	0.2	< 0.1	0.002	< 0.05	6.1	1.7	1.3
43390	88.8	< 0.1	0.2	1.0	< 0.1	0.3	< 0.1	< 0.001	< 0.05	4.0	1.2	0.5
43391	34.7	0.3	0.4	1.2	< 0.1	0.2	< 0.1	0.003	0.11	12.2	2.5	0.3
43392	73.6	0.3	0.4	1.2	< 0.1	0.2	< 0.1	0.001	0.19	12.8	2.4	0.4
43393	18.6	0.2	< 0.1	0.5	< 0.1	< 0.1	< 0.1	0.004	< 0.05	1.4	1.3	0.3

Quality Control																								
Analyte Symbol	Pd	Pt	Au	Li	B	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	4	5	2	0.5	1	0.001	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05
Analysis Method	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Method Blank	< 4	< 5	< 2																					
WMG-1 Meas	372	715	107																					
WMG-1 Cert	382	731	110																					
CDN-PGMS-9 Meas	2540	713	1030																					
CDN-PGMS-9 Cert	2600	710	1040																					
105361 Rep Orig	< 4	< 5	< 2																					
105361 Rep Dup	< 4	< 5	< 2																					
105371 Rep Orig	< 4	< 5	< 2																					
105371 Rep Dup	< 4	< 5	< 2																					
105380 Rep Orig	< 4	< 5	< 2																					
105380 Rep Dup	< 4	< 5	< 2																					
105395 Rep Orig	< 4	< 5	< 2																					
105395 Rep Dup	< 4	< 5	< 2																					
43358 Rep Orig	105	50	11																					
43358 Rep Dup	86	41	10																					
43369 Rep Orig	< 4	< 5	< 2																					
43369 Rep Dup	< 4	< 5	< 2																					
43386 Rep Orig	< 4	< 5	< 2																					
43386 Rep Dup	< 4	< 5	< 2																					
Method Blank				< 0.5	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05
GXR-6 Meas	31.1	< 1	0.093	0.36	7.20	1.28	0.13	< 0.1	166	67.2	852	4.70	2.9	22.3	0.9	0.8	0.3	0.21	2.22	12.4	0.31			
GXR-6 Cert	32.0	10	0.10	0.61	17.7	1.87	0.18	1	186	96.0	1010	5.58	4.3	27.0	1	1	1.3	4.20	13.8	0.76				
GXR-2 Meas	47.8	< 1	0.497	0.52	5.32	0.96	0.50	3.9	47	24.8	743	1.68	4.2	17.5	1.0	1.2	0.3	17.1	2.51	8.5	0.44			
GXR-2 Cert	54.0	40	0.556	0.85	16.5	1.4	0.93	4.1	52	36.0	1010	1.86	8.3	21.0	1.7	1.7	1.7	17.0	5.20	8.6	0.81			
GXR-1 Meas	8.6	< 1	0.047	0.23	1.88	0.04	0.91	2.7	80	9.8	995	25.5	0.6	41.4	3.1	0.9	1.1	34.2	3.48	8.3	0.73			
GXR-1 Cert	8.2	20	0.052	0.22	3.52	0.05	0.96	3.3	80	12	852	23.8	1.0	41.0	1	1	1	31.0	3.00	8.2	0.89			
GXR-4 Meas	10.8	< 1	0.523	1.55	5.02	3.65	0.92	< 0.1	83	37.7	145	3.01	1.4	40.0	1.3	1.7	0.5	3.49	2.50	14.2	1.40			
GXR-4 Cert	11.1	5	0.584	1.66	7.20	4.01	1.0	0.9	87	64.0	155	3.09	6.3	42.0	1.9	1.9	4.00	2.80	14.6	1.63				
105364 Rep Orig	8.5	< 1	2.53	1.92	6.40	2.02	3.16	< 0.1	96	106	715	4.45	6.3	46.4	3.1	0.8	1.1	< 0.05	0.28	21.4	2.31			
105364 Rep Dup	7.9	< 1	2.50	1.92	6.69	2.01	3.12	< 0.1	94	104	702	4.38	6.3	44.8	3.0	0.8	1.1	< 0.05	0.26	21.1	2.28			
105378 Rep Orig	5.0	< 1	2.30	1.57	5.56	1.71	2.72	< 0.1	91	67.4	701	3.96	3.6	30.1	2.8	0.7	0.9	< 0.05	0.34	16.4	2.05			
105378 Rep Dup	3.3	< 1	2.25	0.86	2.08	1.32	2.54	< 0.1	90	63.5	705	3.92	3.7	29.8	1.8	0.4	0.7	< 0.05	0.17	16.4	1.36			
105399 Rep Orig	3.9	< 1	2.38	1.06	4.38	1.52	2.40	< 0.1	84	47.1	687	3.47	2.9	30.3	2.1	0.7	0.7	< 0.05	0.23	17.1	2.17			
105399 Rep Dup	3.4	< 1	2.41	0.99	3.58	1.49	2.43	< 0.1	87	46.2	688	3.50	3.0	30.6	2.0	0.6	0.7	< 0.05	0.24	17.2	1.94			
43367 Rep Orig	5.8	< 1	1.90	2.64	7.44	0.83	4.24	< 0.1	87	49.5	832	4.62	2.7	133	2.3	0.6	0.8	< 0.05	0.19	33.8	1.42			
43367 Rep Dup	5.5	< 1	1.88	2.74	7.60	0.82	4.19	< 0.1	87	49.9	823	4.60	2.7	132	2.3	0.5	0.8	< 0.05	0.18	33.8	1.42			
43390 Rep Orig	7.6	< 1	> 3.00	3.51	7.43	0.33	2.98	< 0.1	74	83.5	1530	5.54	0.9	134	1.4	0.5	0.5	< 0.05	1.06	38.3	1.02			
43390 Rep Dup	7.8	< 1	> 3.00	3.42	7.78	0.34	3.05	< 0.1	74	124	1540	5.63	0.8	142	1.4	0.5	0.5	< 0.05	1.04	40.8	1.05			

Quality Control

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.1	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS

Method Blank

WMG-1 Meas

WMG-1 Cert

CDN-PGMS-9 Meas

CDN-PGMS-9 Cert

105361 Rep Orig

105361 Rep Dup

105371 Rep Orig

105371 Rep Dup

105380 Rep Orig

105380 Rep Dup

105395 Rep Orig

105395 Rep Dup

43358 Rep Orig

43358 Rep Dup

43369 Rep Orig

43369 Rep Dup

43386 Rep Orig

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

43386 Rep Dup

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43386 Rep Dup

Method Blank	< 0.02	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
GXR-6 Meas	0.12	0.8	113	30.4	275	28.3	4.5	31.3	105	5.6	1.9	< 0.1	1	2.6	< 0.1	1430	3.8	9.4	1.3	5.2	1.2	1.2	0.2	1.3
GXR-6 Cert	0.29	0.9	118	35.0	330	90.0	14	35.0	110	7.5	2.4	0.3	2	3.6	0.02	1300	14	36		13	2.7	3.0	0.4	2.8
GXR-2 Meas	0.27	0.5	499	25.2	32.3	20.0	7.1	120	148	10.1	1.1	< 0.1	2	36.1	0.6	1840	11.4	23.8	3.0	11.1	2.2	2.1	0.3	1.7
GXR-2 Cert	0.69	0.6	530	37.0	25.0	78.0	1.7	160	269	11.0	2.1	0.3	2	49.0	0.7	2240	25.6	51.4		19.0	3.5	3.3	0.5	3.3
GXR-1 Meas	1240	14.3	802	10.1	400	2.6	32.0	309	24	1.3	16.9	0.9	35	112	13.9	721	8.7	14.6	2.3	10.0	3.4	4.8	0.8	5.7
GXR-1 Cert	1380	16.6	760	13.8	427	14	32.0	275	38	0.80	18.0	0.8	54	122	13.0	750	7.5	17.0		18	2.7	4.2	0.8	4.3
GXR-4 Meas	15.5	5.6	72.7	17.4	94.0	129	11.6	212	48	9.4	309	0.3	7	4.5	0.7	420	48.8	81.2	10.9	37.2	6.0	4.5	0.5	2.7
GXR-4 Cert	19.0	5.6	73.0	20.0	98.0	160	14.0	221	190	10	310	0.3	6	4.8	1.0	1640	64.5	102		45.0	6.6	5.3	0.4	2.6
105364 Rep Orig	0.06	0.1	63.5	14.7	0.6	62.3	26.8	511	269	7.7	2.9	< 0.1	1	< 0.1	0.1	1540	47.2	90.6	11.6	44.3	7.4	7.3	0.9	5.5
105364 Rep Dup	0.05	< 0.1	59.7	15.0	0.9	64.5	26.7	502	267	7.7	2.4	< 0.1	< 1	< 0.1	< 0.1	1500	47.6	91.2	11.5	43.7	7.4	7.2	0.9	5.4
105378 Rep Orig	< 0.02	0.2	56.9	12.5	1.4	57.2	21.1	539	130	8.7	0.8	< 0.1	1	0.1	0.3	1510	41.1	81.1	10.3	39.6	6.8	6.5	0.8	4.7
105378 Rep Dup	< 0.02	< 0.1	56.4	13.0	< 0.1	11.1	11.0	509	125	8.9	0.7	< 0.1	1	< 0.1	0.2	1410	18.9	45.4	5.8	23.6	4.4	4.4	0.5	3.3
105399 Rep Orig	< 0.02	< 0.1	123	8.6	< 0.1	35.2	15.4	584	125	7.2	0.4	< 0.1	1	< 0.1	0.2	2660	45.5	90.0	10.6	39.7	6.3	6.1	0.6	3.9
105399 Rep Dup	< 0.02	< 0.1	125	9.6	0.1	32.0	13.8	594	136	8.7	0.4	< 0.1	1	< 0.1	0.2	2690	43.2	84.4	9.9	37.1	5.8	5.8	0.6	3.6
43367 Rep Orig	< 0.02	< 0.1	59.1	15.0	< 0.1	33.0	20.0	385	106	7.9	0.3	< 0.1	< 1	< 0.1	0.5	619	28.6	54.9	7.0	26.2	4.8	4.6	0.6	4.0
43367 Rep Dup	< 0.02	< 0.1	58.1	14.6	< 0.1	34.2	20.1	387	106	8.1	0.3	< 0.1	< 1	0.1	0.4	633	29.0	55.3	7.1	27.0	4.8	4.8	0.6	4.0
43390 Rep Orig	< 0.02	0.6	63.8	15.9	< 0.1	6.6	11.1	320	30	6.8	0.2	< 0.1	< 1	< 0.1	< 0.1	367	11.7	15.5	3.2	12.7	3.1	2.6	0.4	2.4
43390 Rep Dup	< 0.02	0.6	89.3	16.6	< 0.1	5.0	11.0	327	30	6.8	0.4	< 0.1	< 1	< 0.1	< 0.1	374	11.9	15.9	3.2	12.7	3.1	2.7	0.4	2.4

