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**MINING LANDS SECTION**

**A Preliminary Report**

**on the 1988 - 1989**

**Winter Exploration Program**

**in**

**Kipling-Emerson Township**

**conducted by**

**James Bay Kaolin Corporation**

**2.12974**

**August 1989**

**A.C. Gourley, M.Sc., P.Eng.**

**Gourley, A.C. & Associates**

**385 Patricia Drive**

**King City, Ontario**

**Abstract**

Exploration in the Moose River Basin of Northern Ontario has been conducted on an intermittent basis for almost 100 years. Reconnaissance drilling during this period by various companies has located several kaolin silica sand and clay deposits. Either through lack of funds or foresight to see the potential value of these deposits, they were never explored in the detail required for a large commercial operation.

During the winter of 1988-89, James Bay Kaolin, with an aggressive exploration program in Kipling and Emerson Townships, located kaolin silica sand and clay beds estimated to contain more than one billion tons of kaolin sands and clays with individual deposits that appear immediately exploitable for production of kaolin, silica sands and ball, fire and ceramic clays. Process pilot plant facilities are currently being established to test these products and define the parameters for mining and a large scale commercial production plant.

## Introduction

This report gives the preliminary results of an intensive exploration drilling, sampling and assaying program conducted by James Bay Kaolin Corporation for 798839 Ontario Ltd. Additional sampling, testing and analysis are currently in progress and final results are not expected until later in 1989. Results to date, however, have proven the existence of very extensive deposits of kaolin silica and ball, fire and ceramic clays.

The exploration grid cutting and drilling program commenced on November 6, 1988 and was completed on March 19, 1989. About 7 miles of baseline was cut with x-lines at 200 metres, except in detailed areas where lines were cut at 50 metre intervals. A total of 169 sonic drill holes were completed, 33 in 1988 and 136 in 1989. Preliminary logging of all holes was done in the field, with later detailed logging and sampling at an exploration research facility located in the Foley Industrial Park, Foley Township, Ontario.

Technical Service Laboratories provided whole rock analysis on all samples and x-ray diffraction mineral identification was by the Saskatchewan Research Department and by the geological department at Indiana University, Bloomington, Indiana, U.S.A.

## Location and Access

The property is located in northeastern Ontario, Canada approximately 100 miles southwest of James Bay and 450 miles north-northwest of Toronto at about latitude 50 and longitude 82 .

The property is located more precisely in Kipling and Emerson Townships in the James Bay Lowlands in what is generally known as the Moose River Basin of northern Ontario.

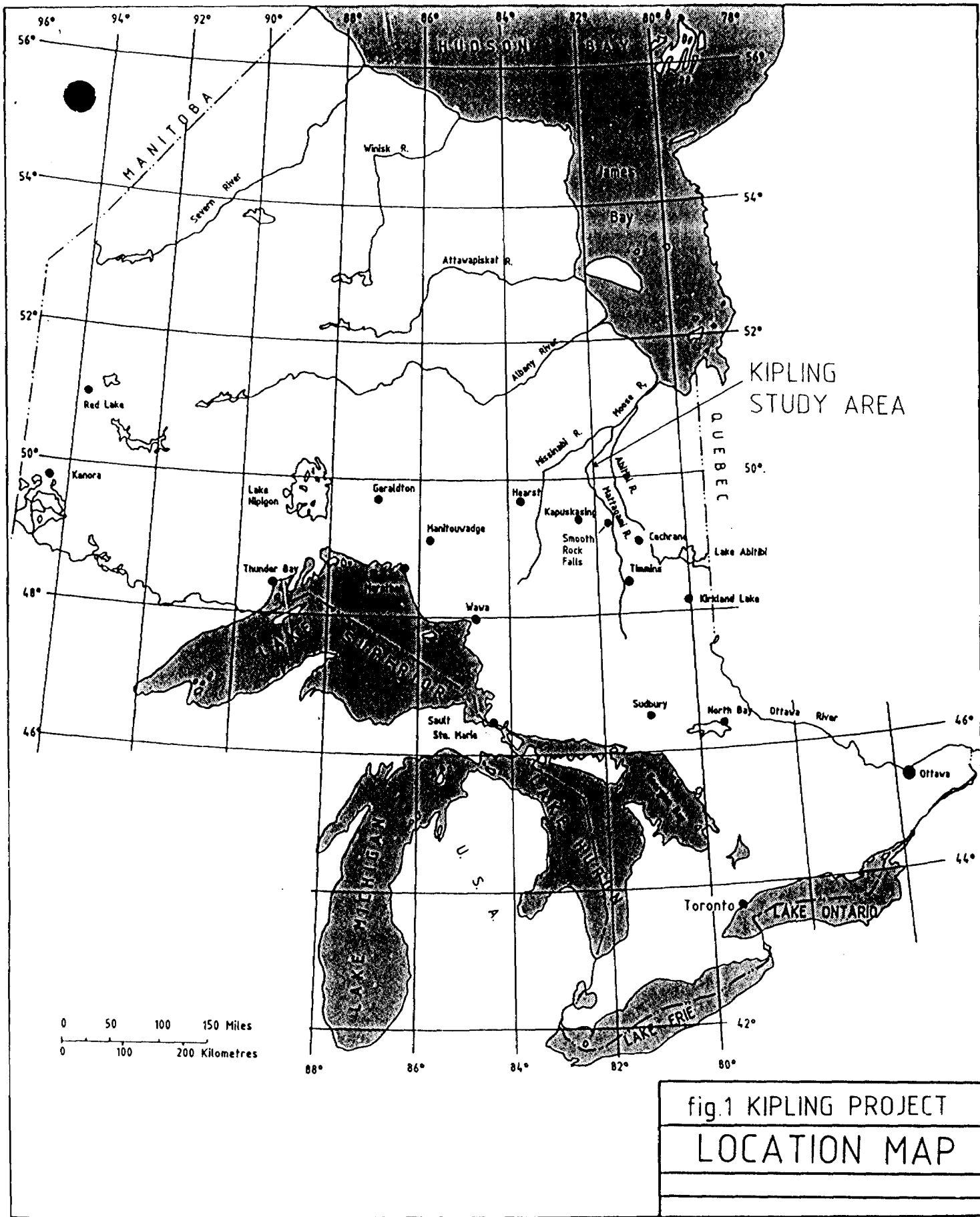


fig.1 KIPLING PROJECT  
LOCATION MAP



The claims extend for about 7 miles from west of the Mattagami River, north of the Ontario Hydro Kipling dam in Kipling Township, to east of Adam Creek in Emerson Township. The general location is approximately 70 miles northwest of the town of Smooth Rock Falls, Ontario (Fig. 1). Access to the property is via Highway 807 north from Smooth Rock Falls, a distance of 45 miles, to Fraserdale, a junction on the Ontario Northland Railway, and thence westerly via an Ontario Hydro private road for 20 miles to Smokey Falls, an Ontario Hydro generating plant on the Mattagami River. A 6 mile dirt road along the west side of the Mattagami River connects Smokey Falls to the Kipling generating station and the southern boundary of the kaolin-silica-clay deposits of the Moose River Basin.

### Topography and Climate

The topography is a flat costal plain characterized by muskeg, string bogs and shallow ponds with a poorly defined drainage pattern. The area is drained principally by the northerly flowing Mattagami River, Pike Creek and Adam Creek, ultimately flowing into James Bay.

The following are the average daily minimum and maximum temperatures reported for the Moose River Basin:

<u>Month</u>	<u>Minimum (°C)</u>	<u>Maximum (°C)</u>
January	-25	-10
February	-25	-15
March	-15	-10
April	-7	-5
May	0	5

<u>Month</u>	<u>Minimum (°C)</u>	<u>Maximum (°C)</u>
June	8	12
July	10	20
August	10	22
September	5	22
October	-2	15
November	-10	7
December	-20	-2

<sup>1</sup> Derry, Michener, Booth & Wahl - 1983

### **Property Status**

The kaolin silica property of 798839 Ontario Limited consists of 8 patented claims and 1 leased claim in Kipling Township and 358 unpatented mining claims, 280 in Kipling Township and 78 in Emerson Township. All of the above claims are in good standing (Fig. 2).

### **Claim Definitions**

The following definitions for claims are given in the Mining Act, Revised Statutes of Ontario, 1980, Chapter 268:

- unpatented mining claim means a mining claim that is in good standing and for which the Crown has not issued a patent, lease or licence of occupation. The Act requires that in year one a mining claim must have 20 man days of work done and in years 2,3 and 4 forty man days work and year 5 sixty man days work, after which an application can be made to bring the claim to lease.

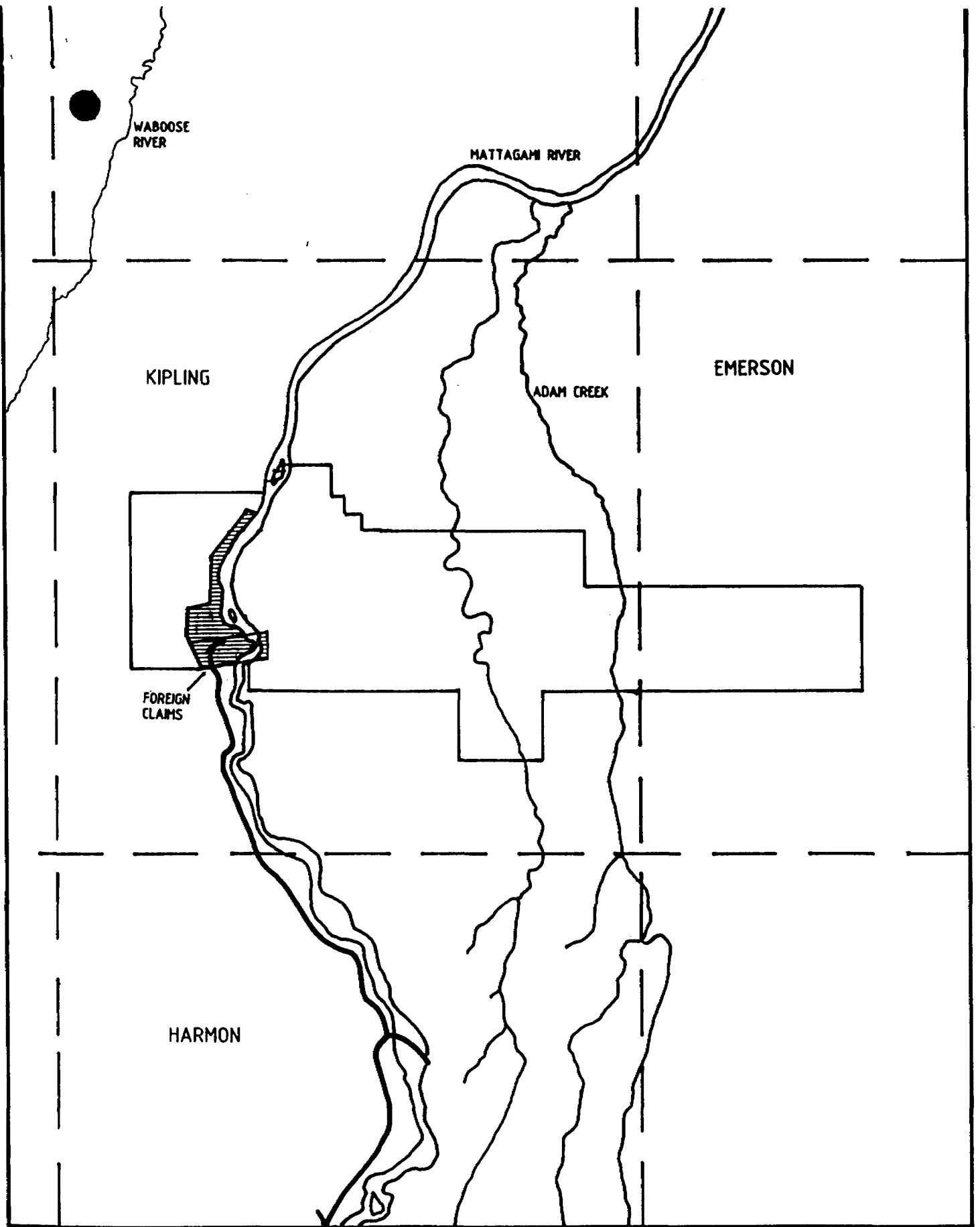


fig.2 JAMES BAY KAOLIN CORP. - KIPLING TWP - CLAIM LOCATIONS

- lease means a leasehold patent. A lease shall be for a term of twenty one years, however, the Minister may refuse to renew a lease or may require the applicant to show cause why a renewal should be granted.
- patent means a grant from the Crown in fee simple or for a less estate under the Great Seal, and includes leasehold patents and freehold patents.

### History of the Area

Geological exploration was first carried out in 1875 by Robert Bell of the Geological Survey of Canada. He reported the presence of clay and lignite on Coal Brook, a tributary of the Missinaibi River, 20 miles west of the Mattagami River. In 1880, samples of clay were collected by Borron who later (1891) reported the discovery of an extensive deposit of clay and silica sand on the east bank of the Missinaibi River, 5 miles (8 km.) below the confluence with Coal Brook. The quality of these clays as ceramic raw material was confirmed by Professor H.H. Croft of the University of Toronto (Keele, 1920, p. 42). M.B. Baker of the Ontario Bureau of Mines examined and made borings of fireclay and lignite deposits on the Mattagami River at Great Bend, 65 miles below Long Rapids in 1910. In 1916, C.M. McCarthy discovered china clay, silica sand and fireclay deposits on the east shore of the Mattagami River at the foot of the Long Rapids. Geological surveys of the Abitibi and Mattagami Rivers were conducted by the Ontario Bureau of Mines during the period 1919 to 1921. In 1925, H.S. Hancock, a consulting engineer completed a report for McCarthy and Douglas, who held 9 claims on the east bank of the Mattagami River and in 1926 the Northern Ontario China Clay Corporation was formed with Douglas as President. Further work was done by the government geologists between 1926 and 1927 and a report on their findings was issued in 1928. In 1929, D.W. Parkin and John G. Cloke, consulting engineers for Northern Ontario China Clay Corporation, summarized the previous work by the government and company and

concluded that there was ample evidence to warrant proceeding with development of the property.

About 1930, A.E. Hilder began prospecting along the west bank of the Mattagami River, across from the McCarthy/Douglas property. In 1934, Minefinders Limited financed the drilling of 18 shallow holes on Hilder's claims and a railroad location was surveyed from Smoky Falls. General Refractory Products Limited was organized, with J.C. Rogers as president, to develop these deposits and their property was examined and reported on by government geologists in 1935.

In 1940, Missinaibi Clays and Mining Limited acquired a 20 year lease on the original Hilder claims. A road was completed from Smoky Falls in 1942, a mining and drying plant was erected and production of silica sand and fireclay was started. The mine and plant operated during 1942 and 1943, producing 86 tons of silica and 898 tons of fireclay. The property reverted to General Refractory Products Limited in 1944 and there has been no production since.

During the period 1959-60, American Nepheline Limited conducted a regional prospecting program in the Mattagami and Missinaibi areas using portable drilling equipment. They drilled 15 holes, nine of these in Kipling Township.

In 1962 New Calumet and Crang Securities, through a partnership known informally as the China Clay Syndicate, drilled one hole to a depth of 163 feet approximately 275 feet north of the Douglas property and 175 feet east of the Mattagami River on a concession adjoining the Douglas property on two sides. In December of 1962, New Calumet transferred ownership to Chesterfield Mining and Exploration Company Limited.

During July and August of 1970, Indusmin Limited drilled 9 vertical holes west of the Mattagami River. These holes all intersected kaolin silica sands and clays below an approximate 100 foot cover of glacial till.

In 1972, Brascan Limited hired C. Norman Simpson Consultants Limited to investigate and report on the kaolin sands and clays of the Douglas property, which they leased. Six holes were drilled on the Douglas claims by Geocon Limited and test work confirmed extensive deposits under a till cover of about 100 feet.

During the period from 1975 to 1978, the Ontario Geological Survey conducted a program of field mapping, geophysics, drilling and laboratory studies with the principal objective of determining the stratigraphy of the Mesozoic sediments and an assessment of the lignite and industrial mineral potential of the Moose River Basin.

In June, 1981 Selco Ltd. had an airborne magnetometer survey flown over the Moose River basin area as part of a regional exploration program, searching for kimberlite structures and possible diamonds. This program was followed up during February and March of 1982 with the drilling of 7 sonic drill holes to investigate anomalous magnetic areas.

In 1985 Carlson Mines Ltd. optioned the Douglas property and contracted Midwest Drilling Limited to drill 5 sonic holes. The drilling was followed by the excavation of a test pit and removal of a 500 ton bulk sample for test work by the Ontario Research Foundation and Lakefield Research. Failure by Carlson Mines Limited to complete the option payments on the Douglas property resulted in forfeiture of the property.

In 1988-89 a Kitchener, Ontario company, 798839 Ontario Ltd., acquired the Douglas property and 358 adjoining claims and commenced a large exploration program

under the direction of the James Bay Kaolin Corporation. This report details the results of this latest exploration program.

### Geology of Ontario

The geology of Ontario (Fig. 3) consists of an arch of Precambrian crystalline rocks that occupies the central portion of the Province and slopes under younger flat lying Paleozoic strata both to the north and south. The central Precambrian core, known as the Precambrian Shield, covers approximately 60 percent of the Province and forms a horseshoe shaped belt almost parallel to the shore of Hudson Bay.

The Shield forms a stable platform of crystalline core rocks on which younger sediments have been laid down and later largely eroded. The Precambrian Shield can be divided in to three areas or structural provinces which, from oldest to youngest are: the Superior Province, the Southern Province and the Grenville Province.

The Superior Province occupies most of the northern portion of the Precambrian in Ontario and dates back beyond 2,500 million years when the last period on intrusion and metamorphism occurred. The Superior is composed predominantly of granites, gneisses and basic intrusives with numerous, generally east-west striking, greenstone belts composed of metamorphosed volcanics and sediments.

The Southern Province consists of a thin band of rocks, less than 100 miles wide, stretching from the Quebec border through Sudbury to Lake Superior, then probably under Lake Superior to near the head of Lake Superior around Thunder Bay and down to Minnesota, U.S.A. The western section consists predominantly of clastic

MANITOBA

Devonian

HUDSON BAY

LEGEND



MESOZOIC



PALEOZOIC



PRECAMBRIAN

James Bay

Bay

Silurian

Superior

Devonian

QUEBEC

Southern

MINNESOTA

Superior

Southern

Brenville

Ordovician

WISCONSIN

Silurian

Ordovician

Cambrian



G

A

Z

NEW YORK

Devonian

ILLINOIS

INDIANA

OHIO

PENNSYLVANIA

fig.3

# GEOLOGY OF ONTARIO

SCALE

0 100 200 miles

0 200 kilometres

R. Guillet)



sedimentary rocks intruded by numerous sills and dykes of diabase. The eastern section also contains clastic sediments intruded by diabase dykes and sills as well as granitic intrusions and the nickel irruptive rocks at Sudbury.

The Grenville Province consists primarily of sediments that have been highly metamorphosed into gneisses and cut by intrusions of granite, gabbro, anorthosite and syenite.

The Paleozoic rocks of Southern Ontario have been divided into two regions by a southeast trending arch of Grenville rocks near the east end of Lake Ontario. East of the arch lies the St. Lawrence Lowlands and west of the arch the Great Lakes Lowlands. The rocks in these two areas consist of flat lying beds of limestone, dolomite, gypsum, salt, shale and sandstone from Cambrian to Devonian in age.

The Paleozoic rocks of Northern Ontario occur in the Hudson Bay Lowlands, a basin structure lying south and west of Hudson Bay. The rocks here consist of limestone, dolomite, gypsum, and shales of Ordovician, Silurian and Devonian age.

The Mesozoic rock of Northern Ontario occupy a small basin known as the Moose River Basin that lies in the southeast corner of the Hudson Bay Lowlands. This area contains the only significant occurrence of Mesozoic sediments in Ontario. The sediments here consist of an interbedded sequence of unconsolidated kaolin quartz sands, kaolinitic clays and lignite, up to and possibly more than 500 feet in thickness.

The Pleistocene sediments partially overlay all of the older Mesozoic, Paleozoic and Precambrian formations. During the last million years, four major ice sheets scraped the older rock formations of Ontario and were followed by interglacial periods.

The last ice invasion, known as the Wisconsinian, retreated from Ontario about 10,000 years ago. These ice sheets scoured the bedrock, moving all loose material and deposited these as sands, gravel, till and varved clays in the lakes formed as the glacier melted and retreated.

### Geological Column

#### Cenozoic

##### Pleistocene and Recent

Till, clay, sand, gravel, peat

#### Mesozoic

##### Cretaceous

Mattagami Formation: Kaolinitic quartz sand, fireclay, clay, lignite

#### Paleozoic

##### Mississippian

Shale, sandstone

##### Devonian

Shale, limestone, dolomite, sandstone, arkose, conglomerate, gypsum

##### Silurian

Shale, limestone, dolomite, sandstone, mudstone, gypsum, salt

##### Ordovician

Shale, limestone, dolomite, sandstone

##### Cambrian

Shale, sandstone, conglomerate

#### Precambrian

##### Middle to Late Precambrian Igneous Rocks

Carbonatite-alkalic complexes, mafic igneous rocks and felsic igneous rocks

##### Middle to Late Precambrian - Grenville

Mafic and ultramafic igneous rocks, carbonate metasediments, clastic metasediments and mafic to felsic metavolcanics

- Superior and Southern Provinces

Sedimentary and volcanic rocks

Early Precambrian

Felsic igneous and metamorphic rocks, granulites, mafic and ultramafic igneous rocks, metasediments and metavolcanics

### **Regional Geology of the Moose River Basin**

Between Burstall and Emerson Townships, in Northeastern Ontario, a sharp escarpment marks the boundary between uplifted Precambrian rocks to the south and flat lying Paleozoic and Mesozoic strata to the north. The younger formations to the north occur in an elliptical sedimentary basin, known as the Moose River Basin (Fig. 4), that forms a southeast extension of the large Hudson Bay Lowlands lying south and west of Hudson Bay. Mesozoic sands and clays within the basin form a wedge of unconsolidated continental sediments that have been gouged and disturbed by Pleistocene glaciation but apparently saved from complete removal by deflection of the ice over the upland area of the Precambrian rocks that form their southern boundary.

The cretaceous Mattagami formation (Fig. 5), occupying about 1,900 square miles of the southern and southwestern portion of the Moose River Basin, has been subdivided into two portions (Guillet, 1979), the stratigraphically lower portion the Type A, characterized by lignite seams and black carbonaceous clay, and the upper type B, consisting predominantly of thick sequences of unconsolidated kaolinitic quartz sands, kaolinitic clays and light-coloured non-calcareous clays. They rest largely on Devonian shales and limestone of the James Bay Basin, and are covered by a thick sequence of

glacial tills, marine clays, sands and muskeg. Basic igneous plugs of Devonian age are known to intrude the Devonian strata as well as diabase dykes of probable Paleozoic age. However, these units are under the cover of Mesozoic sands and Pleistocene tills and recognized only by their magnetic expression from airborne magnetic surveys.

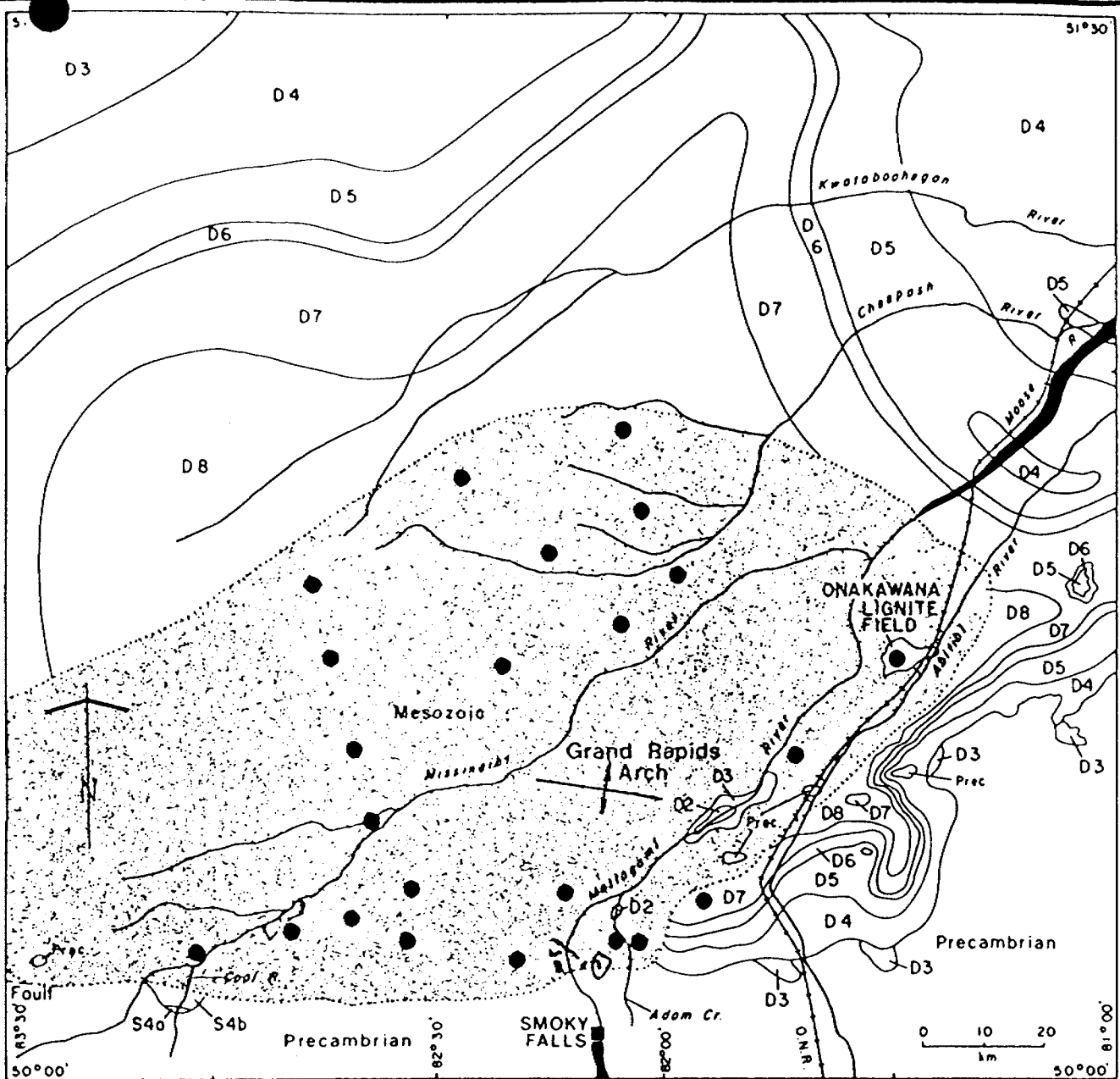
### **Property Geology**

The Kipling-Emerson property straddles the boundary between the Precambrian granitic rocks to the south and the younger Paleozoic and Mesozoic strata to the north (Fig. 6).

The precambrian in this area consists of a series of biotite and hornblende quartz-feldspar gneisses that form an escarpment striking slightly north of east through the Mattagami River at the Ontario Hydro Kipling Dam and can be seen in outcrop to the east at Adam Creek, a distance of about 5 miles. The outcrops in Adam Creek are quite spectacular in that the regional fracture and faulting patterns are exposed and erosion has created deep gorges and canyons close to the Basin edge. Truncation of the Paleozoic rocks indicate that the escarpment was fault controlled with the southern portion being upthrust several hundred feet.

A diabase dyke, of probable Paleozoic age striking in a northeast direction cuts the Precambrian rocks to the south, terminating on surface at the Ontario Hydro Kipling dam. This dyke is traceable by magnetics under the Pleistocene and Mesozoic cover to the north. Magnetic surveys have also shown the presence of other basic rock units that have been intruded as plugs into the Devonian strata to the north.

North of the escarpment, middle to upper Devonian limestone and shales



## Legend

### Mesozoic

- Mattagami Fm. (Lower Cretaceous)
- Mistuskwia Beds (Middle Jurassic)

### Upper Devonian

- D8 ..... Long Rapids Fm.
- D7 ..... Williams Island Fm.

### Middle Devonian

- D6 ..... Murray Island Fm.
- D5 ..... Moose River Fm.
- D4 ..... Kwataboahegan Fm.

### Lower Devonian

- D3 ..... Stopping River Fm.
- D2 ..... Sextant Fm.

### Upper Silurian

- D1 ..... Kenogami River Fm.

### Precambrian

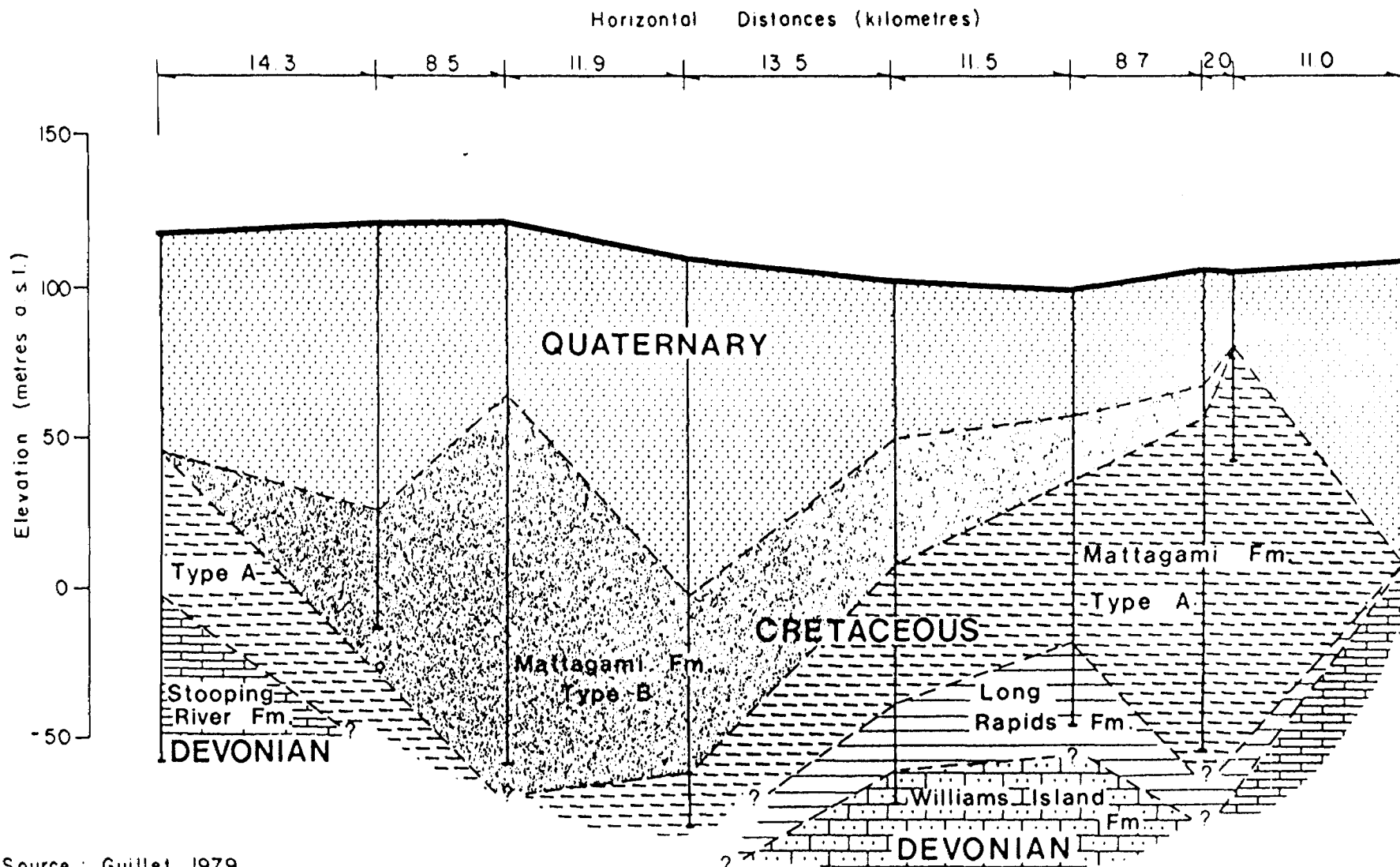
Undifferentiated

- Deep Borehole

(Modified from Telford & Verma, 1982)

Figure 5

# EAST-WEST SECTION THROUGH MOOSE RIVER BASIN



Source : Guillet, 1979

lie unconformably over the basement rocks. Cretaceous (Mesozoic) sediments of the Mattagami formation rest on the erosional surface of the Devonian and are overlain by Pleistocene glacial tills. The glacial tills range in thickness from 0 where they have been insiored by the Mattagami River and Adam Creek to over 150 feet away from the streams. However, three drill defined areas have been located where the till cover measures less than 100 feet and these will be discussed in detail in the economic geology section. The Cretaceous beds have a minimum thickness of 250 feet as measured in drill holes. This thickness of sediment consists primarily of kaolin silica sand with thin beds of ball, fire and ceramic clays.

The Kipling kaolin silica and clay deposits are interpreted as being laid down in a large fresh water basin, now referred to as the Moose River Basin. These deposits appear to be limited to the southern portion of the Basin, that part defined by Guillet (1964) as lying south of the Grand Rapids Arch. In Kipling township the deposits consist of white to light grey kaolin silica sand with variable thicknesses of vari-coloured ball clay and fireclay including black, brown, bright red, buff, purple, orange and grey with rare thin seams of lignite. The kaolin silica and clay beds are almost flat lying with only gentle dips towards the escarpment to the south. Drilling has shown the kaolin silica beds, which make up approximately 70%(?) of the sediments to be persistent over several miles. The clay beds are thinner and generally tend to die out over greater distances but are known to persist for more than a mile in strike.

### **Mineral Definitions**

Kaolin is largely composed of the mineral kaolinite, which has the chemical formula  $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$  and a theoretical composition of 46.54%  $SiO_2$ , 39.50%  $Al_2O_3$  and 13.96%  $H_2O$ . Kaolinite is the most common member of the kaolin group of minerals:

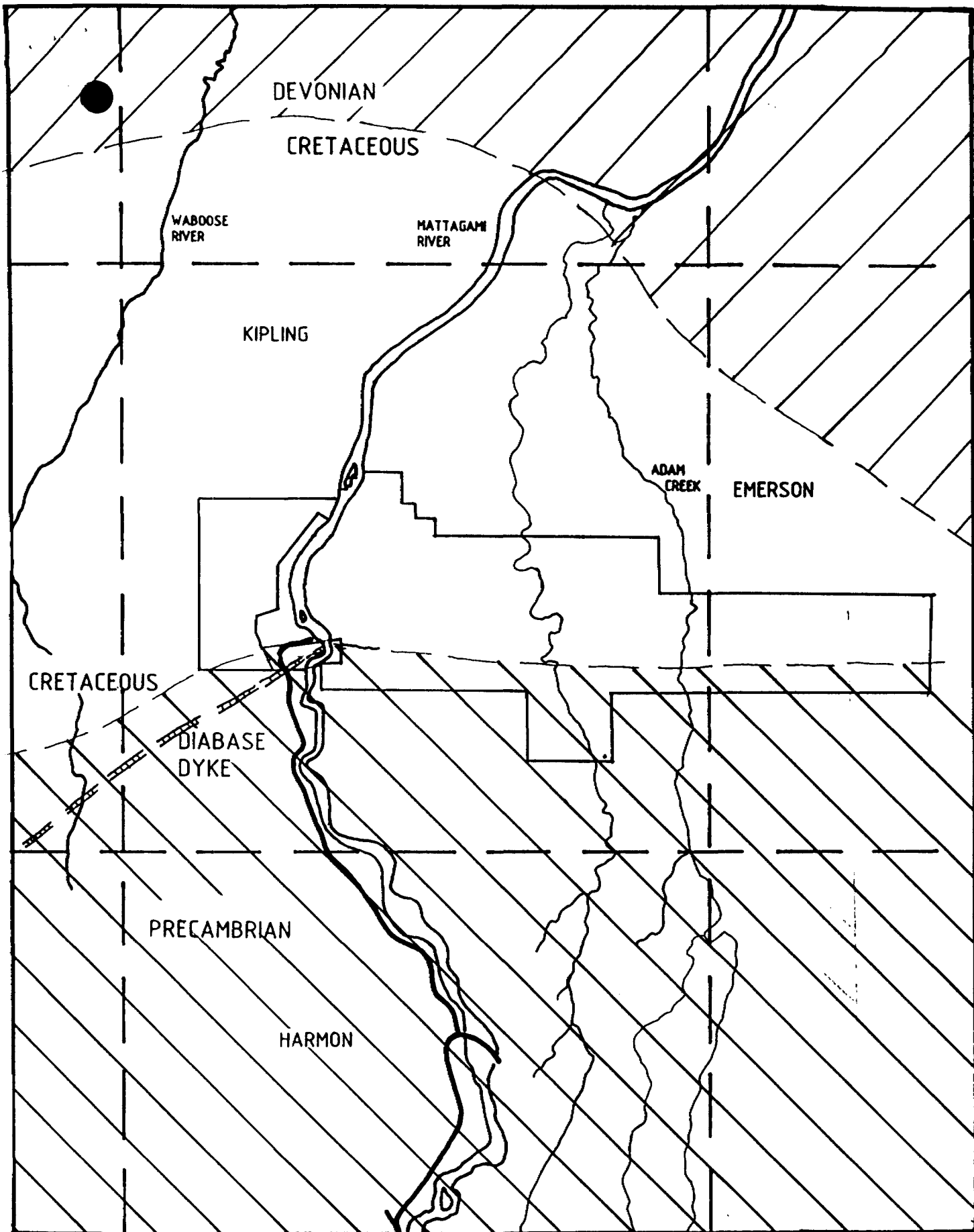


fig.6 JAMES BAY KAOLIN CORP. - KIPLING TWP - GEOLOGICAL MAP



kaolinite, nacrite, dickite and halloysite. While these minerals have slightly different crystal structures, they have essentially the same composition.

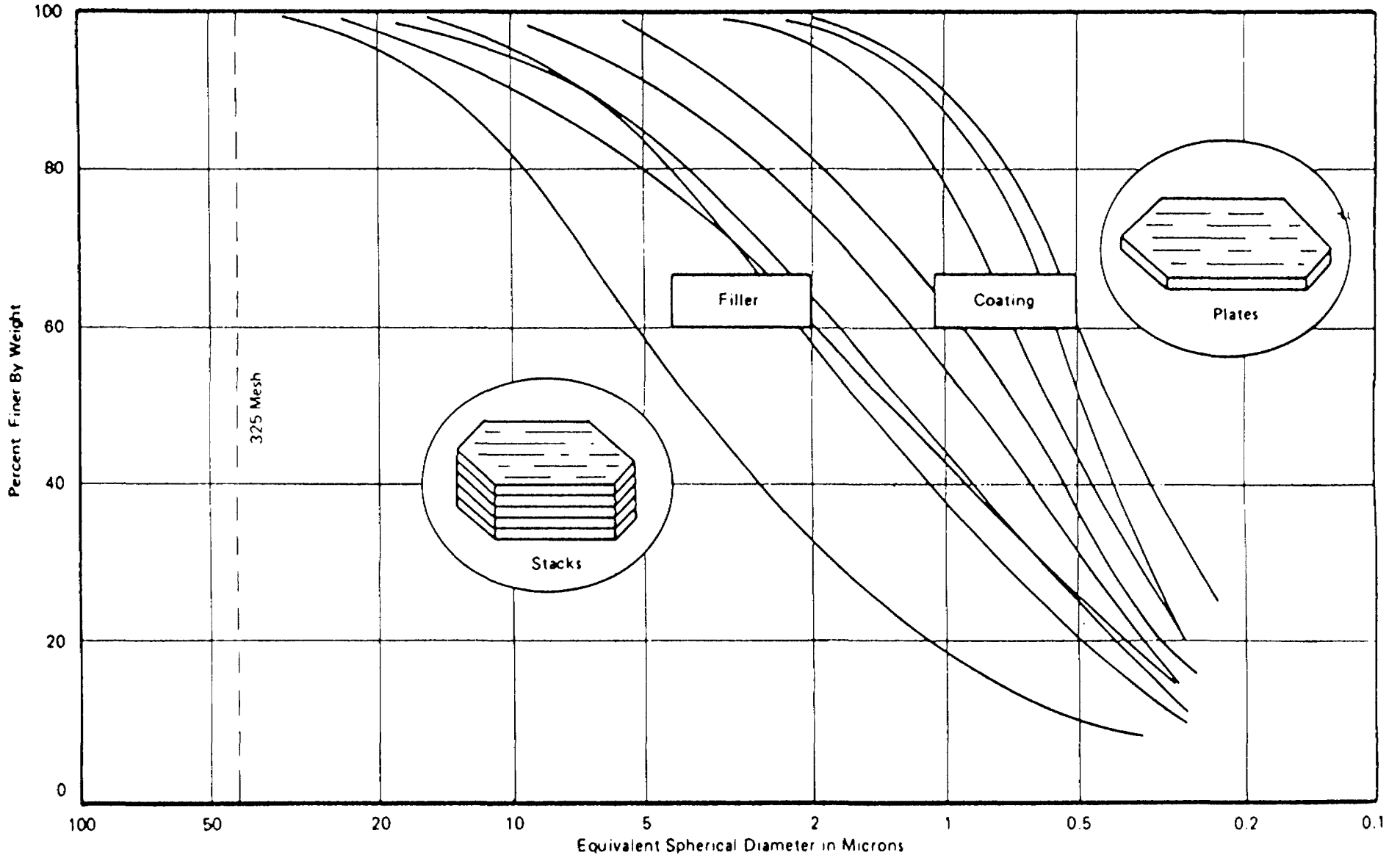
Kaolinite is a secondary mineral, formed from feldspathic minerals by chemical weathering or hydrothermal alteration. Most kaolin occurrences throughout the world have been formed during the last 100 million years, particularly during the Cretaceous Period when world climate was generally warmer and more humid than now. Geographically, deposits favour tropical or subtropical areas where abundant rainfall, warm climate and organic acids from decaying vegetation have caused the decomposition of feldspars and the removal of alkalines in solution.

As a high quality filler and coater mineral (Fig. 7) it has almost all of the desirable characteristics: It is white, has good covering power, is soft and non-abrasive, is chemically inert over a relatively wide pH range, has low conductivity of heat and electricity, and is low in cost.

There are two principal types of kaolin deposits, residual and sedimentary. Residual deposits are formed in place by the chemical weathering of feldspathic rocks where the feldspar minerals alter to kaolinite and form the matrix of more resistant minerals, usually quartz and mica. Sedimentary deposits are formed when the feldspar and quartz are transported by stream action to a fresh water depositional basin.

Residual deposits are irregular shaped and grade downward through partially decomposed rock to the unweathered parent rock. Sedimentary kaolin deposits are in the shape of tabular lenses and beds that may be more than 50 feet thick and more than 1 mile long.

# KAOLIN PARTICLE SIZES FOR PAPER



SOURCE : INDUSTRIAL MINERALS AND ROCKS, 1975  
FIGURE

Figure 7

Many very large kaolin deposits are essentially pure, and they require little beneficiation during preparation for market. Most are slightly off-colour and require bleaching, and others contain as little as 10 percent clay that must be washed and concentrated to recover marketable kaolin.

Commercial kaolin deposits generally contain certain mineral impurities: the most important North American sedimentary deposits in Georgian are generally 85% to 95% kaolinite, the rest quartz, mica, ilmenite and other titanium minerals, and zircon. The residual deposits of Cornwall, England and Spruce Pine, North Carolina, are only 10% to 40% kaolinite, the rest being quartz, muscovite and feldspar.

Silica is the common name used for silicon dioxide,  $\text{SiO}_2$ . It is the most abundant oxide in the earth's crust. Quartz is the most common mineral form of silica. Silica sand is a sand composed almost entirely of fine quartz with a silica content in the order of 99%  $\text{SiO}_2$ .

Ball clays and fireclay are general terms applied to plastic and refractory clays that are too deeply coloured or too coarse textured to be used in the production of china, paper or whiteware. The Kipling ball clays are largely composed of kaolinite.

### **Major World Deposits**

The United States dominates world production of kaolin, contributing about 40% of the total, largely from mines in Georgia. Eastern bloc countries contribute about 25% of the world supply. The United Kingdom accounts for about 16% from its Cornwall and Devon sources. Increasing production from Brazil is the most significant new feature among world producers (Watson 1982, p. 17). Canada produces no kaolin, but extensive deposits in the Moose River Basin have attracted exploration interest for more than 60 years.

### Canadian Deposits - Saskatchewan

The Cretaceous Whitemud Formation of southern Saskatchewan includes thick beds of kaolinitic sand. The kaolinite content locally is as much as 50%, but it is off-white and does not respond to bleaching. It is presently being explored for possible production.

### Ontario

Kaolin clays and quartz sands of Mesozoic age occur over an area of some 1,900 square miles in Northeastern Ontario. They rest largely on Devonian shales and limestones of the Moose River Basin, and are covered by a thick sequence of glacial tills, marine clays, sand and muskeg.

The Mesozoic sediments of the Moose River Basin are lower Cretaceous in age. The Cretaceous sediments comprise thick sequences of kaolinitic quartz sand interlayered with lenses of refractory clay and lignite, all belong to the Mattagami formation.

The area of principal interest extends for 80 km. marginal to the east-west Precambrian escarpment that forms the southern limit of the basin. Northward from the escarpment the deposits are known from sporadic drilling to extend to 40 km.

The southern edge of the basin is accessible by road from Fraserdale, Kapuskasing and Smooth Rock Falls. The eastern limit of the kaolin area is 15 km. west of Coral Rapids on the Ontario Northland Railway. Access to the western part of the basin is restricted to lumber roads north from Hearst, from which final access must be winter road.

Kaolin occurs as a white matrix between the quartz grains in thick beds of quartz sand. Horizontal lenticular beds of white and brightly-coloured plastic clay are also common. They consist almost entirely of kaolinite, and are generally highly refractory.

The entire sequence is water-saturated and much of the fine, white kaolin is mobilized in suspension throughout the sand beds, giving rise to kaolin-rich and kaolin-poor horizons. Kaolin-rich horizons may contain as much as 20% or more of kaolinite.

A maximum thickness of 127 m., has been recorded (Guillet 1979, p. 36) for the sand and clay in a drillhole in the south-central part of the basin. Kaolin-bearing sand horizons vary up to 20 m. in uninterrupted thickness, but normally average 5 m. to 10 m. Interbedded clay lenses are generally thinner.

While there has been some deep exploration drilling by private interests, most field studies have been directed toward the few Cretaceous outcrops in deeply-cut river channels. However, much of our present knowledge of these deposits has resulted from deep drilling programs by the Ontario government in recent years, by Carlson Mines in 1985 and by the James Bay Kaolin Corporation.

#### United States

Kaolin is produced by about 30 companies in the United States, mostly from extensive deposits in Georgia and South Carolina, but also from Alabama, California, Florida, North Carolina and Texas.

High-quality paper clays are almost exclusively produced from Georgia deposits. Other producing states serve mainly ceramic, refractory and filler uses other than paper.

### Georgia-South Carolina

Kaolin deposits in the Georgia-South Carolina belt (Fig. 8) occur along the base of the Piedmont Plateau over a length of about 200 km. and a width to seaward of 50 km. The principal areas are in Central Georgia, between Macon and Augusta, and in South Carolina near Aiken. Kaolin has been produced from Georgia since 1741.

In Cretaceous time, the southeast edge of the Piedmont Plateau was believed to be similar to the present coastline, with abundant offshore sand bars and swampy, muddy lagoons and estuaries. Runoff from the crystalline rocks of the Piedmont region deposited feldspathic sands as deltaic sediments largely above the level of marine influence. After kaolinization, a complex winnowing process appears to have separated the kaolin and redeposited it in lenticular beds surrounded by and interfingering with, micaceous quartz sand.

Kesler (1963, p. 7-8) describes the deposits as follows: the kaolin deposits are generally lenticular...they range from a few feet to perhaps a mile, but uniform quality is rarely found throughout a lens. Vertical thickness ranges from inches to about 50 feet, and many of the mined deposits have averaged about 20 feet. Contacts with enclosing sands are mostly gradational, but a few are sharp.

Georgia kaolin deposits are generally 85 to 95% kaolinite; the remainder is mainly quartz with minor muscovite, biotite, smectite, ilmenite, anatase, rutile, leucoxene, goethite and traces of zircon, tourmaline, kyanite and graphite (Patterson and Murray 1975, p. 552).

Ultimate resources are very large, and only the most attractive deposits are presently being worked. Off-colour deposits of higher iron content and deposits beneath excessive overburden await future development.

Figure 8

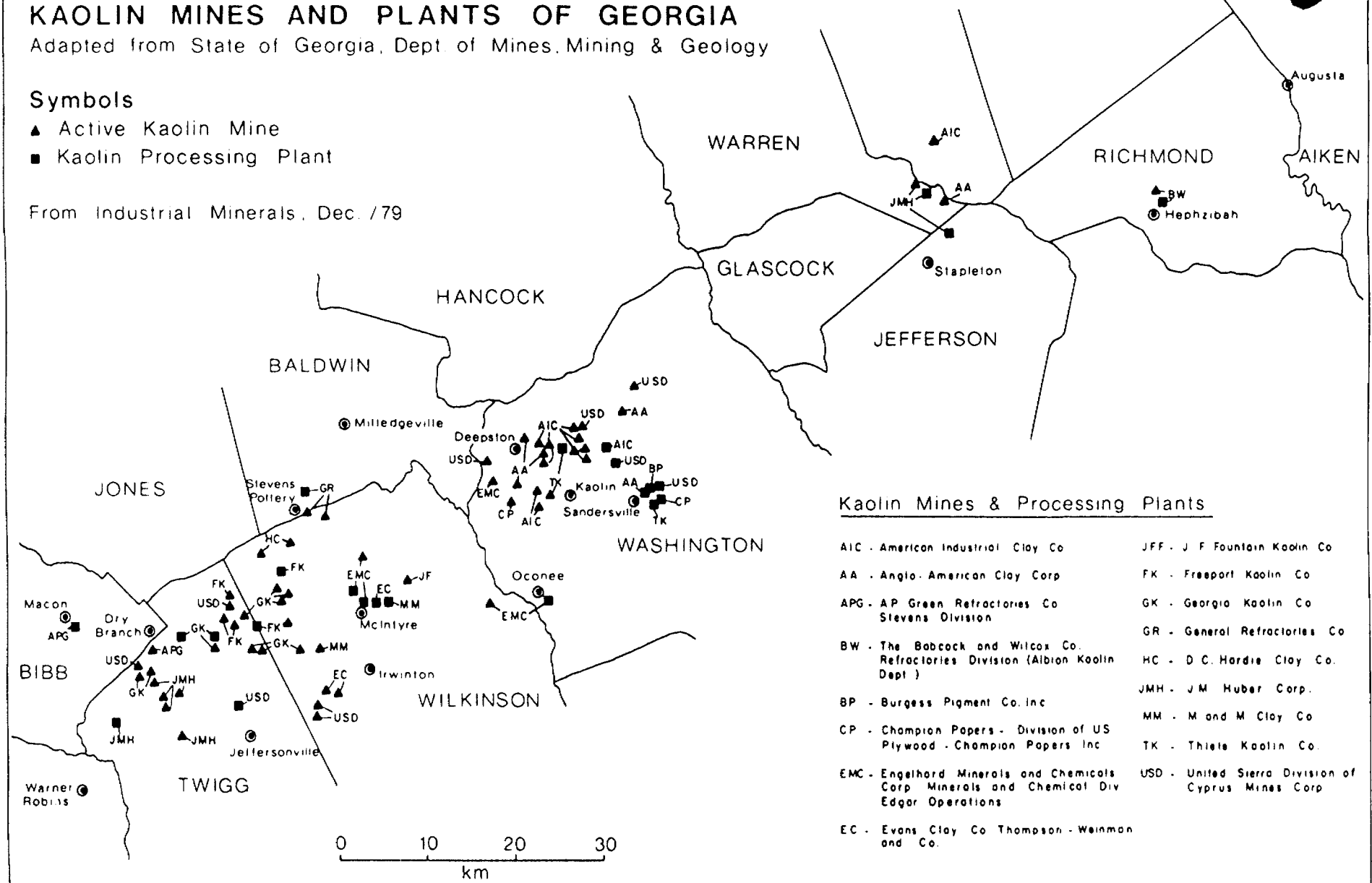
# KAOLIN MINES AND PLANTS OF GEORGIA

Adapted from State of Georgia, Dept. of Mines, Mining & Geology

## Symbols

- ▲ Active Kaolin Mine
- Kaolin Processing Plant

From Industrial Minerals, Dec. /79



## Kaolin Mines & Processing Plants

- |  |  |
|--|--|
| AIC - American Industrial Clay Co  | JFF - J F Fountain Kaolin Co                         |
| AA - Anglo-American Clay Corp  | FK - Freeport Kaolin Co                              |
| APG - AP Green Refractories Co<br>Stevens Division   | GK - Georgia Kaolin Co                               |
| BW - The Babcock and Wilcox Co.<br>Refractories Division (Albion Kaolin<br>Dept)             | GR - General Refractories Co                         |
| BP - Burgess Pigment Co. Inc   | HC - D C Hardie Clay Co.                             |
| CP - Champion Papers - Division of US<br>Plywood - Champion Papers Inc                       | JMH - J M Huber Corp.                                |
| EMC - Engelhard Minerals and Chemicals<br>Corp Minerals and Chemical Div<br>Edgar Operations | MM - M and M Clay Co                                 |
| EC - Evans Clay Co Thompson - Weinman<br>and Co.   | TK - Thiels Kaolin Co.                               |
|  | USD - United Sierra Division of<br>Cyprus Mines Corp |

### United Kingdom

The United Kingdom is the largest exporter of kaolin in the world, and second only to Georgia in world production of paper-coating grades. The deposits (Fig. 9) are residual, having formed by hydrothermal alteration of Permian granites which are widely exposed in Cornwall and Devon. The St. Austell Granite is the main source; kaolin occurs in funnel-shaped zones which narrow downwards, but may persist to depth of more than 1200 m. (Patterson and Murray, 1975, p. 557).

Hot acidic solutions are thought to have migrated upward, guided by structural weaknesses such as faults and joints, and then to have been trapped under a roof of relatively impermeable rock. The hot solutions attacked the granite, altering the feldspar and mica to kaolinite. Quartz, tourmaline and mica are the principal impurities.

Some parts of the St. Austell granite are only partially altered and consist of a mixture of feldspar, quartz, kaolin, mica, fluorite and other minor accessory minerals, the whole known as "china stone". At one time, it was used extensively in making pottery, but increasingly less so today.

The main commercial kaolin pits are mostly worked by high pressure water jets, the resulting clay slurry collected in sumps and pumped away for further processing. Kaolinite content of commercial deposits ranges from 10 to 40%. Commercial production commenced in 1768.

### Brazil

Sedimentary kaolin deposits along the Jari River, a tributary of the Amazon, have been developed in recent years, and now rank third in world importance in paper-coating grades. The deposits are thick and extensive, and very young in age (Pliocene less than 7 million years).



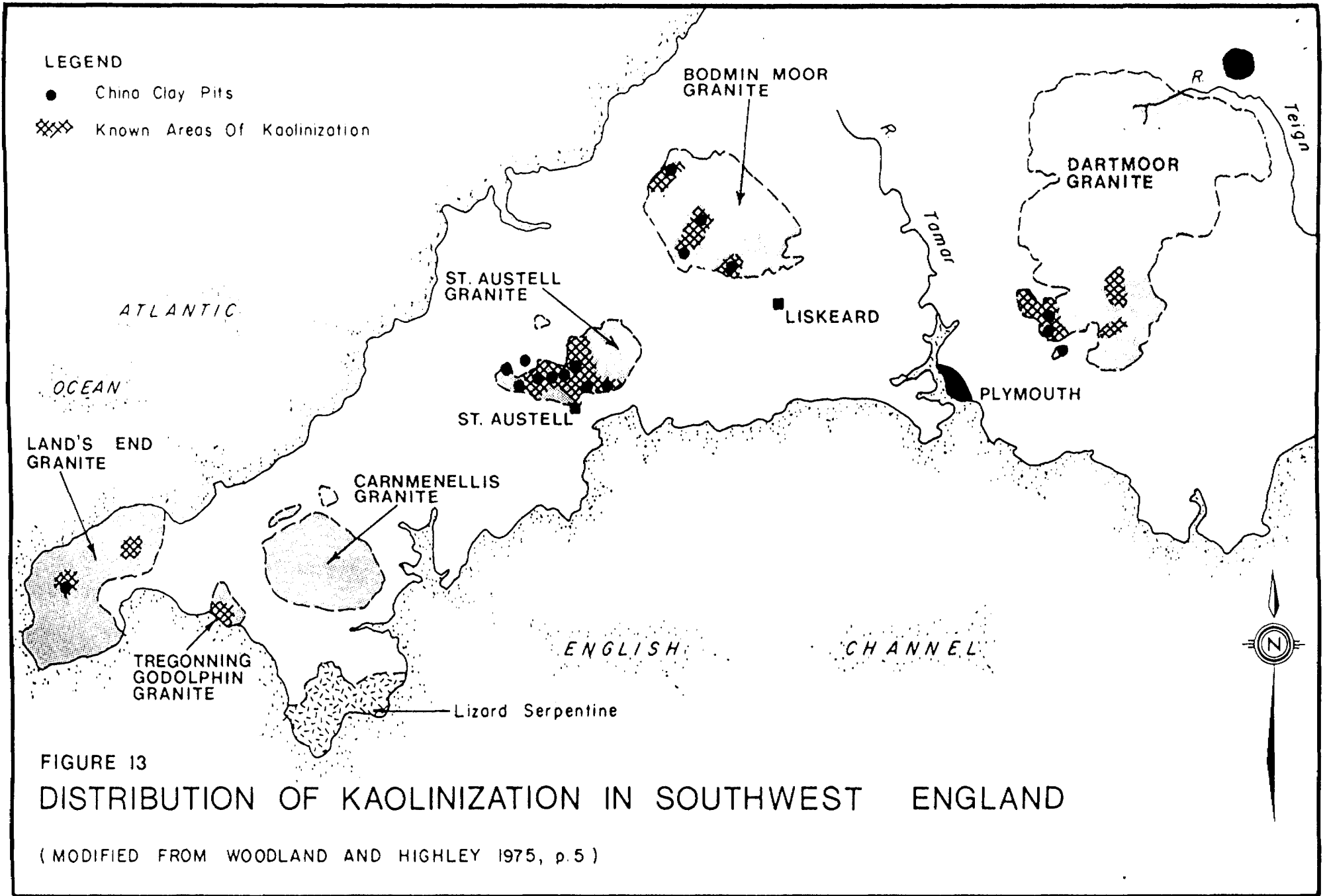


Figure 9

## Drilling Program

### Drilling Methods

In order to obtain a sample of the undisturbed kaolin sands in a form close to its original undisturbed state, a drilling system known as sonic drilling was selected. This method uses a vibratory drill as the power system to facilitate penetration of a drill rod string through unconsolidated clay and rock formations. A 3 1/2" core tube is advanced by the sonic method for about 20 feet, an outside casing then advanced to the bottom of the core tube to ensure the walls of the hole do not cave, the drill rods and core tube are then hoisted to the surface and the core flushed out of the core tube by water pressure into a plastic sleeve in 5 foot section and placed in core trays.

Except for the 5 holes drilled by Carlson Mines in 1985 and the 7 holes drilled by Selco in 1982 all previous drilling was by reverse circulation drilling or auger drilling. In the reverse circulation method, a dual tube drilling string is used. The drill string is rotated in order to penetrate the soil and water is pumped under pressure between the drill strings and the soils flushed up the inside of the rods. This drilling method produces a very poor and very disturbed sample, frequently contaminated and with poor core recovery. In the auger drilling method the coring instrument is either an outside spiral or inside spiral screw that is rotated into the ground and then pulled to surface. The screw is then cleaned and again forced down the hole. This method usually produces a contaminated sample as the walls tend to cave and this material is mixed with the clay or sand at the bottom of the hole. Also, with the mixing of the sand and the clay geological contacts are difficult to determine with accuracy in the drill cores.

### 1988-89 Winter Drill Program

Drilling operations were carried out by Midwest Drilling of Winnipeg, Manitoba and J.R. Drilling Ltd. of Hadashville, Manitoba. A total of 35,089 feet of 3 1/2"

sonic drill core drilling was completed in 169 holes. All drilling was carried out during the period November 6, 1988 to March 19, 1989. A Midwest drill mounted on a Nodwell started the job and remained until the end of the program. A second truck mounted drill, owned by J.R. Drilling Ltd., arrived on the property on January 30, 1989 and remained until March 4, 1989. The third drill, owned by Midwest Drilling, was skid mounted and arrived February 9, 1989 and remained until the end of the program.

All other support on site, including camp setup and maintenance, road building, linecutting, site preparation, drill moves, mechanical repairs, core loading and delivery and general program supervision was carried out by All Terrain Track Sales & Service of Timmins, Ontario.

On-site geological supervision included the following personnel: Carl Gourley, M.Sc., P.Eng., Don Hillier, B.Sc., Guy Cousineau, B.Sc. and Pete MacEachern, B.Sc. At the start of the program all holes that reached the Cretaceous sands and clays before 130 feet were to be drilled to 250 feet. Holes encountering overburden to 130 feet were to be stopped. Unfortunately, numerous holes had problems with the casing getting stuck before the desired depth of 250 feet. After losing several pieces of casing in two of the holes, a decision was made by both the drill supervisor and the geologist in charge that the drillers would have the final say on whether a hole should be continued or stopped.

The sonic drill retrieves a generally undisturbed sample which is then placed into plastic sleeves for logging, sampling, etc. Core recovery is 100% in most cases. The drilling process entails drilling 3 1/2" diameter core rods down as far as possible, generally 10 - 30 feet, then drilling the 5" casing using water to wash the hole and any material between the casing and the rods. Once the casing is down to the same depth

as the rods, the rods are pulled up and the material is bagged in 5' lengths. Some expansion takes place so the final bagged core is generally 4-5" in diameter.

The sonic drill program was initially designed to test the entire property from the Mattagami River east to Adam Creek. Several holes were drilled at the start of the program, just east of the Mattagami River to further test a previously explored area known as the Douglas deposit. Once this was completed, the entire property was systematically tested.

After two months of testing, the area near Pike Creek appeared to be the most promising in respect to overburden cover and visual inspection of the core. At about this time, two drills were sent east of Adam Creek to test that portion of the property, this required helicopter support. The remaining drill further tested the Pike Creek area. After the two drills failed to turn up any significant areas of interest east of Adam Creek, they were brought back to the Pike Creek area.

A concentrated effort was made to obtain as much information about the Pike Creek deposit as possible before weather conditions made it impossible to move around in the bush. Near the middle of March conditions worsened and a decision was made to stop the program with the core being sent down to Parry Sound for testing.

### **Sampling and Assaying**

During January and February, 1989 an industrial site was acquired in the Parry Sound area of Ontario and a mineral processing research facility set up for sampling and testing the drill core. All detailed geological logging and sampling was carried out by Anne Casselman, B.Sc. Screen analysis was done in the Foley laboratory by David Wright, Lab Technician. Priority sampling was given to the holes in the Pike Creek area.

All the holes in the Pike Creek area were logged and sampled to 120 feet. Generally, unless a lithology change occurred, all samples were taken over 5' lengths. Three representative samples were taken every 5 feet. The first sample was sent to Technical Services Laboratories of Mississauga, Ontario for whole rock and minor element analysis, as well as selected samples being tested by x-ray diffraction to determine mineral percentages.

The second sample was kept for in-house grain size determination (by use of sieves and a sedigraph analyzer), brightness testing, viscosity testing and chemical analysis. A third sample was stored for a permanent record, possible use as a reserve sample or further required testing. Specifically grouped holes were also sampled to obtain representative 150 lb. bulk samples from the Pike Creek area.

In the next few months all the holes will be logged, sampled and tested. The mineral processing research facility will eventually be an operating pilot plant along with a department for research and development.

## Summary and Conclusions

The Cretaceous (Mesozoic) strata lying north of the precambrian escarpment in Kipling Township, Ontario contains extensive deposits of kaolin silica sand and ball, fire and ceramic clays. The winter 1988/89 exploration sonic drilling program has:

- shown continuous beds of kaolin silica sands and clays lying in an almost horizontal position below a cover of Pleistocene glacial tills. These deposits extend over a distance in excess of 7 miles.
- further defined the extent and overburden cover for the Mattagami (Douglas) deposit.
- located a new deposit about 2 miles east of the Mattagami (Douglas) deposit and about 1 mile west of Pike Creek, with an average overburden depth of about 85 feet.
- located a new deposit extending east from Pike Creek with an overburden cover averaging about 50 feet.
- found that kaolin exists as a residual type occurrence in the Precambrian granitic rocks south of the Pike Creek deposit.

The laboratory testing and mineralogical work completed to date show that:

- the major mineral components of both the kaolin silica sands and the clays are quartz and kaolinite with minor illite (a micaceous clay mineral). Whole rock analysis also shows minor ilmenite (a titanium mineral) and chrome.
- calculations of kaolinite using the  $Al_2O_3$  content shows the kaolinite content to average about 10% in the kaolin silica sands.
- the kaolinite content in the clays to run as high as plus 90 percent.
- the screen analysis of the minus 325 mesh fraction of the kaolin silica sands to compare very closely with the calculated kaolinite content.
- the brightness of most samples tested to date to require some treatment to improve the brightness for a coater clay.

### Recommendations

From the encouraging results of the 1988/89 exploration drill program in the Kipling township property, the following are recommended:

- 1) proceed to obtain the permits required and construct a permanent road to the Pike Creek deposit.
- 2) obtain permits to strip and bulk sample the Pike Creek deposit.
- 3) proceed with detailed surveying of the Pike Creek area and prepare to bring the required mining claims to lease.
- 4) prepare the necessary permitting documents for open pit mines at both the Pike Creek deposit and the Douglas deposit.
- 5) proceed with engineering planning and design for an open pit mine at Pike Creek
- 6) prepare the necessary permitting documents to relocate Pike Creek to the west, away from the planned mining area.
- 7) complete the sampling, assaying and laboratory testing of the remaining unsampled Kipling drill cores.
- 8) investigate the feasibility of mining using the borehole mining system designed by Flow International of Kent, Washington, U.S.A.

- 9) prepare a feasibility report for the Kipling mining, processing and marketing project.
- 10) prepare plans for further exploration drilling during the 1989/90 season, both in the Cretaceous formation and to investigate the potential for residual deposits along the Precambrian escarpment.



