

GEOLOGY OF THE TRILAKE CLAIM GROUP

KAKAGI-SCHISTOSE LAKES AREA

KENORA MINING DIVISION

BROOKS LAKE CLAIM MAP (G-2670)

NTS AREA 52 F/4 NE

49°10'N 93°40'W

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AUGUST 3, 1996

Drawn # 2.8877

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1515 CHERRYHILL ROAD

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2.16995

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LOCATION AND ACCESS

The project area (Figure 1) is located in the Kenora Mining Division, 22 kilometers east of Nestor Falls. The property occurs within NTS area 52 F/4 NE at 49°10'N 93°40'W. The area is accessible by the Pipestone-Trilake road which begins 5 kilometers north of Nestor Falls on Highway 71. Permits to use this road are required and are available from the Ministry of Natural Resources, Kenora. Travel within the area is facilitated by numerous skidder roads.

CLAIM GROUP AND STATUS

The property is located within the Brooks Lake claim map (G-2670) and consists of claim numbers 1161620, 1161621 and 1161622 (Figure 2) which contain 36 standard 16 hectare units. The property was staked on July 18-21, 1993 by Michael E. Chute (Licence No. H12896). The claims were recorded by him, in his name, on August 9, 1993.

SUMMARY OF PREVIOUS EXPLORATION (Covering all or part of claims 1161620, 1161621, 1161622)

1956 Kennco Explorations Ltd.

Two diamond drill holes were bored on claims directly west of the claim group. Hole number 6 was drilled to 329 feet and intersected an interbedded sequence of fine grained felsic tuffs and amygdaloidal flows. Minor disseminated and massive pyrite was intersected. Hole number 5 was drilled to a depth of 423 feet and intersected mainly highly carbonated volcanic (?) rocks interbedded with minor tuffs and graphite schists. Mineralization consisted on minor massive and disseminated sulphides. No assay data was reported for either hole.

1975 Hudson Bay Exploration and Development Co Ltd.

Ground horizontal electromagnetic surveys were conducted over airborne electromagnetic anomalies directly west of the present claim group. Two long and six short conductors were indicated and interpreted as having a bedrock source. Diamond drilling was recommended to investigate the anomalies not drilled by CANICO. There is no recorded diamond drilling by CANICO.

1983, 1984 Sherritt Gordon Mines Ltd.

Reconnaissance geological and geochemical surveys were conducted on and adjacent to the southeast corner of the claim group. Lithogeochemical and humus surveys were designed to locate gold mineralization. The best gold values returned from these surveys were 140 and 9 ppb respectively. Detailed statistical analysis of the geochemical data suggested that an area of gold mineralization may exist within 1 kilometer of the southeast corner of the claim group.

1983, 1985 Jalna Resources Ltd.

Three geological reconnaissance traverses were conducted over the claim group. No significant assay results were obtained from the three samples taken. A combined airborne electromagnetic, VLF electromagnetic and magnetic survey was conducted over claim 1161621 as part of a larger survey of the Pipestone and Schistose Lake area. No significant results were reported from claim 1161621.

1987 Noranda Exploration Co. Ltd.

Airborne magnetic, VLF electromagnetic and radiometric surveys were conducted over claims 1161621, 1161622 and the southeastern corner of 1161620 as part of a larger survey of the Pipestone and Schistose Lake area. No significant results were reported from these claims.

1993 Michael E. Chute

Detailed prospecting , geologic mapping , assaying and trenching were conducted on parts of claim 1161620. Significant zinc-copper mineralization (6.2% Zn, .48% Cu) associated with quartz-carbonate veins in carbonatized mafic volcanic rocks was located.

1994 Michael E. Chute

Claims 1161620 and 1161621 were prospected and mapped at a scale of 1:2400. Geochemically anomalous zones of chemical sediments and felsic tuffs were located on claim 1161621.

1995 Michael E. Chute

Claims 116120, 1161621 and 1161622 were prospected and mapped at a scale of 1:2400. Twenty six assay samples were collected.

WORK DONE

Geological Surveys: 73 man days mapping, at a scale of 1:2400, were spent determining the extent of alteration and mineralization discovered in 1993. Mapping was conducted on belt chain lines at 400 foot intervals. On claim 1161620 lines were tied to a synthetic baseline parallel to the Pipestone-Trilake road. On claims 1161621 and 1161622 lines were tied to cut and chained baselines.

Geochemical Surveys: 146 selected rock grab samples were collected while mapping and assayed for a suite of base and precious metals. Sample descriptions are recorded in Appendix 1. Assay results and analytical technique are contained in Appendix 2. Fifty of the 146 assays were previously submitted for assessment credit and are contained within this report for convenience.

REGIONAL GEOLOGY

The project area lies within the Kakagi-Rowan Lakes greenstone belt (Blackburn et al. 1991) of the Wabigoon Subprovince (Figure 3). The area is underlain by the Katimiagamak Group and Kakagi Lake Group (Johns 1985).

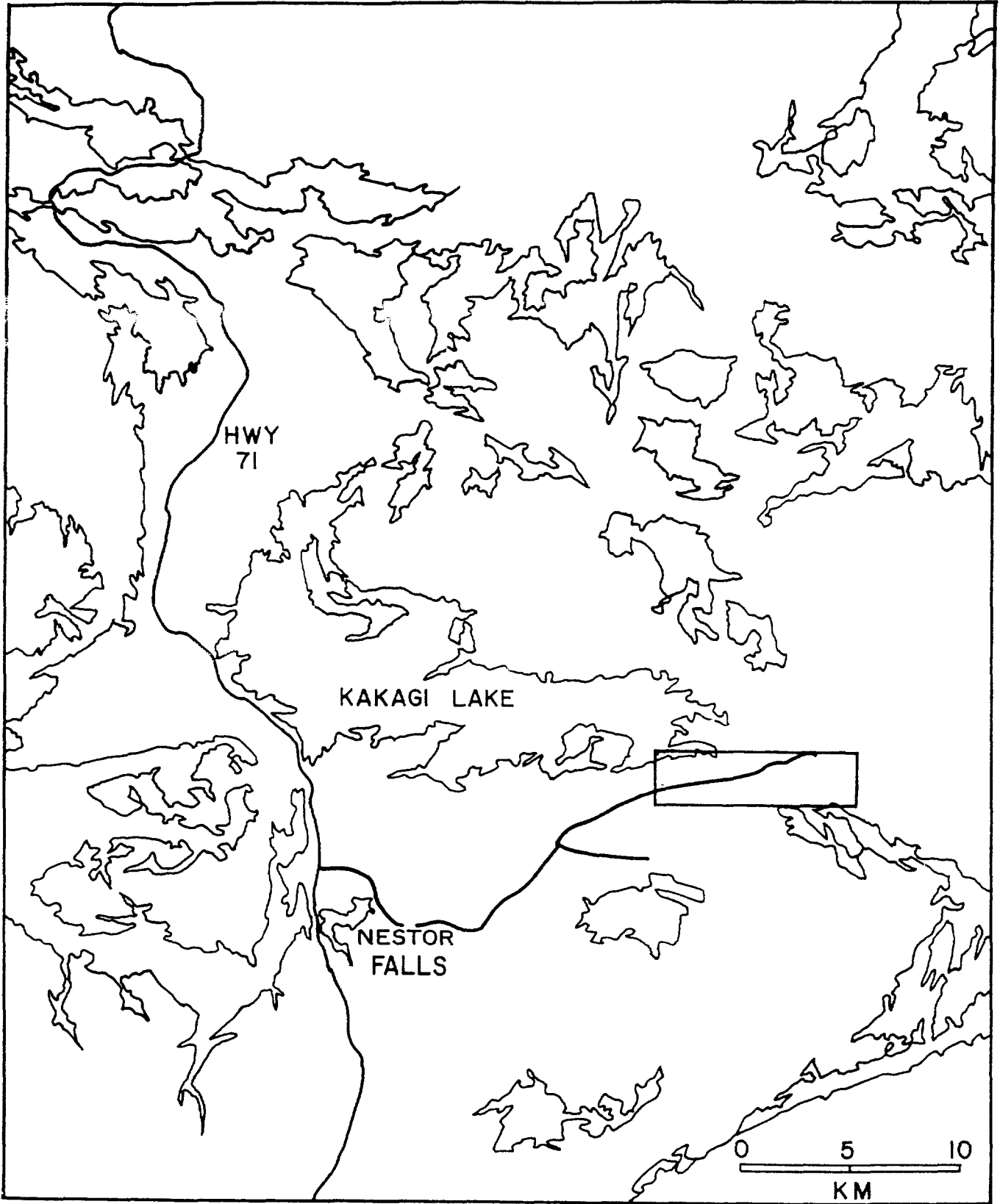


FIGURE 1: Location and Access

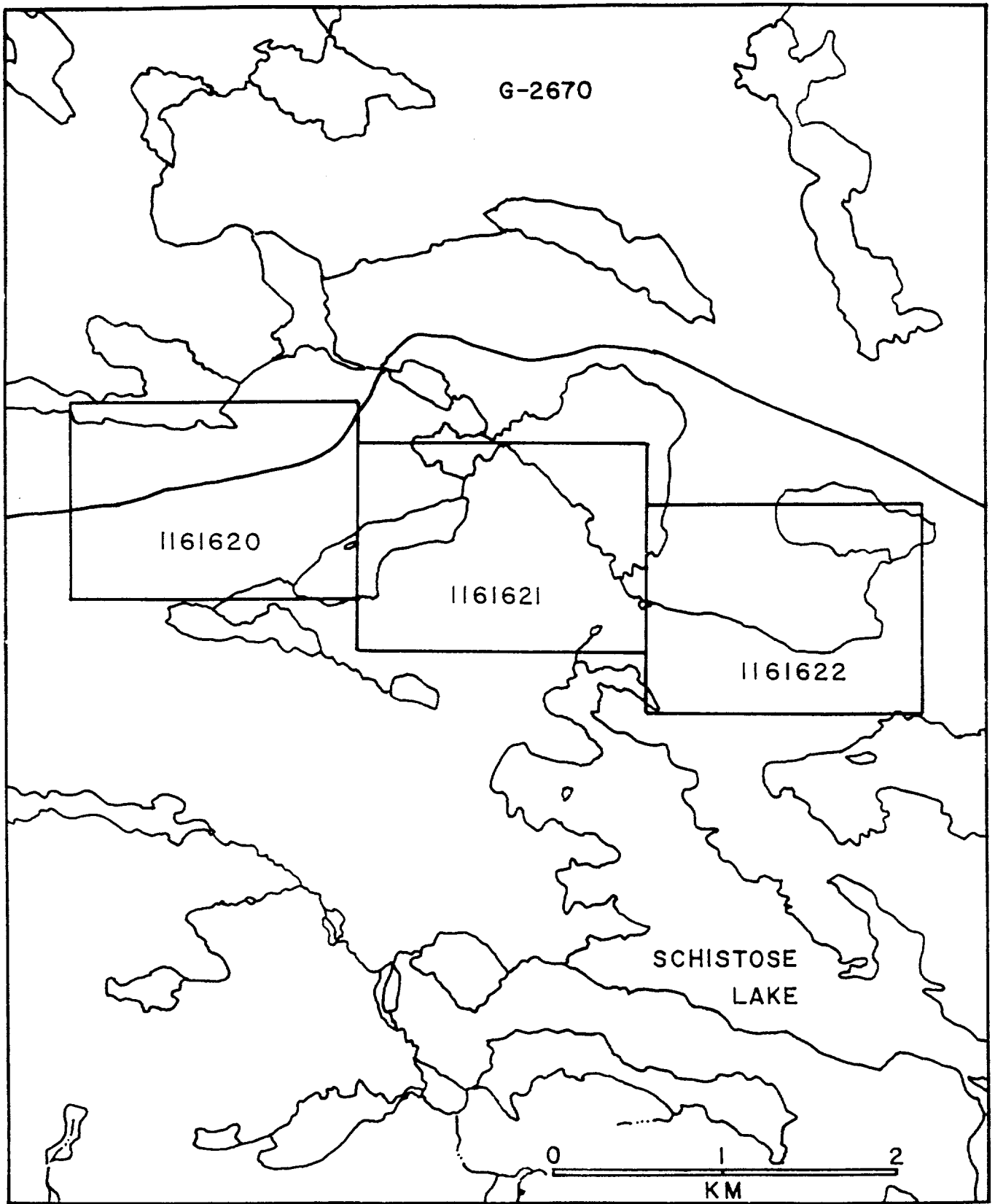


FIGURE 2: Claim Map

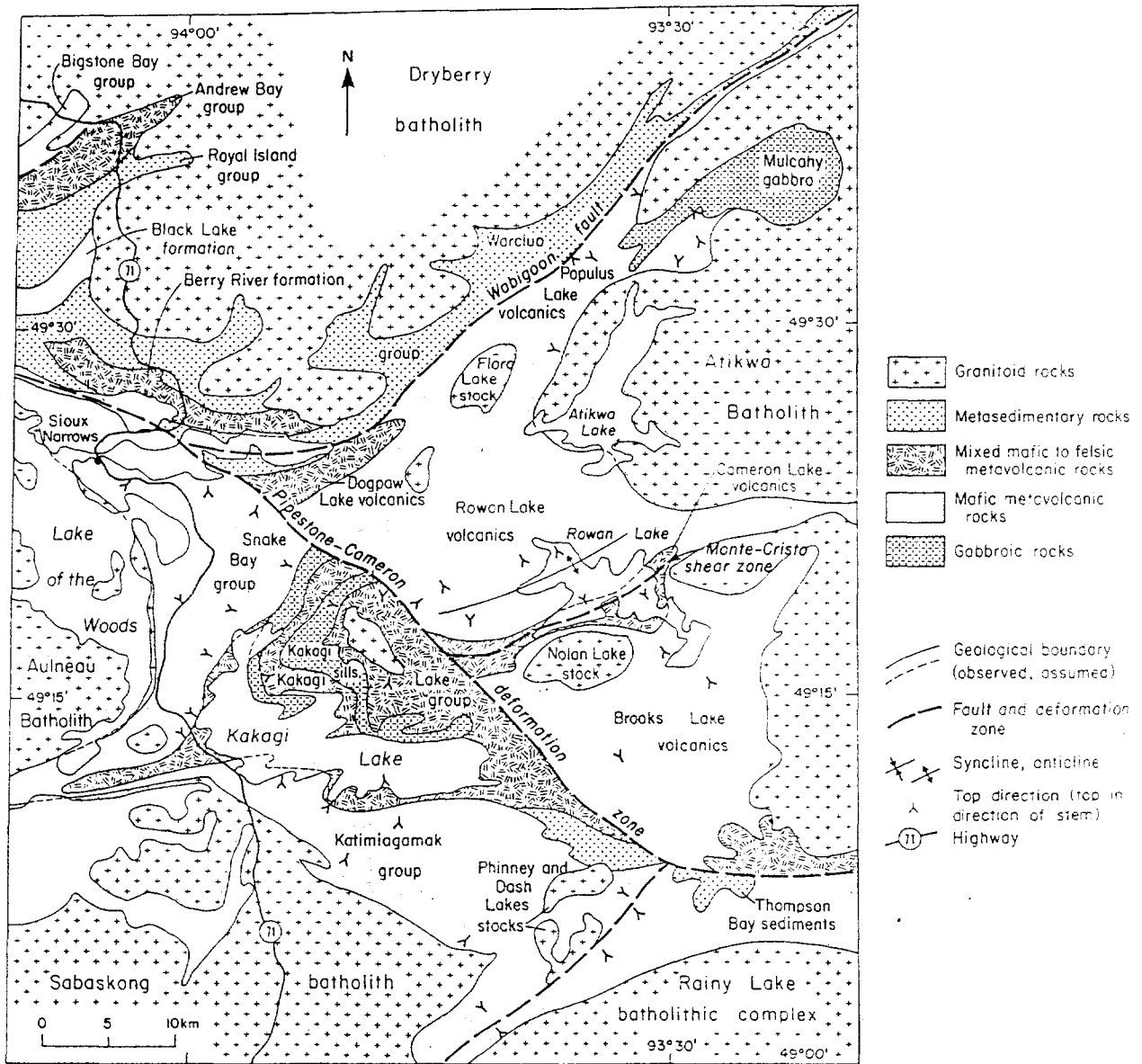


FIGURE 3: Regional Geology
(Modified after Blackburn et al. 1991)

TABLE 1. LITHOLOGIC UNITS

Middle Precambrian

- Mafic Intrusive Rocks
- 8a Diabase

Early Precambrian

- Felsic Intrusive Rocks
- 7a Felsite
7b Feldspar porphyry
7c Quartz -feldspar porphyry

- Mafic to Intermediate Intrusive Rocks
- 6a Gabbro

- Chemical Sedimentary Rocks
- 5a Chert
5b Iron formation

- Clastic Sedimentary Rocks
- 4a Arenite
4b Siltstone
4c Argillite

- Felsic Volcanic Rocks
- 3a Flow
3b Tuff
3c Lapilli-tuff
3d Lapillistone
3e Tuff breccia
3f Sericite schist
3g Cherty tuff

- Intermediate Volcanic Rocks
- 2a Flow
2b Tuff
2c Lapilli-tuff
2d Lapillistone
2e Tuff breccia

- Mafic Volcanic Rocks
- 1a Massive flow
1b Pillowed flow
1c Tuff
1d Chlorite schist

GEOLOGY (Table 1, Figures 3, 4, 5, 6 and 7))

Katimiagamak Group

The Katimiagamak Group consists mainly of pillowed and massive aphyric flows with minor amygdaloidal and plagioclase megaphyric flows. Subvolcanic gabbro and leucogabbro sills, up to 100 meters in thickness, intrude the subaqueous flow sequence. This formation is represented by lithologic units 1a-d and 6a.