Quality Control

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS

Method Blank

WMG-1 Meas

WMG-1 Cert

CDN-PGMS-9 Meas

CDN-PGMS-9 Cert

105361 Rep Orig

105361 Rep Dup

105371 Rep Orig

105371 Rep Dup

105380 Rep Orig

105380 Rep Dup

105395 Rep Orig

105395 Rep Dup

43358 Rep Orig

43358 Rep Dup

43369 Rep Orig

43369 Rep Dup

43386 Rep Orig

43386 Rep Dup

Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
GXR-6 Meas	63.7	0.1	0.1	< 0.1	< 0.1	0.3	3.3	0.002	1.97	90.5	1.3	1.0
GXR-6 Cert	66.0		0.03	2	0.3	0.5	1.9		2.20	101	5.3	1.5
GXR-2 Meas	78.0	< 0.1	0.2	< 0.1	< 0.1	0.6	3.2	0.002	0.67	677	5.5	1.6
GXR-2 Cert	76.0		0.3	2	0.3	0.9	1.9		1.0	690	8.8	2.9
GXR-1 Meas	1210	0.5	0.4	2.1	0.2	< 0.1	170	0.003	0.47	813	3.7	34.8
GXR-1 Cert	1110		0.4	1.9	0.3	0.2	164		0.39	730	2.4	34.9
GXR-4 Meas	6240	0.2	0.2	0.8	< 0.1	0.6	29.1	0.185	2.84	47.2	18.1	4.8
GXR-4 Cert	6520		0.2	2	0.2	0.8	30.8		3.20	52.0	22.5	6.2
105364 Rep Orig	31.2	< 0.1	0.5	2.0	< 0.1	0.3	0.3	0.005	0.20	15.0	2.7	0.4
105364 Rep Dup	31.6	< 0.1	0.4	1.9	< 0.1	0.3	0.2	0.001	0.20	12.8	2.8	0.4
105378 Rep Orig	19.5	< 0.1	0.4	1.4	< 0.1	0.3	0.2	0.001	0.24	15.6	2.5	0.4
105378 Rep Dup	17.0	< 0.1	0.2	0.6	< 0.1	0.4	0.2	0.002	0.21	15.2	0.9	0.3
105399 Rep Orig	32.6	0.2	0.3	< 0.1	< 0.1	0.3	< 0.1	0.001	0.17	14.6	2.2	0.5
105399 Rep Dup	33.0	0.1	0.3	< 0.1	< 0.1	0.6	0.3	0.001	0.10	14.9	1.9	0.4
43367 Rep Orig	39.3	< 0.1	0.3	1.6	< 0.1	0.3	0.1	0.002	0.14	7.5	2.6	0.6
43367 Rep Dup	39.6	< 0.1	0.3	1.6	< 0.1	0.3	0.2	0.003	0.15	7.4	2.7	0.6
43390 Rep Orig	85.4	< 0.1	0.2	1.0	< 0.1	0.3	< 0.1	< 0.001	< 0.05	3.9	1.3	0.5
43390 Rep Dup	92.3	< 0.1	0.2	1.0	< 0.1	0.3	< 0.1	0.001	< 0.05	4.2	1.2	0.4

Quality Analysis ...



Innovative Technologies

Date Submitted: 27/10/2006 11:07:28 AM

Invoice No.: A06-4131

Invoice Date: 14/11/2006

Your Reference: MANICOUAGAN

Manicouagan Minerals Inc.  
116 Rue St. Pierre  
Suite 200  
Quebec QC G1K 4A7  
Canada

ATTN: Roger Moaf

## CERTIFICATE OF ANALYSIS

30 Rock samples were submitted for analysis.

The following analytical packages were requested: Code 1C-Exp Fire Assay-ICP/MS  
Code UT-4 Total Digestion ICP/MS

REPORT A06-4131

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

We recommend reanalysis by fire assay Au, Pt, Pd Code 8 if values exceed upper limit.

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Eric Hoffman". The signature is written in a cursive, flowing style.

Eric Hoffman, Ph.D.  
President/General Manager

ACTIVATION LABORATORIES LTD.

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Activation Laboratories Ltd.

Report: A06-4131

Analyte Symbol	Pd	Pt	Au	Li	B	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	4	5	2	0.5	1	0.001	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05
Analysis Method	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
06LT00101	< 4	< 5	< 2	15.4	< 1	3.00	2.26	8.41	2.15	4.76	0.2	135	77.4	1260	5.44	0.6	33.4	2.8	1.4	1.0	< 0.05	0.80	22.6	1.96
06LT00301	< 4	< 5	< 2	7.3	< 1	2.81	2.09	7.89	2.43	4.14	< 0.1	103	112	1050	4.96	5.6	49.9	2.6	1.4	0.9	< 0.05	0.35	20.9	1.91
06LT00401	< 4	< 5	< 2	8.6	2	2.90	2.16	7.56	2.70	4.25	< 0.1	99	105	931	5.00	5.9	54.2	2.7	1.3	0.9	< 0.05	0.36	21.3	1.87
06LT00402	< 4	< 5	< 2	7.6	< 1	> 3.00	2.16	5.28	1.56	5.17	0.1	149	86.8	1340	5.81	2.3	32.8	1.9	1.2	0.7	< 0.05	0.09	22.7	1.75
06LT00501	< 4	< 5	< 2	9.3	< 1	2.60	1.56	3.57	2.17	3.40	< 0.1	102	82.9	585	4.40	4.3	38.1	1.6	1.3	0.5	< 0.05	0.24	18.3	1.00
06LT00502	< 4	< 5	< 2	7.9	< 1	3.00	2.29	8.94	2.55	4.29	< 0.1	120	75.5	771	5.25	3.7	42.9	3.4	1.4	1.2	< 0.05	0.42	20.2	2.33
06LT00503	< 4	< 5	< 2	6.8	2	2.57	2.30	8.84	2.64	4.54	< 0.1	120	62.9	823	5.31	5.1	41.4	3.5	1.3	1.2	< 0.05	0.22	20.2	2.16
06LT00601	< 4	< 5	< 2	5.1	2	1.88	4.70	9.39	0.38	6.39	< 0.1	101	254	735	6.20	0.4	144	1.5	0.4	0.5	< 0.05	0.41	38.8	0.85
06LT00701	< 4	< 5	< 2	5.5	< 1	1.81	4.55	8.69	0.61	5.49	0.1	164	185	1970	9.69	0.9	174	3.7	38.9	1.3	< 0.05	4.01	47.9	1.97
06LT00801	< 4	< 5	< 2	4.9	1	2.76	2.09	8.72	2.67	3.85	< 0.1	116	88.7	904	5.28	3.7	43.4	2.8	1.3	1.0	< 0.05	0.20	22.8	2.09
06LT00802	< 4	< 5	< 2	3.8	< 1	1.77	4.54	> 10.0	0.40	6.68	< 0.1	105	283	658	6.07	0.4	122	1.7	0.7	0.6	< 0.05	0.22	36.7	0.91
06LT00803	< 4	< 5	< 2	10.5	1	2.32	1.88	4.35	1.97	3.06	< 0.1	113	164	1110	5.70	2.8	49.8	6.1	4.8	2.0	< 0.05	0.86	19.0	1.53
06LT00804	< 4	< 5	< 2	5.1	< 1	2.72	1.56	3.52	2.35	3.74	< 0.1	113	77.0	736	5.24	2.8	44.2	1.7	1.0	0.6	< 0.05	0.13	19.4	0.95
06LT00805	< 4	< 5	< 2	6.3	1	1.76	3.74	5.34	0.31	5.95	< 0.1	79	353	751	5.46	0.5	129	1.2	0.4	0.5	< 0.05	0.19	32.9	0.68
06LT00806	< 4	< 5	< 2	4.7	< 1	1.94	4.11	6.89	0.56	6.28	< 0.1	93	348	1020	5.66	0.5	114	1.8	1.0	0.6	< 0.05	0.62	33.7	0.80
06LT00901	< 4	< 5	< 2	5.7	< 1	2.81	1.86	4.96	1.96	4.33	< 0.1	122	77.3	831	5.14	4.6	40.4	2.3	1.2	0.8	< 0.05	0.28	20.0	1.41
06LT00902	< 4	< 5	< 2	7.9	< 1	2.73	2.19	8.67	2.71	3.77	< 0.1	104	90.1	854	5.63	3.1	45.7	2.8	1.2	1.0	< 0.05	0.17	19.0	2.04
06LT00903	< 4	< 5	< 2	4.4	< 1	2.80	1.80	5.53	2.19	3.94	< 0.1	115	57.7	1030	4.70	3.8	40.6	2.2	1.2	0.8	< 0.05	0.16	21.8	1.74
06LT00904	< 4	< 5	< 2	10.3	< 1	1.90	4.94	9.81	0.54	5.49	< 0.1	103	274	875	6.22	0.5	113	2.0	0.7	0.7	< 0.05	0.75	35.5	0.93
06LT00905	< 4	< 5	< 2	3.0	2	1.98	4.85	8.61	0.43	6.70	< 0.1	105	296	1100	6.30	0.3	119	1.9	0.6	0.6	< 0.05	0.24	36.6	0.96
06LT01001	< 4	< 5	< 2	8.2	< 1	2.90	1.83	3.93	2.23	4.16	< 0.1	115	94.0	858	5.26	4.4	40.5	2.0	1.3	0.7	< 0.05	0.22	20.9	1.25
06LT01003	11	18	< 2	13.5	5	0.612	> 10.0	3.50	0.42	7.22	0.1	141	801	1870	8.72	1.6	741	1.2	0.4	0.5	0.12	0.61	95.2	1.14
06LT01101	< 4	< 5	< 2	7.5	< 1	2.25	2.07	5.15	3.54	3.65	0.2	120	68.1	956	4.36	3.1	41.1	2.1	1.2	0.7	< 0.05	0.16	16.7	1.24
06LT01102	< 4	< 5	< 2	7.7	2	2.43	2.53	3.93	3.24	3.91	0.1	159	40.2	1470	5.58	2.4	31.4	2.5	1.3	0.9	< 0.05	0.38	21.5	1.43
06LT01103	< 4	< 5	< 2	28.9	< 1	1.16	2.56	5.12	> 5.00	1.53	0.7	93	69.4	836	3.67	2.5	27.7	1.6	1.3	0.5	0.11	2.26	10.3	0.88
06LT01201	< 4	< 5	< 2	20.1	< 1	0.915	5.36	7.17	0.92	6.16	< 0.1	134	293	1450	7.64	0.8	124	3.0	0.6	1.0	< 0.05	0.24	41.1	1.08
06LT01301	< 4	< 5	< 2	3.1	< 1	> 3.00	0.04	3.85	3.37	2.62	0.1	3	64.0	2180	8.52	2.2	2.2	3.5	0.8	1.2	< 0.05	0.07	2.9	2.92
06LT01302	< 4	< 5	< 2	2.6	1	> 3.00	0.03	3.54	3.16	2.51	0.1	3	37.4	1990	9.58	3.0	2.4	4.5	0.9	1.6	< 0.05	0.10	1.9	2.78
06LT01401	147	46	13	10.0	< 1	1.38	9.21	5.57	0.63	9.06	< 0.1	204	> 5000	1310	6.92	1.4	338	1.8	0.5	0.6	0.07	0.06	53.8	0.74
06LT01402	< 4	< 5	< 2	10.1	< 1	2.70	3.00	8.08	2.76	4.25	< 0.1	108	214	1300	4.92	3.9	79.8	2.7	1.0	0.9	< 0.05	0.18	24.4	1.61