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### Rotary Drill Hole Record

Started: February 22/89	Logged by: D. Hillier
Finished: February 23/89	Checked by:
Length: 230'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 400°S
Hole No.: 89-45	Easting: 54°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
13.0'	13.0'	Sandy Gravel
20.0'	7.0'	Silty Clay
53.0'	33.0'	Till
55.0'	2.0'	Silty Clay
73.5'	18.5'	Till/Pebbly Clay
104.0'	29.5'	Till
125.0'	21.0'	Kaolin Silica Sand
127.5'	2.5'	Fire Clay
142.0'	10.0'	Ball Clay
178.0'	36.0'	Kaolin Silica Sand
18.0'	2.0'	Fire Clay
194.75'	14.75'	Ball Clay
204.0'	9.25'	Kaolin Silica Sand
209.0'	5.0'	Sandy Clay
223.0'	14.0'	Kaolin Silica Sand
230.0'	7.0'	Ball Clay
230.0'		End of Hole

*D. Hillier*



Rotary Drill Hole Record

Started: February 25/89	Logged by: D. Hillier
Finished: February 25/89	Checked by:
Length: 247'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 270°N
Hole No.: 89-46	Easting: 5505°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
4.0'	4.0'	Peat
12.0'	8.0'	Pebbly Sand
20.0'	8.0'	Silty Clay
36.0'	16.0'	Glacial Till
101.5'	65.5'	Kaolin Silica Sand
107.0'	2.5'	Fire Clay
109.5'	2.5'	Sandy Clay
110.0'	0.5'	Fire Clay
111.5'	1.0'	Ball Clay
131.0'	2.0'	Sandy Clay
247.0'	116.0'	Kaolin Silica Sand
247.0'		End of Hole

*Handwritten signature*

### Rotary Drill Hole Record

Started: February 18/89	Logged by: P. McEachern
Finished: February 19/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 100°N
Hole No.: 89-47	Easting: 55°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
16.0'	14.0'	Silty Clay
34.0'	18.0'	Till
130.5'	96.5'	Kaolin Silica Sand
137.0'	6.5'	Sandy Clay
185.0'	49.0'	Kaolin Silica Sand
190.5'	5.5'	Sandy Clay
195.0'	4.5'	Kaolin Silica Sand
200.0'	5.0'	Ball Clay
229.0'	29.0'	Kaolin Silica Sand
232.0'	32.0'	Sandy Clay
241.0'	9.0'	Kaolin Silica Sand
242.75'	1.75'	Ball Clay
250.0'	7.25'	Kaolin Silica Sand
250.0'		End of Hole

*P. McEachern*

Rotary Drill Hole Record

Started: February 19/89	Logged by: G. Cousineau
Finished: February 20/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 100°S
Hole No.: 89-48	Easting: 55°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
9.0'	9.5'	Gravel
21.0'	11.5'	Till/Pebbly Clay
41.5'	20.5'	Till
44.0'	2.5'	Ball Clay
57.25'	13.25'	Till
189.0'	131.75'	Kaolin Silica Sand
198.75'	9.75'	Ball Clay
219.0'	20.25'	Lost Core
250.0'	31.0'	Kaolin Silica Sand
250.0'		End of Hole

*Al Saurle*

Rotary Drill Hole Record

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Started:	February 21/89	Logged by:	D. Hillier
Finished:	February 22/89	Checked by:	
Length:	175'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	300°S
Hole No.:	89-49	Easting:	55°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
6.0'	6.5'	Peat
12.0'	6.0'	Sand
67.0'	55.0'	Till
71.0'	4.0'	Sandy Clay
112.0'	43.0'	Kaolin Silica Sand
128.0'	16.0'	Fire Clay
175.0'	47.0'	Kaolin Silica Sand
175.0'		End of Hole

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*McDermott*

### Rotary Drill Hole Record

Started: February 21/89	Logged by: G. Cousineau
Finished: February 21/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3 1/2'
Property: Kipling	Elevation:
Location:	Northing: 00BLO
Hole No.: 89-50	Easting: 56°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
8.0'	6.0'	Sand
10.0'	2.0'	Till
11.0'	1.0'	Sand
52.0'	41.0'	Till
80.0'	28.0'	Kaolin Silica Sand
80.25'	0.25'	Ball Clay
107.0'	26.75'	Kaolin Silica Sand
126.0'	19.0'	Ball Clay
181.0'	55.0'	Kaolin Silica Sand
182.0'	1.0'	Fire Clay
195.0'	7.0'	Kaolin Silica Sand
196.5'	1.5'	Fire Clay
242.0'	45.5'	Kalin Silica Sand
250.0'	8.0'	Ball Clay
250.0'		End of Hole

*G. Cousineau*

Rotary Drill Hole Record

Started:	February 22/89	Logged by:	G. Cousineau
Finished:	February 23/89	Checked by:	
Length:	256'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	400°S
Hole No.:	89-51	Easting:	56°E
Dip Collar:	-90°	Target:	

SUMMARY

Depth	Length	Description
7.0'	7.0'	Peat
71.0'	64.0'	Till
113.0'	42.0'	Kaolin Silica Sand
121.0'	8.0'	Fire
138.0'	17.0'	Ball Clay
158.0'	20.0'	Kaolin Silica Sand
166.0'	3.0'	Fire Clay
178.0'	12.0'	Kaolin Silica Sand
225.0'	47.0'	Ball Clay
229.0'	4.0'	Sandy Clay
239.0'	10.0'	Ball Clay
256.0'	17.0'	Sandy Clay
256.0'		End of Hole

*W. J. Cousineau*

Rotary Drill Hole Record

Started: March 1/89	Logged by: D. Hillier
Finished: March 1/89	Checked by:
Length: 256'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 200°N
Hole No.: 89-69	Easting: 5305°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
6.0'	6.0'	Peat
10.5'	4.5'	Silty Clay
11.0'	0.5'	Sand
15.0'	4.0'	Till
18.5'	3.5'	Silty Clay
19.5'	1.0'	Sand
20.75'	1.25'	Till
24.75'	4.0'	Silica Sand
48.75'	24.0'	Till
60.5'	11.75'	Kaolin Silica Sand
62.75'	2.25'	Ball Clay
74.5'	11.75'	Kaolin Silica Sand
82.0'	7.5'	Ball Clay
184.0'	2.0'	Kaolin Silica Sand
188.0'	4.0'	Ball Clay
211.0'	3.0'	Kaolin Silica Sand
213.0'	2.0'	Ball Clay
216.0'	3.0'	Kaolin Silica Sand
221.0'	5.0'	Ball Clay
244.0'	19.0'	Kaolin Silica Sand
246.0'	2.0'	Ball Clay
256.0'	10.0'	Kaolin Silica Sand
256.0'		End of Hole

*D. Hillier*

### Rotary Drill Hole Record

Started: March 1/89	Logged by: D. Hillier
Finished: March 2/89	Checked by:
Length: 220'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 60°N
Hole No.: 89-71	Easting: 5355°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
10.0'	10.0'	Sand
11.0'	1.0'	Pebbly Clay
12.5'	1.5'	Pebbly Sand
18.0'	5.5'	Pebbly Clay
55.5'	37.5'	Till
77.0'	21.5'	Kaolin Silica Sand
78.0'	1.0'	Ball Clay
84.0'	6.0'	Kaolin Silica Sand
92.0'	8.0'	Ball Clay
121.0'	29.0'	Kaolin Silica Sand
123.0'	2.0'	Sandy Clay
139.0'	16.0'	Kaolin Silica Sand
151.5'	12.0'	Ball Clay
215.0'	63.5'	Kaolin Silica Sand
217.0'	2.0'	Ball Clay
218.0'	1.0'	Kaolin Silica Sand
220.0'	2.0'	Ball Clay
220.0'		End of Hole

*D. Hillier*



Rotary Drill Hole Record

Started: March 2/89	Logged by: D. Hillier
Finished: March 2/89	Checked by:
Length: 230'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 60°S
Hole No.: 89-72	Easting: 5340°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
13.0'	13.0'	Peat/Silty Clay
46.0'	33.0'	Till
83.0'	37.0'	Kaolin Silica Sand
85.0'	2.0'	Ball Clay
85.75'	0.75'	Kaolin Silica Sand
87.0'	1.25'	Ball Clay
88.5'	1.5'	Kaolin Silica Sand
90.0'	1.5'	Ball Clay
134.0'	44.0'	Kaolin Silica Sand
136.25'	2.25'	Ball Clay
136.75'	0.5'	Kaolin Silica Sand
137.0'	0.25'	Ball Clay
144.0'	7.0'	Kaolin Silica Sand
145.5'	1.5'	Ball Clay
147.0'	1.5'	Kaolin Silica Sand
151.75'	4.75'	Ball Clay
185.0'	33.25'	Kaolin Silica Sand
186.0'	1.0'	Sandy Clay
220.0'	4.0'	Kaolin Silica Sand
230.0'	10.0'	Ball Clay

*D. Hillier*

Rotary Drill Hole Record

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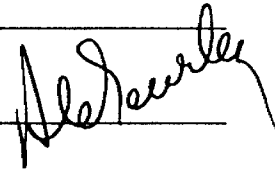
Started:	March 6/89	Logged by:	D. Hillier
Finished:	March 7/89	Checked by:	
Length:	209'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	150°S
Hole No.:	89-73	Easting:	5350°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
10.0'	10.0'	Pebbly Clay
83.0'	73.0'	Till
171.0'	88.0'	Kaolin Silica Sand
180.0'	9.0'	Ball Clay
209.0'	29.0'	Kaolin Silica Sand
209.0'		End of Hole



### Rotary Drill Hole Record

Started: March 2/89	Logged by: D. Hillier
Finished: March 3/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 110°N
Hole No.: 89-74	Easting: 5400°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
9.0'	9.0'	Pebbly Sand
43.0'	34.0'	Till
85.0'	22.0'	Kaolin Silica Sand
87.0'	2.0'	Ball Clay
88.0'	1.0'	Kaolin Silica Sand
93.0'	5.0'	Ball Clay
121.0'	28.0'	Kaolin Silica Sand
140.0'	19.0'	Sandy Clay
158.0'	18.0'	Kaolin Silica Sand
163.0'	5.0'	Ball Clay
246.5'	83.5'	Kaolin Silica Sand
250.0'	3.5'	Ball Clay
250.0'		End of Hole

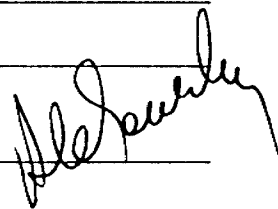
*D. Hillier*

### Rotary Drill Hole Record

Started: March 2/89	Logged by: D. Hillier
Finished: March 2/89	Checked by:
Length: 241'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 005°N
Hole No.: 89-75	Easting: 5395°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
10.0'	10.0'	Peat
39.0'	29.0'	Till
40.0'	1.0'	Ball Clay
45.0'	5.0'	Kaolin Silica Sand
48.0'	3.0'	Till
55.0'	7.0'	Ball Clay
80.0'	25.0'	Kaolin Silica Sand
91.0'	11.0'	Ball Clay
114.0'	23.0'	Kaolin Silica Sand
116.0'	2.0'	Ball Clay
222.0'	6.0'	Kaolin Silica Sand
230.0'	8.0'	Ball Clay
241.0'	11.0'	Kaolin Silica Sand
241.0'		End of Hole



Rotary Drill Hole Record

Started:	February 26/89	Logged by:	D. Hillier
Finished:	February 26/89	Checked by:	
Length:	250'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	90°S
Hole No.:	89-76	Easting:	54°E
Dip Collar:	-90°	Target:	

SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat/Silty Clay
7.0'	6.0'	Silty Clay
18.0'	11.0'	Till/Pebbly Clay
54.0'	36.0'	Till
88.75'	34.75'	Kaolin Silica Sand
92.0'	2.75'	Ball Clay
190.0'	98.0'	Kaolin Silica Sand
193.0'	3.0'	Sandy Clay
234.0'	41.0'	Kaolin Silica Sand
240.0'	6.0'	Sandy Clay
242.0'	2.0'	Fire Clay
250.0'	8.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started:	March 3/89	Logged by:	D. Hillier
Finished:	March 3/89	Checked by:	
Length:	135'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	
Hole No.:	89-77	Easting:	
Dip Collar:	-90°	Target:	

SUMMARY

Depth	Length	Description
4.0'	4.0'	Peat/Silty Clay
8.0'	4.0'	Sand/Pebbly Clay
17.0'	9.0'	Silty Clay
45.0'	28.0'	Till
46.0'	1.0'	Kaolin Silica Sand
48.0'	2.0'	Ball Clay
135.0'	87.0'	Kaolin Silica Sand
135.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started:	March 4/89	Logged by:	D. Hillier
Finished:	March 5/89	Checked by:	
Length:	246'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	154°S
Hole No.:	89-78	Easting:	5447°E
Dip Collar:	-90°	Target:	

SUMMARY

Depth	Length	Description
4.0'	4.0'	Silty Clay
59.5'	55.5'	Till
197.0'	141.5'	Kaolin Silica Sand
200.0'	3.0'	Ball Clay
246.0'	46.0'	Kaolin Silica Sand
246.0'		End of Hole

*D. Hillier*

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Depth	Length	Description
98.5'	3.5'	Till
101.75'	3.25'	Till/Pebbly Clay
163.0'	61.25'	Kaolin Silica Sand
166.5'	3.5'	Sandy Clay
170.0'	3.5'	Ball Clay
172.0'	2.0'	Fire Clay
175.25'	3.25'	Ball Clay
177.5'	2.25'	Fire Clay
178.0'	0.5'	Kaolin Silica Sand
182.5'	4.5'	Sandy Clay
240.0'	57.5'	Kaolin Silica Sand
240.0'		End of Hole

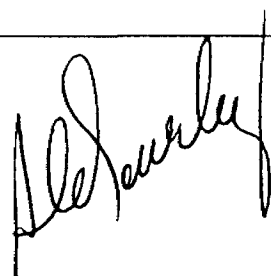


## Rotary Drill Hole Record

Started: February 14/89	Logged by: P. MacEachern
Finished: February 15/89	Checked by: D. Hillier
Length: 252'	Drill Co.: J.R.
Claim No.: <b>825792</b>	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 810°N
Hole No.: 89-34	Easting: 45+90°E
Dip Collar: -90°	Target:

### SUMMARY

From	To	Description
0	2	Peat
2	22	Silty Clay
22	64'6"	Till/Pebbly Clay
64'6"	97'	Silty Clay
97'	103'	Till
103'	114'	Silty Clay
114'	126'	Till/Pebbly Clay
126'	137'6"	Till
137'6"	146'	Fireclay
146'	175'	Kaolin Silica Sand
175'	177'6"	Fireclay
177'6"	195'6"	Sandy Clay
195'6"	225'4"	Kaolin Silica Sand
225'4"	226'2"	Fireclay
226'2"	242'	Kaolin Silica Sand
242'	246'	Fireclay
246'	252'	Kaolin Silica Sand
252'		End of Hole



Rotary Drill Hole Record

Started:	February 11/89	Logged by:	G. Cousineau
Finished:	February 11/89	Checked by:	D. Hillier
Length:	234'	Drill Co.:	J.R.
Claim No.:	<b>825193</b>	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	2+10°N
Hole No.:	89-31	Easting:	48+10°E
Dip Collar:	-90°	Target:	

SUMMARY

From	To	Description
0	3	Peat
3	15	Silty Clay
15	59	Till/Pebbly Clay
59	87	Silty Clay
87	107	Till
107'	141'10"	Kaolin Silica Sand
141'10"	145'	Fireclay/Ball Clay(?)
145	164	Kaolin Silica Sand
164	167	Sandy Clay
167	173'6"	Kaolin Silica Sand
173'6"	179'10"	Fireclay/Ball Clay(?)
179'10"	181'	Kaolin Silica Sand
181'	185'10"	Fireclay
185'10"	187'4"	Kaolin Silica Sand
187'4"	195'6"	Fireclay
195'6"	200'	Fireclay/Ball Clay(?)
200	205	Fireclay
205	216	Fireclay/Ball Clay(?)
216	225	Silty Clay
225	234	Ball Clay
225'		End of Hole

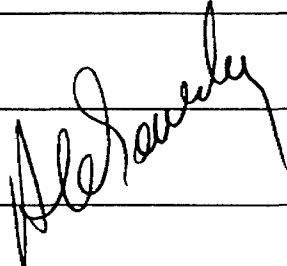
*Handwritten signature: G. Cousineau*

Rotary Drill Hole Record

Started: February 22/89	Logged by: D. Hillier
Finished: February 23/89	Checked by:
Length: 256'	Drill Co.: Midwest
Claim No.: 825796	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 400°S
Hole No.: 89-39	Easting: 52°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
8.0'	7.0'	Sand
23.0'	15.0'	Till/Pebbly Clay
25.0'	2.0'	Sand
38.0'	13.0'	Till/Pebbly Clay
114.0'	76.0'	Till
135.5'	21.0'	Kaolin Silica Sand
142.0'	7.0'	Ball Clay
227.5'	85.5'	Kaolin Silica Sand
250.0'	22.5'	Ball Clay
256.0'	6.0'	Kaolin Silica Sand
256.0'		End of Hole

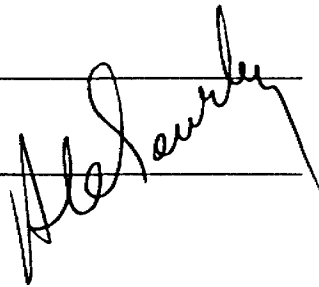


### Rotary Drill Hole Record

Started: February 20/89	Logged by: G. Cousineau
Finished: February 21/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825796	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 300°S
Hole No.: 89-42	Easting: 53°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.5'	1.5'	Clayey Gravel
8.0'	6.5'	Till
9.5'	1.5'	Clayey Sand
13.0'	3.5'	Clayey Gravel
75.0'	62.0'	Till
106.5'	31.0'	Kaolin Silica Sand
110.0'	4.0'	Fire Clay
139.75'	29.75'	Kaolin Silica Sand
154.75'	15.0'	Ball Clay
160.0'	5.25'	Kaolin Silica Sand
162.25'	2.25'	Ball Clay
166.0'	3.75'	Sandy Clay
170.75'	4.75'	Fire Clay
222.0'	51.25'	Kaolin Silica Sand
224.5'	2.5'	Fire Clay
242.0'	17.5'	Kaolin Silica Sand
243.0'	1.5'	Fire Clay
250.0'	6.5'	Sandy Clay
250.0'		End of Hole



Rotary Drill Hole Record

Started: February 24/89	Logged by: D. Hillier
Finished: February 25/89	Checked by:
Length: 240'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 85°S
Hole No.: 89-37	Easting: 5125°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat/Silty Clay
5.0'	2.0'	Silty Clay
9.0'	4.0'	Sandy Gravel
54.0'	45.0'	Till
113.0'	59.0'	Kaolin Silica Sand
116.0'	3.0'	Ball Clay
121.0'	5.0'	Sandy Clay
128.0'	7.0'	Ball Clay
137.0'	9.0'	Kaolin Silica Sand
140.0'	3.0'	Fire Clay
144.0'	4.0'	Kaolin Silica Sand
149.0'	5.0'	Ball Clay
150.5'	1.5'	Lignite
152.5'	2.0'	Ball Clay
226.0'	73.5'	Kaolin Silica Sand
231.0'	5.0'	Ball Clay
234.0'	3.0'	Kaolin Silica Sand
240.0'	6.0'	Ball Clay
240.0'		End of Hole

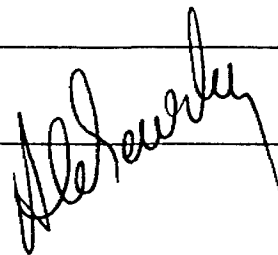
*D. Hillier*

### Rotary Drill Hole Record

Started: February 23/89	Logged by: D. Hillier
Finished: February 24/89	Checked by:
Length: 235'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 220°S
Hole No.: 89-38	Easting: 5125°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
5.0'	2.0'	Sand
12.0'	7.0'	Silty Clay
28.0'	16.0'	Till/Pebbly Clay
67.75'	48.0'	Till
115.75'	1.25'	Kaolin Silica Sand
117.0'	0.25'	Ball Clay
117.75'	4.75'	Kaolin Silica Sand
122.0'	2.25'	Ball Clay
142.25'	1.75'	Kaolin Silica Sand
144.0'	0.75'	Ball Clay
164.0'	192.75'	Ball Clay
174.0'	10.0'	Kaolin Silica Sand
179.0'	5.0'	Ball Clay
235.0'	56.0'	Kaolin Silica Sand
235.0'		End of Hole



### Rotary Drill Hole Record

Started: February 22/89	Logged by: D. Hillier
Finished: February 24/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 95°S
Hole No.: 89-41	Easting: 5310°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
55.0'	53.0'	Till
65.0'	10.0'	Kaolin Silica Sand
67.0'	2.0'	Fire Clay
95.0'	28.0'	Kaolin Silica Sand
100.0'	5.0'	Sandy Clay
117.0'	7.0'	Kaolin Silica Sand
122.0'	9.0'	Ball Clay
125.0'	3.0'	Kaolin Silica Sand
132.0'	7.0'	Fire Clay
156.0'	24.0'	Kaolin Silica Sand
165.5'	9.5'	Ball Clay
222.0'	56.5'	Kaolin Silica Sand
224.0'	2.0'	Ball Clay
242.0'	18.0'	Kaolin Silica Sand
250.0'	8.0'	Ball Clay
250.0'		End of Hole

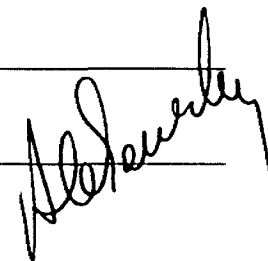
*D. Hillier*

### Rotary Drill Hole Record

Started: February 28/89	Logged by: D. Hillier
Finished: March 1/89	Checked by:
Length: 205'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: BLO
Hole No.: 89-63	Easting: 5120°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
13.0'	10.0'	Silty Clay
15.0'	10.0'	Pebbly Sand
53.0'	38.0'	Till
78.5'	25.5'	Kaolin Silica Sand
79.0'	0.5'	Ball Clay
89.0'	10.0'	Kaolin Silica Sand
90.0'	1.0'	Ball Clay
94.0'	4.0'	Kaolin Silica Sand
97.0'	3.0'	Ball Clay
106.25'	9.25'	Kaolin Silica Sand
113.25'	7.0'	Ball Clay
130.0'	16.75'	Kaolin Silica Sand
133.0'	3.0'	Sandy Clay
145.0'	12.0'	Ball Clay
166.0'	21.0'	Kaolin Silica Sand
166.25'	0.25'	Ball Clay
166.5'	0.25'	Kaolin Silica Sand
166.75'	0.25'	Ball Clay
168.0'	1.25'	Kaolin Silica Sand
168.5'	0.5'	Ball Clay
195.0'	27.0'	Kaolin Silica Sand
197.0'	2.0'	Ball Clay
198.0'	1.0'	Kaolin Silica Sand





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Depth	Length	Description
198.25'	0.25'	Ball Clay
200.0'	1.75'	Kaolin Silica Sand
201.0'	1.0'	Ball Clay
205.0'	4.0'	Kaolin Silica Sand
205.0'		End of Hole

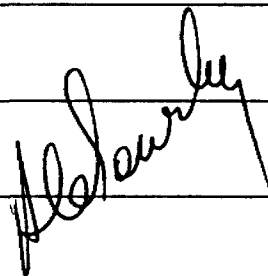
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### Rotary Drill Hole Record

Started: February 28/89	Logged by: D. Hillier
Finished: February 28/89	Checked by:
Length: 251'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: BLO
Hole No.: 89-64	Easting: 5205°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
6.0'	6.0'	Peat
8.0'	2.0'	Silt
10.0'	2.0'	Pebbly Sand
10.0'	37.0'	Till
70.75'	60.75'	Kaolin Silica Sand
72.0'	1.25'	Sandy Clay
76.0'	4.0'	Kaolin Silica Sand
76.75'	0.75'	Ball Clay
81.25'	4.50'	Sandy Clay
92.0'	10.75'	Kaolin Silica Sand
100.0'	8.0'	Ball Clay
115.0'	5.0'	Kaolin Silica Sand
116.0'	1.0'	Ball Clay
116.25'	0.25'	Kaolin Silica Sand
118.0'	1.75'	Ball Clay
118.5'	0.5'	Kaolin Silica Sand
125.0'	6.5'	Ball Clay
127.0'	2.0'	Sandy Clay
197.0'	5.0'	Kaolin Silica Sand
199.0'	2.0'	Ball Clay
200.25'	1.25'	Kaolin Silica Sand
202.0'	1.75'	Ball Clay
204.0'	2.0'	Kaolin Silica Sand
218.0'	14.0'	Ball Clay
251.0'	33.0'	Kaolin Silica Sand
251.0'		End of Hole

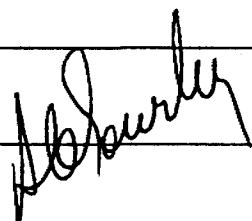


### Rotary Drill Hole Record

Started: February 26/89	Logged by: D. Hillier
Finished: February 26/89	Checked by:
Length: 146'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 87°S
Hole No.: 89-67	Easting: 5195°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.5'	2.5'	Peat
9.0'	6.5'	Silty Clay
12.0'	3.0'	Till/Pebbly Clay
16.0'	4.0'	Sandy Gravel
52.0'	36.0'	Till
116.0'	64.0'	Kaolin Silica Sand
117.5'	1.5'	Ball Clay
136.0'	18.5'	Kaolin Silica Sand
143.0'	7.0'	Ball Clay
146.0'	0.75'	Kaolin Silica Sand
146.0'	2.35'	Ball Clay
146.0'		End of Hole



Rotary Drill Hole Record

Started: February 26/89	Logged by: D. Hillier
Finished: February 27/89	Checked by:
Length: 251'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 280°S
Hole No.: 89-68	Easting: 5180°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
13.0'	13.0'	Silty Clay
31.0'	18.0'	Till/Pebbly Clay
83.0'	52.0'	Till
116.0'	33.0'	Kaolin Silica Sand
118.0'	2.0'	Ball Clay
120.0'	2.0'	Kaolin Silica Sand
124.5'	4.5'	Fire Clay
147.0'	22.5'	Kaolin Silica Sand
151.5'	31.5'	Ball Clay
157.0'	5.5'	Sandy Clay
171.0'	14.0'	Kaolin Silica Sand
177.0'	6.0'	Ball Clay
251.0'	74.0'	Kaolin Silica Sand
251.0'		End of Hole

*Al Stewart*

### Rotary Drill Hole Record

Started: March 1/89	Logged by: D. Hillier
Finished: March 1/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 825797	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 280°S
Hole No.: 89-70	Easting: 5180°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat/Silty Clay
73.5'	72.5'	Till
112.0'	38.5'	Kaolin Silica Sand
113.0'	1.0'	Ball Clay
114.0'	1.0'	Kaolin Silica Sand
115.0'	1.0'	Ball Clay
116.0'	1.0'	Kaolin Silica Sand
118.0'	2.0'	Sandy Clay
137.0'	9.0'	Kaolin Silica Sand
172.0'	35.0'	Ball Clay
250.0'	78.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started: February 10/89	Logged by: G. Cousineau
Finished: February 11/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825798	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 200°N
Hole No.: 89-30	Easting: 5130°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
7.5'	7.5'	Silty Clay
10.25'	2.75'	Fine Sand
12.5'	2.25'	Peat
31.0'	18.5'	Silty Clay
41.0'	10.0'	Till/Pebbly Clay
45.0'	5.0'	Till
54.0'	9.0'	Till/Pebbly Clay
69.5'	15.5'	Kaolin Silica Sand
71.5'	2.0'	Fire Clay
81.25'	9.75'	Kaolin Silica Sand
92.0'	10.75'	Fire Clay
194.25'	102.25'	Kaolin Silica Sand
195.0'	0.75'	Fire Clay/Ball Clay?
250.0'	55.0'	Kaolin Silica Sand
250.0'		End of Hole

*Handwritten signature: Alex Sawley*

### Rotary Drill Hole Record

Started: February 25/89	Logged by: D. Hillier
Finished: February 26/89	Checked by:
Length: 225'	Drill Co.: Midwest
Claim No.: 825798	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 90°N
Hole No.: 89-36	Easting: 5090°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat/Silty Clay
10.0'	9.0'	Silty Clay
84.0'	74.0'	Till
90.75'	6.75'	Kaolin Silica Sand
92.25'	2.5'	Ball Clay
97.0'	4.75'	Kaolin Silica Sand
99.0'	2.0'	Ball Clay
101.0'	2.0'	Kaolin Silica Sand
105.0'	4.0'	Ball Clay
111.5'	5.5'	Kaolin Silica Sand
132.0'	20.5'	Ball Clay
138.0'	6.0'	Sandy Clay
145.0'	7.0'	Ball Clay
148.0'	3.0'	Kaolin Silica Sand
151.0'	3.0'	Ball Clay
225.0'	74.0'	Kaolin Silica Sand
225.0'		End of Hole

*Al Stewart*

## Rotary Drill Hole Record

Started: February 23/89	Logged by: D. Hillier
Finished: February 24/89	Checked by:
Length: 216'	Drill Co.: Midwest
Claim No.: 825798	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 110°N
Hole No.: 89-40	Easting: 5285°E
Dip Collar: -90°	Target:

### SUMMARY

Depth	Length	Description
1.0'	3.0'	Peat/Silty Clay
8.0'	5.0'	Sand
10.0'	2.0'	Pebbly Sand
20.0'	10.0'	Silty Clay
27.0'	7.0'	Till/Pebbly Clay
45.4'	18.5'	Till
63.0'	17.5'	Kaolin Silica Sand
65.0'	2.0'	Ball Clay
78.75'	13.75'	Kaolin Silica Sand
80.0'	1.25'	Ball Clay
81.5'	1.5'	Sandy Clay
83.0'	2.5'	Kaolin Silica Sand
86.0'	3.0'	Ball Clay
110.0'	14.0'	Kaolin Silica Sand
114.5'	4.5'	Sandy Clay
147.25'	32.75'	Kaolin Silica Sand
152.0'	4.75'	Ball Clay
152.25'	0.25'	Kaolin Silica Sand
153.5'	1.25'	Ball Clay
153.75'	0.25'	Kaolin Silica Sand
154.0'	0.25'	Ball Clay
21.0'	56.0'	Kaolin Silica Sand
214.0'	4.0'	Ball Clay
215.25'	1.25'	Kaolin Silica Sand
216.0'	0.75'	Ball Clay
216.0'		End of Hole

*D. Hillier*



### Rotary Drill Hole Record

Started: February 25/89	Logged by: D. Hillier
Finished: February 26/89	Checked by:
Length: 233'	Drill Co.: Midwest
Claim No.: 825798	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 85°N
Hole No.: 89-65	Easting: 5205°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
11.0'	10.0'	Silty Clay
16.0'	5.0'	Till
21.0'	5.0'	Till/Pebbly Clay
28.0'	7.0'	Till
35.0'	7.0'	Silty Clay
43.0'	8.0'	Till
45.0'	2.0'	Till/Pebbly Clay
52.0'	7.0'	Till
86.25'	34.25'	Kaolin Silica Sand
91.75'	5.5'	Ball Clay
104.0'	12.25'	Kaolin Silica Sand
110.0'	6.0'	Ball Clay
115.0'	5.0'	Kaolin Silica Sand
120.0'	5.0'	Sandy Clay
126.0'	6.0'	Kaolin Silica Sand
134.0'	8.0'	Sandy Clay
161.25'	27.25'	Kaolin Silica Sand
166.0'	4.75'	Ball Clay
195.0'	29.0'	Kaolin Silica Sand
200.0'	5.0'	Ball Clay
212.5'	12.5'	Kaolin Silica Sand
230.0'	7.5'	Ball Clay
233.0'	3.0'	Kaolin Silica Sand
233.0'		End of Hole

*Alto Sawley*

Rotary Drill Hole Record

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Started:	February 27/89	Logged by:	D. Hillier
Finished:	February 28/89	Checked by:	
Length:	216'	Drill Co.:	Midwest
Claim No.:	825798	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	010°N
Hole No.:	89-66	Easting:	5298°E
Dip Collar:	-90°	Target:	

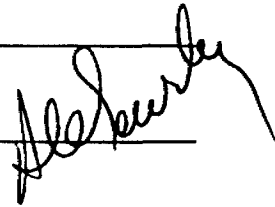
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SUMMARY

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Depth	Length	Description
13.0'	13.0'	Peat/Silty Clay
46.0'	33.0'	Till
79.0'	33.0'	Kaolin Silica Sand
81.0'	2.0'	Ball Clay
209.0'	128.0'	Kaolin Silica Sand
216.0'	7.0'	Ball Clay
216.0'		End of Hole

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### Rotary Drill Hole Record

Started: February 8/89	Logged by: D. MacEachern
Finished: February 9/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825805	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-28	Easting: 5600°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
3.0'	1.0'	Silty Clay
10.0'	7.0'	Sand
11.0'	1.0'	Sandy Gravel
17.0'	6.0'	Till
20.5'	3.5'	Sandy Gravel
44.0'	23.5'	Till
49.5'	5.5'	Till/Pebbly Clay
52.0'	2.5'	Till
55.0'	3.0'	Till/Pebbly Clay
79.75'	24.75'	Kaolin Silica Sand
81.0'	2.25'	Fire Clay
86.5'	5.5'	Sandy Clay
107.75'	23.25'	Kaolin Silica Sand
134.0'	24.25'	Sandy Clay
179.5'	45.5'	Kaolin Silica Sand
186.0'	7.5'	Sandy Clay

*D. MacEachern*

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Depth	Length	Description
201.75'	1.75'	Kaolin Silica Sand
208.75'	9.25'	Sandy Clay
218.0'	9.25'	Kaolin Silica Sand
224.0'	6.0'	Ball Clay
250.'	6.0'	Kaolin Silica Sand
250.0'		End of Hole

Rotary Drill Hole Record

Started: February 24/89	Logged by: D. Hillier
Finished: February 24/89	Checked by:
Length: 236'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 230°S
Hole No.: 89-43	Easting: 5400°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.0'	3.0'	Sand
43.75'	40.75'	Till/Pebbly Clay
157.25'	113.5'	Kaolin Silica Sand
157.75'	0.5'	Ball Clay
158.0'	0.25'	Kaolin Silica Sand
159.0'	1.0'	Ball Clay
182.5'	23.5'	Kaolin Silica Sand
183.0'	0.5'	Ball Clay
185.25'	2.25'	Kaolin Silica Sand
185.75'	0.5'	Ball Clay
186.5'	0.75'	Kaolin Silica Sand
190.0'	3.5'	Ball Clay
192.0'	2.0'	Sandy Clay
236.0'	44.0'	Kaolin Silica Sand
236.0'		End of Hole

*McGowan*

Rotary Drill Hole Record

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Started:	February 21/89	Logged by:	G. Cousineau
Finished:	February 22/89	Checked by:	
Length:	244'	Drill Co.:	JR
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	200°S
Hole No.:	89-44	Easting:	54°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
1.0'	1.0'	Peat
2.5'	1.5'	Silty Clay
7.0'	4.5'	Pebbly Sand
61.5'	40.0'	Glacial Till
244.0'	182.5'	Kaolin Silica Sand
244.0'		End of Hole

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*G. Cousineau*

### Rotary Drill Hole Record

Started: February 5/89	Logged by: P. MacEachern
Finished: February 6/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 193°N
Hole No.: 89-25	Easting: 6022°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Silty Clay
3.5'	1.5'	Peat
11.5'	8.0'	Silty Clay
25.0'	13.5'	Till/Pebbly Clay
40.5'	15.5'	Till
50.0'	9.5'	Till/Pebbly Clay
76.0'	26.0'	Till
81.75'	5.75'	Till/Pebbly Clay
120.5'	38.75'	Kaolin Silica Sand
125.0'	4.5'	Ball Clay
143.5'	18.5'	Fire Clay
149.5'	6.0'	Kaolin Silica Sand
160.5'	11.0'	Sandy Clay
165.0'	4.5'	Ball Clay
168.75'	3.75'	Fire Clay
173.0'	4.25'	Ball Clay
226.0'	53.0'	Kaolin Silica Sand
234.5'	8.5'	Sandy Clay
250.0'	15.5'	Kaolin Silica Sand

*P. MacEachern*

Rotary Drill Hole Record

Started: February 6/89	Logged by: G. Cousineau
Finished: February 7/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 212°S
Hole No.: 89-26	Easting: 5990°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
3.5'	0.5'	Fine Sand
5.0'	1.5'	Peat
7.75'	2.75'	Silty Clay
46.0'	32.25'	Till/Pebbly Clay
60.0'	20.0'	Till
73.0'	13.0'	Till/Pebbly Clay
94.75'	15.25'	Till
110.0'	5.25'	Kaolin Silica Sand
122.0'	12.0'	Fire Clay
133.5'	11.5'	Ball Clay
140.0'	6.5'	Sandy Clay
152.0'	12.0'	Fire Clay
158.5'	6.5'	Sandy Clay
160.5'	2.0'	Fire Clay
168.0'	7.5'	Kaolin Silica Sand
250.0'	82.0'	Ball Clay
250.0'		End of Hole

*Al Saurley*



Rotary Drill Hole Record

Started: February 25/89	Logged by: D. Hillier
Finished: February 26/89	Checked by:
Length: 245'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 90°N
Hole No.: 89-60	Easting: 5890°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
23.0'	22.0'	Silty Clay
63.0'	40.0'	Till
65.0'	2.0'	Sand
85.0'	20.0'	Till
137.25'	52.25'	Kaolin Silica Sand
180.0'	42.75'	Ball Clay
187.0'	7.0'	Sandy Clay
245.0'	58.0'	Kaolin Silica Sand
245.0'		End of Hole

*Al Stewart*

Rotary Drill Hole Record

Started: February 27/89	Logged by: D. Hillier
Finished: February 28/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 100°S
Hole No.: 89-61	Easting: 5915°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
13.0'	13.0'	Till/Pebbly Clay
56.25'	43.25'	Till
59.0'	2.75'	Pebbly Sand
83.5'	24.5'	Till
86.0'	2.5'	Kaolin Silica Sand
90.0'	4.0'	Ball Clay
103.0'	13.0'	Kaolin Silica Sand
103.25'	0.25'	Ball Clay
120.0'	16.75'	Kaolin Silica Sand
122.0'	2.0'	Ball Clay
136.75'	14.75'	Kaolin Silica Sand
157.0'	20.75'	Ball Clay
160.0'	3.0'	Sandy Clay
171.0'	11.0'	Ball Clay
203.0'	32.0'	Kaolin Silica Sand
204.75'	1.75'	Ball Clay
244.0'	39.25'	Kaolin Silica Sand
250.0'	6.0'	Ball Clay
250.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started: February 28/89	Logged by: D. Hillier
Finished: Febraury 28/89	Checked by:
Length: 237'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 305°S
Hole No.: 89-62	Easting: 5895°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
5.0'	5.0'	Peat
89.0'	84.0'	Till
135.0'	46.0'	Kaolin Silica Sand
166.0'	31.0'	Ball Clay
223.5'	57.5'	Kaolin Silica Sand
237.0'	135.0'	Ball Clay
237.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started: March 19/89	Logged by: D. Hillier
Finished: March 19/89	Checked by:
Length: 145'	Drill Co.: Midwest
Claim No.: 900067	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 020°S
Hole No.: 89-116	Easting: 1795°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
8.0'	7.0'	Peat
9.0'	2.0'	Clayey Sand
67.0'	58.0'	Till
100.0'	33.0'	Sand/Pebbly Sand
101.0'	1.0'	Silty Clay
102.0'	1.0'	Till
104.0'	2.0'	Clayey Sand
145.0'	41.0'	Till
145.0'		End of Hole

*Al Sawyer*

Rotary Drill Hole Record

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Started:	March 19/89	Logged by:	D. Hillier
Finished:	March 19/89	Checked by:	
Length:	211'	Drill Co.:	Midwest
Claim No.:	900084	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	015°S
Hole No.:	89-117	Easting:	2210°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
8.0'	8.0'	Peat
16.0'	8.0'	Silty Clay
91.0'	75.0'	Till
101.0'	10.0'	Silty Clay
121.0'	20.0'	Till
161.0'	40.0'	Silty Clay
191.0'	36.0'	Clayey Sand - with trace Kaolin?
211.0'	20.0'	Clayey Sand - Silty layers
211.0'		End of Hole

*Al Shaukey*

Rotary Drill Hole Record

Started:	February 15/89	Logged by:	G. Cousineau
Finished:	February 16/89	Checked by:	D. Hillier
Length:	160'	Drill Co.:	J.R.
Claim No.:	900084	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	2+05°S
Hole No.:	89-35	Easting:	23+85°E
Dip Collar:	-90°	Target:	

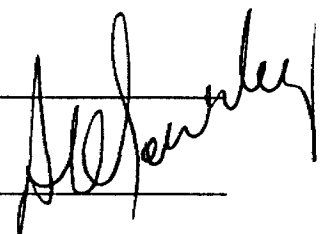
SUMMARY

From	To	Description
0	7	Peat
7	9	Sand
9	15	Silty Clay
15	19	Sand
19	21	Silty Clay
21	44	Till/Pebbly Clay
44	51	Till
51	59	Till/Pebbly Clay
59'	99	Silty Clay
99	117	Till/Pebbly Clay
117	160	Silty Clay
160		End of Hole

*D. Hillier*

### Rotary Drill Hole Record

Started: March 19/89	Logged by: D. Hillier
Finished: March 20/89	Checked by:
Length: 241'	Drill Co.: Midwest
Claim No.: 900084	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 020°S
Hole No.: 89-118	Easting: 2605°E
Dip Collar: -90°	Target:



#### SUMMARY

Depth	Length	Description
13.0'	13.0'	Peat
15.0'	2.0'	Clayey Sand
30.0'	15.0'	Silty Clay
130.0'	100.0'	Till
146.0'	16.0'	Silty Clay
151.0'	5.0'	Sand
187.0'	36.0'	Till
106.5'	31.0'	Kaolin Silica Sand
191.0'	4.0'	Pebbly Sand/Clayey Gravel
207.0'	16.0'	Kaolin Silica Sand
208.0'	1.0'	Fire Clay
241.0'	33.0'	Kaolin Silica Sand
241.0'		End of Hole

### Rotary Drill Hole Record

Started: February 3/89	Logged by: G. Cousineau
Finished: February 4/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 900072	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 1600°N
Hole No.: 89-24	Easting: 2990°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
24.0'	21.0'	Silty Clay
84.0'	60.0'	Till and Till/Pebbly Clay
94.25'	10.25'	Kaolin Silica Sand
105.0'	10.75'	Fire Clay
115.75'	10.75'	Kaolin Silica Sand
118.0'	2.25'	Ball Clay
119.0'	1.0'	Kaolin Silica Sand
135.0'	16.0'	Ball Clay
157.0'	22.0'	Kaolin Silica Sand
158.0'	1.0'	Fire Clay
159.0'	1.0'	Kaolin Silica Sand
160.0'	1.0'	Fire Clay
161.0'	1.0'	Kaolin Silica Sand
178.0'	17.0'	Fire Clay
184.0'	6.0'	Sandy Clay
188.0'	4.0'	Fire Clay
191.5'	3.5'	Sandy Clay
199.5'	8.0'	Kaolin Silica Sand
204.5'	5.0'	Sandy Clay
231.0'	26.5'	Kaolin Silica Sand
234.0'	3.0'	Fire Clay
250.0'	10.0'	Kaolin Silica Sand
250.0'		End of Hole

*Al Sawley*



### Rotary Drill Hole Record

Started: February 12/89	Logged by: P. MacEachern
Finished: February 13/89	Checked by:
Length: 232'	Drill Co.: JR
Claim No.: 900095	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 215°N
Hole No.: 89-32	Easting: 2910°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
4.5'	1.5'	Sand
9.0'	4.5'	Silty Clay
14.75'	5.75'	Peat
15.0'	0.25'	Sand
16.0'	1.0'	Peat
16.75'	0.75'	Sand
33.0'	16.25'	Silty Clay
34.0'	1.0'	Till/Pebbly Clay
40.0'	6.0'	Till
55.0'	15.0'	Silty Clay
76.0'	11.0'	Sand
84.5'	8.5'	Kaolin Silica Sand
86.0'	1.5'	Sandy Clay
102.5'	16.0'	Fire Clay
200.0'	98.0'	Kaolin Silica Sand
224.0'	24.0'	Sandy Clay
226.0'	2.0'	Kaolin Silica Sand
227.0'	1.0'	Ball Clay
232.0'	5.0'	Kaolin Silica Sand
232.0'		End of Hole

*Al Saunders*

Rotary Drill Hole Record

Started: February/89	Logged by: G. Cousineau
Finished: February/89	Checked by:
Length: 245'	Drill Co.: JR
Claim No.: 900095	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 525°N
Hole No.: 89-33	Easting: 3010°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
12.0'	12.0'	Peat
13.0'	1.0'	Clayey Sand
30.0'	17.0'	Silty Clay
39.0'	9.0'	Till/Pebbly Clay
40.0'	1.0'	Clayey Sand
50.75'	10.75'	Till/Pebbly Sand
62.0'	11.25'	Till
76.0'	10.0'	Clayey Sand
84.25'	8.25'	Kaolin Silica Sand
87.5'	3.25'	Fire Clay
91.0'	3.5'	Sandy Clay
110.5'	19.5'	Kaolin Silica Sand
115.0'	5.0'	Fire Clay
121.5'	6.5'	Kaolin Silica Sand
123.0'	1.5'	Sandy Clay
237.5'	114.5'	Kaolin Silica Sand
245.0'	130.5'	Fire Clay
245.0'		End of Hole

*Alley*

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Depth	Length	Description
167.0'	4.0'	Fire Clay
212.0'	5.0'	Kaolin Silica Sand
215.5'	3.5'	Ball Clay
240.0'	15.0'	Kaolin Silica Sand
243.0'	3.0'	Sandy Clay
250.0'	7.0'	Kaolin Silica Sand
250.0'		End of Hole

### Rotary Drill Hole Record

Started: February 7/89	Logged by: G. Cousineau
Finished: February 8/89	Checked by:
Length: 240'	Drill Co.: JR
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 0098°N
Hole No.: 89-27	Easting: 5608°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
4.0'	4.0'	Peat
9.75'	5.75'	Silty Clay
12.0'	2.25'	Fine Sand
15.0'	3.0'	Clayey Gravel
18.0'	3.0'	Sandy Gravel
30.0'	12.0'	Till/Pebbly Clay
31.75'	1.75'	Clayey Gravel
34.75'	3.0'	Kaolin Silica Sand
47.0'	12.25'	Fire Clay
55.25'	8.25'	Ball Clay
111.5'	56.25'	Kaolin Silica Sand
114.75'	3.25'	Fire Clay
116.75'	2.0'	Sandy Clay
130.75'	14.0'	Kaolin Silica Sand
132.5'	1.75'	Fire Clay
133.5'	1.0'	Kaolin Silica Sand
138.75'	5.25'	Fire Clay
143.5'	5.0'	Sandy Clay

G. Cousineau

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Depth	Length	Description
219.25'	75.75'	Kaolin Silica Sand
223.5'	4.25'	Ball Clay
240.0'	16.5'	Kaolin Silica Sand
240.0'		End of Hole

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### Rotary Drill Hole Record

Started: February 8/89	Logged by: D. Hillier
Finished: February 9/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-28	Easting: 5600°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
3.0'	1.0'	Silty Clay
10.0'	7.0'	Sand
11.0'	1.0'	Sandy Gravel
17.0'	6.0'	Till
20.5'	3.5'	Sandy Gravel
44.0'	23.5'	Till
49.5'	5.5'	Till/Pebbly Clay
52.0'	2.5'	Till
55.0'	3.0'	Till/Pebbly Clay
79.75'	1.25'	Kaolin Silica Sand
81.0'	1.25'	Fire Clay
86.5'	5.5'	Sandy Clay
109.75'	23.25'	Kaolin Silica Sand
134.0'	24.25'	Sandy Clay
175.6'	42.0'	Kaolin Silica Sand
186.0'	9.5'	Sandy Clay
201.75'	15.75'	Kaolin Silica Sand
208.75'	7.0'	Sandy Clay
218.0'	9.25'	Kaolin Silica Sand
224.0'	6.0'	Ball Clay
250.0'	6.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started:	February 19/89	Logged by:	P. MacEachern
Finished:	February 20/89	Checked by:	D. Hillier
Length:	250'	Drill Co.:	Midwest
Claim No.:	<i>825805</i>	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	100°N
Hole No.:	89-53	Easting:	5700°E
Dip Collar:	-90°	Target:	

SUMMARY

From	To	Description
0	2	Peat
2	4	Silty Clay
4	6	Peat
6	13'6"	Sand
13'6"	19'6"	Till/Pebbly Clay
19'6"	31'	Till
31'	36'6"	Kaolin Silica Sand
36'6"	51'	Till/Pebbly Clay
51'	65'	Ball Clay(?)
65'	109'	Kaolin Silica Sand
109'	110'	Sandy Clay
110'	147'	Kaolin Silica Sand
147'	159'	Ball Clay
159'	164'	Fireclay
164'	234'	Kaolin Silica Sand
234'	240'	Fireclay
240'	250'	Kaolin Silica Sand
250'		End of Hole

*P. MacEachern*

### Rotary Drill Hole Record

Started: February 21/89	Logged by: D. Hillier
Finished: February 21/89	Checked by:
Length: 201'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 100°S
Hole No.: 89-54	Easting: 5700°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
6.0'	6.0'	Peat
8.0'	2.0'	Silty Clay
10.0'	2.0'	Sand
51.0'	41.0'	Till
78.0'	27.0'	Kaolin Silica Sand
81.0'	3.0'	Fire Clay
96.0'	15.0'	Kaolin Silica Sand
101.0'	5.0'	Fire Clay
111.0'	10.0'	Ball Clay
124.0'	10.0'	Sandy Clay
145.0'	21.0'	Kaolin Silica Sand
146.0'	1.0'	Ball Clay
200.0'	54.0'	Kaolin Silica Sand
201.0'	1.0'	Ball Clay
201.0'		End of Hole

*D. Hillier*



## Rotary Drill Hole Record

Started: February 20/89	Logged by: P. MacEachern, G. Cousineau
Finished: February 21/89	Checked by: D. Hillier
Length: 210'	Drill Co.: Midwest
Claim No.: <b>825805</b>	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 295°S
Hole No.: 89-55	Easting: 5505°E
Dip Collar: -90°	Target:

### SUMMARY

From	To	Description
0	10	Peat
10	16	Silty Clay
16	50	Till
50	51'6"	Clayey Sand
51'6"	71'6"	Till
71'6"	75'6"	Kaolin Silica Sand
75'6"	76'10"	Sandy Clay
76'10"	91'	Kaolin Silica Sand
91'	97'6"	Fireclay(?)
97'6"	108'6"	Kaolin Silica Sand
108'6"	110'4"	Fireclay
110'4"	113'	Ball Clay
113'	114'6"	Kaolin Silica Sand
114'6"	128'	Fireclay
128'	147'	Kaolin Silica Sand
147'	149'	Sandy Clay
149'	197'	Kaolin Silica Sand
197'	200'	Fireclay
200'	204'	Sandy Clay
204'	210'	Ball Clay
210'		End of Hole

*P. MacEachern*

Rotary Drill Hole Record

Started: February 26/89	Logged by: D. Hillier
Finished: February 27/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-56	Easting: 5800°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.0'	3.0'	Sand
23.0'	20.0'	Silty Clay
61.0'	38.0'	Till
126.5'	65.5'	Kaolin Silica Sand
128.0'	1.5'	Ball Clay
131.0'	3.0'	Kaolin Silica Sand
138.0'	7.0'	Ball Clay
163.0'	5.0'	Fire Clay
176.0'	13.0'	Kaolin Silica Sand
181.0'	5.0'	Ball Clay
182.0'	1.0'	Kaolin Silica Sand
186.0'	4.0'	Ball Clay
232.5'	46.5'	Kaolin Silica Sand
234.25'	1.75'	Ball Clay
250.0'	15.75'	Kaolin Silica Sand
250.0'		End of Hole

*McGawley*

### Rotary Drill Hole Record

Started: February 22/89	Logged by: G. Cousineau
Finished: February 23/89	Checked by:
Length: 256'	Drill Co.: Midwest
Claim No.: 825803	Core: 3/2"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-57	Easting: 5800°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
7.0'	7.0'	Peat
36.0'	29.0'	Till
40.0'	4.0'	Silty Clay
53.0'	13.0'	Till
73.0'	20.0'	Kaolin Silica Sand
76.0'	3.0'	Fire Clay
88.0'	12.0'	Kaolin Silica Sand
90.0'	2.0'	Fire Clay
102.0'	12.0'	Kaolin Silica Sand
103.0'	1.0'	Fire Clay
106.0'	3.0'	Kaolin Silica Sand
116.0'	10.0'	Ball Clay
123.0'	7.0'	Fire Clay
130.0'	7.0'	Sandy Clay
204.0'	74.0'	Kaolin Silica Sand
205.0'	1.0'	Ball Clay
205.5'	1.0'	Kaolin Silica Sand
220.0'	14.5'	Ball Clay
226.0'	6.0'	Kaolin Silica Sand
256.0'	30.0'	Ball Clay

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### Rotary Drill Hole Record

Started: February 26/89	Logged by: D. Hillier
Finished: February 27/89	Checked by:
Length: 235'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 385°S
Hole No.: 89-58	Easting: 5800°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
6.0'	5.0'	Sand
11.0'	5.0'	Silty Clay
85.0'	74.0'	Till
106.0'	21.0'	Kaolin Silica Sand
113.0'	7.0'	Ball Clay
145.5'	32.5'	Kaolin Silica Sand
158.0'	12.5'	Ball Clay
171.0'	13.0'	Sandy Clay
215.0'	44.0'	Kaolin Silica Sand
215.75'	0.75'	Ball Clay
216.75'	1.0'	Kaolin Silica Sand
218.0'	1.25'	Ball Clay
235.0'	17.0'	Kaolin Silica Sand
235.0'		End of Hole

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Rotary Drill Hole Record

Started: March 3/89	Logged by: D. Hillier
Finished: March 4/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 8258025	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 50°N
Hole No.: 89-87	Easting: 5650°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
7.0'	4.0'	Silty Clay
8.0'	1.0'	Sandy Gravel
52.5'	44.5'	Till
99.5'	46.75'	Kaolin Silica Sand
100.0'	0.75'	Ball Clay
101.5'	1.5'	Kaolin Silica Sand
105.0'	4.5'	Ball Clay
128.0'	23.0'	Kaolin Silica Sand
133.0'	5.0'	Ball Clay
142.0'	9.0'	Sandy Clay
210.5'	68.5'	Kaolin Silica Sand
212.0'	1.5'	Ball Clay
250.0'	38.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*

### Rotary Drill Hole Record

Started: March 6/89	Logged by: G. Cousineau
Finished: March 7/89	Checked by:
Length: 241'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 0050°S
Hole No.: 89-88	Easting: 5650°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
4.0'	4.0'	Peat
37.0'	33.0'	Till/Pebbly Clay
77.0'	40.0'	Kaolin Silica Sand
85.0'	8.0'	Fire Clay
98.0'	13.0'	Kaolin Silica Sand
99.0'	1.0'	Fire Clay
104.5'	5.5'	Kaolin Silica Sand
109.0'	4.5'	Fire Clay
120.0'	11.0'	Sandy Clay
178.5'	58.0'	Kaolin Silica Sand
182.0'	4.0'	Ball Clay
227.5'	45.5'	Kaolin Silica Sand
238.0'	9.5'	Ball Clay
241.0'	3.0'	Kaolin Silica Sand
241.0'		End of Hole

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Rotary Drill Hole Record

Started: March 8/89	Logged by: G. Cousineau
Finished: March 8/89	Checked by:
Length: 200'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 150°S
Hole No.: 89-89	Easting: 5650°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
6.0'	6.0'	Peat
12.0'	6.0'	Sand
50.0'	38.0'	Till
55.5'	5.5'	Kaolin Silica Sand
59.0'	3.5'	Fire Clay
62.0'	3.0'	Sandy Clay
71.0'	9.0'	Fire Clay
94.0'	23.0'	Kaolin Silica Sand
100.0'	6.0'	Fire Clay
103.0'	3.0'	Sandy Clay
112.0'	9.0'	Kaolin Silica Sand
123.0'	11.0'	Sandy Clay
200.0'	77.0'	Kaolin Silica Sand
200.0'		End of Hole

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### Rotary Drill Hole Record

Started: March 12/89	Logged by: D. Hillier
Finished: March 13/89	Checked by:
Length: 251'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 000°BL
Hole No.: 89-91	Easting: 57°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
7.0'	7.0'	Peat
12.0'	5.0'	Silty Clay
51.0'	39.0'	Till
92.0'	41.0'	Kaolin Silica Sand
95.0'	3.0'	Fire Clay
98.0'	3.0'	Kaolin Silica Sand
99.0'	1.0'	Fire Clay
113.0'	4.0'	Kaolin Silica Sand
119.0'	6.0'	Fire Clay
137.0'	18.0'	Ball Clay
140.0'	7.0'	Fire Clay
147.0'	7.0'	Kaolin Silica Sand
159.0'	8.0'	Sandy Clay
251.0'	92.0'	Kaolin Silica Sand
251.0'		End of Hole

*Handwritten signature*



### Rotary Drill Hole Record

Started: March 13/89	Logged by: D. Hillier
Finished: March 14/89	Checked by:
Length: 255'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 0050°N
Hole No.: 89-95	Easting: 5750°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
8.0'	8.0'	Clayey Sand
10.0'	2.0'	Clayey Gravel
48.0'	38.0'	Till
55.0'	7.0'	Sandy Clay
81.0'	26.0'	Kaolin Silica Sand
82.0'	1.0'	Fire Clay
111.0'	29.0'	Kaolin Silica Sand
127.0'	16.0'	Fire Clay
150.0'	23.0'	Ball Clay
158.0'	8.0'	Kaolin Silica Sand
178.0'	20.0'	Sandy Clay
200.0'	22.0'	Kaolin Silica Sand
207.0'	7.0'	Ball Clay
255.0'	48.0'	Kaolin Silica Sand
255.0'		End of Hole

*D. Hillier*

### Rotary Drill Hole Record

Started: March 7/89	Logged by: D. Hillier
Finished: March 8/89	Checked by:
Length: 155'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 145°S
Hole No.: 89-97	Easting: 5750°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
3.0'	3.0'	Peat
13.0'	10.0'	Clayey Sand
15.0'	2.0'	Clayey Gravel
48.0'	33.0'	Till
82.0'	34.0'	Kaolin Silica Sand
90.0'	8.0'	Fire Clay
95.0'	5.0'	Fire Clay & Kaolin Silica Sand Interbedded
98.0'	3.0'	Sandy Clay
111.0'	13.0'	Fire Clay
114.0'	3.0'	Sandy Clay
124.0'	10.0'	Fire Clay
155.0'	31.0'	Kaolin Silica Sand
155.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

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Started:	March 9/89	Logged by:	D. Hillier
Finished:	March 10/89	Checked by:	
Length:	156'	Drill Co.:	Midwest
Claim No.:	825805	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	250°S
Hole No.:	89-99	Easting:	5650°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
16.0'	16.0'	Peat
18.0'	2.0'	Clayey Gravel
31.0'	13.0'	Till
36.0'	5.0'	Sand
65.0'	29.0'	Till
110.0'	45.0'	Kaolin Silica Sand
121.0'	11.0'	Fire Clay
126.0'	5.0'	Sandy Clay
156.0'	30.0'	Kaolin Silica Sand
156.0'		End of Hole

*Al Saurby*

Rotary Drill Hole Record

Started: March 14/89	Logged by: D. Hillier
Finished: March 15/89	Checked by:
Length: 221'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 340°S
Hole No.: 89-104	Easting: 5650°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
8.0'	8.0'	Peat
18.0'	10.0'	Sand
20.0'	2.0'	Clayey Gravel
65.0'	45.0'	Till
69.0'	4.0'	Kaolin Silica Sand
71.0'	2.0'	Fire Clay
108.0'	37.0'	Kaolin Silica Sand
115.0'	7.0'	Fire Clay
135.0'	20.0'	Sandy Clay
192.0'	57.0'	Kaolin Silica Sand
221.0'	29.0'	Ball Clay
221.0'		End of Hole

*W. J. Hawley*

Rotary Drill Hole Record

Started: January 30/89	Logged by: D. Hillier
Finished: January 31/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 390°S
Hole No.: 89-15	Easting: 5815°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
1.0'	1.0'	Pebbly Clay
21.0'	20.0'	Silty Clay
55.0'	34.0'	Till/Pebbly Clay
74.75'	19.75'	Till
78.25'	3.5'	Kaolin Silica Sand
79.0'	0.75'	Fire Clay
105.5'	26.5'	Kaolin Silica Sand
114.5'	9.0'	Fire Clay
124.0'	9.5'	Ball Clay
135.75'	11.75'	Fire Clay
137.25'	1.5'	Sandy Clay
139.0'	1.75'	Ball Clay
140.0'	1.0'	Fire Clay
145.5'	5.5'	Ball Clay
184.75'	39.25'	Kaolin Silica Sand
189.0'	4.25'	Fire Clay
208.75'	19.75'	Kaolin Silica Sand
212.0'	3.25'	Fire Clay

*Alley*

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Depth	Length	Description
224.0'	12.0'	Ball Clay
225.0'	1.0'	Fire Clay
248.25'	23.25'	Kaolin Silica Sand
250.0'	1.75'	Ball Clay
250.0'		End of Hole

Rotary Drill Hole Record

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Started:	February 28/89	Logged by:	D. Hillier
Finished:	March 2/89	Checked by:	
Length:	139'	Drill Co.:	JR
Claim No.:	825806	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	295°S
Hole No.:	89-52	Easting:	5715°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
27.0'	27.0'	Silty Clay
62.0'	35.0'	Till
114.5'	52.5'	Kaolin Silica Sand
116.0'	1.5'	Fire Clay
120.0'	4.0'	Kaolin Silica Sand
139.0'	19.0'	Ball Clay
139.0'		End of Hole

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*Al Stewart*

Rotary Drill Hole Record

Started: January 12/89	Logged by: D. Hillier
Finished: January 14/89	Checked by: D. Hillier
Length: 250'	Drill Co.: Midwest
Claim No.: <b>825807</b>	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 775°N
Hole No.: 89-5	Easting: 5810°E
Dip Collar: -90°	Target:

SUMMARY

From	To	Description
0	24'6"	Silty Clay
24'6"	49	Till
49	69	Silty Clay
69	82'3"	Till
82'3"	94	Kaolin Silica Sand
94	100	Fireclay
100	102	Kaolin Silica Sand
102	106	Ball Clay
106	121	Kaolin Silica Sand
121	124'2"	Ball Clay
124'2"	126'4"	Organics
126'4"	127	Ball Clay
127	145'8"	Kaolin Silica Sand
145'8"	149'6"	Ball Clay
149'6"	164	Kaolin Silica Sand
164	166	Sandy Clay/Clayey Sand
166	172	Fireclay
172	178'6"	Sandy Clay/Clayey Sand
178'6"	184	Kaolin Silica Sand
184	185	Ball Clay
185	208	Kaolin Silica Sand
208	214'6"	Ball Clay
214'6"	250	Kaolin Silica Sand
250'		End of Hole

*Handwritten signature: D. Hillier*



Rotary Drill Hole Record

Started: January 9/89 Finished: January 12/89 Length: 250' Claim No.: <b>825808</b> Property: Kipling Location: Hole No.: 89-4 Dip Collar: -90°	Logged by: D. Hillier Checked by: Drill Co.: Midwest Core: 3.5" Elevation: Northing: 775N Easting: 6210E Target:
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SUMMARY

From	To	Description
0	1	Peat
1	25	Silty Clay
25	51	Till
51	65	Silty Clay
65	121	Till
121	143'10"	Kaolin Silica Sand
143'10"	144'4"	Ball Clay
144'4"	145	Till
145	161'2"	Kaolin Silica Sand
161'2"	163	Till
163	167	Ball Clay
167	170'3"	Sandy Clay
170'3"	173'8"	Ball Clay
173'8"	175	Sandy Clay
175	185	Kaolin Silica Sand
185	195	Ball Clay
195	198'8"	Kaolin Silica Sand
198'8"	199'2"	Ball Clay
199'2"	201	Kaolin Silica Sand
201	222'3"	Ball Clay
222'3"	228	Sandy Clay
228	250	Kaolin Silica Sand
250		End of Hole

*Alexander*

Rotary Drill Hole Record

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Started: January 8/89	Logged by: D. Hillier
Finished: January 9/89	Checked by: D. Hillier
Length: 255'	Drill Co.: Midwest
Claim No.: <b>825809</b>	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 395°N
Hole No.: 89-3	Easting: 6210°E
Dip Collar: -90°	Target:

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SUMMARY

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From	To	Description
0	4	Peat
4	33	Silty Clay
33	62'8"	Till
62'8"	66'6"	Ball Clay
66'6"	106'2"	Kaolin Silica Sand
106'2"	115	Fireclay
115	120	Ball Clay
120	131'8"	Kaolin Silica Sand
131'8"	133	Fireclay
133	137	Ball Clay
137	138	Kaolin Silica Sand
138	147	Ball Clay
147	150	Silica Sand
150	169'5"	Kaolin Silica Sand
169'5"	175	Ball Clay
175	196'3"	Kaolin Silica Sand
196'3"	223	Ball Clay
223	231	Interbedded Fireclay and Carbonaceous Material
231	255	Kaolin Silica Sand
255		End of Hole

*Al Stewart*

Rotary Drill Hole Record

Started: February 28/89	Logged by: D. Hillier
Finished: February 28/89	Checked by:
Length: 246'	Drill Co.: JR
Claim No.: 825809	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 310°S
Hole No.: 89-59	Easting: 5995°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
35.0'	33.0'	Silty Clay
82.0'	47.0'	Till
110.0'	28.0'	Kaolin Silica Sand
111.0'	1.0'	Ball Clay
117.0'	6.0'	Kaolin Silica Sand
130.0'	13.0'	Fire Clay
169.0'	39.0'	Kaolin Silica Sand
169.5'	0.5'	Ball Clay
177.0'	7.5'	Sandy Clay
240.5'	63.5'	Kaolin Silica Sand
246.0'	5.5'	Ball Clay
246.0'		End of Hole

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### Rotary Drill Hole Record

Started: March 17/89	Logged by: D. Hillier
Finished: March 17/89	Checked by:
Length: 150'	Drill Co.: JR
Claim No.: 825809	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 190°S
Hole No.: 89-92	Easting: 57°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
5.0'	5.0'	Peat
13.0'	8.0'	Clayey Sand
14.0'	1.0'	Clayey Gravel
50.0'	46.0'	Till
75.0'	25.0'	Kaolin Silica Sand
76.0'	1.0'	Fire Clay
78.0'	2.0'	Kaolin Silica Sand
79.0'	1.0'	Fire Clay
86.0'	7.0'	Kaolin Silica Sand
90.0'	4.0'	Fire Clay
95.0'	5.0'	Kaolin Silica Sand
104.0'	9.0'	Ball
108.0'	4.0'	Fire Clay
118.0'	10.0'	Sandy Clay
150.0'	32.0'	Kaolin Silica Sand
150.0'		End of Hole

*Al Saunders*

Rotary Drill Hole Record

Started: February 8/89	Logged by: P. MacEachern
Finished: February 9/89	Checked by:
Length: 240'	Drill Co.: JR
Claim No.: 825810	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 45°S
Hole No.: 89-21	Easting: 6215°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
9.0'	7.0'	Till/Pebbly Clay
12.0'	3.0'	Silty Clay
15.0'	3.0'	Peat
17.5'	2.5'	Till
21.0'	3.5'	Till/Pebbly Clay
22.0'	1.0'	Till
26.0'	4.0'	Till/Pebbly Clay
30.0'	4.0'	Silty Clay
32.0'	2.0'	Till/Pebbly Clay
35.0'	3.0'	Till
46.5'	11.5'	Till/Pebbly Clay
58.0'	11.5'	Till
63.25'	5.25'	Till/Pebbly Clay
70.0'	6.75'	Till
86.0'	16.0'	Till/Pebbly Clay
90.0'	4.0'	Till
95.0'	5.0'	Till/Pebbly Clay

*P. MacEachern*

### Rotary Drill Hole Record

Started: March 2/89	Logged by: D. Hillier
Finished: March 3/89	Checked by:
Length: 185'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: BLO
Hole No.: 89-80	Easting: 5500°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
2.0'	2.0'	Peat
12.0'	10.0'	Pebbly Sand
35.5'	23.5'	Till
36.25'	0.75'	Sand
46.0'	9.25'	Till
88.5'	42.5'	Kaolin Silica Sand
89.75'	1.25'	Ball Clay
110.0'	20.25'	Kaolin Silica Sand
115.0'	5.0'	Sandy Clay
117.0'	2.0'	Kaolin Silica Sand
118.0'	1.0'	Sandy Clay
165.5'	47.5'	Kaolin Silica Sand
166.25'	0.75'	Ball Clay
185.0'	18.75'	Kaolin Silica Sand
185.0'		End of Hole

*D. Hillier*

### Rotary Drill Hole Record

Started: March 3/89	Logged by: D. Hillier
Finished: March 4/89	Checked by:
Length: 255'	Drill Co.: Midwest
Claim No.: 825805	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-81	Easting: 55°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
5.0'	5.0'	Pebbly Sand
9.0'	4.0'	Clayey Gravel
64.0'	55.0'	Till
117.0'	53.0'	Kaolin Silica Sand
123.0'	6.0'	Fire Clay
136.0'	13.0'	Sandy Clay
146.0'	10.0'	Kaolin Silica Sand
156.0'	10.0'	Sandy Clay
244.0'	88.0'	Kaolin Silica Sand
248.0'	4.0'	Sandy Clay
250.0'	2.0'	Fire Clay
255.0'	5.0'	Sandy Clay
255.0'		End of Hole

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### Rotary Drill Hole Record

Started: March 3/89	Logged by: D. Hillier
Finished: March 3/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 50°N
Hole No.: 89-82	Easting: 5550°E
Dip Collar: -90°	Target:

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SUMMARY

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Depth	Length	Description
5.0'	5.0'	Peat
7.0'	2.0'	Silty Clay
9.0'	2.0'	Sand
53.5'	44.5'	Till
87.0'	33.5'	Kaolin Silica Sand
90.0'	3.0'	Ball Clay
125.0'	3.5'	Kaolin Silica Sand
128.0'	3.0'	Ball Clay
131.0'	3.0'	Sandy Clay
206.0'	75.0'	Kaolin Silica Sand
212.0'	6.0'	Ball Clay
250.0'	38.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*



Rotary Drill Hole Record

Started:	March 3/89	Logged by:	D. Hillier
Finished:	March 4/89	Checked by:	
Length:	256'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	55°S
Hole No.:	89-83	Easting:	5555°E
Dip Collar:	-90°	Target:	

SUMMARY

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Depth	Length	Description
6.0'	6.0'	Peat
16.0'	10.0'	Silty Clay
46.0'	30.0'	Till
104.0'	58.0'	Kaolin Silica Sand
108.0'	4.0'	Fire Clay
126.0'	18.0'	Sandy Clay
256.0'	130.0'	Kaolin Silica Sand
256.0'		End of Hole

### Rotary Drill Hole Record

Started: March 8/89	Logged by: G. Cousineau
Finished: March 8/89	Checked by:
Length: 175'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 150°S
Hole No.: 89-84	Easting: 5550°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
4.0'	4.0'	Pebbly Sand
14.0'	10.0'	Clayey Gravel
16.0'	2.0'	Sand
58.0'	42.0'	Till
105.0'	47.0'	Kaolin Silica Sand
110.0'	5.0'	Fire Clay
125.0'	15.0'	Sandy Clay
175.0'	50.0'	Kaolin Silica Sand
175.0'		End of Hole

*G. Cousineau*

Rotary Drill Hole Record

Started: March 3/89	Logged by: D. Hillier
Finished: March 3/89	Checked by:
Length: 256'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 95°S
Hole No.: 89-86	Easting: 5600°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
4.0'	4.0'	Peat
10.0'	6.0'	Silty Clay
47.0'	37.0'	Till
73.5'	26.5'	Kaolin Silica Sand
75.0'	1.5'	Ball Clay
77.5'	4.0'	Kaolin Silica Sand
81.0'	3.5'	Ball Clay
97.0'	16.0'	Kaolin Silica Sand
98.0'	1.5'	Ball Clay
99.25'	0.75'	Kaolin Silica Sand
101.0'	1.75'	Ball Clay
101.5'	0.5'	Kaolin Silica Sand
103.0'	1.5'	Ball Clay
104.5'	1.5'	Kaolin Silica Sand
108.0'	3.5'	Ball Clay
115.0'	7.0'	Sandy Clay
191.0'	76.0'	Kaolin Silica Sand
192.0'	1.0'	Ball Clay

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Depth	Length	Description
196.0'	4.0'	Kaolin Silica Sand
197.0'	1.0'	Ball Clay
219.0'	22.0'	Kaolin Silica Sand
225.0'	6.0'	Ball Clay
256.0'	31.0'	Kaolin Silica Sand
256.0'		End of Hole

### Rotary Drill Hole Record

Started: March 8/89	Logged by: D. Hillier
Finished: March 9/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 250°S
Hole No.: 89-98	Easting: 5550°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
8.0'	8.0'	Peat
9.0'	1.0'	Clayey Gravel
63.0'	54.0'	Till
117.0'	54.0'	Kaolin Silica Sand
122.0'	5.0'	Fire Clay
131.0'	9.0'	Sandy Clay
172.0'	41.0'	Kaolin Silica Sand
173.5'	1.5'	Fire Clay
250.0'	77.0'	Kaolin Silica Sand
250.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

Started:	March 16/89	Logged by:	D. Hillier
Finished:	March 17/89	Checked by:	
Length:	161'	Drill Co.:	Midwest
Claim No.:	825802	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	295°S
Hole No.:	89-101	Easting:	56°E
Dip Collar:	-90°	Target:	

SUMMARY

Depth	Length	Description
8.0'	8.0'	Clayey Gravel
80.0'	72.0'	Till
87.0'	7.0'	Kaolin Silica Sand
90.0'	3.0'	Sandy Clay
117.0'	27.0'	Kaolin Silica Sand
123.0'	6.0'	Fire Clay
124.0'	1.0'	Kaolin Silica Sand
126.0'	2.0'	Fire Clay
130.0'	4.0'	Sandy Clay
161.0'	31.0'	Kaolin Silica Sand
161.0'		End of Hole

*Alto Sourley*

### Rotary Drill Hole Record

Started: March 14/89	Logged by: D. Hillier
Finished: March 15/89	Checked by:
Length: 220'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 350°S
Hole No.: 89-103	Easting: 5545°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
8.0'	8.0'	Peat
14.0'	6.0'	Silty Clay
17.0'	3.0'	Sand
18.0'	1.0'	Till
21.0'	3.0'	Sand
68.0'	47.0'	Till
106.0'	38.0'	Kaolin Silica Sand
117.0'	11.0'	Fire Clay
129.0'	12.0'	Ball Clay
180.0'	51.0'	Kaolin Silica Sand
189.0'	9.0'	Ball Clay
213.0'	29.0'	Kaolin Silica Sand
216.0'	3.0'	Ball Clay
217.0'	1.0'	Kaolin Silica Sand
220.0'	3.0'	Ball Clay
220.0'		End of Hole

*Al Sawyer*

### Rotary Drill Hole Record

Started: March 11/89	Logged by: D. Hillier
Finished: March 12/89	Checked by:
Length: 250'	Drill Co.: Midwest
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 400°S
Hole No.: 89-106	Easting: 5490°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
5.0'	5.0'	Sand
8.0'	3.0'	Clayey Gravel
87.0'	79.0'	Till
100.0'	13.0'	Kaolin Silica Sand
125.0'	25.0'	Ball Clay
172.0'	47.0'	Kaolin Silica Sand
180.0'	8.0'	Ball Clay
205.0'	25.0'	Sandy Clay
207.0'	4.0'	Ball Clay
238.0'	19.0'	Kaolin Silica Sand
239.0'	1.0'	Ball Clay
243.0'	4.0'	Kaolin Silica Sand
244.0'	1.0'	Fire Clay
247.5'	3.5'	Kaolin Silica Sand
249.5'	2.0'	Ball Clay
250.0'	0.5'	Kaolin Silica Sand
250.0'		End of Hole