Within the project area pillowed flow units of the Katimiagamak Group are characterized by well developed bun shaped pillows, generally less than 1 metre in diameter. The individual pillows display well developed selvages. Minor interpillow hyaloclastite and mafic tuffs are present. Observed minor mafic flows, interbedded with the pillowed flow units, range in thickness from 0.5 meters to greater than 10 meters.

The mafic rocks are characterized by a medium to dark grey-green weathered surface and a medium to dark green fresh surface. Color index is generally greater than 50. Pillowed flow units altered to carbonate and clinozoisite are light grey on the weathered surface and medium grey to white on the fresh surface and have a color index of 0. Primary pillow structures are well preserved. Pillowed flow units overprinted by intense iron carbonate alteration weather rusty brown to red and are generally characterized by a medium to coarse grain size. Within the iron carbonated pillowed flow units primary structures are well preserved.

Kakagi Lake Group

The Kakagi Lake Group is subdivided into the South Kakagi Lake, East Kakagi Lake, Emm Bay, Cedartree Lake and Stephen Lake formations (Johns 1985). The South Kakagi Lake Formation disconformably overlies the Katimiagamak Group and is conformably overlain by the East Kakagi Lake Formation. This formation is represented by lithologic units 2a-e, 3a-g and 7a-c.

The South Kakagi Lake Formation consists of two volcanic facies; an epiclastic plus distal facies and a distal plus epiclastic facies (Johns 1985). Both facies contain tuffs, reworked tuffs, cherts/cherty tuffs and arenites. The distal plus epiclastic facies also contains lapilli tuff and ash flow tuff. Within the project area the finer grained volcanic rocks are generally felsic in composition. These rocks are typically light grey or tan and weather grey, tan or white. Bedding thickness ranges between very fine in cherty and siliceous tuffs to massive in medium grained tuffs and finer lapilli tuffs. Minor graphitic beds occur within sequences of cherty and siliceous tuffs.

The East Kakagi Lake Formation consists of two volcanic facies; a distal plus proximal facies and a subvolcanic intrusion plus flow facies (Johns 1985). The distal plus proximal facies consists mainly of tuffs, lapilli tuffs, tuff breccias, ash flow tuffs and intermediate to mafic intrusions.

Within the project area the East Kakagi Lake Formation is differentiated from South Kakagi Lake Formation by the presence of coarser lapilli tuffs, lapillistones and tuff breccia. The volcanic breccias range from intermediate to felsic in composition. These breccias are light green, tan, grey or white and weather medium grey, light green or tan. The breccias are heterolithic with respect to fragment composition and texture. Within the coarser fragmental units both matrix and fragment supported breccias were observed. Bedding is typically massive and locally displays large scale grading.

Synvolcanic Intrusive Rocks

Synvolcanic gabbroic sills, lithologic unit 6a, occur in the claim group within the Katimiagamak Group. They range in composition from melanogabbro through leucogabbro. The sills are dark green to black and weather medium green to dark grey, generally medium grained and difficult to distinguish from massive flows. Disseminated pyrite and pyrrhotite is common. Some sills are locally magnetic. The gabbro sill along the south margin of claim 1161620 has a prominent magnetic signature (ODM-GSC 1962).

Subvolcanic felsic intrusive rocks, lithologic unit 7, including felsite, feldspar porphyry and quartz-feldspar porphyry dikes and/or sills intrude the intermediate to felsic volcanic sequence of the Kakagi Lake Group. Within claim 1161622 feldspar and quartz-feldspar porphyry form an east trending stock-like mass which is variably altered to a purple hue where it has been sheared and iron carbonated.

A late regional diabase dike, lithologic unit 8a, strikes southeast across the western side of the project area.

Structure

The Pipestone-Cameron Lake fault zone trends northwest and crosses the eastern margin of the project area. A west trending fault zone crosses the central portion of the project area and is interpreted to be a splay off the Pipestone-Cameron Lake fault zone. This splay is the boundary between the Katimiagamak Group and the Kakagi Lake Group and is informally named the Trilake splay.

The fault zones are characterized by the development of a pronounced vertical to subvertical foliation and intense iron carbonate alteration.

The Katimiagamak and Kakagi Lake Groups trend, generally, easterly across the project area. Along the north side of the Trilake splay, bedding trends southeast. The bedding is vertical to subvertical and is truncated by the splay. Farther east along the splay, where it starts to trend southeast, bedding within the Kakagi Lake Group trends east. This flexure in bedding may coincide with the vertical and lateral facies change between well bedded tuffs and lapilli-tuffs (South Kakagi Lake Formation ?) and coarser tuffs, lapilli-tuffs, lapillistones and tuff breccias (East Kakagi Lake Formation ?).

ALTERATION AND MINERALIZATION

Disseminated Sulphides Associated With Silicification and Iron Carbonate

The main showing of the disseminated sulphides accompanying silicification in iron carbonated mafic volcanics was revisited and is described verbatim from Chute, 1994. No additional samples were taken. The showing and sample locations are contained in Figure 7.

Intensely iron carbonated mafic pillowed flows of the Katimiagamak Group are in sheared contact with felsic tuffs of the South Kakagi Lake Formation. The altered assemblage is locally silicified. Very fine grained disseminated pyrite occurs within the silicified-iron carbonated zones which are developed in narrow zones of more intense shearing. These zones of shearing are accompanied by minor narrow quartz veins which postdate the silicification. Disseminated pyrite occurs as anhedral grains and clots of anhedral grains comprising generally 5% and locally up to 15% of the altered zones. Silicified-iron carbonated mafic volcanics (7250, 7261, 7267, 7276) are anomalous in copper, zinc and arsenic. Values range from 71 to 2720 ppm copper, 138 to 227 ppm zinc and 14 to 289 ppm arsenic.

Massive amorphous limonite (7251-7256, 7273) intruded by clear glassy quartz veinlets occurs as irregular beds(?) within the zone. Assay values range from 25.7 to 2850 ppm copper, 331 to 62300 ppm zinc, 7 to 173 ppm arsenic and <1 to 56 ppb gold.

Three 5 feet continuous chip/channel samples (7258, 7259, 7260) across the main zone average 1130 ppm zinc and 195 ppm copper. Three continuous grab samples (7263, 7264, 7265) across 1 foot of a chalcopyrite bearing zone averaged 2534 ppm copper and 387 ppm zinc. A single grab sample (7261) from the 7259 chip/channel section assayed 2720 ppm copper, 227 ppm zinc, 289 ppm arsenic and 28 ppb gold.

Assay values for copper, zinc, arsenic and gold for iron carbonated and silicified mafic rocks(7222, 7223, 7228, 7229, 7231, 7242-7244, 7249, 7277, 7278), spatially removed from the main showing area, are generally lower than those at the main showing. This is attributed to the more intense alteration and shearing at the Trilake Cu-Zn showing.

The altered zones are intruded by vertical quartz-iron carbonate veins (7020,7221,7224-7226, 7279) in which the iron carbonate has largely been altered to limonite. No sulphides were observed. These veins are barren, gold assays are <1 ppb. Maximum assay values for copper and zinc are 49.6 and 149 ppm respectively. Arsenic values are less than 11 ppm.

Reexamination of the showing confirms that the mineralization is entirely located within the altered mafic volcanics and no felsic tuffs are interbedded with the mafic volcanics. However, felsic tuffs occur immediately adjacent to the mafic volcanics across the Trilake splay.

Iron Carbonate Alteration And Disseminated Sulphides

Disseminated pyrite occurs in all rock types independent of the degree of iron carbonate alteration. Within mafic volcanic rocks and gabbros assay values range from 7.0 to 397 ppm copper, 74.1 to 215 ppm zinc, <3 to 8 ppm arsenic and <1 to 13 ppb gold. The higher copper value is associated with a gabbro (7282) with 2% very fine grained disseminated pyrite. In felsic and intermediate tuffs, lapilli-tuffs and porphyries assay values range from 2.2 to 145 ppm copper, 26.5 to 465 ppm zinc, <3 to 180 ppm arsenic and <1 to 458 ppb gold. The high gold value is associated with a felsic tuff (7376) which is characterized by intense iron carbonate alteration and 1% disseminated pyrite. The high zinc and arsenic values are associated with a felsic tuff (7326) with intense iron carbonate alteration and 1% very fine grained disseminated pyrite. This sample occurs on the inferred Trilake splay.

Sulphide Clast Bearing Volcanic Breccias

Minor sulphide bearing felsic tuffs and lapilli-tuffs were observed. The pyrite clasts were laminated fragments, subangular, <15mm, and sparse. Two samples of this type of mineralization (7288, 7339) showed no anomalous values.

Sulphide Bearing Quartz and Quartz-Carbonate Veins

Minor quartz and quartz-carbonate veins are present in all lithologic units but were not systematically sampled. Assay values from sampled veins are barren.

Disseminated Sulphides

Disseminated sulphides occur in all lithologic units in trace amounts. No systematic sampling of this type of mineralization was carried out. One sample of felsic tuff/lapilli-tuff (7318) with 5% disseminated pyrrhotite returned an assay of 525 ppm nickel.

Chemical Sediments

Minor siderite iron formation interbedded with iron carbonated felsic tuffs (7308, 7309) was sampled. No anomalous base or precious metal values are associated with this unit. An anomalous barium value of 1060 ppm is associated with a felsic tuff (7306) which occurs within the same unit.

RECOMMENDATIONS

The significant copper and zinc values and associated anomalous gold and arsenic values at the Trilake Road Cu-Zn showing discovered in 1993 were further evaluated in 1994 and 1995. Additional work on the property is warranted.

Intensive prospecting should be continued over the entire property. The anomalous gold value of 458 ppb which occurs on the east claim line of 1161622 should be followed up with intensive prospecting. Additional claims should be staked to cover this zone. Detailed mapping at 1:2400 should be continued to the east.

An orientation soil survey should be conducted over the Trilake Cu-Zn showing to determine the suitability of this method in this environment. If suitable this method should be used on zones identified by mapping.

To better evaluate the base metal potential of the area, the stratigraphic relationships of felsic fragmental units to the south of the Trilake splay should be determined with respect to those north of the splay and to those at the Phinney Lake volcanic center.

The main Trilake Cu-Zn showing should be opened up by suitable trenching means.

A suite of progressively altered mafic volcanic rocks from the mineralized area should be submitted for complete whole rock and trace element analysis to better interpret the partial analyses completed to date.

The property should be systematically surveyed by magnetic and electromagnetic methods. Selected areas of the property should be surveyed by induced polarization methods.

REFERENCES CITED

Blackburn, C.E., Johns, G.W., Ayer, J. and Davis, D.W. 1991. *Wabigoon Subprovince*; in *Geology of Ontario*, Ontario Geological Survey, Special Volume 4, Part 1, p.303-382.

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Edwards, G.R. 1975. Pipestone Lake Area, Northern Half, District of Kenora; Ontario Division of Mines, Preliminary Map P.1000, Geological Series, scale 1:15 840

Johns, G.W. 1985. Kakagi Lake-Rowan Lake Regional Geology, District of Kenora; in *Summary of Field Work and Other Activities 1985*, Ontario Geological Survey, Miscellaneous Paper 126, p.41-46.

OMN-GSC 1962. Kakagi Lake Sheet, Kenora and Rainy River Districts; Ontario Dept. Mines-Geol. Surv. Canada, Aeromagnetic Series Map 1168G, scale 1:63360.

STATEMENT OF QUALIFICATIONS

I, Michael E. Chute, of the City of Peterborough, Province of Ontario, declare that:

I graduated from the Nova Scotia Land Survey Institute with a Certificate in Photogrammetry in 1968.

I graduated from Acadia University with a Bachelor of Science in Geology in 1972.

I graduated from the University of Manitoba with a Master of Science degree in Geology in 1977.

I have practiced my profession since graduation.

I conducted the work described in this report.

I am the sole author of this report.

A handwritten signature in black ink, appearing to read "Michael E. Chute", written over a horizontal dashed line.

Michael E. Chute, M.Sc.

**APPENDIX 1
ASSAY SAMPLE DESCRIPTIONS**

7220

Quartz vein, milky white, chloritic slickensided surfaces
25% amorphous limonite
No visible sulphides
Weakly sheared

7221

Quartz vein, milky white, chloritic slickensided surfaces
10% amorphous limonite
40% coarse orange-white carbonate
No visible sulphides, weakly sheared

7222

Limonitic crust on medium grained orange-white carbonate
Trace fine grained pyrite
5% clear glassy quartz veining up to 5mm wide, no sulphides
Weakly sheared

7223

Mafic volcanic, light grey-green, fine to medium grained
Minor quartz flooding with trace fine grained pyrite
Thin limonitic crust
Weakly to moderately sheared

7224

Massive quartz-chlorite-limonite
20% massive milky white quartz veining
No visible sulphides
Weakly sheared

7225

Mafic volcanic, grey-green, medium grained
Limonitic amorphous crust with milky white quartz veining
4% very fine grained disseminated pyrite, anhedral
Massive

7226

Quartz vein, milky white, massive
10% amorphous dark brown limonite
20% carbonate, grey, very fine grained, chloritic stringers
No visible sulphides

7227

Brecciated carbonate with dark green chloritic matrix
Localized grey quartz flooding
5% very fine grained disseminated pyrite in quartz
Minor pyrite stringers, trace chalcopyrite

7228

Chlorite-white carbonate, fine to medium grained
Quartz flooding
3% very fine grained disseminated pyrite
Part of sample similar to 7227

7229

Mafic volcanic, fine to medium grained, chloritic
Minor quartz flooding and quartz veining
2% very fine grained pyrite in quartz flooding
Minor iron carbonate, locally hematitic, sheared

7230

Massive quartz-chlorite-carbonate, medium grained
Intruded by massive clear to milky quartz veining
10% amorphous limonite
2% fine to medium grained pyrite clots

7231

Mafic volcanic, fine grained, grey-green carbonate
Coarse orange-white carbonate veining
Minor quartz flooding with 2% very fine grained pyrite
5% pyrite stringers with fine acicular tourmaline

7232

Massive orange-white carbonate
Intruded by clear glassy-white quartz veining
No visible sulphides
No amorphous limonite

7233

Siliceous cherty tuff, fine grained
2% fine grained disseminated pyrite
Fine bedding
Sheared

7234

Intermediate lapilli tuff
3% sulphide fragments
2% very fine grained disseminated pyrite
Minor iron carbonate

7235

Intermediate lapilli tuff
3% fine to medium grained disseminated pyrite
Massive
Not sheared

7236

Intermediate lapilli tuff with limonitic crust
Quartz flooding
5% fine grained disseminated pyrite
10% coarse pyrite fragments, minor pyrite stringers

7237

Milky white quartz vein with anastomosing fractures
Limonitic iron carbonate in fractures, hematitic
2% disseminated pyrite
Trace chalcopyrite, malachite

7238

Milky white quartz vein with limonitic fractures
5% disseminated pyrite
Minor pyrite clots
Trace chalcopyrite, malachite

7239

Mafic volcanic tuff
Weakly silicified
2% fine grained disseminated pyrite
Trace chalcopyrite

7240

Intermediate to felsic tuff, light green
Minor limonitic staining
5% disseminated pyrite and pyrite fragments
Trace chalcopyrite

7241

Felsic tuff, fine to medium grained, light blue-green
2% disseminated pyrite
Minor rounded pyrite grains
Minor limonite

7242

Brecciated mafic volcanic, light grey fresh surface
Iron carbonated, minor quartz veinlets
Quartz flooding with 2% disseminated pyrite and clots
Sheared, minor pyrite stringers