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Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.1	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
06LT00101	< 0.02	2.7	85.0	21.2	< 0.1	59.2	24.7	737	16	6.7	0.5	< 0.1	< 1	< 0.1	0.6	1460	38.4	70.2	10.6	40.9	7.8	6.3	0.8	4.9
06LT00301	< 0.02	1.7	77.6	22.0	< 0.1	56.3	23.0	514	243	8.1	1.0	< 0.1	< 1	< 0.1	0.7	1550	40.0	65.4	10.0	37.5	7.1	5.9	0.8	4.6
06LT00401	< 0.02	1.2	108	19.4	< 0.1	58.9	23.5	520	260	8.5	0.6	< 0.1	< 1	< 0.1	0.6	1580	38.3	62.6	9.5	35.8	6.9	5.6	0.8	4.8
06LT00402	< 0.02	0.9	94.9	23.3	< 0.1	13.4	14.9	785	101	5.5	0.8	< 0.1	< 1	< 0.1	0.8	1970	24.9	43.3	6.7	26.5	5.0	4.5	0.6	3.4
06LT00501	< 0.02	0.8	41.9	18.3	< 0.1	26.7	10.9	464	172	8.2	0.6	< 0.1	< 1	< 0.1	0.7	1410	16.5	30.3	4.5	17.2	3.4	3.0	0.4	2.6
06LT00502	< 0.02	0.9	40.3	21.4	< 0.1	69.3	29.8	585	151	10.1	0.9	< 0.1	1	< 0.1	0.5	1650	54.3	85.0	13.0	48.7	9.1	7.6	1.0	6.1
06LT00503	< 0.02	1.5	46.7	21.0	< 0.1	70.9	30.3	552	206	9.9	0.5	< 0.1	1	< 0.1	0.6	1420	50.4	79.1	12.7	46.9	8.5	6.9	1.0	6.0
06LT00601	< 0.02	0.5	64.1	16.6	< 0.1	8.0	12.6	361	8	1.6	0.6	< 0.1	< 1	< 0.1	0.6	231	8.6	13.2	2.2	8.7	2.0	2.1	0.3	2.3
06LT00701	0.09	1.2	89.1	21.3	< 0.1	33.3	32.1	280	16	9.0	0.9	< 0.1	< 1	0.1	0.8	362	17.1	31.3	5.2	22.8	5.9	6.3	1.0	6.2
06LT00801	< 0.02	0.6	79.4	21.3	< 0.1	63.4	22.9	586	149	9.0	0.7	< 0.1	< 1	< 0.1	0.4	1550	43.4	69.9	10.9	40.0	7.6	6.1	0.8	5.0
06LT00802	< 0.02	1.1	80.3	17.8	< 0.1	7.7	14.2	381	7	2.0	0.4	< 0.1	< 1	< 0.1	1.0	228	9.2	14.8	2.5	9.9	2.2	2.3	0.4	2.7
06LT00803	< 0.02	0.5	74.4	21.0	< 0.1	40.3	43.9	161	85	18.4	1.5	0.2	3	< 0.1	0.5	669	26.6	50.6	8.1	32.0	7.6	7.3	1.2	8.8
06LT00804	< 0.02	0.4	36.4	22.3	< 0.1	27.3	11.9	499	119	8.2	0.5	< 0.1	< 1	< 0.1	0.6	1490	16.5	31.1	4.4	16.8	3.3	2.9	0.4	2.7
06LT00805	0.08	1.0	50.3	16.3	< 0.1	1.6	8.2	386	8	2.2	1.3	< 0.1	< 1	0.1	0.7	247	6.0	10.5	1.9	7.1	1.7	1.7	0.3	1.9
06LT00806	0.03	1.0	63.6	18.3	< 0.1	14.9	13.6	376	14	5.2	0.7	< 0.1	< 1	< 0.1	0.8	307	7.9	14.6	2.4	9.5	2.3	2.2	0.4	2.7
06LT00901	< 0.02	0.6	93.8	21.4	< 0.1	19.6	16.3	622	197	7.7	0.8	< 0.1	1	< 0.1	0.8	1490	24.5	43.9	6.9	27.0	5.3	4.5	0.6	3.8
06LT00902	< 0.02	0.8	40.1	20.1	< 0.1	63.2	24.8	597	132	8.7	0.7	< 0.1	< 1	< 0.1	0.4	1620	47.9	72.9	10.9	40.2	7.6	6.2	0.8	5.1
06LT00903	< 0.02	0.5	52.2	21.5	< 0.1	19.7	13.6	555	166	9.0	0.4	< 0.1	< 1	< 0.1	0.4	1530	29.1	58.3	8.6	33.1	6.4	5.2	0.7	4.1
06LT00904	< 0.02	0.5	52.0	17.6	< 0.1	17.8	16.6	365	13	2.9	0.7	< 0.1	1	< 0.1	0.8	251	13.9	21.0	3.3	13.2	2.8	2.8	0.4	3.0
06LT00905	< 0.02	0.4	70.2	18.4	< 0.1	8.5	15.3	378	7	2.5	0.4	< 0.1	< 1	< 0.1	1.3	286	11.2	18.8	3.0	12.2	2.8	2.8	0.4	2.8
06LT01001	< 0.02	0.1	55.1	21.9	< 0.1	25.9	13.8	551	183	9.0	1.0	< 0.1	1	< 0.1	0.5	1420	24.6	41.1	6.4	23.7	4.7	3.7	0.5	3.3
06LT01003	0.09	0.7	91.7	8.5	< 0.1	19.0	10.4	304	56	1.9	0.2	< 0.1	< 1	0.1	2.5	473	14.9	24.2	4.1	16.8	3.8	2.9	0.4	2.3
06LT01101	0.08	0.6	48.4	21.4	< 0.1	41.7	13.7	495	130	8.9	0.6	< 0.1	< 1	< 0.1	0.6	1460	24.4	41.0	6.6	24.5	4.8	3.9	0.6	3.5
06LT01102	0.05	0.6	48.4	22.1	< 0.1	25.9	16.5	> 1000	96	8.3	0.6	< 0.1	2	< 0.1	0.6	1360	19.5	43.0	6.8	27.7	5.8	4.7	0.7	4.3
06LT01103	0.38	1.1	115	23.2	0.4	71.3	9.1	> 1000	99	9.1	0.8	< 0.1	2	< 0.1	0.6	1160	11.8	25.1	4.3	16.6	3.7	2.8	0.4	2.7
06LT01201	< 0.02	0.2	61.1	14.2	< 0.1	31.2	25.8	189	23	2.3	0.3	< 0.1	< 1	< 0.1	0.7	479	14.8	26.0	4.3	18.1	4.5	4.5	0.7	4.8
06LT01301	< 0.02	0.9	99.8	36.5	0.3	26.4	20.5	77.0	73	13.1	1.6	0.3	< 1	< 0.1	0.2	1180	10.4	30.8	4.9	23.0	6.2	6.0	0.9	6.0
06LT01302	< 0.02	0.6	78.9	36.7	0.1	28.5	26.9	48.3	105	19.6	2.5	0.4	< 1	< 0.1	< 0.1	648	13.4	36.9	6.7	31.3	8.6	7.8	1.2	7.7
06LT01401	< 0.02	0.4	81.9	12.2	< 0.1	13.3	11.9	187	46	3.7	0.4	< 0.1	< 1	< 0.1	1.8	370	12.0	19.1	3.3	13.0	3.0	2.6	0.4	2.8
06LT01402	< 0.02	0.7	119	20.1	< 0.1	24.8	21.7	452	163	8.6	0.8	< 0.1	< 1	< 0.1	0.7	1530	45.4	66.8	10.5	37.5	6.9	5.4	0.7	4.6

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
06LT00101	20.3	0.2	0.4	2.2	0.3	0.3	< 0.1	< 0.001	0.32	10.2	2.5	0.4
06LT00301	21.6	0.2	0.4	2.0	0.2	0.2	< 0.1	0.004	0.27	11.6	3.2	0.6
06LT00401	43.9	0.2	0.4	2.0	0.2	0.2	< 0.1	< 0.001	0.27	10.9	2.9	0.5
06LT00402	29.2	0.1	0.3	1.2	< 0.1	0.2	< 0.1	0.005	0.14	10.2	0.4	0.2
06LT00501	26.6	0.1	0.2	1.1	< 0.1	0.6	1.0	0.002	0.29	10.7	1.4	0.7
06LT00502	40.2	0.2	0.5	2.6	0.3	0.3	< 0.1	< 0.001	0.33	12.4	4.9	0.7
06LT00503	46.4	0.3	0.5	2.8	0.3	0.3	< 0.1	0.003	0.21	8.4	4.9	0.8
06LT00601	27.1	< 0.1	0.2	1.4	0.2	< 0.1	< 0.1	0.003	< 0.05	2.5	0.5	< 0.1
06LT00701	68.9	0.6	0.5	3.3	0.5	0.5	< 0.1	0.006	0.10	6.0	1.8	0.6
06LT00801	143	0.2	0.4	1.9	0.2	0.3	< 0.1	0.005	0.19	11.5	4.0	0.8
06LT00802	51.1	< 0.1	0.3	1.5	0.2	< 0.1	< 0.1	0.001	< 0.05	2.4	0.6	2.3
06LT00803	16.3	0.3	1.0	5.8	0.8	0.7	< 0.1	0.005	0.32	11.4	4.3	0.8
06LT00804	46.4	0.5	0.3	1.1	< 0.1	0.3	< 0.1	0.001	0.15	11.8	0.9	0.3
06LT00805	31.1	< 0.1	0.2	1.0	0.2	< 0.1	0.1	0.003	0.14	3.8	1.0	0.1
06LT00806	30.7	< 0.1	0.3	1.6	0.2	0.4	0.3	0.002	0.16	6.3	0.7	0.5
06LT00901	36.7	0.1	0.3	1.4	< 0.1	0.2	< 0.1	0.001	0.21	9.7	1.4	0.4
06LT00902	16.0	0.2	0.4	1.8	< 0.1	0.3	< 0.1	0.003	0.18	15.1	3.7	0.5
06LT00903	194	< 0.1	0.3	1.3	< 0.1	0.3	< 0.1	< 0.001	0.19	10.0	2.7	0.4
06LT00904	25.4	< 0.1	0.3	1.8	0.2	0.1	< 0.1	< 0.001	0.15	6.7	1.8	0.2
06LT00905	61.7	< 0.1	0.3	1.6	0.2	< 0.1	< 0.1	< 0.001	< 0.05	3.0	0.5	0.1
06LT01001	39.6	0.2	0.3	1.1	< 0.1	0.3	< 0.1	0.003	0.24	10.8	1.3	1.0
06LT01003	24.5	0.1	0.2	0.7	< 0.1	< 0.1	< 0.1	0.002	0.09	3.3	2.2	0.5
06LT01101	47.2	0.2	0.3	1.1	< 0.1	0.3	< 0.1	0.004	0.38	10.6	1.4	0.6
06LT01102	30.7	0.1	0.3	1.5	< 0.1	0.3	< 0.1	< 0.001	0.70	13.7	1.3	0.5
06LT01103	30.0	0.1	0.2	0.7	< 0.1	0.4	< 0.1	0.001	0.99	30.8	3.6	1.0
06LT01201	30.9	< 0.1	0.4	2.5	0.3	< 0.1	< 0.1	0.002	0.12	3.3	2.1	0.9
06LT01301	14.8	0.4	0.5	3.1	0.4	0.7	< 0.1	0.003	0.11	2.7	0.2	< 0.1
06LT01302	12.4	0.8	0.7	4.7	0.8	0.8	< 0.1	< 0.001	0.11	3.2	0.1	0.1
06LT01401	37.2	< 0.1	0.3	1.4	0.1	0.1	< 0.1	0.009	0.10	2.6	5.8	0.5
06LT01402	74.3	0.2	0.4	1.3	< 0.1	0.2	< 0.1	0.004	0.16	15.0	2.9	0.5