*Al Stewart*



### Rotary Drill Hole Record

Started: February 9/89	Logged by: G. Cousineau
Finished: February 10/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825802	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 6475°S
Hole No.: 89-29	Easting: 5425°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
5.0'	5.0'	Peat
7.5'	2.5'	Silty Clay
9.75'	2.25'	Fine Sand
13.0'	2.25'	Silty Clay
44.0'	31.0'	Till/Pebbly Clay
53.5'	9.5'	Ball Clay
60.75'	7.25'	Fire Clay
80.75'	20.0'	Kaolin Silica Sand
88.25'	2.25'	Sandy Clay
119.75'	11.5'	Kaolin Silica Sand
120.75'	1.0'	Fire Clay
163.0'	11.25'	Kaolin Silica Sand
174.25'	3.75'	Fire Clay
178.0'	3.75'	Kaolin Silica Sand
180.0'	2.0'	Fire Clay
186.5'	6.5'	Ball Clay
250.0'	63.5'	Kaolin Silica Sand
250.0'		End of Hole

*W. Sourley*

### Rotary Drill Hole Record

Started: March 15/89	Logged by: D. Hillier
Finished: March 16/89	Checked by:
Length: 196'	Drill Co.: Midwest
Claim No.: 825803	Core: 3½"
Property: Kipling	Elevation:
Location:	Northing: 50°S
Hole No.: 89-113	Easting: 5550°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
7.0'	6.0'	Silty Clay
10.0'	3.0'	Clayey Gravel
92.0'	82.0'	Till
112.0'	20.0'	Kaolin Silica Sand
115.0'	3.0'	Fire Clay
116.0'	1.0'	Kaolin Silica Sand
119.0'	3.0'	Fire Clay
130.0'	11.0'	Sandy Clay
166.0'	36.0'	Kaolin Silica Sand
171.0'	5.0'	Sandy Clay
182.0'	9.0'	Kaolin Silica Sand
196.0'	14.0'	Ball Clay
196.0'		End of Hole

*D. Hillier*

Rotary Drill Hole Record

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Started:	March 15/89	Logged by:	D. Hillier
Finished:	March 15/89	Checked by:	
Length:	205'	Drill Co.:	Midwest
Claim No.:	825803	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	520°S
Hole No.:	89-114	Easting:	5440°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
20.0'	20.0'	Pebbly Sand
106.0'	86.0'	Till
116.0'	10.0'	Sandy Clay
165.0'	49.0'	Kaolin Silica Sand
188.0'	23.0'	Ball Clay
202.0'	14.0'	Sandy Clay
205.0'	2.0'	Kaolin Silica Sand
205.0'		End of Hole

*McGraw-Hill*

Rotary Drill Hole Record

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Started:	March 16/89	Logged by:	D. Hillier
Finished:	March 17/89	Checked by:	
Length:	86'	Drill Co.:	Midwest
Claim No.:	825803	Core:	3½"
Property:	Kipling	Elevation:	
Location:		Northing:	618°S
Hole No.:	89-115	Easting:	5595°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
3.0'	3.0'	Peat
11.0'	8.0'	Clayey Sand/Gravel
16.0'	5.0'	Silty Clay
38.0'	22.0'	Till
86.0'	48.0'	Weathered Bedrock
86.0'		End of Hole

*Al Sawyer*

Rotary Drill Hole Record

Started: February 4/89	Logged by: G. Cousineau
Finished: February 5/89	Checked by:
Length: 250'	Drill Co.: JR
Claim No.: 825805	Core: 3 1/2"
Property: Kipling	Elevation:
Location:	Northing: 0014°N
Hole No.: 89-23	Easting: 5779°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
6.5'	6.5'	Peat
12.0'	5.5'	Fine Sand
15.75'	3.75'	Till/Pebbly Clay
24.0'	8.25'	Till
27.0'	3.0'	Clayey Gravel
30.0'	3.0'	Till
37.0'	4.0'	Till/Pebbly Clay
43.5'	6.5'	Till
55.5'	12.0'	Till/Pebbly Clay
107.25'	51.75'	Kaolin Silica Sand
111.5'	4.25'	Fire Clay
118.0'	6.5'	Kaolin Silica Sand
119.5'	1.5'	Fire Clay
121.75'	3.25'	Kaolin Silica Sand
129.75'	8.0'	Fire Clay
142.0'	8.0'	Ball Clay
163.0'	21.0'	Kaolin Silica Sand

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Rotary Drill Hole Record

Started: March 18/89	Logged by: D. Hillier
Finished: March 19/89	Checked by:
Length: 225'	Drill Co.: Midwest
Claim No.: 900096	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 200°S
Hole No.: 89-119	Easting: 28°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
5.0'	5.0'	Peat
9.0'	4.0'	Clayey Sand
30.0'	21.0'	Silty Clay
35.0'	5.0'	Till
55.0'	20.0'	Silty Clay
64.0'	9.0'	Clayey Sand
78.0'	14.0'	Till
129.0'	51.0'	Kaolin Silica Sand
137.0'	8.0'	Sandy Clay
140.0'	3.0'	Kaolin Silica Sand
145.0'	5.0'	Fire Clay
158.0'	13.0'	Sandy Clay
225.0'	67.0'	Kaolin Silica Sand
225.0'		End of Hole

*Al Stewart*

### Rotary Drill Hole Record

Started: March 19/89	Logged by: G. Cousineau
Finished: March 19/89	Checked by:
Length: 251'	Drill Co.: Midwest
Claim No.: 900096	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 010°S
Hole No.: 89-120	Easting: 30°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
12.0'	12.0'	Peat
14.0'	2.0'	Clayey Sand
21.0'	7.0'	Silty Clay
36.0'	15.0'	Till
52.0'	16.0'	Silty Clay
70.0'	18.0'	Till
83.0'	13.0'	Clayey Sand (Kaolin Silica?)
93.0'	10.0'	Kaolin Silica Sand
98.0'	5.0'	Ball Clay
126.0'	28.0'	Kaolin Silica Sand
132.0'	104.0'	Fire Clay
136.0'	4.0'	Sandy Clay
152.0'	16.0'	Kaolin Silica Sand
157.0'	5.0'	Fire Clay
166.0'	9.0'	Sandy Clay
251.0'	85.0'	Kaolin Silica Sand
251.0'		End of Hole

*G. Cousineau*

Rotary Drill Hole Record

Started: January 30/89	Logged by: P. MacEachern, G. Cousineau
Finished: January 31/89	Checked by: D. Hillier
Length: 250'	Drill Co.: Midwest
Claim No.: <b>900097</b>	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 205°S
Hole No.: 89-16	Easting: 3205°E
Dip Collar: -90°	Target:

SUMMARY

From	To	Description
0	5	Peat
5	8'6"	Sand
8'6"	18	Silty Clay
18	32'6"	Till/Pebbly Clay
32'6"	44	Silty Clay
44	45	Sand
45	50	Till/Pebbly Clay
50	52'6"	Sandy Gravel
52'6"	66	Till
66	82	Kaolin Silica Sand
82	84	Ball Clay
84	96'4"	Fireclay
96'4"	117	Kaolin Silica Sand
117	122'6"	Ball Clay
122'6"	124'2"	Fireclay/Ball Clay
124'2"	131'4"	Ball Clay
131'4"	161	Kaolin Silica Sand
161	163'6"	Ball Clay
163'6"	190'6"	Kaolin Silica Sand
190'6"	194'10"	Ball Clay
194'10"	234'6"	Kaolin Silica Sand
234'6"	235'10"	Fireclay/Ball Clay(?)
235'10"	250	Kaolin Silica Sand
250		End of Hole

*Al Stewart*



Rotary Drill Hole Record

Started: March 17/89	Logged by: D. Hillier
Finished: March 18/89	Checked by:
Length: 256'	Drill Co.: Midwest
Claim No.: 900097	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 015°S
Hole No.: 89-121	Easting: 3405°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
1.0'	1.0'	Peat
16.0'	15.0'	Silty Clay
154.0'	138.0'	Till
177.0'	230.0'	Kaolin Silica Sand?
188.0'	11.0'	Ball Clay
202.0'	14.0'	Kaolin Silica Sand
213.0'	11.0'	Sandy Clay
256.0'	43.0'	Kaolin Silica Sand
2561.0'		End of Hole

A. J. Sawley

Rotary Drill Hole Record

Started: February 2/89	Logged by: D. Hillier
Finished: February 3/89	Checked by:
Length: 240'	Drill Co.: Midwest
Claim No.: 900042	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 1600°N
Hole No.: 89-22	Easting: 3803°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
5.0'	5.0'	Kaolin Silica Sand
6.0'	1.0'	Peat
34.0'	28.0'	Silty Clay
59.75'	25.75'	Till/Pebbly Clay
68.25'	8.5'	Kaolin Silica Sand
90.0'	21.75'	Ball Clay
133.0'	43.0'	Kaolin Silica Sand
134.75'	1.75'	Fire Clay
136.25'	1.5'	Kaolin Silica Sand
138.75'	1.75'	Fire Clay
142.0'	3.25'	Kaolin Silica Sand
146.0'	4.0'	Fire Clay
152.75'	6.75'	Sandy Clay
155.0'	2.25'	Fire Clay
157.5'	2.5'	Sandy Clay
196.5'	39.0'	Kaolin Silica Sand
200.0'	3.5'	Sandy Clay
215.75'	15.75'	Kaolin Silica Sand
223.75'	8.0'	Ball Clay
239.25'	15.5'	Kaolin Silica Sand
240.5'	0.75'	Fire Clay
240.0'		End of Hole

*Alfawley*

Rotary Drill Hole Record

Started:	February 1/89	Logged by:	P. MacEachern, G. Cousineau
Finished:	February 2/89	Checked by:	D. Hillier
Length:	255'	Drill Co.:	Midwest
Claim No.:	900044	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	790°S
Hole No.:	89-20	Easting:	3810°E
Dip Collar:	-90°	Target:	

SUMMARY

From	To	Description
0	8	Peat
8	12	Pebbly Sand
12	31'6"	Silty Clay
31'6"	35	Till/Pebbly Clay
35	41	Sand
41	42	Till/Pebbly Clay
42	48	Sand
48	52'6"	Till/Pebbly Clay
52'6"	76	Till
76	76'6"	Kaolin Silica Sand
76'6"	78	Ball Clay
78	86	Sandy Clay
86	178'8"	Kaolin Silica Sand
178'8"	184	Fireclay
184	194'6"	Sandy Clay
194'6"	227'10"	Kaolin Silica Sand
227'10"	230'10"	Fireclay
230'10"	231'6"	Kaolin Silica Sand
231'6"	232'6"	Fireclay/Ball Clay(?)
232'6"	255	Kaolin Silica Sand
255'		End of Hole

*Al MacEachern*

Rotary Drill Hole Record

Started:	January 31/89	Logged by:	P. MacEachern, G. Cousineau
Finished:	February 1/89	Checked by:	D. Hillier
Length:	237'	Drill Co.:	Midwest
Claim No.:	900045	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	205°N
Hole No.:	89-18	Easting:	3602°E
Dip Collar:	-90°	Target:	

SUMMARY

From	To	Description
0	12	Peat
12	23	Silty Clay
23	32	Till/Pebbly Clay
32	51	Silty Clay
51	56'6"	Pebbly Sand/Sandy Gravel
56'6"	62	Till
62	77?	Till/Pebbly Clay
77?	92'6"	Kaolin Silica Sand
92'6"	93'9"	Fireclay
93'9"	95'9"	Kaolin Silica Sand
95'5"	96	Fireclay
96	99	Ball Clay
99	102	Fireclay
102	152'8"	Kaolin Silica Sand
152'8"	165	Ball Clay
165	167'2"	Fireclay
167'2"	175'6"	Ball Clay

*DeFawley*

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From	To	Description
175'6"	178'2"	Kaolin Silica Sand
178'2"	180'3"	Ball Clay
180'3"	192	Kaolin Silica Sand
192	199	Sandy Clay/Clayey Sand
199	237	Kaolin Silica Sand
237'		End of Hole

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From To Description

Rotary Drill Hole Record

Started: January 28/89	Logged by: G. Cousineau
Finished: January 29/89	Checked by: D. Hillier
Length: 235'	Drill Co.: Midwest
Claim No.: 983551	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 205°N
Hole No.: 89-13	Easting: 6793°E
Dip Collar: -90°	Target:

SUMMARY

Depth	Length	Description
3.5'	3.5'	Peat
23.0'	19.5'	Silty Clay
27.0'	4.0'	Pebbly Clay
48.0'	21.0'	Till
52.0'	4.0'	Pebbly Sand
56.5'	4.5'	Sandy Gravel/Sand
58.0'	1.5'	Till
94.0'	36.0'	Pebbly Sand
138.0'	44.0'	Kaolin Silica Sand
153.0'	15.0'	Fire Clay
163.0'	10.0'	Sandy Clay
220.5'	57.0'	Kaolin Silica Sand
225.0'	5.0'	Ball Clay
235.0'	12.0'	Fire Clay
235.0'		End of Hole

*Al Sawyer*

### Rotary Drill Hole Record

Started: January 29/89	Logged by: G. Cousineau
Finished: January 30/89	Checked by: D. Hillier
Length: 250'	Drill Co.: Midwest
Claim No.: 970192	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 810°N
Hole No.: 89-14	Easting: 6990°E
Dip Collar: -90°	Target:

#### SUMMARY

Depth	Length	Description
5.0'	5.0'	Peat
28.0'	23.0'	Silty Clay
61.0'	33.0'	Till & Till/Pebbly Clay
84.0'	23.0'	Silty Clay
92.0'	8.0'	Sandy Clay
116.0'	24.0	Fire Clay
144.75'	28.75'	Kaolin Silica Sand
146.0'	1.25'	Ball Clay
160.0'	14.0'	Kaolin Silica Sand
176.25'	16.25'	Ball Clay
226.5'	50.25'	Kaolin Silica Sand
234.5'	7.5'	Fire Clay
241.5'	7.0'	Kaolin Silica Sand
244.25'	2.75'	Fire Clay
245.0'	0.75'	Kaolin Silica Sand
250.0'	5.0'	Ball Clay
250.0'		End of Hole

*McGraw-Hill*

Rotary Drill Hole Record

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Started:	January 27/89	Logged by:	G. Cousineau
Finished:	January 28/89	Checked by:	D. Hillier
Length:	135'	Drill Co.:	Midwest
Claim No.:	970195	Core:	3.5"
Property:	Kipling	Elevation:	
Location:		Northing:	200°N
Hole No.:	89-12	Easting:	7215°E
Dip Collar:	-90°	Target:	

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SUMMARY

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Depth	Length	Description
9.0'	9.0'	Peat
10.0'	1.0'	Silty Clay
29.5'	19.5'	Till/Pebbly Clay
81.5'	52.0'	Till
121.5'	40.0'	Kaolin Silica Sand
131.0'	9.5'	Fire Clay
135.0'	4.0'	Sandy Clay
135.0'		End of Hole

*DeSauray*



### Rotary Drill Hole Record

Started: January 26/89	Logged by: D. Hillier
Finished: January 27/89	Checked by:
Length: 242'	Drill Co.: Midwest
Claim No.: 970189	Core: 3.5"
Property: Kipling	Elevation:
Location:	Northing: 200°N
Hole No.: 89-11	Easting: 7610°S
Dip Collar: -90°	Target:

#### SUMMARY

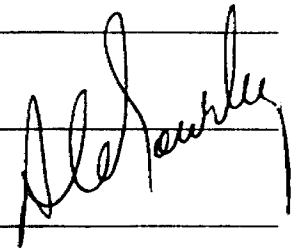
Depth	Length	Description
5.0'	5.0'	Peat
5.5'	0.5'	Sand
27.25'	21.75'	Silty Clay
58.5'	31.25'	Till & Till/Pebbly Clay
65.0'	6.5'	Silty Clay
115.25'	50.25'	Till & Till/Pebbly Clay
142.25'	27.0	Ball Clay
159.5'	17.75'	Kaolin Silica Sand
161.25'	1.75'	Fire Clay
165.0'	3.75'	Kaolin Silica Sand
167.5'	2.5'	Lignite
184.5'	17.0'	Ball Clay
191.5'	7.0'	Silica Sand
209.0'	17.5'	Kaolin Silica Sand
217.0'	8.0'	Ball Clay/Lignite
235.0'	18.0'	Kaolin Silica Sand
241.5'	6.5'	Ball Clay
242.0'	0.5'	Kaolin Silica Sand
242.0'		End of Hole

*Alexander*

Rotary Drill Hole Record

Started:	January 19/89	Logged by:	D. Hillier, T. Flynn
Finished:	January 20/89	Checked by:	D. Hillier
Length:	220'	Drill Co.:	Midwest
Claim No.:	970176	Core:	3 "
Property:	Kipling	Elevation:	
Location:		Northing:	
Hole No.:	89-10	Easting:	
Dip Collar:	-90°	Target:	

SUMMARY



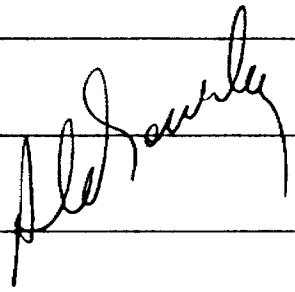
From	To	Description
0	7	Peat
7	12	Silty Clay
12	50'6"	Till/Pebbly Clay
50'6"	52	Sandy Clay
52	86	Till/Pebbly Clay
86	113	Kaolin Silica Sand
113	114	Ball Clay
114	153	Kaolin Silica Sand
153	155	Ball Clay
155	165'6"	Kaolin Silica Sand
165'6"	166	Carbonaceous Clay Layer
166	173	Kaolin Silica Sand
173	177	Carbonaceous Clay Layer
177	182	Ball Clay
182	188	Sandy Clay
188	220	Fireclay
220		End of Hole

Rotary Drill Hole Record

Started:	January 19/89	Logged by:	D. Hillier, T. Flynn
Finished:	January 20/89	Checked by:	D. Hillier
Length:	250'	Drill Co.:	Midwest
Claim No.:	970177	Core:	3 "
Property:	Kipling	Elevation:	
Location:		Northing:	007°S
Hole No.:	89-9	Easting:	8200°E
Dip Collar:	-90°	Target:	

SUMMARY

From	To	Description
0	5	Peat
5	50	Till/Pebbly Clay
50	55	Silty Clay
55	64	Till/Pebbly Clay
64	88'6"	Till
88'6"	100	Fireclay
100	144'6"	Kaolin Silica Sand
144'6"	171'3"	Ball Clay
171'3"	180	Sandy Clay/Clayey Sand
180	209'5"	Kaolin Silica Sand
209'5"	213'6"	Sandy Clay/Clayey Sand
213'6"	215	Fireclay
215	219	Sandy Clay/Clayey Sand
219	224	Fireclay
224	229	Sandy Clay/Clayey Sand
229	240	Kaolin Silica Sand
240	244	Sandy Clay/Clayey Sand
244	250	Ball Clay
250		End of Hole

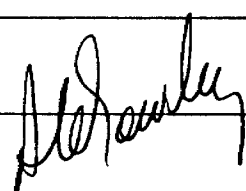


Rotary Drill Hole Record

Started: *January 31/89*  
 Finished: *February 1/89*  
 Length: 245'  
 Claim No.: *970177*  
 Property: Kipling  
 Location:  
 Hole No.: 89-17  
 Dip Collar: -90°

Logged by: P. MacEachern  
 Checked by: D. Hillier  
 Drill Co.: Midwest  
 Core: 3 "  
 Elevation:  
 Northing: 10°S  
 Easting: 8595°E  
 Target:

SUMMARY



From	To	Description
0	3	Peat
3	14	Till/Pebbly Clay
14	15	Till
15	45	Till/Pebbly Clay
45	49	Silty Clay
49	57	Sand
57	63	Till/Pebbly Clay
63	65	Till
65	67	Till/Pebbly Clay
67	71	Till
71	73	Till/Pebbly Clay
73	75	Till
75	85	Till/Pebbly Clay
85	88	Till
88	91'6"	Till/Pebbly Clay
91'6"	92'6"	Sand
92'6"	93'6"	Till/Pebbly Clay
93'6"	95'6"	Sand
95'6"	127	Till/Pebbly Clay
127	146	Kaolin Silica Sand
146	147	Lignite
147	151	Ball Clay
151	164	Fireclay
164	174	Kaolin Silica Sand
174	182	Sandy Clay
182	183	Kaolin Silica Sand

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From	To	Description
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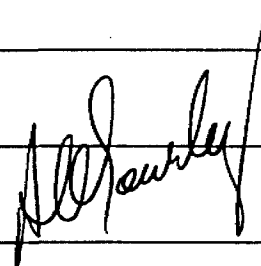
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183	194'6"	Sandy Clay
194'6"	220	Kaolin Silica Sand
220	224	Sandy Clay
224	231'6"	Fireclay
231'6"	244	Ball Clay
244	245	Fireclay
245		End of Hole

Rotary Drill Hole Record

Started:	February 3/89	Logged by:	P. MacEachern, G. Cousineau
Finished:	February 3/89	Checked by:	D. Hillier
Length:	250'	Drill Co.:	Midwest
Claim No.:	970177	Core:	3 "
Property:	Kipling	Elevation:	
Location:		Northing:	200°N
Hole No.:	89-19	Easting:	8390°E
Dip Collar:	-90°	Target:	

SUMMARY



From	To	Description
0	4	Peat
4	18'6"	Silty Clay
18'6"	35	Till/Pebbly Clay
35	39	Sandy Gravel
39	55	Till/Pebbly Clay
55	60	Till
60	66	Till/Pebbly Clay
66	84	Till
84	111'6"	Till/Pebbly Clay
111'6"	131'4"	Kaolin Silica Sand
131'4"	162	Ball Clay
162	217'8"	Kaolin Silica Sand
217'8"	220'6"	Fireclay
220'6"	222	Ball Clay
222	225'4"	Fireclay
225'4"	228	Sandy Clay
228	230	Ball Clay
230	250	Fireclay
250		End of Hole

Rotary Drill Hole Record

Started:	January 17/89	Logged by:	D. Hillier
Finished:	January 18/89	Checked by:	D. Hillier
Length:	250'	Drill Co.:	Midwest
Claim No.:	<b>970179</b>	Core:	3 "
Property:	Kipling	Elevation:	
Location:		Northing:	805°N
Hole No.:	89-8	Easting:	8595°E
Dip Collar:	-90°	Target:	

SUMMARY

*Al J. Hawley*

From	To	Description
0	5	Sand
5	6	Peat
6	15	Silty Clay
15	64	Till/Pebbly Clay
64	78	Silty Clay
78	95	Till/Pebbly Clay
95	116	Kaolin Silica Sand
116	138	Ball Clay
138	154	Kaolin Silica Sand
154	160	Sandy Clay/Clayey Sand
160	180	Kaolin Silica Sand
180	180'9"	Ball Clay
180'9"	183	Kaolin Silica Sand
183	185'6"	Sandy Clay/Clayey Sand
185'6"	186'6"	Ball Clay
186'6"	194	Fireclay
194	195	Kaolin Silica Sand
195	196	Sandy Clay/Clayey Sand
196	205	Fireclay
205	211	Ball Clay
211	215	Fireclay
215	235	Fireclay/Sandy Clay
235	250	Kaolin Silica Sand
250		End of Hole

Rotary Drill Hole Record

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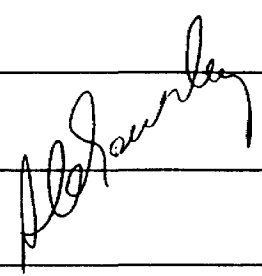
Started:	November 14/88	Logged by:	D. Hillier
Finished:	November 15/88	Checked by:	
Length:	130'	Drill Co.:	Midwest
Claim No.:	900054	Core:	3.5"
Property:	James Bay Kaolin	Elevation:	
Location:		Northing:	380N
Hole No.:	D88-21	Easting:	985E
Dip Collar:	90°	Target:	

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SUMMARY

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From	To	Description
0	20	Silty clay
20	35	Till
35	40	Silty Clay
40	76	Till
76	115	Silty Clay
115	130	Kaolin Silica Sand
130		End of Hole





**TECHNICAL SERVICE LABORATORIES**  
 1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 1  
 T.S.L. File No. : 09MAY, 10MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8995 3351	86.15	8.38	.79	.33	.16	.10	< .10	.65	.02	.04	72	21	318	3.54	100.21
3352	85.04	6.66	.62	.21	.13	< .01	< .10	.68	< .01	.03	66	14	286	3.72	99.16
3353	90.54	4.53	.21	.04	< .02	< .01	< .10	.26	< .01	.01	44	< 10	110	2.04	97.65
3354	95.70	2.93	.17	< .02	< .02	< .01	< .10	.10	< .01	.01	30	< 10	48	1.47	100.35
3355	92.75	4.20	.30	.05	< .02	< .01	< .10	.35	< .01	.02	57	11	155	1.89	99.62
3356	94.67	2.82	.21	.03	< .02	< .01	< .10	.16	< .01	.02	40	< 10	68	1.44	99.36
3357	93.24	2.63	.35	.19	< .02	< .01	.37	.26	< .01	.03	66	26	87	1.45	100.54
3358	87.74	7.78	.42	.12	.02	.02	.23	.36	< .01	.04	75	16	116	3.61	100.37
3359	95.05	2.85	.20	.05	< .02	.01	.38	.09	< .01	.03	52	11	64	1.51	100.19
3360	94.63	2.54	.35	.10	.03	.02	.30	.07	< .01	.04	51	14	46	1.73	100.04
3361	94.05	2.91	.81	.44	.20	.12	.36	.12	.01	.04	51	23	46	1.08	100.06
3362	93.02	2.89	.22	.16	< .02	.03	.42	.08	< .01	.03	82	24	36	1.40	98.27
3363	92.64	4.04	.28	.11	< .02	< .01	.41	.20	< .01	.03	85	18	127	2.05	99.79
3364	94.78	3.30	.23	.04	< .02	< .01	.15	.13	< .01	.03	65	11	76	1.71	100.35
3365	66.53	19.95	1.61	.21	.08	.10	.69	1.24	.02	.07	100	20	338	8.59	99.19
3366	56.11	28.50	3.35	.15	.15	.04	.45	.96	.01	.11	172	26	154	10.98	100.85
3367	56.70	27.26	1.34	.39	.17	.04	.37	.92	< .01	.10	163	36	188	10.94	100.29
8980 3617	85.72	8.26	.78	.40	.19	.06	.33	.40	.01	.04	62	22	136	3.53	99.75
3618	80.26	12.15	1.04	.20	.10	.04	.46	.79	.01	.06	113	29	315	5.31	100.47
3619	82.48	8.05	1.30	2.22	.44	.36	.22	.48	.01	.05	136	61	193	4.99	100.68
3620	84.33	7.82	.05	.76	.20	.26	2.45	.50	.02	.09	107	41	275	3.44	99.97
3621	85.01	6.83	.50	.21	.05	.04	.88	.68	< .01	.07	115	37	315	3.78	100.10
8915 3651	89.14	6.58	.47	.14	.02	.03	.73	.33	< .01	.06	64	16	111	3.06	100.59
3652	93.93	2.93	.36	.18	< .02	.03	.47	.22	< .01	.05	54	18	114	1.47	99.68
3653	96.00	2.19	.22	.02	< .02	.02	.76	.12	< .01	.04	45	14	71	1.08	100.53
3654	94.56	3.46	.34	.05	< .02	.01	.33	.14	< .01	.04	104	12	47	1.46	100.45
3655	94.39	2.64	.30	.08	< .02	< .01	< .10	.28	< .01	.03	66	< 10	122	1.25	99.01
3656	95.32	3.18	.21	.07	< .02	< .01	.25	.23	< .01	.03	72	17	83	1.52	100.85
3657	91.13	4.62	.28	.07	< .02	< .01	< .10	.25	< .01	.03	99	18	94	2.31	98.72
3658	52.53	30.19	3.23	.21	.12	.04	.45	1.00	.01	.10	164	23	170	12.55	100.47

DATE : 16-MAY-1989

SIGNED : *Adrian H. Debnam*  
 Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 2  
 T.S.L. File No. : 09MAY, 10MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
3657	54.97	27.60	3.60	.33	1.60	.04	.15	.97	.02	.10	193	34	187	11.42	100.85
3660	48.94	32.64	1.37	.31	.37	.05	.65	1.14	< .01	.12	265	51	156	13.21	98.87
893 3701	65.72	21.26	1.87	.25	.24	.10	.26	1.15	< .01	.11	171	41	215	8.25	99.27
3702	68.31	20.30	1.77	.33	.16	.10	.15	1.15	< .01	.12	193	56	230	7.85	100.31
3703	91.34	4.02	.59	.76	.25	.10	.30	.15	< .01	.06	80	29	78	2.14	99.74
3704	91.84	3.44	.43	.36	.09	.05	.26	.16	< .01	.05	49	18	76	1.59	98.29
3705	92.81	3.05	.31	.49	.12	.06	.45	.13	< .01	.05	66	21	78	1.46	98.95
3706	94.37	3.22	.32	.09	< .02	< .01	.33	.14	< .01	.05	37	11	102	1.34	99.89
3707	91.59	3.82	.70	.20	.03	.03	.37	1.07	< .01	.07	94	34	657	1.61	99.60
3708	93.57	3.41	.54	.11	.05	< .01	< .10	.48	< .01	.05	47	< 10	292	1.43	99.71
893 3709	93.29	3.58	.45	.10	.04	.05	.10	.28	.01	.03	76	26	264	1.66	99.54
3710	96.98	1.68	.41	.08	.02	< .01	< .10	.25	< .01	.02	41	< 10	178	1.16	100.67
3711	93.26	4.12	.28	.10	< .02	< .01	< .10	.22	< .01	.02	50	< 10	150	1.96	99.99
3712	64.06	22.99	1.21	.19	.19	.03	.56	.95	< .01	.08	136	25	360	9.65	99.99
3713	89.33	6.71	.66	.12	< .02	< .01	< .10	.34	< .01	.03	75	16	184	3.09	100.33
3714	95.37	2.72	.30	.15	< .02	< .01	.12	.10	< .01	.02	48	14	69	1.64	100.44
3715	93.75	2.72	1.22	.13	< .02	< .01	< .10	.19	< .01	.05	42	< 10	123	1.85	99.95
3716	49.60	32.29	2.27	.19	.12	.07	.50	1.05	< .01	.12	124	38	165	13.69	99.94
3717	50.06	32.65	1.53	.31	.16	.10	.71	1.28	< .01	.12	134	55	204	13.56	100.55
3718	54.66	28.32	2.07	.51	.16	.07	.66	1.08	.03	.13	193	72	222	12.20	99.95
893 3719	57.04	26.06	1.52	.29	.13	.05	.75	1.12	.01	.15	215	65	243	11.14	100.32
883 3751	67.17	7.84	.60	.14	.02	< .01	.18	.34	< .01	.04	54	17	153	3.31	99.69
3752	94.49	3.62	.35	.05	< .02	< .01	< .10	.11	< .01	.02	61	13	70	1.71	100.37
3753	95.53	2.02	.82	.13	< .02	< .01	< .10	.58	< .01	.03	60	17	218	1.40	100.56
3754	96.04	2.22	.32	.14	< .02	< .01	< .10	.09	< .01	.03	73	22	64	1.11	100.02
3755	94.11	2.38	.31	.09	< .02	< .01	.13	.10	< .01	.02	49	15	64	1.28	98.44
3756	93.07	3.37	.43	.16	< .02	< .01	< .10	.23	< .01	.02	86	20	149	1.77	99.08
3757	95.15	2.69	.25	.08	< .02	< .01	< .10	.10	< .01	.02	52	< 10	53	1.46	99.77
3758	92.21	3.97	.50	.39	.05	.03	.15	.23	< .01	.03	75	17	129	2.27	99.87
106 4101	93.01	3.99	.24	.27	< .02	< .01	< .10	.14	< .01	.03	82	47	57	2.11	99.90

DATE : 16-MAY-1989

SIGNED :

Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 3

T.S.L. File No. : 09MAY, 10MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
105 4102	93.79	3.50	.38	.34	.06	.15	.63	.10	.01	.05	60	25	71	1.50	100.54
4102	91.86	3.37	.28	.14	< .02	< .01	.45	.09	< .01	.04	75	17	58	1.69	97.97
4104	56.91	26.63	1.07	.42	.12	.04	.70	1.01	< .01	.10	211	41	286	13.01	100.08
4105	90.44	4.98	1.13	.22	< .02	.02	.40	.19	< .01	.04	85	25	80	2.36	99.81
4106	65.10	22.25	.90	.37	.14	.05	.40	1.43	< .01	.10	181	42	392	9.57	100.40
4107	64.81	23.17	.96	.34	.16	.04	.67	1.37	< .01	.11	205	53	379	9.14	100.86
4108	59.64	26.03	1.22	.35	.24	.05	.70	1.29	< .01	.13	284	72	327	10.42	100.16
4109	61.33	24.06	1.35	.36	.23	.05	.95	1.25	< .01	.11	226	55	389	9.86	99.67
4110	75.52	15.08	1.15	.39	.16	.06	.37	.79	< .01	.08	197	48	240	6.45	100.12
4111	65.43	21.66	1.45	.32	.18	.04	.55	1.14	< .01	.10	214	56	309	8.98	99.93
4112	57.02	26.56	1.95	.52	.43	.08	.75	1.31	.01	.13	236	68	324	12.02	99.86
8981 4151	91.19	4.32	.66	.61	.16	.06	< .10	.23	< .01	.03	95	44	114	2.29	99.60
4152	92.83	3.49	.36	.12	< .02	< .01	< .10	.10	< .01	.03	54	14	44	1.78	98.73
4153	94.61	2.46	.39	.43	< .02	< .01	< .10	.11	< .01	.03	92	48	61	1.16	99.22
4154	94.52	2.28	.45	.21	< .02	< .01	< .10	.06	< .01	.02	75	16	38	1.29	98.86
4155	94.99	1.80	.61	.30	.06	.02	< .10	.06	< .01	.03	45	13	71	1.03	98.92
4156	94.49	2.66	.31	.09	< .02	< .01	< .10	.12	< .01	.03	62	< 10	66	1.17	98.92
4157	94.86	2.26	.43	.09	< .02	.03	< .10	.12	< .01	.03	50	< 10	76	1.00	98.84
4158	94.85	1.96	.32	.11	< .02	.02	< .10	.07	< .01	.02	52	14	45	.91	98.28
4159	94.53	3.37	.42	.12	< .02	< .01	< .10	.16	< .01	.02	83	22	91	1.33	99.97
8981 4160	90.46	5.75	.56	.45	.21	.11	< .10	.24	.01	.03	70	19	108	2.94	100.84
4161	93.49	3.63	.21	.08	.08	< .01	.17	.16	< .01	.02	56	24	50	2.95	100.82
4162	93.00	4.01	.30	.13	< .02	< .01	< .10	.14	< .01	.02	64	21	60	2.20	99.84
4163	92.81	3.49	.24	.03	< .02	< .01	.24	.12	< .01	.02	39	10	45	3.25	100.23
4164	92.41	3.88	.35	.12	< .02	< .01	< .10	.13	< .01	.02	72	30	48	2.33	99.27
4165	92.86	3.93	.24	.10	< .02	< .01	< .10	.20	< .01	.02	68	25	58	2.58	99.98
4166	63.85	20.99	2.44	.28	.24	.03	.70	1.05	< .01	.09	210	65	349	10.48	100.24
4167	87.96	5.34	.75	.13	.03	< .01	.54	.33	< .01	.05	69	20	159	4.34	99.52
4168	65.87	20.15	1.48	.34	.24	.02	.75	1.12	< .01	.09	232	66	358	10.08	100.24
4169	82.11	9.94	1.06	.18	.09	< .01	.29	.58	< .01	.05	114	32	252	4.94	99.29

DATE : 16-MAY-1989

SIGNED :

*Adrian H. Deonam*  
Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 4

T.S.L. File No. : 09MAY, 10MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
4170	69.22	18.95	1.93	.31	.25	.10	.55	1.11	.01	.11	176	52	398	7.76	100.38
4171	75.03	14.99	1.65	.24	.15	.03	.36	.95	.02	.07	128	36	448	6.68	100.24
4172	68.64	18.70	2.94	.28	.22	.03	.60	1.10	.01	.10	169	47	454	8.08	100.79
4173	72.43	16.62	1.37	.17	.16	.03	.95	1.00	.01	.08	129	30	429	7.30	100.19
8982 4201	91.78	4.76	.35	.24	.09	.02	.16	.28	< .01	.03	62	17	159	2.82	100.56
4202	92.47	3.98	.33	.09	< .02	< .01	< .10	.20	< .01	.03	60	16	114	2.05	99.23
4203	94.56	2.67	.31	.11	.04	< .01	.11	.10	< .01	.02	41	12	57	1.57	99.50
4204	92.22	3.13	.29	.06	< .02	< .01	< .10	.14	< .01	.02	38	< 10	77	2.23	98.10
4205	93.03	3.20	.36	.06	< .02	< .01	< .10	.23	< .01	.02	46	10	162	2.83	99.76
4206	95.07	2.71	.25	.13	< .02	< .01	.25	.10	< .01	.02	68	19	101	2.06	100.61
4207	93.71	3.81	.41	.44	.10	.13	< .10	.13	.01	.04	72	35	81	1.83	100.63
4208	58.25	28.23	1.34	.38	.17	.09	.34	1.11	< .01	.11	170	68	202	11.90	99.99
4209	90.10	5.09	.40	.11	.02	< .01	.30	.32	< .01	.04	60	15	132	2.74	99.16
4210	94.74	2.55	.23	.18	< .02	< .01	< .10	.17	< .01	.03	84	25	84	1.49	99.50
4211	89.64	6.18	.39	.13	< .02	< .01	.26	.26	< .01	.04	82	20	132	3.14	100.09
4212	94.88	3.15	.34	.11	.05	< .01	< .10	.17	< .01	.03	73	17	101	1.66	100.45
4213	94.11	2.35	.35	.24	< .02	< .01	< .10	.13	< .01	.03	79	25	71	1.26	98.49
4214	95.27	3.05	.29	.09	< .02	< .01	< .10	.11	< .01	.03	54	16	45	1.53	100.39
4215	94.24	2.95	.29	.03	< .02	< .01	< .10	.12	< .01	.03	39	10	58	1.66	99.33
8978 4251	60.98	9.63	2.10	9.68	3.05	1.37	1.04	.37	.04	.09	329	195	124	12.41	100.84
4252	90.91	3.73	.76	1.08	.30	.24	< .10	.26	.01	.03	90	42	96	1.96	99.32
4253	66.64	9.17	1.76	7.25	2.17	1.01	.72	.37	.03	.07	254	145	107	10.03	99.30
4254	66.88	6.38	1.93	7.81	2.51	1.21	1.14	.34	.04	.07	295	163	158	9.70	100.08
4255	60.92	9.29	2.26	9.59	3.21	1.46	1.59	.36	.05	.09	353	211	161	11.86	100.77
4256	78.63	6.07	1.20	4.49	1.46	.72	.57	.20	.02	.06	202	129	74	5.77	99.25
4257	93.00	3.50	.29	.59	.15	.05	< .10	.09	< .01	.03	90	39	56	1.57	99.32
4258	93.60	3.23	.26	.39	.10	.04	< .10	.09	< .01	.04	62	21	87	1.56	99.35
4259	93.22	3.51	.27	.13	< .02	< .01	.45	.17	< .01	.04	55	17	100	1.47	99.30
4260	94.60	2.55	.21	.05	< .02	< .01	.17	.07	< .01	.03	43	< 10	41	1.07	98.76
4261	93.61	2.86	.20	.18	< .02	.01	< .10	.06	< .01	.03	80	30	49	1.23	98.23

DATE : 16-MAY-1989

SIGNED :

Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FENWATER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 5

T.S.L. File No. : 09MAY, 10MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8978 4262	94.27	2.79	.45	.45	.20	.20	.48	.05	.02	.03	58	16	49	1.15	100.11
4263	92.52	3.78	.40	.15	.10	.04	.35	.11	< .01	.01	63	16	49	1.76	99.25
4264	92.73	4.32	.28	.24	.06	< .01	.41	.15	< .01	< .01	57	20	65	2.36	100.59
4265	88.15	6.35	.37	< .02	.02	< .01	.15	.24	< .01	< .01	50	< 10	79	2.86	98.18
4266	93.21	4.12	.20	.03	< .02	< .01	< .10	.19	< .01	.01	42	< 10	57	2.13	100.02
4267	92.63	3.81	.27	.05	< .02	.01	.10	.16	< .01	.02	34	< 10	52	1.84	98.90
4268	94.70	3.54	.23	.08	< .02	< .01	< .10	.18	< .01	< .01	45	11	81	1.71	100.48
4269	92.61	4.24	.31	.10	< .02	< .01	< .10	.26	< .01	.02	46	10	71	2.33	100.11
4270	84.43	21.59	2.21	.28	.23	.04	.84	1.05	< .01	.09	212	60	326	9.44	100.28
4271	90.76	5.93	.38	.10	< .02	< .01	.54	.31	< .01	.04	63	15	95	2.59	100.69
4272	70.81	17.86	1.35	.30	.20	.02	.84	1.03	< .01	.10	257	94	432	6.83	99.45
4273	83.09	9.62	.42	.11	.07	< .01	.55	.49	< .01	.05	105	40	196	3.82	98.30
892 12901	90.00	4.63	.36	.44	.11	.07	.81	.12	.02	.03	90	25	70	2.93	100.14
12902	94.63	3.30	.46	.11	< .02	.02	.34	.08	< .01	.03	76	20	46	1.64	100.65
12903	59.05	24.01	1.24	.41	.16	.04	.44	1.10	< .01	.09	166	36	255	14.10	100.72
12904	75.15	13.40	.86	.50	.15	.06	.74	.71	< .01	.05	182	39	236	7.54	99.24
12905	92.34	4.42	.32	.12	< .02	.01	.47	.31	< .01	.03	107	17	150	2.11	100.17
12906	91.73	3.27	1.07	.13	< .02	< .01	.26	.26	< .01	.02	82	11	133	2.19	98.97
12907	84.99	3.51	5.92	.56	< .02	< .01	< .10	.66	.04	.03	103	11	326	4.71	100.49
12908	53.29	30.01	2.32	.21	.19	.04	.74	1.04	.02	.08	168	29	158	12.68	100.66
8923 12951	93.09	3.90	.88	.38	.16	.26	< .10	.19	.02	.05	74	27	99	1.50	100.65
12952	88.67	7.56	.61	.15	.05	.05	< .10	.35	< .01	.04	75	12	85	3.08	100.59
12953	90.41	5.53	.49	.12	< .02	.02	.19	.33	< .01	.05	62	15	99	2.43	99.60
12954	93.75	3.25	.45	.07	< .02	.02	.23	.35	< .01	.04	51	< 10	139	1.33	99.53
12955	87.17	7.17	.52	.32	.08	.02	.61	.40	< .01	.06	93	29	163	2.90	99.25
12956	92.94	2.86	.32	.11	< .02	.02	.42	.08	< .01	.05	57	12	57	1.14	97.96
12957	95.49	2.79	.35	.04	< .02	.01	.34	.08	< .01	.04	62	< 10	45	1.10	100.26
12958	91.86	4.53	.92	.17	< .02	.02	.16	.26	< .01	.05	73	15	84	2.14	100.14
12959	90.91	5.13	.49	.16	< .02	.03	.67	.26	< .01	.04	93	22	175	2.22	99.95
12960	86.52	5.10	3.90	.54	.03	.03	.14	.23	.02	.05	100	20	84	4.09	100.67

DATE : 16-MAY-1989

SIGNED :

*Adrian H. Deonan*  
Adrian H. Deonan Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 6

T.S.L. File No. : 09MAY, 10MAY

T.S.L. Invoice No. :

### YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
12961	55.34	23.44	5.96	.95	.42	.17	1.23	1.23	.04	.10	158	44	297	11.52	100.47
12962	53.95	28.59	2.55	.35	.21	.05	.95	1.10	.01	.11	193	42	190	11.62	99.55
12963	87.12	5.86	1.29	.21	.04	.03	.55	.28	< .01	.04	73	12	126	2.50	97.96
12964	58.70	25.40	1.72	.76	.53	.09	.78	1.01	.01	.08	154	29	242	10.34	99.47
12965	91.64	3.93	.85	.16	< .02	< .01	.16	.20	< .01	.02	62	15	76	1.53	98.54

DATE : 16-MAY-1989

SIGNED :

Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8068

## I.C.A.P. ANALYSIS

Major Elements by Flame

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 1

T.S.L. File No. : C:\SC\M5531.MIN

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	P	Sc	Th	W	Mo	Ag
8995 3351	1	2	230	5	< 10	66	25	20	6	< 30	< 30	< 10	< 10
3352	< 1	2	150	< 5	< 10	68	25	12	9	< 30	< 30	< 10	< 10
3353	< 1	< 2	130	< 5	< 10	32	10	2	2	< 30	< 30	< 10	< 10
3354	< 1	< 2	160	< 5	< 10	12	20	2	1	60	< 30	< 10	< 10
3355	< 1	< 2	190	< 5	< 10	16	20	4	3	< 30	< 30	< 10	< 10
3356	< 1	4	200	< 5	< 10	36	10	6	1	< 30	< 30	< 10	< 10
3357	1	12	270	35	< 10	48	10	6	1	30	< 30	< 10	< 10
3358	1	10	250	5	< 10	66	30	6	4	< 30	< 30	< 10	< 10
3359	1	10	200	10	< 10	38	15	4	3	< 30	< 30	< 10	< 10
3360	1	14	190	75	< 10	36	15	10	1	< 30	30	< 10	< 10
3361	1	14	300	25	< 10	54	10	6	3	< 30	< 30	< 10	< 10
3362	1	10	150	< 5	< 10	64	10	4	2	60	< 30	< 10	< 10
3363	1	6	190	110	< 10	56	10	8	5	< 30	< 30	< 10	< 10
3364	1	8	240	40	< 10	54	10	6	1	< 30	< 30	< 10	< 10
3365	1	52	200	55	40	140	40	18	12	< 30	< 30	< 10	< 10
3366	2	22	180	85	< 10	170	55	16	22	< 30	< 30	< 10	< 10
3367	2	24	170	80	50	160	70	40	20	< 30	< 30	< 10	< 10
8990 3617	1	12	170	15	< 10	54	25	6	8	< 30	< 30	< 10	< 10
3618	1	16	170	25	< 10	56	30	16	9	< 30	< 30	< 10	< 10
3619	1	10	210	30	< 10	52	70	10	7	< 30	< 30	< 10	< 10
3620	4	10	160	45	< 10	100	15	22	2	30	< 30	< 10	< 10
3621	2	26	200	45	< 10	94	25	18	9	< 30	< 30	< 10	< 10
8915 3651	1	24	260	40	< 10	66	25	6	4	< 30	< 30	< 10	< 10
3652	1	22	220	15	< 10	82	25	2	2	30	< 30	< 10	< 10
3653	1	16	220	10	< 10	60	20	4	3	< 30	< 30	< 10	< 10
3654	1	14	210	40	< 10	36	85	4	1	30	< 30	< 10	< 10
3655	< 1	14	150	< 5	< 10	24	10	2	2	30	< 30	< 10	< 10
3656	< 1	12	170	< 5	< 10	32	30	2	3	30	< 30	< 10	< 10
3657	< 1	8	150	5	< 10	74	25	8	2	30	< 30	< 10	< 10
3658	2	26	150	30	20	130	75	12	20	< 30	30	< 10	< 10

DATE : MAY-16-1989

SIGNED :

*Daniel J. Belush*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 2  
T.S.L. File No. : C:\SC\M5531.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Zr	Th	W	Mo	Ag
3655	2	32	250	110	80	140	110	24	22	< 30	< 30	< 10	< 10
3660	3	84	200	80	60	170	35	46	27	< 30	< 30	< 10	< 10
893 3701	2	24	210	40	< 10	110	50	30	17	< 30	< 30	< 10	< 10
3702	2	26	250	45	< 10	140	55	40	20	< 30	< 30	< 10	< 10
3703	1	22	180	15	< 10	40	25	8	3	< 30	< 30	< 10	< 10
3704	1	18	180	20	< 10	50	25	4	2	< 30	< 30	< 10	< 10
3705	1	18	200	35	< 10	34	20	14	2	< 30	< 30	< 10	< 10
3706	1	22	290	20	< 10	46	15	4	3	< 30	< 30	< 10	< 10
3707	1	30	680	60	< 10	76	30	18	5	< 30	< 30	< 10	< 10
3708	1	20	330	10	< 10	42	25	8	3	< 30	< 30	< 10	< 10
893 3709	1	12	230	5	< 10	50	25	12	3	< 30	< 30	< 10	< 10
3710	< 1	10	270	5	< 10	36	20	4	1	< 30	< 30	< 10	< 10
3711	< 1	8	140	15	< 10	58	15	6	2	< 30	< 30	< 10	< 10
3712	2	26	380	45	10	150	45	18	13	< 30	< 30	< 10	< 10
3713	1	12	370	10	< 10	50	20	20	6	< 30	< 30	< 10	< 10
3714	1	16	170	5	< 10	40	15	10	4	< 30	< 30	< 10	< 10
3715	1	18	250	15	< 10	46	25	4	2	< 30	< 30	< 10	< 10
3716	2	36	260	50	< 10	190	60	12	22	< 30	< 30	< 10	< 10
3717	3	42	220	75	< 10	140	65	14	28	< 30	< 30	< 10	< 10
3718	3	30	210	45	< 10	180	55	46	26	< 30	< 30	< 10	< 10
893 3719	3	24	220	140	< 10	170	45	72	33	30	< 30	< 10	< 10
883 3751	1	18	300	30	< 10	64	20	8	5	30	30	< 10	< 10
3752	< 1	10	180	15	< 10	28	15	8	2	< 30	< 30	< 10	< 10
3753	1	16	280	50	< 10	42	20	8	2	< 30	< 30	< 10	< 10
3754	1	14	140	95	< 10	44	15	4	1	< 30	< 30	< 10	< 10
3755	1	10	140	65	< 10	26	25	4	1	30	< 30	< 10	< 10
3756	1	12	220	10	< 10	32	20	18	4	< 30	60	< 10	< 10
3757	< 1	8	110	< 5	< 10	26	20	< 2	1	< 30	< 30	< 10	< 10
3758	1	14	180	5	< 10	48	15	4	2	30	< 30	< 10	< 10
106 4101	1	14	130	5	< 10	58	15	6	4	< 30	< 30	< 10	< 10

DATE : MAY-16-1989

SIGNED : \_\_\_\_\_



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 3  
T.S.L. File No. : C:\SCL\M5531.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
106 4102	2	20	160	20	< 10	38	15	18	3	< 30	< 30	< 10	< 10
4103	1	22	150	60	< 10	38	10	4	2	60	< 30	< 10	< 10
4104	3	56	210	85	< 10	170	40	42	26	< 30	< 30	< 10	< 10
4105	1	32	370	35	< 10	70	35	14	5	90	< 30	< 10	< 10
4106	3	92	250	110	20	210	190	24	19	< 30	< 30	< 10	< 10
4107	3	54	230	85	< 10	190	65	30	19	< 30	< 30	< 10	< 10
4108	3	46	230	95	< 10	190	65	36	21	< 30	< 30	< 10	< 10
4109	3	40	230	80	< 10	200	50	34	20	< 30	< 30	< 10	< 10
4110	2	40	200	75	< 10	120	65	28	15	< 30	< 30	< 10	< 10
4111	3	50	220	65	< 10	220	45	34	18	< 30	< 30	< 10	< 10
4112	4	70	250	75	20	180	35	58	27	< 30	30	< 10	< 10
8981 4151	< 1	16	220	25	< 10	50	25	12	6	< 30	< 30	< 10	< 10
4152	< 1	14	50	< 5	< 10	32	20	6	2	< 30	< 30	< 10	< 10
4153	< 1	14	170	55	< 10	58	20	< 2	2	30	< 30	< 10	< 10
4154	< 1	10	150	10	< 10	12	15	2	2	< 30	< 30	< 10	< 10
4155	< 1	10	260	< 5	< 10	32	25	4	3	< 30	< 30	< 10	< 10
4156	< 1	14	190	5	< 10	34	15	10	2	< 30	< 30	< 10	< 10
4157	1	14	250	5	< 10	24	15	8	2	< 30	< 30	< 10	< 10
4158	< 1	6	140	< 5	< 10	16	< 5	8	1	< 30	< 30	< 10	< 10
4159	< 1	12	250	5	< 10	74	5	6	4	< 30	< 30	< 10	< 10
8981 4160	1	6	140	5	< 10	56	20	14	4	60	< 30	< 10	< 10
4161	< 1	14	110	65	350	80	< 5	< 2	3	30	< 30	< 10	< 10
4162	< 1	6	150	< 5	< 10	42	< 5	6	3	30	< 30	< 10	< 10
4163	< 1	16	130	10	< 10	32	< 5	4	2	< 30	< 30	< 10	< 10
4164	< 1	14	170	5	< 10	56	< 5	4	4	< 30	< 30	< 10	< 10
4165	< 1	10	140	< 5	< 10	72	5	4	4	< 30	< 30	< 10	< 10
4166	2	28	230	55	< 10	230	35	24	19	30	< 30	< 10	< 10
4167	1	28	400	25	< 10	66	10	6	4	< 30	< 30	< 10	< 10
4168	1	28	140	140	< 10	96	20	26	17	< 30	< 30	< 10	< 10
4169	1	22	240	30	< 10	66	15	30	9	< 30	< 30	< 10	< 10

DATE : MAY-16-1989

SIGNED :

*David J. Pilesh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Major Elements by Fusion

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 4  
 T.S.L. File No. : C:\SC\MS531.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Ba	Th	W	Mo	Ag
4170	1	28	130	45	< 10	110	25	36	16	30	30	< 10	< 10
4171	1	30	170	40	< 10	72	35	30	14	< 30	< 30	< 10	< 10
4172	2	28	160	45	< 10	130	10	34	19	< 30	< 30	< 10	< 10
4173	2	24	160	50	< 10	110	20	18	14	< 30	< 30	< 10	< 10
8982 4201	1	16	90	10	< 10	32	5	10	2	< 30	< 30	< 10	< 10
4202	1	16	180	15	< 10	28	10	6	3	< 30	30	< 10	< 10
4203	1	12	120	10	< 10	24	< 5	2	< 1	< 30	30	< 10	< 10
4204	1	10	180	20	< 10	42	5	8	3	< 30	< 30	< 10	< 10
4205	< 1	18	200	35	< 10	50	10	8	3	< 30	< 30	< 10	< 10
4206	< 1	18	160	5	< 10	30	5	18	5	< 30	< 30	< 10	< 10
4207	2	20	130	5	< 10	94	15	14	2	60	< 30	< 10	< 10
4208	2	40	330	50	< 10	190	35	26	21	< 30	< 30	< 10	< 10
4209	1	28	240	20	< 10	70	5	8	5	< 30	< 30	< 10	< 10
4210	1	18	210	10	< 10	54	< 5	2	2	30	< 30	< 10	< 10
4211	1	22	190	15	< 10	56	5	12	5	< 30	< 30	< 10	< 10
4212	1	24	140	15	< 10	28	5	8	3	< 30	< 30	< 10	< 10
4213	1	22	130	15	< 10	46	< 5	4	3	< 30	< 30	< 10	< 10
4214	1	18	140	5	< 10	52	< 5	4	3	< 30	< 30	< 10	< 10
4215	1	18	190	5	< 10	38	< 5	2	2	< 30	< 30	< 10	< 10
8978 4251	1	16	130	< 5	< 10	58	20	14	7	< 30	< 30	< 10	< 10
4252	1	20	220	10	< 10	52	5	10	6	< 30	< 30	< 10	< 10
4253	1	16	140	< 5	< 10	66	20	16	7	< 30	< 30	< 10	< 10
4254	1	16	130	< 5	< 10	64	20	10	5	< 30	< 30	< 10	< 10
4255	1	18	120	5	< 10	78	30	8	5	< 30	< 30	< 10	< 10
4256	1	16	85	55	< 10	54	10	12	4	90	< 30	< 10	< 10
4257	1	16	110	10	< 10	52	10	4	4	< 30	< 30	< 10	< 10
4258	1	20	150	75	< 10	52	10	8	1	< 30	< 30	< 10	< 10
4259	1	26	160	15	< 10	54	5	6	4	< 30	< 30	< 10	< 10
4260	1	26	130	10	< 10	30	< 5	< 2	< 1	60	< 30	< 10	< 10
4261	1	24	110	15	< 10	50	5	6	2	< 30	< 30	< 10	< 10

DATE : MAY-16-1989

SIGNED :

*Dominic J. Bilosi*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5531 - 5  
T.S.L. File No. : C:\ASD\M5531.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8678 4262	1	< 2	160	< 5	< 10	12	10	10	< 1	< 30	30	< 10	< 10
4263	< 1	< 2	190	< 5	< 10	30	5	2	1	< 30	< 30	< 10	< 10
4264	< 1	< 2	160	< 5	< 10	40	5	4	1	< 30	30	< 10	< 10
4265	< 1	< 2	120	< 5	< 10	24	5	2	1	< 30	< 30	< 10	< 10
4266	< 1	< 2	120	< 5	< 10	20	< 5	2	1	< 30	< 30	< 10	< 10
4267	< 1	2	85	< 5	10	48	10	2	1	< 30	60	< 10	< 10
4268	< 1	< 2	150	< 5	< 10	22	5	< 2	< 1	90	< 30	< 10	< 10
4269	< 1	4	170	< 5	10	54	10	< 2	1	< 30	< 30	< 10	< 10
4270	2	20	410	40	40	210	45	12	8	< 30	30	< 10	< 10
4271	1	12	240	35	60	92	15	2	1	< 30	60	< 10	< 10
4272	2	20	170	50	70	110	30	16	8	< 30	< 30	< 10	< 10
4273	1	12	140	20	30	70	20	6	4	< 30	30	< 10	< 10
892 12901	1	14	150	15	< 10	34	10	6	1	30	< 30	< 10	< 10
12902	< 1	16	170	5	10	110	10	< 2	1	< 30	< 30	< 10	< 10
12903	2	58	250	80	130	180	25	16	10	< 30	30	< 10	< 10
12904	1	34	240	80	50	86	35	12	7	< 30	60	< 10	< 10
12905	< 1	8	180	30	10	34	10	6	2	< 30	< 30	< 10	< 10
12906	< 1	6	150	10	20	46	10	2	1	< 30	30	< 10	< 10
12907	< 1	34	400	20	60	70	50	6	3	< 30	< 30	< 10	< 10
12908	1	46	190	70	160	140	55	6	10	30	< 30	< 10	< 10
8923 12951	1	18	200	< 5	< 10	34	30	8	1	30	30	< 10	< 10
12952	1	20	250	5	50	56	25	4	2	< 30	30	< 10	< 10
12953	1	28	250	40	< 10	42	20	2	2	< 30	< 30	< 10	< 10
12954	1	30	210	20	< 10	44	20	< 2	1	60	30	< 10	< 10
12955	1	30	250	45	40	110	15	4	2	< 30	< 30	< 10	< 10
12956	1	32	170	20	30	64	25	2	< 1	< 30	< 30	< 10	< 10
12957	1	24	210	20	10	54	10	< 2	1	< 30	30	< 10	< 10
12958	1	34	230	20	40	62	20	2	1	30	< 30	< 10	< 10
12959	1	20	270	15	70	56	20	4	3	< 30	< 30	< 10	< 10
12960	1	30	270	20	70	74	35	< 2	1	60	< 30	< 10	< 10

DATE : MAY-14-1989

SIGNED :

*Daniel J. Bilinski*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5531 - 6  
T.S.L. File No. : C:\SC\M5531.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12961	2	64	230	110	120	190	50	8	9	< 30	30	< 10	< 10
12962	2	60	290	70	150	140	50	16	10	< 30	< 30	< 10	< 10
12963	< 1	22	150	15	60	52	15	< 2	1	30	30	< 10	< 10
12964	1	52	380	70	120	140	65	12	8	< 30	< 30	< 10	< 10
12965	< 1	14	180	15	20	32	20	2	2	< 30	< 30	< 10	< 10

DATE : MAY-16-1989

SIGNED :

*Daniel J. Dilworth*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5506 - 2  
 T.S.L. File No. : 02MAY, 06MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
2359	84.45	8.72	.91	.08	.04	.01	.19	.39	.01	.05	99	148	403	3.15	98.08
2360	76.05	16.21	.99	.11	.08	.03	< .10	.80	< .01	.06	121	29	342	5.98	100.46
2361	92.73	3.94	.41	.03	< .02	.01	< .10	.15	< .01	.03	38	< 10	78	1.30	98.62
2362	53.40	30.92	1.52	.26	.19	.05	.54	1.08	< .01	.11	218	40	215	11.96	100.09
2363	62.29	23.95	1.56	.21	.19	.05	.28	1.17	.01	.10	167	29	273	8.69	98.56
2364	63.42	23.26	1.80	.26	.18	.04	.45	1.03	.01	.10	159	32	235	8.82	99.42
2365	57.57	25.94	5.40	.27	.32	.06	.33	1.29	.01	.15	180	44	314	9.36	100.77
2366	76.75	14.31	1.45	.18	.15	.04	.12	.92	.01	.07	122	26	409	5.00	99.07
2367	82.82	10.23	1.19	.13	.07	.03	.11	.76	.01	.06	100	15	361	3.52	98.99
2368	81.91	12.01	.80	.13	.08	.03	.22	.89	< .01	.07	123	16	469	3.72	99.94
8992 2369	91.36	3.74	.41	.60	.18	.13	.41	.62	.02	.02	102	33	500	1.75	99.32
8983 2401	89.76	5.67	.26	< .02	.03	< .01	< .10	.45	< .01	< .01	44	< 10	235	2.44	98.64
2402	92.39	4.25	.10	.05	.05	< .01	.21	.19	< .01	< .01	40	< 10	88	1.95	99.20
2403	91.72	4.65	.22	< .02	< .02	< .01	< .10	.19	< .01	< .01	34	< 10	50	2.04	98.84
2404	66.72	20.70	1.82	.32	.22	.04	.28	1.09	< .01	.07	207	68	282	7.97	99.31
2405	76.92	14.99	1.00	.26	.16	.01	< .10	.98	< .01	.06	150	30	464	5.61	100.08
2406	86.25	7.71	.56	.16	.02	< .01	.26	.51	< .01	.03	86	15	214	3.25	98.79
2407	82.44	10.69	.55	.09	.05	< .01	.33	.73	< .01	.04	92	15	329	4.16	99.14
2408	92.29	3.24	.30	.32	< .02	.03	.65	.12	< .01	.02	112	42	59	1.48	98.48
2409	92.45	3.84	.20	.35	< .02	< .01	.27	.18	< .01	.02	82	32	61	1.89	99.24
2410	93.73	3.81	.28	.12	.07	.15	< .10	.21	< .01	.03	157	48	67	-0.99	97.46
2411	94.13	3.66	.18	.15	< .02	.04	.28	.18	< .01	.01	98	29	111	1.51	100.19
2412	91.68	3.64	.25	.06	< .02	< .01	< .10	.13	< .01	< .01	46	< 10	52	1.62	97.40
2413	93.12	4.78	.12	.11	< .02	.02	.24	.18	< .01	< .01	49	15	79	1.92	100.52
2414	93.39	3.84	.19	.10	< .02	< .01	< .10	.24	< .01	< .01	54	14	130	1.48	99.28
2415	94.31	3.02	.16	.06	< .02	< .01	< .10	.08	< .01	< .01	56	12	42	1.24	98.90
2416	93.07	3.38	.33	.29	< .02	< .01	< .10	.16	< .01	.01	56	15	76	1.67	99.17
2451	91.08	4.41	.24	.58	.15	.06	.16	.25	< .01	.02	87	23	118	2.09	99.07
8949 2452	90.63	4.64	.24	.09	< .02	< .01	.32	.21	< .01	.02	64	15	85	1.93	98.12
2453	94.34	2.71	.26	.73	.15	.16	.29	.11	< .01	.03	82	29	55	1.55	100.35

DATE : 11-MAY-1989

SIGNED :

*David J. Bilesch*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5506 - 3

T.S.L. File No. : 02MAY, 06MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8949 2454	93.79	2.34	.43	.33	.03	.06	< .10	.07	.01	.03	60	28	48	1.33	98.54
2455	92.74	2.72	.41	.31	.04	.05	.51	.25	< .01	.02	79	35	135	1.13	98.22
2456	95.42	2.42	.24	.19	< .02	< .01	.50	.10	< .01	.02	81	25	69	1.02	99.95
2457	89.78	4.62	.85	.31	.02	< .01	< .10	.27	.01	.02	67	25	107	2.25	98.16
2458	89.07	6.18	.28	.20	.03	< .01	< .10	.31	< .01	.01	84	30	110	2.40	98.50
2459	92.74	3.28	.18	.22	< .02	< .01	< .10	.17	< .01	< .01	51	12	47	1.35	97.98
2460	93.02	3.37	.22	.14	< .02	< .01	< .10	.15	< .01	.02	57	25	43	1.27	98.21
2461	73.34	15.61	1.15	.31	.12	< .01	< .10	.98	< .01	.06	138	38	381	6.54	98.19
2462	65.59	20.68	3.09	.24	.23	< .01	< .10	1.21	.01	.10	176	43	361	8.58	99.82
89103 2501	93.41	3.38	.41	.29	.09	.02	< .10	.15	< .01	.02	96	31	97	1.61	99.40
2502	90.45	4.10	.78	.18	< .02	.36	.55	.29	.04	.05	152	302	665	1.90	98.86
2503	94.35	2.53	.19	.42	.03	.05	.46	.10	< .01	.02	102	73	201	1.12	99.33
2504	93.82	2.41	.21	.15	< .02	.02	.54	.14	< .01	.03	57	25	133	1.32	98.68
2505	91.55	3.53	.25	.08	< .02	< .01	.40	.18	< .01	.02	55	21	95	1.71	97.77
2506	92.84	3.71	.29	.21	.21	< .01	.50	.19	< .01	.04	56	22	91	1.45	99.46
2507	91.55	3.99	.25	.10	.02	< .01	< .10	.13	< .01	.02	57	12	52	1.60	97.75
2508	93.03	2.85	.36	.19	.03	< .01	< .10	.16	< .01	.01	90	25	53	1.21	97.86
2509	93.29	2.99	.28	.44	.03	< .01	< .10	.12	< .01	< .01	116	39	35	1.42	98.59
2510	92.55	4.40	.61	.39	.03	< .01	< .10	.21	< .01	.02	129	36	53	2.18	100.42
2511	62.58	23.64	1.06	.59	.20	.02	< .10	1.24	< .01	.08	201	74	289	8.96	98.45
89103 2512	64.45	22.12	1.49	.95	.59	.24	.91	1.13	.02	.12	216	59	370	8.63	100.74
2513	92.54	3.76	.74	.44	.20	.04	< .10	.20	< .01	.03	51	12	75	2.06	100.04
2514	62.00	23.64	2.06	.25	.25	.03	.90	1.30	< .01	.12	188	37	368	9.21	99.84
2515	58.10	25.71	1.23	.33	.31	.03	1.29	1.32	< .01	.11	212	37	288	12.19	100.69
8997 2551	91.12	5.04	.99	.22	.04	< .01	< .10	.35	.01	.04	64	17	127	2.28	100.16
2552	93.22	4.24	.27	< .02	< .02	< .01	< .10	.19	< .01	.03	54	< 10	107	1.87	99.84
2553	95.12	2.94	.34	.02	< .02	< .01	< .10	.10	< .01	.02	63	12	65	1.63	100.19
2554	93.27	2.77	.25	< .02	< .02	< .01	< .10	.23	< .01	.02	82	14	133	1.44	98.02
2555	95.87	2.73	.20	.05	< .02	< .01	< .10	.06	< .01	.02	74	13	47	1.53	100.51
2556	96.15	2.29	.30	< .02	< .02	< .01	< .10	.07	< .01	.02	80	13	48	1.45	100.32

DATE : 11-MAY-1989

SIGNED :

*Daniel J. Bilesh*  
per Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5506 - 4

T.S.L. File No. : 02MAY, 06MAY

T.S.L. Invoice No. :

### YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2557	88.36	6.30	1.14	.33	.09	.30	.23	.19	.02	.02	141	33	51	2.20	99.22
2558	80.56	10.77	1.66	.21	.06	< .01	< .10	.67	< .01	.05	128	26	195	4.96	99.00
2559	65.52	22.01	1.41	.20	.11	.02	< .10	1.25	< .01	.08	123	34	339	9.19	99.86
2560	78.61	12.87	1.98	.21	.07	.03	< .10	.57	.02	.05	103	21	209	5.45	99.90
2561	83.23	10.50	.67	.09	.06	< .01	< .10	.45	< .01	.04	102	18	165	4.36	99.43
2562	64.74	21.90	1.00	.20	.14	< .01	.98	.86	< .01	.08	143	22	267	10.68	100.67
2563	51.99	29.17	4.29	.20	.32	.03	.48	1.04	.06	.12	223	30	213	13.10	100.85
2564	58.63	23.71	3.92	.19	.25	.01	.34	.89	.05	.10	192	25	169	12.02	100.15
2565	59.23	21.51	5.67	.27	.24	.04	.17	1.41	.06	.10	150	30	393	10.78	99.55
2566	85.57	6.52	2.51	< .02	.05	< .01	< .10	.44	.03	.04	94	14	174	4.10	99.31
2567	62.65	22.60	1.98	.45	.48	.15	.84	1.32	.02	.10	218	46	366	8.68	99.35
2568	71.16	17.09	2.70	.19	.28	.03	.34	1.11	.01	.11	183	30	370	7.06	100.15
8955 2955	93.89	3.84	.37	.10	.04	< .01	< .10	.15	< .01	.02	31	< 10	51	1.80	100.22
2956	56.62	28.90	1.50	.14	.17	.02	< .10	1.02	< .01	.10	183	22	173	11.71	100.23
2957	86.97	6.30	.85	< .02	.05	< .01	< .10	.42	< .01	.03	68	< 10	115	3.45	100.11
2958	65.65	19.87	5.55	.17	.22	.03	< .10	1.47	.02	.11	180	37	428	7.79	100.96
2959	66.37	18.78	5.85	.15	.25	.02	< .10	1.15	.01	.12	167	40	412	7.41	100.19
2960	92.90	3.00	.47	.36	.08	.01	.50	.12	< .01	.02	62	17	77	1.72	99.20
2961	92.49	5.55	.38	.07	.04	< .01	< .10	.20	< .01	.03	78	16	84	2.21	100.99
2962	94.22	2.74	.21	.12	.03	< .01	< .10	.12	< .01	.02	46	< 10	70	1.49	98.97
2963	95.13	3.09	.57	.04	.17	< .01	< .10	.10	< .01	.06	59	12	87	1.42	100.62
2964	90.85	6.25	.40	< .02	.04	< .01	< .10	.19	< .01	.04	47	< 10	72	2.66	100.47
2965	91.92	3.93	.34	< .02	< .02	< .01	< .10	.08	< .01	.03	73	14	42	1.94	98.28
2966	58.77	27.01	1.41	.22	.19	.01	.29	0.99	< .01	.10	200	30	188	11.09	100.14
8984 3001	94.67	2.53	.52	.58	.18	.06	< .10	.11	< .01	.03	50	17	52	1.44	100.14
3002	95.41	2.75	.33	.22	.06	.01	< .10	.07	< .01	.02	45	11	47	1.32	100.21
3303	88.14	5.80	.55	1.04	.26	.11	< .10	.23	< .01	.03	94	28	88	2.91	99.12
3004	94.22	2.89	.21	.07	.03	< .01	< .10	.13	< .01	.02	45	< 10	54	1.34	98.93
3005	91.22	5.05	.25	< .02	.03	< .01	< .10	.16	< .01	.02	56	< 10	54	2.08	98.83
3006	92.49	3.71	.34	< .02	< .02	< .01	< .10	.11	< .01	.02	56	< 10	37	1.21	97.90

DATE : 11-MAY-1989

SIGNED :

*Adrian H. Debnam*  
for Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5506 - 5

T.S.L. File No. : 02MAY , 06MAY

T.S.L. Invoice No. :

### YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8984 3007	92.77	3.04	.21	.17	.08	.10	.27	.12	.01	.02	71	16	63	1.41	98.22
3008	92.88	3.13	.29	.05	< .02	< .01	.31	.06	< .01	.02	52	10	35	1.55	98.31
3009	94.40	2.99	.27	.12	.05	< .01	.27	.13	< .01	.02	36	< 10	63	1.51	99.78
3010	92.48	3.03	< .02	.04	< .02	< .01	.52	.10	< .01	.02	30	< 10	53	1.68	97.90
3011	93.41	3.41	.20	.08	< .02	< .01	.55	.11	< .01	.03	41	10	50	1.62	99.42
3012	65.55	20.84	3.32	.18	.23	.04	.82	1.10	< .01	.12	190	43	360	8.39	100.68
3013	69.58	17.33	3.53	.21	.21	.05	1.02	1.03	.02	.10	150	40	435	7.82	100.99
3014	76.70	14.41	1.47	.26	.14	.02	.55	.91	< .01	.07	126	30	432	6.12	100.73
3015	78.44	13.45	1.09	.20	.12	.02	.86	.84	.01	.07	136	36	332	5.76	100.92
3016	85.80	8.42	.63	.06	.05	< .01	.39	.65	< .01	.04	83	14	396	3.97	100.07
8948 3051	61.87	21.05	1.41	1.14	.42	.22	.35	1.05	.01	.09	176	66	256	13.18	100.85
3052	58.06	23.92	1.39	1.52	.59	.23	.67	1.09	.01	.09	188	72	190	11.64	99.27
3053	91.09	3.84	.36	.54	.16	.09	.18	.18	< .01	.02	77	22	64	1.91	98.40
3054	93.19	3.70	.34	.09	< .02	< .01	< .10	.17	< .01	.02	63	15	88	1.95	99.49
3055	93.42	3.45	.24	.13	< .02	< .01	< .10	.10	< .01	.01	56	17	50	1.56	98.93
3056	94.84	2.34	.29	.08	< .02	< .01	< .10	.14	< .01	.01	77	15	70	1.14	98.86
3057	89.86	6.55	.24	.07	< .02	< .01	< .10	.25	< .01	.03	63	14	87	2.70	99.80
3058	95.37	2.85	.25	.07	< .02	< .01	.17	.10	< .01	.02	43	10	56	1.59	100.43
3059	93.60	2.57	.27	.09	< .02	< .01	< .10	.14	< .01	.02	62	22	66	1.48	98.19
3060	93.99	2.49	.43	.09	< .02	< .01	< .10	.09	< .01	.02	67	15	47	1.45	98.58
3061	96.47	1.65	.35	.15	.05	.07	< .10	.11	.01	.03	68	17	46	.80	99.71
3062	94.19	2.68	.33	.09	< .02	< .01	.20	.06	< .01	.03	63	12	56	1.20	98.82
3063	92.29	4.04	.85	.19	< .02	< .01	< .10	.16	.01	.04	48	10	58	2.30	99.91
3064	93.24	3.55	.43	.09	< .02	< .01	< .10	.17	< .01	.02	49	14	76	1.71	99.32
3065	90.08	4.02	.67	.17	< .02	.40	.87	.18	.04	.02	90	11	54	1.56	98.03
3066	95.73	2.47	.27	< .02	< .02	< .01	< .10	.08	< .01	.01	36	< 10	38	1.25	99.83
3067	82.54	11.66	.66	.11	.06	< .01	< .10	.50	< .01	.05	121	39	155	4.50	100.11
8951 3101	92.35	3.08	.17	< .02	< .02	< .01	.34	.11	< .01	.02	53	11	90	1.50	97.60
3102	93.63	2.34	.25	.14	.03	< .01	< .10	.11	< .01	.01	51	10	63	1.36	97.89
3103	95.38	2.03	.42	.16	.02	< .01	< .10	.09	< .01	< .01	54	10	42	1.16	99.29

DATE : 11-MAY-1989

SIGNED :

*David J. Bulish*  
for Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5506 - 6

T.S.L. File No. : 02MAY, 06MAY

T.S.L. Invoice No. :

### YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
3104	94.01	2.90	.43	.25	.15	.01	< .10	.09	< .01	.02	55	19	41	1.23	99.12
3105	91.78	4.39	.29	.17	.04	< .01	.47	.17	< .01	.04	65	15	85	1.89	99.27
3106	89.91	4.68	.45	.15	.03	< .01	.18	.23	< .01	.03	70	19	98	2.20	97.88
3107	93.02	4.37	.33	.04	< .02	< .01	.10	.20	< .01	.03	64	< 10	79	2.00	100.12
3108	92.61	3.19	.38	.08	< .02	.03	< .10	.16	< .01	.03	53	25	61	1.44	97.94
3109	94.91	1.52	.59	.13	< .02	< .01	< .10	.09	< .01	.03	30	< 10	57	.88	98.17
3110	90.86	5.58	.37	.12	< .02	< .01	< .10	.24	< .01	.04	86	25	85	2.35	99.58

DATE : 11-MAY-1989

SIGNED :

*Daniel J. Belushi*  
for Adrian H. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 1  
T.S.L. File No. : C:\SC\M5506.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8991 2301	1	12	150	< 5	30	20	15	8	2	60	< 30	< 10	< 10
2302	< 1	10	210	< 5	40	28	10	6	4	< 30	< 30	< 10	< 10
2303	< 1	14	160	< 5	40	12	30	6	2	< 30	< 30	< 10	< 10
2304	< 1	8	260	< 5	50	32	35	8	3	< 30	< 30	< 10	< 10
2305	< 1	6	230	< 5	40	32	35	4	3	< 30	< 30	< 10	< 10
2306	< 1	8	150	10	40	18	10	8	1	< 30	120	< 10	< 10
2307	1	8	210	< 5	30	14	5	4	1	< 30	< 30	< 10	< 10
2308	< 1	4	200	< 5	40	14	30	2	< 1	< 30	< 30	< 10	< 10
2309	< 1	4	240	< 5	40	16	15	2	1	< 30	< 30	< 10	< 10
2310	< 1	6	160	< 5	40	30	15	2	2	< 30	< 30	< 10	< 10
2311	< 1	6	220	< 5	40	36	5	6	3	< 30	30	< 10	< 10
2312	2	20	280	70	80	110	35	32	24	< 30	< 30	< 10	< 10
2313	< 1	12	320	15	40	40	15	6	4	30	< 30	< 10	< 10
2314	1	22	230	50	90	110	40	14	14	< 30	< 30	< 10	< 10
2315	1	14	200	< 5	40	28	30	4	4	< 30	30	< 10	< 10
2316	1	16	230	15	40	42	15	4	5	< 30	30	< 10	< 10
2317	1	14	210	15	50	36	20	2	3	< 30	< 30	< 10	< 10
2318	1	14	250	5	50	46	20	6	4	30	< 30	< 10	< 10
2319	2	30	310	35	250	180	35	16	18	30	< 30	< 10	< 10
2320	1	16	270	20	40	68	25	8	7	< 30	< 30	< 10	< 10
2321	2	20	220	45	80	140	45	26	21	< 30	< 30	< 10	< 10
2322	2	30	220	130	110	100	45	24	16	< 30	< 30	< 10	< 10
8992 2351	1	8	160	10	30	22	20	2	2	< 30	< 30	< 10	< 10
2352	1	12	200	10	50	46	25	4	2	30	30	< 10	< 10
2353	< 1	10	220	25	30	32	20	4	1	< 30	< 30	< 10	< 10
2354	< 1	8	190	< 5	40	28	15	2	1	60	30	< 10	< 10
2355	< 1	10	230	5	30	40	30	6	3	< 30	< 30	< 10	< 10
2356	2	24	280	60	70	110	45	30	25	< 30	< 30	< 10	< 10
2357	1	16	250	30	50	110	30	14	11	60	< 30	< 10	< 10
2358	< 1	10	180	75	40	44	25	6	4	< 30	< 30	< 10	< 10

DATE : MAY-11-1989

SIGNED :

*David J. Belosh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 2  
T.S.L. File No. : C:\SC\M5506.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2359	1	12	270	45	40	60	50	8	6	< 30	< 30	< 10	< 10
2360	1	18	160	50	80	74	40	12	13	< 30	< 30	< 10	10
2361	< 1	10	170	5	50	24	10	4	3	< 30	< 30	< 10	< 10
2362	3	28	210	75	120	150	40	42	21	< 30	< 30	< 10	< 10
2363	2	28	230	80	90	110	50	32	15	< 30	< 30	< 10	< 10
2364	2	28	210	75	100	140	35	28	16	< 30	< 30	< 10	< 10
2365	1	28	260	40	110	230	60	26	19	< 30	< 30	20	< 10
2366	1	22	210	15	70	90	50	30	12	< 30	< 30	< 10	< 10
2367	1	20	180	35	90	64	50	12	6	< 30	< 30	< 10	< 10
2368	1	20	200	20	50	74	40	10	6	30	< 30	< 10	< 10
8992 2369	1	< 2	210	< 5	< 10	14	20	34	5	< 30	< 30	< 10	< 10
8983 2401	< 1	< 2	100	< 5	< 10	< 2	45	6	3	< 30	< 30	< 10	< 10
2402	< 1	< 2	140	< 5	< 10	< 2	< 5	< 2	< 1	< 30	< 30	< 10	< 10
2403	< 1	< 2	180	< 5	< 10	160	15	< 2	4	60	< 30	< 10	< 10
2404	< 1	2	190	20	< 10	82	50	24	16	< 30	30	< 10	< 10
2405	1	10	190	90	< 10	36	60	28	14	< 30	< 30	< 10	< 10
2406	1	2	130	20	< 10	38	20	20	9	< 30	< 30	< 10	< 10
2407	1	10	170	20	< 10	88	75	10	7	30	< 30	< 10	< 10
2408	< 1	6	170	25	< 10	72	< 5	14	6	30	30	< 10	< 10
2409	< 1	2	160	15	< 10	140	5	18	6	< 30	< 30	< 10	< 10
2410	< 1	< 2	140	5	< 10	8	35	18	4	< 30	< 30	< 10	< 10
2411	< 1	< 2	140	< 5	< 10	12	50	10	3	< 30	< 30	< 10	< 10
2412	< 1	< 2	120	< 5	< 10	22	15	< 2	< 1	< 30	< 30	< 10	< 10
2413	< 1	< 2	140	5	< 10	16	40	4	2	< 30	< 30	< 10	< 10
2414	< 1	< 2	160	< 5	< 10	6	50	18	3	< 30	< 30	< 10	< 10
2415	< 1	< 2	200	< 5	< 10	36	20	4	1	< 30	< 30	< 10	< 10
2416	< 1	6	170	< 5	< 10	72	10	< 2	3	< 30	< 30	< 10	< 10
2451	< 1	< 2	190	45	< 10	54	40	2	2	< 30	< 30	< 10	< 10
8949 2452	< 1	12	190	5	< 10	32	< 5	8	1	< 30	< 30	< 10	< 10
2453	< 1	12	110	15	< 10	12	30	< 2	2	< 30	30	< 10	< 10

DATE : MAY-11-1989

SIGNED :

*Daniel J. Bilish*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 3  
T.S.L. File No. : C:\SC\M5506.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8949 2454	1	2	150	10	< 10	18	55	26	4	< 30	< 30	< 10	< 10
2455	1	6	240	< 5	< 10	52	45	10	4	< 30	< 30	< 10	< 10
2456	< 1	4	220	5	< 10	14	< 5	4	4	< 30	< 30	< 10	< 10
2457	< 1	8	230	< 5	40	22	25	2	2	< 30	< 30	< 10	< 10
2458	< 1	< 2	170	< 5	10	20	25	10	6	< 30	< 30	< 10	< 10
2459	< 1	< 2	120	< 5	10	44	< 5	4	5	< 30	< 30	< 10	< 10
2460	< 1	< 2	130	210	< 10	28	10	10	3	< 30	< 30	< 10	< 10
2461	1	6	190	20	50	50	60	24	13	< 30	< 30	< 10	< 10
2462	1	10	200	50	100	98	20	24	19	< 30	< 30	< 10	< 10
89103 2501	< 1	6	160	10	70	10	20	24	6	< 30	< 30	< 10	< 10
2502	2	12	170	90	60	54	20	16	6	< 30	< 30	< 10	< 10
2503	1	12	150	10	80	18	15	28	4	30	< 30	< 10	< 10
2504	1	6	220	10	60	46	< 5	4	2	< 30	< 30	< 10	< 10
2505	< 1	10	190	15	50	16	15	2	3	< 30	< 30	< 10	< 10
2506	< 1	14	210	< 5	90	16	290	6	< 1	30	< 30	< 10	< 10
2507	< 1	6	170	< 5	70	14	5	2	4	60	< 30	< 10	< 10
2508	< 1	< 2	170	< 5	20	< 2	15	< 2	5	< 30	< 30	< 10	< 10
2509	< 1	< 2	160	< 5	60	16	50	6	4	< 30	< 30	< 10	< 10
2510	< 1	< 2	130	< 5	< 10	48	5	2	4	< 30	< 30	< 10	< 10
2511	2	22	250	25	130	210	30	20	22	< 30	< 30	< 10	< 10
89103 2512	3	26	240	30	60	84	65	46	22	< 30	30	< 10	< 10
2513	1	16	200	10	40	46	35	6	3	< 30	< 30	< 10	< 10
2514	3	36	280	65	150	110	95	38	21	< 30	< 30	< 10	< 10
2515	4	110	280	75	160	140	20	34	24	< 30	< 30	< 10	< 10
8997 2551	1	16	200	30	30	36	55	4	5	< 30	< 30	< 10	< 10
2552	1	12	190	25	40	28	25	4	2	< 30	< 30	< 10	< 10
2553	< 1	10	230	< 5	40	24	25	4	1	< 30	< 30	< 10	< 10
2554	< 1	8	210	< 5	30	18	30	8	3	< 30	< 30	< 10	< 10
2555	< 1	6	180	20	40	10	10	2	1	< 30	< 30	< 10	< 10
2556	< 1	4	190	15	40	22	20	2	< 1	< 30	< 30	< 10	< 10

DATE : MAY-11-1989

SIGNED :

*David J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 4  
T.S.L. File No. : C:\SC\M5506.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2557	< 1	8	210	15	50	26	25	8	2	< 30	< 30	< 10	< 10
2558	1	28	230	20	80	64	50	8	8	< 30	< 30	< 10	< 10
2559	1	28	200	65	90	94	30	14	15	< 30	< 30	< 10	< 10
2560	1	18	200	60	90	56	50	6	9	< 30	< 30	< 10	< 10
2561	1	14	280	30	50	48	35	2	7	< 30	< 30	< 10	< 10
2562	2	58	190	65	100	88	130	34	18	< 30	30	< 10	< 10
2563	4	48	220	140	150	110	70	38	24	< 30	< 30	< 10	< 10
2564	3	50	200	110	190	92	130	28	19	< 30	< 30	< 10	< 10
2565	4	56	240	80	180	120	80	28	13	< 30	< 30	< 10	< 10
2566	1	22	120	50	80	30	75	8	5	60	< 30	< 10	< 10
2567	4	32	240	60	150	110	65	28	17	< 30	< 30	< 10	< 10
2568	2	32	240	40	160	88	110	32	16	30	< 30	< 10	< 10
8955 2955	< 1	4	150	< 5	40	16	20	2	4	< 30	< 30	< 10	< 10
2956	3	86	190	90	280	74	70	26	20	< 30	< 30	< 10	< 10
2957	1	12	250	20	60	22	55	10	5	< 30	< 30	< 10	< 10
2958	2	22	230	50	100	130	70	28	17	< 30	< 30	< 10	< 10
2959	2	16	220	75	100	98	55	18	17	30	< 30	< 10	< 10
2960	< 1	4	280	< 5	50	16	30	4	2	< 30	< 30	< 10	< 10
2961	< 1	6	200	35	40	30	25	4	3	30	< 30	< 10	< 10
2962	< 1	6	130	5	40	10	25	2	2	< 30	< 30	< 10	< 10
2963	1	24	300	250	140	20	20	2	1	< 30	< 30	< 10	< 10
2964	1	18	230	10	40	30	40	< 2	4	< 30	< 30	< 10	< 10
2965	1	10	210	50	50	42	10	2	3	< 30	30	< 10	< 10
2966	3	24	220	120	100	100	35	26	23	< 30	< 30	< 10	< 10
8984 3001	< 1	8	240	10	100	12	40	4	3	< 30	< 30	< 10	< 10
3002	1	14	150	15	100	20	35	< 2	2	< 30	< 30	< 10	< 10
3303	1	8	190	30	80	22	30	4	2	30	< 30	< 10	< 10
3004	< 1	6	150	< 5	50	14	20	2	2	< 30	< 30	< 10	< 10
3005	1	4	200	5	40	18	25	4	3	< 30	< 30	< 10	< 10
3006	< 1	6	190	25	40	8	35	< 2	1	< 30	< 30	< 10	< 10

DATE : MAY-11-1989

SIGNED :

*Ramiro J. Bilalish*



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 5  
T.S.L. File No. : C:\SC\M5506.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8984 3007	1	6	170	5	40	14	40	6	3	30	< 30	< 10	< 10
3008	1	10	250	< 5	30	48	40	4	2	< 30	< 30	< 10	< 10
3009	1	16	210	10	60	30	30	2	2	< 30	< 30	< 10	< 10
3010	1	16	190	10	80	20	20	2	2	< 30	30	< 10	< 10
3011	1	18	200	10	70	30	50	2	2	< 30	< 30	< 10	< 10
3012	2	30	230	65	110	100	60	24	17	< 30	< 30	< 10	< 10
3013	2	30	210	45	80	94	50	24	18	< 30	< 30	< 10	< 10
3014	2	30	220	90	70	80	230	18	13	< 30	< 30	< 10	< 10
3015	2	24	190	35	80	60	40	26	12	< 30	< 30	< 10	< 10
3016	1	20	200	30	70	48	65	10	6	< 30	< 30	< 10	< 10
8948 3051	3	62	280	50	130	110	35	32	20	< 30	< 30	< 10	< 10
3052	2	76	240	60	160	110	100	24	22	< 30	< 30	< 10	< 10
3053	1	10	190	20	30	18	35	4	3	< 30	< 30	< 10	< 10
3054	< 1	6	160	5	30	26	35	6	2	< 30	< 30	< 10	< 10
3055	1	6	200	10	40	18	35	< 2	2	< 30	< 30	< 10	< 10
3056	< 1	8	190	10	40	24	25	8	3	< 30	< 30	< 10	< 10
3057	1	12	200	20	40	28	30	8	5	< 30	< 30	< 10	< 10
3058	1	14	190	5	60	16	35	4	2	< 30	< 30	< 10	< 10
3059	1	12	250	5	70	20	25	4	2	30	< 30	< 10	< 10
3060	1	14	360	10	60	20	35	4	< 1	< 30	< 30	< 10	< 10
3061	1	14	270	35	60	16	50	8	1	< 30	< 30	< 10	< 10
3062	1	14	240	20	60	12	30	2	< 1	< 30	< 30	< 10	< 10
3063	1	14	200	160	70	18	25	4	3	< 30	< 30	< 10	< 10
3064	1	12	290	15	70	36	25	8	4	< 30	< 30	< 10	< 10
3065	1	14	140	20	70	16	40	2	3	< 30	< 30	< 10	< 10
3066	< 1	2	230	< 5	70	6	15	< 2	1	30	< 30	< 10	< 10
3067	1	12	240	25	70	64	45	8	8	< 30	< 30	< 10	< 10
8951 3101	1	4	190	< 5	70	20	40	4	2	< 30	< 30	< 10	< 10
3102	1	6	200	10	70	16	30	4	1	< 30	< 30	< 10	< 10
3103	< 1	4	210	5	60	24	40	2	1	< 30	< 30	< 10	< 10

DATE : MAY-11-1989

SIGNED : Samuel J. Bilosh

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 836B

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5506 - 6  
 T.S.L. File No. : C:\SC\M5506.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
3104	1	14	170	25	80	34	45	4	3	< 30	< 30	< 10	< 10
3105	1	24	190	15	80	28	50	4	4	< 30	< 30	< 10	< 10
3106	1	20	290	10	60	30	30	6	1	< 30	< 30	< 10	< 10
3107	1	20	220	15	70	58	45	2	2	< 30	< 30	< 10	< 10
3108	1	20	230	20	80	32	40	4	2	< 30	< 30	< 10	< 10
3109	1	16	280	15	70	28	30	< 2	< 1	30	< 30	< 10	< 10
3110	1	16	280	35	80	52	35	8	5	< 30	< 30	< 10	< 10

DATE : MAY-11-1989

SIGNED : *Amal J. Bilal*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 1

T.S.L. File No. : 22MAR

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
8928 2023	92.10	4.02	.59	.05	< .02	< .01	< .10	.22	< .01	.03	59	11	144	1.68	98.76
2024	93.04	4.03	.49	.04	.02	< .01	< .10	.19	< .01	.03	56	< 10	115	1.78	99.67
2025	90.85	5.19	.50	.04	< .02	< .01	< .10	.28	< .01	.03	52	< 10	194	2.43	99.42
2026	92.21	4.94	.50	< .02	< .02	< .01	< .10	.23	< .01	.03	51	< 10	170	2.19	100.18
2027	92.01	5.02	.51	.03	< .02	< .01	< .10	.18	< .01	.03	52	< 10	115	2.11	99.98
2028	91.19	4.95	.48	.04	< .02	< .01	< .10	.24	< .01	.04	51	< 10	152	2.18	99.20
2029	90.84	4.23	.51	< .02	< .02	< .01	< .10	.22	< .01	.03	60	< 10	113	2.13	98.02
2030	91.40	5.34	.69	.05	.03	.01	< .10	.58	.01	.04	79	10	477	2.68	100.94
2031	92.81	3.15	.54	.04	.03	.02	< .10	.10	< .01	.03	53	< 10	65	1.93	98.75
2032	92.32	3.86	.50	.05	< .02	< .01	< .10	.15	< .01	.03	52	< 10	85	2.16	99.11
2033	91.85	4.50	.45	.04	< .02	.02	.11	.15	< .01	.03	59	< 10	89	1.82	99.00
2034	91.08	4.55	.59	.05	< .02	< .01	.16	.20	< .01	.03	52	< 10	124	2.07	98.78
2035	86.30	8.79	.60	.09	.04	.01	< .10	.57	< .01	.05	73	19	295	3.78	100.29
2036	88.05	6.78	.69	.10	.03	.02	< .10	.36	< .01	.04	69	10	175	3.05	99.24
2037	92.22	4.13	.56	.08	< .02	.01	< .10	.41	< .01	.04	62	< 10	326	1.79	99.35
2038	91.19	4.24	.63	.05	< .02	.02	.28	.13	< .01	.04	59	< 10	83	2.20	98.82
2039	58.07	24.68	1.58	.46	.16	.05	.42	1.01	< .01	.11	185	36	235	13.21	99.81
2040	92.89	3.45	.61	.04	< .02	.01	.17	.08	< .01	.03	47	< 10	58	1.71	99.02
2041	53.05	26.96	1.14	.42	.15	.06	.41	1.01	< .01	.11	151	34	257	17.12	100.49
2042	92.69	3.07	.63	.08	< .02	.02	.24	.11	< .01	.04	51	10	88	1.56	98.49
2043	69.67	16.15	.93	.28	.09	.06	.24	.67	< .01	.07	115	24	205	9.92	98.13
2044	64.02	20.50	.98	.31	.12	.04	.22	.98	< .01	.08	133	27	324	12.99	100.30
2045	53.49	25.79	1.13	.42	.17	.04	.17	1.03	< .01	.10	158	38	237	17.68	100.08
2046	92.46	4.18	.52	.05	< .02	.01	< .10	.15	< .01	.03	151	13	111	1.93	99.39
2047	93.29	3.52	.54	.06	< .02	.02	< .10	.12	< .01	.03	74	10	76	1.74	99.37
2048	93.31	2.77	.56	.05	< .02	< .01	< .10	.07	< .01	.03	59	< 10	66	1.33	98.15
2049	88.32	6.07	.88	.14	.04	.03	< .10	.33	< .01	.04	150	19	244	2.86	98.83
2050	93.80	3.55	.43	.03	< .02	.02	.24	.07	< .01	.03	105	15	84	1.57	99.77
8926 2051	92.89	3.12	.36	.10	.04	.02	< .10	.13	< .01	.03	50	< 10	87	1.49	98.23
2052	93.34	3.67	.41	.05	< .02	.02	< .10	.22	< .01	.03	58	< 10	119	1.91	99.79

DATE : 28-MAR-1989

SIGNED :

*Adrian H. Debnam*  
Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 2  
 T.S.L. File No. : 22MAR  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2053	90.84	4.45	.56	.12	.10	.02	.11	.14	< .01	.04	53	14	82	1.71	98.12
2054	59.62	26.33	2.24	.21	.18	.05	.45	1.06	.01	.11	164	29	272	10.01	100.33
2055	58.40	27.59	1.61	.31	.21	.06	.24	1.20	< .01	.11	176	36	180	10.57	100.36
2056	57.35	27.75	1.38	.31	.23	.07	.29	1.25	< .01	.11	190	36	200	11.11	99.91
2057	55.31	29.13	1.33	.36	.26	.08	.33	1.23	< .01	.11	176	40	179	11.95	100.14
8954 2151	92.20	4.05	.52	.14	.04	.02	< .10	.16	< .01	.03	53	< 10	76	1.62	98.80
2152	92.65	3.37	.38	.06	.03	.01	< .10	.18	< .01	.03	50	< 10	95	1.41	98.14
2153	92.90	2.96	.51	.05	.03	< .01	< .10	.09	< .01	.03	54	< 10	63	1.21	97.81
2154	92.83	3.72	.55	.07	< .02	.01	.13	.10	< .01	.04	54	10	77	1.48	98.97
2155	92.55	3.39	.43	.09	.03	< .01	.16	.13	< .01	.03	60	11	95	1.27	98.11
2156	94.04	2.78	.46	.16	.06	.07	.34	.06	< .01	.03	60	13	54	1.24	99.27
2157	73.08	17.55	.95	.19	.13	.05	.31	.86	< .01	.07	154	36	232	7.07	100.32
2158	66.80	21.77	1.18	.19	.15	.06	.45	1.14	.01	.09	202	44	327	8.65	100.56
2159	94.84	3.13	.43	.03	< .02	.01	.10	.14	< .01	.02	47	< 10	63	1.62	100.35
2160	62.44	25.07	1.07	.15	.13	.05	.29	1.03	< .01	.08	159	37	207	10.03	100.40
2161	91.61	4.33	.59	.03	< .02	< .01	< .10	.21	< .01	.02	55	< 10	91	2.43	99.25
2162	71.05	18.68	1.03	.13	.12	.03	.17	.87	< .01	.07	183	33	258	8.13	100.34
2163	92.00	4.83	.57	.07	< .02	.01	.12	.18	< .01	.03	74	14	73	2.50	100.35
2164	84.61	9.15	1.01	.10	.04	.02	.18	.51	< .01	.05	91	15	247	4.41	100.13
2165	88.19	7.43	.56	.08	.03	.02	.13	.46	< .01	.03	74	11	189	3.39	100.37
2166	60.57	25.00	1.60	.19	.18	.04	.57	.93	.01	.09	173	25	206	10.39	99.62
2167	69.46	19.59	1.16	.21	.16	.04	.56	.75	< .01	.09	136	25	222	8.64	100.72
2168	56.65	27.97	1.27	.24	.19	.05	.60	1.21	< .01	.12	161	29	279	12.17	100.54
2169	62.54	23.49	1.95	.26	.22	.09	.62	1.18	.01	.11	168	34	295	9.66	100.19
2170	66.64	19.34	3.57	.19	.20	.05	.62	1.04	.01	.13	125	29	349	8.06	99.91
2171	62.31	23.08	3.05	.22	.33	.06	.86	1.37	.01	.13	193	41	372	9.19	100.68
2172	72.41	16.71	1.48	.19	.20	.04	.69	1.05	.01	.08	117	38	464	7.09	100.02
2173	72.25	16.18	2.09	.19	.20	.04	.74	.99	.01	.10	133	27	400	6.93	99.78
2174	65.29	20.10	3.87	.19	.25	.05	.78	1.21	.01	.13	176	35	426	8.60	100.56
8927 2201	92.45	3.92	.70	.28	.07	.03	.27	.31	< .01	.04	43	11	133	2.50	100.60

DATE : 28-MAR-1989

SIGNED : Adrian H. Debnam Ph.D.  
*Adrian H. Debnam*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 3

T.S.L. File No. : 22MAR

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2202	62.66	23.94	1.49	.30	.14	.09	.42	1.07	.01	.10	130	28	295	10.21	100.48
2203	57.46	24.26	1.16	.43	.19	.06	.58	1.12	< .01	.10	158	40	210	15.21	100.63
2204	61.10	23.55	1.10	.34	.17	.06	.59	1.21	< .01	.11	174	36	300	12.09	100.39
2205	66.15	21.30	1.04	.24	.12	.06	.59	1.13	< .01	.10	151	30	343	9.22	100.03
2206	92.77	2.99	.35	.05	< .02	.01	.39	.13	< .01	.03	43	< 10	80	1.72	98.46
2207	92.87	3.12	.33	.06	< .02	.01	.35	.18	< .01	.03	41	< 10	130	1.80	98.78
2208	91.91	3.28	.55	.06	< .02	.02	.35	.37	< .01	.03	41	< 10	221	1.98	98.60
2209	93.94	3.22	.32	.03	< .02	< .01	.18	.16	< .01	.03	40	< 10	102	1.80	99.71
2210	94.74	3.22	.33	.03	< .02	< .01	.15	.14	< .01	.03	40	< 10	85	2.04	100.71
2211	91.40	4.10	.32	.04	< .02	.02	.34	.17	< .01	.04	48	< 10	89	2.27	98.74
2212	92.99	2.64	1.25	.27	.07	< .01	< .10	.09	.02	.02	39	10	47	1.92	99.28
2213	93.62	3.30	.57	.07	.03	< .01	< .10	.18	< .01	.02	42	< 10	99	1.92	99.74
2214	94.92	3.06	.40	.03	< .02	< .01	< .10	.07	< .01	.02	47	< 10	45	1.66	100.19
2215	93.16	2.89	.45	.03	< .02	.01	< .10	.10	< .01	.02	52	< 10	61	1.63	98.43
2216	88.92	7.12	.48	.05	.03	.01	.14	.25	< .01	.03	69	14	87	2.99	100.04
2217	85.79	9.58	.55	.07	.05	.02	.13	.41	< .01	.04	65	15	130	3.46	100.13
2218	57.78	26.96	3.04	.17	.14	.07	.49	1.15	< .01	.11	148	35	240	9.82	99.79
2219	58.22	27.32	1.90	.18	.15	.06	.73	1.06	.01	.09	180	33	240	10.65	100.42
2220	69.59	18.06	1.79	.17	.10	.03	.62	.02	.01	.01	< 10	260	< 10	7.89	98.32
2221	43.82	17.39	14.71	11.63	7.53	1.27	.38	1.58	.19	.09	64	321	33	1.55	100.19

DATE : 28-MAR-1989

SIGNED :

\_\_\_\_\_  
Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 1

T.S.L. File No. : D:5481

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
8928 2023	8	2
2024	4	2
2025	2	3
2026	4	5
2027	4	3
2028	6	4
2029	4	2
2030	8	4
2031	4	2
2032	2	3
2033	4	2
2034	4	3
2035	8	6
2036	4	3
2037	8	3
2038	2	2
2039	40	24
2040	< 2	1
2041	26	25
2042	6	2
2043	20	14
2044	22	19
2045	28	23
2046	4	1
2047	2	1
2048	4	< 1
2049	10	4
2050	2	< 1
8926 2051	4	1
2052	2	2

DATE : MAR-28-1989

SIGNED :

Daniel J. Bilush

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 2

T.S.L. File No. : D:5481

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
2053	2	2
2054	16	22
2055	20	25
2056	28	29
2057	24	24
8954 2151	4	3
2152	4	2
2153	2	1
2154	2	1
2155	2	2
2156	8	1
2157	20	15
2158	22	18
2159	4	2
2160	18	20
2161	4	4
2162	20	17
2163	8	4
2164	6	6
2165	6	5
2166	20	20
2167	26	17
2168	30	22
2169	26	19
2170	24	19
2171	32	21
2172	26	14
2173	32	16
2174	40	21
8927 2201	8	4

DATE : MAR-28-1989

SIGNED :

*Daniel J. Belish*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 3

T.S.L. File No. : D:5481

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
2202	22	22
2203	30	27
2204	36	26
2205	30	23
2206	4	3
2207	2	2
2208	6	2
2209	4	2
2210	< 2	1
2211	4	< 1
2212	2	2
2213	2	2
2214	2	2
2215	2	2
2216	6	4
2217	6	7
2218	18	19
2219	12	16
2220	2	3
2221	8	29

DATE : MAR-28-1989

SIGNED :

*Samuel J. Bielecki*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY  
MISSISSAUGA DNT.

T.S.L. REPORT No. : M - 5477 - 1

T.S.L. File No. : 14MAR

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2001	94.07	2.32	.58	.10	.11	.06	< .10	.09	< .01	.03	39	< 10	67	.99	98.37
2002	95.04	2.37	.42	.05	.05	.01	< .10	.08	< .01	.02	34	< 10	59	1.16	99.21
2003	93.74	3.56	.60	.11	.03	.02	< .10	.15	< .01	.03	47	< 10	98	1.80	100.07
2004	95.31	3.22	.40	.02	< .02	< .01	< .10	.23	< .01	.02	45	< 10	130	1.59	100.84
2005	96.88	2.18	.50	< .02	< .02	< .01	< .10	.08	< .01	.02	44	< 10	60	1.18	100.88
2006	93.86	3.64	.40	< .02	< .02	< .01	< .10	.16	< .01	.02	54	< 10	101	1.81	99.92
8928 2007	68.10	21.93	1.00	.12	.13	.03	< .10	1.05	< .01	.07	150	25	428	8.40	100.97
2008	82.54	11.09	.83	.07	.05	.01	< .10	.69	< .01	.04	88	14	345	4.85	100.24
8928 2009	91.37	4.83	.47	< .02	< .02	< .01	< .10	.28	< .01	.02	41	< 10	135	2.54	99.57
8928 2010	93.26	3.14	.36	< .02	< .02	< .01	< .10	.16	< .01	.01	30	< 10	63	1.77	98.73
8928 2011	94.40	3.76	.38	< .02	.02	< .01	< .10	.17	< .01	.02	35	< 10	71	1.62	100.40
8928 2012	94.07	3.37	.40	.02	< .02	< .01	< .10	.11	< .01	.02	35	< 10	56	1.82	99.83
8928 2013	93.42	3.00	.43	.02	< .02	< .01	< .10	.10	< .01	.02	35	< 10	53	1.84	98.86
8928 2014	93.17	2.71	.48	< .02	< .02	< .01	< .10	.07	< .01	.02	39	< 10	53	1.62	98.13
8928 2015	85.19	9.22	.66	.09	.06	.02	< .10	.64	< .01	.05	84	14	394	3.97	100.07
8928 2016	88.44	7.02	.68	.11	.04	.01	< .10	.54	< .01	.04	73	14	304	3.27	100.24
8928 2017	86.84	7.46	.68	.07	.04	.02	.11	.61	< .01	.04	71	11	377	3.40	99.34
8928 2018	87.39	7.66	.69	.06	.05	.02	< .10	.76	< .01	.04	78	12	629	3.42	100.19
8928 2019	89.54	5.69	1.06	.15	.03	< .01	< .10	.48	.01	.04	68	< 10	392	3.13	100.20
8928 2020	94.01	3.42	.48	.02	< .02	< .01	< .10	.16	< .01	.03	56	< 10	116	1.90	100.10
8928 2021	93.34	3.44	.56	.10	.04	.05	.23	.15	< .01	.03	79	15	86	1.36	99.33
8928 2022	93.10	3.86	.41	< .02	< .02	< .01	< .10	.17	< .01	.03	56	< 10	76	1.54	99.17
8950 2101	93.66	3.29	.47	.03	< .02	< .01	< .10	.18	< .01	.02	42	< 10	98	1.66	99.34
8950 2102	93.47	3.19	.39	< .02	< .02	< .01	< .10	.16	< .01	.02	39	< 10	104	1.57	98.83
8950 2103	94.31	2.22	.33	< .02	< .02	< .01	< .10	.10	< .01	.03	33	< 10	150	1.10	98.14
8950 2104	94.18	2.73	.37	.03	< .02	< .01	< .10	.11	< .01	.03	40	< 10	83	1.19	98.68
8950 2105	92.19	3.72	.52	.03	< .02	< .01	< .10	.17	< .01	.03	39	< 10	82	1.55	98.25
8950 2106	92.02	4.01	.38	< .02	< .02	< .01	< .10	.22	< .01	.03	44	< 10	124	1.66	98.39
8950 2107	88.38	6.53	.72	.09	.04	.02	.14	.31	< .01	.04	64	11	135	2.84	99.15
8950 2108	94.88	2.65	.41	< .02	< .02	< .01	< .10	.09	< .01	.05	37	< 10	58	1.11	99.24

DATE : 21-MAR-1989

SIGNED :

*Adrian H. Debnam*  
for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY  
 MISSISSAUGA ONT.

T.S.L. REPORT No. : M - 5477 - 2  
 T.S.L. File No. : 14MAR  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8950 2109	93.63	2.65	.48	.06	.02	.03	< .10	.15	< .01	.03	44	< 10	84	1.09	98.16
8950 2110	93.51	3.07	.47	.03	< .02	.01	< .10	.14	< .01	.03	44	< 10	93	1.20	98.49
8950 2111	93.32	2.80	.79	.11	< .02	.01	< .10	.11	.01	.04	61	15	73	1.30	98.59
8950 2112	95.91	1.81	.56	.15	.02	.02	< .10	.15	.02	.03	39	< 10	74	1.04	99.77
8950 2113	91.95	2.98	.60	.04	< .02	.02	.20	.41	< .01	.04	45	< 10	178	1.20	97.50
8950 2114	57.76	27.68	1.78	.18	.16	.05	.68	.96	< .01	.14	182	34	164	10.26	99.70
8950 2115	55.26	29.83	1.52	.19	.14	.05	.70	1.04	< .01	.13	171	26	235	11.14	100.07
8950 2116	59.49	26.65	1.35	.18	.16	.05	.69	.94	< .01	.13	174	28	186	10.05	99.75
8950 2117	52.76	31.91	1.29	.23	.18	.06	.77	1.11	< .01	.15	185	31	250	11.94	100.46
8950 2118	69.30	19.32	1.29	.20	.20	.05	.60	1.07	.01	.11	126	29	418	7.03	99.25
8950 2119	87.43	8.75	.74	.12	.07	.03	.61	.63	< .01	.07	71	14	386	.00	98.52

DATE : 21-MAR-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
Minor Elements by Fusion

JAMES BAY  
MISSISSAUGA ONT.

T.S.L. REPORT No. : M - 5477 - 1  
T.S.L. File No. : D:T  
T.S.L. Invoice No. :

YOUR REFERENCE -

*YTERIUM  
Standard*

ALL RESULTS PPM

SAMPLE #	Y	Sc
2001	4	2
2002	4	2
2003	4	4
2004	6	4
2005	2	2
2006	6	5
8928 2007	24	33
2008	18	19
8928 2009	4	8
8928 2010	6	4
8928 2011	4	5
8928 2012	< 2	2
8928 2013	< 2	4
8928 2014	6	3
8928 2015	20	14
8928 2016	20	11
8928 2017	18	10
8928 2018	24	13
8928 2019	18	7
8928 2020	2	4
8928 2021	6	4
8928 2022	8	2
8950 2101	6	3
8950 2102	4	1
8950 2103	< 2	2
8950 2104	2	2
8950 2105	6	3
8950 2106	6	3
8950 2107	8	7
8950 2108	4	2

DATE : MAR-21-1989

SIGNED :

*David J. Bilish*



**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISSISSAUGA ONT.

T.S.L. REPORT No. : M - 5477 - 2

T.S.L. File No. : D:T

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
8950 2109	6	5
8950 2110	4	3
8950 2111	6	2
8950 2112	8	5
8950 2113	10	5
8950 2114	42	49
8950 2115	52	48
8950 2116	58	44
8950 2117	66	53
8950 2118	52	32
8950 2119	36	14

DATE : MAR-21-1989

SIGNED : \_\_\_\_\_

# TECHNICAL SERVICE LABORATORIES

1101 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 628 - 1544  
 FAX : (416) 628 - 8366

## ICAP WHOLE ROCK ANALYSIS

GAMES BAY COMPANY  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5565 - 1  
 T.S.L. File No. : 01JUN , 25MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
89-24-157	55.93	24.24	1.41	.29	.12	.05	1.06	1.06	.02	.11	189	56	208	14.27	97.72
89-24-158	90.96	4.13	.37	.15	.05	< .01	.53	.19	< .01	.03	46	11	50	1.95	98.38
89-24-159	55.13	24.65	1.17	.84	.29	.06	1.74	1.09	< .01	.10	183	49	210	15.02	99.96
89-24-160	73.83	16.43	.73	.31	.12	.02	.99	.94	< .01	.07	121	31	418	6.41	99.93
89-24-161	92.41	3.59	.21	.22	.02	< .01	.53	.10	< .01	.03	39	11	58	1.10	98.23
89-24-162	94.50	2.98	.16	.13	< .02	< .01	.40	.12	< .01	.02	38	< 10	67	1.04	99.36
89-24-163	55.14	29.80	1.25	.37	.21	.04	.55	1.21	< .01	.11	151	45	228	11.48	100.23
89-24-164	92.79	3.55	.35	.10	< .02	< .01	.70	.11	< .01	.03	49	10	63	1.38	99.04
89-24-165	54.36	29.86	1.32	.35	.18	.04	.98	1.15	< .01	.12	155	44	201	12.00	100.47
89-22-211	93.89	4.09	.49	.21	< .02	< .01	< .10	.10	< .01	.03	48	19	54	1.60	100.44
89-22-212	93.94	3.47	.31	.15	.04	.11	.42	.11	< .01	.03	57	19	65	1.30	99.91
89-22-213	95.08	2.61	.20	.08	.02	< .01	.16	.09	< .01	.02	50	< 10	46	1.07	99.36
89-22-214	89.96	4.76	1.01	.14	.03	< .01	.86	.12	< .01	.03	60	10	57	2.26	99.03
89-59-301	96.52	2.16	.43	.17	.10	.04	< .10	.06	< .01	.02	64	14	40	.81	100.33
89-59-302	93.30	2.69	.19	.70	.08	< .01	.17	.07	< .01	.03	73	14	57	1.16	98.42
89-59-303	94.03	2.78	.53	.27	.17	< .01	< .10	.19	< .01	.03	83	29	76	1.03	99.07
89-59-304	95.85	3.12	.29	.37	.03	< .01	< .10	.07	< .01	.03	76	16	53	1.11	100.89
89-59-305	94.24	2.75	.31	< .02	< .02	< .01	.34	.10	< .01	< .01	76	16	56	1.24	99.00
89-59-306	65.36	21.85	1.55	.42	.18	.05	.20	1.01	< .01	.09	206	47	252	8.86	99.64
89-59-307	91.73	5.02	.62	.24	.04	< .01	< .10	.42	< .01	.04	64	26	228	1.83	99.99
89-59-308	57.98	25.55	2.43	.21	.12	.04	.04	1.01	< .01	.13	182	59	330	10.38	98.53
89-65-351	91.34	3.87	.37	.17	.04	.04	.43	.17	< .01	.03	54	10	95	1.31	97.80
89-65-352	93.10	3.80	.37	.12	.04	.03	.70	.10	< .01	.03	54	10	49	1.36	99.68
89-65-353	93.34	4.03	.30	.31	< .02	.02	.80	.12	< .01	.03	90	< 10	74	1.53	100.50
89-65-354	66.36	21.80	1.04	.28	.05	.02	.47	1.14	< .01	.09	85	80	351	9.03	100.36
89-65-355	91.96	3.78	.52	.08	< .02	< .01	.20	.20	< .01	.03	52	< 10	130	1.91	98.74
89-65-356	93.58	3.44	.36	.06	< .02	< .01	.41	.17	< .01	.03	43	< 10	111	1.66	99.74
89-65-357	93.32	3.71	.51	.07	< .02	< .01	.20	.20	< .01	.03	52	< 10	129	1.43	99.53
89-65-358	85.79	7.70	1.07	.12	.06	< .01	.80	.44	< .01	.05	86	19	198	3.15	99.23
89-65-359	92.32	4.78	.46	.19	.03	< .01	< .10	.27	< .01	.03	56	20	137	1.98	100.11

DATE : 08-JUN-1989

SIGNED :

*David J. Bullock*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5565 - 2  
 T.S.L. File No. : 01JUN. 25MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Br	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
89-5-360	77.19	13.14	.97	.30	1.82	<.01	<.10	.85	.01	.06	147	35	409	5.14	99.57
89-5-361	93.83	3.27	.54	.10	.79	.01	.19	.60	<.01	.03	45	< 10	329	1.28	100.70
89-5-401	89.76	3.31	.57	1.70	.60	.24	<.10	.17	<.01	.03	102	41	78	2.59	99.00
89-5-402	95.67	2.57	.27	.21	.05	<.01	<.10	.11	<.01	.02	107	22	65	1.01	99.94
89-5-403	66.35	22.91	.67	.33	.07	.03	<.10	1.21	<.01	.09	113	52	326	8.76	100.49
89-5-404	77.04	15.71	.64	.24	.08	.02	<.10	1.05	<.01	.06	87	26	313	5.71	100.61
89-5-405	84.97	9.95	.62	.22	.07	.02	<.10	.76	<.01	.05	76	18	317	3.79	100.51
89-5-406	63.05	24.13	1.19	.27	.12	.04	.40	1.04	<.01	.08	169	39	293	9.17	99.56
89-5-407	94.05	3.93	.20	.08	<.02	<.01	<.10	.16	<.01	.01	50	10	65	1.21	99.67
89-5-408	62.24	3.75	.18	.09	.04	<.01	<.10	.13	<.01	<.01	62	10	51	1.19	97.64
89-5 409	91.63	3.67	.41	.45	.21	.14	.20	.13	.01	.06	57	17	98	1.05	97.98
410	50.66	29.14	5.04	.66	.27	.09	<.10	.97	.07	.11	163	32	153	13.64	100.79
411	93.67	3.33	.42	.64	.12	.07	<.10	.08	<.01	.05	53	20	57	1.70	100.36
89-35 451	94.31	2.60	.34	.05	<.02	<.01	<.10	.08	<.01	.03	43	< 10	47	1.31	98.75
452	91.63	3.64	.97	.15	.05	.01	.41	.17	.03	.03	42	< 10	90	1.94	99.04
453	95.64	2.10	.24	<.02	<.02	<.01	.31	.09	<.01	.02	40	< 10	60	1.05	99.47
454	94.39	3.00	.35	.11	<.02	<.01	<.10	.16	<.01	.02	56	13	70	1.42	99.50
455	96.98	2.21	.26	<.02	<.02	<.01	<.10	.08	<.01	.02	47	< 10	51	1.05	100.66
456	95.24	2.12	.22	<.02	<.02	<.01	<.10	.09	<.01	.03	59	< 10	47	1.35	99.08
457	93.97	3.75	.32	.03	<.02	<.01	<.10	.11	<.01	.03	63	< 10	50	1.93	100.22
458	77.94	14.55	.80	.11	.09	.08	.56	.74	.01	.06	115	24	275	5.60	100.79
459	95.98	2.73	.26	<.02	<.02	.06	.41	.09	<.01	.02	56	< 10	92	.91	100.51
460	92.41	3.52	.15	.02	<.02	.01	.49	.17	<.01	.04	68	< 10	116	1.52	98.36
89-38 501	95.49	2.52	.21	.34	.10	.06	.61	.09	<.01	.04	43	12	82	1.40	100.87
502	94.49	2.08	.26	.10	.02	.03	.42	.09	<.01	.05	34	< 10	65	1.06	98.63
503	95.05	1.87	.15	.07	<.02	.02	1.10	.09	<.01	.05	35	10	64	.95	99.37
504	93.62	2.32	.46	.22	.03	.03	.87	.16	<.01	.06	50	13	98	1.29	99.09
505	94.53	2.53	.35	.07	<.02	.03	.73	.11	<.01	.05	47	< 10	101	1.31	99.74
506	95.27	3.02	.43	.15	<.02	.02	.10	.08	<.01	.06	49	13	72	1.65	100.81
507	95.07	2.20	.42	.07	<.02	.02	.67	.08	<.01	.06	54	10	57	1.29	99.90

DATE : 08-JUN-1989

SIGNED :

*Daniel J. Blesch*  
 for Adrian R. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY COMPANY  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5565 - 3  
 T.S.L. File No. : 0100N, 25MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
508	94.02	2.69	.44	.27	.05	.09	.59	.08	.01	.05	54	19	66	1.05	99.36
509	93.76	3.22	.85	.12	< .02	.06	.40	.09	< .01	.07	48	10	76	1.43	100.07
510	91.83	3.30	.43	.09	< .02	.02	.50	.30	< .01	.05	52	10	165	1.51	98.09
511	55.66	26.93	1.89	.31	.16	.06	.68	1.22	< .01	.12	173	43	273	11.41	100.52
512	54.72	29.50	2.25	.31	.16	.05	.29	1.12	< .01	.13	164	44	214	11.33	99.93
513	57.76	27.97	1.33	.17	.14	.06	.39	1.10	< .01	.10	169	28	290	10.82	98.71
514	89.32	8.78	.35	.13	< .02	< .01	< .10	.30	< .01	.04	43	12	108	2.37	98.61

DATE : 08-JUN-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY CO.  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5565 - 1  
 T.S.L. File No. : C:\50\M5565.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
89-24-157	3	50	260	160	100	200	25	54	24	< 30	< 30	< 10	< 10
89-24-158	< 1	4	160	5	10	52	< 5	8	5	< 30	< 30	< 10	< 10
89-24-159	3	68	280	85	110	190	20	46	23	< 30	< 30	< 10	< 10
89-24-160	1	10	200	40	50	180	40	14	14	< 30	< 30	< 10	< 10
89-24-161	< 1	2	140	< 5	20	52	< 5	6	3	< 30	< 30	< 10	< 10
89-24-162	< 1	< 2	120	< 5	10	44	< 5	4	4	< 30	< 30	< 10	< 10
89-24-163	2	20	260	65	80	280	30	20	24	< 30	< 30	< 10	< 10
89-24-164	< 1	< 2	210	< 5	< 10	52	< 5	4	3	30	< 30	< 10	< 10
89-24-165	2	20	260	40	80	270	25	24	25	< 30	< 30	< 10	< 10
89-22-211	< 1	2	340	< 5	< 10	72	< 5	6	3	< 30	< 30	< 10	< 10
89-22-212	< 1	< 2	160	5	< 10	42	< 5	4	2	< 30	< 30	< 10	< 10
89-22-213	< 1	< 2	200	5	< 10	42	< 5	4	3	< 30	< 30	< 10	< 10
89-22-214	1	8	200	15	10	88	< 5	4	3	< 30	< 30	< 10	< 10
89-59-301	< 1	< 2	310	5	10	30	< 5	4	1	< 30	< 30	< 10	< 10
89-59-302	1	2	190	5	10	42	< 5	4	2	< 30	< 30	< 10	< 10
89-59-303	< 1	2	330	35	10	48	< 5	4	4	< 30	< 30	< 10	< 10
89-59-304	< 1	< 2	270	20	10	54	< 5	4	2	30	< 30	< 10	< 10
89-59-305	< 1	4	290	30	20	66	< 5	4	3	< 30	< 30	< 10	< 10
89-59-306	2	6	290	50	50	220	30	16	20	< 30	< 30	< 10	10
89-59-307	< 1	< 2	370	15	20	150	< 5	8	6	< 30	< 30	< 10	< 10
89-59-308	3	22	200	75	90	230	40	44	23	< 30	< 30	< 10	< 10
89-65-351	1	2	250	10	10	120	10	12	4	< 30	< 30	< 10	< 10
89-65-352	1	< 2	260	5	20	90	< 5	2	4	< 30	< 30	< 10	< 10
89-65-353	2	16	520	55	60	170	35	26	22	90	< 30	< 10	< 10
89-65-354	< 1	4	240	10	10	66	5	6	3	< 30	< 30	< 10	< 10
89-65-355	< 1	< 2	170	10	20	72	< 5	2	2	< 30	< 30	< 10	< 10
89-65-356	< 1	< 2	230	< 5	10	54	< 5	4	3	< 30	< 30	< 10	< 10
89-65-357	< 1	2	160	10	10	74	< 5	2	3	< 30	< 30	< 10	< 10
89-65-358	1	6	250	25	20	150	5	6	7	< 30	< 30	< 10	< 10
89-65-359	< 1	4	240	10	10	78	< 5	8	5	< 30	< 30	< 10	< 10

DATE : JUN-08-1989

SIGNED : *Kevin J. Bullock*

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY CO.  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5565 - 2  
 T.S.L. File No. : C:\SD\M5565.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Bc	Th	W	Mo	Ag
89-25-360	1	10	360	20	130	120	< 5	16	12	< 30	< 30	< 10	< 10
89-25-361	< 1	8	390	< 5	70	74	20	10	5	< 30	< 30	< 10	< 10
89-25-401	1	< 2	120	5	10	34	< 5	8	4	< 30	< 30	< 10	< 10
89-25-402	< 1	< 2	140	10	10	48	< 5	4	< 1	< 30	< 30	< 10	< 10
89-25-403	1	6	270	30	30	200	10	18	20	< 30	< 30	< 10	< 10
89-25-404	1	12	220	25	70	130	10	12	12	< 30	< 30	< 10	< 10
89-25-405	1	8	180	20	30	110	< 5	10	10	< 30	< 30	< 10	< 10
89-25-406	1	6	200	35	50	140	45	14	19	< 30	< 30	< 10	< 10
89-25-407	< 1	< 2	120	< 5	< 10	38	< 5	4	3	< 30	< 30	< 10	< 10
89-25-408	< 1	< 2	130	5	10	46	< 5	2	2	< 30	< 30	< 10	< 10
89-25 409	1	8	150	110	30	44	20	14	2	< 30	< 30	< 10	< 10
89-25 410	2	62	200	30	110	98	60	16	20	< 30	< 30	< 10	< 10
89-25 411	1	8	200	< 5	20	26	10	4	< 1	< 30	< 30	< 10	< 10
89-25 451	1	6	160	< 5	30	18	10	4	1	< 30	< 30	< 10	< 10
89-25 452	1	14	190	10	40	30	15	4	3	30	< 30	< 10	< 10
89-25 453	< 1	2	190	< 5	20	16	10	4	< 1	< 30	< 30	< 10	< 10
89-25 454	< 1	4	200	< 5	30	20	10	< 2	1	30	< 30	< 10	< 10
89-25 455	< 1	2	160	< 5	30	20	5	< 2	1	< 30	< 30	< 10	< 10
89-25 456	< 1	4	160	10	30	32	< 5	2	3	< 30	< 30	< 10	< 10
89-25 457	< 1	< 2	180	5	30	42	5	4	1	< 30	< 30	< 10	< 10
89-25 458	1	< 2	240	< 5	20	56	20	10	10	< 30	< 30	< 10	< 10
89-25 459	< 1	< 2	220	< 5	70	22	10	2	2	< 30	< 30	< 10	< 10
89-25 460	1	2	130	5	20	20	10	2	2	< 30	< 30	< 10	< 10
89-26 501	1	8	170	< 5	20	36	10	4	1	< 30	< 30	< 10	< 10
89-26 502	1	14	190	15	20	30	15	< 2	1	< 30	< 30	< 10	< 10
89-26 503	1	12	210	< 5	20	24	15	< 2	< 1	30	< 30	< 10	< 10
89-26 504	1	16	210	40	30	32	15	8	1	< 30	< 30	< 10	< 10
89-26 505	1	16	190	10	60	32	15	4	< 1	< 30	< 30	< 10	< 10
89-26 506	1	14	180	150	40	28	15	2	< 1	< 30	< 30	< 10	< 10
89-26 507	1	16	190	25	30	18	15	2	< 1	< 30	< 30	< 10	< 10

DATE : JUN-06-1989

SIGNED : David J. Belosh

**TECHNICAL SERVICE LABORATORIES**  
 1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY CO.  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5585 - 3  
 T.S.L. File No. : C:\SC\M5585.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Se	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
89-38 508	1	10	180	10	20	20	35	8	2	< 30	< 30	< 10	< 10
89-38 509	< 1	34	190	50	50	24	25	4	2	< 30	< 30	< 10	< 10
89-38 510	1	14	290	10	60	66	20	4	2	< 30	< 30	< 10	< 10
89-38 511	2	24	300	35	110	120	45	16	20	< 30	< 30	< 10	< 10
89-38 512	2	14	220	55	80	80	45	28	23	< 30	< 30	< 10	< 10
89-38 513	2	12	180	55	80	110	40	14	17	< 30	< 30	< 10	< 10
89-38 514	< 1	2	140	< 5	50	46	15	2	5	< 30	< 30	< 10	< 10

DATE : JUN-06-1989

SIGNED : *Daniel J. Bilosh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8366

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY KAOLIN  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 3548 - 1  
T.S.L. File No. : 02JUN , 05JUN  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8964 13664	88.39	7.10	.49	.20	.12	.09	.39	.32	< .01	.04	61	14	137	2.92	100.10
13665	80.41	11.15	.73	.49	.15	.06	.59	.50	< .01	.04	100	30	108	4.25	98.45
13666	80.19	11.56	.76	.25	.07	.02	.62	.52	< .01	.05	110	36	161	4.86	98.97
13667	54.85	28.62	1.76	.22	.19	.04	.34	1.08	< .01	.11	197	31	181	11.99	99.31
13668	66.62	21.22	1.10	.14	.10	.03	.67	.97	< .01	.07	147	21	285	9.03	100.02
13669	94.12	3.94	.09	< .02	< .02	< .01	< .10	.16	< .01	.03	39	< 10	66	1.60	100.25
13670	92.56	3.71	.57	.56	.10	.10	< .10	.15	< .01	.02	50	11	61	1.74	99.63
13671	94.35	2.87	.64	.30	.17	< .01	.44	.13	< .01	.03	75	27	50	1.63	100.58
13672	57.33	26.91	1.13	.36	.13	< .01	< .10	1.01	< .01	.08	193	31	257	12.12	99.16
13673	94.14	3.26	.57	.57	.18	.03	< .10	.17	< .01	.02	52	35	64	1.74	100.70
13674	60.17	24.45	1.02	1.06	.46	.17	1.09	1.14	< .01	.10	163	64	249	10.70	100.52
13675	92.53	3.86	.61	.23	.09	.03	< .10	.16	< .01	.02	50	19	53	1.39	96.96
13676	76.83	13.45	.74	.29	.11	< .01	.93	1.17	< .01	.06	139	26	425	6.30	99.99
8970 13762	92.75	4.58	.27	.13	.02	< .01	< .10	.16	< .01	.01	53	17	56	1.66	100.60
13763	59.69	26.49	1.45	.38	.13	.02	.50	1.12	< .01	.06	164	46	264	10.67	100.59
13764	76.43	14.76	0.99	.24	.04	< .01	< .10	.95	< .01	.03	95	22	285	5.81	99.33
13765	92.27	3.85	.69	.28	.16	< .01	< .10	.23	< .01	< .01	39	10	105	1.71	99.32
8942 13801	64.36	4.81	.62	7.14	.04	.03	< .10	.36	< .01	.01	447	569	136	2.13	99.66
13802	67.41	20.64	.76	.38	.17	.05	.75	1.16	< .01	.06	151	67	323	8.63	100.29
13803	92.08	4.96	.22	.19	.05	< .01	.42	.23	< .01	.03	79	24	94	1.96	100.16
13804	92.46	4.04	.55	.55	.19	.20	.30	.16	.02	.05	76	35	64	1.35	99.94
13805	91.97	3.39	.45	.22	.90	< .01	1.01	.10	< .01	.03	58	14	53	1.19	99.29
13806	94.70	2.45	.22	.08	.03	< .01	1.11	.11	< .01	.03	51	< 10	52	1.09	99.84
13807	93.09	2.24	.52	.33	.07	< .01	.46	.17	< .01	.03	48	34	75	1.34	96.26
13808	92.17	2.77	.51	.33	.17	< .01	1.09	.14	< .01	.03	47	25	64	1.12	98.35
13809	54.73	26.77	1.48	.24	.19	.04	1.41	1.17	< .01	.09	171	36	209	11.56	99.74
13810	66.97	20.18	1.24	.21	.15	.02	.89	1.00	< .01	.07	112	24	324	7.95	98.74
13811	90.19	5.73	.63	.11	.04	< .01	.58	.27	< .01	.04	64	17	115	2.17	99.80
13812	92.64	3.30	.18	.20	< .02	< .01	1.02	.12	< .01	.04	44	27	67	1.42	98.93
13813	92.13	3.58	.46	.25	.19	.02	.39	.13	< .01	.03	40	17	50	1.44	96.63

DATE : 08-JUN-1989

SIGNED :

*Adrian H. Debnam*  
for Adrian H. Debnam Ph.D.