7243

Iron carbonated mafic volcanic, chloritic
Quartz-chlorite-iron carbonate veining
Trace pyrite
Weakly limonitic

7244

Mafic volcanic, highly iron carbonated, fine grained
Minor silicification and quartz veining
3% pyrite stringers in mafic volcanic
Massive

7245

Intermediate lapilli tuff with chert lapilli
Light grey-tan weathered surface, light grey fresh surface
5% pyrite as ash and lapilli sized fragments
Minor pyrite as fine grained disseminations and clots

7246

Intermediate lapilli tuff
Thick limonitic crust, light grey-green fresh surface
3% pyrite lapilli, angular and rounded
2% fine grained disseminated pyrite, trace chalcopyrite

7247

Intermediate lapilli tuff, light grey fresh surface
Weakly silicified, chloritic
4% disseminated fine grained pyrite, minor pyrite clots
2% fine grained chalcopyrite

7248

Felsic lapilli tuff, light yellow-green fresh surface
Minor quartz veining
2% disseminated fine to medium grained pyrite in tuff
Highly sheared

7249

Highly iron carbonated mafic volcanic, medium grained
Sheared, brecciated, limonitic crust
4% disseminated fine grained pyrite and stringers
Trace silicification

7250

Brecciated, limonitic carbonate with quartz flooding
Minor quartz veinlets
7% disseminated pyrite associated with quartz flooding
Minor pyrite clots and stringers, 2% chalcopyrite

7251

Amorphous limonite
10% clear glassy quartz stringers
No visible sulphides
Massive

7252

Similar to 7250 with edges similar to 7251
3% total disseminated pyrite
Trace chalcopyrite
Sulphides similar to sample 7250

7253

Similar to 7252 with 50% white massive quartz veining
No sulphides in quartz veining
3% very fine grained disseminated pyrite
Trace chalcopyrite

7254

Amorphous limonite with 20% glassy quartz veining
10% anhedral pyrite clots in limonite adjacent to quartz
No sulphides in quartz veining
Massive

7255

Grey-white carbonated vein/dike
10% very fine grained anhedral disseminated pyrite in clots
10% grey quartz microveining, no sulphides
Limonitic

7256

Amorphous limonite
15% clear glassy quartz veining up to 10mm wide
10% anhedral clots of pyrite in limonite
Massive

7257

Thin limonitic crust on grey-white carbonated vein/dike
5% stringers of very fine grained pyrite
Pyrite associated with zones of quartz flooding
Minor clots of anhedral very fine grained pyrite

7258

Five foot chip/channel sample
Material similar to 7250, 7253-7257
Moderately sheared
Highly limonitic

7259

Five foot chip/channel sample
Material similar to 7261-7265
Moderately sheared
Highly limonitic, trace malachite

7260

Five foot chip/channel sample
Material similar to 7269
Moderately sheared
Limonitic

7261

Highly sheared mafic volcanic, limonitic
Dark green with grey carbonate, silicified
10% very fine grained disseminated pyrite
Malachite staining

7262

One inch wide milky white quartz vein
20% dark brown limonite after hematite
No visible sulphides
Minor chlorite

7263

Dark green chloritic mafic volcanic with quartz-carbonate
10% very fine grained pyrite, 3% disseminated chalcopyrite
Sulphides associated with quartz flooding
Late iron carbonate veining

7264

Carbonated mafic volcanic with 50% grey quartz flooding
15% very fine grained disseminated pyrite
2% very fine grained disseminated chalcopyrite
Minor chlorite, sulphides associated with quartz flooding

7265

Brecciated carbonated fragments in quartz-chlorite matrix
Sulphides associated with quartz flooding
5% very fine grained disseminated pyrite
2% very fine grained disseminated chalcopyrite

7266

Five foot chip/channel sample
Similar to 7261-7265
Moderately sheared
Limonitic, malachite stain

7267

Brecciated carbonated fragments in green quartz matrix
70% carbonated white fragments
Sulphides associated with grey quartz flooding
5% fine grained anhedral pyrite

7268

Massive grey carbonate partially flooded with quartz
Minor quartz and chlorite veinlets
5% very fine grained disseminated pyrite
Sulphides associated with quartz flooding and chlorite

7269

Brecciated carbonate fragments in grey-green quartz matrix
Limonitic crust, minor coarse chlorite
5% very fine grained disseminated pyrite
Trace chalcopyrite associated with quartz and chlorite

7270

Medium grained carbonated tuff, white-grey fresh surface
50% flooded with quartz, 5% chlorite
10% very fine grained disseminated pyrite
Limonitic, trace chalcopyrite

7271

Similar to 7270
15% very fine grained disseminated pyrite
10% late barren iron carbonate veining
Moderately sheared

7272

Silicified fine grained carbonated tuff
Dark grey quartz flooding
5% very fine grained disseminated pyrite in stringers
Quartz veinlets postdate pyrite stringers

7273

Amorphous limonite
20% clear glassy quartz veining
No visible sulphides
Massive

7274

Grey-white carbonated material flooded with grey quartz
 7% very fine grained disseminated pyrite and stringers
 Barren late quartz flooding and veining
 5% chlorite associated with sulphides

7275

Medium grained carbonated tuff, grey-white fresh surface
 Minor quartz flooding with associated pyrite
 3% very fine grained disseminated pyrite
 Minor quartz and chlorite veinlets

7276

Similar to 7275
 15% very fine grained pyrite replacing chloritic fragments
 Sheared
 Brecciated

7277

Medium grained mafic volcanic, highly iron carbonated
 2% minor disseminated pyrite and stringers
 Limonitic
 Chloritic

7278

Medium grained mafic volcanic, medium grey-green
 Highly iron carbonated
 2% disseminated pyrite associated with silicification
 Brecciated, limonitic, sheared

7279

Massive quartz-carbonate veining
 Chloritic rock fragments
 No visible sulphides
 Limonite after iron carbonate

7280

Medium grained mafic volcanic
 Highly iron carbonated, limonitic
 4% fine to medium grained euhedral pyrite
 10% very fine grained disseminated magnetite

7281 Mafic tuff,

Dark grey-tan weathered surface, dark grey-green fresh surface, fine to medium grained, weakly silicified with minor siliceous stringers (beds ?), color index 25-50, locally mottled light purple-green on sheared surfaces. Two types of sulphide mineralization: 2% coarse clots of euhedral pyrite, 3% very fine-fine grained disseminated pyrite.

7282 Gabbro

Reddish tan (limonitic) weathered surface, medium grey-green fresh surface, medium grained, moderate iron carbonate alteration with minor irregular white carbonate veins, 2% very fine grained pyrite, massive to moderately sheared, primary texture destroyed.

7283 Gabbro

Dark grey-reddish tan weathered surface, medium green fresh surface, medium grained, color index 35, massive to weakly sheared, weak to moderate iron carbonate alteration, 2% very fine grained disseminated pyrite, non magnetic.

7284 Gabbro

Light mauve weathered surface, light tan fresh surface, intense iron carbonate alteration, color index 0, minor white carbonate veins, minor limonite on weathered surface, 1-2% very fine grained disseminated pyrite.

7285 Gabbro

Dark red-brown weathered surface, medium grey-green fresh surface, medium grained, color index 50, moderate iron carbonate alteration, locally chloritic, 2-3% very fine grained disseminated pyrite, 2% medium grained pyrite.

7286 Gabbro

Dark reddish tan limonitic weathered surface, dark green fresh surface, color index 50, trace olivine, melanocratic, 1% magnetite, trace-1% fine grained disseminated pyrite, moderate iron carbonate alteration, massive.

7287 Gabbro

Reddish brown limonitic weathered surface, medium grey-green fresh surface, medium grained, massive to weakly sheared, moderate iron carbonate alteration, 2% very fine grained disseminated pyrite, non magnetic.

7288 Intermediate-felsic lapilli-tuff

Limonitic tan-yellow weathered surface, light grey-green fresh surface, color index 15, heterolithic, weakly sheared, weakly silicified, angular to rounded very fine grained pyrite clasts up to 1.5 cm in size.

7289 Massive iron carbonate vein

Dark reddish brown weathered surface, yellow-orange fresh surface, cross cut by minor clear carbonate veinlets, trace pyrite.

7290 Intermediate lapilli-tuff

Medium tan weathered surface, light grey-tan fresh surface, sheared, moderate iron carbonate alteration, minor quartz veinlets, trace pyrite.

7291 Mafic flow

Light grey-green weathered surface with limonitic patches, medium grey-green fresh surface, color index 40, massive, fine grained, weak iron carbonate alteration, trace pyrite, possible microgabbro.

7292 Mafic flow

Medium-dark green weathered surface with limonitic crust, grey-green weathered surface, fine grained, moderately sheared, moderate -intense iron carbonate alteration, minor late iron carbonate (limonite) veins, trace pyrite, non magnetic.

7293 Mafic flow

Medium-dark green weathered surface, grey-green fresh surface, fine-medium grained, color index 50, moderate-intense iron carbonate alteration, moderately sheared, non magnetic, trace disseminated pyrite.

7294 Mafic flow

Dark grey-tan weathered surface with limonitic crust, medium grey-green fresh surface, fine-medium grained, color index 40, massive -weakly sheared, moderate-intense iron carbonate alteration, non magnetic, trace pyrite.

7295 Gabbro

Medium grey-green weathered surface, dark green fresh surface, medium grained, color index 60, equigranular, very weak iron carbonate alteration, trace pyrrhotite, non magnetic.

7296 Gabbro

Medium grey-brown weathered surface, mottled green-brown fresh surface, color index 25, moderate iron carbonate alteration, moderate-highly sheared, non magnetic, no sulphides.

7297 Mafic flow

Reddish brown weathered surface, medium grey-green fresh surface, fine-medium grained, color index 30, massive, intense iron carbonate alteration, minor carbonate veins, locally 5% fine-medium grained disseminated euhedral pyrite, minor quartz-chlorite veining.

7298 Mafic flow

Orange-tan weathered surface with a thick limonitic crust, white fresh surface, medium grained, color index 0, 2% very fine grained disseminated pyrite, intense iron carbonate alteration.

7299 Gabbro

Reddish orange weathered surface, grey-green fresh surface, medium grained, color index 25, intense iron carbonate alteration, moderately sheared, magnetic, no sulphides.

7300 Gabbro

Reddish orange weathered surface, dark green fresh surface, medium grained, color index 30, moderate iron carbonate alteration, weakly sheared, weakly magnetic, 1-2% fine grained disseminated pyrite.

7301 Mafic volcanic

Dark brown limonitic weathered surface, light tan-grey fresh surface, medium grained, color index <5, intense iron carbonate alteration, weakly brecciated appearance, trace very fine grained pyrite.

7302 Gabbro

Tan weathered surface, light-medium grey-green fresh surface, medium grained, color index 30, intense iron carbonate alteration, fractured, sheared, coarse carbonate veining, trace pyrite.

7303 Quartz vein

White, minor chloritic slips, 2% medium-coarse euhedral pyrite adjacent to wallrock.

7304 Felsic tuff

Orange-brown limonitic weathered surface, grey-white fresh surface, color index 0, well developed foliation, intense iron carbonate alteration, 2% very fine grained disseminated pyrite.

7305 Mafic volcanic

Brown-orange limonitic weathered surface, dark green fresh surface, chloritic slickensided surfaces, intense iron carbonate alteration, trace very fine grained disseminated pyrite, friable.

7306 Felsic tuff

Brown-orange limonitic weathered surface, mottled reddish brown-grey fresh surface, fine grained, feldspathic, intense iron carbonate alteration, moderately sheared.

7307 Felsic tuff

Dark grey-pink weathered surface, creamy white-pink fresh surface, color index 0, medium grained, moderate iron carbonate alteration, highly sheared, no sulphides.

7308 Felsic tuff

Dark orange-brown limonitic weathered surface, white-tan fresh surface, very fine-fine grained, Color index 2, very intense iron carbonate alteration, <1% very fine grained disseminated pyrite, minor quartz stringers, massive.

7309 Felsic tuff

Similar to 7308, 1-2 % very fine grained disseminated pyrite.

7310 Felsic tuff

Brown-orange weathered surface, light grey fresh surface, fine-medium grained, color index 0, visible lithic fragments, moderate-intense iron carbonate alteration, weakly sheared, 2% very fine grained disseminated pyrite.

7311 Felsic tuff

Pinkish tan weakly limonitic weathered surface, creamy white fresh surface, fine-medium grained, color index 0, 30% quartz, moderate iron carbonate alteration, moderately sheared, trace very fine grained disseminated pyrite.

7312 Felsic tuff

Reddish tan weathered surface, light-medium grey fresh surface, fine-medium grained, color index 0, quartzose with lithic fragments, moderate to intense iron carbonate alteration, moderately sheared, trace very fine grained disseminated pyrite.

7313 Felsic tuff

Orange-tan weathered surface, medium grey fresh surface, fine-medium grained, color index <5, moderate-intense iron carbonate alteration, bedded massive iron carbonate layers (possible veins) cross cut with white carbonate veinlets, 5% pyrite associated with veins, moderately sheared.

7314 Felsic tuff

Light orange-brown weathered surface, mottled grey-tan fresh surface, fine-medium grained, moderate iron carbonate alteration, 3-4% fine-medium grained disseminated pyrite, moderately sheared.

7315 Felsic tuff

Limonitic orange-brown weathered surface, medium grey fresh surface, fine-medium grained, color index 0, lithic fragments, moderate iron carbonate alteration minor beds of iron carbonate, minor quartz veinlets cross cut carbonate beds, minor quartz veins with pyrite, trace disseminated pyrite, moderately sheared.

7316 Felsic tuff

Limonitic red-brown weathered surface, light grey fresh surface, fine-medium grained, intense iron carbonate alteration, highly sheared, no visible sulphides.

7317 Felsic tuff

Limonitic orange-brown weathered surface, light tan-grey fresh surface, fine-medium grained, color index 0, moderate-intense iron carbonate alteration with iron carbonate veins, 2-3% pyrite in veins, minor quartz veinlets parallel to foliation, 2% fine-medium grained pyrite, friable.

7318 Felsic tuff/lapilli-tuff

White weathered surface with oxidized patches, medium-dark grey-green fresh surface, fine-medium grained, color index 10-15, lithic fragments, 5% disseminated pyrrhotite.

7319 Felsic tuff

Weakly limonitic tan-white weathered surface, grey-tan fresh surface, fine-medium grained, color index 0, moderate-intense iron carbonate alteration, 10% coarse euhedral pyrite to 10mm on fractured surfaces, trace disseminated pyrite, moderately sheared.

7320 Massive quartz

White, translucent, minor irregular limonite patches, limonitic fractures parallel to vein surface.

7321 Felsic tuff

Cream-tan weathered surface with limonitic patches, light grey-white fresh surface, fine grained, color index 3, chloritic, moderate-intense iron carbonate alteration, minor quartz stringers, no sulphides, kink banding.

7322 Felsic tuff/lapilli-tuff

Pink-white weathered surface, pink-white fresh surface, generally fine to medium grained with fragments to 2cm, color index 3, weak iron carbonate alteration, sheared, trace pyrite.

7323 Felsic tuff

Medium tan with limonitic patches on weathered surface, light grey-white fresh surface, fine grained, color index 2, quartzose, moderate-intense iron carbonate alteration, massive, 1% very fine grained disseminated pyrite.

7324 Felsic tuff

Similar to 7323.

7325 Felsic tuff

Similar to 7323, 7324.

7326 Felsic tuff

Dark orange-brown weathered surface, medium grey fresh surface, very fine-fine grained, color index 2, intense iron carbonate alteration, massive, 1% very fine grained disseminated pyrite.

7327 Felsic tuff

Pink-white weathered surface, light grey fresh surface, fine-medium grained, color index 2, moderate-intense iron carbonate alteration, sheared.

7328 Felsic tuff

Light tan weathered surface, cream-grey fresh surface, fine-medium grained, color index 0, well bedded, moderate-intense iron carbonate alteration, trace very fine grained disseminated pyrite.

7329 Felsic tuff

Pinkish tan weathered surface, cream-grey fresh surface, fine-medium grained, color index 0, moderate-intense iron carbonate alteration, trace pyrite.

7330 Felsic porphyry

Dark grey weathered surface, mottled grey fresh surface, color index, fine-medium grained, moderate iron carbonate alteration.

7331 Felsic lapilli-tuff

Tan weathered surface, cream-grey fresh surface, fine-medium grained, color index 4, fragments to 20mm, 1% disseminated pyrite, pyrite also in fragments.

7332 Quartz feldspar porphyry

Light grey weathered surface, dark grey fresh surface, fine-medium grained, crowded, weakly chloritic biotite, trace pyrite, very weak iron carbonate alteration.