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Quality Control																								
Analyte Symbol	Pd	Pt	Au	Li	B	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppb	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	4	5	2	0.5	1	0.001	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	0.05	0.05	0.1	0.05
Analysis Method	FA-MS	FA-MS	FA-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Method Blank	< 4	< 5	< 2																					
OREAS 45P Meas	56	77	54																					
OREAS 45P Cert	56	77	54																					
WMG-1 Meas	380	737	101																					
WMG-1 Cert	382	731	110																					
06LT00801 Rep Ong	< 4	< 5	< 2																					
06LT00801 Rep Dup	< 4	< 5	< 2																					
06LT00905 Rep Ong	< 4	< 5	< 2																					
06LT00905 Rep Dup	< 4	< 5	< 2																					
06LT01402 Rep Ong	< 4	< 5	< 2																					
06LT01402 Rep Dup	< 4	< 5	< 2																					
Method Blank				< 0.5	< 1	< 0.001	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05
GXR-6 Meas	33.1	1	0.104	0.28	7.44	1.46	0.12	< 0.1	164	67.3	765	4.55	2.6	22.7	0.7	1.0	0.2	0.21	2.47	12.0	0.19			
GXR-6 Cert	32.0	10	0.104	0.61	17.7	1.87	0.18	1	186	96.0	1010	5.58	4.3	27.0	1.4	1.4	0.4	1.3	4.20	13.8	0.76			
GXR-2 Meas	54.8	< 1	0.577	0.69	7.36	1.34	0.54	4.0	57	33.6	793	1.84	4.2	20.0	1.2	1.4	0.4	1.7	17.4	2.74	8.9	0.40		
GXR-2 Cert	54.0	40	0.556	0.85	16.5	1.37	0.93	4.1	52	36.0	1010	1.86	8.3	21.0	1.7	1.7	0.4	1.7	17.0	5.20	8.6	0.81		
GXR-1 Meas	7.5	< 1	0.042	0.19	1.90	0.07	0.99	2.6	78	9.9	1150	26.1	0.5	39.5	3.1	1.1	1.1	30.7	4.37	8.3	0.70			
GXR-1 Cert	8.2	20	0.052	0.22	3.52	0.05	0.96	3.3	80	12	852	23.6	1.0	41.0	1.2	1.2	0.4	31.0	3.00	8.2	0.69			
GXR-4 Meas	9.4	< 1	0.501	1.47	3.76	3.73	0.92	0.1	84	39.7	133	3.09	1.2	40.0	1.1	1.6	0.4	3.32	2.25	13.8	1.06			
GXR-4 Cert	11	5	0.564	1.66	7.20	4.01	1.0	0.9	87	64.0	155	3.09	6.3	42.0	1.9	1.9	0.4	4.00	2.80	14.6	1.63			
06LT00903 Rep Ong	4.8	< 1	2.79	2.27	8.66	2.53	3.95	< 0.1	113	53.9	1030	4.74	4.0	40.9	2.7	1.4	1.0	< 0.05	0.20	21.8	2.16			
06LT00903 Rep Dup	3.9	< 1	2.81	1.34	2.40	1.85	3.92	< 0.1	116	61.6	1040	4.67	3.6	40.3	1.8	1.0	0.7	< 0.05	0.12	21.8	1.32			

Quality Control

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Sr	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	0.2	1	0.1	0.1	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS

Method Blank

OREAS 45P Meas

OREAS 45P Cert

WMG-1 Meas

WMG-1 Cert

06LT00801 Rep Ong

06LT00801 Rep Dup

06LT00905 Rep Ong

06LT00905 Rep Dup

06LT01402 Rep Ong

06LT01402 Rep Dup

Method Blank	< 0.02	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 1	< 0.1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
GXR-6 Meas	0.23	0.8	109	35.5	240	28.0	3.1	27.9	96	5.8	1.9	< 0.1	1	3.1	0.3	1400	1.9	5.4	0.7	3.1	0.8	0.8	0.1	1.0
GXR-6 Cert	0.29	0.9	118	35.0	330	90.0	14	35.0	110	7.5	2.4	0.3	2	3.6	0.02	1300	14	36		13	3	3	0.4	3
GXR-2 Meas	0.50	1.0	531	33.8	23.2	38.2	7.6	118	151	11.1	1.3	< 0.1	2	44.1	0.8	2140	9.0	18.3	2.8	10.3	2.3	1.9	0.3	1.9
GXR-2 Cert	0.69	0.61	530	37.0	25.0	78.0	17	160	289	11.0	2.1	0.3	2	49.0	0.7	2240	26	51.4		19.0	3.5	3.3	0.5	3.3
GXR-1 Meas	1420	14.3	744	11.8	392	3.2	29.5	300	23	1.3	17.4	0.9	34	114	13.9	733	8.2	13.3	2.3	9.4	3.5	4.4	0.8	5.4
GXR-1 Cert	1380	16.6	760	13.8	427	14	32.0	275	38	0.80	18.0	0.8	54	122	13.0	750	7.5	17.0		18	2.7	4.2	0.8	4.3
GXR-4 Meas	15.9	5.6	69.0	18.7	90.7	93.6	8.6	192	39	8.8	319	0.2	6	4.4	0.8	155	28.0	48.8	7.4	26.2	4.9	3.1	0.4	2.2
GXR-4 Cert	19.0	5.8	73.0	20.0	98.0	180	14	221	190	10	310	0.3	6	4.8	1.0	1640	64.5	102		45.0	6.6	5.3	0.4	2.6
06LT00903 Rep Ong	< 0.02	0.4	52.4	19.7	< 0.1	32.4	16.7	586	173	8.9	0.4	< 0.1	< 1	< 0.1	0.4	1530	37.4	89.0	10.1	38.6	7.8	6.4	0.8	4.9
06LT00903 Rep Dup	< 0.02	0.7	52.0	23.3	< 0.1	6.9	10.6	525	160	9.1	0.4	< 0.1	< 1	< 0.1	0.3	1530	20.8	47.6	7.1	27.5	5.0	3.9	0.5	3.3

**Quality Control**

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.001	0.05	0.5	0.1	0.1
Analysis Method	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS

Method Blank

OREAS 4SP Meas

OREAS 4SP Cert

WMG-1 Meas

WMG-1 Cert

06LT00801 Rep Orig

06LT00801 Rep Dup

06LT00905 Rep Orig

06LT00905 Rep Dup

06LT01402 Rep Orig

06LT01402 Rep Dup

Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
GXR-6 Meas	58.2	0.1	0.1	< 0.1	< 0.1	0.3	1.3	0.003	1.89	76.5	1.1	0.6
GXR-6 Cert	66.0		0.03	2	0.3	0.5	1.9		2.20	101	5.3	2
GXR-2 Meas	79.7	< 0.1	0.2	< 0.1	< 0.1	0.7	1.3	0.003	0.94	675	3.6	1.9
GXR-2 Cert	76.0		0.3	2	0.3	0.9	1.9		1.0	690	8.8	2.9
GXR-1 Meas	1010	0.5	0.4	1.9	< 0.1	< 0.1	> 200	0.004	0.45	771	2.9	35.6
GXR-1 Cert	1110		0.4	1.9	0.3	0.2	164		0.39	730	2.4	34.9
GXR-4 Meas	6280	0.2	0.2	0.7	< 0.1	0.5	28.1	0.173	3.24	43.4	11.7	3.8
GXR-4 Cert	6520		0.2	2	0.2	0.8	30.8		3.20	52.0	22.5	6.2
06LT00903 Rep Orig	190	0.2	0.4	1.7	< 0.1	0.3	< 0.1	< 0.001	0.20	10.0	4.3	0.4
06LT00903 Rep Dup	198	< 0.1	0.3	0.9	< 0.1	0.3	< 0.1	< 0.001	0.18	10.0	1.2	0.3



# Manicouagan

Ressources Manicouagan Inc. — Manicouagan Resources Inc.

116, rue St-Pierre  
Bureau 200  
Québec, QC G1K 4A7  
CANADA

Téléphone : 418.692.4303  
Télécopieur : 418.692.5051

Québec, le 21 juin 2007

Ministère des Ressources naturelles et de la Faune  
Direction du développement minéral  
880, Chemin Ste-Foy  
4<sup>ème</sup> étage  
Québec (Québec)  
G1S 4X4

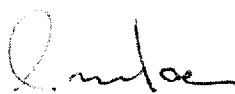
Objet : Supervision des travaux de géophysique au sol exécutés en 2006 sur le projet Manicouagan

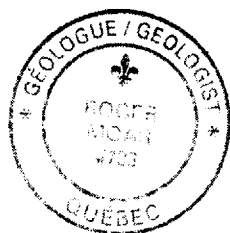
Madame, Monsieur,

Je, soussigné, atteste que je suis membre en règle de l'Ordre des Géologues du Québec et que mon numéro est le 733 valide jusqu'au 31 mars 2008.

Je déclare, par la présente, que j'ai supervisé les travaux de géophysique au sol effectués par Géophysique TMC sur la propriété de la société nommé Manicouagan pendant la période du 15 février 2006 au 13 mars 2006 et du 3 juillet 2006 au 16 juillet 2006.

Veillez agréer, Madame, Monsieur, nos sincères salutations.

  
Roger Moar, géo



*rapports # 202840*

Memo to: Rodney N. Thomas, Vice-President, Exploration,  
Manicouagan Minerals Inc.

Memo from: Francis L. Jagodits, P. Eng., Consulting Geophysicist,  
Savaria Geophysics Inc.

Subject: Down-hole Transient Domain Electromagnetic Survey,  
Holes: MAN-05-03, MAN-05-11, MAN-05-14, MAN-06-02,  
MAN-06-08, MAN-06-09 and MAN-06-01

Date: August 21, 2007

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1. Preamble

The surveys were conducted by Géophysique TMC of Val d'Or, Québec. The crew mobilization/demobilization and the installation of the transmitting loops took place July 3, 4, 5, 6, 9, 14, 15, 2006 and the holes were surveyed on July 7, 8, 10, 11, 12 and 13, 2006.