**ICAP WHOLE ROCK ANALYSIS**

JAMES EAY PADLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5548 - 2  
 T.S.L. File No. : 02JUN . 05JUN  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8941 13851	94.29	2.59	.41	.05	<.02	.09	.39	.10	<.01	.03	41	< 10	63	1.06	99.03
13852	91.60	4.24	.37	.21	<.02	<.01	<.10	.14	<.01	.03	51	25	48	1.72	98.34
13853	85.73	9.03	.55	.07	.07	<.01	<.10	.40	<.01	.04	77	14	84	3.57	99.48
13854	93.09	2.94	.25	<.02	<.02	<.01	<.10	.18	<.01	.02	50	< 10	135	1.23	97.90
13855	94.73	2.66	.13	<.02	<.02	<.01	.41	.11	<.01	.02	56	< 10	53	1.08	99.17
13856	94.66	3.01	.13	.17	<.02	<.01	.51	.12	<.01	.01	54	16	73	1.08	99.71
13857	94.58	2.97	.25	.10	<.02	<.01	<.10	.09	<.01	<.01	60	13	241	.98	99.02
13858	93.72	3.56	.27	.14	<.02	<.01	<.10	.24	<.01	<.01	55	14	110	1.25	99.21
13859	92.14	4.39	.24	.18	<.02	<.01	.55	.21	<.01	<.01	45	12	81	1.66	99.49
13860	68.79	19.25	1.17	.33	.10	<.01	.84	1.08	<.01	.05	117	25	381	7.69	95.37
13861	69.56	4.91	.58	.87	.39	.14	<.10	.28	.01	.06	68	37	160	2.00	98.83
13862	93.08	3.13	.69	.68	.31	.07	<.10	.16	.01	.05	44	25	64	1.62	99.81
13863	64.56	22.64	.95	.21	.13	<.01	.69	.98	<.01	.10	142	25	278	10.07	100.60
13864	85.36	8.80	.67	.23	.10	.01	<.10	.82	<.01	.06	117	27	372	3.97	100.10
8940 13901	98.08	6.28	.42	.32	.12	.03	.63	.29	<.01	.05	65	18	107	3.13	99.27
13902	90.75	4.61	.31	.17	<.02	<.01	.27	.30	<.01	.05	46	17	153	2.13	98.62
13903	92.73	2.98	.24	.17	.02	<.01	<.10	.16	<.01	.04	53	14	75	1.74	98.10
13904	88.25	6.45	.33	.04	.05	<.01	<.10	.22	<.01	.05	58	14	60	2.94	98.37
13905	69.90	18.67	.93	.20	.15	.01	.50	.86	<.01	.08	144	32	175	8.52	99.87
13906	92.59	2.98	.26	.02	.03	<.01	<.10	.23	<.01	.04	53	< 10	96	1.57	97.75
13907	93.97	2.69	.41	.30	.04	.08	<.10	.10	<.01	.04	61	26	52	1.28	99.10
13908	95.10	3.08	.25	.06	.02	<.01	<.10	.11	<.01	.04	43	10	61	1.46	100.17
13909	53.20	30.62	1.70	.43	.21	.07	<.10	1.06	<.01	.11	182	60	153	12.61	100.09
13910	77.55	13.89	.77	.15	.07	<.01	<.10	.65	<.01	.05	104	24	208	5.59	98.77
13911	63.45	23.01	1.51	.19	.13	.09	.83	1.01	<.01	<.01	153	27	267	9.29	99.57
13912	92.79	4.29	.27	.26	<.02	<.01	<.10	.17	<.01	.02	44	29	66	2.08	99.90
13913	91.89	5.34	.45	.18	.03	<.01	<.10	.21	<.01	<.01	51	27	56	2.07	100.19
13914	91.11	4.74	.20	.21	<.02	<.01	<.10	.25	<.01	.02	43	19	90	2.27	98.88
13915	92.48	4.22	.24	.05	.02	<.01	<.10	.18	<.01	.03	41	< 10	87	2.25	99.48
13916	94.12	3.70	.23	.18	<.02	<.01	<.10	.13	<.01	.03	55	23	57	2.03	100.45

DATE : 08-JUN-1989

SIGNED : *Adrian H. Deonam*  
 Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

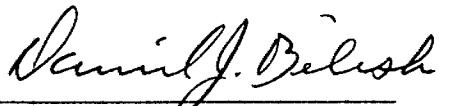
JAMEE BAY MADLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5548 - 3  
 T.S.L. File No. : 02JUN . 05JUN  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
13917	90.64	3.92	.50	.54	.09	.12	< .10	.12	.01	.05	58	36	61	1.72	97.73
13918	82.71	9.76	.98	.33	.10	.02	.46	.74	.01	.08	114	46	411	4.27	99.54
13919	93.65	3.34	.24	.06	< .02	< .01	< .10	.19	< .01	.05	42	12	106	1.80	99.45
8920 13951	59.63	24.31	1.11	.42	.21	.07	.74	1.11	< .01	.12	198	46	217	11.58	99.37
13952	85.27	5.17	1.09	2.66	.67	.30	< .10	.27	.01	.06	126	68	125	4.24	99.78
13953	92.46	3.49	.28	.31	.05	< .01	.58	.10	< .01	.05	65	26	62	1.73	99.07
13954	95.04	1.74	.31	.10	< .02	< .01	< .10	.08	< .01	.04	39	< 10	43	1.14	98.57
13955	95.79	2.60	.32	.10	< .02	< .01	< .10	.11	< .01	.04	47	14	68	1.32	100.30
13956	93.59	2.65	.31	.05	< .02	< .01	< .10	.09	< .01	.04	43	11	56	1.48	98.25
13957	92.23	3.98	.22	.18	< .02	< .01	.56	.19	< .01	.10	56	22	135	1.95	99.44
13958	92.68	3.55	.62	.37	.16	.03	< .10	.17	< .01	.03	61	18	61	1.28	98.92
13959	92.20	3.06	.38	.15	.06	.02	.61	.17	< .01	.04	42	10	93	1.19	97.86
8969 14101	92.14	3.59	.32	.25	.03	< .01	< .10	.09	< .01	.04	76	27	59	1.50	97.99
14102	91.93	4.20	.42	.06	< .02	< .01	.69	.06	< .01	.05	74	16	54	1.79	99.25
14103	87.33	6.44	.42	.29	.04	< .01	.19	.19	< .01	.05	64	28	87	2.59	97.96
14104	66.03	21.66	1.14	.26	.14	.03	.45	1.09	< .01	.12	156	47	303	6.52	99.52
14105	92.70	2.93	.26	.06	< .02	< .01	.73	.25	< .01	.05	56	12	113	1.07	98.09
8967 14201	92.45	2.84	.29	.34	.03	< .01	.44	.28	< .01	.05	60	28	168	1.01	97.76
14202	91.38	3.81	.30	.29	.07	.02	.80	.10	< .01	.05	80	23	76	1.63	98.47
14203	93.13	3.32	.21	.05	< .02	< .01	< .10	.11	< .01	.05	64	13	68	1.22	98.11
8967 14204	93.15	3.60	.16	.14	.08	< .01	.44	.09	< .01	.02	58	13	44	1.11	98.81
14205	93.55	3.00	< .02	.03	< .02	< .01	1.07	.06	< .01	.01	47	< 10	58	1.11	98.85
14206	96.45	2.54	.12	.09	.06	< .01	.52	.07	< .01	.02	45	12	50	.90	100.79
14207	91.82	4.16	.63	.41	.41	.04	.41	.21	< .01	.02	57	15	97	1.28	99.42
14208	81.97	10.32	.38	.08	.06	< .01	.76	.57	< .01	.04	97	14	205	4.35	98.57
14209	94.29	2.61	.04	.04	< .02	< .01	.68	.15	< .01	.02	44	< 10	130	1.05	98.90
14210	92.59	3.61	.72	.31	.18	.04	.34	.14	.01	.02	61	14	47	1.28	99.26
14211	93.03	2.78	.28	.13	.16	< .01	.42	.09	< .01	.02	53	< 10	40	.99	97.61
14212	93.95	3.28	.09	< .02	< .02	< .01	< .10	.05	< .01	.27	47	< 10	34	1.15	98.84
14213	94.78	2.96	.14	.09	.37	< .01	< .10	.05	< .01	< .01	55	< 10	50	1.05	99.17

DATE : 06-JUN-1989

SIGNED :   
 for Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY HADLIN  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5548 - 4

T.S.L. File No. : 02JUN , 05JUN

T.S.L. Invoice No. :

### OUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
EFFO 14251	73.85	16.97	.60	.06	.05	< .01	.40	.57	< .01	.04	99	< 10	171	5.70	99.27
14252	55.10	2.96	.07	< .02	< .02	< .01	.63	.13	< .01	< .01	34	< 10	53	.88	99.79
14253	93.06	4.54	.12	< .02	< .02	< .01	.32	.19	< .01	.01	44	< 10	112	1.65	99.91
14254	68.32	20.05	.64	.24	.11	< .01	.96	.92	< .01	.06	112	29	250	8.03	99.38
14255	93.15	2.93	.07	.03	< .02	< .01	1.70	.14	< .01	.01	44	< 10	67	.92	98.96
14256	94.21	2.96	.23	.04	< .02	< .01	.94	.23	< .01	.02	56	< 10	119	1.13	99.80

DATE : 08-JUN-1989

SIGNED :

*Adrian H. Deonam*

Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY FOUNDRY  
#165185405A ONTARIO

T.S.L. REPORT No. : M - 5548 - 1  
T.S.L. File No. : C:\SCAM5548.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE #

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
13664	1	24	220	10	30	94	15	6	3	< 30	< 30	< 10	< 10
13665	1	22	220	5	40	120	40	6	5	< 30	< 30	< 10	< 10
13666	1	24	160	25	40	56	45	8	6	< 30	< 30	< 10	< 10
13667	2	30	180	50	100	200	45	22	15	< 30	< 30	< 10	< 10
13668	1	32	240	30	80	170	100	12	10	< 30	< 30	< 10	< 10
13669	1	22	140	< 5	50	42	50	< 2	2	< 30	< 30	< 10	< 10
13670	1	20	160	5	30	88	10	2	1	< 30	< 30	< 10	< 10
13671	1	24	310	90	110	58	15	2	2	< 30	< 30	< 10	< 10
13672	2	28	230	40	90	170	30	14	11	30	< 30	< 10	< 10
13673	1	20	410	5	60	86	10	2	1	< 30	< 30	< 10	< 10
13674	2	30	240	120	90	160	35	22	11	< 30	< 30	< 10	< 10
13675	1	24	450	< 5	50	52	15	2	2	< 30	< 30	< 10	< 10
13676	2	28	220	85	90	110	20	18	7	< 30	< 30	< 10	< 10
8970 13762	1	10	210	< 5	50	56	15	2	2	< 30	< 30	< 10	< 10
13763	1	24	220	25	80	130	45	8	13	< 30	< 30	< 10	< 10
13764	1	18	190	35	70	140	340	6	7	< 30	< 30	< 10	< 10
13765	1	10	160	65	30	62	200	4	2	< 30	< 30	< 10	< 10
5542 13801	1	14	240	60	80	170	20	12	5	< 30	< 30	< 10	< 10
13802	2	28	420	85	100	150	45	10	8	< 30	< 30	< 10	< 10
13803	1	20	170	140	80	36	10	< 2	1	60	< 30	< 10	< 10
13804	2	26	180	15	40	44	25	8	1	< 30	< 30	< 10	< 10
13805	1	26	200	25	80	56	15	2	1	< 30	< 30	< 10	< 10
13806	1	26	170	10	50	60	5	< 2	1	< 30	< 30	10	< 10
13807	1	26	180	70	50	20	15	< 2	< 1	30	< 30	< 10	< 10
13808	1	28	410	90	90	68	10	< 2	1	< 30	< 30	< 10	< 10
13809	2	42	280	40	150	230	50	10	14	< 30	< 30	< 10	< 10
13810	2	36	260	35	100	200	30	8	21	< 30	< 30	< 10	< 10
13811	1	24	190	15	40	52	30	2	4	< 30	< 30	< 10	< 10
13812	1	26	190	5	30	68	5	< 2	4	< 30	< 30	< 10	< 10
13813	1	26	260	35	70	120	5	< 2	1	30	< 30	< 10	< 10

DATE : JUN-08-1989

SIGNED :

*Samuel J. Bilinski*

# TECHNICAL SERVICE LABORATORIES

1001 FAWCETT DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES SAUNDERS  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5548 - 2  
T.S.L. File No. : C:\SC\M5548.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8941 13851	1	24	220	5	60	28	5	4	1	< 30	< 30	< 10	< 10
13852	1	22	200	< 5	40	30	5	< 2	1	< 30	< 30	< 10	< 10
13853	1	24	280	10	70	90	15	2	2	30	< 30	< 10	< 10
13854	1	22	190	15	60	36	5	2	1	< 30	< 30	< 10	< 10
13855	1	20	180	< 5	40	58	5	2	< 1	< 30	< 30	< 10	< 10
13856	1	18	150	< 5	40	56	< 5	< 2	1	30	< 30	< 10	< 10
13857	1	12	180	< 5	40	28	< 5	< 2	1	< 30	< 30	< 10	< 10
13858	1	10	170	< 5	40	44	5	2	1	< 30	< 30	< 10	< 10
13859	1	14	170	10	30	48	5	4	1	< 30	< 30	< 10	< 10
13860	1	24	170	40	70	140	20	10	9	< 30	< 30	< 10	< 10
13861	1	26	170	10	70	50	25	6	1	< 30	< 30	< 10	< 10
13862	1	23	140	5	60	28	20	4	1	< 30	< 30	< 10	< 10
13863	2	28	220	70	90	160	35	16	9	< 30	< 30	< 10	< 10
13864	1	40	260	30	80	74	15	10	3	30	< 30	< 10	< 10
8940 13901	1	26	260	5	90	98	30	< 2	2	< 30	< 30	< 10	< 10
13902	1	24	210	< 5	40	60	15	2	2	< 30	< 30	< 10	< 10
13903	1	24	150	5	30	42	5	2	1	< 30	< 30	< 10	< 10
13904	1	10	170	< 5	50	56	20	4	2	30	< 30	< 10	< 10
13905	1	24	170	40	50	180	35	10	9	30	< 30	< 10	< 10
13906	1	28	180	< 5	50	56	10	2	1	< 30	< 30	< 10	< 10
13907	1	22	100	< 5	40	38	5	2	1	< 30	< 30	< 10	< 10
13908	1	22	160	< 5	40	50	15	2	< 1	< 30	< 30	< 10	< 10
13909	1	40	190	50	110	200	50	12	12	30	< 30	< 10	< 10
13910	1	24	180	30	80	92	20	6	6	30	< 30	< 10	< 10
13911	1	28	180	20	80	160	40	10	10	< 30	30	< 10	< 10
13912	< 1	20	150	< 5	50	28	10	2	1	< 30	< 30	< 10	< 10
13913	< 1	14	110	< 5	40	10	< 5	4	1	< 30	< 30	< 10	< 10
13914	< 1	18	120	< 5	80	20	10	2	1	< 30	< 30	< 10	< 10
13915	< 1	24	120	10	40	42	5	2	1	< 30	< 30	< 10	< 10
13916	< 1	24	150	< 5	80	32	< 5	2	1	< 30	< 30	< 10	< 10

DATE : JUN-05-1989

SIGNED :

*Henry J. Biloch*

# TECHNICAL SERVICE LABORATORIES

1001 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMEE BAY MAGLID  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5548 - 3  
 T.S.L. File No. : D:\SD\M5548.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Fe	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
13917	1	28	140	15	90	56	25	6	1	< 30	< 30	< 10	< 10
13918	1	34	180	15	90	70	25	14	3	< 30	< 30	< 10	< 10
13919	1	30	160	5	40	85	15	2	1	< 30	< 30	< 10	< 10
8920 13951	2	50	250	50	140	200	35	22	12	< 30	< 30	< 10	< 10
13952	< 1	30	210	15	40	42	20	6	2	< 30	< 30	< 10	< 10
13953	< 1	26	150	< 5	60	52	5	2	1	< 30	< 30	< 10	< 10
13954	< 1	28	150	5	70	48	10	2	1	< 30	< 30	< 10	< 10
13955	< 1	26	170	< 5	80	26	15	2	< 1	60	< 30	< 10	< 10
13956	< 1	28	150	< 5	70	54	10	< 2	1	< 30	< 30	< 10	< 10
13957	< 1	24	170	10	20	28	10	2	1	< 30	< 30	< 10	< 10
13958	< 1	22	150	10	70	150	5	2	2	30	< 30	< 10	< 10
13959	< 1	28	170	10	80	74	10	< 2	1	< 30	< 30	< 10	< 10
8569 14101	< 1	26	160	5	30	64	15	2	2	< 30	< 30	< 10	< 10
14102	1	36	210	10	80	76	5	2	1	< 30	< 30	< 10	< 10
14103	1	30	280	10	40	100	20	2	2	< 30	< 30	< 10	< 10
14104	2	44	320	35	150	250	40	18	10	< 30	< 30	< 10	< 10
14105	1	26	210	15	100	120	10	< 2	2	< 30	< 30	< 10	< 10
8967 14201	1	34	210	5	90	100	20	2	1	< 30	< 30	< 10	< 10
14202	1	32	160	5	90	24	20	2	< 1	< 30	< 30	< 10	< 10
14203	< 1	30	180	15	60	66	10	< 2	< 1	< 30	< 30	< 10	< 10
8967 14204	< 1	< 2	160	5	< 10	5	5	2	1	< 30	< 30	< 10	< 10
14205	< 1	< 2	160	< 5	< 10	< 2	< 5	2	< 1	< 30	< 30	< 10	< 10
14206	< 1	< 2	220	10	< 10	2	< 5	2	< 1	< 30	< 30	< 10	< 10
14207	< 1	4	510	< 5	< 10	32	10	2	1	< 30	< 30	< 10	< 10
14208	1	6	220	15	< 10	50	15	4	4	30	< 30	< 10	< 10
14209	< 1	< 2	140	< 5	< 10	5	< 5	2	1	< 30	< 30	< 10	< 10
14210	< 1	2	160	< 5	< 10	12	5	2	2	< 30	30	< 10	< 10
14211	< 1	< 2	170	< 5	< 10	8	5	< 2	1	< 30	< 30	< 10	< 10
14212	< 1	< 2	150	< 5	< 10	< 2	< 5	< 2	< 1	< 30	< 30	10	< 10
14213	< 1	< 2	130	< 5	< 10	4	< 5	2	1	< 30	< 30	10	< 10

DATE : JUN-02-1989

SIGNED :

*Daniel J. Bilroch*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8568

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY MADLIN  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5548 - 4  
T.S.L. File No. : C:\SD\M5548.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	γ	Sc	Th	W	Mo	Ag
8930 14251	< 1	< 2	210	< 5	< 10	58	15	4	5	< 30	< 30	< 10	< 10
14252	< 1	< 2	210	< 5	< 10	4	5	< 2	< 1	60	< 30	< 10	< 10
14253	< 1	< 2	200	< 5	< 10	20	5	2	1	< 30	< 30	< 10	1800
14254	1	2	290	10	< 10	96	30	8	8	< 30	< 30	< 10	< 10
14255	< 1	< 2	160	< 5	< 10	12	< 5	< 2	1	< 30	< 30	< 10	< 10
14256	< 1	< 2	170	< 5	< 10	16	5	2	1	< 30	< 30	< 10	< 10

DATE : JUN-08-1989

SIGNED :

*Daniel J. Bilosh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY CO.  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5535 - 1  
 T.S.L. File No. : 01JUN, 05JUN, 07JUN  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Br ppm	Zn ppm	LOI %	TOTAL %
89-119-1	94.30	0.20	1.00	1.59	1.30	1.17	< .10	1.08	1.02	1.01	53	18	81	1.00	99.38
89-119-2	96.85	1.75	1.30	1.02	1.02	1.02	1.25	1.10	< .01	< .01	47	18	50	1.00	100.44
89-119-3	96.88	1.04	1.24	1.08	1.02	1.01	< .10	1.08	< .01	< .01	27	< 10	58	1.92	99.58
89-119-4	98.85	1.52	1.28	1.07	1.02	1.01	1.20	1.08	< .01	1.01	28	< 10	39	1.72	100.57
89-119-5	92.24	3.85	1.07	1.06	< .02	1.01	1.80	1.15	< .01	1.02	36	< 10	84	1.59	99.21
89-119-6	93.77	1.52	1.27	1.04	1.02	< .01	1.63	1.09	< .01	1.03	27	< 10	48	1.49	98.57
89-119-7	91.76	4.06	1.07	1.08	1.02	1.01	1.40	1.20	< .01	1.03	36	12	88	2.11	99.04
89-119-8	87.82	18.15	1.75	1.20	1.17	1.18	1.39	1.17	< .01	1.09	132	37	201	11.84	100.36
89-119-9	92.26	4.41	1.07	1.09	1.02	1.01	1.58	1.36	< .01	1.04	50	14	195	2.25	100.45
89-120-51	92.10	3.56	1.45	1.00	1.11	1.04	1.38	1.05	< .01	1.04	45	14	60	2.35	99.45
89-120-52	91.04	4.87	1.48	1.18	1.04	1.17	1.87	1.20	1.01	1.04	45	14	111	2.75	99.38
89-120-53	89.08	5.83	1.40	1.08	1.07	1.07	1.24	1.30	< .01	1.04	45	10	102	2.75	98.98
89-120-54	88.07	18.02	1.76	1.26	1.14	1.06	1.22	1.97	< .01	1.09	138	39	269	10.10	99.82
89-120-55	94.07	3.36	1.25	1.02	1.02	1.01	1.40	1.14	< .01	< .01	64	18	102	1.84	100.21
89-120-56	92.97	3.07	1.25	1.14	< .02	< .01	1.21	1.09	< .01	1.04	32	12	48	1.43	98.28
89-120-57	88.48	8.98	1.46	1.07	1.03	1.01	1.16	1.22	< .01	1.05	48	14	91	2.65	98.11
89-120-58	91.89	3.51	1.36	1.14	< .02	1.01	1.10	1.18	< .01	1.04	41	18	109	2.00	97.96
89-120-59	92.11	3.26	1.25	1.15	< .02	< .01	1.24	1.20	< .01	1.03	36	12	100	1.82	98.10
89-33-101	80.89	7.80	1.90	2.01	1.77	1.78	1.82	1.33	1.03	1.04	582	281	116	2.15	99.50
89-33-102	85.44	7.24	1.26	1.21	1.44	1.65	1.14	1.17	1.02	1.02	662	268	57	1.07	99.77
89-33-103	90.76	3.78	1.85	1.59	1.54	1.50	1.75	1.07	1.03	1.04	208	80	66	1.11	99.21
89-33-104	93.86	2.59	1.25	1.14	1.03	1.02	1.83	1.09	< .01	1.03	45	12	60	1.36	99.37
89-33-105	82.47	18.58	1.96	1.40	1.17	1.04	1.80	1.09	< .01	1.09	133	43	205	11.16	99.81
89-33-106	76.24	10.10	1.91	1.22	1.08	1.03	1.84	1.04	1.05	1.07	124	17	481	6.23	99.85
89-33-107	93.96	1.10	1.21	1.18	< .02	< .01	1.84	1.35	< .01	1.05	50	13	200	1.28	100.18
89-33-108	94.31	3.00	1.30	1.16	1.02	< .01	1.11	1.14	< .01	1.05	37	< 10	102	1.34	99.51
89-33-109	87.17	6.11	1.42	1.09	1.03	< .01	1.81	1.72	< .01	1.05	60	< 10	326	2.73	97.89
89-33-110	90.73	4.67	1.45	1.39	1.05	1.06	1.91	1.28	< .01	1.05	56	20	144	2.12	99.75
89-33-111	92.35	1.97	1.28	1.39	< .02	< .01	1.43	1.31	< .01	< .01	43	< 10	214	1.66	98.44
89-33-112	82.88	10.86	1.28	1.27	1.10	1.04	1.00	1.24	< .01	1.10	147	34	327	5.66	99.50

DATE : 15-JUN-1989

SIGNED :

*Adrian D. Debnam*  
 Adrian D. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1201 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 825 - 1544

FAX : (416) 825 - 8268

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY CO.  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5555 - 2  
T.S.L. File No. : 01JUN , 05JUN , 07JUN  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
89-23-110	75.40	14.85	1.03	.52	.32	.05	0.10	0.89	.01	.09	116	70	430	5.91	99.00
89-23-114	86.68	6.63	.49	0.02	0.02	.10	.21	.63	<.01	<.01	58	31	261	2.73	99.52
89-23-115	92.61	4.36	.21	.06	.02	0.01	0.01	.11	<.01	.05	21	12	85	1.74	100.05
89-24-151	90.27	3.16	.67	0.19	.30	.11	0.10	.14	<.01	.03	64	30	76	2.31	99.22
89-24-152	93.57	3.25	.42	.12	.06	0.01	0.10	.13	<.01	.02	35	< 10	58	1.27	99.86
89-24-153	95.21	3.10	.37	.19	.02	.05	0.10	.10	<.01	.01	47	15	61	1.16	100.24
89-24-154	80.52	24.51	1.95	.38	.08	.05	0.10	1.19	<.01	.13	264	90	233	9.50	99.45
89-24-155	59.02	26.52	1.10	.44	.22	.05	0.02	1.17	<.01	.15	375	119	224	10.95	99.76
89-24-156	71.24	18.54	1.05	.26	.15	.02	0.10	.85	<.01	.08	183	46	182	7.86	100.15
89-23-201	92.94	4.62	.32	.16	.02	0.01	0.10	.16	<.01	.02	61	15	87	1.82	99.22
8922-202	92.64	5.05	.34	.26	.14	.14	0.10	.09	.01	.04	56	16	52	1.30	100.42
203	52.72	29.92	1.94	.36	.22	.06	0.10	1.10	<.01	.15	123	61	194	11.66	100.25
204	69.51	16.22	1.95	.94	.43	.15	0.10	.87	.01	.12	254	81	225	8.87	99.28
205	56.91	26.66	1.52	.60	.32	.11	0.15	1.02	.01	.22	560	176	204	10.35	99.84
206	54.40	27.20	1.20	.47	.27	.08	0.24	1.00	<.01	.11	193	47	143	14.16	99.41
207	54.74	26.85	1.26	.45	.22	.07	0.10	1.03	<.01	.11	155	47	152	15.80	99.66
208	57.10	26.04	1.32	.51	.25	.07	0.22	1.08	<.01	.08	212	46	177	13.95	100.06
209	62.53	20.81	.24	.04	0.02	0.01	0.25	.11	<.01	.01	45	< 10	49	1.92	99.20
210	62.42	20.25	.27	.15	0.02	.03	0.10	.08	<.01	.01	56	11	41	2.04	99.23
8963-10281	92.53	3.79	.32	.13	0.02	0.01	0.24	.10	<.01	.02	41	< 10	52	2.26	99.56
10282	91.51	5.25	1.24	.47	.18	.29	.15	.10	.01	.04	160	62	33	1.46	98.77
10283	52.17	20.02	.66	.29	0.02	.02	0.86	.24	<.01	.02	64	23	153	1.62	100.16
10284	52.44	20.18	.25	.23	0.02	.02	0.10	.12	<.01	.02	80	41	103	1.87	98.13
10285	52.29	20.42	.26	.21	0.02	.02	0.27	.35	<.01	.03	73	14	401	2.47	99.59
10286	92.94	4.16	.25	.15	0.02	.01	0.10	.20	<.01	.02	70	10	150	1.65	100.66
10287	69.51	5.37	.56	.40	.02	.02	0.10	1.47	.01	.06	103	29	1464	2.39	100.32
10288	74.09	16.01	.82	.24	.21	.03	0.10	.61	<.01	.05	123	31	295	6.66	99.00
10289	92.92	2.40	.25	.04	0.02	.01	0.10	.28	<.01	.01	64	< 10	226	1.76	98.82
10290	94.06	3.18	.29	.19	0.02	.02	.11	.25	<.01	<.01	61	10	125	1.54	99.59
10291	94.42	2.24	.20	.19	0.02	.01	0.10	.14	<.01	<.01	52	< 10	61	1.82	100.46

DATE : 10-JUN-1989

SIGNED :

*Adrian H. Dobson*  
for Adrian H. Dobson Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY CO.  
 ROBE, ONTARIO

T.S.L. REPORT No. : M - 5553 - 3  
 T.S.L. File No. : 01JUN , 05JUN , 07JUN  
 T.S.L. Invoice No. :

ICAP REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
10060	76.20	14.31	1.38	1.66	1.14	1.18	0.99	1.68	1.02	1.06	110	48	311	5.60	99.81
10063	55.65	25.88	1.39	1.48	1.14	1.10	1.37	1.05	1.01	1.10	188	90	240	10.71	100.64
10064	85.67	7.81	1.47	1.26	< .02	1.02	1.87	1.27	< .01	1.03	71	25	96	3.06	98.29
10065	64.75	21.51	1.92	1.52	1.09	1.06	1.59	1.96	1.02	1.07	122	43	283	5.27	99.85
10068	68.92	5.60	1.85	1.34	< .02	< .01	1.32	1.24	1.01	1.02	62	20	108	1.95	98.31
10067	55.29	28.39	1.17	1.26	1.12	1.05	1.92	1.12	< .01	1.09	138	42	215	10.60	100.08
10068	89.79	4.69	1.47	1.27	< .02	1.02	1.87	1.21	< .01	1.03	101	29	101	1.78	98.18
10069	90.16	1.37	1.48	1.29	< .02	< .01	< .10	1.11	< .01	1.02	68	18	51	1.31	98.80
10070	95.57	1.81	1.35	1.03	< .02	< .01	1.30	1.07	< .01	< .01	50	< 10	42	1.44	100.81
10071	54.68	28.80	1.79	1.34	1.15	1.04	1.23	1.67	< .01	1.11	207	56	132	13.14	100.49
10072	86.90	6.99	1.34	1.25	< .02	1.43	1.79	1.22	1.04	1.02	93	229	563	3.22	100.07
10073	58.69	25.24	1.22	1.34	1.13	1.06	1.38	0.99	< .01	1.07	197	54	271	10.60	98.82
10074	78.64	12.40	1.10	1.25	1.05	1.06	1.40	1.50	1.01	1.04	119	47	210	5.10	98.85
10075	67.64	19.78	1.49	1.35	1.09	1.06	1.02	1.75	1.01	1.06	179	47	202	8.63	100.47
10076	93.29	4.83	1.27	1.21	< .02	< .01	1.54	1.16	< .01	1.02	48	16	93	1.65	100.81
10077	81.25	10.41	1.36	1.41	< .02	1.02	1.55	1.55	1.02	1.04	96	41	176	4.47	99.16
10078	95.01	1.45	1.34	1.05	1.09	1.01	1.33	1.09	< .01	1.02	37	10	49	1.89	99.49
8965-14107	68.25	6.79	1.64	1.12	1.04	1.02	1.37	1.31	< .01	1.03	72	15	96	3.42	100.01
14108	59.55	25.00	1.60	1.45	1.19	1.05	1.09	1.00	< .01	1.09	176	50	210	10.17	99.33
14109	68.31	20.64	1.41	1.18	1.08	1.00	1.86	1.00	1.01	1.07	135	21	308	6.31	98.95
8965-14110	77.87	12.02	1.90	1.46	1.25	1.15	1.23	1.60	1.02	1.06	85	19	209	4.79	98.52
14111	80.41	9.82	1.55	1.15	1.12	1.02	1.68	1.66	< .01	1.03	68	11	241	3.69	98.98
14112	89.60	5.25	1.18	1.05	< .02	< .01	1.95	1.37	< .01	1.02	48	< 10	187	2.06	98.80
14113	93.22	4.91	1.21	1.12	1.05	< .01	1.10	1.22	< .01	< .01	35	< 10	98	1.97	100.71
14114	90.01	5.11	1.19	< .02	< .02	< .01	1.10	1.23	< .01	< .01	67	< 10	76	2.01	97.61
14115	90.98	4.29	1.02	< .02	< .02	< .01	< .10	1.15	< .01	< .01	26	< 10	65	1.71	100.14
14116	94.39	3.54	1.28	1.10	1.07	< .01	< .10	1.15	< .01	< .01	31	< 10	54	1.49	100.00
14117	54.73	3.67	1.23	1.05	< .02	< .01	1.18	1.10	< .01	1.01	42	< 10	69	1.58	100.56
14118	94.15	3.19	1.32	1.07	1.07	1.01	1.62	1.13	< .01	1.02	30	< 10	47	1.38	99.98
14119	94.54	3.41	1.32	1.06	1.07	< .01	1.55	1.12	< .01	1.02	37	< 10	57	1.48	100.59

DATE : 15-JUN-1989

SIGNED :

*Adrian H. Deonam*  
 For Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY CO.  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5555 - 4  
 T.S.L. File No. : 01JUN , 05JUN , 07JUN  
 T.S.L. Invoice No. :

ICAP REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Br ppm	Zn ppm	LOI %	TOTAL %
14120	83.74	5.90	.91	.19	.13	.01	1.17	.29	< .01	.06	120	52	93	2.48	100.92
14121	80.88	3.66	.71	.29	.12	.02	1.21	.11	< .01	.04	76	38	66	1.56	98.63
8907-14181	80.21	3.33	.45	.51	.15	.07	1.29	.12	< .01	.04	49	23	56	2.00	98.26
14131	84.54	1.77	.37	.15	.08	.02	1.34	.11	< .01	.04	39	11	56	1.31	100.74
8910-14257	84.81	25.91	1.38	.39	.24	< .01	.28	1.39	< .01	.10	150	36	259	11.58	99.14
14258	47.81	36.79	4.90	.33	.24	.05	1.90	1.20	< .01	.13	202	47	165	12.43	99.84
14259	59.00	26.13	1.76	.20	.16	.03	1.54	1.11	< .01	.09	166	25	276	10.01	100.12
14260	90.57	3.68	.41	.11	.05	.04	.76	.13	< .01	.03	41	10	54	1.56	97.72
14261	88.85	4.87	.54	.24	.45	< .01	1.06	.21	< .01	.03	51	19	82	2.10	96.08
14262	91.05	3.92	.33	.09	.04	< .01	1.27	.16	< .01	.04	45	< 10	64	1.94	98.25
14263	80.23	4.10	.34	.36	.13	.14	.90	.12	.01	.04	65	22	80	1.75	99.38
14264	82.86	3.41	.32	< .02	< .02	< .01	< .10	.16	< .01	.03	42	< 10	70	1.38	96.00
14265	83.15	3.21	.21	< .02	< .02	.01	< .10	.15	< .01	.03	37	< 10	58	1.57	98.24
8915-14711	83.23	5.94	1.94	3.20	1.15	1.79	1.84	.32	.03	.07	545	266	91	3.42	100.16
14301	75.87	8.73	1.65	1.71	.72	2.06	2.87	.29	.03	.05	643	304	95	.93	98.70
14302	81.12	6.24	1.58	1.61	.65	1.57	2.44	.22	.03	.05	641	293	64	.97	98.99
14303	46.87	21.88	3.75	.85	.29	.14	.94	1.16	.02	.12	143	52	135	13.19	99.09
14305	58.71	21.80	6.73	.23	.20	.06	.36	1.25	.02	.15	132	41	309	5.59	100.19
14306	80.41	11.24	.60	.26	.15	.05	.85	.72	< .01	.06	78	19	265	4.68	99.27
14307	84.25	2.35	.67	.12	.04	< .01	.47	.17	< .01	.03	43	11	95	1.26	99.39
14308	83.61	2.47	.66	.23	.12	.04	< .10	.16	< .01	.03	47	13	65	1.19	98.52
14309	85.03	5.24	.44	.15	.04	< .01	.67	.38	< .01	.04	61	13	147	2.24	98.41
14310	80.17	4.15	.53	.20	.05	.03	.86	.20	< .01	.06	57	13	91	2.35	99.47
14311	47.85	34.25	1.35	.35	.24	.07	1.11	1.13	< .01	.12	101	51	136	13.40	99.66
14312	55.87	26.28	1.33	.31	.25	.07	1.30	1.19	< .01	.13	253	65	194	11.17	99.36
8918-14351	81.02	3.98	.55	.57	.32	.09	1.34	.10	< .01	.04	82	30	53	1.96	100.40
14352	86.65	5.84	1.75	.71	.26	.06	.59	.25	.04	.04	73	19	109	3.37	99.75
14353	84.21	1.90	.35	.59	.17	.07	.77	.05	< .01	.03	53	15	36	1.30	95.46
14354	85.27	2.32	.69	2.26	.72	.27	.81	.12	.01	.04	93	43	52	3.35	99.26
14355	80.79	3.53	1.25	.33	.22	.10	.26	.51	.01	.06	102	33	174	4.98	98.75

DATE : 10-JUN-1989

SIGNED :

*Samuel J. Belush*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES EARL CO.,  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5555 - 5  
 T.S.L. File No. : 01JUN , 05JUN , 07JUN  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Br ppm	Zr ppm	LOI %	TOTAL %
14355	69.62	16.57	1.97	1.53	1.39	1.24	1.77	1.84	1.02	1.09	157	50	204	9.44	100.70
14357	63.07	20.40	1.87	1.34	1.18	1.05	1.35	1.06	< .01	1.09	155	35	203	9.62	99.42
14358	68.62	8.71	1.87	1.36	1.12	1.04	< .10	1.37	< .01	1.04	73	15	147	2.59	99.74
14359	64.77	0.33	1.03	1.04	< .02	< .01	< .10	1.19	< .01	1.02	55	< 10	94	1.35	99.66
14361	67.47	0.26	1.11	1.06	< .02	< .01	< .10	1.12	< .01	1.02	41	< 10	52	1.13	98.14
14363	64.45	0.51	1.10	1.07	< .02	< .01	< .10	1.27	< .01	1.02	43	< 10	160	1.35	99.56
14365 (14411)	65.01	0.41	1.19	1.17	1.07	< .01	< .10	1.06	< .01	1.02	49	< 10	41	1.20	99.15
14366	62.00	0.00	1.26	1.05	1.00	< .01	< .10	1.15	< .01	1.02	45	< 10	77	1.52	97.62
14410	74.07	10.30	1.48	1.09	1.06	< .01	1.15	1.59	< .01	1.05	92	18	181	5.43	98.95
14404	62.00	4.85	1.24	1.06	1.04	< .01	< .10	1.17	< .01	1.02	59	12	64	2.96	100.21
14405	62.00	8.09	1.77	1.07	1.04	< .01	1.68	1.16	< .01	1.04	109	41	61	1.49	100.64
14416	60.77	0.56	1.26	1.08	< .02	< .01	1.32	1.12	< .01	1.02	61	14	95	1.31	99.85
14417	64.69	0.41	1.24	1.02	< .02	< .01	1.31	1.08	< .01	1.02	55	< 10	53	1.30	100.28
14408	62.80	1.72	1.28	1.03	< .02	< .01	1.33	1.06	< .01	1.02	41	< 10	56	1.13	98.11
14419	78.61	10.00	1.62	1.10	1.06	< .01	1.30	1.69	< .01	1.05	73	15	169	5.20	99.18
14420 (14481)	64.80	1.27	1.95	1.13	< .02	< .01	< .10	1.14	1.01	1.02	42	< 10	87	1.53	99.70
14480	77.11	10.82	1.51	1.15	1.08	< .01	1.01	1.37	1.01	1.05	76	15	210	5.81	99.62
14482	62.07	0.56	1.29	1.07	< .02	< .01	1.29	1.18	< .01	1.02	43	< 10	74	1.75	99.85
14484	65.78	1.01	1.64	1.17	1.06	< .01	< .10	1.58	< .01	1.04	62	12	269	3.64	100.81
14485	65.01	20.20	1.87	1.24	1.13	< .01	1.52	1.12	< .01	1.08	159	34	331	8.92	98.48
14486	64.40	0.44	1.40	1.41	1.15	1.18	< .10	1.12	1.02	1.03	75	19	138	1.14	100.35
14487	65.05	10.10	1.23	1.08	1.02	< .01	1.40	1.30	< .01	1.03	57	12	141	3.63	100.27
14488	67.23	27.65	1.12	1.23	1.17	1.04	< .10	1.36	< .01	1.08	151	29	284	11.04	99.09
14489	75.66	10.61	1.50	1.14	1.09	< .01	1.83	1.62	< .01	1.04	65	15	153	4.99	100.71

DATE : 10-JUN-1989

SIGNED :

*Adrian H. Debnam*  
 Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1000 PEWEEBEE DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8868

## I.C.A.P. ANALYSIS

Métal Élémentaire de Fusion

JAMES BAY CO.

MISISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5555 - 1

T.S.L. File No. : D:\SC\M5555.MIN

T.S.L. Invoice No. :

YOUR REFERENCE #

ALL RESULTS PPM

SAMPLE #	Be	Cd	Cr	Cu	Ni	V	Zn	Y	Sc	Ti	W	Mn	Ag
89-119-1	1	2	120	15	30	8	25	10	< 1	< 30	< 30	< 10	< 10
89-119-2	1	2	180	< 5	< 10	< 2	15	4	1	< 30	< 30	< 10	< 10
89-119-3	1	2	180	< 5	< 10	< 2	10	< 2	< 1	30	< 30	< 10	< 10
89-119-4	1	2	220	5	< 10	8	15	< 2	< 1	< 30	30	< 10	< 10
89-119-5	1	2	250	10	20	26	10	2	3	< 30	30	< 10	< 10
89-119-6	1	2	170	5	30	46	10	< 2	2	< 30	< 30	< 10	< 10
89-119-7	1	2	200	25	20	40	10	4	3	< 30	< 30	< 10	< 10
89-119-8	2	24	200	25	90	220	25	16	24	< 30	30	< 10	< 10
89-119-9	1	18	180	25	20	28	15	2	2	< 30	< 30	< 10	< 10
89-120-51	1	16	180	10	30	56	5	< 2	1	< 30	< 30	< 10	< 10
89-120-52	1	22	220	15	40	70	10	10	4	< 30	< 30	< 10	< 10
89-120-53	1	16	170	10	30	54	20	2	4	< 30	< 30	< 10	< 10
89-120-54	2	30	270	50	80	140	20	28	20	< 30	30	< 10	< 10
89-120-55	1	18	220	15	20	34	5	10	5	< 30	< 30	< 10	< 10
89-120-56	1	18	170	20	30	22	20	2	2	< 30	30	< 10	< 10
89-120-57	1	22	200	10	30	52	20	4	3	< 30	< 30	< 10	< 10
89-120-58	1	16	150	15	40	30	5	2	4	< 30	< 30	< 10	< 10
89-120-59	1	14	180	5	30	26	15	6	2	< 30	< 30	< 10	< 10
89-33-101	1	10	170	10	30	60	20	4	4	< 30	< 30	< 10	< 10
89-33-102	1	12	150	25	40	30	15	2	3	< 30	< 30	< 10	< 10
89-33-103	1	8	200	5	50	20	25	14	2	< 30	< 30	< 10	< 10
89-33-104	1	14	200	10	40	46	20	2	2	< 30	< 30	< 10	< 10
89-33-105	2	26	740	40	100	320	20	16	21	< 30	< 30	< 10	< 10
89-33-106	1	12	240	40	50	150	25	16	14	< 30	< 30	< 10	< 10
89-33-107	3	18	200	15	40	52	20	8	5	< 30	< 30	< 10	< 10
89-33-108	1	20	220	10	60	36	15	2	2	< 30	< 30	< 10	< 10
89-33-109	1	22	780	20	50	96	10	6	6	< 30	< 30	< 10	< 10
89-33-110	1	20	260	10	70	64	15	6	4	< 30	< 30	< 10	< 10
89-33-111	1	26	300	25	30	64	15	4	3	30	< 30	< 10	< 10
89-33-112	2	32	280	40	110	180	25	16	17	30	< 30	< 10	< 10

DATE : JUN-10-1989

SIGNED :

*Samir B. B. B.*

# TECHNICAL SERVICE LABORATORIES

1001 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8365

## I.C.A.P. ANALYSIS

Major Elements in Fusion

JAMES BAIRD CO.  
 MISSISSAUGA

T.S.L. REPORT No. : M - 5555 - 2  
 T.S.L. File No. : C:\SCAM5555.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE #

ALL RESULTS PPM

SAMPLE #	Fe	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mn	Pb
89-03-113	1	30	221	50	50	120	30	14	15	< 30	< 30	< 10	< 10
89-03-114	1	25	270	50	50	94	25	14	8	< 30	< 30	< 10	< 10
89-03-115	1	20	120	30	60	70	20	2	4	< 30	30	< 10	< 10
89-04-151	1	16	150	15	30	74	15	4	3	< 30	< 30	< 10	< 10
89-04-152	1	8	170	10	20	38	15	2	2	< 30	< 30	< 10	< 10
89-04-153	1	6	170	5	20	24	15	6	2	< 30	< 30	< 10	< 10
89-04-154	1	6	150	470	90	220	35	16	14	< 30	< 30	< 10	< 10
89-04-155	2	4	170	280	80	180	30	40	30	< 30	< 30	< 10	< 10
89-04-156	1	6	180	50	50	150	20	44	15	30	< 30	< 10	< 10
89-02-201	1	2	150	20	10	28	10	4	3	< 30	< 30	< 10	< 10
8902-202	1	2	120	5	< 10	28	5	14	3	< 30	< 30	< 10	< 10
203	1	18	220	50	80	120	50	24	24	< 30	< 30	< 10	20
204	1	12	200	55	60	140	25	22	17	< 30	< 30	< 10	< 10
205	2	16	250	35	40	140	30	40	27	< 30	< 30	< 10	< 10
206	2	54	140	75	80	150	110	46	30	< 30	< 30	< 10	< 10
207	2	80	180	500	80	140	40	48	26	< 30	< 30	< 10	< 10
208	1	62	150	60	90	100	25	46	26	< 30	< 30	< 10	< 10
209	1	12	140	5	10	3	5	4	3	< 30	< 30	< 10	< 10
210	1	2	180	15	10	64	15	4	1	< 30	< 30	< 10	< 10
8903-10151	1	12	150	15	< 10	28	15	4	3	< 30	< 30	< 10	< 10
10252	1	2	170	15	10	20	5	4	2	< 30	60	< 10	< 10
10253	1	12	150	15	< 10	24	5	4	2	< 30	< 30	< 10	< 10
10254	1	12	180	30	< 10	18	< 5	4	1	< 30	30	10	< 10
10255	1	12	180	5	< 10	62	< 5	2	5	30	< 30	< 10	< 10
10256	1	12	180	< 5	< 10	22	5	4	1	30	< 30	< 10	< 10
10257	1	16	900	30	10	65	35	26	9	< 30	< 30	< 10	< 10
10258	1	2	310	10	10	82	15	14	11	< 30	60	< 10	< 10
10259	1	2	200	< 5	10	20	< 5	8	3	< 30	< 30	< 10	< 10
10260	1	2	170	15	10	54	10	2	2	< 30	< 30	< 10	< 10
10261	1	2	120	< 5	10	55	< 5	2	2	< 30	60	10	< 10

DATE : JUN-13-1989

SIGNED :

*Harmit J. Daleshi*

# TECHNICAL SERVICE LABORATORIES

1701 PEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 628-1544

FAX : (416) 628-8066

## I.C.A.P. ANALYSIS

Multi-Elemental Analysis

JAMES BAY CO.  
MISS. ONTARIO

T.S.L. REPORT No. : M-5555-3  
T.S.L. File No. : C:\SCRM5555.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Mn	P	Zn	V	Sr	Th	W	Mo	Ag
10262	1	4	310	20	10	100	20	20	11	30	< 30	< 10	< 10
10263	1	4	270	25	20	100	30	16	20	< 30	< 30	< 10	< 10
10264	< 1	< 2	240	10	< 10	60	15	4	6	< 30	< 30	< 10	< 10
10265	< 1	6	240	30	< 10	100	20	18	18	< 30	< 30	< 10	< 10
10266	< 1	< 2	160	10	< 10	48	5	6	5	< 30	30	< 10	< 10
10267	1	12	260	55	10	160	35	24	22	< 30	< 30	< 10	< 10
10268	< 1	< 2	220	5	10	22	7	6	4	< 30	< 30	< 10	< 10
10269	< 1	< 2	130	< 5	< 10	30	< 5	5	2	< 30	< 30	< 10	< 10
10270	< 1	< 2	160	< 5	10	76	< 5	6	2	< 30	< 30	< 10	< 10
10271	1	4	200	150	10	150	30	45	25	< 30	< 30	< 10	< 10
10272	1	< 2	260	50	< 10	54	20	10	5	30	< 30	< 10	< 10
10273	1	2	200	30	10	140	35	23	15	30	< 30	< 10	< 10
10274	< 1	< 2	190	20	10	88	20	16	11	< 30	30	< 10	< 10
10275	< 1	4	230	35	10	130	25	22	19	30	< 30	< 10	< 10
10276	1	< 2	110	5	10	18	5	10	2	30	< 30	< 10	< 10
10277	1	4	200	< 5	10	22	10	16	8	< 30	< 30	< 10	< 10
10278	1	< 2	220	< 5	10	64	< 5	6	1	< 30	< 30	< 10	< 10
8995-14107	< 1	< 2	160	15	10	56	15	8	6	< 30	< 30	< 10	< 10
14108	1	4	180	30	< 10	110	35	30	23	< 30	30	< 10	< 10
14109	< 1	6	170	35	< 10	140	15	22	17	< 30	< 30	< 10	< 10
8969-14110	1	16	160	10	40	76	55	22	10	30	< 30	< 10	< 10
14111	1	6	240	25	10	100	20	10	7	< 30	< 30	< 10	< 10
14112	< 1	< 2	150	15	10	38	10	6	4	< 30	< 30	< 10	< 10
14113	< 1	< 2	150	< 5	10	24	10	4	2	< 30	< 30	< 10	< 10
14114	< 1	< 2	160	< 5	10	26	15	12	3	30	< 30	< 10	< 10
14115	< 1	< 2	130	5	< 10	16	< 5	4	3	< 30	< 30	< 10	< 10
14116	< 1	< 2	190	10	< 10	22	< 5	2	1	30	< 30	< 10	< 10
14117	< 1	< 2	170	< 5	< 10	12	10	2	2	< 30	< 30	< 10	< 10
14118	< 1	< 2	230	20	< 10	18	10	< 2	2	< 30	< 30	< 10	< 10
14119	< 1	2	240	10	< 10	32	5	< 2	2	< 30	< 30	< 10	< 10

DATE : JUN-13-1989

SIGNED :

*Samuel J. Belosh*

# TECHNICAL SERVICE LABORATORIES

1001 PENNINGTON DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625-1544  
 FAX : (416) 625-8068

## I.C.A.P. ANALYSIS

Major Elements in Flight

JAMES BAY CO.  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M-5555-4  
 T.S.L. File No. : C:\SD\M5555.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Fe	Mn	Zn	Pb	Th	W	Mo	Ag
14120	1	12	200	55	< 10	78	20	12	6	< 30	< 30	10	< 10	
14121	1	8	320	15	< 10	31	15	6	2	< 30	< 30	< 10	< 10	
6939-14151	< 1	12	210	20	< 10	42	10	4	1	< 30	< 30	< 10	< 10	
14152	< 1	10	230	25	< 10	40	10	2	2	< 30	< 30	10	< 10	
6930-14257	1	30	280	40	80	190	50	26	24	30	60	< 10	< 10	
14258	1	25	280	70	40	240	60	26	31	< 30	< 30	< 10	< 10	
14259	2	34	210	25	50	160	45	16	24	90	< 30	< 10	< 10	
14260	< 1	14	130	< 5	< 10	40	15	2	2	< 30	< 30	< 10	< 10	
14261	< 1	10	160	< 5	< 10	28	10	2	4	< 30	< 30	< 10	10	
14262	1	10	170	250	< 10	25	10	2	2	< 30	< 30	< 10	< 10	
14263	1	6	150	< 5	< 10	24	15	14	2	< 30	< 30	< 10	< 10	
14264	< 1	8	170	5	< 10	35	15	4	2	< 30	< 30	< 10	< 10	
14265	< 1	6	170	5	< 10	18	10	2	1	60	< 30	< 10	< 10	
6916-14310	1	15	170	10	< 10	64	25	6	4	< 30	60	< 10	< 10	
14302	1	14	180	10	< 10	65	35	6	2	< 30	30	< 10	< 10	
14303	< 1	12	150	20	< 10	55	25	4	4	< 30	< 30	< 10	< 10	
14304	2	34	290	45	70	160	50	16	27	< 30	< 30	< 10	< 10	
14305	1	25	290	50	50	200	50	24	26	< 30	30	< 10	< 10	
14306	1	14	170	20	50	75	25	22	12	< 30	< 30	< 10	< 10	
14307	< 1	12	150	15	< 10	31	5	6	2	< 30	60	< 10	< 10	
14308	1	12	190	20	< 10	18	10	6	3	< 30	30	< 10	< 10	
14309	1	12	240	< 5	< 10	45	15	6	4	< 30	< 30	< 10	< 10	
14310	< 1	14	190	500	50	64	90	4	4	< 30	< 30	10	< 10	
14311	3	34	380	65	120	220	50	15	25	< 30	< 30	< 10	< 10	
14312	2	25	350	50	70	130	50	44	26	< 30	< 30	10	< 10	
6918-14351	< 1	10	200	50	< 10	44	20	4	2	< 30	< 30	< 10	< 10	
14352	< 1	15	180	25	20	34	25	6	5	< 30	< 30	< 10	< 10	
14353	< 1	8	150	< 5	< 10	15	10	< 2	1	< 30	< 30	< 10	10	
14354	< 1	6	160	25	< 10	14	15	< 2	2	< 30	< 30	10	< 10	
14355	1	20	260	70	< 10	90	25	16	9	< 30	< 30	< 10	< 10	

DATE : JUN-10-1989

SIGNED :

*Narinder J. Balish*



# TECHNICAL SERVICE LABORATORIES

1201 FENWATER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 6368

## I.C.A.P. ANALYSIS

Metals Elements in Fusion

JAMES BAY CO.  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 8555 - 5  
T.S.L. File No. : D180M5555.MIV  
T.S.L. Invoice No. :

YOUR REFERENCE #

ALL RESULTS FROM

SAMPLE #	Se	Co	Cr	Cu	Ni	V	Zn	Y	Ba	Ti	W	Mn	Ag	
8436	14356	2	36	240	35	50	64	25	40	18	< 30	< 30	< 10	< 10
14357	2	18	250	30	40	150	50	24	18	< 30	< 30	< 10	< 10	
14358	1	10	170	15	30	52	10	10	6	< 30	< 30	< 10	< 10	
14359	1	2	120	5	< 10	< 2	< 5	2	2	< 30	< 30	< 10	< 10	
14360	1	2	110	< 5	< 10	4	5	2	1	30	< 30	< 10	< 10	
14361	1	2	150	< 5	< 10	4	5	4	2	30	< 30	< 10	< 10	
8462	14401	1	2	140	< 5	< 10	6	< 5	2	1	< 30	< 30	< 10	< 10
14402	1	2	240	< 5	< 10	16	5	2	1	60	< 30	< 10	< 10	
14403	1	5	320	10	< 10	54	15	14	10	< 30	< 30	< 10	< 10	
14404	1	< 2	200	< 5	< 10	5	< 5	6	1	60	< 30	< 10	< 10	
14405	1	2	170	5	< 10	22	15	8	5	< 30	< 30	< 10	< 10	
14406	1	< 2	210	< 5	< 10	12	10	4	2	< 30	< 30	< 10	< 10	
14407	1	2	250	< 5	< 10	10	< 5	2	2	< 30	< 30	< 10	< 10	
14408	1	2	230	< 5	< 10	15	< 5	4	1	< 30	< 30	< 10	< 10	
14409	1	12	250	5	30	110	20	10	10	< 30	< 30	< 10	< 10	
8463	14451	1	4	210	5	< 10	5	5	2	1	< 30	< 30	< 10	< 10
14452	1	10	240	15	< 10	50	20	12	10	30	< 30	< 10	< 10	
14453	1	12	200	< 5	< 10	15	10	2	2	< 30	< 30	< 10	< 10	
14454	1	4	230	15	30	56	20	14	5	30	< 30	< 10	< 10	
14455	1	14	270	35	< 10	110	20	34	21	< 30	< 30	< 10	< 10	
14456	1	< 2	320	< 5	< 10	10	15	12	2	< 30	< 30	< 10	< 10	
14457	1	< 2	220	< 5	< 10	55	20	10	5	30	< 30	< 10	< 10	
14458	1	2	250	50	20	150	35	25	25	< 30	< 30	< 10	< 10	
14459	1	2	150	10	< 10	75	20	10	12	30	< 30	< 10	< 10	

DATE : JUN-10-1999

SIGNED :

*Navin J. Bilalsh*

# TECHNICAL SERVICE LABORATORIES

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5740 - 1  
 T.S.L. File No. : 18JUL , 24JUL , 13JUL  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
89-07-801	89.99	3.68	.90	1.47	.57	.34	< .10	.20	.02	.05	102	38	101	2.41	99.65
89-07-802	94.02	2.36	.48	.13	.04	.04	< .10	.07	< .01	.05	60	12	59	1.15	98.34
89-07-803	94.58	2.24	.30	.11	.04	.02	< .10	.07	< .01	.05	45	< 10	51	1.13	98.56
89-07-804	91.40	4.03	.39	.15	.11	.02	< .10	.15	< .01	.06	51	< 10	71	2.05	98.39
89-07-805	93.63	3.27	.35	.08	.04	.03	< .10	.09	< .01	.06	51	< 10	61	1.23	98.80
89-07-806	90.12	3.08	.41	.44	.18	.10	1.33	.24	< .01	.45	56	14	116	1.74	98.13
89-07-807	91.77	4.14	.31	.10	< .02	.04	< .10	.13	< .01	.07	57	12	56	2.24	98.63
89-07-808	94.55	2.32	.15	.05	< .02	< .01	< .10	.06	< .01	.06	45	< 10	43	1.11	98.34
89-07-809	94.20	2.37	.32	.07	< .02	< .01	< .10	.07	< .01	.06	48	< 10	44	1.47	98.56
89-07-810	92.71	3.77	.28	.06	< .02	.02	< .10	.10	< .01	.06	56	< 10	50	1.60	98.63
89-07-811	89.22	3.25	.27	.30	.08	.09	.15	.07	< .01	.07	35	20	54	3.57	99.19
89-07-812	92.61	3.36	.23	.05	< .02	.03	< .10	.10	< .01	.06	52	< 10	58	1.95	98.51
89-07-813	93.15	3.17	.29	.12	< .02	.03	< .10	.07	< .01	.06	60	13	50	1.56	98.47
89-07-814	93.72	3.52	.21	.04	< .02	.03	< .10	.17	< .01	.07	47	< 10	103	1.62	99.40
89-07-815	91.88	3.95	.38	.05	< .02	.03	< .10	.26	< .01	.07	46	< 10	140	2.14	98.79
89-07-816	98.35	26.99	.50	.17	.04	.06	< .10	1.27	< .01	.20	89	39	262	11.01	98.94
89-07-817	94.75	22.37	.95	.16	.07	.08	< .10	1.11	< .01	.17	79	25	242	9.21	98.92
89-07-818	72.09	17.01	.68	.14	.06	.08	.11	.82	< .01	< .01	81	27	167	7.35	98.44
89-07-819	94.90	6.95	.53	.12	< .02	.04	< .10	.30	< .01	.10	56	25	61	3.96	98.95
89-07-820	95.68	23.21	1.62	.26	.22	.10	.24	1.11	< .01	.24	189	58	141	13.73	100.67
89-07-821	91.07	28.56	4.52	.28	.15	.14	1.31	1.00	.01	.26	173	35	183	11.81	99.72
89-07-822	91.97	20.32	2.31	.18	.15	.06	1.06	.89	< .01	.18	147	25	252	10.29	100.49
89-07-823	90.36	5.94	.54	.11	< .02	.05	.20	.22	< .01	.08	51	13	82	2.92	100.16
89-07-824	96.47	7.34	.44	.10	< .02	.02	.40	.34	< .01	.05	58	11	121	3.76	98.95
89-07-825	85.17	8.39	.40	.08	< .02	.05	1.18	.25	< .01	.09	51	10	84	3.91	99.55
89-07-826	71.64	17.17	1.50	.25	.05	.06	.44	.70	.01	.14	114	18	215	7.93	100.13
89-07-827	89.10	3.98	1.52	.48	< .02	.04	< .10	.13	.02	.07	52	11	63	2.57	98.21
89-07-828	60.22	24.02	1.18	.24	.07	.06	.35	.92	< .01	.19	125	22	315	13.08	100.39
89-07-829	41.55	15.30	1.36	.89	.20	.10	< .10	.76	< .01	.13	160	57	154	39.72	100.02
89-07-830	56.70	21.74	1.38	.41	.20	.09	< .10	1.00	< .01	.16	178	35	222	17.02	98.46

DATE : 01-JUL-1989

SIGNED :

*Daniel J. Bulinski*  
 for Adrian H. Gebnam F.R.D.

# TECHNICAL SERVICE LABORATORIES

1701 PEABLER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5740 - 3  
 T.S.L. File No. : 18JUL , 24JUL , 13JUL  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
89-61-661	68.81	18.62	1.29	.04	.18	.05	.14	.87	< .01	.04	211	20	220	8.58	98.77
89-61-662	75.06	14.05	.86	.19	.13	.03	.68	.60	< .01	< .01	96	23	127	7.88	99.50
89-61-663	66.30	24.23	1.51	.01	.21	.05	.15	1.01	< .01	.04	119	30	209	14.02	97.85
89-61-664	57.95	21.41	1.07	.44	.18	.04	.18	1.06	< .01	< .01	82	25	128	16.53	98.40
89-61-665	81.10	0.79	.89	.10	.02	< .01	.12	.19	< .01	.02	48	14	124	2.40	98.07
89-61-666	85.45	5.88	.82	.20	1.02	< .01	.37	.19	< .01	.03	118	22	47	2.92	98.91
89-61-667	80.78	4.17	1.04	.07	.10	.07	.50	.30	< .01	.07	128	20	98	2.02	99.51
89-61-668	82.02	0.57	.01	.21	1.02	< .01	.14	.18	< .01	.03	< 10	11	127	2.02	98.82
89-61-669	80.44	3.75	.86	.15	1.02	< .01	.22	.29	< .01	.01	46	12	61	2.58	97.82
89-61-670	82.60	0.41	.80	.16	.02	< .01	< .10	.35	< .01	.05	70	21	141	1.68	99.24
89-61-671	50.78	21.60	1.11	.41	.02	.07	.11	1.12	< .01	.02	198	36	170	9.59	98.20
89-61-672	80.54	4.85	.41	.22	.05	.02	.40	.30	< .01	< .01	< 10	15	49	2.12	98.92
89-61-673	89.29	5.00	.80	.17	.06	.01	.44	.35	< .01	< .01	< 10	14	98	2.43	98.64
89-61-674	85.64	5.55	.00	.10	.00	< .01	.11	.18	< .01	.02	176	14	36	2.33	98.33
89-61-675	82.70	0.57	.00	.14	1.02	< .01	.31	.17	< .01	.03	67	19	26	1.61	99.50
89-61-676	82.09	4.16	.04	.10	.02	< .01	< .10	.16	< .01	< .01	56	14	20	1.89	99.03
89-61-677	82.04	4.00	.40	.10	.02	< .01	.25	.13	< .01	.08	77	< 10	< 10	1.56	98.97
89-61-678	84.08	0.10	.51	.10	< .02	< .01	< .10	.12	< .01	.07	15	< 10	53	1.41	99.75
89-61-679	86.08	6.04	.56	.10	.04	< .01	< .10	.63	< .01	< .01	< 10	10	146	3.59	99.75
89-61-680	50.61	21.69	1.00	.60	.18	.06	.31	.61	< .01	< .01	173	< 10	285	21.63	99.23
89-61-681	80.01	4.00	.81	.04	.10	.10	.86	.10	.01	.02	65	14	73	1.02	99.19
89-61-682	82.67	3.24	.40	.10	.04	.10	< .10	.21	< .01	< .01	55	10	95	.94	97.78
89-61-683	83.28	0.71	.67	.28	.11	.04	< .10	.16	< .01	< .01	60	14	69	.95	99.21
89-61-684	81.60	0.81	.90	.21	.05	< .01	< .10	.08	< .01	< .01	56	12	47	1.30	97.52
89-61-685	87.46	20.56	1.87	.26	.10	.15	.45	1.02	< .01	.06	227	48	147	9.94	99.11
89-61-686	85.59	6.14	.60	.08	.04	.19	.27	.23	< .01	.01	72	14	57	1.49	97.69
89-61-687	84.19	2.14	.87	.14	.07	.14	< .10	.09	< .01	< .01	42	10	47	.37	97.92
89-62-701	80.86	3.46	.42	.10	< .02	.12	< .10	.10	< .01	< .01	56	< 10	55	1.20	99.30
89-62-702	87.64	5.90	.78	.18	.06	.06	1.01	.19	< .01	.02	57	14	70	2.21	98.40
89-62-703	85.90	1.76	1.07	.40	.05	< .01	< .10	.07	.01	< .01	51	< 10	31	1.12	99.48

DATE : 01-JUL-1989

SIGNED : *Harvill J. Dilesh*  
 for Adrian H. Dobson Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8388

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5740 - 4  
 T.S.L. File No. : 18JUL , 24JUL , 13JUL  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
89-62-704	67.36	4.09	5.13	.92	.70	.52	.10	.09	.06	< .01	96	160	398	2.60	99.05
89-62-705	95.54	2.21	.47	.11	< .02	.12	< .10	.08	< .01	< .01	64	28	93	.79	95.41
89-62-706	94.43	2.09	.40	.11	< .02	.08	< .10	.11	< .01	< .01	71	14	61	.85	98.09
89-62-707	93.80	2.46	1.15	.23	< .02	.10	< .10	.09	< .01	< .01	91	14	61	1.24	95.12
89-62-708	93.20	2.42	.92	.25	< .02	.16	.25	.08	< .01	< .01	101	17	57	1.25	98.73
89-62-709	56.15	30.06	1.41	.15	.09	.15	< .10	.30	< .01	.03	130	17	303	11.61	100.62

DATE : 31-JUL-1989

SIGNED :

*Stanley J. Belish*  
 for Adrian H. Deonam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. PLASMA SCAN**

MINDS BY FUSION

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5788 - 2

T.S.L. File No. : C:M5788.Y

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS IN PPM

SAMPLE #	Y	Sc
89-62-740	8	10
89-62-741	< 1	2
89-62-742	< 1	< 1
89-62-743	6	9
89-62-744	< 1	1
89-62-745	8	11
89-62-746	< 1	2
89-62-747	8	11
89-50-2120	1	2
89-50-2121	< 1	1
89-50-2122	4	2
89-50-2123	2	3
89-50-2124	2	3
89-50-2125	2	4
89-50-2126	2	3
89-50-2127	1	3
89-50-2128	1	4
89-50-2129	1	3

DATE : AUG-14-1989

SIGNED :

*Stanley Bilinski*

# TECHNICAL SERVICE LABORATORIES

1000 FLEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 628-1544  
FAX : (416) 628-8068

## I.C.A.P. ANALYSIS

Unit 101 - Mississauga

JAMES BAY COMPANY  
MISSISSAUGA

T.S.L. REPORT No. : M - 5740 - 0  
T.S.L. File No. : C:\SD\M5740.V  
T.S.L. Invoice No. :

-CUP REFERENCE -

ALL RESULTS FROM

SAMPLE #	Y	Sc
89-07-801	5	3
89-07-802	1	1
89-07-803	1	1
89-07-804	3	3
89-07-805	1	1
89-07-806	2	2
89-07-807	2	1
89-07-808	2	2
89-07-809	2	1
89-07-810	2	1
89-07-811	2	1
89-07-812	1	1
89-07-813	2	1
89-07-814	2	1
89-07-815	6	2
89-07-816	17	17
89-07-817	16	15
89-07-818	12	11
89-07-819	5	6
89-07-820	18	22
89-07-821	34	25
89-07-822	31	23
89-07-823	4	3
89-07-824	9	5
89-07-825	3	4
89-07-826	15	13
89-07-827	2	2
89-07-828	25	19
89-07-829	40	19
89-07-830	27	17

DATE : JUL-26-1989

SIGNED :

*Daniel J. Bilecki*

# TECHNICAL SERVICE LABORATORIES

1301 FENWATER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8068

## I.C.A.P. ANALYSIS

Whole Rock - Major Elements

JAMES BAY COMPANY  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5740 - 0  
T.S.L. File No. : D:\BC\M5740.Y  
T.S.L. Invoice No. :

YOUR REFERENCE #

ALL RESULTS PPM

SAMPLE #	%	Sc
89-07-631	2	1
89-07-632	1	2
89-07-633	8	4
89-07-634	2	3
89-07-635	1	3
89-07-636	1	1
89-07-637	1	1
89-07-638	1	1
89-07-639	1	1
89-07-640	3	3
89-07-641	1	1
89-07-642	1	1
89-07-643	2	1
89-07-644	2	1
89-07-645	1	1
89-07-646	7	4
89-07-647	16	6
89-07-648	4	2
89-07-649	4	2
89-07-650	13	6
89-01-651	2	1
89-01-652	1	1
89-01-653	1	1
89-01-654	1	1
89-01-655	1	1
89-01-656	6	10
89-01-657	10	11
89-01-658	10	7
89-01-659	14	10
89-01-660	11	10

DATE : JUL-28-1989

SIGNED :

*Daniel J. Baleski*

**TECHNICAL SERVICE LABORATORIES**

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8365

**I.C.A.P. ANALYSIS**

Whole Food - Major Elements

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 3740 - 0  
T.S.L. File No. : D: 30157401  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS FROM

SAMPLE #	Y	Sc
89-01-661	9	6
89-01-662	8	8
89-01-663	15	10
89-01-664	16	10
89-01-665	1	1
89-01-666	2	1
89-01-667	2	1
89-01-668	1	1
89-01-669	2	1
89-01-670	2	1
89-01-671	16	11
89-01-672	3	2
89-01-673	1	1
89-01-674	2	1
89-01-675	1	1
89-01-676	2	1
89-01-677	1	1
89-01-678	1	1
89-01-679	6	3
89-01-680	21	9
89-01-681	10	1
89-01-682	7	1
89-01-683	4	1
89-01-684	4	1
89-01-685	15	16
89-01-686	5	3
89-01-687	1	1
89-02-701	4	1
89-02-702	7	7
89-02-703	3	1

DATE : JUL-28-1989

SIGNED :

Daniel J. Bilinski





# TECHNICAL SERVICE LABORATORIES

1000 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Whole Food - Minor Elements

JAMES BAY COMPANY  
MISSISSAUGA

T.S.L. REPORT No. : 89-5740-0

T.S.L. File No. : D160NME740

T.S.L. Invoice No. :

ICAP REFERENCE :

ALL RESULTS FPM

SAMPLE #		g
89-62-704	4	1
89-62-705	3	1
89-62-706	2	1
89-62-707	2	1
89-62-708	2	1
89-62-709	10	12

DATE : JUL-26-1989

SIGNED :

*Daniel J. Belushi*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5788 - 1  
 T.S.L. File No. : 02AUG , 10AUG  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
89-62-710	71.02	17.03	2.43	.38	.14	.08	.29	.82	.02	< .01	109	21	340	7.46	99.73
89-62-711	51.42	31.47	1.17	.31	.23	.05	.73	1.02	< .01	< .01	198	41	147	13.14	99.59
89-62-712	55.35	28.30	1.39	.26	.23	.05	.48	1.00	< .01	< .01	164	34	204	12.15	99.27
89-62-713	49.73	31.61	1.92	.30	.32	.05	.88	1.08	< .01	< .01	222	42	173	13.48	99.43
89-62-714	72.14	17.74	1.06	.19	.17	.05	.70	.84	< .01	< .01	174	30	205	7.20	100.15
89-62-715	57.82	21.85	4.51	.40	.30	.12	.55	.92	.07	.02	159	35	274	11.46	98.08
89-62-716	52.97	27.04	3.54	.29	.33	.05	.74	1.09	.05	< .01	187	34	240	13.19	99.34
89-62-717	74.91	15.36	.97	.24	.21	< .01	.65	1.01	< .01	.01	157	37	364	6.10	99.54
89-62-718	77.52	14.99	.80	.16	.18	.03	.32	0.99	< .01	< .01	136	29	414	5.76	100.84
89-62-719	86.85	5.88	1.35	.22	.11	.04	.23	.65	.01	< .01	118	24	372	2.87	98.27
89-62-720	89.43	5.70	1.03	.34	.14	.07	.28	.81	.01	< .01	115	27	523	2.47	100.36
89-62-721	91.96	4.50	.59	.17	.03	.02	.11	.29	< .01	.03	105	23	128	1.82	99.56
89-62-722	93.42	3.13	.67	.15	< .02	.02	.24	.19	< .01	< .01	102	16	96	1.40	99.25
89-62-723	93.29	3.22	.32	.19	.04	.04	.35	.11	< .01	< .01	101	30	52	1.22	98.80
89-62-724	95.65	2.52	.25	.12	< .02	.02	.32	.07	< .01	< .01	97	19	48	.99	99.97
89-62-725	94.59	3.71	.31	.07	< .02	.02	.16	.12	< .01	.03	75	12	67	1.53	100.57
89-62-726	93.17	3.19	.33	.11	.03	.03	.22	.09	< .01	< .01	71	14	57	1.29	98.48
89-62-727	93.47	3.55	.30	.10	.04	.02	.23	.17	< .01	< .01	78	17	84	1.60	99.50
89-62-728	91.15	4.50	.31	.18	.06	.04	.15	.28	< .01	< .01	100	24	129	1.81	98.51
89-62-729	94.46	3.21	.23	.05	.02	.02	< .10	.07	< .01	< .01	85	14	50	1.30	99.44
89-62-730	94.00	3.14	.27	.22	.05	.05	.11	.07	< .01	< .01	85	26	50	1.06	98.99
89-62-731	93.21	2.95	1.29	.31	.07	.02	.16	.12	< .01	< .01	87	21	80	1.28	99.44
89-62-732	93.02	4.13	.60	.13	.04	.03	< .10	.14	< .01	< .01	95	21	79	1.79	100.00
89-62-733	91.45	3.68	1.84	.19	.02	.03	.21	.09	.02	< .01	115	27	49	2.20	99.75
89-62-734	55.15	28.76	1.16	.36	.15	.05	.42	1.13	< .01	.01	230	88	201	13.44	100.71
89-62-735	87.87	5.23	2.19	.18	.03	.02	.29	.21	.02	.02	133	56	104	2.77	98.86
89-62-736	51.86	28.03	1.16	.49	.22	.04	.42	1.08	< .01	< .01	150	47	209	15.34	98.71
89-62-737	87.72	4.84	2.82	.22	.04	.03	.31	.16	.03	< .01	115	39	70	3.41	99.60
89-62-738	51.43	29.39	1.22	.57	.19	.04	.34	1.09	< .01	< .01	157	44	181	16.00	100.33
89-62-739	83.15	3.96	5.45	.52	.06	.03	.18	.12	.07	< .01	103	26	76	4.28	97.84

DATE : 11-AUG-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5788  
 T.S.L. File No. : 02AUG , 02AUG , 10AUG  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
89-62-740	59.44	24.52	1.16	.48	.17	.08	< .10	1.14	.01	< .01	166	43	319	12.99	100.14
89-62-741	88.60	4.55	2.77	.25	.02	.01	.11	.17	.03	< .01	77	20	91	3.28	99.82
89-62-743	44.65	22.42	1.03	.62	.19	.04	.37	.90	< .01	< .01	138	40	150	29.68	99.95
89-62-744	87.50	4.44	2.98	.36	.04	.06	.13	.13	.03	< .01	96	30	96	3.52	99.21
89-62-745	53.26	27.24	1.33	.49	.20	.04	.17	1.08	< .01	< .01	151	41	189	14.99	98.86
89-62-746	84.35	6.57	3.04	.37	.05	.05	.14	.23	.03	< .01	133	49	79	4.45	99.32
89-62-747	55.13	27.61	1.25	.44	.20	.05	.27	1.14	< .01	< .01	144	44	238	13.88	100.04
89-50-2120	87.80	7.63	.51	.25	.10	.02	< .10	.47	< .01	< .01	82	23	203	2.64	99.52
89-50-2121	92.38	4.29	.40	.13	< .02	.01	< .10	.29	< .01	< .01	61	18	127	1.57	99.11
89-50-2122	91.98	3.37	.71	.26	.11	.11	.26	.20	< .01	< .01	81	23	95	1.28	98.31
89-50-2123	92.16	3.74	.31	.11	.03	.02	.22	.14	< .01	< .01	63	21	93	2.07	98.82
89-50-2124	91.61	4.70	.42	.10	< .02	.01	.23	.14	< .01	< .01	55	15	80	2.40	99.65
89-50-2125	90.62	5.02	.31	.07	.03	.02	.18	.29	< .01	< .01	56	12	153	2.58	99.15
89-50-2126	90.93	5.11	.49	.09	.04	.03	.16	.31	< .01	< .01	60	13	133	2.56	99.75
89-50-2127	92.32	3.75	.39	.12	.04	.02	.13	.14	< .01	< .01	50	13	88	2.03	98.96
89-50-2128	91.00	4.66	.44	.11	.04	.03	.14	.37	< .01	< .01	49	12	176	2.22	99.05
89-50-2129	93.30	3.35	.36	.10	.03	.03	.13	.16	< .01	< .01	54	12	127	1.50	98.99

DATE : 14-AUG-1989

SIGNED :

*Adrian H. Jebnam*  
 Adrian H. Jebnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY CO.  
MISS. ONTARIO

T.S.L. REPORT No. : M - 5493 - 2  
T.S.L. File No. : APR10 , 30MAR  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2621	82.46	10.59	1.01	.35	.19	.08	.33	.39	.01	.07	91	33	98	4.03	99.49
2622	79.71	12.47	.83	.23	.13	.04	< .10	.62	< .01	.07	100	26	159	4.78	98.94
2623	64.05	22.12	2.09	.22	.24	.05	.46	1.17	< .01	.11	167	41	378	8.45	99.04
2624	82.85	10.94	.79	.32	.08	.02	.39	.60	< .01	.08	83	23	261	4.37	100.49
2625	65.87	20.24	2.12	.21	.23	.06	.48	1.11	< .01	.11	156	36	379	7.90	98.41
2626	78.73	12.10	.93	.17	.10	.03	.53	.73	< .01	.09	92	23	357	4.57	98.05
2627	87.00	8.15	.64	.10	.04	.03	.54	.56	< .01	.06	70	13	293	3.22	100.40
2628	90.01	5.64	.40	.08	.04	.01	.41	.54	< .01	.06	68	11	377	2.19	99.45
8932 2651	93.89	3.74	.28	.02	< .02	< .01	.29	.15	< .01	.04	36	< 10	93	1.61	100.03
2652	94.18	3.36	.23	< .02	< .02	< .01	< .10	.11	< .01	.04	32	< 10	82	1.43	99.46
8932 2653	90.96	3.60	.58	.21	.11	.07	.52	.15	.01	.05	101	19	84	1.75	98.03
2654	69.08	18.89	1.37	.17	.10	.05	.48	0.99	.02	.08	101	18	392	8.38	99.67
2655	89.26	6.05	.82	.06	.04	.03	.39	.31	< .01	.05	36	10	136	2.85	99.90
2656	70.19	18.41	1.58	.14	.09	.04	.35	.99	.02	.08	98	15	315	8.15	100.29
2657	72.77	15.59	1.93	.27	.15	.08	.55	.89	.03	.07	94	18	309	7.21	99.59
2658	74.76	16.01	.69	.16	.09	.04	.54	.75	< .01	.07	95	18	218	7.70	100.86
2659	94.26	2.95	.32	< .02	.02	.02	.32	.13	< .01	.03	27	< 10	71	1.65	99.71
2660	70.84	18.77	.76	.15	.10	.04	.43	.93	< .01	.08	89	19	257	7.82	99.99
2661	92.44	3.12	.37	< .02	.02	.02	.28	.20	< .01	.04	31	< 10	126	1.69	98.21
2662	92.86	2.40	.61	< .02	.03	.04	.43	.08	< .01	.04	24	< 10	53	1.33	97.84
2663	94.82	1.69	.39	.10	.05	.06	.33	.06	< .01	.04	24	< 10	47	.99	98.51

DATE : 11-APR-1989

SIGNED :

Adrian H. Debnar Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FENSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY CO.  
MISS. ONTARIO

T.S.L. REPORT No. : M - 5493 - 1  
T.S.L. File No. : APR10, 30MAR  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8927 2238	92.76	3.76	.77	.44	.20	.11	.21	.12	.02	.04	69	18	79	1.81	100.26
2239	91.77	4.10	.28	.06	.03	<.01	<.10	.18	<.01	.02	52	< 10	101	1.94	98.40
2240	94.32	3.82	.24	<.02	<.02	<.01	.13	.10	<.01	.02	63	< 10	64	1.76	100.62
2241	94.55	3.76	.31	<.02	<.02	<.01	.23	.21	<.01	.03	73	< 10	168	1.73	100.87
2242	94.38	4.08	.29	<.02	<.02	<.01	<.10	.15	<.01	.02	100	< 10	84	1.87	100.89
2243	94.34	3.24	.33	<.02	<.02	<.01	<.10	.13	<.01	.02	69	< 10	50	1.70	99.79
2244	90.50	5.45	.38	.05	<.02	<.01	<.10	.24	<.01	.03	64	< 10	94	3.44	100.18
2245	65.91	21.91	.92	.23	.07	<.01	<.10	.91	<.01	.09	122	26	222	10.62	100.95
2246	80.89	12.02	.64	.03	.03	<.01	<.10	.74	<.01	.04	81	< 10	298	5.38	100.03
2247	88.60	7.47	.42	.03	<.02	<.01	<.10	.36	<.01	.03	68	< 10	351	3.50	100.69
2248	87.81	7.01	.62	.08	<.02	<.01	.16	.42	.01	.04	63	16	243	3.25	99.44
2249	93.02	3.57	.47	.13	.05	.02	.18	.23	<.01	.03	84	11	112	2.07	99.80
8988 2603	95.15	2.19	.33	.04	<.02	<.01	.11	.09	<.01	.02	47	11	67	1.78	99.73
2604	89.93	5.96	.51	.05	.03	<.01	.28	.33	<.01	.03	68	< 10	170	3.10	100.25
2605	91.24	2.73	.80	.79	.21	.09	<.10	.17	<.01	.03	68	23	100	2.50	98.62
2606	93.91	4.00	.22	.04	<.02	<.01	.29	.16	<.01	.03	53	< 10	79	2.10	100.77
2607	94.79	3.39	.35	.04	<.02	<.01	<.10	.11	<.01	.02	57	< 10	61	1.89	100.62
2608	80.28	12.70	.62	.07	.07	<.01	.36	.50	<.01	.05	107	18	141	5.76	100.45
2609	93.67	3.09	.36	<.02	<.02	<.01	.15	.20	<.01	.03	57	< 10	81	1.85	99.37
2610	93.55	3.05	.34	.03	<.02	<.01	.20	.33	<.01	.02	64	11	135	2.07	99.62
2611	83.76	7.02	.66	.30	.09	.13	.10	.32	.01	.06	79	24	145	2.79	100.27
2612	59.38	27.06	1.02	.23	.10	.08	<.10	1.46	<.01	.10	91	30	336	10.71	100.21
2613	61.71	24.72	2.21	.18	.13	.04	.43	.96	<.01	.11	136	41	182	9.88	100.42
2614	69.32	25.32	2.82	.14	.15	.04	.35	.99	.01	.11	162	38	192	10.16	100.46
2615	64.55	8.70	.48	.08	.04	.02	.34	.36	<.01	.07	54	16	135	3.46	98.13
2616	92.44	4.28	.25	.08	<.02	<.01	<.10	.15	<.01	.04	38	11	81	1.83	99.19
2617	95.70	3.65	.34	.19	<.02	<.01	.16	.16	<.01	.04	36	< 10	72	1.74	99.99
2618	94.61	2.99	.53	.07	<.02	<.01	<.10	.08	<.01	.04	34	< 10	68	1.68	100.01
2619	92.86	4.53	.25	<.02	<.02	<.01	.13	.12	<.01	.04	50	11	67	2.05	99.87
2620	70.87	19.03	1.32	.22	.14	.01	.26	.64	<.01	.09	165	31	181	7.90	100.53