7333 Felsic tuff

Limonitic tan weathered surface, cream-grey fresh surface, fine-medium grained, moderate-intense iron carbonate alteration, weakly sheared, trace pyrite.

7334 Felsic tuff

Limonitic orange-brown weathered surface, cream-tan fresh surface, very fine-fine grained, color index 0, well bedded, intense iron carbonate alteration, trace pyrite.

7335 Felsic tuff

Limonitic orange-brown weathered surface, cream fresh surface, very fine-fine grained, color index 2, massive, intense iron carbonate alteration, trace disseminated pyrite.

7336 Feldspar porphyry

Medium grey weathered surface, dark green fresh surface, fine-medium grained, color index 15, chloritic, minor limonite, 3% disseminated pyrite.

7337 Feldspar porphyry

Dark green weathered surface, medium green fresh surface, fine grained, chloritic with pyritic chloritic micro stringers, weak iron carbonate alteration and iron carbonate veining, moderately sheared.

7338 Felsic tuff

Medium green weathered surface, fine-medium grained, color index 10, chloritic, sheared, 3% very fine grained disseminated pyrite.

7339 Felsic tuff

Yellow-brown oxidized weathered surface, cream-white fresh surface, color index 0, very fine-fine grained, 30% quartz, 3% disseminated pyrite.

7340 Massive quartz-iron carbonate vein

Weakly oxidized to limonite along fractures, brecciated, no sulphides.

7341 Felsic tuff

Pink weathered surface with minor limonitic patches, pinkish white fresh surface, fine-medium grained, color index 0, brecciated and fractured, moderate iron carbonate alteration, minor quartz veining, no sulphides, sheared.

7342 Felsic tuff

Pink-tan weathered surface, cream-white fresh surface, fine-medium grained, color index 0, limonitic, moderate to intense iron carbonate alteration, highly sheared, trace pyrite.

7343 Felsic tuff

Reddish brown weathered surface, cream-white fresh surface, fine grained, color index 0, intense iron carbonate alteration, highly sheared, trace pyrite.

7344 Felsic tuff

Reddish brown-tan weathered surface, cream fresh surface, fine-medium grained, color index 0, intense iron carbonate alteration, sheared, trace pyrite.

7345 Felsic porphyry

Tan-pink weathered surface, medium grey fresh surface, fine-medium grained, color index 15, sparse larger feldspar phenocrysts, weak iron carbonate alteration along fractures, trace pyrite.

7346 Felsic tuff

White weathered surface, cream fresh surface, very fine-fine grained, well bedded, weak iron carbonate alteration, sheared.

7347 Felsic tuff

Dark grey weathered surface, light grey fresh surface, fine grained, moderate iron carbonate alteration, moderately sheared, limonitic.

7348 Felsic tuff (possible quartz feldspar porphyry)

Tan weathered surface, light grey-green fresh surface, medium grained, color index 0, biotite veinlets along shear surfaces, minor limonitic weathering crust.

7349 Quartz feldspar porphyry

Mottled purple-white limonitic weathered surface, mottled purple-grey fresh surface, fine grained, color index 2, chloritic patches, moderate-intense iron carbonate alteration, minor quartz-carbonate veining, brecciated and fractured, trace pyrite.

7350 Felsic tuff

Grey-brown weathered surface, grey fresh surface, fine grained, color index 0, moderate-intense iron carbonate alteration, bedded, sheared, chloritic.

7351 Felsic tuff

Reddish brown weathered surface, cream yellow fresh surface, fine grained, sheared, moderate to intense iron carbonate alteration, trace fine grained disseminated pyrite, minor quartz veinlets.

7352 Felsic tuff

Reddish brown weathered surface, light grey-green fresh surface, fine grained, massive, moderate iron carbonate alteration, color index 0.

7353 Massive quartz-carbonate vein

Massive white quartz with limonitic iron carbonate, locally developed tourmaline pods, trace pyrite.

7354 Massive quartz-carbonate vein

Massive white quartz with limonitic iron carbonate, locally developed tourmaline pods with acicular needles to 6mm., no pyrite.

7355 Massive quartz

Massive white quartz, well fractured, minor limonite, no pyrite.

7356 Felsic tuff

Limonitic orange-yellow weathered surface, grey-white fresh surface, fine to very fine grained, moderate iron carbonate, highly fissile, minor iron carbonate veinlets, no pyrite.

7357 Felsic tuff

Limonitic orange weathered surface, grey-white fresh surface, fine to medium grained, massive, moderate iron carbonate, sparse malachite stain, 1% fine grained disseminated pyrite.

7358 Quartz-feldspar porphyry

Limonitic tan weathered surface, dark grey-purple fresh surface, medium grained, crowded, sparse quartz phenocrysts, biotite altered to chlorite, weak iron carbonate alteration, trace disseminated pyrite.

7359 Quartz-feldspar porphyry

Limonitic tan weathered surface, purple-grey fresh surface, crowded, fine to medium grained, sparse quartz phenocrysts, moderate to intense iron carbonate alteration, 2% fine grained disseminated pyrite.

7360 Quartz vein

Massive white quartz, minor limonitic staining, no visible sulphides.

7361 Quartz vein

Massive white quartz, minor limonitic staining, no visible sulphides.

7362 Felsic tuff

Limonitic yellow-orange weathered surface, light grey fresh surface, fine to medium grained, sheared, intense iron carbonate alteration, no visible sulphides.

7363 Felsic tuff

Limonitic orange weathered surface, light grey-green-yellow fresh surface, fine to medium grained, intense iron carbonate alteration, 1% very fine grained disseminated pyrite.

7364 Quartz-feldspar porphyry

White weathered surface, light green fresh surface, medium grained, sparse quartz phenocrysts, weakly chloritic, weak iron carbonate alteration, sheared, no visible sulphides.

7365 Quartz-feldspar porphyry

Light tan weathered surface, grey-purple fresh surface, sparse quartz phenocrysts, color index 15 (biotite), fine to medium grained, moderate iron carbonate alteration, no visible sulphides.

7366 Quartz-feldspar porphyry

Limonitic tan weathered surface, grey-purple fresh surface, crowded, sparse quartz phenocrysts, chloritized biotite, fine to medium grained, moderate iron carbonate alteration, sheared, no visible sulphides.

7367 Quartz-feldspar porphyry

Tan weathered surface, grey-purple fresh surface, crowded, fine to medium grained, sparse quartz phenocrysts, chloritized biotite, moderate iron carbonate alteration, no visible sulphides.

7368 Quartz vein

Sheared quartz vein, weak limonitic stain, no visible sulphides.

7369 Felsic tuff

Limonitic orange weathered surface, cream-yellow fresh surface, fine to medium grained, color index 0, massive, moderate iron carbonate alteration, 2% fine grained disseminated pyrite, minor quartz veinlets.

7370 Felsic tuff

Limonic weathered surface, light grey fresh surface, fine to medium grained, 3% fine grained disseminated pyrite, minor quartz veinlets, intense iron carbonate alteration.

7371 Felsic tuff

Limonic weathered surface, light tan fresh surface, fine to medium grained, 2% fine grained disseminated pyrite, minor quartz veining, moderate to intense iron carbonate alteration.

7372 Felsic tuff

Limonic orange weathered surface, cream-yellow fresh surface, fine to medium grained, intense iron carbonate alteration, sheared, 2% fine grained pyrite stringers.

7373 Felsic lapilli-tuff

Light limonic orange weathered surface, light cream-yellow fresh surface, color index 0, moderate iron carbonate alteration, sheared, 2% disseminated pyrite.

7374 Felsic tuff

Limonic orange-tan weathered surface, cream-yellow fresh surface, fine to medium grained, moderate to intense iron carbonate alteration, minor quartz-carbonate veining, 2% disseminated pyrite.

7375 Felsic tuff

Limonic orange-tan weathered surface, cream-yellow fresh surface, fine to medium grained, massive, moderate to intense iron carbonate, 2% disseminated pyrite, minor quartz veining.

7376 Felsic tuff

Limonic orange-tan weathered surface, cream-yellow fresh surface, fine to medium grained, intense iron carbonate alteration, 1% disseminated pyrite.

**APPENDIX 2
ASSAY DATA**



X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS REPORT 23931

TO: MICHAEL E. CHUTE
1515 CHERRYHILL ROAD
PETERBOROUGH, ONTARIO
K9K 1A7

CUSTOMER No. 2413

DATE SUBMITTED
11-Aug-93

REF. FILE 15704-E4


Total Pages 2

49 ROCKS Proj. N.W. ONTARIO

	METHOD	DETECTION LIMIT
AU-1AT PPB	FADCP	1.
CO PPM	ICP	1.
NI PPM	ICP	1.
CU PPM	ICP	.5
ZN PPM	ICP	.5
AS PPM	FAA	1.
MO PPM	ICP	1.
AG PPM	ICP	.5
CD PPM	ICP	1.
PB PPM	ICP	2.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 31-Aug-93

CERTIFIED BY 
Jean H.L. Opdebeeck, General Manager

SAMPLE	AU-1AT	PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AS PPM	MO PPM	AG PPM	CD PPM	PB PPM
7220	<1	18	31	15.8	88.4	<1	<1	<.5	1	4	
7221	<1	14	17	37.9	146	11	<1	.6	4	2	
7222	<1	21	26	31.5	196	11	<1	<.5	5	<2	
7223	<1	34	39	82.7	121	4	<1	.5	7	<2	
7224	<1	16	35	14.8	73.5	5	<1	<.5	3	<2	
7225	<1	28	32	49.6	117	4	<1	1.1	9	<2	
7226	4	20	32	35.6	80.9	11	<1	<.5	4	11	
7227	<1	65	58	93.5	154	6	<1	.9	10	<2	
7228	<1	28	30	85.5	118	4	<1	1.1	11	6	
7229	<1	33	27	80.9	132	4	<1	.9	10	<2	
7230	<1	13	21	23.6	58.0	<1	<1	<.5	2	<2	
7231	<1	31	19	133	1110	6	<1	1.3	21	6	
7232	<1	3	9	7.2	20.6	8	<1	<.5	<1	<2	
7233	11	26	139	30.9	148	23	<1	.5	6	9	
7234	<1	40	41	24.6	81.1	5	<1	.6	5	<2	
7235	<1	33	23	72.6	64.2	10	<1	<.5	3	<2	
7236	3	42	30	40.2	108	6	<1	.9	5	<2	
7237	43	7	6	10.5	3.5	12	<1	<.5	<1	3	
7238	14	5	3	15.6	24.2	87	<1	<.5	2	2	
7239	<1	17	14	95.4	132	3	<1	.9	6	<2	
7240	2	21	34	36.9	115	19	<1	.5	3	23	
7241	<1	8	12	13.3	90.0	2	<1	<.5	<1	<2	
7250	4	48	35	1240	212	29	<1	1.2	12	5	
7251	<1	20	21	164	1860	22	<1	1.0	13	4	
7252	<1	21	17	334	1220	20	<1	.8	12	2	
7253	<1	9	3	25.7	680	7	<1	1.2	11	8	
7254	9	40	40	213	5140	67	<1	1.8	32	14	
7255	13	27	28	244	11100	70	<1	1.7	54	16	
7256	56	55	49	2850	62300	173	2	3.4	313	42	
7257	20	14	9	218	11900	24	<1	1.5	58	16	
7258	1	37	44	117	2180	75	<1	.8	15	4	
7259	3	63	59	395	1030	61	<1	.7	11	6	
7260	4	25	39	74.9	181	49	<1	.8	6	4	
7261	28	143	101	2720	227	289	<1	2.7	12	33	
7262	<1	11	19	35.5	367	20	<1	<.5	3	<2	
7263	5	58	55	4860	268	57	<1	1.3	7	5	
7264	5	30	24	1920	595	26	<1	1.2	8	7	
7265	4	56	58	824	298	58	<1	.7	7	5	
7266	<1	34	39	539	385	29	<1	.6	6	3	
7267	<1	64	22	285	138	14	<1	1.2	13	<2	
7268	2	30	32	67.2	151	61	<1	1.4	12	10	
7269	<1	26	51	49.0	139	72	<1	.9	7	<2	
7270	5	57	65	44.5	164	135	<1	1.9	10	17	
7271	<1	50	69	61.4	206	125	<1	.8	6	5	
7272	1	26	24	51.3	205	76	<1	1.6	13	13	

AU-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT



SAMPLE	AU-1AT PPB	CO PPM	NI PPM	CU PPM	ZN PPM	AS PPM	MO PPM	AG PPM	CD PPM	PB PPM
7273	10	19	21	60.2	331	58	<1	1.2	12	8
7274	2	15	11	35.0	178	54	<1	1.0	11	15
7275	<1	26	26	52.0	149	59	<1	.8	9	6
7276	4	48	61	71.0	145	182	<1	1.4	12	21
D 7220	--	18	31	16.0	88.0	<1	<1	<.5	1	5
D 7232	--	2	8	7.4	20.0	8	<1	<.5	<1	2
D 7252	--	22	15	340	1250	20	<1	.8	12	3
D 7264	--	30	21	1950	602	27	<1	.7	8	5
D 7274	--	16	12	35.0	180	55	<1	1.3	10	13

AU-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
D - QUALITY CONTROL DUPLICATE



X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS REPORT 24297

TO: MICHAEL E. CHUTE
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PETERBOROUGH, ONTARIO
K9K 1A7

CUSTOMER No. 2413

DATE SUBMITTED
30-Aug-93

REF. FILE 15916-A6

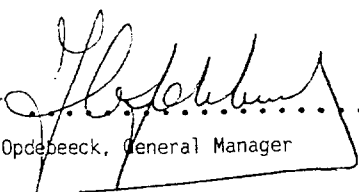
Total Pages 4

12 ROCKS Proj. N.W. ONTARIO

	METHOD	DETECTION LIMIT		METHOD	DETECTION LIMIT
AU-1AT PPB	FADCF	1.	ZN PPM	ICP	.5
BE PPM	ICP	.5	AS PPM	ICP	3.
NA %	ICP	.01	SR PPM	ICP	.5
MG %	ICP	.01	Y PPM	ICP	.1
AL %	ICP	.01	ZR PPM	ICP	.5
P %	ICP	.01	MO PPM	ICP	1.
K %	ICP	.01	AG PPM	ICP	.1
CA %	ICP	.01	CD PPM	ICP	1.
SC PPM	ICP	.5	SN PPM	ICP	10.
TI %	ICP	.01	SE PPM	ICP	5.
V PPM	ICP	2.	BA PPM	ICP	1.
CR PPM	ICP	1.	LA PPM	ICP	.5
MN PPM	ICP	2.	TA PPM	ICP	1.
FE %	ICP	.01	W PPM	ICP	10.
CO PPM	ICP	1.	PB PPM	ICP	2.
NI PPM	ICP	1.	BI PPM	ICP	3.
CU PPM	ICP	.5			

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 26-Oct-93

CERTIFIED BY 
Jean H.L. Opdebeeck, General Manager

SAMPLE	AU-1AT PPB	BE PPM	NA %	MG %	AL %	P %	K %	CA %	SC PPM
7242	7	2.3	.05	1.48	.85	.03	.02	7.83	18.9
7243	<1	.9	.06	.93	1.02	.03	.02	3.99	5.3
7244	<1	1.4	.06	1.32	.55	.03	.07	7.14	13.0
7245	<1	.7	.21	1.19	1.68	.03	.13	3.52	1.7
7246	<1	2.4	.04	2.06	5.06	.04	.02	3.91	23.3
7247	18	.9	.09	1.56	2.09	.03	.09	2.79	10.0
7248	<1	<.5	.07	.29	.50	.04	.25	1.47	<.5
7249	2	2.1	.05	1.72	3.76	.04	.03	5.35	24.1
7277	<1	2.6	.04	2.29	4.93	.05	.02	5.32	37.7
7278	<1	3.5	.05	2.44	1.37	.04	.03	4.45	28.5
7279	1	1.5	.02	1.44	.14	<.01	<.01	12.4	41.1
7280	41	2.8	.02	4.57	.89	<.01	<.01	8.05	27.1
D 7242	--	2.3	.06	1.51	.86	.03	.02	7.99	19.1

AU-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
D - QUALITY CONTROL DUPLICATE