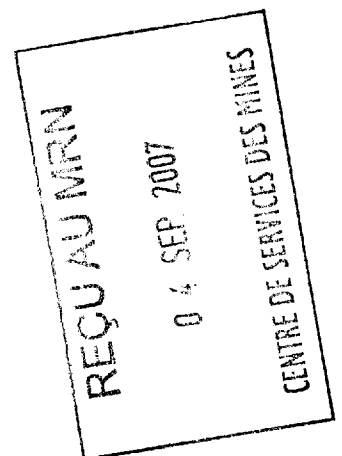
The transient domain electromagnetic system used for the surveying is manufactured by Crone Geophysics and Exploration Ltd. of Mississauga, Ontario. The system consists of a transmitter that provides the current to the transmitter loop which is laid out around the drill hole. The receiver controls transmitter cycles and stores the data collected by down-hole sensor. The down-hole sensor measures the axial component of the decaying secondary magnetic field in 20 logarithmically spaced time channels, during the off-time of the transmitter. Observations were made at every 10 m.

Initially, all holes are surveyed with a dummy probe to ensure that the holes are not blocked. Of the above holes MAN-06-01 could not be surveyed because a blockage at 80 m.

2. Claims Information

The following table lists the holes the claim numbers and the length of the holes.

Hole Number	Claim Number	Length
MAN-05-3	CDC0005081	680 m
MAN-05-11	CDC1041192	1770 m
MAN-05-14	CDC0037638	295 m
MAN-06-02	CDC0074651	245 m
MAN-06-08	CDC0005087	1510 m
MAN-06-09	CDC0074650	331 m



*requete # 762846*

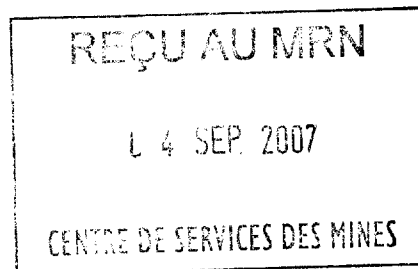
3. Presentation of the Results

The results are presented as stacked profiles of decaying components for each channel along the drill holes. These plots are attached, together with the diagram of the transmitter loop.

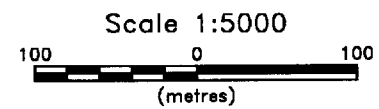
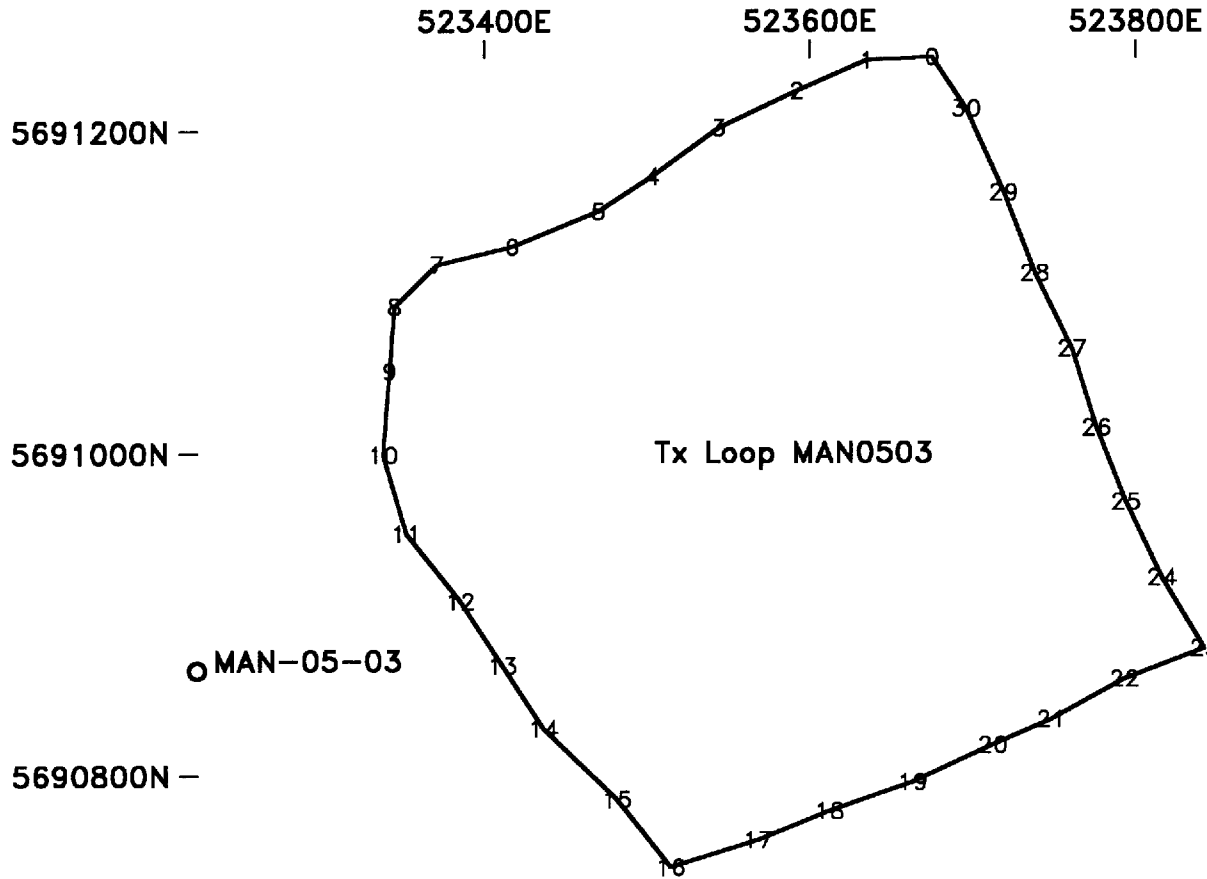
The results are available digital format also that includes the UTM co-ordinates the way-points of the transmitter loop. These may be used to compute the primary field that may a requirement for modeling.

4. Interpretation Notes

Good quality data were collected. The results indicate a magnetic field that decays nearly uniformly along the length of the holes. Conductive sources were detected.



*requête 702840*



**RES. MANICOUAGAN**  
**MANIC**

**3-D Borehole Pulse EM Survey**  
**Borehole & Loop Location Map**

Hole: MAN-05-03  
 Survey Date: Jul 8, 2006

**Crone Geophysics & Exploration Ltd.**

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*Requêtes 702840*

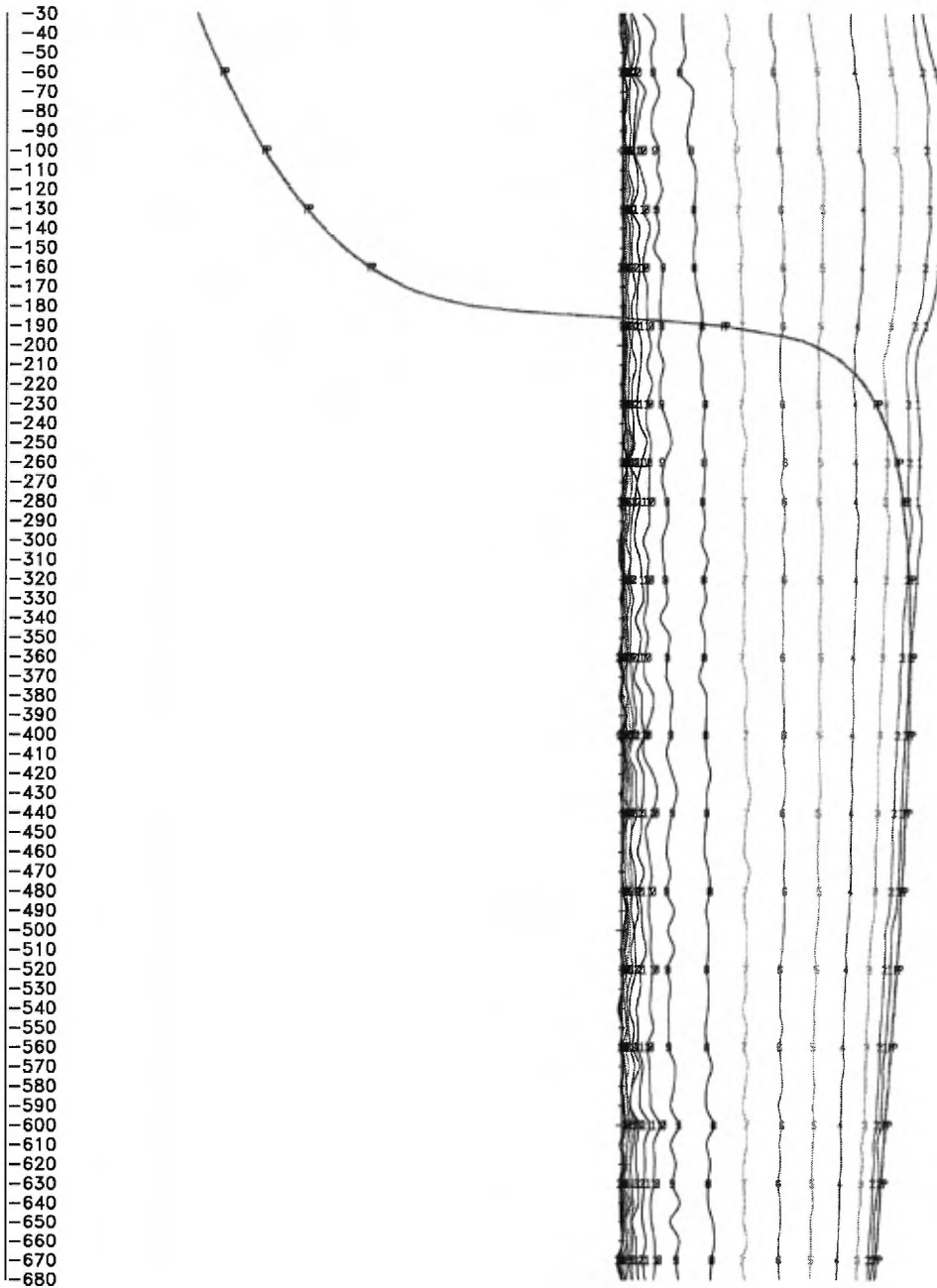
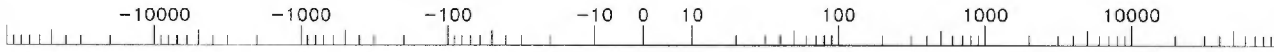
CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

Client : RES. MANICOUAGAN      Hole : MAN-05-03  
Property : MANIC                      Loop : MAN0503  
Date : Jul 8, 2006                      File : ZMAN503.PEM