DATE : 11-APR-1989

SIGNED :

Adrian H. Debnan Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

**I.C.A.P. PLASMA SCAN**  
MINORS BY FUSION

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5788 - 1  
T.S.L. File No. : C:M5788.Y  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS IN PPM

SAMPLE #	Y	Sc
89-61-710	4	6
89-62-711	12	10
89-62-712	12	9
89-62-713	16	11
89-62-714	9	6
89-62-715	13	8
89-62-716	14	10
89-62-717	9	6
89-62-718	10	8
89-62-719	3	2
89-62-720	3	2
89-62-721	< 1	1
89-62-722	< 1	< 1
89-62-723	< 1	< 1
89-62-724	< 1	< 1
89-62-725	< 1	1
89-62-726	< 1	1
89-62-727	< 1	1
89-62-728	6	1
89-62-729	< 1	1
89-62-730	< 1	1
89-62-731	< 1	< 1
89-62-732	< 1	1
89-62-733	< 1	1
89-62-734	7	10
89-62-735	< 1	2
89-62-736	7	12
89-62-737	< 1	1
89-62-738	8	12
89-62-739	< 1	1

DATE : AUG-14-1989

SIGNED : *Daniel J. Bilish*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, HISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 425 - 1344  
 FAX : (416) 425 - 8368

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5493 - 1  
 T.S.L. File No. : D15493  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
8727 2238	8	1
2239	4	1
2240	2	1
2241	< 2	< 1
2242	< 2	< 1
2243	2	< 1
2244	2	2
2245	14	9
2246	4	6
2247	2	4
2248	2	2
2249	2	1
8988 2603	< 2	< 1
2604	< 2	1
2605	< 2	1
2606	2	< 1
2607	2	< 1
2608	4	4
2609	2	1
2610	< 2	2
2611	8	3
2612	8	8
2613	4	8
2614	6	8
2615	4	3
2616	< 2	2
2617	< 2	1
2618	< 2	1
2619	2	1
2620	8	7

DATE : APR-11-1989

SIGNED : \_\_\_\_\_

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES DAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5493 - 2  
T.S.L. File No. : D15493  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Y	Sc
2621	4	5
2622	6	5
2623	10	9
2624	4	4
2625	10	8
2626	8	6
2627	8	3
2628	4	2
8932 2651	2	< 1
2652	< 2	< 1
8932 2653	6	2
2654	18	17
2655	6	5
2656	14	14
2657	16	12
2658	22	14
2659	2	2
2660	20	16
2661	4	2
2662	2	1
2663	1	1

DATE : APR-11-1989

SIGNED : \_\_\_\_\_





# TECHNICAL SERVICE LABORATORIES

1201 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5740 - 2  
T.S.L. File No. : 18JUL, 24JUL, 13JUL  
T.S.L. Invoice No. :

### ICAP REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zn ppm	LOI %	TOTAL %
89-07-630	85.17	2.76	.47	.21	<.02	<.01	<.10	.16	<.01	<.01	61	14	67	1.51	98.51
89-07-632	91.19	4.35	.37	.09	<.02	<.01	<.10	.18	<.01	.07	63	14	71	2.13	98.41
89-07-633	89.19	6.50	.59	.24	.05	.09	<.10	.27	.01	<.01	113	36	121	2.65	99.50
89-07-634	89.70	4.51	.70	.14	<.02	.03	<.10	.17	<.01	.07	58	14	77	3.38	98.95
89-07-635	91.00	4.08	.54	.12	<.02	.02	<.10	.23	<.01	.07	49	16	104	2.03	98.64
89-07-636	94.68	0.40	.07	.10	<.02	.01	<.10	.08	<.01	.06	39	< 10	53	1.39	99.02
89-07-637	90.60	0.41	.32	.07	<.02	.03	<.10	.07	<.01	.06	39	< 10	48	1.43	98.03
89-07-638	94.16	0.23	.46	.10	<.02	.03	<.10	.06	<.01	.06	41	< 10	42	1.37	98.40
89-07-639	94.60	0.77	.57	.21	<.02	.05	<.10	.07	<.01	.07	39	< 10	50	1.73	100.12
89-07-640	91.69	4.04	.70	.18	<.02	.01	<.10	.14	<.01	.07	42	< 10	73	2.03	99.11
89-07-641	94.10	0.57	.33	.25	.07	.05	<.10	.05	<.01	.02	< 10	16	90	1.32	98.60
89-07-642	90.00	4.07	.23	.23	.07	.03	<.10	.08	<.01	.07	16	< 10	117	1.77	99.82
89-07-643	94.56	0.14	.30	.15	.04	.02	<.10	.06	<.01	.04	102	15	91	1.49	99.05
89-07-644	86.76	6.07	.66	.21	.05	.03	<.10	.24	<.01	.02	97	26	129	3.16	97.73
89-07-645	90.26	0.49	.40	.14	.04	.02	<.10	.10	<.01	<.01	107	17	62	2.15	98.55
89-07-646	80.62	0.75	.61	.22	.09	.03	.64	.53	<.01	.01	85	19	241	6.04	98.58
89-07-647	70.58	13.67	.75	.04	.13	.04	.30	1.08	<.01	<.01	73	22	386	8.27	98.17
89-07-648	84.56	0.46	.74	.10	.06	.02	.11	.33	<.01	.05	66	14	127	3.96	97.74
89-07-649	86.00	5.76	.73	.14	.05	.05	.17	.32	<.01	<.01	102	16	141	4.24	98.01
89-07-650	73.61	14.00	.63	.26	.13	.04	<.10	.59	<.01	.06	90	23	486	7.67	95.76
89-01-651	93.00	1.96	.37	.11	.02	.07	.43	.26	<.01	<.01	102	42	261	1.96	98.57
89-01-652	89.50	4.99	.33	.13	.03	.02	.44	.20	<.01	<.01	146	21	116	2.60	98.34
89-01-653	91.60	0.54	.46	.21	.02	.03	.34	.14	<.01	<.01	< 10	23	67	3.14	99.01
89-01-654	90.73	0.10	.59	.21	.03	.03	.55	.34	<.01	.01	< 10	19	222	2.26	99.90
89-01-655	91.69	0.82	.60	.15	<.02	<.01	.40	.21	<.01	.04	90	18	97	2.36	97.55
89-01-656	84.70	11.60	1.01	.20	.10	.03	.78	.69	<.01	<.01	66	19	125	10.60	98.61
89-01-657	50.23	20.69	1.47	.19	.21	.04	<.10	1.03	<.01	<.01	210	30	133	13.56	99.46
89-01-658	69.91	15.19	.62	.15	.12	.02	<.10	.75	<.01	.04	164	19	155	8.48	98.50
89-01-659	59.16	11.77	4.85	.35	.17	.03	<.10	.98	.06	.03	157	26	194	13.05	99.53
89-01-660	50.10	20.70	6.40	.27	.30	.03	<.10	.94	.07	.04	153	28	175	13.60	98.91

DATE : 01-JUL-1989

SIGNED :

*Harind J. Dulesh*  
for Anrian H. Jebnae Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 3  
 T.S.L. File No. : D:M5503.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2259	< 1	4	240	5	30	22	40	12	< 1	< 30	< 30	< 10	< 10
2260	< 1	4	210	5	10	10	25	6	1	< 30	< 30	< 10	< 10
2261	< 1	8	290	< 5	10	12	20	4	2	< 30	< 30	< 10	< 10
2262	< 1	6	270	15	40	12	15	4	4	< 30	< 30	< 10	< 10
2263	< 1	2	310	< 5	40	26	5	2	2	< 30	< 30	< 10	< 10
2264	1	16	240	40	50	130	25	24	17	< 30	< 30	< 10	< 10
8988 2601	< 1	8	300	15	20	30	35	4	3	< 30	< 30	< 10	< 10
2602	< 1	4	290	10	30	26	20	6	1	< 30	< 30	< 10	< 10
8989 2701	< 1	4	270	5	50	26	5	4	1	< 30	< 30	< 10	< 10
2702	2	18	330	80	70	160	20	40	28	60	< 30	< 10	< 10
8989 2703	< 1	14	330	30	40	86	30	10	8	< 30	< 30	< 10	< 10
2704	< 1	12	240	20	20	56	30	8	6	< 30	< 30	< 10	< 10
2705	< 1	10	280	20	20	40	5	2	2	< 30	< 30	< 10	< 10
2706	2	30	280	80	90	160	15	34	24	30	< 30	< 10	< 10
2707	2	34	270	60	100	140	25	48	21	30	< 30	< 10	< 10
2708	< 1	18	490	25	40	50	80	14	4	< 30	< 30	< 10	< 10
2709	< 1	14	270	20	50	36	20	6	3	< 30	< 30	< 10	< 10
2710	< 1	10	230	15	40	34	20	4	2	< 30	< 30	< 10	< 10
2711	< 1	12	400	30	20	36	55	4	< 1	< 30	< 30	< 10	< 10
2712	< 1	10	240	20	50	46	< 5	4	3	30	< 30	< 10	< 10
8989 2713	< 1	10	200	5	10	32	25	6	2	< 30	< 30	< 10	< 10
2714	1	20	210	80	60	180	35	26	24	< 30	< 30	< 10	< 10
2715	< 1	10	370	20	30	44	10	8	4	< 30	< 30	< 10	< 10
2716	< 1	20	260	50	60	96	25	28	16	< 30	< 30	< 10	< 10
2717	< 1	14	370	10	10	40	15	10	4	< 30	< 30	< 10	< 10
2718	1	22	280	55	40	200	20	26	18	< 30	< 30	< 10	< 10
2719	< 1	14	310	15	10	36	30	4	3	< 30	< 30	< 10	< 10
2720	< 1	22	190	15	40	84	30	14	10	< 30	< 30	< 10	< 10
2721	< 1	10	250	25	< 10	26	15	4	2	< 30	< 30	< 10	< 10
2722	< 1	12	240	5	10	26	5	4	2	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED :

*Harind J. Bilash*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 4

T.S.L. File No. : D:M5503.MIN

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2723	< 1	16	280	10	50	62	< 5	20	8	< 30	< 30	< 10	< 10
2724	< 1	14	230	10	30	62	15	18	7	< 30	< 30	< 10	< 10
2725	< 1	12	170	5	10	60	15	14	7	< 30	< 30	< 10	< 10
2726	< 1	6	190	< 5	< 10	16	< 5	6	2	< 30	< 30	< 10	< 10
8986 2752	< 1	8	270	< 5	< 10	20	10	2	1	< 30	< 30	< 10	< 10
2753	< 1	8	260	5	10	14	5	2	1	< 30	< 30	< 10	< 10
2754	< 1	8	260	5	10	22	< 5	2	2	< 30	< 30	< 10	< 10
2755	< 1	10	210	< 5	10	44	5	4	2	< 30	< 30	< 10	< 10
2756	< 1	8	420	< 5	< 10	28	< 5	4	2	< 30	< 30	< 10	< 10
2757	< 1	18	350	20	60	120	15	26	17	< 30	< 30	< 10	< 10
2758	< 1	12	210	< 5	10	34	10	10	3	< 30	< 30	< 10	< 10
2759	< 1	22	170	5	30	94	25	10	12	< 30	< 30	< 10	< 10
2760	< 1	14	160	< 5	30	30	< 5	4	3	< 30	< 30	< 10	< 10
2761	< 1	12	170	< 5	10	24	5	4	3	< 30	< 30	< 10	< 10
2762	< 1	12	240	5	10	30	15	2	2	< 30	< 30	< 10	< 10
2763	1	24	220	40	70	210	35	18	19	< 30	< 30	< 10	< 10
2764	< 1	10	330	15	10	76	5	4	5	< 30	< 30	< 10	< 10
2765	< 1	16	200	60	40	100	15	22	15	< 30	< 30	< 10	< 10
2766	< 1	12	290	25	90	42	5	6	4	30	< 30	< 10	< 10
2767	1	22	240	95	90	120	15	26	17	< 30	< 30	< 10	< 10
2768	< 1	20	300	30	90	100	25	18	14	< 30	< 30	< 10	< 10
2769	< 1	14	190	15	40	66	15	14	8	< 30	< 30	< 10	< 10
2770	< 1	18	230	15	50	70	10	12	6	< 30	< 30	< 10	< 10
2771	< 1	12	160	5	20	30	10	4	2	< 30	< 30	< 10	< 10
8987 2801	< 1	10	270	5	20	34	20	2	1	< 30	< 30	< 10	< 10
2802	< 1	12	240	5	20	30	40	< 2	1	< 30	< 30	< 10	< 10
2803	< 1	12	240	10	< 10	28	15	4	2	< 30	< 30	< 10	< 10
2804	< 1	14	260	20	10	26	10	2	1	< 30	< 30	< 10	< 10
2805	< 1	8	290	< 5	10	22	10	4	1	< 30	< 30	< 10	< 10
2806	< 1	8	240	< 5	10	20	5	2	1	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED :

*Ranjit Bilalsh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 5  
 T.S.L. File No. : D:M5503.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8987 2807	< 1	8	210	15	30	32	15	8	3	30	< 30	< 10	< 10
2808	< 1	6	250	< 5	20	32	20	6	2	< 30	< 30	< 10	< 10
2809	< 1	6	190	< 5	< 10	16	15	2	1	< 30	< 30	< 10	< 10
2810	< 1	8	220	15	10	30	20	2	2	< 30	< 30	< 10	< 10
2811	< 1	8	210	15	20	26	35	2	2	< 30	< 30	< 10	< 10
2812	< 1	6	260	10	20	54	10	4	6	< 30	< 30	< 10	< 10
2813	< 1	8	320	50	20	22	< 5	4	3	< 30	< 30	< 10	< 10
2814	1	18	250	35	60	130	50	18	21	< 30	< 30	< 10	< 10
2815	< 1	6	450	5	10	20	15	4	2	< 30	< 30	< 10	< 10
2816	1	18	190	35	60	120	30	18	22	< 30	< 30	< 10	< 10
2817	< 1	4	160	5	10	24	25	6	3	< 30	< 30	< 10	< 10
2818	< 1	4	180	< 5	10	20	30	4	3	< 30	< 30	< 10	< 10
2819	< 1	4	200	10	10	20	25	6	3	< 30	< 30	< 10	< 10
8953 2851	< 1	8	240	5	10	22	25	4	2	< 30	< 30	< 10	< 10
2852	< 1	4	360	< 5	10	18	20	2	1	< 30	< 30	< 10	< 10
2853	< 1	20	320	35	70	120	35	16	15	< 30	< 30	< 10	< 10
2854	1	36	210	35	100	110	40	20	16	< 30	< 30	< 10	< 10
2855	2	66	270	55	160	200	70	26	23	< 30	< 30	< 10	< 10
2856	2	110	280	150	170	200	15	38	24	< 30	< 30	< 10	< 10
2857	< 1	10	220	10	40	28	20	6	4	< 30	< 30	< 10	< 10
2858	< 1	10	260	5	10	24	30	10	2	< 30	< 30	< 10	< 10
2859	< 1	8	280	5	20	20	25	4	2	< 30	< 30	< 10	< 10
2860	< 1	10	220	5	40	26	20	6	3	< 30	< 30	< 10	< 10
2861	< 1	6	220	5	10	28	10	4	3	< 30	< 30	< 10	< 10
2862	< 1	8	210	45	20	18	15	2	1	< 30	< 30	< 10	< 10
2863	< 1	6	370	5	20	34	< 5	4	2	< 30	< 30	< 10	< 10
2864	1	20	440	35	50	110	35	26	19	< 30	< 30	< 10	< 10
2865	< 1	6	180	< 5	20	24	10	2	2	< 30	< 30	< 10	< 10
2866	< 1	10	300	10	50	38	15	4	3	< 30	< 30	< 10	< 10
2867	1	18	620	25	60	120	25	16	15	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED : *Daniel J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 6

T.S.L. File No. : D:M5503.MIN

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2868	< 1	10	340	25	30	70	30	10	8	< 30	< 30	< 10	< 10
2869	< 1	8	210	10	10	54	40	4	3	< 30	< 30	< 10	< 10
2870	< 1	8	280	10	20	28	15	6	2	< 30	< 30	< 10	< 10
2871	1	22	320	35	60	120	15	18	15	< 30	< 30	< 10	< 10
8999 2901	< 1	6	300	10	10	16	15	4	2	< 30	< 30	< 10	< 10
2902	< 1	8	220	10	20	22	10	2	2	< 30	< 30	< 10	< 10
2903	< 1	6	270	5	10	38	15	4	2	< 30	< 30	< 10	< 10
2904	< 1	4	350	10	20	18	50	4	2	< 30	< 30	< 10	< 10
2905	< 1	8	300	10	20	28	15	2	1	30	< 30	< 10	< 10
2906	< 1	6	270	< 5	50	34	15	4	2	< 30	< 30	< 10	< 10
8999 2907	< 1	8	230	< 5	30	32	5	6	3	< 30	< 30	< 10	< 10
2908	< 1	8	230	5	40	22	10	4	3	< 30	< 30	< 10	< 10
2909	< 1	6	180	5	20	18	5	< 2	2	< 30	< 30	< 10	< 10
2910	< 1	8	210	< 5	20	28	10	4	2	< 30	< 30	< 10	< 10
2911	1	18	230	70	90	120	65	22	21	< 30	< 30	< 10	< 10
2912	< 1	8	360	5	30	18	15	4	2	< 30	< 30	< 10	< 10
2913	1	18	220	35	60	110	30	26	17	< 30	< 30	< 10	< 10
2914	< 1	18	210	40	40	64	15	18	12	< 30	< 30	< 10	< 10
8955 2951	< 1	8	220	25	20	24	20	4	2	< 30	< 30	< 10	< 10
8955 2952	< 1	8	230	10	20	26	25	4	2	< 30	< 30	< 10	< 10
8955 2953	< 1	22	260	30	100	180	25	14	16	< 30	< 30	< 10	< 10
8955 2954	< 1	14	200	20	50	84	30	14	13	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED :

*Daniel J. Blish*

**TECHNICAL SERVICE LABORATORIES**

1101 FLEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
 Elements by Fusion

JAMES DE FABIAN LORAIN  
 MISSISSAUGA

T.S.L. REPORT No. : M - 5502 - 1  
 T.S.L. File No. : D:5502  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PERCENT

SAMPLE #	71.00	86.07
10001	6.66	5.49
10002	0.84	2.61
10003	0.00	0.21
10004	7.87	9.71
10005	1.24	0.95
10006	2.00	0.71
10007	0.89	1.64
10008	0.30	0.01
10009	3.19	0.46
10010	0.66	1.40
10011	2.16	0.51
10012	2.00	0.20
10013	11.16	6.71
10014	2.10	0.01
10015	6.77	6.60
10016	0.04	0.01
10017	7.57	0.77
10018	0.00	0.01
10019	5.76	4.09
10020	7.06	0.21
10021	19.34	14.03
SCFUB+14	0.27	0.26
10022	0.50	1.45

DATE : APR-27-1985

SIGNED : Daniel J. Bilish.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8366

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY KADLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5546 - 1  
 T.S.L. File No. : 25MAY, 19MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8974 13219	93.03	2.76	.33	.42	.16	.14	< .10	.10	.01	.08	60	28	79	1.38	98.49
8943 13301	94.57	2.35	.20	.23	< .02	.05	.24	.08	< .01	.06	70	24	84	1.35	99.17
13302	92.75	2.69	.56	.30	.09	.07	.19	.12	< .01	.07	48	14	106	1.62	98.51
13303	95.59	2.64	.27	.17	< .02	.06	< .10	.06	< .01	.07	43	17	76	1.43	100.35
13304	94.00	3.44	.17	.08	< .02	.04	.80	.06	< .01	.06	39	11	79	1.70	100.36
13305	92.63	3.46	.17	.26	< .02	.03	.73	.06	< .01	.06	51	26	62	1.65	99.07
13306	81.33	10.96	.38	.16	.05	.04	.76	.39	< .01	.08	65	25	128	4.88	99.06
13307	93.16	3.55	.21	.15	< .02	.04	.91	.15	< .01	.06	44	14	87	2.01	100.31
13308	93.25	3.47	.18	.10	< .02	.03	.54	.21	< .01	.05	47	11	131	2.06	99.92
13309	95.71	2.67	.20	.05	< .02	.02	.15	.10	< .01	.05	40	< 10	76	1.71	100.67
13310	91.26	3.93	.20	.14	< .02	.19	.17	.21	< .01	.05	52	12	125	2.36	98.57
13311	94.20	2.46	.23	.05	< .02	.04	.14	.06	< .01	.04	47	10	52	1.58	98.82
13312	92.62	3.50	.22	.10	< .02	.03	.66	.11	< .01	.04	41	12	59	2.08	99.37
13313	92.35	3.76	.28	.22	.04	.04	.56	.14	< .01	.04	90	25	66	2.15	99.62
13314	83.90	10.13	.51	.15	.05	.04	.15	.70	< .01	.06	94	22	378	4.65	100.41
13315	94.42	2.72	.23	.23	< .02	.03	.17	.15	< .01	.04	42	16	81	1.56	99.56
13316	85.45	8.48	.49	.15	.06	.05	.26	.63	< .01	.06	78	19	363	4.20	97.90
13317	90.52	5.49	.32	.10	< .02	.03	< .10	.42	< .01	.05	56	11	209	2.87	99.85
13318	86.02	6.72	.46	.10	< .02	.02	.13	.49	< .01	.05	64	13	261	3.70	97.77
13319	83.73	10.02	.58	.24	.07	.05	< .10	.72	< .01	.07	94	23	404	4.63	100.18
13320	93.07	3.88	.37	.39	.06	.13	.18	.27	.01	.05	71	28	155	1.40	99.84
13321	92.99	3.37	.27	.25	.03	.05	< .10	.16	< .01	.03	71	15	90	1.37	98.55
8971 13351	84.76	4.97	.34	2.43	.72	.49	.25	.21	.01	.05	130	75	98	3.71	98.47
13352	86.54	4.20	.69	2.55	.73	.36	.34	.16	.01	.04	116	56	70	3.88	99.55
13353	62.85	22.59	1.13	.85	.31	.13	.21	0.99	< .01	.07	189	55	207	9.33	98.53
13354	92.52	3.90	.35	.30	.06	.02	< .10	.15	< .01	.02	55	14	72	1.57	99.00
13355	93.96	3.19	.40	.18	< .02	< .01	< .10	.11	< .01	.01	55	14	57	1.42	99.38
13356	90.76	5.20	.30	.11	< .02	.02	< .10	.21	< .01	.02	57	12	98	2.11	98.81
13357	95.11	2.72	.20	< .02	< .02	< .01	< .10	.11	< .01	< .01	40	< 10	61	1.26	99.45
13358	92.74	3.50	.32	.08	< .02	< .01	< .10	.10	< .01	< .01	43	12	50	1.43	98.28

DATE : 03-JUN-1989

SIGNED :

*Daniel J. Bilish.*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY KAOLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5546 - Z  
 T.S.L. File No. : 25MAY . 19MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
13359	59.72	25.72	1.29	.29	.13	.10	.73	1.15	.01	.09	176	44	276	10.31	99.61
13360	89.41	6.17	.49	.26	.06	.11	.75	.43	< .01	.02	89	15	215	2.09	99.84
13361	56.17	27.54	1.54	.17	.17	.04	.65	1.07	< .01	.07	176	34	195	10.87	98.35
13362	56.99	27.02	1.17	.12	.12	.02	.65	1.05	< .01	.07	167	29	240	10.35	97.62
13363	91.71	4.24	.35	.05	< .02	< .01	.63	.16	< .01	< .01	35	< 10	50	1.49	98.65
13364	94.58	3.51	.14	< .02	< .02	< .01	.62	.09	< .01	< .01	31	< 10	40	1.16	100.12
13365	93.70	3.71	.26	.06	< .02	< .01	.75	.10	< .01	< .01	34	< 10	40	1.40	100.00
13366	93.30	3.64	.24	< .02	< .02	< .01	.75	.10	< .01	< .01	31	< 10	38	1.30	99.35
13367	93.30	3.64	.27	.02	< .02	< .01	.73	.15	< .01	< .01	39	< 10	50	1.33	99.45
13368	84.86	8.88	.44	.03	.05	< .01	.76	.43	< .01	.02	73	13	167	3.27	96.77
8972 13601	87.86	3.71	.90	2.49	.73	.44	.54	.16	.02	.07	143	66	84	3.12	100.08
13602	64.37	22.91	1.19	.25	.17	.08	.18	0.99	< .01	.09	176	34	204	10.04	100.33
13603	90.34	4.14	.56	.25	.03	.04	.58	.08	< .01	.05	54	24	52	2.54	98.63
13604	79.50	13.75	.67	.16	.09	.05	.19	.54	< .01	.07	111	20	175	5.46	100.52
13605	93.08	3.69	.40	.16	.04	.06	.75	.11	< .01	.06	52	14	86	1.62	99.99
13606	91.94	4.12	.39	.20	.02	.05	.39	.11	< .01	.07	57	20	78	2.25	99.56
13607	93.15	3.79	.39	.10	.02	.05	.38	.13	< .01	.06	56	10	87	2.22	100.31
13608	93.51	2.62	.35	.12	< .02	.05	.39	.13	< .01	.06	51	12	61	1.70	98.98
13609	93.54	2.60	.39	.32	< .02	.04	< .10	.07	< .01	.06	82	27	63	1.67	98.76
13610	91.59	4.21	.88	.33	.03	.05	.19	.08	< .01	.06	61	19	55	2.50	99.95
13611	94.70	2.68	.67	.26	.02	.05	.54	.10	< .01	.07	95	37	79	.99	100.11
13612	60.89	25.00	1.75	.31	.14	.09	.58	1.05	< .01	.12	177	52	243	9.80	99.80
13613	86.14	8.18	.79	.14	.05	.04	< .10	.31	< .01	.05	75	17	83	3.43	99.16
13614	56.61	28.55	1.52	.33	.17	.10	.48	1.11	< .01	.16	166	55	194	11.42	100.52
13615	82.46	10.63	1.03	.20	.06	.06	.70	.42	< .01	.09	107	30	115	4.60	100.49
13616	56.90	27.33	1.82	.27	.15	.10	.85	1.04	< .01	.16	186	55	202	11.44	100.13
13617	93.75	3.92	.31	.22	< .02	.04	.25	.13	< .01	.06	52	24	71	1.68	100.40
13618	80.29	12.20	.69	.13	.05	.05	.40	.55	< .01	.08	84	17	203	5.52	100.01
13619	91.78	4.29	.27	.12	< .02	.03	.48	.21	< .01	.06	39	10	87	2.79	100.05
13620	91.62	3.74	.26	.16	< .02	.04	< .10	.14	< .01	.07	47	17	78	2.49	98.65

DATE : 03-JUN-1989

SIGNED :

*Samuel J. Belish*  
 for Adrian H. Deonam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY KADLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5546 - 3  
 T.S.L. File No. : 25MAY, 1984  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
13621	92.21	3.67	.42	.24	.07	.10	.67	.13	.01	.05	57	15	68	1.40	98.99
13622	95.27	2.29	.32	.07	.03	.03	< .10	.09	< .01	.02	27	< 10	48	1.09	99.23
13623	92.85	3.37	.48	.14	< .02	.11	.28	.15	< .01	.05	47	18	78	1.95	99.90
13624	93.46	3.52	.32	.16	< .02	.05	.16	.13	< .01	.05	43	14	70	1.68	99.58
13625	94.28	3.62	.28	.07	< .02	.02	.30	.11	< .01	.04	32	< 10	64	1.55	100.29
8964 13651	90.72	4.46	.46	.35	.03	.02	< .10	.21	< .01	.03	66	29	70	1.92	96.26
13652	94.50	2.58	.34	.04	< .02	< .01	< .10	.12	< .01	.02	47	< 10	47	1.31	98.96
13653	94.36	2.77	.33	.08	< .02	< .01	< .10	.18	< .01	.01	54	< 10	112	1.27	99.07
13654	94.20	2.49	.33	.11	< .02	< .01	< .10	.09	< .01	.01	66	15	52	1.08	98.36
13655	93.96	3.10	.30	.09	< .02	< .01	< .10	.25	< .01	.01	72	15	179	1.53	99.32
13656	95.46	3.07	.60	.21	.09	.02	< .10	.07	< .01	< .01	68	14	41	1.23	100.81
13657	86.38	22.25	.99	.25	.15	.04	< .10	1.13	< .01	.07	166	34	368	8.92	100.27
13658	92.06	3.40	.49	.31	.03	.01	< .10	.09	< .01	.02	61	25	52	1.41	97.86
13659	82.49	8.89	1.03	.19	.05	.01	.38	.60	.01	.03	81	12	306	4.42	98.15
13660	92.70	3.23	.38	.09	.02	< .01	< .10	.13	< .01	.01	54	10	67	1.53	98.22
13661	73.73	16.04	.84	.50	.07	.04	< .10	.90	< .01	.07	123	40	304	6.32	96.59
13662	86.62	7.08	.54	.40	.03	.04	1.25	.51	< .01	.06	86	30	271	2.79	99.38
13663	91.36	3.85	.51	.46	.04	.04	.43	.32	< .01	.05	66	30	152	1.51	98.61
8973 13701	54.01	11.23	3.26	9.71	3.39	1.70	1.63	.45	.06	.14	518	271	136	12.06	97.85
13702	79.62	7.01	.84	3.86	.83	.48	.43	.32	.01	.09	232	111	144	5.31	96.86
8973 13703	90.26	3.13	1.03	.79	.31	.14	.89	.13	.02	.04	71	25	68	1.99	98.75
13704	93.41	3.34	.19	.23	.04	.03	.60	.11	< .01	.03	63	16	91	1.77	99.77
13705	95.03	3.16	.24	.15	.05	.02	.32	.12	< .01	.03	65	18	72	1.59	100.73
13706	56.06	27.95	.98	.38	.08	.04	.70	1.10	< .01	.09	81	27	225	12.16	95.49
13707	95.23	2.67	.19	.06	< .02	.01	.47	.10	< .01	.03	49	< 10	53	1.26	100.04
13708	93.54	3.00	.21	.15	< .02	.02	.43	.15	< .01	.02	57	10	110	1.63	99.19
13709	91.54	4.43	.45	.11	< .02	< .01	.15	.89	< .01	.04	85	14	613	2.40	100.13
13710	94.90	2.65	.19	.10	< .02	.01	.40	.10	< .01	.02	61	< 10	83	1.67	100.06
13711	94.67	2.51	.26	.23	.02	.01	.23	.11	< .01	.02	50	14	76	1.76	99.84
13712	95.19	2.81	.26	.11	< .02	< .01	.44	.07	< .01	.02	58	12	71	1.88	100.80

DATE : 03-JUN-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY KADLIN  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5546 - 4  
 T.S.L. File No. : 25MAY . 19MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8970 13751	89.30	5.76	.60	.68	.21	.09	.44	.43	.01	.04	83	27	226	2.59	100.39
13752	88.47	4.84	.47	.71	.21	.11	.72	.34	< .01	.03	77	22	179	2.78	98.72
13753	93.31	3.15	.59	.27	.09	.05	.54	.24	< .01	.03	52	12	167	1.41	99.72
13754	93.62	2.92	.34	.56	.08	.01	< .10	.10	< .01	.02	61	12	56	1.47	99.14
13755	94.75	3.38	.32	.09	< .02	< .01	.11	.15	< .01	.02	56	12	74	1.48	100.33
13756	94.97	2.07	.37	.43	< .02	.01	< .10	.08	< .01	.02	51	< 10	50	.99	98.97
13757	94.64	1.38	.23	.07	< .02	.03	.41	.06	< .01	.02	48	< 10	51	.84	97.70
13758	93.89	2.67	.27	.11	< .02	< .01	.15	.11	< .01	.02	52	13	57	1.29	98.53
13759	96.29	2.18	.36	.17	< .02	.01	.33	.09	< .01	.02	56	17	81	1.36	100.84
13760	96.08	2.49	.28	.18	< .02	< .01	< .10	.08	< .01	.02	63	17	55	1.41	100.56
13761	56.67	28.30	1.82	.49	.23	.13	< .10	1.23	.01	.07	191	42	250	11.21	100.26

DATE : 03-JUN-1989

SIGNED :

*Adrian H. Debnam*  
 Adrian H. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5546 - 1  
T.S.L. File No. : C:\NSC\M5546.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8974 13219	3	36	220	35	30	42	30	16	3	< 30	< 30	< 10	< 10
8943 13301	3	30	200	35	60	70	10	10	2	< 30	< 30	< 10	< 10
13302	3	36	220	75	60	58	20	2	1	< 30	< 30	< 10	< 10
13303	3	34	200	40	60	44	20	6	1	< 30	30	< 10	< 10
13304	2	30	200	30	40	52	15	4	3	< 30	< 30	< 10	< 10
13305	3	30	230	35	30	50	20	< 2	3	< 30	< 30	< 10	< 10
13306	3	30	250	40	40	64	20	14	6	< 30	< 30	< 10	< 10
13307	2	26	200	75	50	50	15	4	4	< 30	< 30	< 10	< 10
13308	2	24	180	30	50	36	20	2	2	< 30	< 30	< 10	< 10
13309	2	26	190	20	40	38	15	6	2	< 30	< 30	< 10	< 10
13310	2	20	210	30	40	48	20	8	1	< 30	< 30	< 10	< 10
13311	2	18	200	15	30	38	20	2	3	< 30	< 30	< 10	< 10
13312	2	20	170	10	50	28	15	6	3	< 30	< 30	< 10	< 10
13313	2	20	200	20	30	46	15	2	2	< 30	< 30	< 10	< 10
13314	2	20	220	50	60	58	20	10	7	< 30	< 30	< 10	< 10
13315	2	20	200	15	40	54	30	8	4	< 30	< 30	< 10	< 10
13316	2	20	170	25	60	70	20	12	5	60	< 30	< 10	< 10
13317	2	16	170	20	30	50	25	4	4	< 30	< 30	< 10	< 10
13318	2	18	180	15	20	42	15	10	4	< 30	< 30	< 10	< 10
13319	2	20	190	25	60	66	25	12	7	< 30	< 30	< 10	< 10
13320	2	20	190	10	30	24	25	16	1	60	< 30	< 10	< 10
13321	2	10	170	< 5	20	36	15	6	3	< 30	< 30	< 10	< 10
8971 13351	1	14	250	20	10	24	15	8	1	< 30	< 30	< 10	< 10
13352	1	6	220	< 5	20	46	20	6	3	< 30	< 30	< 10	< 10
13353	3	20	410	30	70	140	25	10	16	< 30	< 30	< 10	< 10
13354	1	14	180	< 5	10	28	15	4	2	< 30	< 30	< 10	< 10
13355	1	12	190	< 5	20	20	15	6	2	< 30	< 30	< 10	< 10
13356	1	12	210	5	20	20	20	6	2	< 30	< 30	< 10	< 10
13357	1	8	160	< 5	10	20	15	2	2	< 30	< 30	< 10	< 10
13358	1	4	290	< 5	20	22	20	6	2	< 30	< 30	< 10	< 10

DATE : JUN-03-1989

SIGNED :

*Daniel J. Dilush*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5546 - 2  
 T.S.L. File No. : C:\SC\M5546.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
13359	2	18	340	70	60	86	35	38	31	< 30	< 30	< 10	< 10
13360	1	8	200	< 5	30	28	20	8	4	< 30	< 30	< 10	< 10
13361	1	18	230	45	70	90	25	20	25	< 30	< 30	< 10	< 10
13362	2	18	180	15	50	100	35	18	19	< 30	< 30	< 10	< 10
13363	< 1	4	210	< 5	10	8	20	< 2	2	90	< 30	< 10	< 10
13364	< 1	< 2	140	< 5	20	18	20	< 2	1	30	< 30	< 10	< 10
13365	< 1	2	190	< 5	20	< 2	15	4	1	< 30	< 30	< 10	< 10
13366	< 1	< 2	190	< 5	10	6	15	2	2	< 30	< 30	< 10	< 10
13367	< 1	4	200	< 5	20	< 2	15	4	1	< 30	< 30	< 10	< 10
13368	1	10	240	< 5	30	24	10	10	5	< 30	< 30	< 10	< 10
8972 13601	2	12	290	10	20	22	25	10	3	30	< 30	< 10	< 10
13602	2	18	550	50	70	100	30	16	15	< 30	< 30	< 10	< 10
13603	1	14	390	15	50	38	15	2	2	< 30	30	< 10	< 10
13604	2	18	290	35	60	66	15	8	7	30	< 30	< 10	< 10
13605	1	18	190	25	50	34	10	4	2	< 30	< 30	< 10	< 10
13606	1	28	270	35	70	32	10	4	1	< 30	< 30	< 10	< 10
13607	2	24	270	30	50	44	45	4	1	< 30	< 30	< 10	< 10
13608	2	28	190	45	60	38	25	< 2	1	< 30	< 30	< 10	< 10
13609	2	24	260	30	60	34	15	2	1	< 30	< 30	< 10	10
13610	2	24	230	30	50	44	15	6	2	< 30	< 30	< 10	10
13611	2	24	230	35	50	36	20	8	2	30	< 30	< 10	< 10
13612	2	32	310	80	80	130	25	22	19	< 30	< 30	< 10	< 10
13613	1	6	260	15	50	60	20	10	7	< 30	< 30	< 10	< 10
13614	3	44	250	90	110	120	30	26	23	< 30	< 30	10	< 10
13615	2	36	310	65	60	78	25	12	8	< 30	< 30	< 10	< 10
13616	3	44	200	90	100	120	40	20	19	< 30	< 30	< 10	< 10
13617	2	16	200	25	50	40	15	6	4	< 30	< 30	< 10	< 10
13618	2	22	200	45	50	62	10	10	8	< 30	< 30	< 10	< 10
13619	2	18	180	20	50	68	10	2	2	< 30	< 30	< 10	< 10
13620	2	24	170	25	50	28	15	4	3	< 30	< 30	< 10	< 10

DATE : JUN-03-1989

SIGNED :

*Harind J. Baloch*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
 Minor Elements by Fusion

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5546 - 3  
 T.S.L. File No. : C:\SC\M5546.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
13621	1	4	230	< 5	50	22	35	10	3	< 30	< 30	< 10	< 10
13622	< 1	< 2	200	< 5	40	6	20	< 2	3	< 30	30	< 10	< 10
13623	1	12	190	15	40	30	10	2	1	< 30	< 30	< 10	< 10
13624	1	18	240	20	40	76	15	4	1	< 30	< 30	< 10	< 10
13625	1	12	220	10	20	38	10	4	2	< 30	< 30	< 10	< 10
8964 13651	< 1	2	270	15	10	36	20	8	3	< 30	< 30	< 10	< 10
13652	< 1	< 2	230	5	10	22	20	2	< 1	240	< 30	< 10	< 10
13653	< 1	< 2	200	< 5	10	56	15	4	1	< 30	< 30	< 10	< 10
13654	< 1	< 2	190	< 5	< 10	6	15	2	1	< 30	< 30	< 10	< 10
13655	< 1	< 2	170	< 5	20	18	10	4	2	< 30	< 30	< 10	< 10
13656	< 1	< 2	310	< 5	10	14	15	4	3	< 30	< 30	< 10	< 10
13657	1	< 2	300	25	20	94	20	22	15	< 30	< 30	< 10	< 10
13658	< 1	< 2	340	< 5	< 10	22	10	< 2	2	120	< 30	< 10	< 10
13659	< 1	< 2	190	< 5	20	48	15	10	7	< 30	< 30	< 10	< 10
13660	< 1	< 2	170	< 5	< 10	18	20	6	2	90	< 30	< 10	< 10
13661	1	2	250	35	10	82	20	18	12	< 30	< 30	< 10	10
13662	1	18	250	25	20	92	20	12	7	< 30	< 30	< 10	< 10
13663	1	14	190	85	20	64	15	4	3	< 30	< 30	< 10	< 10
8973 13701	2	26	150	40	60	80	45	12	7	< 30	< 30	< 10	10
13702	2	30	220	45	50	62	20	6	4	< 30	< 30	< 10	< 10
8973 13703	2	2	170	< 5	30	30	25	12	2	150	< 30	< 10	< 10
13704	2	< 2	160	< 5	10	20	15	4	1	60	< 30	< 10	< 10
13705	1	< 2	220	< 5	< 10	32	20	4	2	< 30	< 30	< 10	< 10
13706	3	16	390	20	70	110	25	14	20	< 30	< 30	< 10	< 10
13707	1	2	230	< 5	< 10	30	20	4	2	< 30	< 30	< 10	< 10
13708	1	< 2	190	< 5	10	24	< 5	2	3	< 30	< 30	< 10	< 10
13709	2	4	410	< 5	< 10	46	10	12	5	< 30	< 30	< 10	< 10
13710	1	< 2	180	< 5	< 10	16	5	2	1	< 30	< 30	< 10	< 10
13711	1	< 2	190	< 5	< 10	38	15	4	2	< 30	< 30	< 10	< 10
13712	1	< 2	220	< 5	10	16	5	< 2	2	< 30	< 30	< 10	< 10

DATE : JUN-03-1989

SIGNED :

*Kevin J. Bilosh*

**TECHNICAL SERVICE LABORATORIES**

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5546 - 4  
 T.S.L. File No. : C:\SC\M5546.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8970 13751	2	6	300	5	50	56	15	8	6	< 30	< 30	< 10	< 10
13752	2	2	250	< 5	10	42	25	6	4	< 30	< 30	< 10	< 10
13753	2	6	220	< 5	30	30	5	4	3	< 30	< 30	< 10	< 10
13754	1	< 2	170	< 5	< 10	24	10	2	1	< 30	< 30	< 10	< 10
13755	1	< 2	160	< 5	< 10	16	< 5	2	3	< 30	< 30	< 10	< 10
13756	1	< 2	180	< 5	10	18	15	< 2	1	90	< 30	< 10	< 10
13757	1	< 2	160	< 5	40	26	5	2	< 1	90	< 30	< 10	< 10
13758	1	< 2	190	< 5	30	10	10	< 2	< 1	< 30	< 30	< 10	< 10
13759	1	< 2	210	< 5	< 10	20	10	2	2	< 30	< 30	< 10	< 10
13760	1	< 2	230	< 5	30	22	10	2	2	< 30	< 30	< 10	< 10
13761	2	2	340	20	80	180	35	22	26	< 30	< 30	< 10	< 10

DATE : JUN-03-1989

SIGNED :

*Harold J. Bilosh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 1  
 T.S.L. File No. : 10MAY, 15MAY, 16MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8958 12504	90.85	3.66	1.87	.82	.30	.20	.20	.32	.04	.06	67	21	272	1.69	100.06
12505	92.09	3.56	.70	.25	.13	.02	< .10	.25	.01	.03	39	< 10	113	1.27	98.33
12506	62.05	25.53	1.55	.30	.21	.02	< .10	1.25	< .01	.10	176	30	246	9.87	100.94
12507	64.30	23.14	1.14	.29	.16	.02	.11	1.22	< .01	.10	175	30	362	9.65	100.21
12508	78.57	14.06	.80	.32	.19	< .01	.19	.81	< .01	.06	109	17	329	5.53	100.60
12509	93.63	2.92	.26	< .02	< .02	< .01	< .10	.13	< .01	.02	55	< 10	50	1.20	98.18
12510	95.38	2.64	.28	.03	< .02	< .01	.12	.11	< .01	.02	52	< 10	57	.99	99.61
8977 12551	86.95	7.57	.43	.46	.18	.02	< .10	.32	< .01	.02	58	12	113	3.86	99.89
12552	69.15	20.59	1.12	.22	.14	< .01	< .10	.80	< .01	.06	125	20	160	8.58	100.70
12553	94.04	3.61	.29	< .02	< .02	< .01	< .10	.12	< .01	.01	31	< 10	63	1.64	99.72
12554	91.79	4.07	.41	.08	.10	.16	< .10	.20	< .01	.02	108	30	124	1.18	98.05
12555	78.99	5.12	.82	5.17	1.33	.62	< .10	.22	.01	.04	177	93	113	5.60	98.04
12556	91.41	3.77	.47	.21	.05	< .01	< .10	.20	< .01	.02	39	< 10	90	1.94	98.09
12557	94.10	2.18	.26	.08	< .02	< .01	< .10	.08	< .01	.02	32	< 10	41	1.43	98.18
12558	93.64	3.84	.28	< .02	< .02	< .01	.67	.12	< .01	.03	32	< 10	77	1.61	100.21
12559	94.73	2.60	.26	< .02	< .02	< .01	.57	.06	< .01	.03	32	< 10	56	1.22	99.49
12560	92.90	2.71	.17	< .02	< .02	< .01	.68	.13	< .01	.04	35	< 10	74	1.19	97.83
12561	95.51	2.48	.31	< .02	< .02	< .01	.15	.10	< .01	.04	33	< 10	58	1.82	100.43
12562	92.50	3.14	.30	< .02	< .02	< .01	< .10	.10	< .01	.03	26	< 10	70	2.06	98.18
12563	74.76	16.01	.57	.08	.05	< .01	.66	.61	< .01	.06	76	17	164	7.28	100.11
12564	93.34	2.75	.49	.40	.13	.20	< .10	.05	.02	.04	51	15	47	1.04	98.48
12565	93.90	3.67	.31	< .02	< .02	< .01	< .10	.11	< .01	.02	34	< 10	52	1.66	99.68
12566	97.06	2.21	.35	< .02	< .02	< .01	< .10	.03	< .01	.02	39	< 10	36	.89	100.57
12567	93.75	2.68	.16	< .02	< .02	< .01	.35	.04	< .01	< .01	41	< 10	38	1.11	98.11
12568	94.42	3.45	.19	< .02	< .02	< .01	< .10	.05	< .01	.01	30	< 10	32	1.25	99.41
12569	93.72	3.02	.20	< .02	< .02	< .01	< .10	.13	< .01	< .01	17	< 10	50	1.08	98.17
12570	93.17	2.97	.12	< .02	< .02	< .01	< .10	.07	< .01	< .01	21	< 10	30	1.34	97.67
8946 12601	55.92	8.00	1.86	13.43	3.43	1.91	1.58	.24	.04	.08	361	250	105	13.73	100.30
12602	75.86	7.30	1.18	5.33	1.59	.78	.74	.23	.02	.85	189	107	95	6.73	100.65
12603	92.76	2.94	.43	.62	.18	.05	< .10	.17	< .01	.04	39	11	99	1.83	99.04

DATE : 27-MAY-1989

SIGNED :

*Adrian B. Debnam*  
 for Adrian B. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 2  
T.S.L. File No. : 10MAY, 15MAY, 16MAY  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
12604	92.04	3.65	.98	.49	.12	.45	.10	.13	.04	.04	51	250	631	1.72	99.89
12605	92.49	3.64	.31	< .02	< .02	< .01	< .10	.32	< .01	.03	32	16	221	1.61	98.45
12606	93.73	2.71	.25	< .02	< .02	< .01	< .10	.10	< .01	.03	20	< 10	81	1.29	98.13
12607	88.74	6.40	.36	.09	.04	< .01	.16	.50	< .01	.03	40	17	246	2.43	98.79
12608	95.26	2.96	< .02	.08	.03	< .01	< .10	.15	< .01	< .01	14	14	131	1.21	99.73
12609	94.12	2.78	.19	< .02	< .02	< .01	< .10	.18	< .01	.01	20	< 10	145	1.04	98.34
12610	94.95	2.49	.32	< .02	< .02	< .01	< .10	.05	< .01	.02	16	< 10	35	.77	98.60
12611	94.86	3.38	.22	< .02	< .02	< .01	< .10	.05	< .01	.01	30	< 10	76	1.30	99.83
12612	93.95	3.59	.20	< .02	< .02	< .01	< .10	.07	< .01	< .01	26	< 10	42	1.38	99.21
12613	91.82	4.06	.15	< .02	< .02	< .01	< .10	.20	< .01	< .01	30	< 10	85	1.49	97.74
8946 12614	90.34	4.31	.22	.35	.14	.13	1.47	.09	.01	.06	69	18	60	1.17	98.31
12615	92.05	1.94	.20	.14	.05	.04	1.16	.05	< .01	.04	37	10	61	2.21	97.89
12616	88.45	4.99	.27	.34	.13	.06	1.54	.12	< .01	.05	63	15	59	2.47	98.45
12617	57.03	27.51	.99	.34	.22	.09	1.77	1.16	< .01	.12	193	36	227	10.89	100.18
12618	62.66	23.22	2.03	.29	.22	.09	1.84	1.20	.01	.12	156	43	334	8.99	100.75
12619	76.57	13.14	1.64	.25	.13	.04	1.72	.86	.01	.09	113	36	389	5.73	100.24
12620	63.34	21.91	2.01	.38	.19	.07	2.04	1.15	.01	.15	341	50	333	9.40	100.75
12621	79.96	10.11	1.12	.16	.08	.04	1.48	.67	< .01	.08	102	19	301	4.75	98.51
12622	83.35	8.72	.56	.18	.06	.04	1.43	.65	< .01	.07	96	23	334	4.00	99.13
12623	81.86	8.75	.40	.14	.07	.05	1.62	.59	< .01	.07	82	19	263	4.17	97.78
8929-12651	58.19	24.90	1.83	.42	.19	.06	1.06	1.16	.01	.10	161	45	267	12.77	100.76
12652	67.84	20.31	1.09	.23	.11	.04	1.28	1.03	< .01	.09	140	30	272	8.27	100.36
12653	90.28	3.69	.41	.11	< .02	.02	1.04	.24	< .01	.04	57	12	106	2.16	98.04
12654	90.89	4.10	.18	.08	< .02	.01	.49	.19	< .01	.03	72	32	82	2.03	98.04
12655	93.24	2.81	.13	.07	.03	.01	.47	.11	< .01	.04	56	11	61	1.46	98.39
12656	93.01	3.63	.44	.08	.02	.02	.37	.12	< .01	.04	69	17	50	1.96	99.71
12657	93.49	2.35	.42	.19	< .02	.02	.34	.13	< .01	.03	47	10	66	2.16	99.17
12658	53.91	30.25	1.61	.32	.19	.06	.63	1.16	< .01	.10	173	36	167	12.45	100.73
12659	89.57	6.85	.51	.20	.13	.03	.11	.37	< .01	.04	67	15	130	3.10	100.94
12660	55.83	29.51	1.46	.29	.17	.06	.55	1.16	< .01	.09	215	52	187	11.44	100.63

DATE : 27-MAY-1989

SIGNED :

*Adrian H. Debnam*  
per Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 3  
T.S.L. File No. : 10MAY, 15MAY, 16MAY  
T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
12661	72.73	17.93	1.08	.13	.08	< .01	.37	.81	< .01	.07	130	38	272	7.17	100.44
12662	89.33	5.04	.29	.11	.02	.01	.74	.25	< .01	.04	47	14	89	2.39	98.24
12663	90.88	3.87	.22	.13	< .02	< .01	.52	.17	< .01	.04	78	25	73	2.45	98.32
12664	91.25	3.78	.28	.19	.02	< .01	.24	.14	< .01	.04	72	19	63	1.64	97.61
12665	92.33	3.52	.16	.04	< .02	< .01	.51	.11	< .01	.03	37	< 10	54	1.57	98.28
12666	67.92	19.25	1.19	.13	.09	.01	.56	.63	< .01	.08	144	29	101	7.75	97.64
8945-12701	86.27	5.03	.58	1.44	.45	.17	.62	.18	< .01	.04	77	34	78	3.31	98.12
12702	92.35	4.06	.43	.19	.05	< .01	.33	.17	< .01	.03	62	17	85	2.23	99.86
12703	93.79	3.95	.39	.10	.03	< .01	< .10	.16	< .01	.03	55	13	73	2.17	100.72
12704	95.17	2.83	.27	.13	< .02	< .01	.18	.08	< .01	.02	78	18	45	1.53	100.24
12705	81.82	10.21	1.66	.67	.31	.11	< .10	.29	.02	.04	99	36	82	4.48	99.67
12706	87.27	6.78	.74	.42	.17	.07	.10	.23	< .01	.03	84	25	81	2.84	98.68
8976-12751	92.39	3.43	.45	.50	.18	.07	< .10	.11	< .01	.03	59	19	64	1.81	99.04
12752	92.18	3.99	.37	.07	.03	< .01	< .10	.19	< .01	.03	52	11	102	1.74	98.63
12753	92.42	3.35	.25	.07	.02	< .01	< .10	.12	< .01	.03	53	10	73	1.35	97.63
12754	92.00	3.71	.35	.15	.06	< .01	.15	.09	< .01	.03	73	19	66	1.43	97.99
12755	95.79	2.69	.22	.06	< .02	< .01	< .10	.07	< .01	.02	55	13	47	1.03	99.90
12756	92.40	4.09	.25	< .02	< .02	< .01	< .10	.10	< .01	.03	51	< 10	65	1.45	98.35
12757	92.05	4.44	.20	.05	.02	< .01	< .10	.12	< .01	.03	58	14	56	1.53	98.46
12758	93.00	3.45	.22	.02	< .02	< .01	< .10	.09	< .01	.02	50	< 10	50	1.08	97.91
8976 12759	93.00	4.13	.49	.56	.29	.14	.20	.12	.01	.04	66	18	68	1.59	100.59
12760	54.49	30.03	1.45	.60	.33	.09	.94	1.07	< .01	.10	195	46	175	11.58	100.74
12761	93.13	3.06	.32	.19	.07	.03	.35	.10	< .01	.02	86	16	64	1.36	98.65
12762	56.85	28.61	1.41	.27	.17	.06	.82	1.03	< .01	.09	207	49	167	11.15	100.52
12763	69.46	20.50	1.00	.15	.11	.03	.63	1.00	< .01	.07	140	24	335	7.86	100.89
12764	93.06	3.86	.39	.04	< .02	< .01	< .10	.14	< .01	.03	47	< 10	75	1.88	99.52
12765	79.06	13.28	.76	.15	.06	.03	.25	.82	< .01	.05	95	14	272	5.57	100.09
12766	89.64	6.23	.52	.11	.02	< .01	< .10	.28	< .01	.03	70	14	105	2.91	99.76
12767	92.50	3.23	.22	.04	< .02	< .01	< .10	.16	< .01	.02	30	< 10	58	2.36	98.55
12768	94.66	3.26	.31	.05	< .02	< .01	< .10	.17	< .01	.04	31	< 10	79	1.57	100.08

DATE : 27-MAY-1989

SIGNED :

*Adrian H. Deonam*  
Adrian H. Deonam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 4  
 T.S.L. File No. : 10MAY, 15MAY, 16MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
12769	90.22	3.66	.39	.90	.40	.18	.26	.23	< .01	.03	41	37	61	1.74	98.03
12770	93.61	2.26	.20	.13	.06	.03	.58	.12	< .01	.02	26	< 10	74	1.41	98.43
12771	92.58	3.56	.27	.15	.02	< .01	.41	.11	< .01	.02	38	< 10	53	2.03	99.17
8944 12801	56.64	8.94	2.16	11.35	3.53	1.53	1.90	.34	.04	.09	374	222	113	13.87	100.48
12802	56.70	10.53	2.95	9.97	3.62	1.43	2.12	.39	.05	.11	443	212	127	12.58	100.55
12803	59.24	11.73	3.31	8.10	2.80	1.29	2.10	.46	.06	.11	369	190	102	11.09	100.36
12804	62.32	10.23	2.71	8.01	2.77	1.26	1.73	.37	.05	.10	337	177	91	10.50	100.12
12805	81.75	5.77	1.03	3.78	1.26	.65	.91	.23	.02	.06	171	88	103	5.45	100.95
12806	93.06	3.10	.31	.11	.13	.04	.16	.15	< .01	.03	72	10	86	1.87	98.98
12807	92.49	2.62	.37	.37	.11	.05	.53	.08	< .01	.03	74	15	58	1.98	98.65
12808	95.23	2.29	.45	.22	.09	.11	.50	.05	.01	.03	38	< 10	50	1.68	100.67
12809	89.58	3.40	.24	.31	.11	.06	.80	.07	< .01	.03	39	< 10	47	4.72	99.33
12810	93.76	2.80	.38	.06	.03	.04	.36	.07	< .01	.04	40	< 10	56	1.45	99.00
12811	91.89	3.11	.23	.07	.03	.04	.73	.12	< .01	.03	38	33	148	1.93	98.20
12812	92.90	2.78	.21	.03	< .02	.03	.54	.04	< .01	.03	35	< 10	53	1.78	98.37
12813	92.04	3.18	.19	.13	< .02	.02	.71	.09	< .01	.03	45	< 10	55	1.72	98.15
12814	94.07	2.79	.32	.03	< .02	.01	< .10	.07	< .01	.01	45	< 10	42	1.67	99.08
12815	92.51	3.27	.64	.10	< .02	.01	.25	.10	< .01	.03	56	< 10	58	2.28	99.23
12816	91.93	3.77	.71	.13	< .02	.02	.17	.11	< .01	.03	47	< 10	42	2.66	99.57
12817	90.62	4.03	.37	.09	< .02	.03	.21	.12	< .01	.03	38	< 10	66	2.68	98.21
12818	81.09	9.68	.72	1.07	.35	.15	.40	.77	< .01	.05	176	89	368	4.32	98.69
8975 12851	73.54	6.63	1.50	6.31	1.82	.94	.86	.28	.03	.06	253	146	124	8.03	100.07
12852	60.00	12.51	2.30	7.50	2.37	1.02	1.50	.59	.03	.09	334	177	145	12.51	100.50
12853	90.25	3.67	.49	1.17	.34	.16	< .10	.19	< .01	.03	104	41	92	2.97	99.30
12854	52.61	10.82	3.18	11.43	3.59	1.68	2.71	.42	.05	.11	422	239	119	13.95	100.65
12855	53.64	12.43	3.55	10.30	3.48	1.64	1.94	.48	.06	.11	447	227	133	12.90	100.63
12856	60.86	22.96	1.38	1.35	.45	.18	.47	1.02	.01	.08	211	62	192	11.00	99.82
12857	92.87	4.35	.36	.39	.08	.04	< .10	.22	< .01	.02	77	19	124	2.35	100.71
12858	72.15	16.49	1.06	1.00	.29	.13	.16	.74	< .01	.18	148	40	200	8.11	100.37
12859	94.29	3.48	.21	.18	.04	.03	.25	.08	< .01	.02	47	< 10	59	2.06	100.66

DATE : 27-MAY-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 5  
 T.S.L. File No. : 10MAY, 15MAY, 16MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8975 12860	92.90	3.26	.33	.34	.16	.12	.39	.08	.01	.03	63	16	62	1.43	99.07
12861	92.23	3.52	.49	.21	.11	.02	.43	.14	< .01	.03	33	< 10	90	1.84	99.04
12862	91.58	3.55	.43	.11	.03	< .01	.48	.43	< .01	.03	36	< 10	365	1.72	98.43
12863	84.30	8.60	.41	.33	.15	.05	< .10	.38	< .01	.03	56	22	115	3.38	97.67
12864	53.64	31.49	1.18	.30	.20	.06	< .10	1.21	< .01	.10	144	42	168	12.29	100.53
12865	56.99	29.21	1.09	.25	.14	.03	.17	1.04	< .01	.10	105	28	177	11.42	100.48
12866	65.30	22.61	.81	.16	.13	.03	< .10	.88	< .01	.07	80	27	159	8.76	98.84
12867	80.65	12.61	.46	.14	.08	< .01	.16	.61	< .01	.05	46	18	183	5.07	99.87
12868	54.13	29.06	2.56	.27	.18	.03	.15	1.11	.01	.13	185	68	213	11.58	99.27
12869	95.67	2.39	.24	.03	< .02	< .01	< .10	.18	< .01	.02	< 10	< 10	81	1.52	100.07
12870	93.05	4.05	.27	< .02	< .02	.10	< .10	.19	< .01	.03	< 10	< 10	85	1.74	99.48
12871	92.24	3.44	.32	.14	< .02	< .01	< .10	.14	< .01	.03	88	< 10	73	1.80	98.13
12872	94.45	3.33	.22	< .02	< .02	.02	< .10	.12	< .01	.02	< 10	< 10	49	1.81	99.99
12873	95.34	2.99	.29	.02	< .02	< .01	< .10	.16	< .01	.03	< 10	< 10	75	1.51	100.37
12874	71.75	18.83	.91	.17	.16	.03	.31	1.08	< .01	.08	150	48	394	7.27	100.68
12875	83.43	11.27	.39	.07	.03	.01	< .10	.47	< .01	.10	119	102	144	4.40	100.21
12876	91.71	5.24	.26	.11	.03	.02	< .10	.31	< .01	.03	33	14	159	2.22	99.99
8974-13201	91.56	3.69	.33	.36	.11	.04	.30	.08	< .01	.04	32	19	64	2.23	98.75
13202	91.92	3.35	.32	.09	.03	.03	.66	.12	< .01	.04	13	10	93	1.65	98.22
13203	93.23	3.28	.39	.26	.03	< .01	1.17	.31	< .01	.04	24	15	215	1.77	100.52
13204	91.06	4.96	.72	.52	.15	.23	.87	.18	.02	.06	46	26	114	2.02	100.82
13205	93.20	2.48	.35	.15	< .02	.03	1.38	.07	< .01	.04	< 10	< 10	58	1.32	99.04
13206	94.68	2.26	.28	.05	< .02	.02	.98	.05	< .01	.04	25	< 10	59	1.27	99.65
13207	92.60	3.50	.29	.12	< .02	< .01	.88	.09	< .01	.04	37	15	51	1.78	99.32
13208	94.19	3.03	.25	.15	< .02	.02	1.09	.08	< .01	.04	42	19	55	1.39	100.26
13209	94.59	2.90	.34	.06	< .02	< .01	.78	.05	< .01	.04	13	10	52	1.35	100.13
13210	60.59	25.33	1.59	.22	.19	.06	.88	1.16	< .01	.12	161	40	192	10.05	100.25
13211	90.66	4.28	.47	.06	.02	< .01	.92	.16	< .01	.04	18	< 10	67	1.98	98.61
13212	53.87	30.58	1.28	.28	.16	.06	1.25	1.15	< .01	.14	145	63	190	12.03	100.87
13213	58.65	26.37	1.27	.23	.17	.07	.91	1.20	< .01	.14	150	72	223	10.76	99.84

DATE : 27-MAY-1989

SIGNED :

*Adrian R. Debnam*  
 for Adrian R. Debnam Ph.D.