SAMPLE	TI %	V PPM	CR PPM	MN PPM	FE %	CO PPM	NI PPM	CU PPM
7242	<.01	106	36	4320	15.7	49	53	51.0
7243	<.01	64	221	1200	5.54	24	58	26.5
7244	.04	90	76	3140	9.03	24	39	49.9
7245	<.01	16	113	1420	4.01	11	12	26.6
7246	<.01	218	69	5490	16.1	35	51	72.1
7247	<.01	101	127	1320	4.82	77	68	246
7248	<.01	4	99	305	1.19	5	5	15.0
7249	<.01	206	53	3040	14.4	45	54	93.3
7277	<.01	293	63	2620	17.3	44	75	211
7278	<.01	163	32	6400	24.0	42	61	54.6
7279	<.01	24	123	3260	10.6	18	13	3.8
7280	<.01	102	20	4240	19.3	19	35	59.4
D 7242	<.01	107	36	4380	15.9	49	54	51.7

D - QUALITY CONTROL DUPLICATE



SAMPLE	ZN PPM	AS PPM	SR PPM	Y PPM	ZR PPM	MO PPM	AG PPM	CD PPM
7242	153	9	74.7	5.4	5.7	<1	.8	4
7243	72.3	<3	50.5	2.4	5.1	<1	<.1	1
7244	63.3	<3	61.4	4.0	7.1	<1	.5	2
7245	46.2	<3	51.4	2.2	7.4	<1	.2	<1
7246	126	<3	53.5	4.3	4.9	<1	1.1	3
7247	52.8	<3	30.1	2.8	3.0	<1	.3	<1
7248	25.1	<3	161	2.6	8.7	1	.4	<1
7249	152	<3	42.2	3.8	4.2	<1	.8	3
7277	143	<3	47.6	6.8	4.0	<1	.5	4
7278	164	<3	70.7	7.0	5.7	<1	1.3	6
7279	47.3	<3	148	9.9	2.2	<1	.3	3
7280	207	<3	66.9	5.7	4.7	1	1.3	5
D 7242	156	12	75.8	5.5	4.7	<1	.6	4

D - QUALITY CONTROL DUPLICATE



SAMPLE	SN PPM	SB PPM	BA PPM	LA PPM	TA PPM	W PPM	PB PPM	BI PPM
7242	<10	<5	10	11.7	3	<10	3	13
7243	<10	<5	17	6.1	2	<10	<2	6
7244	<10	<5	26	10.5	<1	<10	4	3
7245	<10	<5	16	8.1	2	<10	<2	4
7246	<10	<5	38	13.4	3	<10	<2	10
7247	<10	<5	26	6.7	2	<10	<2	<3
7248	<10	<5	77	16.3	1	<10	3	<3
7249	<10	<5	7	11.0	1	<10	<2	12
7277	<10	<5	5	12.8	5	<10	<2	12
7278	<10	<5	12	17.5	8	<10	3	15
7279	<10	<5	3	7.3	1	<10	3	8
7280	<10	<5	6	13.5	4	<10	3	15
D 7242	<10	<5	11	11.3	2	<10	4	14

D - QUALITY CONTROL DUPLICATE



XRAL Laboratories
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1885 Leslie Street
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CERTIFICATE OF ANALYSIS
REPORT 30308

TO: **MICHAEL E. CHUTE**
1515 CHERRYHILL ROAD
PETERBOROUGH, ONTARIO
K9K 1A7

CUSTOMER No. 2413

DATE SUBMITTED
11-Nov-94

WORKORDER 1893-I4

TOTAL PAGES 8

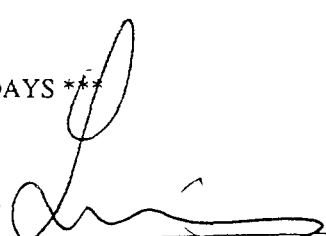
70 ROCKS Proj. NW ONTARIO 94-11

	METHOD	DETECTION	METHOD		METHOD	DETECTION	METHOD
		LIMIT	CODE			LIMIT	CODE
AU PPB	FADCP	1.	2-1	CU PPM	ICP	.5	70-1
BE PPM	ICP	.5	70-1	ZN PPM	ICP	.5	70-1
NA %	ICP	.01	70-1	AS PPM	ICP	3.	70-1
MG %	ICP	.01	70-1	SR PPM	ICP	.5	70-1
AL %	ICP	.01	70-1	Y PPM	ICP	.1	70-1
P %	ICP	.01	70-1	ZR PPM	ICP	.5	70-1
K %	ICP	.01	70-1	MO PPM	ICP	1.	70-1
CA %	ICP	.01	70-1	AG PPM	ICP	.1	70-1
SC PPM	ICP	.5	70-1	CD PPM	ICP	1.	70-1
TI %	ICP	.01	70-1	SN PPM	ICP	10.	70-1
V PPM	ICP	2.	70-1	SB PPM	ICP	5.	70-1
CR PPM	ICP	1.	70-1	BA PPM	ICP	1.	70-1
MN PPM	ICP	2.	70-1	LA PPM	ICP	.5	70-1
FE %	ICP	.01	70-1	W PPM	ICP	10.	70-1
CO PPM	ICP	1.	70-1	PB PPM	ICP	2.	70-1
NI PPM	ICP	1.	70-1	BI PPM	ICP	3.	70-1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 22-NOV-94

CERTIFIED BY


Jean H. Opdebeeck, General Manager

XFLAL

22-NOV-94

REPORT 30308

WORKORDER 1893-14

SAMPLE	AU PPB	BE PPM	NA %	MG %	AL %	P %	K %	CA %
	FADCP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	2-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7281	1	<.5	.06	1.15	2.75	.08	.02	1.75
7282	5	<.5	.04	2.53	3.04	.06	.05	5.65
7283	1	<.5	.06	1.98	2.54	.09	.02	4.35
7284	13	<.5	.11	1.54	.25	.07	.02	4.72
7285	<1	<.5	.04	2.49	2.10	.04	.04	8.15
7286	<1	<.5	.05	3.08	4.08	.06	.06	3.89
7287	<1	<.5	.09	1.36	1.21	.08	.07	4.81
7288	<1	<.5	.07	.98	1.51	.05	.06	.57
7289	8	<.5	.06	2.86	.29	.04	.04	13.2
7290	<1	<.5	.07	.83	1.64	.07	.05	6.49
7291	<1	<.5	.05	1.79	2.33	<.01	.03	5.49
7292	<1	<.5	.05	.86	1.99	.10	.09	4.26
7293	<1	<.5	.04	2.03	2.23	.08	.06	4.12
7294	<1	<.5	.04	2.30	3.45	.07	.05	3.74
7295	6	<.5	.04	2.90	4.29	.06	.01	3.88
7296	2	<.5	.07	1.11	2.13	.09	.05	5.19
7297	2	<.5	.04	2.68	4.24	.07	.01	4.87
7298	1	<.5	.10	.77	.35	.18	.04	3.08
7299	<1	<.5	.08	1.80	1.59	.08	.06	5.97
7300	<1	<.5	.06	2.47	2.82	.08	.04	4.51
7301	<1	<.5	.10	.59	.28	.12	.02	4.73
7302	<1	<.5	.05	2.37	.19	.02	.02	6.77
7303	<1	<.5	.03	.19	.25	.02	.09	.95
7304	<1	<.5	.10	.58	.26	.16	.03	4.57
7305	3	1.8	.06	.75	1.48	.07	.04	1.12
7306	<1	<.5	.10	1.38	.19	.06	.03	5.37
7307	<1	<.5	.07	.20	.42	.03	.10	1.35
7308	<1	2.2	.06	2.26	.07	.03	.02	4.22
7309	5	.7	.05	1.89	.07	.02	.01	5.57
7310	13	<.5	.10	1.05	.25	.08	.02	4.28
7311	<1	<.5	.10	.15	.26	.03	.06	1.77
7312	<1	<.5	.08	.20	.62	.04	.11	1.96
7313	<1	<.5	.11	1.41	.26	.08	.04	5.96
7314	<1	<.5	.12	1.81	.30	.08	.03	5.36
7315	<1	<.5	.07	1.73	.17	.05	.02	5.93
7316	<1	<.5	.08	.04	.31	.04	.11	.26
7317	<1	<.5	.07	1.39	.17	.07	.02	7.75
7318	<1	<.5	.04	2.22	2.59	.07	.07	.57
7319	1	<.5	.08	.05	.27	.04	.12	1.23
7320	<1	<.5	.03	<.01	.05	.05	.02	.11

XFLAL

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SAMPLE	AU PPB	BE PPM	NA %	MG %	AL %	P %	K %	CA %
	FADCP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	2-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7321	<1	<.5	.07	.95	.36	.05	.12	2.85
7322	1	<.5	.06	.26	.75	.05	.10	.43
7323	<1	<.5	.10	.08	.30	.07	.08	1.50
7324	<1	<.5	.09	.35	.23	.06	.06	2.78
7325	<1	<.5	.09	.22	.28	.06	.09	1.03
7326	<1	<.5	.07	1.16	.18	.03	.08	7.38
7327	3	<.5	.08	.03	.28	.05	.08	1.13
7328	<1	<.5	.09	.18	.28	.05	.10	1.83
7329	<1	<.5	.10	.05	.32	.05	.09	1.09
7330	<1	<.5	.08	.17	.32	.05	.11	.86
7331	<1	<.5	.09	.38	.26	.06	.09	2.12
7332	<1	<.5	.07	.57	1.05	.06	.09	1.35
7333	<1	<.5	.08	.22	.27	.04	.09	2.47
7334	<1	<.5	.08	.28	.27	.05	.08	1.52
7335	<1	<.5	.06	3.46	.15	.04	.05	8.21
7336	<1	<.5	.06	2.15	1.80	.06	.02	2.93
7337	10	<.5	.06	2.11	1.81	.06	.02	2.80
7338	1	<.5	.05	1.47	1.40	.06	.08	2.43
7339	2	<.5	.10	.02	.28	.05	.08	.86
7340	<1	<.5	.05	.15	.14	.05	.04	2.28
7341	<1	<.5	.07	.51	.20	.05	.08	2.10
7342	<1	<.5	.08	.04	.30	.05	.10	1.16
7343	7	<.5	.08	.18	.27	.05	.11	1.87
7344	<1	<.5	.08	.03	.28	.05	.09	.83
7345	<1	<.5	.06	.41	.70	.05	.06	.96
7346	4	<.5	.08	.13	.23	.06	.07	1.85
7347	<1	<.5	.09	.03	.28	.05	.08	.75
7348	<1	<.5	.08	.48	.28	.08	.09	1.92
7349	1	<.5	.06	.32	.27	.04	.09	1.54
7350	<1	<.5	.07	.83	.27	.06	.10	2.40
D 7281	<1	<.5	.06	1.17	2.79	.08	.02	1.83
D 7293	<1	<.5	.04	2.01	2.20	.08	.06	4.12
D 7305	2	.9	.06	.70	1.36	.07	.04	1.04
D 7317	<1	<.5	.07	1.32	.16	.06	.02	7.38
D 7327	--	<.5	.08	.03	.24	.05	.07	1.11
D 7329	<1	--	--	--	--	--	--	--
D 7339	--	<.5	.10	.02	.25	.05	.08	.83
D 7341	<1	--	--	--	--	--	--	--

D - QUALITY CONTROL DUPLICATE



X-RAY

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WORKORDER 1893-I4

SAMPLE	SC PPM	TI %	V PPM	CR PPM	MN PPM	FE %	CO PPM	NI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7281	14.8	.34	247	108	1800	8.89	46	39
7282	19.3	<.01	386	80	2180	10.8	39	48
7283	23.9	<.01	250	24	1620	9.34	33	<1
7284	18.1	<.01	36	30	2100	10.8	41	37
7285	13.3	<.01	94	58	3660	12.4	34	33
7286	15.8	<.01	176	121	1210	11.4	60	114
7287	16.2	.01	121	61	1760	8.30	33	38
7288	2.0	<.01	34	102	248	3.81	8	24
7289	9.5	<.01	41	22	2320	9.39	29	41
7290	20.3	<.01	158	40	2170	9.68	35	19
7291	18.8	<.01	125	55	2450	10.9	23	12
7292	13.9	<.01	101	46	1600	9.58	36	40
7293	16.2	<.01	192	52	1740	10.4	47	38
7294	18.2	<.01	258	125	1320	10.6	51	64
7295	25.0	<.01	237	75	1400	9.56	47	77
7296	13.8	<.01	146	72	1640	8.54	41	63
7297	36.8	<.01	566	24	2290	14.8	50	<1
7298	14.7	<.01	13	34	1910	9.45	27	<1
7299	19.0	<.01	161	64	1750	8.67	29	23
7300	18.8	<.01	201	114	1480	9.57	42	52
7301	20.4	<.01	33	30	1840	9.60	30	<1
7302	7.7	<.01	46	27	6180	22.2	24	12
7303	<.5	.01	8	227	144	.76	3	9
7304	17.3	<.01	11	26	2090	11.3	24	<1
7305	22.2	<.01	134	34	8080	29.1	45	35
7306	31.8	<.01	50	37	1670	10.4	44	50
7307	1.1	<.01	6	57	388	1.47	7	6
7308	8.2	<.01	64	29	13100	30.7	15	<1
7309	5.9	<.01	51	20	11800	27.2	13	<1
7310	24.5	<.01	40	36	1400	8.27	34	29
7311	1.3	<.01	9	57	253	1.83	6	6
7312	2.0	<.01	13	58	301	1.97	8	10
7313	23.6	<.01	55	43	2490	12.0	35	26
7314	29.5	<.01	45	67	1410	11.9	44	18
7315	16.8	<.01	40	25	5130	19.6	32	8
7316	2.0	<.01	8	47	295	2.00	5	5
7317	20.8	<.01	66	34	3000	9.80	32	61
7318	1.8	.30	51	151	709	7.98	68	525
7319	1.1	<.01	5	59	170	1.85	10	15
7320	<.5	<.01	<2	273	104	.56	<1	2

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WORKORDER 1893-14

SAMPLE	SC PPM	TI %	V PPM	CR PPM	MN PPM	FE %	CO PPM	NI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7321	3.9	<.01	8	44	489	2.08	10	17
7322	<.5	<.01	5	68	273	1.68	6	4
7323	2.5	<.01	7	65	338	2.02	7	9
7324	5.0	<.01	8	55	556	2.63	10	16
7325	.9	<.01	6	65	199	1.51	7	19
7326	13.3	<.01	17	37	1590	10.3	53	143
7327	1.9	<.01	6	52	417	2.10	7	13
7328	.9	<.01	4	57	319	1.89	5	9
7329	1.2	<.01	6	58	339	1.41	6	8
7330	<.5	<.01	5	61	262	1.39	5	3
7331	1.0	<.01	6	67	292	1.83	6	10
7332	1.1	<.01	12	70	293	2.13	8	5
7333	3.2	<.01	11	49	473	2.65	11	26
7334	.6	<.01	4	58	277	1.65	8	16
7335	5.8	<.01	25	30	1200	3.74	20	28
7336	9.4	<.01	92	127	701	4.21	21	41
7337	9.3	<.01	94	128	667	4.23	21	40
7338	4.3	<.01	33	63	641	4.02	20	40
7339	.9	<.01	5	62	190	1.55	4	7
7340	2.2	<.01	6	163	373	1.99	4	6
7341	1.1	<.01	4	101	307	1.64	4	4
7342	1.5	<.01	4	52	342	1.62	11	24
7343	2.8	<.01	7	53	329	2.21	10	19
7344	.6	<.01	4	59	121	.88	4	7
7345	.7	<.01	7	71	412	1.80	7	4
7346	.8	<.01	5	60	252	1.13	7	11
7347	.9	<.01	3	40	247	1.05	7	8
7348	2.9	<.01	5	51	287	1.30	10	15
7349	1.1	<.01	5	75	659	2.05	6	2
7350	2.5	<.01	6	35	403	2.02	11	16
D 7281	15.5	.37	255	111	1830	9.01	47	40
D 7293	16.1	<.01	199	57	1740	10.6	48	39
D 7305	20.5	<.01	125	31	7480	28.0	42	33
D 7317	19.8	<.01	63	31	2860	9.29	30	60
D 7327	1.8	<.01	6	50	410	2.06	7	11
D 7329	--	--	--	--	--	--	--	--
D 7339	.9	<.01	4	60	184	1.49	4	7
D 7341	--	--	--	--	--	--	--	--