Z Component - dBz/df nanoTesla/sec - 20 channels and PP

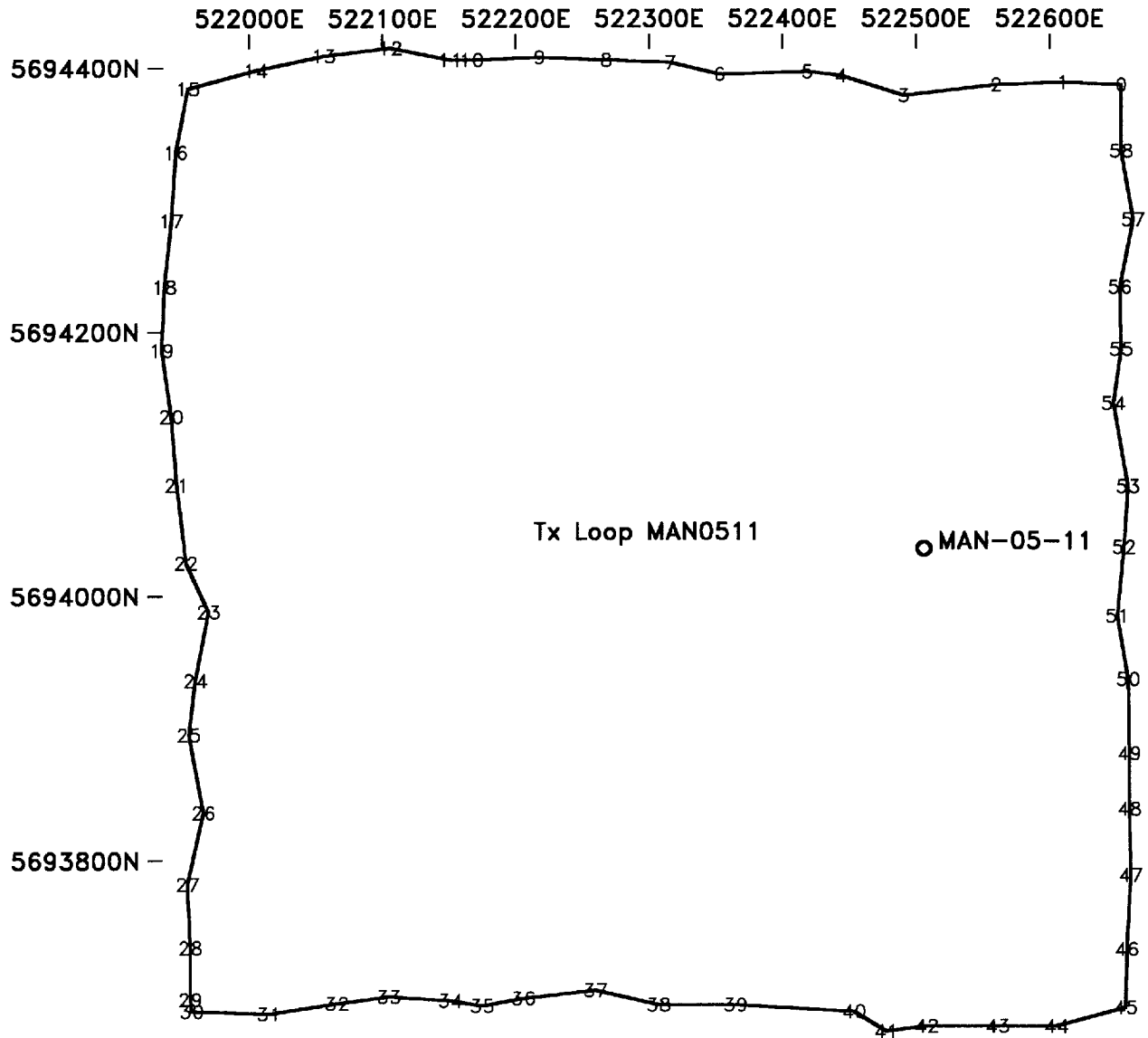
Project: Q-204.3

Scale: 1: 2500



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**MANICOUAGAN RES.**  
**MANIC**

**3-D Borehole Pulse EM Survey**  
**Borehole & Loop Location Map**

Hole: MAN-05-11  
 Survey Date: Jul 10, 2006

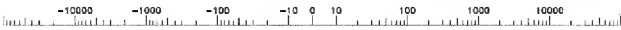
**Crono Geophysics & Exploration Ltd.**

CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

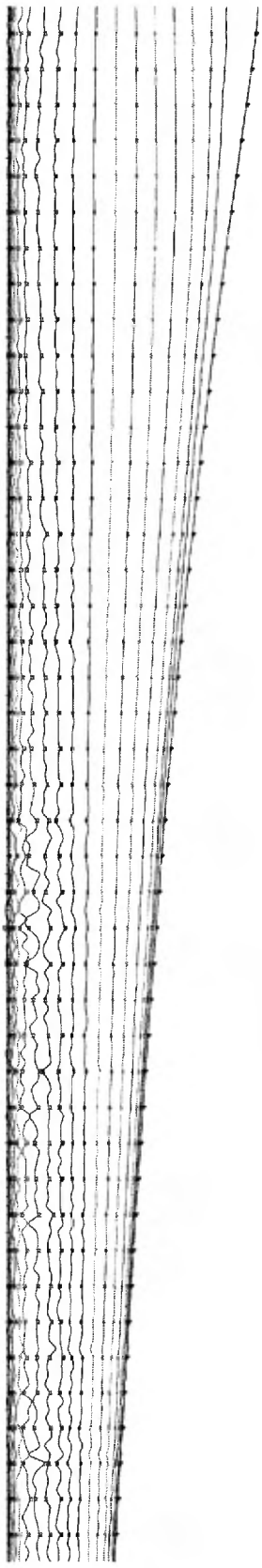
Client : MANICOUAGAN RES. Hole : MAN-05-11  
Property : MANIC Loop : MAN0511  
Date : Jul 10, 2006 File : ZMAN511.PEM  
Z Component - dBz/dl nanoTesla/sec - 20 channels and PP

Project: Q204.3

Scale: 1:2500

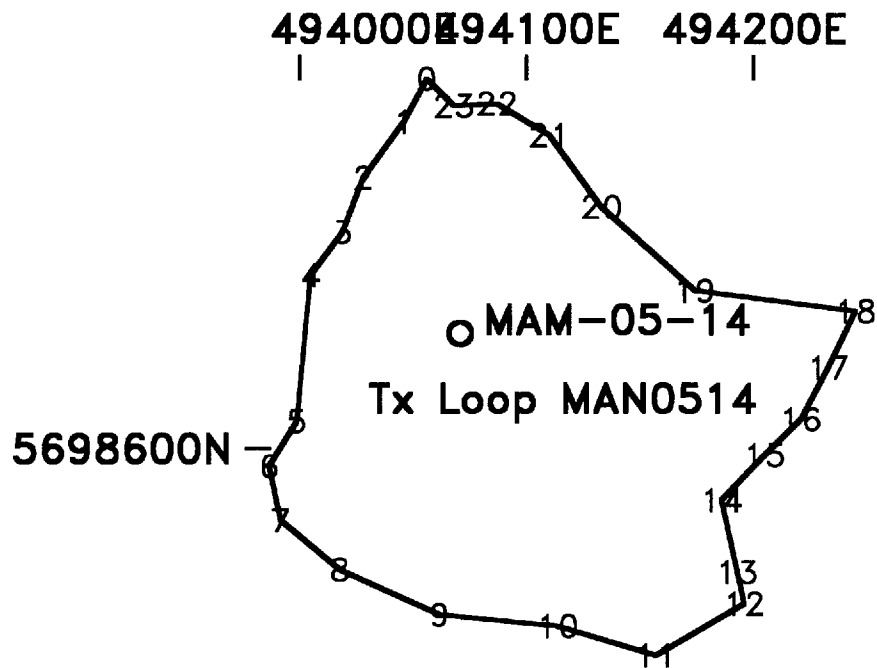


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<b>MANICOUAGAN RES.</b>
<b>MANIC</b>
<b>3-D Borehole Pulse EM Survey Borehole &amp; Loop Location Map</b>
Hole: MAM-05-14 Survey Date: Jul 13, 2006
<b>Crone Geophysics &amp; Exploration Ltd.</b>

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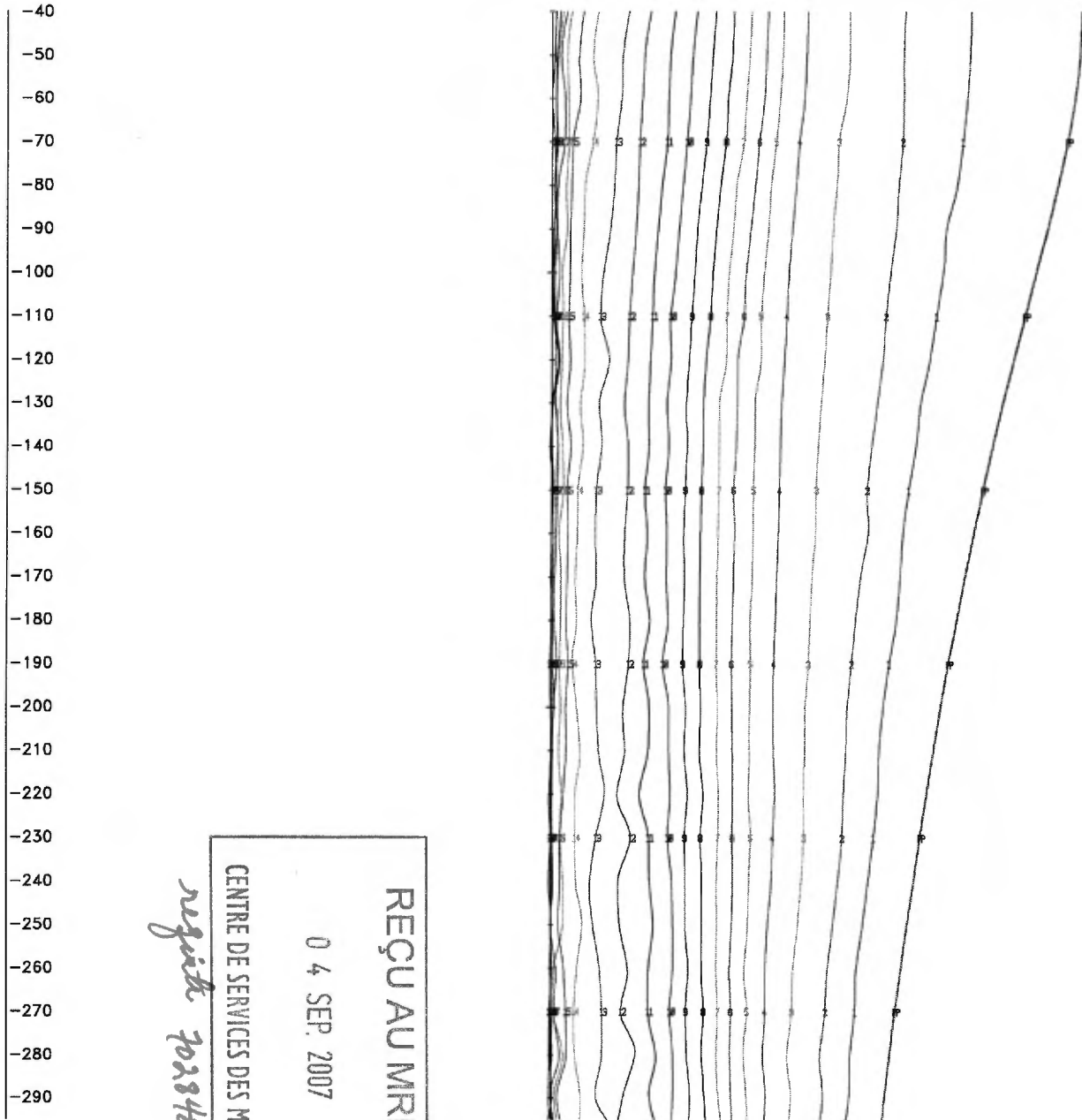
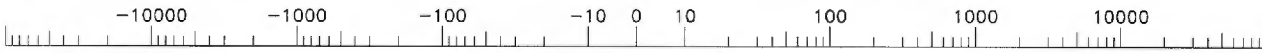
CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