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**ICAP WHOLE ROCK ANALYSIS**

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 6  
 T.S.L. File No. : 10MAY, 15MAY, 16MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
13214	92.13	3.58	.57	.17	.05	.09	.11	.15	< .01	.04	16	12	47	1.39	98.30
13215	84.57	8.74	.49	.10	.06	.02	.41	.37	< .01	.05	57	17	123	3.70	98.54
13216	88.18	7.73	.56	.10	.06	.05	< .10	.33	< .01	.05	64	14	106	3.12	100.21
13217	93.96	3.92	.30	.09	< .02	< .01	< .10	.20	< .01	.03	19	< 10	65	1.68	100.21
13218	92.97	3.90	.41	.24	.04	.05	< .10	.15	< .01	.03	68	24	58	1.50	99.32

DATE : 27-MAY-1989

SIGNED :

*Adrian M. Debnam*  
 Adrian M. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 1  
T.S.L. File No. : C:\SC\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Aq
8958 12504	1	34	280	25	30	54	20	24	4	< 30	< 30	< 10	< 10
12505	< 1	26	200	25	30	48	10	2	4	< 30	< 30	< 10	< 10
12506	1	38	290	55	70	170	25	34	24	< 30	< 30	< 10	< 10
12507	2	46	310	65	130	200	45	54	21	< 30	< 30	< 10	< 10
12508	1	32	230	45	70	120	15	20	12	< 30	< 30	< 10	< 10
12509	< 1	16	170	15	30	26	< 5	< 2	1	30	< 30	< 10	< 10
12510	< 1	24	120	15	10	26	< 5	< 2	3	< 30	< 30	< 10	< 10
8977 12551	< 1	6	250	20	40	44	10	4	5	< 30	< 30	< 10	< 10
12552	1	24	360	25	50	110	25	12	15	< 30	< 30	< 10	< 10
12553	< 1	10	150	10	30	20	< 5	2	1	< 30	< 30	< 10	< 10
12554	< 1	8	150	25	< 10	20	< 5	6	< 1	< 30	< 30	< 10	< 10
12555	< 1	8	130	30	< 10	30	65	6	2	< 30	< 30	< 10	< 10
12556	< 1	12	190	15	30	28	5	2	< 1	< 30	< 30	< 10	< 10
12557	< 1	12	200	10	< 10	26	< 5	< 2	2	< 30	< 30	< 10	< 10
12558	1	16	180	30	30	48	< 5	< 2	< 1	30	< 30	< 10	< 10
12559	1	24	260	35	< 10	46	5	2	1	< 30	< 30	< 10	< 10
12560	1	26	170	50	50	46	< 5	2	2	< 30	< 30	< 10	< 10
12561	< 1	28	240	35	40	44	15	4	< 1	< 30	< 30	< 10	< 10
12562	< 1	18	260	35	20	44	10	< 2	1	< 30	< 30	< 10	< 10
12563	1	24	330	45	60	110	20	8	11	< 30	30	< 10	< 10
12564	1	12	150	10	50	30	20	18	< 1	120	< 30	< 10	< 10
12565	< 1	12	160	5	30	22	5	2	1	< 30	< 30	< 10	< 10
12566	< 1	12	210	5	< 10	18	5	4	< 1	< 30	< 30	< 10	< 10
12567	< 1	8	210	10	10	30	< 5	2	< 1	60	< 30	< 10	< 10
12568	< 1	6	190	10	30	28	< 5	2	4	< 30	< 30	< 10	< 10
12569	< 1	4	160	< 5	10	14	< 5	2	< 1	60	< 30	< 10	< 10
12570	< 1	12	190	10	30	12	< 5	< 2	1	< 30	< 30	< 10	< 10
8946 12601	< 1	6	85	< 5	20	44	20	4	3	< 30	< 30	< 10	< 10
12602	< 1	26	< 5	< 5	60	48	< 5	< 2	4	< 30	< 30	< 10	< 10
12603	< 1	20	200	65	30	38	25	2	1	< 30	< 30	< 10	< 10

DATE : MAY-27-1989

SIGNED :

*Daniel J. Bilal*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 2  
T.S.L. File No. : C:\SC\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12604	2	16	230	25	< 10	42	75	2	< 1	60	< 30	< 10	< 10
12605	< 1	18	190	15	50	34	35	2	2	< 30	< 30	< 10	< 10
12606	< 1	18	190	30	40	36	20	< 2	3	< 30	< 30	< 10	< 10
12607	< 1	16	290	25	50	56	25	4	3	< 30	< 30	< 10	< 10
12608	< 1	6	220	40	< 10	36	20	< 2	1	< 30	< 30	< 10	< 10
12609	< 1	14	170	10	50	28	5	2	3	< 30	< 30	< 10	< 10
12610	< 1	14	170	10	< 10	22	10	< 2	< 1	< 30	< 30	< 10	< 10
12611	< 1	6	170	< 5	40	24	< 5	2	1	< 30	< 30	< 10	< 10
12612	< 1	8	180	< 5	40	26	< 5	2	< 1	< 30	< 30	< 10	< 10
12613	< 1	2	140	5	50	26	< 5	< 2	1	30	< 30	< 10	< 10
8946 12614	2	22	210	5	60	42	25	12	3	< 30	< 30	< 10	< 10
12615	1	20	210	5	40	30	20	6	1	< 30	30	< 10	< 10
12616	2	26	220	10	40	44	15	4	2	< 30	< 30	< 10	< 10
12617	3	34	240	65	110	120	50	34	21	< 30	< 30	< 10	< 10
12618	3	36	240	40	100	98	45	28	16	< 30	< 30	< 10	< 10
12619	2	32	230	30	90	78	35	26	13	< 30	< 30	< 10	< 10
12620	3	38	250	930	110	110	75	26	17	< 30	< 30	< 10	< 10
12621	2	30	190	35	60	70	50	16	9	< 30	< 30	10	< 10
12622	2	34	180	25	60	60	20	14	7	< 30	< 30	< 10	< 10
12623	2	28	160	30	50	58	35	10	8	< 30	< 30	< 10	< 10
8929 12651	4	82	280	55	150	120	75	40	24	< 30	< 30	< 10	< 10
12652	3	28	250	45	90	100	45	24	17	60	< 30	< 10	< 10
12653	1	20	200	5	60	28	20	10	3	< 30	< 30	< 10	< 10
12654	1	22	140	< 5	40	42	25	6	2	< 30	< 30	< 10	< 10
12655	1	14	170	< 5	40	16	25	< 2	2	30	< 30	< 10	< 10
12656	1	16	190	< 5	50	32	25	4	2	< 30	30	< 10	< 10
12657	1	14	170	< 5	50	30	20	6	2	< 30	< 30	< 10	< 10
12658	2	26	260	15	90	130	60	30	24	60	< 30	< 10	< 10
12659	< 1	12	240	< 5	50	42	25	16	7	< 30	< 30	< 10	< 10
12660	2	24	220	10	80	84	55	36	25	60	< 30	< 10	< 10

DATE : MAY-27-1989

SIGNED :

*David J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 3  
T.S.L. File No. : C:\SD\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12661	3	14	210	25	80	70	40	32	13	< 30	< 30	< 10	< 10
12662	1	14	140	5	40	44	15	6	3	< 30	< 30	< 10	< 10
12663	1	10	160	10	40	34	5	6	2	< 30	< 30	< 10	< 10
12664	1	4	190	5	50	16	20	4	2	< 30	< 30	< 10	< 10
12665	1	2	140	40	30	28	< 5	4	2	< 30	< 30	< 10	< 10
12666	1	4	210	25	40	62	30	34	13	< 30	< 30	< 10	< 10
8945 12701	< 1	< 2	270	< 5	30	18	10	4	2	< 30	< 30	< 10	< 10
12702	< 1	4	230	5	20	12	10	10	4	< 30	< 30	10	< 10
12703	< 1	2	180	< 5	30	16	10	6	3	< 30	< 30	< 10	< 10
12704	< 1	< 2	210	< 5	60	22	10	2	1	30	< 30	10	< 10
12705	< 1	2	260	5	20	58	15	10	7	< 30	< 30	< 10	< 10
12706	< 1	< 2	250	10	30	36	45	4	3	< 30	< 30	< 10	< 10
8976 12751	< 1	< 2	170	< 5	40	10	25	4	1	30	< 30	< 10	< 10
12752	< 1	< 2	200	< 5	30	30	10	2	2	< 30	< 30	< 10	< 10
12753	< 1	< 2	180	< 5	30	18	10	4	1	< 30	30	< 10	< 10
12754	< 1	< 2	220	< 5	30	20	5	6	2	< 30	< 30	< 10	< 10
12755	< 1	< 2	170	< 5	30	6	5	4	2	< 30	< 30	< 10	< 10
12756	< 1	< 2	210	< 5	40	12	10	2	2	< 30	< 30	< 10	< 10
12757	< 1	< 2	130	< 5	30	6	5	4	2	< 30	< 30	< 10	< 10
12758	< 1	< 2	170	< 5	30	2	5	2	1	< 30	< 30	10	< 10
8976 12759	1	8	270	15	10	62	20	12	5	< 30	< 30	< 10	< 10
12760	2	20	260	35	80	110	50	24	27	< 30	< 30	10	< 10
12761	< 1	6	290	10	10	30	15	8	6	< 30	< 30	< 10	< 10
12762	2	18	260	40	80	100	40	20	24	< 30	< 30	< 10	< 10
12763	1	18	210	45	80	140	45	18	20	< 30	< 30	< 10	< 10
12764	< 1	6	300	5	20	52	15	6	4	< 30	< 30	< 10	< 10
12765	1	16	170	40	60	84	30	12	13	< 30	< 30	10	10
12766	< 1	8	200	< 5	50	40	15	8	6	< 30	< 30	< 10	< 10
12767	< 1	8	130	35	50	22	15	2	2	30	< 30	< 10	< 10
12768	< 1	8	220	340	50	32	15	4	2	< 30	< 30	< 10	< 10

DATE : MAY-27-1989

SIGNED :

*Daniel J. Balish*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 6  
T.S.L. File No. : C:\SC\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
13214	< 1	12	240	10	< 10	36	15	2	1	< 30	< 30	< 10	< 10
13215	1	14	260	40	< 10	54	20	2	1	< 30	< 30	< 10	< 10
13216	< 1	10	240	60	< 10	60	20	2	2	30	< 30	< 10	< 10
13217	< 1	10	210	< 5	10	64	15	4	2	< 30	< 30	< 10	< 10
13218	< 1	10	170	< 5	< 10	34	10	6	2	< 30	< 30	< 10	< 10

DATE : MAY-27-1989

SIGNED :

*Kevin J. Belosh*



**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 4  
T.S.L. File No. : C:\SC\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12769	< 1	10	220	40	30	24	15	6	3	< 30	< 30	< 10	< 10
12770	< 1	8	150	5	10	20	15	2	2	< 30	< 30	< 10	< 10
12771	< 1	10	230	10	20	34	5	8	3	< 30	< 30	< 10	< 10
8944 12801	1	12	130	10	20	44	35	14	9	< 30	< 30	10	< 10
12802	1	16	130	30	40	54	35	18	9	< 30	< 30	< 10	< 10
12803	1	20	180	20	50	76	40	10	10	60	< 30	< 10	< 10
12804	1	14	160	75	30	54	45	10	8	< 30	< 30	< 10	< 10
12805	1	12	130	15	< 10	34	20	2	4	< 30	< 30	< 10	< 10
12806	< 1	10	150	20	30	32	15	4	2	< 30	< 30	10	< 10
12807	< 1	10	150	< 5	10	14	15	2	2	< 30	< 30	10	< 10
12808	1	10	180	5	20	14	15	12	< 1	< 30	< 30	< 10	< 10
12809	1	10	140	10	30	22	10	2	1	30	< 30	< 10	< 10
12810	< 1	12	200	10	20	16	5	< 2	2	< 30	< 30	< 10	< 10
12811	< 1	10	180	10	20	20	5	< 2	1	< 30	< 30	10	< 10
12812	< 1	10	200	5	70	14	10	2	1	< 30	< 30	< 10	< 10
12813	< 1	12	170	50	60	36	15	2	1	< 30	< 30	< 10	< 10
12814	< 1	10	200	10	20	18	10	2	2	30	< 30	< 10	< 10
12815	< 1	12	210	10	10	24	15	4	2	< 30	< 30	< 10	< 10
12816	< 1	8	190	20	10	26	5	6	2	< 30	< 30	< 10	< 10
12817	< 1	8	170	10	20	18	5	2	1	< 30	< 30	< 10	< 10
12818	1	16	220	25	20	100	25	20	11	< 30	< 30	< 10	< 10
8975 12851	1	14	140	10	10	54	35	10	5	< 30	< 30	< 10	< 10
12852	1	28	190	60	50	96	45	18	13	< 30	< 30	< 10	< 10
12853	< 1	6	190	25	20	64	25	4	2	< 30	< 30	< 10	< 10
12854	1	16	120	45	20	82	30	14	10	< 30	< 30	< 10	< 10
12855	1	12	140	20	30	78	60	12	10	< 30	< 30	< 10	< 10
12856	2	28	300	80	60	130	35	34	24	< 30	< 30	< 10	< 10
12857	< 1	2	230	15	10	32	20	8	3	< 30	< 30	< 10	< 10
12858	1	26	310	3000	70	96	60	20	17	< 30	< 30	< 10	< 10
12859	< 1	4	140	35	50	30	15	6	1	< 30	< 30	< 10	< 10

DATE : MAY-27-1989

SIGNED : *Daniel J. Belsch*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5535 - 5  
T.S.L. File No. : C:\SC\M5535.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8975 12860	1	10	140	< 5	< 10	22	15	2	1	< 30	< 30	< 10	< 10
12861	< 1	2	170	< 5	< 10	42	10	< 2	< 1	90	< 30	< 10	< 10
12862	1	8	200	< 5	< 10	38	10	8	7	< 30	< 30	10	< 10
12863	1	2	170	< 5	< 10	76	10	6	1	< 30	< 30	< 10	< 10
12864	2	12	300	30	70	120	35	< 2	< 1	< 30	< 30	< 10	< 10
12865	2	20	310	45	30	170	40	12	3	< 30	< 30	< 10	< 10
12866	1	10	300	20	40	130	30	2	1	< 30	< 30	10	< 10
12867	1	10	170	15	10	86	15	< 2	< 1	< 30	< 30	< 10	< 10
12868	2	16	170	25	60	140	45	14	1	< 30	< 30	< 10	< 10
12869	< 1	< 2	140	< 5	< 10	18	5	260	16	630	< 30	< 10	< 10
12870	< 1	5	140	20	< 10	16	10	18	20	< 30	< 30	< 10	< 10
12871	< 1	2	160	< 5	< 10	58	10	6	4	< 30	< 30	< 10	< 10
12872	< 1	6	160	< 5	< 10	18	15	12	13	< 30	< 30	10	10
12873	< 1	6	210	35	< 10	42	15	8	6	< 30	< 30	< 10	< 10
12874	1	12	360	35	20	74	35	2	2	30	< 30	< 10	< 10
12875	1	8	320	40	20	72	45	4	2	< 30	< 30	< 10	< 10
12876	< 1	10	120	15	< 10	32	10	250	16	570	< 30	10	< 10
8974 13201	1	10	170	15	< 10	24	10	6	< 1	< 30	< 30	< 10	< 10
13202	1	12	190	15	< 10	28	15	6	< 1	< 30	< 30	10	< 10
13203	1	16	350	25	60	60	15	50	19	30	< 30	10	< 10
13204	2	18	310	5	10	32	20	18	9	< 30	< 30	< 10	< 10
13205	1	20	290	20	10	32	10	10	10	60	< 30	< 10	< 10
13206	1	16	240	10	< 10	36	10	10	8	< 30	< 30	< 10	< 10
13207	1	18	230	< 5	10	38	10	2	4	< 30	< 30	< 10	< 10
13208	1	14	220	10	30	60	10	4	2	< 30	< 30	10	< 10
13209	1	14	300	5	20	42	10	2	2	< 30	< 30	10	< 10
13210	2	30	290	110	60	100	40	46	20	< 30	< 30	< 10	10
13211	1	16	270	< 5	20	46	15	< 2	< 1	< 30	< 30	10	< 10
13212	2	30	310	50	70	150	45	< 2	< 1	60	< 30	< 10	< 10
13213	2	28	340	65	60	160	40	250	14	570	< 30	10	< 10

DATE : MAY-27-1989

SIGNED :

*Arnold J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5513 - 2  
 T.S.L. File No. : OBMAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Sr ppm	Zr ppm	LOI %	TOTAL %
3212	92.56	4.02	.23	< .02	< .02	< .01	.37	.16	< .01	.05	90	36	210	1.44	98.89
3213	94.12	3.59	.25	.08	.06	< .01	.12	.09	< .01	.03	64	14	59	1.44	99.80
3214	92.35	3.90	.88	.09	< .02	< .01	.43	.10	< .01	.04	92	17	56	2.20	100.02
3215	64.30	21.70	2.46	.24	.06	< .01	.13	.90	.01	.07	164	22	326	9.54	99.47
3216	94.48	3.53	.44	< .02	< .02	< .01	< .10	.17	< .01	.03	64	< 10	90	1.43	100.17
3217	50.61	32.51	1.35	.14	.10	< .01	.82	.93	< .01	.10	173	24	118	12.91	99.52
3218	55.77	29.23	1.73	.18	.15	< .01	.52	1.07	< .01	.11	190	30	211	11.42	100.24
3219	50.60	31.49	1.98	.26	.18	< .01	.50	1.12	< .01	.11	208	36	195	12.66	98.96
3220	58.49	26.74	1.33	.28	.23	.01	.21	1.41	< .01	.09	144	32	354	10.01	98.88
3221	63.01	23.17	1.60	.27	.25	< .01	.34	1.44	< .01	.09	211	60	410	8.64	98.91
D887 3251	82.59	4.26	.88	4.67	1.60	.84	.67	.19	.03	.06	190	113	111	4.85	100.69
3252	88.50	3.47	.28	2.24	.52	.12	.14	.11	< .01	.03	51	25	54	3.45	98.89
3253	94.64	2.72	.28	.37	.13	.06	.44	.07	< .01	.03	30	10	43	1.64	100.40
3254	93.45	2.50	.23	.15	.04	.01	< .10	.10	< .01	.03	38	< 10	67	1.50	98.04
3255	89.80	5.39	.38	.29	.09	.03	.49	.19	< .01	.04	57	15	89	2.51	99.24
3256	85.18	8.97	.47	.19	.07	< .01	.87	.39	< .01	.05	62	10	139	3.67	99.90
3257	90.21	6.22	.50	.20	.05	< .01	.44	.45	< .01	.04	73	18	187	2.80	100.96
3258	88.99	5.67	.43	.08	.03	< .01	.36	.35	< .01	.04	47	< 10	117	2.40	98.39
3259	88.75	6.97	.40	.10	.03	< .01	.20	.40	< .01	.04	54	10	142	3.63	100.56
3260	92.10	4.66	.34	.17	.05	< .01	.29	.43	< .01	.04	45	< 10	185	2.24	100.37
3261	91.74	4.39	.30	.28	.08	.11	.51	.14	< .01	.03	74	34	64	1.69	99.30
3262	91.26	4.21	.20	.11	.02	.02	.10	.21	< .01	.02	57	15	73	1.83	98.00
3263	91.13	4.04	.21	.12	.02	.02	.20	.23	< .01	.02	46	10	75	1.86	97.87
3264	92.12	4.00	.17	.09	< .02	< .01	.31	.19	< .01	.02	47	13	73	1.79	98.72
3265	94.51	2.52	.20	.05	< .02	< .01	< .10	.07	< .01	.02	31	10	34	1.29	98.67
8921 3301	91.48	4.06	.33	.06	< .02	< .01	.28	.23	< .01	.02	52	10	109	1.78	98.27
3302	95.07	2.85	.20	.05	< .02	< .01	.25	.17	< .01	.03	39	10	110	1.35	99.98
3303	94.21	3.13	.21	.05	< .02	< .01	.12	.13	< .01	.03	99	10	69	1.60	99.50
D885 3401	92.21	3.47	.54	.14	.04	.06	.16	.14	< .01	.03	52	15	86	1.76	98.58
3402	93.27	2.78	.33	.08	< .02	.01	.54	.08	< .01	.03	29	10	137	1.36	98.52

DATE : 23-MAY-1989

SIGNED : *David J. Bilush*  
 for Adrian H. Debnan Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5513 - 1

T.S.L. File No. : 08MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8951 3111	81.00	12.01	1.03	.14	.05	< .01	< .10	.98	.02	.06	145	31	332	4.97	100.32
3112	67.82	20.87	1.26	.32	.23	.02	.21	1.31	< .01	.08	191	39	359	8.31	100.51
8947 3151	89.59	4.41	.57	1.22	.39	.14	.19	.18	< .01	.03	93	36	73	3.83	100.58
3152	93.24	3.44	.21	.31	.08	< .01	< .10	.10	< .01	.03	51	14	57	2.15	99.64
3153	94.18	3.54	.23	.36	.04	< .01	.22	.10	< .01	.04	54	24	58	1.91	100.64
3154	93.01	2.84	.21	.33	< .02	< .01	< .10	.16	< .01	.03	61	40	94	1.46	98.15
3155	95.80	2.73	.18	.09	< .02	< .01	.30	.11	< .01	.03	53	17	76	1.27	100.53
3156	91.33	3.97	.16	.10	< .02	< .01	.41	.17	< .01	.03	53	14	73	2.44	98.63
3157	92.08	3.54	.58	.10	< .02	< .01	.26	.29	< .01	.04	55	17	95	2.43	99.35
3158	89.15	6.87	.43	.08	< .02	< .01	.11	.39	< .01	.11	109	14	178	3.23	100.41
3159	92.07	4.06	.11	.16	< .02	< .01	.33	.27	< .01	.03	63	23	154	1.67	98.73
3160	94.54	3.44	.22	.05	< .02	< .01	< .10	.20	< .01	.03	64	17	95	1.61	100.13
3161	94.38	2.25	.11	.05	< .02	< .01	.12	.11	< .01	.02	47	14	58	1.42	98.48
3162	94.83	2.75	.20	< .02	< .02	< .01	< .10	.07	< .01	.01	32	< 10	41	2.27	100.14
3163	94.44	3.60	.23	< .02	< .02	< .01	.11	.12	< .01	.02	44	< 10	67	1.86	100.39
3164	94.92	1.76	.29	.04	< .02	< .01	.24	.08	< .01	.02	42	14	46	1.31	98.67
3165	87.13	7.68	.38	.04	< .02	< .01	.23	.35	< .01	.03	60	14	124	3.68	99.56
3166	95.10	3.34	.23	< .02	< .02	< .01	< .10	.14	< .01	.02	29	< 10	70	1.71	100.57
3167	94.05	3.36	.16	< .02	< .02	< .01	< .10	.14	< .01	.02	17	< 10	61	2.64	100.38
8957 3201	94.24	2.88	.27	.03	< .02	< .01	.22	.23	< .01	.02	43	14	111	2.11	100.02
3202	94.23	2.56	.51	.54	.12	.11	.48	.15	.01	.04	82	27	66	1.38	100.15
3203	95.86	2.33	.63	.17	< .02	< .01	< .10	.07	< .01	.03	47	14	56	1.33	100.52
3204	91.89	5.06	.44	.15	.05	.06	.26	.20	< .01	.04	73	17	79	2.48	100.66
3205	95.19	3.21	.19	.06	< .02	< .01	.56	.07	< .01	.02	69	19	54	1.54	100.86
3206	84.21	9.38	.54	.08	.04	< .01	.42	.35	< .01	.04	110	22	79	3.89	98.97
3207	56.60	28.43	1.60	.32	.19	.04	.58	1.12	< .01	.11	221	54	154	10.86	99.91
3208	95.37	2.02	.11	.09	< .02	< .01	.59	.08	< .01	.02	95	25	49	.95	99.25
3209	93.99	3.43	.12	< .02	< .02	< .01	.53	.07	< .01	.02	64	14	47	1.43	99.61
3210	73.96	16.37	.63	.24	.05	< .01	.42	.77	< .01	.05	157	38	203	7.00	99.54
3211	95.79	2.22	.17	< .02	< .02	< .01	.18	.08	< .01	.01	53	10	45	1.28	99.75

DATE : 23-MAY-1989

SIGNED :

*Adrian H. DeMan*  
Adrian H. DeMan Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5513 - 3


T.S.L. File No. : 08MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
3403	93.41	3.29	.73	.61	.16	.25	.83	.08	.02	.06	73	34	64	1.37	100.83
3404	83.20	9.93	1.03	.25	.04	.01	.71	.46	.01	.05	68	15	150	4.17	99.89
3405	96.40	1.02	.30	.08	< .02	< .01	.28	.08	< .01	.02	25	< 10	62	.81	99.00
3406	94.42	2.36	.33	.09	< .02	< .01	.30	.12	< .01	.02	52	10	46	1.40	99.06
3407	94.65	2.63	.34	< .02	< .02	< .01	.28	.13	< .01	.02	32	< 10	61	1.33	99.40
D886 3451	93.73	2.45	.32	.08	< .02	.05	.40	.12	< .01	.02	54	15	73	1.06	98.26
3452	95.02	1.63	.39	.18	< .02	< .01	< .10	.05	< .01	.02	39	19	33	1.82	99.13
3453	93.99	2.44	.27	.03	< .02	< .01	.30	.11	< .01	.02	26	< 10	53	1.20	98.37
3454	94.11	2.14	.38	.04	< .02	< .01	< .10	.05	< .01	.02	36	< 10	31	1.55	98.35
3455	93.22	3.72	.27	.05	< .02	< .01	< .10	.07	< .01	.02	36	< 10	36	1.94	99.32
D888 3501	91.46	3.25	.86	.27	.15	.02	.18	.25	.01	.02	45	15	167	1.62	98.12
3502	96.61	.88	.52	.05	.24	< .01	< .10	.04	< .01	.01	20	< 10	107	.54	98.96
3503	95.10	1.98	.64	.13	.08	< .01	< .10	.06	< .01	.02	42	15	41	1.31	99.34
3504	92.77	2.67	.50	.25	.02	< .01	.24	.11	< .01	.04	< 10	< 10	93	1.53	98.14
3505	95.72	2.60	.44	.04	.04	< .01	.17	.10	< .01	.03	39	< 10	50	1.14	100.29
3506	89.59	5.91	.41	.11	.06	< .01	.43	.31	< .01	.04	52	13	125	2.17	99.07
D889 3551	89.65	4.46	.50	.58	.14	.08	.32	.16	< .01	.04	53	19	84	4.78	100.74
3552	83.79	3.60	.61	4.37	.61	.32	.42	.16	.01	.03	89	59	58	4.77	98.72
3553	93.62	2.27	.54	1.15	.18	.09	.50	.19	< .01	.03	48	25	104	1.77	100.37
3554	91.46	2.76	.53	1.49	.29	.06	.33	.17	< .01	.03	65	27	67	2.17	99.32
D889 3555	91.54	2.07	.32	1.02	.21	.11	.33	.07	.01	.10	56	26	52	2.14	97.94
3556	92.34	3.38	.33	.06	< .02	< .01	.14	.18	< .01	.02	38	< 10	60	1.70	98.18
3557	89.80	5.81	.24	.02	< .02	< .01	.28	.35	< .01	.02	46	< 10	123	2.56	99.13
3558	91.38	5.81	.32	.03	.02	< .01	.13	.34	< .01	.02	41	< 10	165	2.69	100.77
3559	91.06	4.40	.30	.08	< .02	< .01	.38	.16	< .01	.02	34	< 10	86	1.92	98.33
3560	92.29	4.57	.29	< .02	< .02	< .01	< .10	.17	< .01	.02	36	< 10	62	2.25	99.66
3561	94.07	3.67	.42	< .02	< .02	< .01	< .10	.17	< .01	.02	29	< 10	54	2.10	100.52
3562	92.85	4.39	.34	< .02	< .02	< .01	.65	.23	< .01	.02	35	< 10	93	2.45	100.96
8980 3601	94.10	2.95	.22	.10	.03	< .01	< .10	.12	< .01	.02	39	< 10	64	1.79	99.37
3602	93.62	2.54	.17	< .02	< .02	< .01	.34	.13	< .01	.03	32	< 10	66	1.55	98.39

DATE : 23-MAY-1989

SIGNED :   
Adrian H. Debnan Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5513 - 4

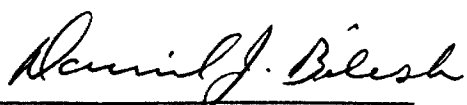
T.S.L. File No. : OBMAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
3603	94.50	2.18	.41	.15	< .02	.02	.31	.26	< .01	.04	39	< 10	118	1.37	99.27
3604	86.46	7.03	.34	.07	.03	.05	.52	.42	< .01	.05	64	11	235	2.97	97.99
3605	92.31	4.73	.72	.15	< .02	< .01	.21	.17	< .01	.02	99	< 10	81	2.14	100.47
3606	91.46	4.58	.25	< .02	< .02	< .01	.26	.17	< .01	.03	42	< 10	90	2.10	98.86
3607	95.03	2.54	.16	< .02	< .02	< .01	.75	.10	< .01	.03	37	< 10	56	1.53	100.16
3608	95.85	2.87	.15	< .02	< .02	< .01	.53	.13	< .01	.02	41	< 10	100	1.35	100.91
3609	94.37	3.33	.27	.03	< .02	< .01	.16	.15	< .01	.02	42	< 10	44	1.90	100.25
3610	95.67	2.22	.22	.03	< .02	< .01	.18	.09	< .01	.02	51	< 10	53	1.27	99.72
3611	68.56	20.14	1.06	.14	.09	.03	.26	.97	< .01	.06	138	25	312	8.53	99.91
3612	91.98	2.74	.48	1.15	.16	.11	.13	.14	< .01	.02	57	24	59	2.11	99.05
3613	94.22	2.44	.36	.22	.06	.10	< .10	.10	.01	.10	111	19	61	1.27	98.92
3614	94.89	3.36	< .02	< .02	< .02	< .01	.14	.13	< .01	.04	31	< 10	63	1.44	100.03
3615	95.50	2.79	.24	.12	< .02	< .01	.16	.10	< .01	.03	53	15	50	1.45	100.43
3616	93.61	2.96	.24	.13	< .02	< .01	.31	.14	< .01	.04	48	13	56	1.51	98.97

DATE : 23-MAY-1989

SIGNED :   
for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1001 FOWLER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 9368

## I.C.A.P. ANALYSIS

X-ray Fluorescence by Fusion

JAMES BAY COMPANY  
 MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5513 - 1  
 T.S.L. File No. : C:\SC\M5513.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE :

ALL RESULTS PPM

SAMPLE #	As	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mn	Ag
8951 0111	2	14	270	40	100	120	50	48	21	60	< 30	< 10	< 10
0112	1	15	250	25	110	130	50	58	38	< 30	< 30	< 10	< 10
8947 0151	< 1	5	210	< 5	70	30	< 5	16	11	< 30	< 30	< 10	< 10
0152	1	10	140	40	60	60	15	8	6	< 30	< 30	< 10	< 10
0153	1	18	210	< 5	70	50	10	10	4	< 30	< 30	< 10	< 10
0154	< 1	12	200	10	70	150	< 5	10	5	< 30	< 30	< 10	< 10
0155	1	18	230	5	50	30	10	26	10	< 30	< 30	< 10	< 10
0156	1	12	210	5	60	70	20	6	5	< 30	< 30	< 10	< 10
0157	1	16	270	35	60	50	20	18	8	< 30	< 30	< 10	< 10
0158	1	18	240	1400	70	66	35	10	8	< 30	30	< 10	< 10
0159	1	10	150	10	50	100	5	30	8	30	< 30	< 10	< 10
0160	< 1	14	180	10	70	26	20	22	7	< 30	< 30	< 10	< 10
0161	< 1	6	180	< 5	40	10	10	14	7	< 30	30	< 10	< 10
0162	< 1	14	210	< 5	50	26	< 5	4	< 1	180	< 30	< 10	< 10
0163	1	5	170	< 5	50	38	15	12	7	< 30	< 30	< 10	< 10
0164	< 1	6	280	45	60	32	< 5	16	7	< 30	30	< 10	< 10
0165	< 1	8	180	75	70	72	25	8	11	< 30	< 30	< 10	< 10
0166	< 1	5	190	< 5	70	46	15	6	7	30	< 30	< 10	< 10
0167	1	10	160	< 5	60	58	10	2	4	< 30	< 30	< 10	< 10
8937 0201	< 1	5	290	5	60	42	10	10	3	< 30	< 30	< 10	< 10
0202	1	12	280	10	50	26	10	28	3	< 30	< 30	< 10	< 10
0203	< 1	10	180	85	50	26	20	10	5	< 30	< 30	< 10	< 10
0204	1	10	200	< 5	50	30	5	10	2	< 30	< 30	< 10	< 10
0205	1	10	190	5	60	42	5	2	3	60	< 30	< 10	< 10
0206	1	14	270	85	70	66	30	22	16	< 30	30	< 10	< 10
0207	2	22	320	60	110	190	40	60	53	< 30	< 30	< 10	< 10
0208	< 1	4	170	30	30	42	< 5	22	4	< 30	< 30	< 10	< 10
0209	< 1	2	170	< 5	30	38	30	4	5	30	< 30	< 10	< 10
0210	1	14	260	20	70	120	20	24	26	30	< 30	< 10	< 10
0211	< 1	2	220	< 5	30	16	< 5	2	2	< 30	< 30	< 10	< 10

DATE : MAY-16-1989

SIGNED :

*Dennis J. Bulash*

**TECHNICAL SERVICE LABORATORIES**

1001 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Major Elements by Fusion

JAMES BA. COMPANY  
 MISS. ONTARIO

T.S.L. REPORT No. : M - 5513 - 2  
 T.S.L. File No. : C:\SCAM5513.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Cd	Cr	Cu	Ni	P	Zn	V	Sc	Th	W	Mn	Ag
3212	< 1	10	170	20	60	52	20	10	9	< 30	< 30	< 10	< 10
3213	< 1	5	180	5	50	38	15	10	4	< 30	< 30	< 10	< 10
3214	< 1	16	200	20	50	46	20	4	5	< 30	< 30	< 10	< 10
3215	< 1	34	190	45	80	100	30	40	35	< 30	< 30	< 10	< 10
3216	< 1	8	200	5	30	38	20	10	6	< 30	< 30	< 10	< 10
3217	2	120	200	200	300	160	100	25	42	< 30	< 30	< 10	< 10
3218	2	56	210	80	180	160	100	52	45	60	< 30	< 10	< 10
3219	3	38	220	75	110	170	35	76	53	< 30	30	< 10	< 10
3220	2	80	270	95	210	190	110	50	44	30	< 30	< 10	< 10
3221	1	28	260	75	90	170	35	88	43	90	< 30	< 10	< 10
D887 3251	< 1	2	95	20	50	72	15	38	7	< 30	30	< 10	< 10
3252	< 1	2	130	25	60	34	15	4	3	< 30	< 30	< 10	< 10
3253	< 1	6	240	20	50	32	30	2	3	< 30	30	< 10	< 10
3254	< 1	4	130	5	50	22	10	12	3	< 30	< 30	< 10	< 10
3255	< 1	14	160	20	60	38	5	26	8	< 30	< 30	< 10	< 10
3256	< 1	16	110	20	60	60	25	20	12	< 30	< 30	< 10	< 10
3257	< 1	14	220	25	50	50	25	16	12	< 30	< 30	< 10	< 10
3258	< 1	14	240	25	60	70	15	10	5	30	< 30	< 10	< 10
3259	< 1	5	160	60	40	52	25	6	9	< 30	30	< 10	< 10
3260	< 1	17	160	20	30	36	20	8	6	30	< 30	< 10	< 10
3261	< 1	2	120	15	30	34	< 5	16	7	< 30	< 30	< 10	< 10
3262	< 1	< 2	120	10	40	14	< 5	10	3	30	30	< 10	< 10
3263	< 1	< 2	120	5	40	44	< 5	4	5	< 30	< 30	< 10	< 10
3264	< 1	2	75	< 5	50	10	10	22	5	< 30	< 30	< 10	< 10
3265	< 1	< 2	140	110	20	12	< 5	2	2	< 30	30	< 10	< 10
8921 3301	< 1	4	220	5	20	26	15	14	5	< 30	< 30	< 10	< 10
3302	< 1	10	200	25	40	26	10	10	5	< 30	< 30	< 10	< 10
3303	< 1	6	190	5	50	30	35	4	6	< 30	< 30	< 10	< 10
D885 3401	< 1	12	170	20	50	30	15	2	2	< 30	30	< 10	< 10
3402	< 1	14	160	20	40	30	15	6	2	< 30	< 30	< 10	< 10

DATE : MAY-16-1985

SIGNED :

*William J. Bilush*



# TECHNICAL SERVICE LABORATORIES

1001 FEMSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 5368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5513 - 3  
T.S.L. File No. : C:\SC\M5513.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ba	Cr	Ca	Al	V	Zn	Y	Sc	Th	W	Nb	Ag
3403	1	12	160	25	40	28	15	32	7	< 30	< 30	< 10	< 10
3404	1	12	140	30	50	22	25	14	11	< 30	< 30	< 10	< 10
3405	< 1	6	130	10	60	26	10	10	< 1	< 30	< 30	< 10	< 10
3406	< 1	4	150	10	50	16	15	8	1	< 30	< 30	< 10	< 10
3407	< 1	2	160	15	40	22	20	10	3	< 30	< 30	< 10	< 10
3451	< 1	4	190	10	50	40	10	8	1	< 30	< 30	< 10	< 10
3452	< 1	4	150	140	40	16	< 5	4	3	< 30	30	< 10	< 10
3453	< 1	2	120	45	40	40	25	4	2	< 30	30	< 10	< 10
3454	< 1	2	200	< 5	40	24	10	< 2	4	< 30	< 30	< 10	< 10
3455	< 1	< 2	200	< 5	30	14	25	8	4	30	< 30	< 10	< 10
3501	< 1	8	480	20	120	36	< 5	14	4	< 30	< 30	< 10	< 10
3502	< 1	2	190	5	40	18	< 5	4	< 1	< 30	< 30	< 10	< 10
3503	< 1	8	180	10	30	22	20	12	6	< 30	30	< 10	< 10
3504	1	< 2	< 5	95	10	12	< 5	8	6	< 30	< 30	< 10	< 10
3505	< 1	10	190	15	60	28	5	10	3	< 30	< 30	< 10	< 10
3506	< 1	14	240	25	40	24	25	20	7	< 30	< 30	< 10	< 10
3551	< 1	12	270	25	40	24	15	10	3	< 30	30	< 10	< 10
3552	< 1	12	170	10	30	26	15	6	2	< 30	< 30	< 10	< 10
3553	< 1	8	270	20	40	28	15	4	2	< 30	< 30	< 10	< 10
3554	< 1	8	170	15	30	28	20	12	8	< 30	< 30	< 10	< 10
3555	< 1	4	170	1400	20	8	10	22	2	30	30	< 10	< 10
3556	< 1	2	150	25	30	8	20	< 2	< 1	< 30	< 30	< 10	< 10
3557	< 1	< 2	120	10	20	20	10	6	8	< 30	30	< 10	< 10
3558	< 1	4	190	5	40	22	20	6	7	< 30	30	< 10	< 10
3559	< 1	< 2	120	130	40	12	5	2	4	< 30	< 30	< 10	< 10
3560	< 1	2	140	< 5	20	8	15	12	3	< 30	< 30	< 10	< 10
3561	< 1	4	140	< 5	< 10	2	10	4	4	< 30	< 30	< 10	< 10
3562	< 1	6	190	25	40	14	10	8	6	< 30	30	< 10	< 10
3601	< 1	4	160	20	20	10	< 5	< 2	< 1	30	30	< 10	< 10
3602	< 1	4	150	50	30	8	10	< 2	2	< 30	30	< 10	< 10

DATE : MAY-18-1989

SIGNED :

*Shirley J. Bilinski*

# TECHNICAL SERVICE LABORATORIES

1701 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8366

## I.C.A.P. ANALYSIS

Major Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA, ONTARIO

T.S.L. REPORT No. : M - 5513 - 4  
T.S.L. File No. : C:\SD\M5513.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ba	Cr	Cu	Mn	P	Pb	S	Se	Th	W	Mo	Ag
3603	< 1	12	230	15	< 10	22	5	16	4	< 30	< 30	< 10	< 10
3604	< 1	16	210	25	40	44	30	16	8	< 30	< 30	< 10	< 10
3605	< 1	< 2	< 5	< 5	< 10	< 2	< 5	< 2	1	< 30	< 30	< 10	< 10
3606	< 1	8	140	40	30	32	15	4	4	< 30	< 30	< 10	< 10
3607	< 1	6	170	10	20	18	15	4	4	< 30	< 30	< 10	< 10
3608	< 1	6	140	< 5	20	10	10	< 2	4	< 30	< 30	< 10	< 10
3609	< 1	4	190	10	30	24	30	4	2	< 30	< 30	< 10	< 10
3610	< 1	2	200	< 5	20	10	20	< 2	6	90	< 30	< 10	< 10
3611	< 1	12	200	45	80	98	30	22	33	< 30	< 30	< 10	< 10
3612	< 1	< 2	200	35	30	12	120	< 2	4	90	< 30	< 10	< 10
3613	< 1	6	130	1100	50	6	45	22	7	< 30	< 30	< 10	< 10
3614	< 1	12	140	30	30	22	20	4	3	< 30	< 30	< 10	< 10
3615	< 1	14	150	55	30	20	15	5	6	30	< 30	< 10	< 10
3616	< 1	14	160	25	40	32	20	5	5	< 30	< 30	< 10	< 10

DATE : MAY-12-1989

SIGNED :

*Harold J. Belcher*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 1  
 T.S.L. File No. : 24MAY, 19MAY, 18MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
1015 3901	84.69	4.98	1.01	2.30	.65	.38	2.13	.26	.02	.07	136	59	125	3.82	100.36
3902	90.57	3.49	.55	.51	.17	.08	1.71	.17	< .01	.05	62	17	87	1.93	99.27
3903	77.35	13.69	.90	.26	.11	.02	1.24	.78	.01	.07	98	19	253	5.89	100.36
3904	93.41	3.56	.29	.06	.02	< .01	.62	.30	< .01	.04	89	< 10	133	1.74	100.07
3905	92.51	4.19	.24	.04	< .02	< .01	.38	.19	< .01	.03	39	< 10	79	2.00	99.61
3906	94.24	3.54	.28	.04	< .02	< .01	< .10	.17	< .01	.03	44	< 10	73	1.91	100.25
3907	93.21	2.91	.36	.10	< .02	< .01	< .10	.07	< .01	.02	29	< 10	36	1.67	98.42
3908	93.52	2.29	.34	.05	< .02	< .01	< .10	.06	< .01	.02	24	< 10	31	1.55	97.83
3909	93.32	2.90	.33	.10	< .02	< .01	.23	.06	< .01	.02	35	< 10	31	1.94	98.91
3910	71.91	15.77	2.84	.17	.11	< .01	.53	.96	< .01	.10	133	22	392	7.53	100.00
3911	93.65	3.08	.95	.05	< .02	< .01	.61	.16	.01	.05	78	31	80	1.75	100.35
3912	66.61	20.14	2.22	.20	.19	.03	1.24	1.11	.01	.10	172	32	355	8.69	100.61
8956 3951	81.79	8.24	.86	1.52	.39	.19	1.39	.37	< .01	.06	114	44	138	5.63	100.49
3952	60.99	22.13	1.12	.33	.17	.06	1.40	.88	< .01	.10	150	42	159	13.09	100.33
3953	87.02	5.41	.64	1.27	.39	.17	1.09	.27	< .01	.05	86	32	135	3.40	99.75
3954	56.58	23.66	1.27	.85	.36	.15	1.50	1.05	< .01	.12	194	58	187	13.36	98.97
3955	92.37	3.34	.40	.14	.04	< .01	1.09	.17	< .01	.04	44	< 10	73	1.44	99.05
3956	92.07	4.01	.38	.07	.02	< .01	.97	.36	< .01	.05	77	< 10	211	1.98	99.97
3957	61.09	24.53	1.14	.19	.16	.06	1.52	.91	< .01	.09	164	28	152	10.37	100.11
3958	94.35	3.14	.41	.05	< .02	< .01	.90	.30	< .01	.04	49	< 10	155	1.70	100.93
3959	95.48	2.02	.19	.17	.02	.02	< .10	.14	< .01	.02	44	17	70	1.14	99.22
3960	91.70	3.90	.27	.19	< .02	< .01	.11	.18	< .01	.02	51	15	92	1.64	98.03
3961	93.50	3.28	.24	.18	< .02	< .01	.76	.16	< .01	.02	46	12	71	1.72	99.89
3962	93.27	3.14	.27	.16	< .02	< .01	.58	.12	< .01	.02	45	11	82	1.60	99.18
3963	94.86	2.91	.28	.18	< .02	< .01	.55	.08	< .01	.03	40	12	44	1.45	100.35
3964	63.13	23.76	1.29	.35	.18	.06	.82	1.14	< .01	.08	177	41	301	9.58	100.46
3965	93.86	3.13	.28	.14	< .02	< .01	.39	.11	< .01	.03	59	12	53	1.16	99.12
3966	93.79	3.14	.26	.21	< .02	< .01	.63	.11	< .01	.03	59	14	50	1.60	99.80
3967	94.36	3.20	.44	.19	< .02	< .01	.86	.06	< .01	.03	47	12	45	1.57	100.74
8978 4274	84.20	9.43	.87	.26	.06	< .01	< .10	.51	< .01	.05	83	20	198	4.16	99.59

DATE : 29-MAY-1989

SIGNED :

*Adrian H. Debnam*  
 Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 2  
 T.S.L. File No. : 24MAY, 19MAY, 18MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
104 12301	61.60	9.47	2.60	8.93	2.77	1.47	2.19	.37	.05	.10	384	191	104	10.62	100.24
12302	67.10	9.28	2.19	7.23	2.27	1.27	1.81	.35	.04	.10	353	163	122	9.15	100.87
12303	90.03	5.07	.51	.65	.16	.06	.73	.15	< .01	.05	73	25	70	2.31	99.75
12304	77.24	12.38	1.09	.98	.26	.11	1.64	.43	.01	.08	111	38	121	5.65	99.90
12305	56.48	27.30	1.06	.29	.10	.04	2.03	1.30	< .01	.12	90	25	232	11.20	99.97
12306	92.84	3.22	.21	.16	.02	.03	2.55	.15	< .01	.07	47	10	73	1.15	100.42
12307	91.36	3.34	.23	.12	< .02	< .01	2.80	.16	< .01	.07	51	10	65	1.39	99.51
12308	91.30	3.14	.18	.10	< .02	.02	2.88	.06	< .01	.07	68	17	52	1.35	99.12
12309	90.80	3.28	.34	.15	< .02	.02	3.20	.17	< .01	.08	56	10	184	1.29	99.37
12310	91.06	3.70	.26	.15	< .02	.02	3.01	.12	< .01	.08	61	14	73	1.46	99.89
8910412311	54.55	28.80	1.23	1.69	.88	.33	.66	.98	.03	.11	279	87	144	11.43	100.75
12312	93.14	3.25	< .02	.30	< .02	< .01	.73	.13	< .01	.04	44	< 10	55	1.37	98.97
12313	91.86	3.71	.13	.25	.08	.02	< .10	.13	< .01	.05	47	< 10	52	1.50	97.75
12314	86.77	7.60	.53	.33	.03	< .01	.19	.33	< .01	.06	92	22	98	3.07	98.93
12315	51.08	27.70	6.87	.24	.09	< .01	.70	1.07	< .01	.17	231	25	202	11.94	99.93
12316	78.10	13.40	1.19	.17	.03	< .01	.75	1.24	< .01	.09	119	19	533	5.52	100.58
12317	69.66	16.52	2.71	.11	.24	.01	.69	1.19	.01	.13	144	30	361	7.47	100.81
12318	69.09	19.85	1.37	.12	.25	.01	.54	1.10	< .01	.11	178	41	373	7.93	100.45
12319	82.83	9.76	.69	< .02	.07	< .01	< .10	.77	< .01	.07	82	13	396	4.01	98.27
8960 12351	93.06	2.98	.48	.19	< .02	.01	< .10	.25	< .01	.06	54	< 10	84	1.59	98.64
12352	90.42	4.28	.58	.25	.13	.30	1.15	.22	< .01	.08	200	62	93	1.20	98.66
12353	93.70	3.17	.13	.05	< .02	.09	1.39	.24	< .01	.06	114	26	130	1.14	100.00
12354	91.21	2.50	.12	.24	< .02	.06	2.14	.39	< .01	.06	83	19	178	.98	97.73
12355	93.20	3.25	< .02	< .02	< .02	< .01	.66	.08	< .01	.06	99	27	53	.99	98.26
12356	94.40	3.03	< .02	< .02	< .02	< .01	1.23	.07	< .01	.05	64	< 10	54	1.08	99.88
8966 12401	91.52	3.27	.09	.49	.04	.07	1.13	.15	< .01	.05	103	35	76	1.50	98.33
12402	92.12	3.81	.04	.07	< .02	< .01	.98	.12	< .01	.06	57	14	77	1.39	98.61
12403	88.99	6.26	.11	.32	< .02	< .01	1.55	.24	< .01	.05	72	15	142	2.40	99.95
12404	91.43	3.84	.02	< .02	< .02	< .01	1.34	.34	< .01	.06	66	10	211	1.46	98.53
12405	84.97	7.77	.28	.10	< .02	< .01	1.48	.50	< .01	.06	85	14	195	2.94	98.14

DATE : 29-MAY-1989

SIGNED :

*Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 3  
 T.S.L. File No. : 24MAY, 19MAY, 18MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
12406	91.31	4.60	.34	.38	.04	.19	1.16	.27	.02	.07	221	31	207	1.50	99.93
12407	94.15	2.79	.05	< .02	< .02	< .01	< .10	.14	< .01	.04	60	< 10	55	1.04	98.23
12408	93.62	3.37	.17	< .02	< .02	.04	.38	.09	< .01	.05	58	< 10	57	1.26	99.01
12409	75.65	15.35	.49	.03	< .02	< .01	.41	.62	< .01	.07	109	24	125	5.99	98.65
12410	50.97	33.10	1.56	.08	.13	.02	< .10	1.19	< .01	.11	185	41	147	12.44	99.64
12411	91.24	5.07	.15	.17	< .02	< .01	< .10	.22	< .01	.03	73	17	85	1.67	98.57
12412	53.36	32.26	1.37	.14	.13	< .01	< .10	1.18	< .01	.09	220	51	139	11.65	100.24
12413	92.21	4.72	.11	< .02	< .02	< .01	< .10	.18	< .01	.02	56	< 10	55	1.67	98.93
12414	58.88	27.94	1.35	.04	.04	< .01	< .10	1.17	< .01	.08	179	23	257	10.52	100.10
12415	89.25	6.84	.16	< .02	< .02	< .01	< .10	.25	< .01	.03	62	12	66	2.26	98.81
12416	60.13	24.35	1.46	.22	.07	.37	1.22	1.02	.04	.10	204	216	622	9.24	98.35
12417	67.09	20.99	.80	.08	< .02	.05	1.16	1.02	.01	.09	189	56	404	7.87	99.25
12418	76.66	15.96	.45	.04	< .02	< .01	< .10	.93	< .01	.07	91	17	371	5.87	100.04
12419	95.78	3.40	< .02	.15	< .02	< .01	< .10	.14	< .01	.05	77	39	114	1.07	100.62
12420	92.16	4.03	< .02	< .02	< .02	< .01	.41	.16	< .01	.05	36	15	90	1.33	98.15
12421	93.31	4.58	< .02	< .02	< .02	< .01	< .10	.21	< .01	.05	51	< 10	86	1.38	99.55
12422	93.65	3.57	< .02	< .02	< .02	< .01	.34	.10	< .01	.05	40	< 10	64	1.21	98.93
12423	91.12	4.46	< .02	< .02	< .02	< .01	.57	.01	< .01	.05	43	< 10	63	1.75	98.00
12424	93.76	3.28	< .02	< .02	< .02	< .01	.14	.09	< .01	.05	31	< 10	47	1.09	98.42
12425	93.90	3.00	< .02	< .02	< .02	< .01	.73	.12	< .01	.07	62	25	79	1.04	98.88
8952 12451	46.72	7.26	2.42	17.86	5.26	1.65	< .10	.33	.05	.10	391	247	147	18.90	100.72
12452	54.77	6.81	1.72	15.16	4.22	1.75	.30	.26	.04	.08	368	244	148	15.49	100.69
12453	49.81	6.97	1.85	16.17	4.83	1.68	.80	.30	.04	.09	392	243	190	17.67	100.31
12454	84.50	4.49	.84	2.71	.80	.31	< .10	.25	.01	.03	133	53	149	3.63	97.61
12455	94.30	3.34	.41	.60	.20	.07	< .10	.18	< .01	.02	53	13	122	1.82	100.98
12456	91.72	3.10	.28	.35	.09	.03	< .10	.17	< .01	.02	57	10	94	1.92	97.70
12457	78.78	13.73	.58	.15	.08	< .01	.51	.64	< .01	.05	100	15	221	5.76	100.33
12458	93.26	3.57	.19	< .02	< .02	.01	< .10	.14	< .01	.02	64	< 10	73	1.83	99.05
12459	85.95	7.74	.44	.19	.07	< .01	.11	.47	< .01	.03	81	14	260	3.33	98.38
12460	94.45	2.20	.22	.06	< .02	.01	< .10	.16	< .01	.02	53	< 10	69	1.38	98.53

DATE : 29-MAY-1989

SIGNED :

*Adrian H. Debnam*  
 Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 4  
 T.S.L. File No. : 24MAY, 19MAY, 18MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
12461	74.65	17.20	.77	.15	.11	.02	< .10	.80	< .01	.06	126	28	273	6.34	100.16
12462	93.66	3.44	.23	.02	< .02	< .01	< .10	.13	< .01	.02	50	< 10	77	1.28	98.81
12463	93.09	4.37	.28	.11	< .02	.02	< .10	.18	< .01	.02	56	14	70	1.77	99.87
12464	60.76	25.46	1.45	.30	.17	.04	.35	1.11	< .01	.11	197	47	298	10.35	100.18
12465	93.33	3.64	.30	.03	< .02	< .01	< .10	.08	< .01	.02	42	< 10	35	1.27	98.68
12466	69.64	19.78	.97	.17	.13	.04	.47	.88	< .01	.10	144	32	266	7.88	100.13
12467	92.96	3.35	.27	.03	< .02	< .01	.42	.10	< .01	.02	47	< 10	64	1.36	98.55
12468	94.03	2.99	.20	.06	< .02	.01	< .10	.07	< .01	.03	57	< 10	71	1.41	98.89
12469	68.75	20.90	.77	.24	.10	.04	.79	.79	< .01	.07	111	36	178	8.40	100.89
12470	73.96	13.35	3.33	.47	.09	.02	.53	.72	.03	.06	114	22	334	6.26	98.88
12471	85.73	8.08	.89	.53	.18	.21	.59	.37	.02	.05	110	30	161	2.99	99.67
12472	58.03	27.34	2.56	.28	.14	.07	.40	.88	.01	.09	152	25	182	10.98	100.82
8958 12501	91.35	4.38	.54	.28	.07	.04	.12	.20	< .01	.03	87	18	85	1.82	98.86
12502	93.59	3.95	.57	.21	.05	.02	.25	.18	< .01	.03	64	10	110	1.84	100.72
12503	92.67	3.18	.35	.17	.03	.01	< .10	.20	< .01	.02	59	10	115	1.22	97.96

DATE : 29-MAY-1989

SIGNED :

*Adrian H. Debnam*

Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
 MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 1  
 T.S.L. File No. : C:\SC\M5536.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
1015 3901	2	54	240	35	40	44	45	16	4	< 30	30	< 10	< 10
3902	1	28	180	30	10	54	15	4	2	< 30	30	< 10	< 10
3903	1	32	170	35	40	100	30	10	11	< 30	30	< 10	< 10
3904	< 1	18	170	10	20	52	20	6	3	< 30	< 30	< 10	< 10
3905	< 1	18	160	5	30	54	20	< 2	3	90	< 30	< 10	< 10
3906	< 1	16	180	< 5	10	68	20	2	2	< 30	< 30	< 10	< 10
3907	< 1	14	180	< 5	20	88	15	2	3	< 30	< 30	< 10	< 10
3908	< 1	12	180	< 5	10	60	10	< 2	1	< 30	< 30	< 10	< 10
3909	< 1	14	240	15	< 10	28	15	4	2	< 30	< 30	< 10	< 10
3910	1	22	290	40	60	86	45	14	11	< 30	30	< 10	< 10
3911	1	18	340	30	20	42	35	12	4	< 30	30	< 10	< 10
3912	1	28	180	50	40	84	40	20	17	< 30	< 30	< 10	< 10
8956 3951	1	32	310	35	30	98	15	10	8	< 30	< 30	< 10	< 10
3952	2	60	250	75	90	120	35	26	21	< 30	< 30	10	< 10
3953	1	24	290	15	30	56	20	10	5	< 30	30	< 10	< 10
3954	3	58	290	210	110	140	35	38	28	< 30	< 30	< 10	< 10
3955	1	24	250	25	30	80	25	4	3	< 30	< 30	< 10	< 10
3956	1	28	240	40	10	54	35	10	3	< 30	< 30	< 10	< 10
3957	2	30	530	50	50	140	40	10	18	< 30	30	10	< 10
3958	1	20	340	25	10	58	15	6	2	< 30	< 30	< 10	< 10
3959	1	< 2	190	35	< 10	32	15	10	2	< 30	< 30	< 10	< 10
3960	< 1	6	170	< 5	< 10	28	10	2	2	< 30	< 30	< 10	< 10
3961	< 1	6	220	5	10	38	10	< 2	2	< 30	< 30	< 10	< 10
3962	< 1	8	250	5	10	18	15	4	1	< 30	< 30	< 10	< 10
3963	1	12	220	10	10	38	10	< 2	2	< 30	< 30	< 10	< 10
3964	2	26	470	60	30	120	40	16	16	< 30	< 30	< 10	< 10
3965	< 1	14	220	10	30	26	10	4	2	< 30	30	< 10	< 10
3966	1	16	190	5	< 10	22	10	4	1	120	< 30	< 10	< 10
3967	1	14	230	10	20	36	15	< 2	1	< 30	< 30	< 10	< 10
8978 4274	1	12	170	15	20	70	25	10	8	< 30	30	< 10	< 10

DATE : MAY-29-1989

SIGNED : *Arnold J. Belski*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 2  
T.S.L. File No. : C:\SC\M5536.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
104 12301	1	18	160	15	40	100	30	12	9	< 30	270	< 10	< 10
12302	1	18	150	10	40	58	35	10	7	< 30	30	< 10	< 10
12303	1	16	190	10	< 10	44	20	2	3	< 30	< 30	< 10	< 10
12304	1	34	240	45	30	110	35	12	8	< 30	< 30	< 10	< 10
12305	3	48	380	70	100	140	40	16	20	< 30	< 30	10	< 10
12306	2	38	140	40	20	76	15	4	2	30	< 30	< 10	< 10
12307	2	36	200	35	30	86	15	2	2	< 30	< 30	< 10	< 10
12308	2	40	190	45	20	110	15	2	2	< 30	< 30	< 10	< 10
12309	2	40	240	40	20	70	20	4	2	< 30	< 30	< 10	< 10
12310	2	42	230	50	40	110	15	4	2	< 30	< 30	< 10	< 10
8910412311	3	< 2	470	20	70	110	50	18	14	< 30	< 30	< 10	< 10
12312	< 1	< 2	140	< 5	20	18	10	< 2	2	< 30	< 30	< 10	< 10
12313	1	< 2	150	5	10	28	10	< 2	2	120	< 30	< 10	< 10
12314	1	6	190	5	20	92	35	10	6	< 30	< 30	< 10	< 10
12315	1	14	230	110	90	140	50	32	26	30	< 30	< 10	< 10
12316	1	10	210	40	70	82	20	20	11	< 30	< 30	< 10	< 10
12317	1	16	260	130	100	130	20	28	14	< 30	< 30	< 10	< 10
12318	1	18	200	40	80	64	75	22	14	< 30	< 30	< 10	< 10
12319	1	6	220	10	50	56	45	14	5	30	< 30	< 10	< 10
8960 12351	< 1	6	290	< 5	50	56	15	2	2	120	< 30	< 10	< 10
12352	1	4	120	30	20	36	10	2	2	60	< 30	< 10	< 10
12353	1	2	180	10	60	28	5	6	< 1	< 30	30	< 10	< 10
12354	1	4	290	45	10	52	5	4	2	< 30	< 30	< 10	< 10
12355	1	6	160	5	20	76	5	2	1	< 30	< 30	< 10	< 10
12356	1	< 2	140	15	< 10	20	< 5	< 2	1	120	< 30	< 10	< 10
8966 12401	1	< 2	180	< 5	20	54	10	2	2	60	< 30	< 10	< 10
12402	1	2	160	80	10	46	< 5	2	1	< 30	< 30	< 10	< 10
12403	1	2	180	5	40	42	10	12	3	< 30	< 30	< 10	< 10
12404	1	4	220	10	10	50	15	6	2	< 30	< 30	< 10	< 10
12405	1	6	240	10	10	78	15	10	5	< 30	< 30	< 10	< 10

DATE : MAY-29-1989

SIGNED :

*Shivaji Bilalsh*



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIO

T.S.L. REPORT No. : M - 5536 - 3  
T.S.L. File No. : C:\SC\M5536.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12406	2	< 2	160	5	< 10	30	15	18	5	< 30	< 30	< 10	< 10
12407	< 1	< 2	140	< 5	10	22	5	2	2	< 30	< 30	< 10	< 10
12408	1	< 2	130	15	< 10	34	5	8	2	< 30	< 30	< 10	< 10
12409	1	2	230	20	50	120	20	14	10	< 30	< 30	< 10	< 10
12410	1	4	220	25	90	160	60	22	22	< 30	< 30	< 10	< 10
12411	< 1	< 2	140	< 5	< 10	34	10	8	4	< 30	< 30	< 10	< 10
12412	1	< 2	220	20	60	140	45	26	21	< 30	< 30	< 10	< 10
12413	< 1	< 2	170	10	< 10	22	5	4	4	< 30	< 30	< 10	< 10
12414	1	< 2	210	45	10	98	35	48	21	< 30	< 30	< 10	< 10
12415	< 1	< 2	180	5	< 10	52	10	8	3	< 30	< 30	< 10	< 10
12416	3	2	180	40	60	130	50	24	16	< 30	< 30	< 10	< 10
12417	2	2	200	25	60	160	50	22	16	< 30	< 30	< 10	< 10
12418	1	< 2	180	10	90	120	30	18	13	< 30	< 30	< 10	< 10
12419	1	< 2	120	< 5	10	28	< 5	2	1	30	< 30	< 10	< 10
12420	1	< 2	110	15	10	22	< 5	2	2	90	< 30	< 10	< 10
12421	< 1	< 2	130	5	50	66	< 5	4	2	< 30	< 30	< 10	< 10
12422	1	< 2	120	< 5	< 10	64	< 5	4	1	< 30	< 30	< 10	< 10
12423	1	< 2	120	10	10	32	5	2	2	30	< 30	< 10	< 10
12424	1	< 2	130	< 5	< 10	20	< 5	4	1	< 30	< 30	< 10	< 10
12425	1	< 2	130	< 5	60	48	< 5	2	2	< 30	< 30	< 10	< 10
8952 12451	< 1	< 2	25	< 5	< 10	30	40	24	5	120	30	< 10	< 10
12452	< 1	< 2	55	< 5	< 10	28	20	14	4	90	< 30	< 10	< 10
12453	< 1	< 2	25	< 5	< 10	26	25	12	6	< 30	< 30	10	< 10
12454	< 1	4	180	< 5	10	28	10	8	4	90	30	< 10	< 10
12455	< 1	4	200	< 5	< 10	20	5	2	1	60	30	< 10	< 10
12456	< 1	10	150	< 5	< 10	44	5	6	2	< 30	< 30	10	< 10
12457	1	12	240	30	10	88	20	14	12	< 30	< 30	< 10	< 10
12458	< 1	4	180	30	< 10	34	5	2	3	< 30	< 30	< 10	< 10
12459	< 1	12	220	25	20	56	15	8	6	120	30	< 10	< 10
12460	< 1	6	130	5	< 10	30	5	8	2	< 30	< 30	< 10	< 10

DATE : MAY-29-1989

SIGNED :

*Daniel J. Belush*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY COMPANY  
MISSISSAUGA ONTARIOT.S.L. REPORT No. : M - 5536 - 4  
T.S.L. File No. : C:\SC\M5536.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
12461	1	14	300	50	40	130	25	20	14	30	< 30	< 10	< 10
12462	< 1	4	110	10	20	34	20	< 2	3	120	< 30	< 10	< 10
12463	< 1	4	150	< 5	10	54	10	8	3	< 30	30	< 10	< 10
12464	1	26	300	85	50	140	30	60	32	< 30	< 30	< 10	< 10
12465	< 1	8	170	< 5	10	38	10	6	3	< 30	< 30	10	< 10
12466	1	18	290	50	40	130	30	58	20	30	< 30	< 10	< 10
12467	< 1	4	170	5	20	38	10	4	4	< 30	< 30	10	< 10
12468	< 1	8	140	110	30	52	15	6	2	< 30	30	< 10	< 10
12469	1	20	350	50	60	180	20	10	13	30	< 30	< 10	< 10
12470	1	26	230	40	40	100	25	12	9	< 30	< 30	< 10	< 10
12471	2	14	180	20	20	60	20	14	6	< 30	30	< 10	< 10
12472	1	20	190	40	80	140	35	12	17	< 30	< 30	< 10	< 10
B958 12501	< 1	8	230	15	20	34	10	10	2	< 30	< 30	< 10	< 10
12502	< 1	6	260	15	40	74	10	2	2	< 30	< 30	10	< 10
12503	< 1	8	210	10	40	44	5	2	4	< 30	< 30	< 10	< 10

DATE : MAY-29-1989

SIGNED :

*Daniel J. Bilinski*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 1  
T.S.L. File No. : C:\SC\M5481.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	Sn	W	Mo
8928 2023	< 1	6	480	< 5	20	24	15	8	2	< 50	< 50	< 30	< 10
2024	< 1	8	420	< 5	20	30	10	4	2	< 50	< 50	< 30	< 10
2025	< 1	10	490	5	30	36	10	2	3	< 50	< 50	< 30	< 10
2026	< 1	10	440	5	20	34	5	4	5	< 50	< 50	30	< 10
2027	< 1	12	400	5	20	30	5	4	3	< 50	< 50	< 30	< 10
2028	< 1	12	360	30	30	30	15	6	4	< 50	< 50	30	< 10
2029	< 1	12	430	< 5	20	24	10	4	2	< 50	50	< 30	< 10
2030	< 1	16	600	10	20	46	15	8	4	< 50	< 50	30	< 10
2031	< 1	12	410	< 5	20	22	10	4	2	< 50	50	< 30	< 10
2032	< 1	10	320	15	20	34	10	2	3	< 50	50	< 30	< 10
2033	< 1	10	300	< 5	20	38	5	4	2	< 50	< 50	< 30	< 10
2034	< 1	10	370	< 5	20	30	10	4	3	50	< 50	< 30	< 10
2035	< 1	12	270	5	30	64	15	8	6	< 50	< 50	< 30	< 10
2036	< 1	14	380	5	40	50	10	4	3	50	< 50	< 30	< 10
2037	< 1	18	400	10	30	38	10	8	3	< 50	< 50	< 30	< 10
2038	< 1	18	550	< 5	40	44	5	2	2	< 50	50	< 30	< 10
2039	2	28	340	30	90	190	15	40	24	100	< 50	< 30	< 10
2040	< 1	18	580	5	30	42	5	< 2	1	< 50	50	< 30	< 10
2041	2	70	240	65	130	180	75	26	25	< 50	< 50	30	< 10
2042	< 1	22	570	10	50	44	5	6	2	< 50	< 50	30	< 10
2043	1	34	330	30	70	120	20	20	14	< 50	< 50	< 30	< 10
2044	1	60	310	50	120	170	130	22	19	< 50	< 50	30	< 10
2045	2	50	290	85	120	160	20	28	23	< 50	< 50	< 30	< 10
2046	< 1	12	440	10	30	34	10	4	1	50	< 50	< 30	< 10
2047	< 1	12	340	< 5	30	26	10	2	1	< 50	< 50	< 30	< 10
2048	< 1	12	440	20	30	24	10	4	< 1	< 50	< 50	< 30	< 10
2049	< 1	18	710	10	40	56	10	10	4	< 50	< 50	< 30	< 10
2050	< 1	16	320	25	40	20	5	2	< 1	< 50	< 50	30	< 10
8926 2051	< 1	14	280	< 5	30	32	5	4	1	< 50	< 50	< 30	< 10
2052	< 1	16	330	5	50	38	5	2	2	50	< 50	< 30	< 10

DATE : MAR-31-1989

SIGNED :

*Daniel J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 2  
 T.S.L. File No. : C:\SC\M5481.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	Sn	W	Mo
2053	< 1	14	330	20	60	50	5	2	2	< 50	< 50	< 30	10
2054	1	24	220	10	80	160	20	16	22	50	< 50	< 30	< 10
2055	1	28	290	20	100	190	40	20	25	< 50	< 50	< 30	< 10
2056	2	40	300	50	150	170	30	28	29	< 50	< 50	30	< 10
2057	2	56	270	60	160	160	60	24	24	< 50	< 50	< 30	< 10
8954 2151	< 1	12	370	25	50	38	10	4	3	< 50	< 50	< 30	< 10
2152	< 1	14	310	5	40	32	10	4	2	< 50	< 50	< 30	< 10
2153	< 1	14	360	10	70	36	5	2	1	< 50	< 50	< 30	< 10
2154	< 1	16	340	5	60	40	10	2	1	< 50	< 50	< 30	< 10
2155	< 1	18	350	15	60	44	10	2	2	< 50	< 50	< 30	10
2156	< 1	6	330	< 5	< 10	18	5	8	1	< 50	< 50	< 30	< 10
2157	1	16	330	15	20	96	30	20	15	< 50	< 50	< 30	< 10
2158	1	16	330	35	30	130	90	22	18	< 50	50	< 30	< 10
2159	< 1	2	350	15	< 10	26	5	4	2	< 50	< 50	< 30	< 10
2160	1	16	320	15	30	150	30	18	20	< 50	< 50	< 30	< 10
2161	< 1	2	470	< 5	< 10	30	10	4	4	< 50	< 50	< 30	< 10
2162	1	12	330	25	20	100	30	20	17	< 50	< 50	< 30	< 10
2163	< 1	6	360	25	< 10	36	10	8	4	< 50	< 50	< 30	< 10
2164	< 1	10	230	5	< 10	82	20	6	6	< 50	< 50	< 30	< 10
2165	< 1	8	220	5	< 10	74	15	6	5	< 50	< 50	< 30	< 10
2166	2	24	280	15	70	150	40	20	20	< 50	< 50	< 30	< 10
2167	2	20	280	100	30	92	85	26	17	< 50	< 50	< 30	< 10
2168	2	30	250	190	60	140	55	30	22	< 50	< 50	30	< 10
2169	2	26	320	140	60	160	180	26	19	< 50	< 50	30	10
2170	2	20	260	15	30	190	50	24	19	50	< 50	30	< 10
2171	2	22	230	5	40	200	50	32	21	< 50	< 50	< 30	< 10
2172	1	18	280	< 5	30	110	35	26	14	< 50	< 50	< 30	< 10
2173	2	18	220	5	40	120	35	32	16	< 50	< 50	< 30	< 10
2174	2	20	280	25	30	120	50	40	21	< 50	< 50	< 30	< 10
8927 2201	< 1	10	340	< 5	< 10	38	10	8	4	< 50	50	< 30	10

DATE : MAR-31-1989

SIGNED :

*Daniel J. Bilish*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 3  
 T.S.L. File No. : C:\SC\M5481.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Ca	Cr	Cu	Ni	V	Zn	Y	Sc	Th	Sn	W	Mo
2202	2	22	260	30	50	170	35	22	22	< 50	50	< 30	< 10
2203	3	82	320	60	120	180	20	30	27	< 50	< 50	< 30	< 10
2204	3	52	300	55	80	170	85	36	26	< 50	< 50	< 30	< 10
2205	2	30	320	20	60	230	30	30	23	< 50	< 50	< 30	< 10
2206	< 1	10	300	5	< 10	22	5	4	3	< 50	< 50	< 30	< 10
2207	< 1	8	310	< 5	10	36	10	2	2	50	< 50	< 30	< 10
2208	< 1	8	510	5	< 10	28	15	6	2	< 50	< 50	< 30	< 10
2209	< 1	6	280	15	< 10	16	5	4	2	< 50	< 50	< 30	< 10
2210	< 1	4	290	< 5	< 10	12	10	< 2	1	< 50	< 50	< 30	< 10
2211	< 1	6	250	40	10	16	15	4	< 1	< 50	< 50	< 30	< 10
2212	< 1	< 2	350	20	< 10	18	10	2	2	< 50	< 50	< 30	< 10
2213	< 1	< 2	370	15	< 10	12	5	2	2	< 50	< 50	< 30	< 10
2214	< 1	< 2	320	15	< 10	16	5	2	2	< 50	50	< 30	< 10
2215	< 1	< 2	390	< 5	< 10	8	5	2	2	< 50	< 50	< 30	< 10
2216	< 1	6	310	< 5	10	38	10	6	4	< 50	< 50	30	< 10
2217	1	10	380	35	10	78	15	6	7	< 50	< 50	< 30	< 10
2218	1	22	300	20	60	180	35	18	19	50	< 50	< 30	< 10
2219	1	18	200	20	50	88	35	12	16	50	< 50	< 30	< 10
2220	< 1	12	220	5	10	24	10	2	3	< 50	< 50	< 30	< 10
2221	< 1	72	65	65	< 10	700	100	8	29	50	< 50	< 30	< 10

DATE : MAR-31-1989

SIGNED :

*Daniel J. Belushi*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 4  
T.S.L. File No. : C:\SC\M5481.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Aq	Bi
B928 2023	< 10	< 50
2024	< 10	< 50
2025	< 10	< 50
2026	< 10	< 50
2027	< 10	< 50
2028	< 10	< 50
2029	< 10	< 50
2030	< 10	< 50
2031	< 10	< 50
2032	< 10	< 50
2033	< 10	< 50
2034	< 10	50
2035	< 10	< 50
2036	< 10	< 50
2037	< 10	< 50
2038	< 10	< 50
2039	< 10	< 50
2040	< 10	< 50
2041	< 10	< 50
2042	< 10	< 50
2043	< 10	< 50
2044	< 10	< 50
2045	< 10	< 50
2046	< 10	50
2047	< 10	< 50
2048	< 10	< 50
2049	< 10	< 50
2050	< 10	< 50
B926 2051	< 10	< 50
2052	< 10	< 50

DATE : MAR-31-1989

SIGNED :

David J. Bilush

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIOT.S.L. REPORT No. : M - 5481 - 5  
T.S.L. File No. : C:\SC\M5481.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Ag	Bi
2053	< 10	< 50
2054	< 10	< 50
2055	< 10	< 50
2056	< 10	< 50
2057	< 10	< 50
8954 2151	< 10	< 50
2152	< 10	< 50
2153	< 10	< 50
2154	< 10	< 50
2155	< 10	< 50
2156	< 10	< 50
2157	< 10	< 50
2158	< 10	< 50
2159	< 10	< 50
2160	< 10	< 50
2161	< 10	< 50
2162	< 10	< 50
2163	< 10	< 50
2164	< 10	< 50
2165	< 10	< 50
2166	< 10	< 50
2167	< 10	< 50
2168	< 10	< 50
2169	< 10	< 50
2170	< 10	< 50
2171	< 10	< 50
2172	< 10	< 50
2173	< 10	< 50
2174	< 10	< 50
8927 2201	< 10	< 50

DATE : MAR-31-1989

SIGNED :



**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
TELEPHONE : (416) 625 - 1544  
FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**  
Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5481 - 6  
T.S.L. File No. : C:\SC\M5481.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Ag	Bi
2202	< 10	< 50
2203	< 10	< 50
2204	< 10	< 50
2205	< 10	< 50
2206	< 10	< 50
2207	< 10	50
2208	< 10	50
2209	< 10	< 50
2210	< 10	< 50
2211	< 10	< 50
2212	< 10	< 50
2213	< 10	< 50
2214	< 10	< 50
2215	< 10	< 50
2216	< 10	< 50
2217	< 10	< 50
2218	< 10	50
2219	< 10	< 50
2220	< 10	< 50
2221	< 10	50

DATE : MAR-31-1989

SIGNED : *Daniel J. Bilinski*



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5477 - 1

T.S.L. File No. : C:\SC\5477.MIN

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	Sn	W	Mo
2001	< 1	8	450	5	10	30	10	4	1	< 50	< 50	< 30	< 10
2002	< 1	6	350	10	10	16	5	2	1	< 50	< 50	< 30	< 10
2003	< 1	10	350	5	10	28	10	2	2	< 50	< 50	< 30	< 10
2004	< 1	2	320	10	10	18	5	4	2	< 50	< 50	< 30	< 10
2005	< 1	2	400	< 5	20	12	5	2	1	< 50	< 50	< 30	< 10
2006	< 1	2	340	5	10	16	5	2	3	< 50	< 50	< 30	< 10
8928 2007	1	12	230	10	40	90	35	12	16	< 50	< 50	< 30	< 10
2008	< 1	10	230	< 5	40	48	20	10	9	< 50	< 50	< 30	< 10
8928 2009	< 1	6	320	< 5	10	20	15	2	4	< 50	< 50	< 30	< 10
8928 2010	< 1	4	300	< 5	20	12	5	2	2	< 50	< 50	< 30	< 10
8928 2011	< 1	8	310	< 5	10	10	10	4	2	< 50	< 50	< 30	20
8928 2012	< 1	8	340	< 5	10	10	10	< 2	1	50	< 50	< 30	< 10
8928 2013	< 1	8	390	< 5	20	14	10	< 2	2	50	< 50	< 30	10
8928 2014	< 1	6	430	< 5	20	22	5	4	2	< 50	< 50	< 30	< 10
8928 2015	1	16	270	< 5	40	54	15	10	7	< 50	< 50	< 30	< 10
8928 2016	1	12	260	< 5	20	34	15	10	6	< 50	< 50	< 30	< 10
8928 2017	1	14	310	5	30	40	15	10	5	< 50	< 50	< 30	< 10
8928 2018	1	14	320	< 5	30	40	15	12	6	< 50	< 50	< 30	< 10
8928 2019	1	10	310	10	10	32	15	8	3	< 50	< 50	< 30	< 10
8928 2020	< 1	6	400	< 5	10	14	5	2	2	< 50	< 50	< 30	< 10
8928 2021	1	4	420	< 5	30	16	10	8	2	< 50	< 50	< 30	< 10
8928 2022	< 1	4	340	< 5	10	12	10	4	1	< 50	< 50	< 30	< 10
8950 2101	< 1	6	410	< 5	10	14	10	2	2	< 50	< 50	< 30	< 10
8950 2102	< 1	4	360	< 5	10	8	5	2	1	< 50	< 50	< 30	< 10
8950 2103	< 1	6	400	5	10	16	10	< 2	1	50	< 50	< 30	< 10
8950 2104	< 1	8	360	10	< 10	18	10	< 2	1	< 50	< 50	< 30	< 10
8950 2105	< 1	8	460	< 5	40	22	10	2	1	50	< 50	< 30	< 10
8950 2106	< 1	10	320	< 5	20	22	10	2	2	50	< 50	< 30	< 10
8950 2107	1	16	420	< 5	20	40	15	4	4	50	< 50	< 30	< 10
8950 2108	< 1	8	400	120	30	16	10	2	1	< 50	< 50	< 30	< 10