D - QUALITY CONTROL DUPLICATE

XPRAL

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WORKORDER 1893-I4

SAMPLE	CU PPM	ZN PPM	AS PPM	SR PPM	Y PPM	ZR PPM	MO PPM	AG PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7281	16.0	199	10	10.7	10.1	1.2	<1	<.1
7282	397	182	<3	88.2	5.1	<.5	<1	.2
7283	25.5	94.3	<3	83.4	4.0	1.0	<1	<.1
7284	69.8	88.7	45	36.4	2.7	<.5	<1	.5
7285	181	79.3	<3	81.4	5.8	<.5	<1	.5
7286	17.0	187	<3	74.7	2.8	<.5	<1	.4
7287	91.9	92.9	<3	58.7	5.1	6.4	<1	.6
7288	10.2	69.8	9	62.5	1.4	5.9	<1	.7
7289	17.9	156	<3	118	5.0	1.3	<1	.1
7290	69.4	90.9	<3	49.8	7.0	2.4	<1	.2
7291	29.4	87.8	<3	52.1	2.5	.7	<1	.6
7292	12.0	85.7	<3	25.0	5.2	2.7	<1	.4
7293	103	126	<3	73.2	6.9	<.5	<1	.6
7294	223	148	<3	60.1	4.6	<.5	<1	.5
7295	75.7	126	<3	62.1	6.3	<.5	<1	.5
7296	68.3	74.1	<3	41.2	5.2	1.8	<1	.2
7297	57.3	166	8	97.8	6.2	<.5	<1	<.1
7298	7.0	114	<3	42.0	8.2	3.3	<1	.6
7299	65.9	74.3	<3	70.8	6.6	1.0	<1	.1
7300	69.6	104	<3	92.0	5.2	.7	<1	.3
7301	15.1	143	<3	30.5	7.1	3.8	<1	.9
7302	35.0	165	<3	94.4	4.0	1.8	<1	.8
7303	31.2	7.8	<3	50.4	.7	2.0	5	.2
7304	5.8	192	<3	35.0	7.4	1.8	<1	.3
7305	124	215	<3	18.2	4.6	5.2	<1	.6
7306	119	119	<3	77.4	4.0	3.6	<1	.9
7307	12.7	87.7	<3	80.5	1.5	3.2	<1	.8
7308	18.4	85.7	<3	44.6	4.7	9.6	<1	1.1
7309	32.6	82.9	<3	56.1	4.3	4.5	<1	1.1
7310	138	114	<3	46.5	3.9	<.5	<1	<.1
7311	9.6	64.9	5	57.6	1.3	4.7	<1	.4
7312	9.1	72.2	<3	98.8	2.0	4.6	<1	.7
7313	131	131	43	98.0	6.9	2.1	<1	.5
7314	115	166	<3	67.6	4.6	<.5	<1	.7
7315	75.5	159	13	69.7	4.7	<.5	<1	1.5
7316	6.4	30.3	<3	39.4	1.7	1.3	<1	.4
7317	145	125	26	71.9	7.3	3.8	<1	.8
7318	85.5	103	<3	49.7	2.1	7.4	<1	.4
7319	9.2	39.9	<3	41.6	1.1	2.0	1	.3
7320	6.4	10.7	3	17.9	1.3	.8	<1	.2

XIAL

22-NOV-94

REPORT 30308

WORKORDER 1893-I4

SAMPLE	CU PPM	ZN PPM	AS PPM	SR PPM	Y PPM	ZR PPM	MO PPM	AG PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7321	2.2	37.6	<3	130	2.4	6.4	<1	.3
7322	30.8	53.9	<3	21.6	1.9	5.6	<1	.4
7323	15.5	78.2	6	77.0	2.2	5.6	2	.5
7324	13.7	64.9	10	176	1.5	5.7	1	.3
7325	7.9	34.6	<3	106	1.8	7.8	<1	.3
7326	23.6	465	180	414	2.8	11.0	<1	1.3
7327	15.7	70.5	8	35.7	1.5	7.2	1	<.1
7328	5.3	38.3	<3	91.6	1.4	4.0	<1	.3
7329	12.5	47.0	<3	50.6	1.8	4.6	<1	<.1
7330	12.1	43.4	<3	33.6	2.4	7.9	<1	.4
7331	14.1	51.7	18	127	2.0	8.9	<1	.5
7332	2.9	67.8	<3	33.6	3.0	7.0	<1	.3
7333	14.0	84.9	<3	74.7	1.5	5.3	<1	<.1
7334	6.5	41.9	<3	80.4	1.7	7.6	<1	.5
7335	3.1	111	<3	378	4.2	11.9	<1	.7
7336	89.3	84.9	<3	89.6	2.8	7.2	<1	.8
7337	89.1	90.3	<3	84.9	2.6	6.9	<1	.3
7338	58.1	118	<3	80.1	2.8	9.7	<1	.6
7339	11.1	32.6	6	145	1.6	5.1	<1	.4
7340	3.6	63.5	26	97.9	2.1	4.7	3	.3
7341	2.8	26.5	<3	73.8	2.3	7.4	<1	.2
7342	17.7	30.7	37	49.5	1.9	9.4	<1	.5
7343	12.7	76.2	9	84.3	1.5	7.0	<1	.4
7344	28.5	30.6	8	45.5	1.3	5.7	<1	.5
7345	9.4	67.6	<3	40.6	2.4	6.6	2	<.1
7346	21.2	33.4	21	97.4	1.6	4.7	1	.4
7347	17.3	39.1	23	44.0	1.4	5.7	<1	.4
7348	52.2	27.0	45	163	2.0	9.7	<1	.4
7349	13.5	40.1	<3	48.9	2.8	6.1	<1	.5
7350	6.2	51.5	<3	92.6	2.0	7.3	<1	.2
D 7281	16.7	207	9	10.9	11.1	1.2	<1	<.1
D 7293	98.8	126	<3	72.6	6.9	<.5	<1	.4
D 7305	112	201	<3	16.9	4.3	3.8	<1	1.5
D 7317	139	119	27	68.4	6.9	3.4	<1	.5
D 7327	15.7	68.7	4	33.1	1.5	6.3	<1	<.1
D 7329	--	--	--	--	--	--	--	--
D 7339	11.2	31.0	7	138	1.6	5.1	<1	.7
D 7341	--	--	--	--	--	--	--	--

D - QUALITY CONTROL DUPLICATE

XAL

22-NOV-94

REPORT 30308

WORKORDER 1893-I4

SAMPLE	CD PPM	SN PPM	SB PPM	BA PPM	LA PPM	W PPM	PB PPM	BI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7281	<1	<10	<5	14	3.3	<10	<2	6
7282	<1	<10	<5	20	2.8	<10	<2	<3
7283	<1	<10	<5	6	3.6	<10	<2	<3
7284	<1	<10	<5	8	2.5	<10	3	<3
7285	<1	<10	<5	6	1.6	<10	3	<3
7286	<1	<10	<5	55	4.9	<10	<2	5
7287	<1	<10	<5	29	6.0	<10	2	<3
7288	<1	<10	<5	24	6.2	<10	14	<3
7289	<1	<10	<5	59	1.2	<10	<2	5
7290	<1	<10	<5	19	6.5	<10	<2	5
7291	<1	<10	<5	12	1.6	<10	<2	<3
7292	<1	<10	<5	35	4.4	<10	<2	<3
7293	<1	<10	<5	98	4.8	<10	<2	<3
7294	<1	<10	<5	36	3.3	<10	<2	5
7295	<1	<10	<5	277	4.4	<10	<2	<3
7296	<1	<10	<5	45	3.3	<10	<2	4
7297	<1	<10	<5	26	3.5	<10	<2	<3
7298	<1	<10	<5	28	5.2	<10	3	5
7299	<1	<10	<5	15	4.7	<10	3	<3
7300	<1	<10	<5	31	4.1	<10	<2	3
7301	<1	<10	<5	36	2.7	<10	<2	6
7302	1	<10	<5	500	1.6	<10	4	<3
7303	<1	<10	<5	30	3.0	<10	13	<3
7304	<1	<10	<5	30	6.1	<10	3	5
7305	1	<10	<5	294	<.5	<10	8	8
7306	<1	<10	<5	1060	2.4	<10	3	<3
7307	<1	<10	<5	75	5.1	<10	4	<3
7308	2	<10	<5	34	<.5	<10	8	<3
7309	2	<10	<5	20	<.5	<10	10	<3
7310	<1	<10	<5	65	3.6	<10	<2	<3
7311	<1	<10	<5	65	2.8	<10	5	<3
7312	<1	<10	<5	46	5.6	<10	3	4
7313	<1	<10	<5	35	2.2	<10	<2	<3
7314	<1	<10	<5	129	3.2	<10	3	3
7315	<1	<10	<5	40	2.8	<10	4	8
7316	<1	<10	<5	42	5.7	<10	4	<3
7317	<1	<10	<5	69	2.1	<10	<2	<3
7318	<1	<10	<5	12	3.5	<10	8	5
7319	<1	<10	<5	34	3.8	<10	3	<3
7320	<1	<10	<5	21	1.1	<10	2	<3

XPRAL

22-NOV-94

REPORT 30308

WORKORDER 1893-I4

SAMPLE	CD PPM	SN PPM	SB PPM	BA PPM	LA PPM	W PPM	PB PPM	BI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7321	<1	<10	<5	65	7.3	<10	3	<3
7322	<1	<10	<5	50	13.2	<10	<2	<3
7323	<1	<10	<5	53	13.3	<10	2	<3
7324	<1	<10	<5	39	7.2	<10	3	<3
7325	<1	<10	<5	33	9.9	<10	<2	<3
7326	<1	<10	<5	34	4.4	<10	7	6
7327	<1	<10	<5	52	4.7	<10	2	<3
7328	<1	<10	<5	48	6.1	<10	<2	<3
7329	<1	<10	<5	55	5.1	<10	<2	<3
7330	<1	<10	<5	43	16.4	<10	4	<3
7331	<1	<10	<5	36	10.0	<10	5	<3
7332	<1	<10	<5	27	15.5	<10	<2	<3
7333	<1	<10	<5	57	5.4	<10	4	<3
7334	<1	<10	<5	34	6.9	<10	2	4
7335	<1	<10	<5	257	4.7	<10	8	<3
7336	<1	<10	<5	20	11.2	<10	<2	<3
7337	<1	<10	<5	21	9.9	<10	5	<3
7338	<1	<10	<5	31	8.5	<10	<2	<3
7339	<1	<10	<5	33	5.9	<10	5	<3
7340	<1	<10	<5	26	3.8	<10	<2	<3
7341	<1	<10	<5	179	5.7	<10	<2	<3
7342	<1	<10	<5	47	6.8	<10	3	<3
7343	<1	<10	<5	43	4.8	<10	<2	<3
7344	<1	<10	<5	34	5.2	<10	<2	<3
7345	<1	<10	<5	38	16.2	<10	<2	<3
7346	<1	<10	<5	31	9.0	<10	2	<3
7347	<1	<10	<5	44	5.8	<10	6	<3
7348	<1	<10	<5	34	8.4	<10	<2	<3
7349	<1	<10	<5	40	5.5	<10	3	4
7350	<1	<10	<5	60	7.6	<10	3	<3
D 7281	<1	<10	<5	15	3.6	<10	<2	9
D 7293	<1	<10	<5	97	4.8	<10	<2	<3
D 7305	<1	<10	<5	270	<.5	<10	4	7
D 7317	<1	<10	<5	64	2.3	<10	3	<3
D 7327	<1	<10	<5	48	3.9	<10	<2	<3
D 7329	--	--	--	--	--	--	--	--
D 7339	<1	<10	<5	30	5.4	<10	6	<3
D 7341	--	--	--	--	--	--	--	--

D - QUALITY CONTROL DUPLICATE



XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS
REPORT 2434

TO: **MICHAEL E. CHUTE**
1515 CHERRYHILL ROAD
PETERBOROUGH, ONTARIO
K9K 1A7

CUSTOMER No. 2413

DATE SUBMITTED
15-Aug-95

WORKORDER 4852-T5

TOTAL PAGES 8

66 ROCKS Proj. TRL SHL-3

METHOD	DETECTION LIMIT	METHOD CODE	METHOD	DETECTION LIMIT	METHOD CODE
AU-1AT PPB	FADCP 1.	2-1, 1AT	CU PPM	ICP .5	70-1
BE PPM	ICP .5	70-1	ZN PPM	ICP .5	70-1
NA %	ICP .01	70-1	AS PPM	ICP 3.	70-1
MG %	ICP .01	70-1	SR PPM	ICP .5	70-1
AL %	ICP .01	70-1	Y PPM	ICP .1	70-1
P %	ICP .01	70-1	ZR PPM	ICP .5	70-1
K %	ICP .01	70-1	MO PPM	ICP 1.	70-1
CA %	ICP .01	70-1	AG PPM	ICP .2	70-1
SC PPM	ICP .5	70-1	CD PPM	ICP 1.	70-1
TI %	ICP .01	70-1	SN PPM	ICP 10.	70-1
V PPM	ICP 2.	70-1	SB PPM	ICP 5.	70-1
CR PPM	ICP 1.	70-1	BA PPM	ICP 1.	70-1
MN PPM	ICP 2.	70-1	LA PPM	ICP .5	70-1
FE %	ICP .01	70-1	W PPM	ICP 10.	70-1
CO PPM	ICP 1.	70-1	PB PPM	ICP 2.	70-1
NI PPM	ICP 1.	70-1	BI PPM	ICP 5.	70-1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 28-AUG-95

CERTIFIED BY

Jean H. Opdebeeck, General Manager

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	AU-LAT PPB	BE PPM	NA %	MG %	AL %	P %	K %	CA %
	FADCP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	2-1, 1AT	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7351	9	<.5	.08	.99	.32	.06	.10	2.91
7352	6	<.5	.05	.81	.95	.05	.11	2.10
7353	<1	<.5	.02	3.89	.04	.02	.01	8.85
7354	<1	<.5	.04	2.88	.11	.08	.03	6.70
7355	<1	<.5	.01	.04	.12	<.01	.01	.03
7356	<1	<.5	.08	.82	.31	.06	.11	2.49
7357	<1	<.5	.07	1.11	.37	.10	.10	2.45
7358	1	<.5	.07	.38	.28	.04	.10	1.45
7359	<1	<.5	.05	1.04	.26	.04	.10	2.96
7360	<1	<.5	.04	1.30	.10	.02	.02	2.67
7361	<1	<.5	.05	.85	.11	.03	.03	2.31
7362	<1	<.5	.08	.60	.21	.04	.05	2.05
7363	6	<.5	.09	.59	.30	.06	.09	2.96
7364	8	<.5	.06	.42	.61	.04	.12	1.72
7365	3	<.5	.06	2.31	.98	.08	.04	4.06
7366	2	<.5	.07	.24	.40	.05	.10	1.12
7367	5	<.5	.09	.37	.47	.05	.13	1.62
7368	5	<.5	.06	.09	.26	.04	.05	.35
7369	2	<.5	.07	.90	.26	.07	.11	2.14
7370	5	<.5	.07	1.91	.24	.04	.05	6.34
7371	2	<.5	.08	1.19	.27	.06	.10	3.22
7372	2	<.5	.07	1.31	.23	.03	.05	5.45
7373	<1	<.5	.07	2.01	.21	.04	.06	4.92
7374	1	<.5	.04	2.07	.18	.03	.08	5.47
7375	9	<.5	.05	.83	.10	.05	.03	2.49
7376	458	<.5	.07	2.78	.41	.04	.03	5.85
7377	17	<.5	.05	.75	.22	.04	.10	2.59
7378	44	<.5	.06	.65	.98	.05	.19	1.67
7379	18	<.5	.06	.78	.73	.06	.26	1.87
7380	3	<.5	.03	.40	.96	.06	.21	.44
7401	16	<.5	.07	.17	.50	.03	.11	.76
7402	10	<.5	.06	.13	.45	.04	.13	1.01
7403	85	<.5	.08	.12	.48	.04	.07	.08
7404	45	<.5	.08	.09	.43	.04	.07	.07
7405	32	<.5	.07	.03	.32	.03	.09	.05
7406	26	<.5	.06	<.01	.32	.03	.12	.05
7407	114	<.5	.05	<.01	.28	.03	.16	.02
7408	5	<.5	<.01	1.61	5.12	.16	.02	.45
7409	2	<.5	<.01	1.52	5.09	.15	.03	.40
7410	17	<.5	.03	.02	.45	.03	.03	.03

AU-LAT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT



Member of the SGS Group (Société Générale de Surveillance)