Client : MANICOUAGAN RES.      Hole : MAM-05-14  
Property : MANIC                      Loop : MAN0514  
Date : Jul 13, 2006                  File : ZMAN514.PEM

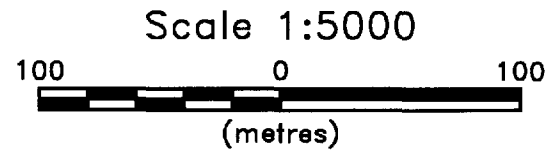
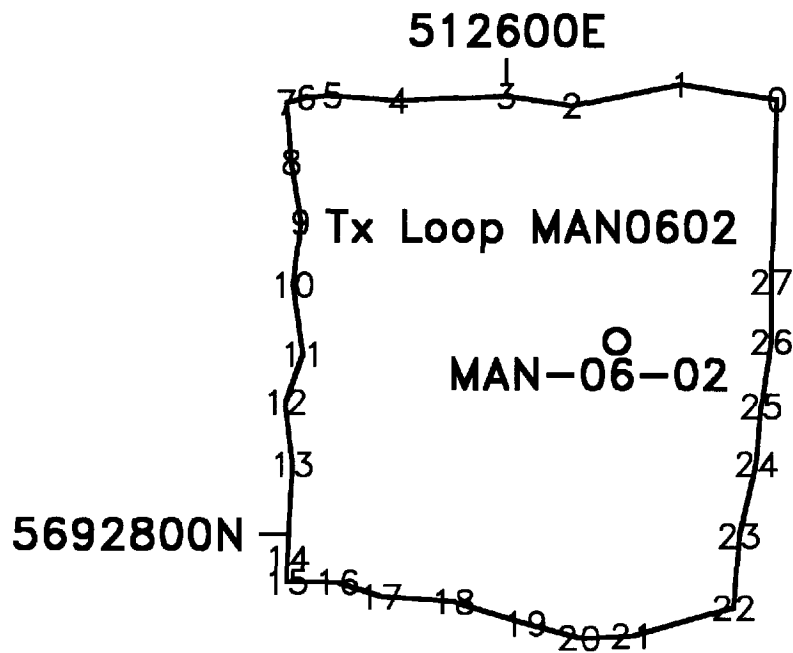
Z Component - dBz/dt nanoTesla/sec - 20 channels and PP

Project: Q-204.3

Scale: 1: 1000



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*regist 702878*



**MANICOUAGAN RES.**  
**MANIC**

**3-D Borehole Pulse EM Survey  
Borehole & Loop Location Map**

Hole: MAN-06-02

Survey Date: Jul 12, 2006

**Crone Geophysics & Exploration Ltd.**

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CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

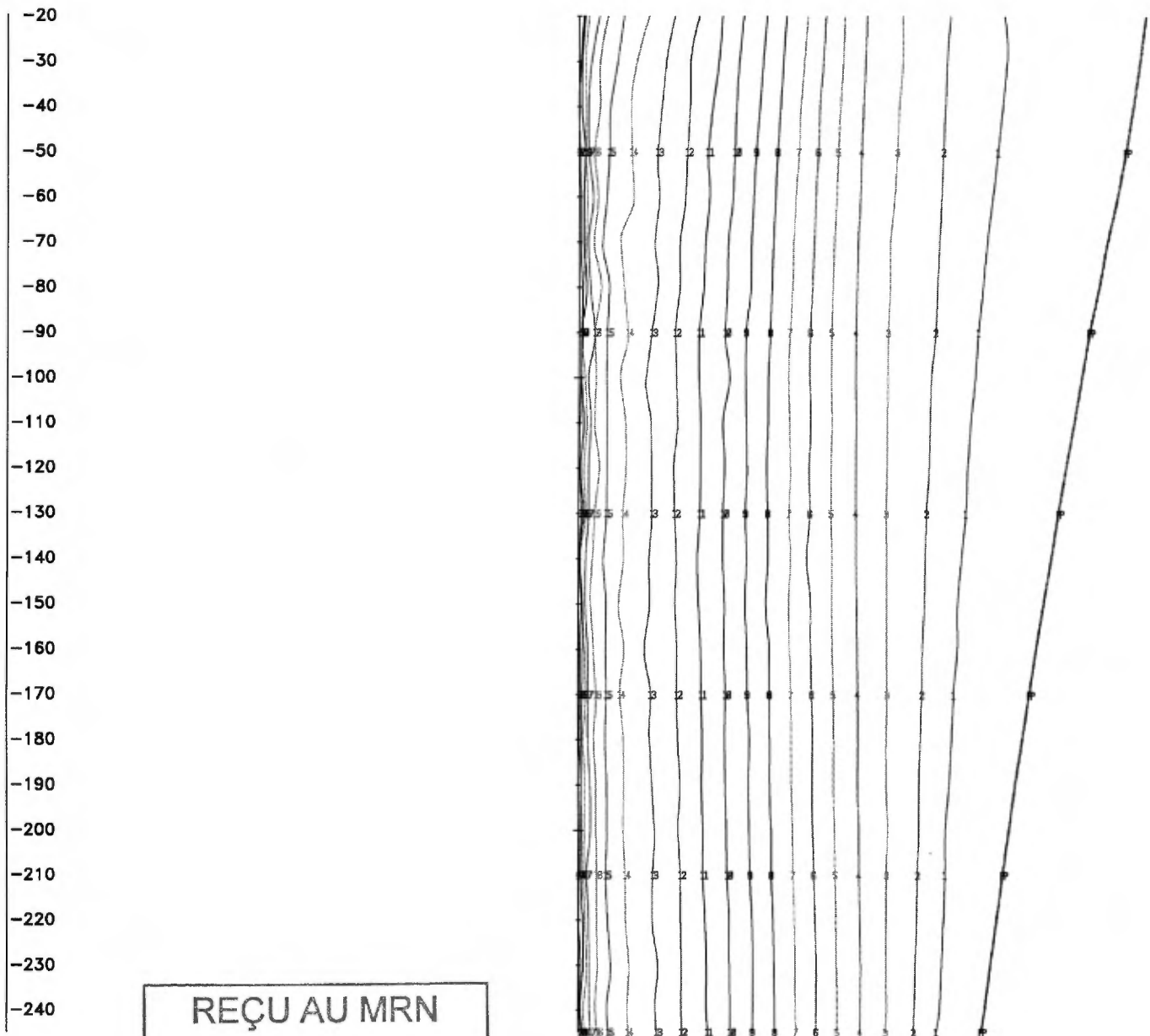
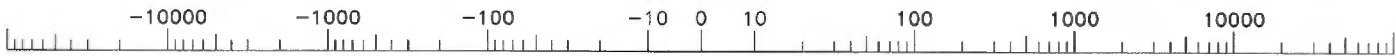
Client : MANICOUAGAN RES.  
Property : MANIC  
Date : Jul 12, 2006

Hole : MAN-06-02  
Loop : MAN0602  
File : ZMAN602.PEM

Z Component - dBz/dt nanoTesla/sec - 20 channels and PP

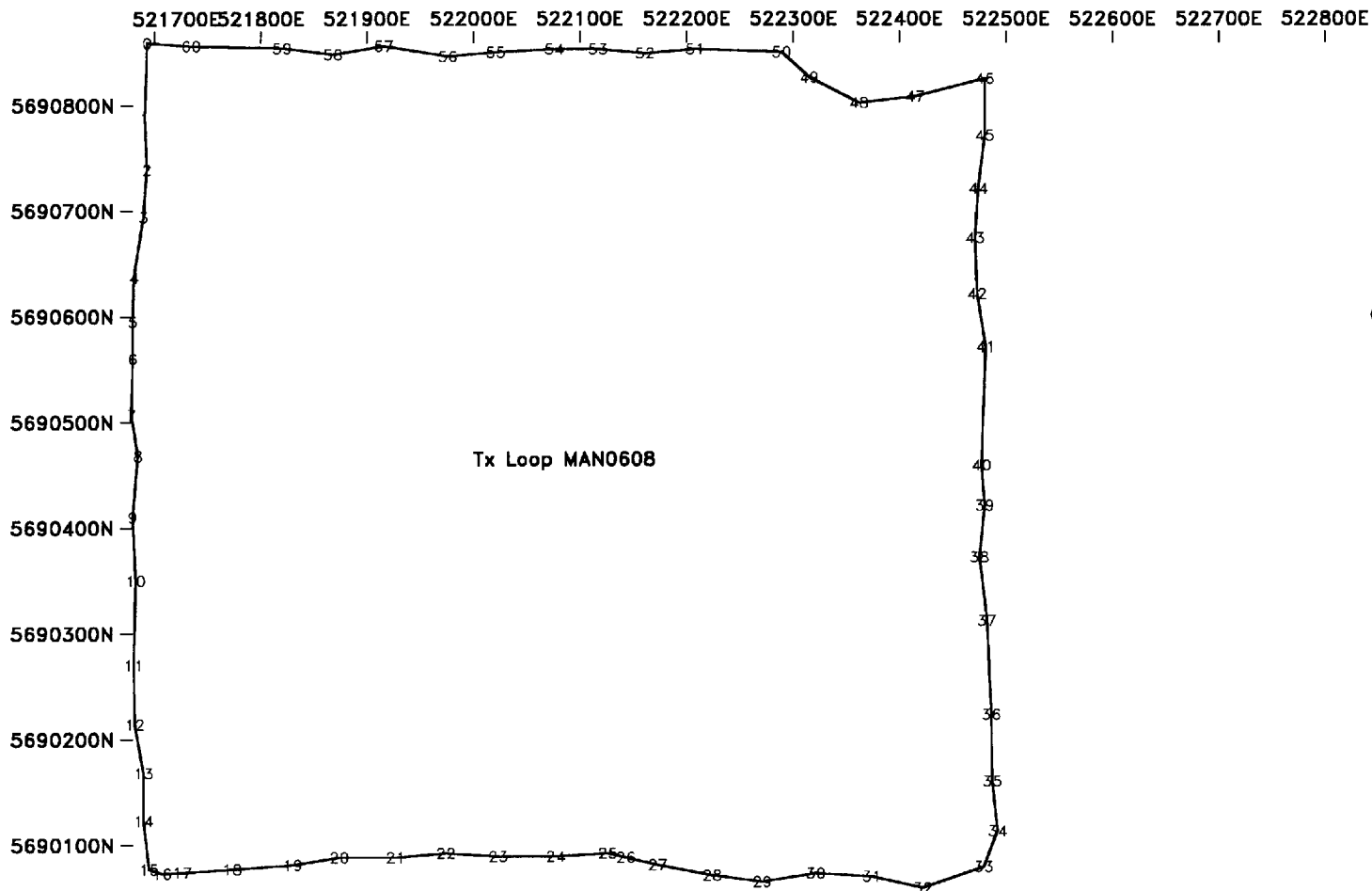
Project: Q-204.3

Scale: 1: 1000



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*requête # 702870*



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04 SEP. 2007

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*signature* 702846

**MANICOUAGAN RESS.**  
**MANIC**  
**3-D Borehole Pulse EM Survey**  
**Borehole & Loop Location Map**  
 Hole: MAN-06-08  
 Survey Date: Jul 7, 2006  
**Crono Geophysics & Exploration Ltd.**