DATE : MAR-31-1989

SIGNED :

*Daniel J. Bilush*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5477 - 2  
T.S.L. File No. : C:\SC\5477.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	Sn	W	Mo
8950 2109	1	10	470	< 5	10	20	10	2	2	< 50	< 50	< 30	< 10
8950 2110	1	10	390	< 5	30	22	10	2	2	< 50	< 50	< 30	< 10
8950 2111	1	14	500	< 5	10	30	10	4	1	< 50	< 50	< 30	< 10
8950 2112	1	14	350	< 5	10	18	5	4	3	< 50	< 50	< 30	< 10
8950 2113	1	18	520	10	20	44	15	4	3	< 50	< 50	< 30	< 10
8950 2114	3	26	320	65	60	150	45	22	24	< 50	< 50	< 30	< 10
8950 2115	3	28	280	50	70	160	40	26	24	< 50	< 50	< 30	< 10
8950 2116	3	26	300	40	70	100	30	30	22	< 50	< 50	< 30	< 10
8950 2117	3	28	270	65	70	120	40	32	26	< 50	< 50	< 30	< 10
8950 2118	2	38	310	20	70	98	40	26	16	< 50	< 50	< 30	< 10
8950 2119	2	28	260	27	43	65	11	18	7	< 50	< 50	< 30	< 10

DATE : MAR-31-1989

SIGNED :

*Daniel J. Balash*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5477 - 3  
T.S.L. File No. : C:\SC\5477.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Ag	Bi
2001	< 10	< 50
2002	< 10	< 50
2003	< 10	< 50
2004	< 10	50
2005	< 10	< 50
2006	< 10	< 50
8928 2007	< 10	< 50
2008	< 10	< 50
8928 2009	< 10	< 50
8928 2010	< 10	< 50
8928 2011	< 10	< 50
8928 2012	< 10	< 50
8928 2013	< 10	< 50
8928 2014	< 10	< 50
8928 2015	< 10	< 50
8928 2016	< 10	< 50
8928 2017	< 10	< 50
8928 2018	< 10	< 50
8928 2019	< 10	< 50
8928 2020	< 10	< 50
8928 2021	< 10	< 50
8928 2022	< 10	< 50
8950 2101	< 10	< 50
8950 2102	< 10	< 50
8950 2103	< 10	50
8950 2104	< 10	< 50
8950 2105	< 10	< 50
8950 2106	< 10	< 50
8950 2107	< 10	< 50
8950 2108	< 10	< 50

DATE : MAR-31-1989

SIGNED :

*Samuel J. Bilush*

**TECHNICAL SERVICE LABORATORIES**

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

**I.C.A.P. ANALYSIS**

Minor Elements by Fusion

JAMES BAY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5477 - 4  
T.S.L. File No. : C:\SC\5477.MIN  
T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Ag	Bi
8950 2109	< 10	< 50
8950 2110	< 10	< 50
8950 2111	< 10	< 50
8950 2112	< 10	< 50
8950 2113	< 10	< 50
8950 2114	< 10	< 50
8950 2115	< 10	< 50
8950 2116	< 10	< 50
8950 2117	< 10	< 50
8950 2118	< 10	< 50
8950 2119	< 10	< 50

DATE : MAR-31-1989

SIGNED :

*Naming J. Bilinski*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 1  
 T.S.L. File No. : 28APR . 01MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8926 2058	52.29	25.12	1.42	.73	.40	.17	< .10	1.12	.02	.11	172	47	220	18.38	99.83
2059	50.72	25.93	1.52	.57	.34	.09	.12	1.14	.01	.11	178	46	199	20.13	100.74
2060	56.35	24.02	1.18	.43	.28	.08	.22	1.22	.01	.11	185	46	299	15.55	99.52
2601	79.64	11.31	1.88	.11	.09	.03	< .10	.90	< .01	.11	104	21	486	6.34	100.52
2062	76.78	14.45	1.37	.10	.07	.03	.18	.74	.02	.07	73	14	275	6.43	100.29
2063	63.46	23.68	1.38	.17	.14	.05	.17	.88	.01	.09	132	23	178	9.81	99.87
2064	67.19	16.44	5.57	.48	.09	.04	.40	.76	.02	.08	125	18	272	9.22	100.34
2065	62.74	22.48	2.35	.24	.11	.05	.54	.95	.02	.09	147	20	389	10.22	99.86
2066	54.56	28.84	1.26	.21	.20	.05	1.16	1.02	< .01	.12	178	33	215	12.58	100.06
2067	62.51	23.96	.92	.14	.14	.04	1.10	1.01	< .01	.10	139	24	349	10.12	100.12
2068	76.04	12.59	.91	.35	.14	.21	.81	.56	.01	.08	171	34	167	6.21	97.95
2069	64.26	22.30	1.65	.17	.16	.07	.50	.92	.01	.11	175	28	285	10.40	100.61
2070	52.05	30.11	1.61	.28	.31	.06	.84	1.10	.01	.13	193	33	203	13.57	100.12
2071	55.19	27.38	1.29	.35	.35	.09	.98	1.28	< .01	.12	190	41	260	11.96	99.06
2072	59.61	23.35	1.54	.27	.31	.03	< .10	1.24	.02	.07	204	31	329	13.54	100.04
2073	89.54	5.32	.80	< .02	.06	< .01	< .10	.26	< .01	.02	77	< 10	124	2.12	98.16
2074	93.37	2.72	.36	< .02	< .02	< .01	< .10	.10	< .01	< .01	53	< 10	88	1.26	97.84
2075	90.62	5.19	.52	< .02	< .02	< .01	< .10	.20	< .01	.02	60	< 10	89	2.42	99.01
2076	94.57	2.95	.47	< .02	< .02	< .01	< .10	.13	< .01	.01	46	< 10	64	1.65	99.81
2077	93.18	3.36	.84	< .02	< .02	< .01	< .10	.09	< .01	.02	47	< 10	57	1.91	99.43
2078	92.00	3.49	1.08	.31	.11	.15	.15	.37	.02	.04	68	17	281	1.52	99.29
2079	93.27	3.06	.65	.07	.03	.05	.38	.08	< .01	.03	72	13	61	1.55	99.20
2080	73.23	17.89	.68	.19	.07	.04	.25	.54	< .01	.08	148	47	442	7.48	100.55
2081	91.61	4.75	.76	.03	< .02	.01	.44	.18	< .01	.03	76	11	145	2.13	100.00
2082	93.21	4.24	.65	< .02	< .02	< .01	.24	.16	< .01	.03	89	11	140	1.72	100.31
2083	86.09	8.05	1.41	.04	.04	.02	.45	.43	.01	.05	102	14	242	3.65	100.28
2084	91.62	4.49	.88	< .02	.02	< .01	.14	.58	.01	.04	81	< 10	494	1.98	99.84
2085	87.73	6.04	.85	< .02	.04	.02	.42	.64	.01	.05	101	14	563	2.84	98.75
2086	92.26	3.84	.81	< .02	< .02	< .01	.13	.44	< .01	.04	71	< 10	378	2.05	99.66
2087	93.43	3.17	1.07	.03	< .02	< .01	.35	.14	< .01	.03	60	< 10	90	1.85	100.12

DATE : 04-MAY-1989

SIGNED : *Daniel J. Bilish*  
 Mr Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 2  
 T.S.L. File No. : 28APR . 01MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2088	89.02	3.21	2.64	.48	.19	.10	.38	.11	.02	.04	86	19	50	2.28	98.49
2089	87.42	3.95	3.30	.14	.04	.04	.53	.16	.02	.04	99	15	95	4.42	100.08
2090	55.94	26.64	1.86	.31	.20	.06	.56	1.09	.02	.10	176	37	250	13.51	100.34
2091	80.78	9.74	2.72	.15	.07	.02	.59	.39	.03	.06	101	19	117	5.55	100.13
2092	61.59	22.70	1.86	.29	.20	.05	.73	.88	.01	.10	155	31	197	11.68	100.14
2093	58.90	24.27	1.87	.30	.21	.04	.53	.93	.01	.11	151	35	204	12.05	99.27
8927 2222	93.06	3.64	.39	< .02	< .02	.01	.27	.14	< .01	.04	24	< 10	61	1.33	98.90
2223	91.69	4.69	.48	< .02	< .02	.01	.14	.16	< .01	.04	40	< 10	75	1.83	99.07
2224	92.87	3.86	.51	< .02	< .02	.02	.19	.14	< .01	.04	39	< 10	71	1.67	99.33
2225	55.33	28.99	1.98	.13	.18	.05	.64	1.06	< .01	.13	193	25	215	11.42	99.97
8927 2226	90.72	4.93	.88	.74	.39	.19	< .10	.14	.02	.06	69	24	57	2.03	100.12
2227	54.71	29.32	1.80	.30	.24	.09	.48	1.09	< .01	.13	194	34	174	12.12	100.33
2228	64.07	22.74	2.14	.39	.32	.08	.31	1.27	.01	.12	167	46	391	9.18	100.71
2229	85.67	8.76	.63	.12	.10	.03	< .10	.67	< .01	.06	100	14	400	3.69	99.80
2230	93.15	3.89	.39	.04	.02	.01	< .10	.24	< .01	.04	56	< 10	155	1.87	99.73
2231	93.55	3.42	.38	.06	.02	.02	< .10	.12	< .01	.04	70	15	72	1.63	99.30
2232	92.27	3.70	.46	.06	< .02	.01	.16	.11	< .01	.04	73	16	60	1.89	98.74
2233	91.92	5.21	.40	.04	< .02	.01	.11	.13	< .01	.04	78	20	83	2.55	100.45
2234	91.62	3.84	.42	.08	< .02	.01	< .10	.14	< .01	.04	78	15	72	2.00	98.23
2235	93.42	4.08	.42	.05	< .02	.01	< .10	.17	< .01	.04	69	13	93	2.34	100.63
2236	91.11	5.01	.84	.08	.05	.02	< .10	.20	< .01	.04	105	39	81	1.89	99.34
2237	94.03	3.79	.36	.05	.02	< .01	< .10	.16	< .01	.03	49	10	93	1.94	100.50
8998 2251	90.26	4.18	.72	1.15	.30	.16	< .10	.21	< .01	.04	75	32	124	3.02	100.17
2252	93.81	3.41	.47	.09	.03	.02	< .10	.18	< .01	.03	44	12	102	1.88	99.94
2253	91.77	3.53	.39	.05	< .02	< .01	< .10	.16	< .01	.03	52	11	74	1.75	97.72
2254	94.22	2.40	.35	< .02	< .02	< .01	< .10	.10	< .01	.02	33	< 10	53	1.36	98.52
2255	94.03	3.33	.49	.07	.04	.02	< .10	.16	< .01	.03	32	< 10	90	1.78	99.98
2256	91.26	3.51	.64	.08	.02	< .01	.11	.56	< .01	.04	48	< 10	331	1.96	98.25
2257	93.22	3.78	.46	.05	< .02	< .01	< .10	.21	< .01	.03	47	< 10	141	2.10	99.97
2258	93.10	2.68	.45	.14	.04	.02	.10	.09	< .01	.03	40	10	61	1.76	98.43

DATE : 04-MAY-1989

SIGNED : *David J. Belush*  
 for Adrian H. Dobnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 3  
 T.S.L. File No. : 28APR , 01MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2259	92.95	3.58	.55	.32	.11	.15	.14	.13	.02	.04	63	17	79	1.58	99.59
2260	92.61	3.34	.38	.11	.03	.03	.12	.16	< .01	.03	74	< 10	63	1.67	98.51
2261	93.46	3.66	.48	.10	.03	.03	< .10	.17	< .01	.04	37	< 10	66	1.76	99.76
2262	92.27	4.18	.42	.08	.03	.04	< .10	.14	< .01	.04	39	13	67	1.98	99.25
2263	93.67	3.36	.34	.06	< .02	< .01	< .10	.15	< .01	.03	69	12	56	1.53	99.18
2264	70.53	17.76	2.63	.16	.22	.05	.56	1.12	.01	.10	183	37	354	7.32	100.53
8988 2601	92.57	3.77	.90	.20	.07	.04	.17	.23	< .01	.04	38	11	101	1.79	99.80
2602	92.51	2.61	1.72	.29	< .02	< .01	.12	.12	.02	.04	43	< 10	56	2.07	99.52
8989 2701	92.86	3.11	.57	.90	.28	.12	.44	.15	< .01	.03	56	23	87	2.22	100.71
2702	57.90	26.86	1.65	.27	.21	.06	.62	1.06	< .01	.12	227	44	149	11.71	100.53
8989 2703	84.90	6.80	1.05	.51	.29	.12	.79	.55	.02	.07	99	28	231	3.66	100.80
2704	88.35	6.39	.46	.12	.05	.04	.59	.39	< .01	.05	79	17	184	2.81	99.29
2705	92.24	3.67	.48	.09	.04	.03	.60	.15	< .01	.05	41	10	83	1.67	99.04
2706	59.99	25.21	1.18	.25	.15	.06	.84	1.26	< .01	.12	160	41	252	11.01	100.13
2707	60.05	25.69	1.21	.30	.16	.08	.47	1.52	< .01	.13	138	40	303	10.75	100.43
2708	93.32	4.01	.50	.08	.05	.03	.64	.54	< .01	.05	78	12	221	1.37	100.64
2709	93.30	3.12	.45	.11	.02	.03	.78	.19	< .01	.05	55	14	108	1.40	99.48
2710	94.52	3.07	.27	.07	< .02	.02	.44	.08	< .01	.04	54	14	71	1.42	99.98
2711	95.34	2.27	.47	.12	.03	.03	.83	.11	< .01	.04	41	14	75	1.35	100.61
2712	93.24	3.21	.27	.06	< .02	.02	.80	.38	< .01	.04	45	11	195	1.61	99.70
8989 2713	92.07	3.27	.32	.19	.08	.07	< .10	.20	< .01	.03	86	15	90	1.54	97.81
2714	54.09	26.46	6.34	.22	.19	.05	.49	1.02	.01	.13	207	35	192	11.50	100.55
2715	91.02	4.86	1.38	.14	.07	.02	< .10	.23	< .01	.04	41	13	84	2.27	100.05
2716	71.25	16.53	2.80	.21	.16	.04	< .10	1.25	.02	.09	283	36	387	7.56	100.04
2717	91.68	4.47	.93	.08	.04	< .01	< .10	.31	< .01	.04	25	12	109	2.42	100.00
2718	63.60	21.25	4.41	.31	.22	.04	.29	1.07	.01	.11	153	44	275	8.91	100.29
2719	93.25	3.26	.85	.11	.03	< .01	< .10	.17	< .01	.04	14	< 10	73	2.05	99.77
2720	79.23	12.24	1.01	.16	.11	.02	.21	.71	< .01	.07	84	28	281	5.59	99.41
2721	95.89	1.99	.39	.11	.02	< .01	< .10	.15	< .01	.03	11	< 10	84	1.41	100.00
2722	93.51	2.78	.39	.10	< .02	< .01	< .10	.16	< .01	.03	< 10	< 10	78	1.96	98.95

DATE : 04-MAY-1989

SIGNED : *Danilf-Bulish*  
 per Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 4  
 T.S.L. File No. : 28APR , 01MAY  
 T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL		
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%		
2723	84.07	8.42	.77	.10	.72	.01 <	.10	.55	.01	.05	42	16	284	3.63	98.46		
2724	83.05	9.01	.82	.14	.17	.01 <	.10	.69 <	.01	.04	52	14	362	4.16	98.26		
2725	83.72	10.27	.65	.10	.09	.02 <	.10	.74 <	.01	.05	61	11	321	4.72	100.48		
2726	95.85	2.79	.26	.10	.08 <	.01 <	.10	.21 <	.01	.03	20 <	<	10	121	1.53	100.87	
8986 2752	94.05	2.85	.40 <	.02 <	.02 <	.01 <	.10	.23 <	.01	.03 <	<	10	<	10	154	1.30	98.94
2753	95.09	2.39	.28	.09	.03 <	.01 <	.10	.12 <	.01	.02 <	<	10	<	10	75	1.15	99.18
2754	95.38	2.46	.30 <	.02 <	.02 <	.01 <	.10	.11 <	.01	.03	18 <	<	10	87	1.21	99.53	
2755	92.75	4.67	.28	.05 <	.02 <	.01 <	.10	.21 <	.01	.03	29	10	93	2.26	100.33		
2756	94.83	2.87	.42 <	.02 <	.02 <	.01 <	.10	.12 <	.01	.02	11 <	<	10	65	1.82	100.12	
2757	64.53	22.40	.89	.22	.14	.04	.19	.91 <	.01	.07	99	25	205	9.36	98.80		
2758	90.66	4.19	.39	.30	.10	.05 <	.10	.21 <	.01	.04	21	10	98	1.80	97.80		
2759	74.67	14.79	1.13	.15	.08	.02 <	.10	.87	.01	.05	76	17	355	6.11	97.99		
2760	92.06	4.27	.29	.04	.03 <	.01 <	.10	.25 <	.01	.03 <	<	10	<	10	90	2.04	99.02
2761	92.75	3.80	.27	.08 <	.02 <	.01 <	.10	.18 <	.01	.03	16 <	<	10	64	1.90	99.05	
2762	93.56	3.19	.26	.02 <	.02 <	.01 <	.10	.17 <	.01	.03 <	<	10	<	10	60	1.41	98.66
2763	59.75	25.90	1.58	.18	.13	.03	.36	.91	.01	.08	154	23	195	10.38	99.36		
2764	89.13	6.84	.32	.03	.02 <	.01 <	.10	.25 <	.01	.04	43	10	103	2.53	99.17		
2765	69.71	18.52	.82	.15	.12	.02	.22	.72 <	.01	.07	120	20	182	7.62	98.00		
2766	90.17	5.40	.64	.04	.03 <	.01 <	.10	.24 <	.01	.04	27 <	<	10	98	2.46	99.05	
2767	67.77	20.81	1.05	.25	.22	.05	.23	1.33 <	.01	.09	176	41	319	8.41	100.28		
2768	71.79	17.98	1.02	.18	.92	.04	.40	1.02 <	.01	.07	122	31	338	6.90	100.39		
2769	83.15	10.86	.69	.13	.22	.01 <	.10	.69 <	.01	.05	62	17	312	4.40	100.31		
2770	84.30	8.66	.64	.13	.14	.02	.21	.80 <	.01	.05	66	14	517	3.80	98.84		
2771	93.45	4.36	.20	.07	.03 <	.01 <	.10	.25 <	.01	.04	114	10	128	2.01	100.59		
8987 2801	94.13	2.29	.27	.10	.05 <	.01 <	.10	.12 <	.01	.04 <	<	10	<	10	99	1.16	98.40
2802	95.91	2.23	.24	.04 <	.02 <	.01 <	.10	.11 <	.01	.03	45 <	<	10	68	1.08	99.67	
2803	94.12	2.89	.41	.15	.04	.01 <	.10	.17 <	.01	.03	13 <	<	10	92	1.30	99.17	
2804	94.87	2.81	.25	.07	.02 <	.01 <	.10	.09 <	.01	.03	21 <	<	10	72	1.40	99.61	
2805	94.56	2.56	.28	.03	.02 <	.01 <	.10	.06 <	.01	.03	23	13	32	1.22	98.76		
2806	95.91	2.40	.37	.09 <	.02	.02	.22	.07 <	.01	.02	63	16	45	1.08	100.20		

DATE : 04-MAY-1989

SIGNED : *Adrian H. Debnam*  
 for Adrian H. Debnam Ph.D.



# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 5

T.S.L. File No. : 28APR . 01MAY

T.S.L. Invoice No. :

YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
8987 2807	90.21	5.38	.43	.35	.17	.11	.18	.21	.01	.04	75	21	104	1.80	98.91
2808	93.27	4.16	.33	.19	.03	.02	< .10	.21	< .01	.03	56	13	86	1.64	99.90
2809	95.23	2.77	.23	.04	< .02	.02	< .10	.11	< .01	.03	56	< 10	50	1.27	99.72
2810	90.61	4.88	.32	.19	.03	.02	< .10	.25	< .01	.03	66	11	110	2.01	98.44
2811	93.86	3.04	.33	.05	< .02	.02	.14	.07	< .01	.03	56	10	44	1.31	98.87
2812	89.18	6.89	.45	.11	.03	.03	.29	.26	< .01	.04	92	23	86	2.84	100.14
2813	93.84	2.77	.45	.36	.09	.02	.14	.08	< .01	.03	61	11	56	1.35	99.15
2814	56.27	28.46	2.40	.21	.16	.07	.53	1.12	< .01	.09	164	38	187	11.21	100.58
2815	93.96	2.95	.59	.03	< .02	.01	< .10	.08	< .01	.03	47	< 10	45	1.36	99.07
2816	59.82	25.37	2.28	.19	.13	.07	.39	1.04	.01	.08	176	32	232	10.32	99.75
2817	94.71	3.53	.19	< .02	< .02	< .01	< .10	.14	< .01	.03	42	14	68	1.47	100.08
2818	92.67	3.74	.24	.04	< .02	.02	< .10	.13	< .01	.02	58	11	65	1.67	98.55
2819	91.54	4.43	.41	.06	< .02	.02	< .10	.18	< .01	.03	84	14	85	2.05	98.82
8953 2851	88.20	4.11	.62	2.05	.55	.25	.22	.22	< .01	.04	90	41	104	3.59	99.88
2852	95.52	3.29	.38	.07	< .02	.01	< .10	.08	< .01	.02	30	< 10	55	1.50	100.89
2853	68.73	19.94	1.19	.70	.24	.11	.32	.80	< .01	.06	140	39	158	8.33	100.47
2854	56.81	20.45	1.91	4.63	1.41	.71	.94	.86	.02	.08	251	112	139	12.05	99.93
2855	55.41	25.81	1.21	.51	.22	.08	.43	1.24	< .01	.07	180	46	178	15.83	100.87
2856	51.90	22.77	1.21	.59	.20	.06	.29	1.09	< .01	.07	158	45	195	21.97	100.23
2857	93.73	4.14	.39	.08	< .02	.01	< .10	.22	< .01	.03	48	< 10	73	2.04	100.66
2858	94.83	2.75	.86	.27	.02	.08	< .10	.16	.02	.03	47	13	77	1.61	100.74
2859	94.67	2.59	.38	.07	< .02	.03	< .10	.24	< .01	.03	50	< 10	110	1.35	99.39
2860	90.91	5.25	.48	.18	.03	.07	< .10	.29	< .01	.04	69	17	115	2.13	99.42
2861	92.21	5.21	.20	.06	< .02	.02	< .10	.33	< .01	.02	66	< 10	147	2.19	100.29
2862	93.43	3.37	.24	.04	< .02	.02	< .10	.16	< .01	.03	56	< 10	93	1.38	98.72
2863	93.83	3.44	.36	.07	< .02	.02	.10	.16	< .01	.03	52	10	89	1.60	99.63
2864	62.12	25.06	1.46	.24	.18	.08	.47	1.12	< .01	.09	185	44	208	9.66	100.55
2865	93.60	2.94	.30	.08	< .02	< .01	< .10	.12	< .01	.03	49	< 10	63	1.38	98.49
2866	91.82	5.25	.56	.12	< .02	.02	< .10	.27	< .01	.03	81	14	137	2.53	100.70
2867	69.16	20.28	1.25	.20	.10	.06	.28	.94	.01	.07	150	33	220	8.00	100.40

DATE : 04-MAY-1989

SIGNED :

*Daniel J. Bulish*  
for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## ICAP WHOLE ROCK ANALYSIS

JAMES BAY COMPANY  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 6  
 T.S.L. File No. : 28APR . 01MAY  
 T.S.L. Invoice No. :

### YOUR REFERENCE-

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	%	%
2868	83.76	9.83	1.15	.43	.20	.09	.26	.54	.02	.05	103	28	167	4.06	100.42
2869	90.59	4.00	1.24	.32	< .02	.03	.12	.20	.02	.03	87	10	95	2.13	98.72
2870	94.88	2.83	.57	.16	< .02	.02	< .10	.31	< .01	.03	90	15	201	1.42	100.29
2871	69.09	19.46	1.08	.49	.17	.08	.44	.86	< .01	.07	122	37	190	8.15	99.94
8999 2901	96.22	2.76	.31	.04	< .02	< .01	< .10	.20	< .01	.03	56	< 10	113	1.22	100.84
2902	94.14	2.94	.20	.06	< .02	.01	.14	.16	< .01	.03	68	< 10	76	1.15	98.85
2903	93.90	3.04	.29	.10	< .02	.02	.22	.27	< .01	.03	43	< 10	157	1.32	99.21
2904	95.84	2.61	.29	.04	< .02	.01	< .10	.11	< .01	.03	45	< 10	72	1.14	100.15
2905	92.64	3.35	.26	.04	< .02	< .01	.26	.25	< .01	.03	61	< 10	143	1.39	98.26
2906	91.96	3.22	.75	.16	< .02	< .01	.12	.11	.01	.03	49	< 10	68	1.66	98.05
8999 2907	93.36	4.10	.37	< .02	< .02	< .01	< .10	.25	< .01	.03	51	16	99	1.85	99.99
2908	93.35	3.30	.39	.26	.07	.04	< .10	.20	< .01	.03	41	< 10	86	1.63	99.34
2909	93.59	3.48	.31	.10	< .02	.02	< .10	.10	< .01	.03	34	< 10	49	1.74	99.39
2910	91.86	3.72	.33	.08	< .02	.01	< .10	.14	< .01	.03	40	< 10	70	2.09	98.38
2911	57.58	27.45	1.48	.24	.16	.06	.56	1.23	< .01	.08	206	30	252	11.05	99.95
2912	93.54	3.31	.56	.11	< .02	.02	< .10	.15	< .01	.03	43	< 10	72	1.66	99.49
2913	66.94	20.25	2.42	.30	.19	.06	.45	1.36	.01	.09	169	36	424	8.26	100.41
2914	76.65	14.56	1.20	.16	.11	.04	.35	.88	.01	.06	107	26	387	6.01	100.09
8955 2951	92.14	3.77	.50	.10	< .02	.01	.22	.15	< .01	.03	68	< 10	62	2.19	99.14
8955 2952	94.28	3.25	.33	.06	< .02	.02	.17	.20	< .01	.03	68	< 10	114	1.85	100.22
8955 2953	59.12	27.43	.87	.22	.06	.08	.16	1.38	< .01	.08	121	38	280	10.73	100.19
8955 2954	76.04	15.45	.95	.14	.05	.04	.18	1.00	< .01	.05	111	22	298	6.22	100.18

DATE : 04-MAY-1989

SIGNED :

*Daniel J. Bilish*  
 for Adrian H. Debnam Ph.D.

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2  
 TELEPHONE : (416) 625 - 1544  
 FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
 MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 1  
 T.S.L. File No. : D:M5503.MIN  
 T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
8926 2058	3	72	280	55	160	180	< 5	34	22	30	< 30	< 10	< 10
2059	3	96	300	50	210	210	< 5	36	26	< 30	< 30	< 10	< 10
2060	3	74	310	55	160	180	< 5	40	24	< 30	< 30	< 10	< 10
2601	1	58	330	450	130	110	25	18	14	< 30	< 30	< 10	< 10
2062	1	42	250	50	110	100	5	8	12	30	< 30	< 10	< 10
2063	2	34	220	60	90	140	10	8	15	< 30	< 30	< 10	< 10
2064	2	38	230	45	90	120	45	6	11	30	< 30	< 10	< 10
2065	2	34	280	50	70	150	30	10	16	60	< 30	< 10	< 10
2066	4	90	250	90	250	190	5	16	15	< 30	< 30	< 10	< 10
2067	3	36	240	65	90	180	25	14	10	60	< 30	< 10	< 10
2068	2	34	200	35	60	98	65	16	8	< 30	< 30	< 10	< 10
2069	3	76	240	55	160	140	180	26	14	< 30	< 30	< 10	< 10
2070	4	54	250	75	150	170	60	28	18	< 30	< 30	< 10	< 10
2071	4	46	270	70	120	180	< 5	26	20	30	< 30	< 10	< 10
2072	1	48	250	< 5	140	120	< 5	30	24	< 30	< 30	< 10	< 10
2073	< 1	6	280	< 5	40	10	10	6	6	< 30	< 30	< 10	< 10
2074	< 1	< 2	260	< 5	10	< 2	< 5	< 2	< 1	< 30	< 30	< 10	< 10
2075	< 1	< 2	330	< 5	10	16	< 5	4	4	< 30	< 30	< 10	< 10
2076	< 1	2	360	< 5	10	6	< 5	8	< 1	< 30	< 30	< 10	< 10
2077	< 1	4	430	< 5	10	6	< 5	4	2	30	< 30	< 10	< 10
2078	< 1	12	490	< 5	< 10	24	15	16	2	< 30	< 30	< 10	< 10
2079	< 1	8	420	< 5	20	20	< 5	< 2	1	< 30	< 30	< 10	< 10
2080	1	16	480	< 5	10	90	< 5	10	11	< 30	< 30	< 10	< 10
2081	< 1	12	360	< 5	10	30	5	8	3	< 30	< 30	< 10	< 10
2082	< 1	12	430	< 5	20	28	< 5	4	1	< 30	< 30	< 10	< 10
2083	< 1	14	570	< 5	40	54	5	6	4	< 30	< 30	< 10	< 10
2084	< 1	14	430	< 5	20	40	< 5	8	4	< 30	< 30	< 10	< 10
2085	1	18	420	< 5	20	52	5	12	6	< 30	< 30	< 10	< 10
2086	< 1	14	440	< 5	20	34	< 5	6	2	30	< 30	< 10	< 10
2087	< 1	16	340	< 5	20	24	< 5	6	2	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED : *Daniel J. Balesh*

# TECHNICAL SERVICE LABORATORIES

1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2

TELEPHONE : (416) 625 - 1544

FAX : (416) 625 - 8368

## I.C.A.P. ANALYSIS

Minor Elements by Fusion

JAMES BAY CO.  
MISS ONTARIO

T.S.L. REPORT No. : M - 5503 - 2

T.S.L. File No. : D:M5503.MIN

T.S.L. Invoice No. :

YOUR REFERENCE -

ALL RESULTS PPM

SAMPLE #	Be	Co	Cr	Cu	Ni	V	Zn	Y	Sc	Th	W	Mo	Ag
2088	< 1	30	280	< 5	60	44	10	2	4	< 30	< 30	< 10	< 10
2089	< 1	52	480	< 5	150	44	50	4	3	< 30	< 30	< 10	< 10
2090	2	150	280	50	290	170	40	16	25	30	< 30	< 10	< 10
2091	1	70	450	15	150	78	45	6	8	< 30	< 30	< 10	< 10
2092	2	52	300	40	140	150	25	20	21	< 30	< 30	< 10	< 10
2093	3	50	300	55	120	150	10	26	22	< 30	< 30	< 10	< 10
8927 2222	< 1	24	250	< 5	30	32	10	4	3	< 30	< 30	< 10	< 10
2223	< 1	28	350	< 5	20	32	5	2	4	< 30	< 30	< 10	< 10
2224	< 1	20	400	< 5	20	40	5	6	3	< 30	< 30	< 10	< 10
2225	2	32	220	65	80	160	25	34	25	< 30	< 30	< 10	< 10
8927 2226	1	12	350	70	30	40	25	12	2	< 30	30	< 10	< 10
2227	2	22	250	85	70	150	40	44	33	< 30	< 30	< 10	< 10
2228	2	26	240	55	90	140	80	34	22	< 30	< 30	< 10	< 10
2229	1	16	210	35	30	42	60	14	8	< 30	< 30	< 10	< 10
2230	< 1	10	250	10	10	20	35	2	1	30	< 30	< 10	< 10
2231	< 1	8	340	10	40	16	30	2	1	< 30	< 30	< 10	< 10
2232	< 1	8	430	5	30	28	50	2	3	< 30	< 30	< 10	< 10
2233	< 1	10	340	5	30	22	< 5	6	4	< 30	< 30	< 10	< 10
2234	< 1	14	360	25	40	46	35	6	3	< 30	< 30	< 10	< 10
2235	< 1	12	310	20	30	28	10	4	3	< 30	< 30	< 10	< 10
2236	< 1	2	280	5	40	32	25	10	4	30	< 30	< 10	< 10
2237	< 1	< 2	250	< 5	20	18	20	4	2	30	< 30	< 10	< 10
8998 2251	< 1	< 2	290	10	30	32	25	4	3	60	< 30	< 10	< 10
2252	< 1	< 2	320	< 5	20	22	15	2	3	30	< 30	< 10	< 10
2253	< 1	2	250	< 5	40	10	20	2	2	< 30	< 30	< 10	< 10
2254	< 1	< 2	330	5	10	4	< 5	4	< 1	< 30	< 30	< 10	< 10
2255	< 1	< 2	300	10	30	20	5	4	2	< 30	< 30	< 10	< 10
2256	< 1	4	550	15	40	30	40	10	3	< 30	< 30	< 10	< 10
2257	< 1	2	350	20	40	12	5	8	3	< 30	< 30	< 10	< 10
2258	< 1	< 2	290	< 5	20	8	15	4	2	< 30	< 30	< 10	< 10

DATE : MAY-04-1989

SIGNED :

*Sanjay B. Bhatia*



42J01NE0002 2.12974 KIPLING

900



Ministry of Northern Development and Mines

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

W 9006.025

Note: - If number of mining claims traversed exceeds space on this form, attach a list. - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns - Do not use shaded areas below

2.12974 Mining Act

Type of Survey(s) **BENEFICIATION** Township or Area **KIPLING-EMERSON**  
 Claim Holder(s) **798839 ONTARIO LIMITED** Prospector's License No. **T 5241**  
 Address **75 Ardell Place, Kitchener Ont. N2C 2C8**  
 Survey Company **TECHNICAL SERVICE LABORATORY** Date of Survey (from & to) **06-11-89 to 08-08-89** Total Miles of line Cut  
 Name and Address of Author (of Geo. Technical report) **D. Hillier 5770 Timberlea Blvd, Mississauga Ont. L4W 4W7**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
(For first survey) Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
(For each additional survey using the same grid) Enter 20 days (for each)	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete existing file	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	
	Radiometric	

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
P	1089062	20	P	1089081	20
	1089063	20		1089082	20
	1089064	20		1089083	20
	1089065	20		1089084	20
	1089066	20		1089085	20
	1089067	20		1089086	20
	1089068	20		1089087	20
	1089069	20		1089088	20
	1089070	20		1089089	20
	1089071	20		1089090	20
	1089072	20		1089091	20
	1089073	20		1089092	20
	1090037	20		1089093	20
	1090038	20		1089094	20
	1090039	20		1089095	20
	1090040	20		1089096	20
	1090041	20		1089097	20
	1090042	20		1089098	20
	1090043	20		1089099	20
	1090044	20		1089100	20
	1089078	20		1089101	20
	1089079	20		1089102	20
	1089080	20		1089103	20

Expenditures (excludes power stripping)

Type of Work Performed **Beneficiation - Drill core**  
 Performed on Claim(s)

MINING LANDS SECTION

Calculation of Expenditure Days Credits

Total Expenditures	Total Days Credits
\$ 13,800	920

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selector.

Date **Nov 6 / 89** Recorder Holder or Agent (Signature)

Total number of mining claims covered by this report of work. **46**

For Office Use Only

Initial Days Cr. Recorded **920** Date Recorded **Nov. 14 / 89** Mining Recorder **[Signature]**  
 Date Approved as Recorded **See revised work sheet** Branch Director **[Signature]**

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed reports are true.

Name and Postal Address of Person Certifying **D. C. Gaurley, P.O. Box 790, Kinc City Ont. L6G 1K0**

Date Certified **Oct. 6, 1989** Certifying Signature **[Signature]**

NOV

RECEIVED  
NOV 14 1989

RECEIVED

JAN 16 1990

Northern Development and Mines

(Geophysical, Geological, Geochemical and Expenditures)

Notes - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." column. Do not use shaded areas below.

Amendment to W.P. 025

mining Act

KIPLING-EMERSON  
Prospector Licence No. T 5241

Type of Survey: **BENEFICIATION**

Claim Holder(s): **798839 ONTARIO LIMITED**

Address: **75 Ardell Place, Kitchener Ont. N3F 2E8**

Survey Company: **TECHNICAL SERVICE LABORATORY**

Name and Address of Author of Use-Technical Report: **D. Hillier - 5770 Timbertox Plnd, Kitchener Ont. N2C 1A1**

Date of Survey (From & To): **9/03/89 - 31/08/89**

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim	Mining Claim		Mining Claim		Expend Days Cr.
			Priority	Number	Priority	Number	
For first survey: Enter 40 days. (This includes line cutting)	Electromagnetic		P	1089062	7	1089081	20
	Magnetometer			1089063		1089082	20
	Radiometric			1089064		1089083	20
	Other			1089065		1089084	20
	Geological			1089066		1089085	20
	Geochemical			1089067		1089086	20
				1089068		1089087	20
				1089069		1089088	20
				1089070		1089089	20
				1089071		1089090	20
For each additional survey: using the same grid: Enter 20 days (for each)	Electromagnetic			1089072		1089091	20
	Magnetometer			1089073		1089092	20
	Radiometric			1090037		1089093	20
	Other			1090038		1089094	20
	Geological			1090039		1089095	20
	Geochemical			1090040		1089096	20
				1090041		1089097	20
				1090042		1089098	20
				1090043		1089099	20
				1090044		1089100	20
Airborne Credits	Electromagnetic			1089078		1089101	20
	Magnetometer			1089079		1089102	20
	Radiometric			1089080		1089103	20

Expenditures (excludes power stripping)

Type of Work Performed: **Beneficiation - Drill core**

Performed on Claim(s): **P825797, P825798, P825802, P825805**

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 13,800**

Total Days Credits: **920**

$13,800 \div 15 = 920$

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim in column at right.

Date: **Nov. 6 1989**

Recorded (Mining Agent/Inspector): *[Signature]*

Total number of mining claims covered by this report of work: **46**

For Office Use Only

Total Days Cr. Recorded: \_\_\_\_\_ Date Recorded: \_\_\_\_\_ Mining Recorder: \_\_\_\_\_

Date Approved as Recorded: \_\_\_\_\_ Director: \_\_\_\_\_

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work, and on hereof, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **A.C. GOURLEY, P.O. Box 794, King City Ont. L0G 1K0**

Date Certified: **Oct. 16, 1989**

Signature: *[Signature]*



Ministry of Northern Development and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

W. 9006-026

2.12974

Mining Act

Instructions: - Please type or print. - If number of mining claims traversed exceeds space on this form, attach a list. Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. Do not use shaded areas below.

Form header with fields: Type of Survey(s) BENEFICIATION, Claim Holder(s) 798839 ONTARIO LIMITED, Address 75 Ardell Place, Kitchener Ont., Survey Company TECHNICAL SERVICE LABORATORY, Date of Survey (from to) 06-19-89 to 08-03-89, Name and Address of Author (of Geo-Technical report) D. Hillier 5770 Timbena Blvd Mississauga ON.

Credits Requested per Each Claim in Columns at right

Table with columns: Special Provisions, Geophysical, Geological, Geochemical, Days per Claim. Includes sections for 'For first survey' and 'For each additional survey'.

Mining Claims Traversed (List in numerical sequence)

Table with columns: Mining Claim Prefix, Mining Claim Number, Expend. Days Cr., Mining Claim Prefix, Mining Claim Number, Expend. Days Cr. Lists claims 1089104 through 1089111.

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JAN 16 1990

MINING LANDS SECTION

NOV 14 1989

Expenditures (excludes power stripping)

Type of Work Performed: Beneficiation - Drill Core

Performed on Claim(s):

Calculation of Expenditure Days Credits: Total Expenditures \$ 2,400. + 15 = 160 Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only: Total Days Cr. Recorded 160, Date Recorded Nov 14/89, Mining Recorder [Signature], Date Approved or Recorded [Signature], Branch Director [Signature]

Date: Nov. 6/89, Recorded Holder or Agent (Signature): [Signature]

Certification Verifying Report of Work: I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: A.C. Gourley, P.O. Box 794, King City, Ont. M0G 1K0, Date of Issue: Oct. 6, 1989, Certified by (Signature): [Signature]

Note: Only days credits  
"Expenditures" section may be entered  
in the "Expend Days Cr." column.  
Do not use shaded areas below.

Agreement to Work on Ore Mining Act

Type of Survey: **BENEFICIATION** Township: **KIPLING-EMERSON**

Claim Holder(s): **798839 ONTARIO LIMITED** Production's License No: **T 5241**

Address: **75 Ardell Place, Kitchener Ont. N2C2C8**

Survey Company: **TECHNICAL SERVICE LABORATORY** Date of Survey (Mon. & 16): **19/08/89** Total Miles of line cut: **1.2**

Name and Address of Author (of Geo. Technical report): **D. Allier 5770 Timberlea Blvd W. Mississauga Ont. L4W 1A7**

Credits Requested per Each Claim in Columns at right			Mining Claims Traversed (List in numerical sequence)					
Special Provisions	Geophysical	Days per Claim	Prefix	Mining Claim Number	Expend Days Cr.	Prefix	Mining Claim Number	Expend Days Cr.
For each additional survey: using the same grid: Enter 20 days (for each)	Magnetometer			1089105	20			
	Radiometric			1089106	20			
Max. Days Complete reverse side and enter total(s) here	Other			1089107	20			
	Geological			1089108	20			
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geochemical			1089109	20			
	Electromagnetic			1089110	20			
	Magnetometer			1089111	20			
	Radiometric							

Expenditures (excludes power stripping)

Type of Work Performed: **Beneficiation - Drill Core**

Perform on Claim(s): **P825797, P825798, P825802, P825805**

Calculation of Expenditure Days Credits

Total Expenditures: **\$ 2,400.** + Total Days Credits: **15** = **160**

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **Nov. 6/89** Recorded Holder or Agent Signature: *[Signature]*

For Office Use Only

Total Days Cr. Date Recorded: **160** Mining Record

Date Approved as Recorded: **Oct. 6, 1989** Branch Director

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: **A. C. Courley, P.O. Box 794, King City, Ont., L0G 1K0**

Date Certified: **Oct. 6, 1989** Certified Signature: *[Signature]*





Ministry of Northern Development and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

W 9006-031

2.12974

Mining Act

- Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s) **BENEFICIATION . 12974 DRILLING**

Claim Holder(s) **ROBERT PLATT**

Address **P.O. Box 220, Porcupine, Ont. P4N1C0**

Survey Company **TECHNICAL SERVICE LABORATORY**

Date of Survey (from & to) **86. 11. 88 to 19. 03. 89**

Total Miles of line Cut

Name and Address of Author of Geo-Technical report  
**D. Hillier, 5770 Timberlea Blvd, Mississauga, Ont L4W4W7**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days  Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits  Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	867408	40			
	867409	40			
	867410	40			
	867411	40			
	867412	40			
	867413	40			
	867414	40			
	867415	40			
	867416	40			
	867417	40			
	867418	40			
	867419	40			
	867420	40			

RECORDED NOV 14 1989

RECEIVED NOV 14 1989

Expenditures (excludes power stripping)

Type of Work Performed **Beneficiation - Drill Core**

Performed on Claim(s) **SEE AMENDMENT ATTACHED --**

Calculation of Expenditure Days Credits

Total Expenditures **\$ 7,800** + **15** = **520** Total Days Credits

Instructions  
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date **Nov. 6 / 89** Recorded Holder or Agent (Signature)

For Office Use Only

Total Days Cr. Recorded **520** Date Recorded **Nov. 14 / 89**

Date Approved as Recorded **See Revised worksheet**

Mining Recorder **Swit**

Branch Recorder

Total number of mining claims covered by this report of work. **13**

Certification Verifying Report of Work  
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying  
**A.C. Gourley, P.O. Box 794, King City, Ont., L0G 1K0**

Date Certified **Oct. 20 / 89** Certified (Signature)

**AMENDMENT TO WORKING** Mining Act

Type of Survey: **BENEFICIATION** Township or Area: **KIPLING**

Claim Holder(s): **ROBERT FLATT** Prospector's License No.: **A 47013**

Address: **P.O. Box 220, Porcupine, Ont. P1N 1C0**

Survey Company: **Terrence & Patricia Lacombe Inc.** Date of Survey (from & to): **05.11.89 - 09.03.89** Total Miles of fine Cut:

Name and Address of Author (of Geo-Technical report): **D. Hillier, 5770 Timberlea Blvd, Mississauga, Ont L4W 4W7**

Credits Requested per Each Claim in Columns at right			Mining Claims Covered (List in numerical sequence)				
Special Provisions	Geophysical	Days per Claim	Mining Claim	Expend	Mining Claim	Expend.	
			Priority	Number			Days Cr.
For first survey: Enter 40 days. (This includes fine cutting)	• Electromagnetic		P	867408	40		
				867409	40		
				867410	40		
For each additional survey using the same grid: Enter 20 days (for each)	• Magnetometer			867411	40		
				867412	40		
				867413	40		
Man Days Complete reverse side and enter totals here	• Radiometric			867414	40		
				867415	40		
				867416	40		
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	• Other			867417	40		
				867418	40		
				867419	40		
	Geological			867418	40		
				867419	40		
				867420	40		
	Geochemical						

Expenditures (excludes snow stripping)

Type of Work performed: **Beneficiation - Drill Core**

Performed on Claims: **P825797, P825798, P825802, P825805**

Calculation of Expenditure Days Credits

Total Expenditures: \$ **7,800** + 15 = **520** Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **Nov. 4/89** Recorder Holder of Agents (Signature):

Total number of mining claims covered by this report of work: **13**

For Office Use Only

Total Days Cr. Recorded: \_\_\_\_\_ Date Recorded: \_\_\_\_\_ Mining Recorder: \_\_\_\_\_

Date Approved by Recorder: \_\_\_\_\_ Branch Director: \_\_\_\_\_

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

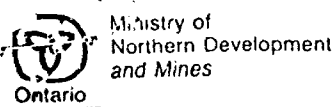
Name and Postal Address of Person Certifying: **A.C. Gourley, P.O. Box 794, King City, Ont., L0G 1K0**

Date Certified: **Oct. 20/89** Certified by (Signature): **A.C. Gourley**

DOCUMENT No. **W 9006-60241**

212974

March 21  
April 30



Instructions  
 - Please type or print.  
 - Refer to Subsection 77(19), the Mining Act for assessment work requirements and maximum credits allowed under this Subsection.  
 - Technical Reports, maps and proof of expenditures in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Report of Work **2.12974**  
 (Expenditures, Subsection 77(19))

Type of Work Performed <b>BENEFICIATION</b>	Mining Division <b>PORCUPINE</b>	Township or Area <b>KIPLING</b>
Recorded Holder <b>798839 ONTARIO LIMITED</b>	Prospector's Licence No. <b>75241</b>	
Address <b>75 Ardell Place, Kitchener, Ontario, L2C2C8</b>		Telephone No.
Work Performed By <b>TECHNICAL SERVICE LABORATORY</b>		
Name and Address of Author (of Submission) <b>A.P. Gourley, P.O. Box 794, King City, Ont. L0G1K0</b>		Date When Work was Performed From: <b>28 03 89</b> To: <b>10 11 89</b> Day Mo. Yr. Day Mo. Yr.

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. *See Note No. 1 on reverse side				Mining Claim <b>P825797</b>	No. of Days <b>500</b>	Mining Claim <b>P825798</b>	No. of Days <b>350</b>	Mining Claim <b>P825803</b>	No. of Days <b>110</b>	Mining Claim <b>P825805</b>	No. of Days <b>240</b>
Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days
Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days

Instructions Total days credits may be distributed at claim holder's choice. Enter number of days credits per claim in the expenditure days credit column (below).	Calculation of Expenditure Days Credits		Total Number of Mining Claims Covered by this Report of Work
	Total Expenditures <b>\$ 18,000.00</b>	$\div 15 =$	Total Days Credits <b>1200</b>
			<b>60</b>

Mining Claims (List in numerical sequence). If space is insufficient, attach schedules with required information

Mining Claim			Mined			Mined			Mined		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	1112282	20	P	1112290	20	P	1112298	20	P	1112306	20
P	1112283	20	P	1112291	20	P	1112299	20	P	1112317	20
P	1112284	20	P	1112292	20	P	1112300	20	P	1112318	20
P	1112285	20	P	1112293	20	P	1112301	20	P	1112319	20
P	1112286	20	P	1112294	20	P	1112302	20	P	1112320	20
P	1112287	20	P	1112295	20	P	1112303	20	P	1112321	20
P	1112288	20	P	1112296	20	P	1112304	20	P	1112322	20
P	1112289	20	P	1112297	20	P	1112305	20	P	1112323	20

Total Number of Days Performed	Total Number of Days Claimed <b>1200</b>	Total Number of Days to be Claimed at a Future Date
--------------------------------	---	---

Certification of Beneficial Interest \*See Note No. 2 on reverse side

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.

Date: **Feb. 17 1990** Recorded Holder or Agent (Signature): *[Signature]*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying: **A.P. GOURLEY, P.O. Box 794, KING CITY, ONT. L0G1K0**

Telephone No.: **(416) 833-6002** Date: **Feb. 13, 1990** Certified By (Signature): *[Signature]*

For Office Use Only

Total Days Cr. Recorded <b>1200</b>	Date Recorded <b>FEB 19 1990</b>	Mining Recorder <i>[Signature]</i>
	Date Approved as Recorded <b>76 April 90</b>	Province of Ontario <i>[Signature]</i>

RECEIVED  
 RECORDED  
 FEB 19 1990  
 MINING LANDS SECTION  
 1030

**Report of Work**  
(Expenditures, Subsection 77(19))

Mining Act

... please type or print.  
- Refer to Subsection 77(19), the Mining Act for assessment work requirements and maximum credits allowed under this Subsection.  
- Technical Reports, maps and proof of expenditures in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Type of Work Performed: **BENEFICIATION** Mining Division: **PORCUPINE** Township or Area: **KIPLING**

Recorded By: **798839 ONTARIO LIMITED** Prospector's Licence No.: **T5241**

Address: **75 Ardell Place, Kitchener, Ontario, L2C2C8** Telephone No.:

Work Performed By: **TECHNICAL SERVICE LABORATORY**

Name and Address of Author (of Submission): Date When Work was Performed  
From: **28 03 89** To: **10 11 89**  
Day | Mo. | Yr. | Day | Mo. | Yr.

Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days

**Instructions**  
Total days credits may be distributed at claim holder's choice. Enter number of days credits per claim in the expenditure days credit column (below).

Calculation of Expenditure Days Credits  
Total Expenditures \$  ÷ **15** =  Total Days Credits

Total Number of Mining Claims Covered by this Report of Work

Mining Claims (List in numerical sequence). If space is insufficient, attach schedules with required information

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
P	1112324	20	P	1112332	20	P	1112340	20	P	1112348	20
P	1112325	20	P	1112333	20	P	1112341	20	P	1112349	20
P	1112326	20	P	1112334	20	P	1112342	20	P	1112350	20
P	1112327	20	P	1112335	20	P	1112343	20	P	1112351	20
P	1112328	20	P	1112336	20	P	1112344	20			
P	1112329	20	P	1112337	20	P	1112345	20			
P	1112330	20	P	1112338	20	P	1112346	20			
P	1112331	20	P	1112339	20	P	1112347	20			

Total Number of Days Performed: Total Number of Days Claimed: Total Number of Days to be Claimed at a Future Date:

Declaration of Beneficial Interest \*See Note No. 2 on reverse side  
I hereby certify that, at the time the work was performed, the claims covered in this report were recorded in the current recorded holder's name or held under a beneficial interest in the current recorded holder.  
Date: **Feb. 14/90** Recorded Holder or Agent (Signature): *[Signature]*

Declaration Verifying Report of Work  
I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same and/or after its completion and the annexed report is true.

Name and Address of Person Certifying: **A.C. GOURLEY, P.O. Box 794 KING CITY, ONT. LOGICOP**  
Telephone No.: **(416) 833-6002** Date: **Feb. 13, 1990** Certified By (Signature): *[Signature]*

**Office Use Only**

Days Recorded: Date Recorded: Mining Recorder: Provincial Manager, Mining Lands: **1030 93**

Received Stamp: **FEB 19 1990**

MINING LANDS: PLEASE COMPLETE THIS FORM & RETURN IT WITH REPORT TO THE GEOSCIENCE DATA CENTRE

DATE REMOVED: April 22  
(From GDC)

DATE RETURNED: April 26  
(to GDC)

REPORT # : 2-1297A

FICHE NO. : \_\_\_\_\_ (where applicable)

REASON FOR REQUESTING REPORT (complete #1-4 below):

1. INFORMATION ADDED TO EXISTING PAGES OF REPORT:   
IF YES, SPECIFY PAGES: \_\_\_\_\_  
: \_\_\_\_\_  
: \_\_\_\_\_

2. a) PAGES/MAPS ADDED TO THIS REPORT: \_\_\_\_\_ TOTAL PAGES ADDED  
: \_\_\_\_\_ TOTAL MAPS ADDED

b) TYPE OF PGS ADDED: \_\_\_\_\_ CORRESPONDENCE  
: \_\_\_\_\_ WORK REPORTS (AMENDED)  
: \_\_\_\_\_ WORK RPTS (NEW)  
: \_\_\_\_\_ MISSING PAGES OF TEXT  
: \_\_\_\_\_ OTHER (PLEASE SPECIFY)

3. a) REMOVAL OF PGS FROM REPORT: \_\_\_\_\_ TOTAL PGS REMOVED

b) TYPE OF PAGES REMOVED : \_\_\_\_\_ CORRESPONDENCE  
: \_\_\_\_\_ WORK REPORTS  
: \_\_\_\_\_ PGS OF TEXT  
: \_\_\_\_\_ OTHER (PLEASE SPECIFY)

4. REPORT NEEDED FOR REFERENCE ONLY:   
NO INFORMATION ALTERED :   
NO INFORMATION ADDED :   
NO INFORMATION DELETED :

\*NOTE: ENTER "X" IN APPLICABLE BOXES



Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Section  
3rd Floor, 880 Bay Street  
Toronto, Ontario  
M5S 1Z8

Tel: (416) 965-4888

March 6, 1990

Your File: W9006-025, 026, 031  
Our File: 2.12974

Mining Recorder  
Ministry of Northern Development & Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

Re: Data for Expenditure submitted under Section 77(19) of the Mining  
Act R.S.O. 1980 on Mining Claims P 825802 et al in the Township of  
Kipling

---

The enclosed statement of assessment work credits for Assaying has been  
approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate  
on your records.

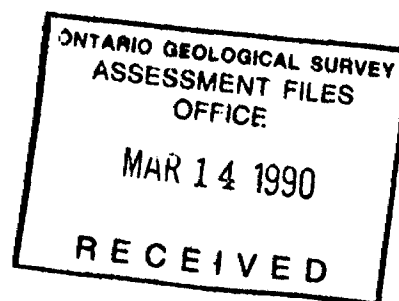
Yours sincerely,

W. R. Cowan  
Provincial Manager, Mining Lands  
Mines & Minerals Division

*JH*  
DM:zm  
Encl:

cc: Resident Geologist  
Timmins, Ontario

798839 Ontario Limited  
Kitchener, Ontario



JAMES BAY KAOLIN CORP.  
225 WATLINE, SUITE 100  
MISSISSAUGA, ONT. L4Z 1P3

0160

Feb. 10 19 89

PAY TO THE ORDER OF T.S.L. Laboratories

----- Fifty thousand -----xx \$ 50,000.00  
SUM OF DOLLARS 100

JAMES BAY KAOLIN CORP.

Per: *M. Skirrow*  
Per: *[Signature]*

NATIONAL BANK OF CANADA  
NATIONAL BANK BUILDING  
77 CITY CENTRE DRIVE, SUITE 101  
MISSISSAUGA, ONT. L6B 1M5

⑆03241⑆006⑆ 00⑆249⑆26⑆ ⑆000500000⑆

RECEIVED

DEC 20 1989

MINING LANDS SECTION



ROYAL BANK  
ONTARIO PC  
FB 89 13  
DIRECTOR GENERAL  
MISSISSAUGA, ONTARIO  
L4Z 1P3  
03241006  
0024926  
000500000



Recorded Holder  
798839 Ontario Limited

Township or Area  
Kipling Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column <b>Geological</b> _____ days <b>Geochemical</b> _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	\$24000.00 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS:  P 825802, 825803 825805 to 810 incl. 825792, 825793 825796 to 798 incl. 900042, 900044, 900045, 900054, 900067, 900072, 900084, 900095, to 097 incl. 970176, 970177, 970179, 970189, 970192, 970195, 983551  1600 Days credit allowed which may be grouped in accordance with Section 76(6) of the Mining Act R.S.O. 1980.

Special credits under section 77 (16) for the following mining claims

(Empty box for special credits)

No credits have been allowed for the following mining claims

not sufficiently covered by the survey       insufficient technical data filed

(Empty box for no credits)

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.





**JAMES BAY KAOLIN CORPORATION**

James Bay House  
Tel: (416) 624-4889  
Fax: (416) 624-1006

5770 Timberlea Blvd., Suite 207  
Mississauga, Ontario, Canada  
L4W 4W7

November 6, 1989

2. 12974  
WVWV

Mr. Gary White,  
Mining Recorder,  
Porcupine Mining Division,  
60 Wilson Avenue.  
Timmins, Ontario.  
P4N 2S7

Dear Sir:

Enclosed please find a copy of a cancelled cheque to T.S.L. Laboratories for assaying work on our properties in Kipling and Emerson Townships, Ontario. From the above cheque apply \$7,800 for beneficiation on claims (P867408 to P867420) inclusive as per attached report of work, and \$16,200 for beneficiation on claims P1089062 to P1089073 inclusive and P1090037 to P1090044 inclusive and P1089078 to P1089111 inclusive as per the attached Report of Work. The remaining \$26,000 of this assay cost will be used at a later date for filing additional work.

Yours truly,

JAMES BAY KAOLIN CORPORATION

Carl Gourley, P.Eng.  
Consulting Geologist

ACG:ma  
Encls.

NOV 7 1989  
@ 11:00 a.m.

a. D. Hillier



**JAMES BAY KAOLIN  
CORPORATION**

James Bay House  
Tel: (416) 624-4889  
Fax: (416) 624-1006

5770 Timberlea Blvd., Suite 207  
Mississauga, Ontario, Canada  
L4W 4W7

November 6, 1989

**RECEIVED**

**DEC 20 1989**

**MINING LANDS SECTION**

Mr. Gary White,  
Mining Recorder,  
Porcupine Mining Division,  
60 Wilson Avenue.  
Timmins, Ontario.  
P4N 2S7

Dear Sir:

Enclosed please find a copy of a cancelled cheque to T.S.L. Laboratories for assaying work on our properties in Kipling and Emerson Townships, Ontario. From the above cheque apply \$7,800 for beneficiation on claims P867408 to P867420 inclusive as per attached report of work, and \$16,200 for beneficiation on claims P1089062 to P1089073 inclusive and P1090037 to P1090044 inclusive and P1089078 to P1089111 inclusive as per the attached Report of Work. The remaining \$26,000 of this assay cost will be used at a later date for filing additional work.

Yours truly,

JAMES BAY KAOLIN CORPORATION

Carl Gourley, P.Eng.  
Consulting Geologist

ACG:ma  
Encls.

2,3  
33  
111  
76  
33

JAMES BAY KAOLIN CORPORATION

---

5770 Timberlea Blvd., Suite 207, Mississauga, Ontario, Canada L4W 4W7 • (416) 624-4889 • Fax (416) 624-1006

December 14, 1989

**RECEIVED**

DEC 20 1989

**MINING LANDS SECTION**

Mr. Gary White,  
Mining Recorder,  
Porcupine Mining Division,  
60 Wilson Avenue,  
Timmins, Ontario.  
P4N 2S7

Dear Sir:

Please refer to our letter of November 6, 1989 regarding the cancelled cheque to T.S.L. Laboratories for assaying and apply an additional \$18,000 of the remaining \$26,000 for beneficiation on claims P900041 to P900060 inclusive.

Yours very truly,

JAMES BAY KAOLIN CORPORATION



Carl Gourley  
Consulting Geologist

ACG:ma  
Encl.

JAMES BAY KAOLIN CORPORATION

---

5770 Timberlea Blvd., Suite 207, Mississauga, Ontario, Canada L4W 4W7 • (416) 624-4889 • Fax (416) 624-1006

December 18, 1989

**2.12974**

Dr. W. R. Cowan  
Manager  
Mining Lands Section  
Whitney Block, 6th Floor  
Toronto, Ontario  
M7A-1W3

**RECEIVED**

**DEC 20 1989**

**MINING LANDS SECTION**

Dear Dr. Cowan:

Enclosed please find geological report, drill hole plan, sonic drill logs, assay records and cancelled cheque for submission of beneficiation reports of work in Kipling Township, Ontario.

Yours truly

JAMES BAY KAOLIN CORPORATION

*cc: M. Gourley*

Carl Gourley, P. Eng.  
Consulting Geologist

CG/ga

JAMES BAY KAOLIN CORPORATION

---

5770 Timberlea Blvd., Suite 207, Mississauga, Ontario, Canada L4W 4W7 • (416) 624-4889 • Fax (416) 624-1006

February 5, 1990

Mining Lands Section,  
Whitney Block,  
6th Floor,  
Queen's Park,  
Toronto, Ontario.  
M7A 1W3

**RECEIVED**

**FEB 08 1990**


**MINING LANDS SECTION**

Attention: Jill Stewart

Please find enclosed a second copy of assay data for Kipling-Emerson Townships beneficiation report of work and copy of pp. 34-42 missing from report.

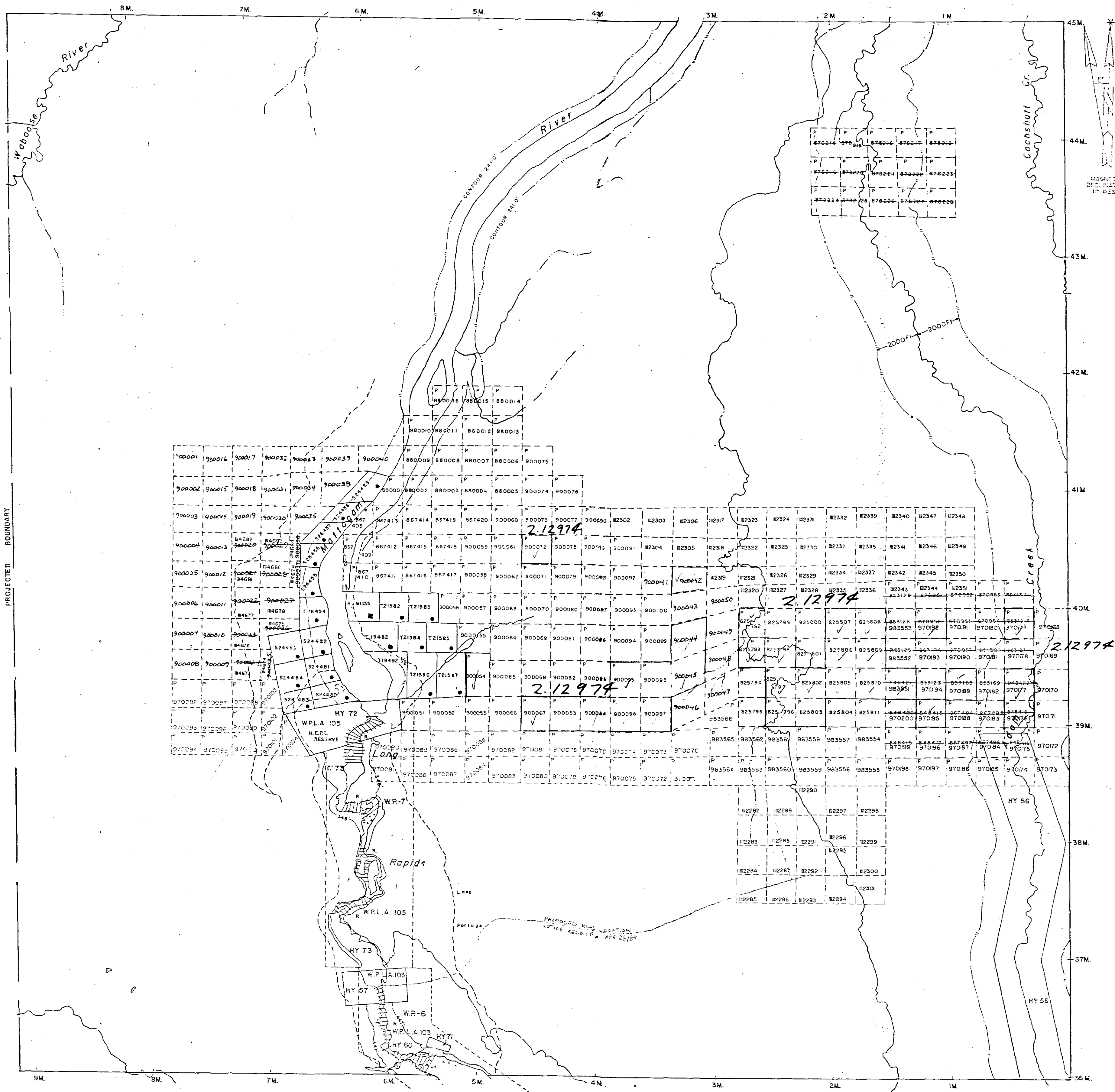
Yours truly,

JAMES BAY KAOLIN CORPORATION

  
Carl Gourley, P.Eng.  
Consulting Geologist

ACG:ma  
Encls.

SANBORN TWP



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 300, SEC. 63, SUBSEC. 1.

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

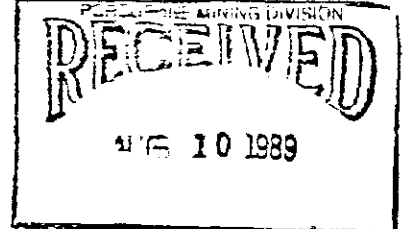
FLOODING RESERVATION TO CONTOUR ELEVATION 241.0' FROM GRAND RAPIDS TO TAILWATER OF KIPLING G.S.T. RESERVED FOR ONTARIO HYDRO.

FLOODING RESERVATION ON ADAM CREEK EXTENDED TO 2000' EACH SIDE OF CENTERLINE OF CREEK, RESERVED FOR ONTARIO HYDRO.

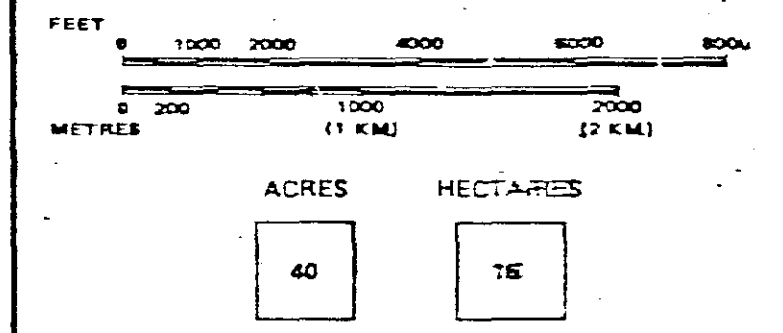
AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Description	File



SCALE: 1 INCH = 40 CHAINS



TOWNSHIP OF  
**KIPLING**  
 DISTRICT  
 COCHRANE  
 MINING DIVISION  
 PORCUPINE

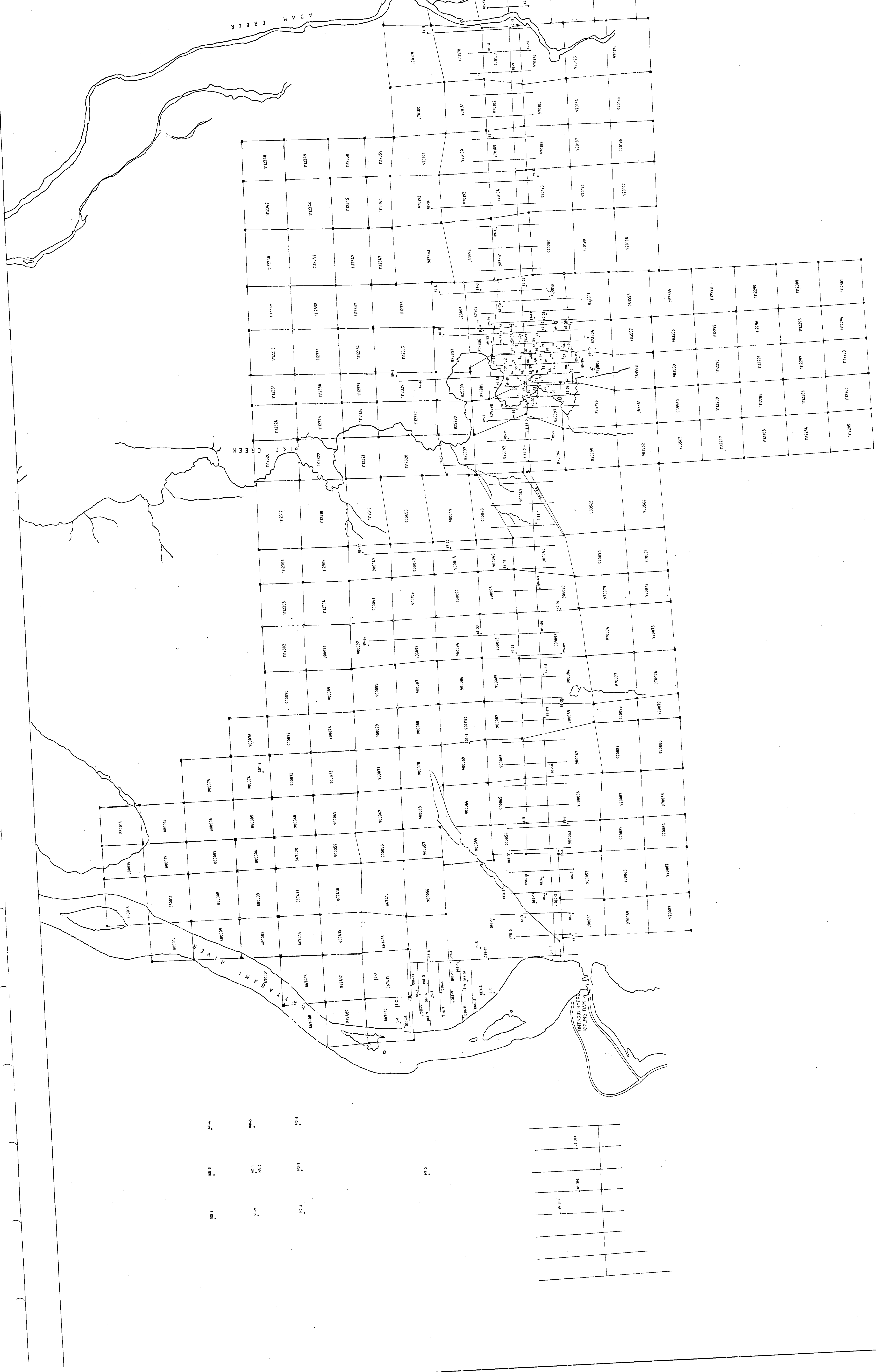
Ministry of Natural Resources Ontario  
 Ministry of Northern Development and Mines



4201ME002 2.12974 KIPLING

HARMON TWP

EMERSON TWP



RECEIVED  
 JUL 23 1988  
 MINING LANDS SECTION

JAMES BAY KAGLIN CORPORATION  
 KIPLING PROJECT  
 DRILL HOLE PLAN

2,12974

SCALE 1:1000 1"=100'  
 DRAWING NO.  
 DATE JULY 1988

2,12974