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	AU-LAT PPB	BE PPM	NA %	MG %	AL %	P %	K %	CA %
	FADCP 2-1, LAT	ICP 70-1	ICP 70-1	ICP 70-1	ICP 70-1	ICP 70-1	ICP 70-1	ICP 70-1
7411	12	<.5	.08	.18	.66	.04	.06	.10
7412	14	<.5	.04	.99	1.62	.04	.13	.34
7413	7	<.5	.05	.31	.80	.04	.12	.05
7414	6	<.5	.05	1.00	1.83	.04	.08	.10
7415	219	<.5	.05	.01	.34	.01	.13	<.01
7416	33	<.5	.04	.08	.44	.02	.12	.02
7417	8	<.5	.05	.77	1.43	.04	.04	1.82
7418	4	<.5	.07	.64	1.53	.04	.10	.11
7419	6	<.5	.05	1.18	1.62	.04	.08	2.18
7420	16	<.5	.08	.11	.67	.03	.13	.07
7421	52	<.5	.03	.02	.38	.03	.12	.10
7422	18	<.5	.03	.90	1.52	.04	.12	.16
7423	59	<.5	.03	.03	.30	.04	.12	.13
7424	12	<.5	.09	.01	.47	.03	.09	.03
7425	5	<.5	.05	<.01	.33	.04	.09	.03
7426	5	<.5	.06	.58	1.78	.05	.09	.15
7427	2	<.5	.03	.98	1.57	.05	.08	.15
7428	2	<.5	.07	.16	.86	.04	.13	.33
7429	55	<.5	.03	<.01	.20	.04	.14	<.01
7430	23	<.5	.04	.03	.52	.02	.18	.14
7431	3	<.5	.03	.67	.11	.03	.07	2.42
7432	3	<.5	.04	.78	.14	.02	.09	2.63
7433	1	<.5	.05	.88	.58	.03	.05	2.47
7434	2	<.5	.05	.21	.23	.03	.16	1.39
7435	2	<.5	.04	.98	.62	.03	.04	2.76
7436	1	<.5	.06	1.10	.81	.03	.06	2.64
D 7351	10	<.5	.09	.98	.34	.06	.11	2.85
D 7363	7	<.5	.08	.57	.28	.06	.09	2.91
D 7375	8	<.5	.05	.85	.10	.05	.03	2.54
D 7407	89	<.5	.05	<.01	.26	.03	.15	.02
D 7417	--	<.5	.05	.76	1.41	.03	.04	1.79
D 7429	--	<.5	.03	<.01	.19	.04	.14	<.01

AU-LAT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT
D - QUALITY CONTROL DUPLICATE

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	SC PPM	TI %	V PPM	CR PPM	MN PPM	FE %	CO PPM	NI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7351	3.1	<.01	8	48	494	2.49	12	22
7352	1.2	<.01	11	37	377	2.30	11	22
7353	13.9	<.01	13	96	1380	3.51	13	10
7354	15.6	<.01	12	104	1120	3.13	15	17
7355	<.5	<.01	2	211	49	.51	2	4
7356	4.1	<.01	10	42	485	3.03	14	20
7357	11.9	<.01	19	49	953	5.46	26	41
7358	.9	<.01	5	64	302	1.42	5	7
7359	2.1	<.01	6	59	498	1.93	7	9
7360	4.7	<.01	9	151	291	1.86	7	27
7361	1.7	<.01	6	116	249	1.49	6	12
7362	1.3	<.01	7	58	315	2.09	10	22
7363	2.8	<.01	8	34	596	3.33	12	28
7364	.7	<.01	5	40	380	1.38	5	4
7365	9.1	<.01	35	92	772	3.10	18	41
7366	1.0	<.01	6	52	507	1.64	7	5
7367	1.4	<.01	8	49	450	1.95	8	6
7368	2.8	<.01	12	101	487	2.77	11	33
7369	2.1	<.01	7	47	576	2.33	11	23
7370	16.8	<.01	32	42	1030	6.51	23	60
7371	3.0	<.01	10	39	694	3.27	22	21
7372	8.8	<.01	23	39	878	4.65	15	31
7373	2.5	<.01	15	45	612	2.23	11	27
7374	2.5	<.01	16	58	894	3.29	9	19
7375	2.1	<.01	4	84	437	1.77	4	7
7376	12.6	<.01	24	59	1030	5.04	24	74
7377	1.7	<.01	7	93	452	1.73	7	16
7378	.7	<.01	10	40	293	1.84	10	17
7379	.7	<.01	8	29	492	2.07	8	18
7380	<.5	<.01	6	31	104	1.54	10	27
7401	.5	<.01	5	58	65	1.15	17	22
7402	<.5	<.01	4	34	67	.69	16	17
7403	<.5	<.01	6	43	50	3.02	13	11
7404	<.5	<.01	5	45	38	2.88	11	11
7405	<.5	<.01	3	36	13	.99	4	4
7406	<.5	<.01	4	38	12	2.36	7	7
7407	<.5	<.01	3	32	7	1.42	<1	<1
7408	19.1	.01	67	34	1630	14.2	14	2
7409	16.2	<.01	64	29	1560	12.2	8	<1
7410	.7	<.01	6	51	132	1.19	6	6

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	SC PPM	TI %	V PPM	CR PPM	MN PPM	FE %	CO PPM	NI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7411	1.2	<.01	12	57	64	2.50	8	12
7412	.6	.05	16	65	360	3.34	10	10
7413	<.5	<.01	8	50	117	1.87	7	7
7414	1.2	<.01	19	53	612	2.57	7	8
7415	<.5	<.01	6	101	54	3.38	9	11
7416	<.5	<.01	6	69	83	1.67	4	6
7417	.8	.05	13	51	442	2.05	12	13
7418	.5	<.01	9	78	658	2.33	4	4
7419	.7	.04	9	42	306	1.84	6	5
7420	<.5	<.01	5	94	127	1.47	6	8
7421	<.5	<.01	3	33	14	1.25	3	4
7422	.6	<.01	12	63	569	2.20	5	6
7423	<.5	.01	6	34	27	4.03	10	9
7424	<.5	<.01	3	77	50	.67	2	2
7425	<.5	<.01	2	58	41	.67	1	1
7426	1.2	<.01	19	63	610	3.13	5	5
7427	.9	.03	19	33	494	3.06	4	4
7428	<.5	.04	8	102	276	3.05	7	6
7429	<.5	<.01	2	36	6	.93	<1	<1
7430	<.5	<.01	4	91	26	1.43	6	6
7431	.9	<.01	11	42	3870	8.73	6	6
7432	.9	<.01	15	107	4510	10.6	8	9
7433	1.2	<.01	17	44	5480	12.2	6	7
7434	.5	<.01	5	95	1040	2.47	6	6
7435	1.7	<.01	23	36	6420	15.1	13	15
7436	1.5	<.01	23	63	6480	14.5	6	8
D 7351	3.0	<.01	8	48	485	2.44	12	20
D 7363	2.8	<.01	8	32	586	3.27	11	27
D 7375	2.2	<.01	4	86	446	1.81	4	7
D 7407	<.5	<.01	3	33	7	1.46	<1	<1
D 7417	.8	.05	13	51	437	2.03	13	12
D 7429	<.5	<.01	2	38	6	.92	<1	<1

D - QUALITY CONTROL DUPLICATE



Member of the SGS Group (Société Générale de Surveillance)

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	CU PPM	ZN PPM	AS PPM	SR PPM	Y PPM	ZR PPM	MO PPM	AG PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7351	8.8	60.1	<3	161	2.6	8.7	<1	<.2
7352	18.7	68.2	<3	102	2.2	8.2	1	<.2
7353	2.8	56.4	<3	590	5.7	1.8	<1	<.2
7354	14.0	43.4	<3	537	6.1	3.5	2	<.2
7355	4.8	22.9	4	5.7	.2	2.3	<1	<.2
7356	20.0	78.7	39	274	2.4	6.9	<1	<.2
7357	25.2	80.1	<3	169	4.6	10.0	<1	<.2
7358	4.4	32.8	<3	43.0	2.4	7.3	1	<.2
7359	4.7	31.2	<3	114	2.4	6.0	<1	<.2
7360	9.9	38.3	40	264	2.1	4.1	3	<.2
7361	3.3	40.6	20	208	1.3	4.7	<1	<.2
7362	8.6	62.9	14	139	1.7	9.8	<1	<.2
7363	23.2	77.5	39	129	2.6	9.5	<1	<.2
7364	1.4	22.0	<3	57.0	2.1	6.8	<1	<.2
7365	45.0	62.5	<3	285	4.6	10.9	<1	<.2
7366	3.2	59.4	<3	37.0	2.8	8.2	<1	<.2
7367	2.8	59.0	<3	48.2	3.1	9.5	<1	<.2
7368	38.3	72.7	53	55.0	3.6	11.1	2	<.2
7369	22.3	91.1	10	274	2.6	11.7	<1	<.2
7370	27.8	102	141	352	3.5	8.2	<1	<.2
7371	49.3	68.9	<3	176	2.4	7.7	4	<.2
7372	8.9	65.1	66	257	2.8	8.0	<1	<.2
7373	15.7	42.4	13	217	2.3	16.1	<1	<.2
7374	7.3	66.2	<3	706	2.9	7.0	<1	<.2
7375	4.8	24.2	<3	283	1.7	3.9	2	<.2
7376	41.6	60.9	<3	187	3.9	8.7	<1	<.2
7377	18.6	75.8	<3	195	2.4	6.6	2	<.2
7378	18.8	62.3	20	141	2.6	7.7	<1	<.2
7379	18.5	63.0	709	155	3.5	9.8	<1	<.2
7380	23.3	39.6	12	32.3	2.5	11.9	<1	<.2
7401	13.4	14.8	5	31.1	1.8	7.5	1	<.2
7402	15.3	11.6	4	33.7	2.2	7.6	<1	<.2
7403	18.1	42.9	11	12.2	1.5	8.9	1	1.1
7404	17.3	31.1	7	11.8	1.2	8.1	<1	.8
7405	7.9	3.9	4	10.7	.8	7.0	<1	.4
7406	6.9	10.7	<3	10.7	.9	13.5	<1	.3
7407	4.2	4.1	8	9.5	.5	12.3	<1	.9
7408	9.4	192	<3	4.0	8.3	4.7	<1	.3
7409	4.1	191	<3	3.6	8.9	4.3	<1	<.2
7410	6.5	10.5	<3	4.0	.9	10.3	<1	<.2

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	CU PPM	ZN PPM	AS PPM	SR PPM	Y PPM	ZR PPM	MO PPM	AG PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7411	13.1	22.7	6	9.9	1.4	10.0	<1	<.2
7412	35.6	110	<3	9.3	1.9	8.6	<1	.4
7413	23.0	31.3	<3	10.8	1.2	9.3	1	<.2
7414	32.3	97.6	<3	11.8	1.6	7.6	<1	<.2
7415	9.9	9.8	13	7.2	.6	10.7	5	2.0
7416	12.4	32.1	6	10.6	.5	10.1	<1	.3
7417	20.7	62.4	<3	16.3	1.4	5.7	<1	<.2
7418	12.0	56.9	<3	12.6	1.1	5.6	<1	<.2
7419	9.8	46.8	<3	23.9	1.6	7.8	<1	<.2
7420	23.5	14.9	6	12.4	1.1	6.7	<1	<.2
7421	10.2	6.6	5	12.2	.5	7.3	<1	.4
7422	7.0	36.3	<3	9.4	.9	7.2	<1	<.2
7423	18.7	8.3	25	5.3	1.1	6.8	<1	1.2
7424	3.5	4.6	<3	22.6	.4	8.0	<1	<.2
7425	3.2	3.5	<3	20.5	.3	4.7	<1	<.2
7426	14.5	61.4	<3	14.4	1.0	5.9	<1	<.2
7427	5.7	53.4	<3	9.5	.9	3.9	<1	<.2
7428	21.9	50.5	<3	21.5	1.7	11.2	2	<.2
7429	2.5	1.8	14	6.2	.4	5.5	<1	1.6
7430	12.8	14.5	<3	5.6	.8	9.4	<1	<.2
7431	6.2	33.4	<3	114	2.3	4.9	<1	.5
7432	12.2	42.7	<3	125	2.5	6.1	<1	.4
7433	14.6	38.8	<3	49.8	3.5	7.8	<1	.7
7434	17.0	11.1	7	67.8	1.4	3.8	<1	<.2
7435	9.5	36.1	<3	65.1	3.8	7.5	<1	.9
7436	8.6	51.6	<3	57.7	4.0	8.4	<1	.8
D 7351	9.0	56.7	<3	158	2.5	8.3	1	<.2
D 7363	23.1	77.0	36	126	2.6	9.8	<1	<.2
D 7375	5.1	24.5	<3	289	1.7	3.9	2	<.2
D 7407	4.4	4.4	9	9.3	.6	13.0	<1	.9
D 7417	20.1	62.4	<3	16.0	1.4	5.8	<1	<.2
D 7429	2.6	2.2	18	6.1	.4	5.7	<1	1.8

D - QUALITY CONTROL DUPLICATE



Member of the SGS Group (Société Générale de Surveillance)

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	CD PPM	SN PPM	SB PPM	BA PPM	LA PPM	W PPM	PB PPM	BI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7351	<1	<10	<5	42	15.5	<10	<2	<5
7352	<1	<10	<5	56	18.8	<10	<2	<5
7353	<1	<10	<5	224	2.0	<10	7	<5
7354	<1	<10	<5	389	4.1	<10	6	<5
7355	<1	<10	<5	8	1.0	<10	<2	<5
7356	<1	<10	<5	49	8.8	<10	2	<5
7357	<1	<10	<5	53	17.2	<10	3	<5
7358	<1	<10	<5	38	17.1	<10	<2	<5
7359	<1	<10	<5	34	10.7	<10	<2	<5
7360	<1	<10	<5	14	6.4	<10	<2	<5
7361	<1	<10	<5	20	7.2	<10	6	<5
7362	<1	<10	<5	25	6.0	<10	3	<5
7363	<1	<10	<5	58	18.3	<10	4	<5
7364	<1	<10	<5	49	13.4	<10	<2	<5
7365	<1	<10	<5	51	26.4	<10	4	<5
7366	<1	<10	<5	73	15.7	<10	<2	<5
7367	<1	<10	<5	62	17.8	<10	<2	<5
7368	<1	<10	<5	48	17.5	<10	29	<5
7369	<1	<10	<5	54	18.7	<10	6	<5
7370	1	<10	<5	25	7.0	<10	5	<5
7371	<1	<10	<5	320	8.3	<10	14	<5
7372	<1	<10	<5	38	4.2	<10	4	<5
7373	<1	<10	<5	34	9.6	<10	6	<5
7374	<1	<10	<5	33	8.1	<10	6	<5
7375	<1	<10	<5	16	6.5	<10	3	<5
7376	<1	<10	<5	113	9.4	<10	2	<5
7377	<1	<10	<5	21	11.5	<10	4	<5
7378	<1	<10	<5	52	17.7	<10	3	<5
7379	<1	<10	<5	81	20.6	<10	3	<5
7380	<1	<10	<5	43	17.1	<10	3	<5
7401	<1	<10	<5	23	10.2	<10	<2	<5
7402	<1	<10	<5	23	13.4	<10	<2	<5
7403	<1	<10	<5	13	7.3	<10	4	<5
7404	<1	<10	<5	12	7.9	<10	8	<5
7405	<1	<10	<5	12	5.9	<10	<2	<5
7406	<1	<10	<5	21	9.8	<10	4	<5
7407	<1	<10	<5	25	5.5	<10	3	<5
7408	3	<10	<5	2	7.3	<10	<2	<5
7409	2	<10	<5	4	6.7	<10	3	<5
7410	<1	<10	<5	5	6.7	<10	<2	7

XRAL

28-AUG-95

REPORT 2434

WORKORDER 4852-T5

SAMPLE	CD PPM	SN PPM	SB PPM	BA PPM	LA PPM	W PPM	PB PPM	BI PPM
	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP
	70-1	70-1	70-1	70-1	70-1	70-1	70-1	70-1
7411	<1	<10	<5	11	4.9	<10	<2	<5
7412	<1	<10	<5	19	4.8	<10	3	<5
7413	<1	<10	<5	18	6.8	<10	<2	<5
7414	<1	<10	<5	18	8.4	<10	7	<5
7415	<1	<10	<5	17	4.6	<10	2	5
7416	<1	<10	<5	22	4.2	<10	<2	<5
7417	<1	<10	<5	18	5.4	<10	<2	<5
7418	<1	<10	<5	14	3.3	<10	<2	<5
7419	<1	<10	<5	16	5.0	<10	11	<5
7420	<1	<10	<5	18	7.4	<10	<2	<5
7421	<1	<10	<5	18	2.0	<10	<2	<5
7422	<1	<10	<5	19	2.9	<10	<2	<5
7423	<1	<10	<5	12	3.2	<10	9	<5
7424	<1	<10	<5	16	5.7	<10	<2	<5
7425	<1	<10	<5	25	4.8	<10	<2	<5
7426	<1	<10	<5	13	2.6	<10	<2	<5
7427	<1	<10	<5	9	3.1	<10	<2	<5
7428	<1	<10	<5	20	5.1	<10	2	<5
7429	<1	<10	<5	13	5.9	<10	2	<5
7430	<1	<10	<5	23	3.3	<10	<2	<5
7431	<1	<10	<5	9	7.8	<10	5	<5
7432	<1	<10	<5	11	7.1	<10	8	<5
7433	<1	<10	<5	12	7.6	<10	8	<5
7434	<1	<10	<5	20	7.8	<10	7	<5
7435	<1	<10	<5	10	7.4	<10	8	<5
7436	<1	<10	<5	14	7.5	<10	7	<5
D 7351	<1	<10	<5	42	14.9	<10	<2	<5
D 7363	<1	<10	<5	55	18.1	<10	3	<5
D 7375	<1	<10	<5	16	6.2	<10	<2	<5
D 7407	<1	<10	<5	24	5.6	<10	3	5
D 7417	<1	<10	<5	17	5.3	<10	2	<5
D 7429	<1	<10	<5	13	5.8	<10	3	<5

D - QUALITY CONTROL DUPLICATE



**Report of Work Conducted
After Recording Claim**

Mining Act

Transaction Number
W9610.00121

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions: - Please type or print and submit in duplicate.