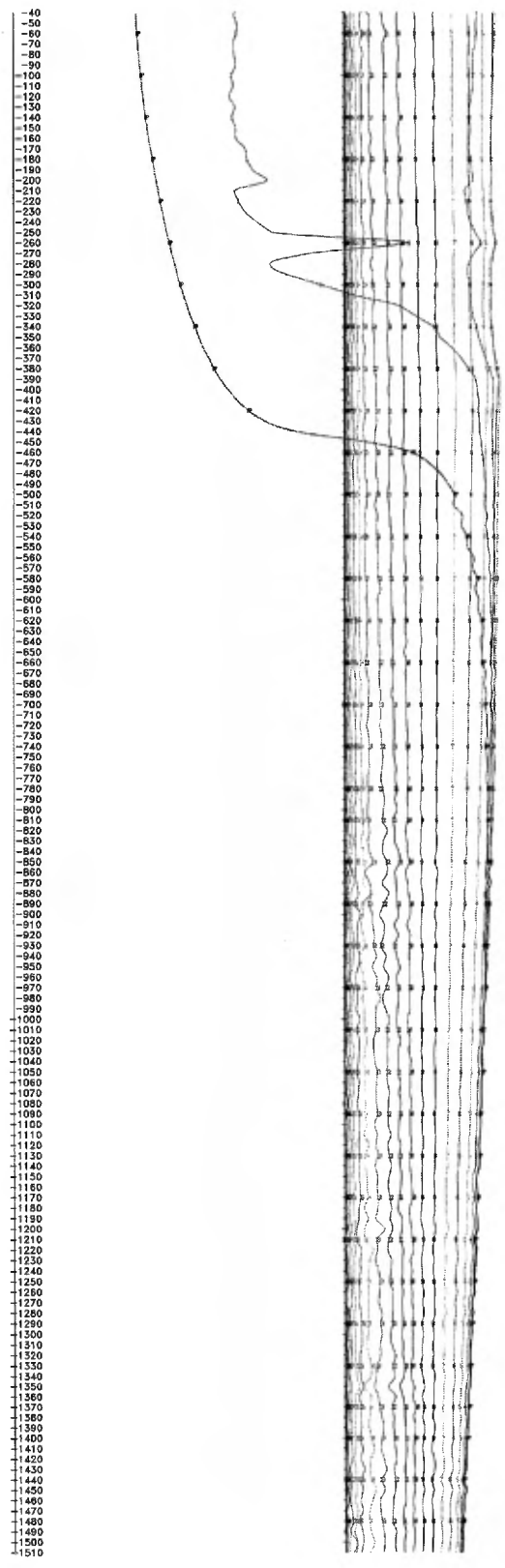
CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

Client : MANICOUAGAN RESS. Hole : MAN-06-08  
Property : MANIC Loop : MAN0608  
Date : Jul 7, 2006 File : ZMAN06B.PEM

Z Component - dBz/dt nanoTesla/sec - 20 channels and PP

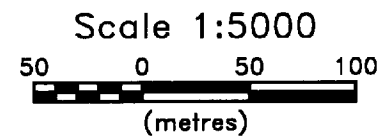
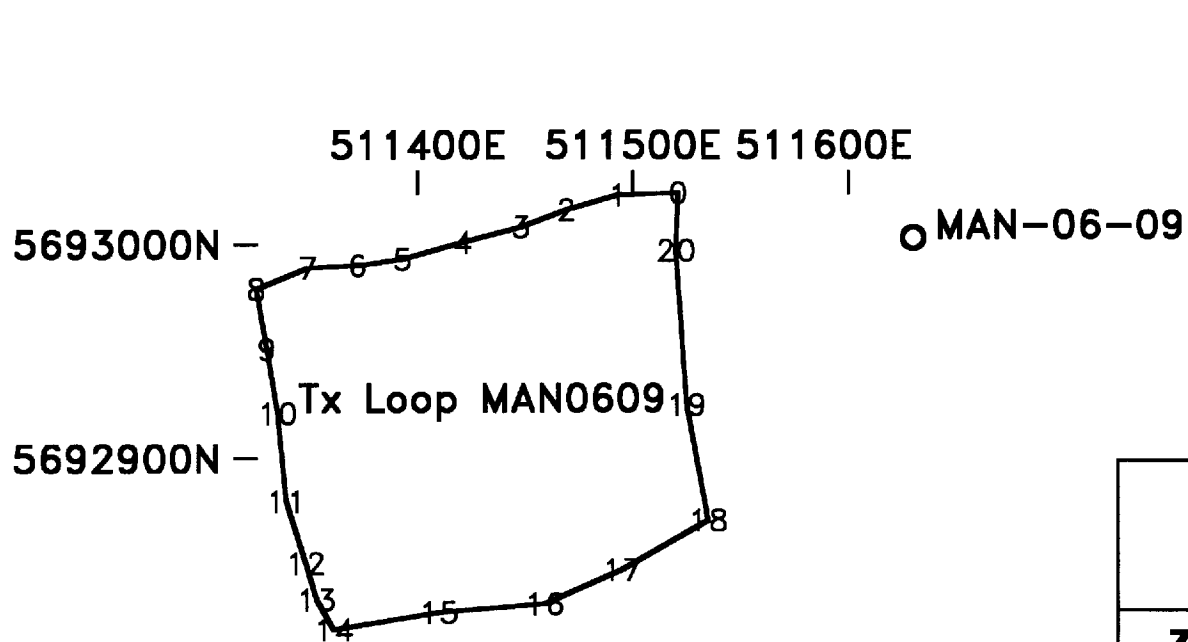
Project: n/a

Scale: 1: 2500



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*requête 702840*



**MANICOUAGAN RES.**  
**MANIC**

**3-D Borehole Pulse EM Survey**  
**Borehole & Loop Location Map**

Hole: MAN-06-09

Survey Date: Jul 12, 2006

**Crone Geophysics & Exploration Ltd.**

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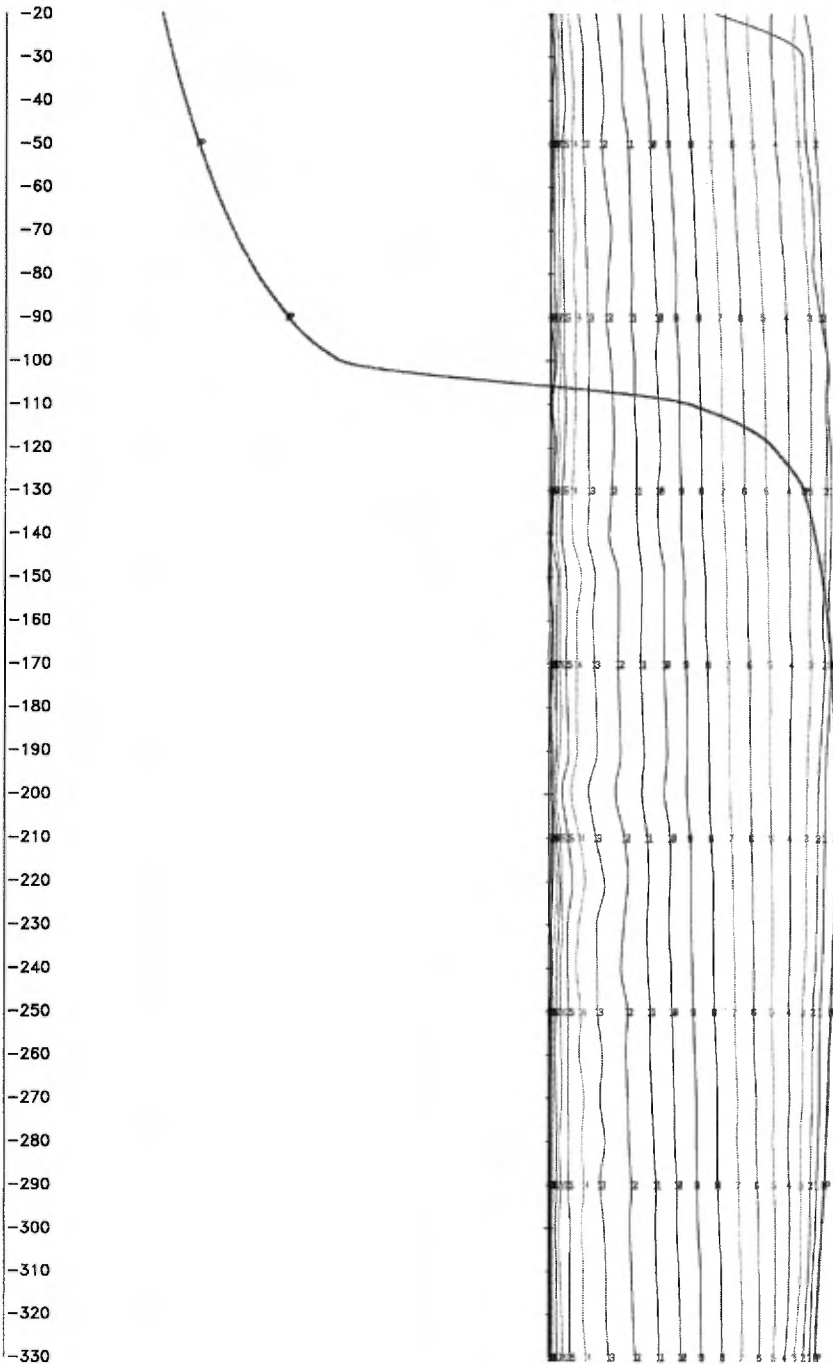
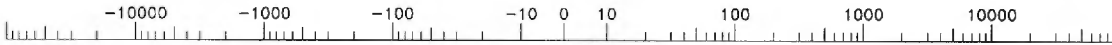
CRONE GEOPHYSICS AND EXPLORATION LTD  
TMC GEOPHYSICS  
BOREHOLE PEM

Client : MANICOUAGAN RES.      Hole : MAN-06-09  
Property : MANIC                      Loop : MAN0609  
Date : Jul 12, 2006                  File : ZMAN609.PEM

Z Component - dBz/dt nanoTesla/sec - 20 channels and PP

Project: Q-204.3

Scale: 1: 1000



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*Requête 702840*