52F04NE0018 2.16995 BROOKS LAKE

MINING LANDS
ARRIVED DEEMED
of filing assessment work or consult the Mining
Work Group. **2.16995**
duplicate.
st accompany this form.

900

Recorded Holder(s) MICHAEL E. CHUTE		Client No. 118288
Address 1515 CHERRYHILL ROAD, PETERBOROUGH, ONTARIO, K9K1A7		Telephone No. (705) 741-5804
Mining Division KENORA	Township/Area BROOKS LAKE	M or G Plan No. G 2671
Dates Work Performed	From: JUNE 20 1994 JUNE 5 1995	To: SEPT 27 1994 JANUARY 27 1996

Work Performed (Check One Work Group Only)

Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	GEOLOGIC MAPPING & SAMPLING (\$51336.30)
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	\$3318.07
Assignment from Reserve	

RECEIVED
JAN 20 1997
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ **54654.37 - (\$3318.07) = \$51336.30**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
MICHAEL E. CHUTE	1515 CHERRYHILL ROAD, PETERBOROUGH, ONTARIO, K9K1A7

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date Aug. 3 1996	Recorded Holder or Agent (Signature) Michael E. Chute
--	----------------------------	---

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying MICHAEL E. CHUTE		
Telephone No. (705) 741-5804	Date Aug. 3 1996	Certified By (Signature) Michael E. Chute

For Office Use Only

Total Value Cr. Recorded 34,224.00	Date Recorded	Mining Recorder [Signature]	Received Stamp KENORA - MINING DIV. RECEIVED AUG - 9 1996
	Deemed Approval Date Nov. 7 1996	Date Approved	
	Date Notice for Amendments Sent		



Ministry of
Northern Development
and Mines

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number
W9610.00122

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:**
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

8.16995

Recorded Holder(s) MICHAEL E. CHUTE		Client No. 118288
Address 1515 CHERRYHILL ROAD, PETERBOROUGH, ONTARIO, K9K1A7		Telephone No. (705) 741-5804
Mining Division KENORA	Township/Area BROOKS LAKE	M or G Plan No. G 2671
Dates Work Performed	From: JUNE 20 1994 JULY 5 1995	To: SEPT 27 1994 JANUARY 27 1996

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	GEOLOGIC MAPPING & SAMPLING (\$51336.60)
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
<input checked="" type="checkbox"/> Assays	ROCK ASSAYING \$3318.07
Assignment from Reserve	

RECEIVED
JAN 20 1997
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ **54654.37 - (51336.60) = \$3318.07**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
MICHAEL E. CHUTE	1515 CHERRYHILL ROAD, PETERBOROUGH, ONTARIO, K9K1A7

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date Aug 3 1996	Recorded Holder or Agent (Signature) Michael E. Chute
--	---------------------------	---

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying MICHAEL E. CHUTE 1515 CHERRYHILL ROAD PETERBOROUGH ONTARIO K9K1A7		
Telephone No. (705) 741-5804	Date Aug. 3, 1996	Certified By (Signature) Michael E. Chute

For Office Use Only

Total Value Cr. Recorded 2212.⁰⁰	Date Recorded	Mining Recorder [Signature]	Received Stamp KENORA - MINING DIV. RECEIVED AUG - 9 1995 7 8 9 10 11 12 1 2 3 4 5 6
	Deemed Approval Date Nov. 7, 1996	Date Approved	
	Date Notice for Amendments Sent		



Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des mines

**Statement of Costs
for Assessment Credit**

**État des coûts aux fins
du crédit d'évaluation**

Mining Act/Loi sur les mines

Transaction No./N° de transaction
W9610.00121-122

2.16955

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	42000	
	Field Supervision Supervision sur le terrain		42000
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type ASSAYING	3318.07	
			3318.07
Supplies Used Fournitures utilisées	Type EXPLOSIVES	106.99	
	FIELD SUPPLIES	497.49	
	DRAFTING SUPPLIES	218.40	
			822.88
Equipment Rental Location de matériel	Type TRAILER	250.00	
	BOAT	290.91	
	CANOE	896.00	1446.91
Total Direct Costs Total des coûts directs			47587.86

2. Indirect Costs/Coûts indirects

**** Note:** When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type JEEP 4x4	3579.30	
			3579.30
Food and Lodging Nourriture et hébergement	JAN 20 1997	2293.21	2293.21
	MINING LANDS BRANCH		
Mobilization Demobilization Mobilisation et démobilisation		1194.00	1194.00
Sub Total of Indirect Costs Total partiel des coûts indirects			7066.51
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			7066.51
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			54654.37
Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			54654.37

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	× 0,50 =

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as RECORDED HOLDER I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature Michael L. Shute Date Aug. 3, 1996

Ministry of
Northern Development
and Mines
December 2, 1997

Ministère du
Développement du Nord
et des Mines

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (705) 670-5863

MICHAEL EARL CHUTE
1515 CHERRYHILL ROAD
PETERBOROUGH, ONTARIO
K9K-1A7

Dear Sir or Madam:

Submission Number: 2.16995

Status

Subject: Transaction Number(s): W9610.00121 Deemed Approval
 W9610.00122 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at gatesb2@epo.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.16995

Date Correspondence Sent: December 02, 1997

Assessor: Bruce Gates

General Comment:

Only assessment work that is eligible may be deemed approved.

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9610.00121	1161620	BROOKS LAKE	Deemed Approval	November 07, 1996

Section:

12 Geological GEOL

The amount of assessment work performed before August 9, 1994 has been estimated at 44%. This amount is eligible at 50% as the work was filed after 24 months after the performance of the work.

The TOTAL VALUE of assessment credit that will be allowed, based on the information provided in this submission, is \$26,724.00

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9610.00122	1161620	BROOKS LAKE	Deemed Approval	November 07, 1996

Section:

17 Assays ASSAY

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

Correspondence to:

Resident Geologist
Kenora, ON

Recorded Holder(s) and/or Agent(s):

MICHAEL EARL CHUTE
PETERBOROUGH, ONTARIO

Assessment Files Library
Sudbury, ON

Distribution of Assessment Work Credit

The following credit distribution reflects the value of assessment work performed on the mining land(s).

Date: December 02, 1997

Submission Number: 2.16995

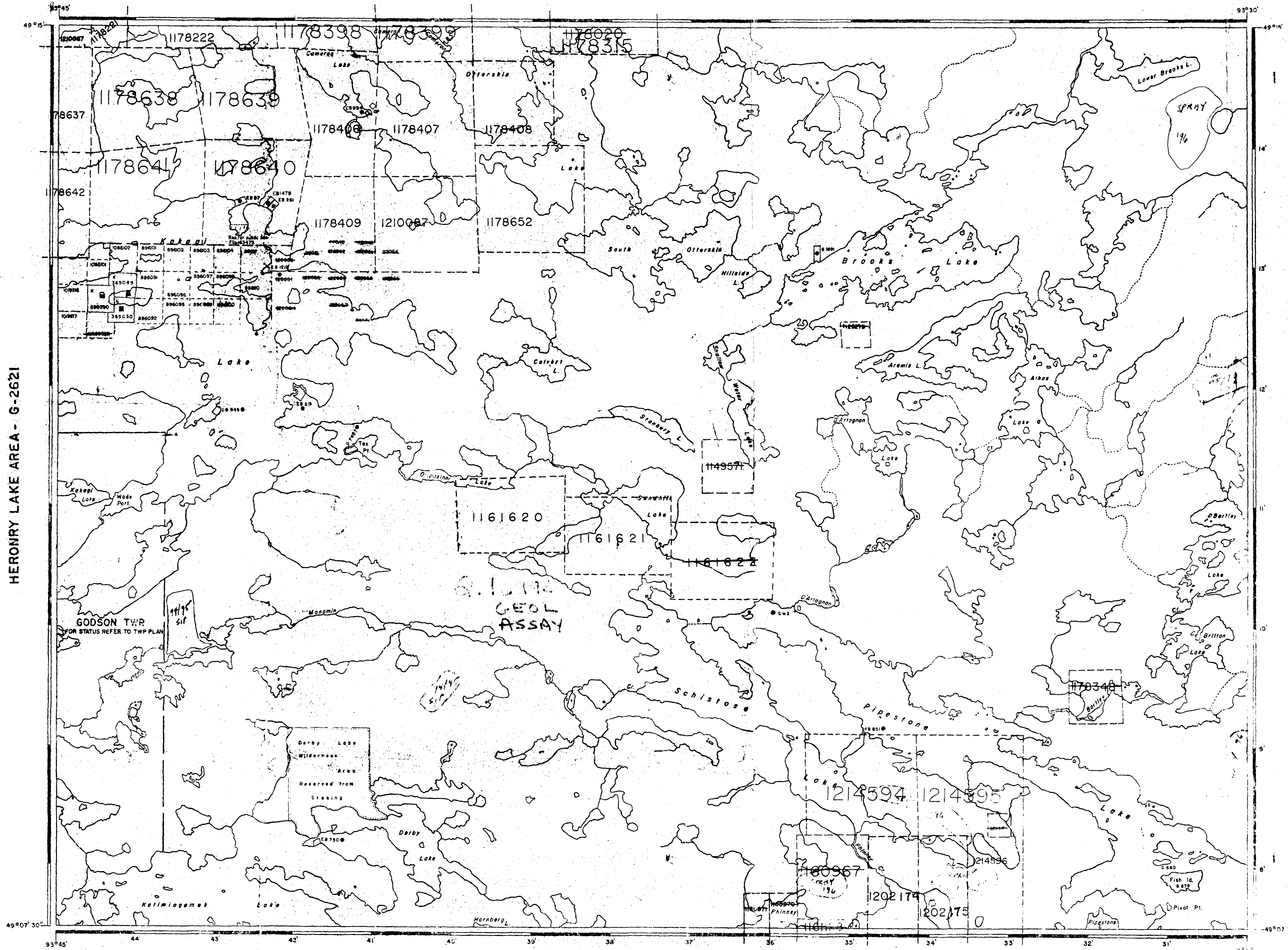
Transaction Number: W9610.00121

<u>Claim Number</u>	<u>Value Of Work Performed</u>
1161620	13,362.00
1161621	13,362.00
Total: \$	26,724.00

Transaction Number: W9610.00122

<u>Claim Number</u>	<u>Value Of Work Performed</u>
1161620	1,106.00
1161621	1,106.00
Total: \$	2,212.00

ROWAN LAKE AREA- G-2696



HERONRY LAKE AREA - G-2621

BLUFFPOINT LAKE AREA - G-2669

DASH LAKE - G-2671

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
- TOURIST CAMPS (OP - OUTPOST)

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 PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 300, SEC. 60, SUBSEC. 1.

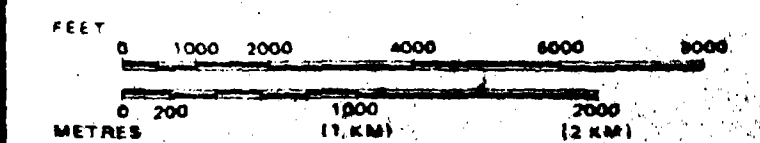
REFERENCES

/ REAS 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 | Disposition | File |
|-------------|-----------|------|-------------|------|
| | | | | |

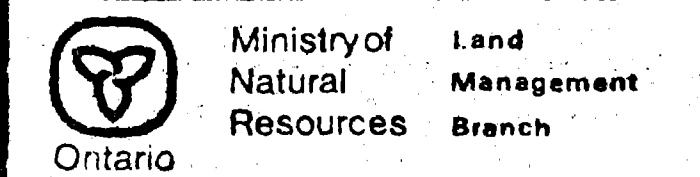
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

SCALE: 1 INCH = 40 CHAINS



AREA

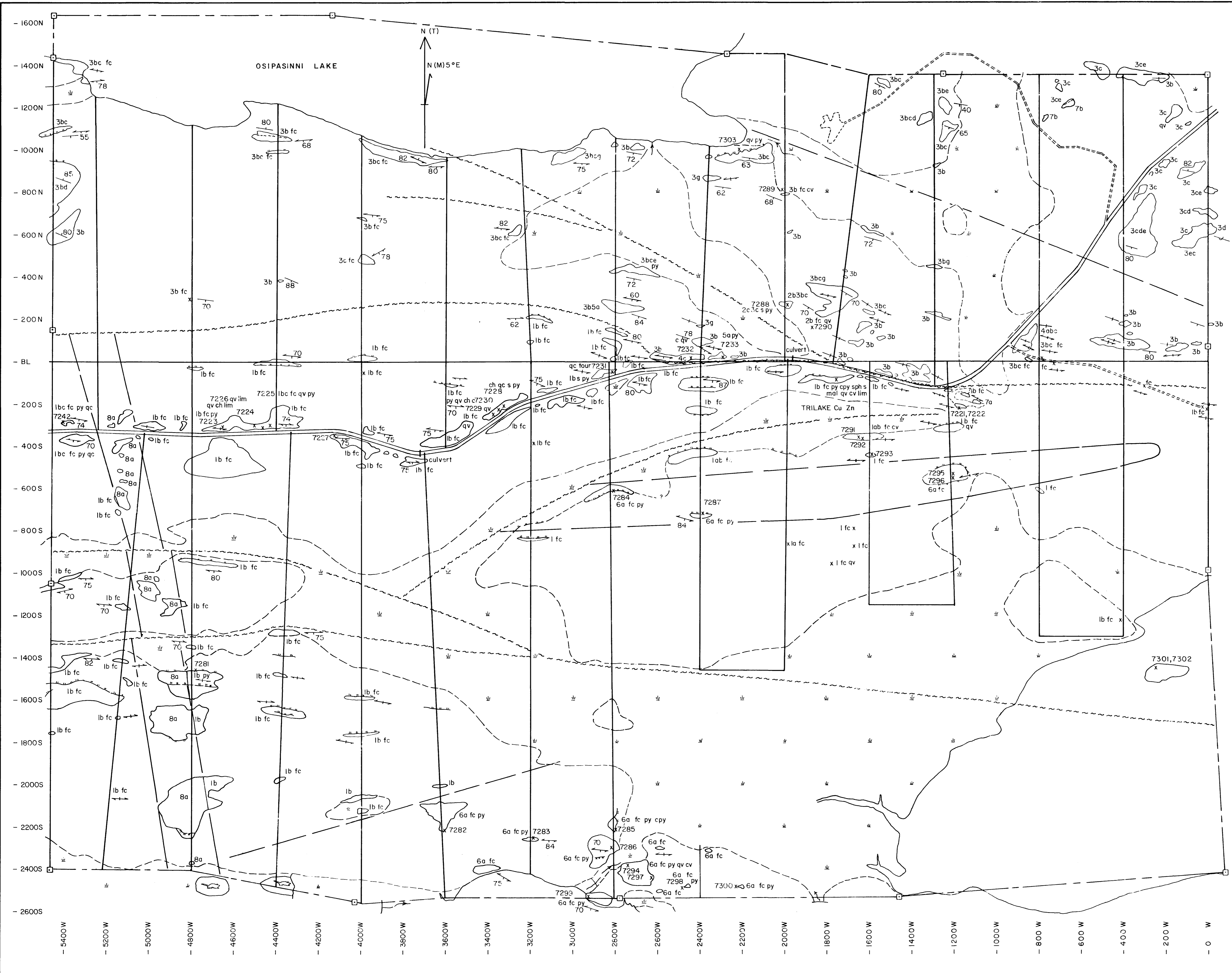
BROOKS LAKE
 M.N.R. ADMINISTRATIVE DISTRICT
FORT FRANCES
 MINING DIVISION
KENORA
 LAND TITLES / REGISTRY DIVISION
KENORA



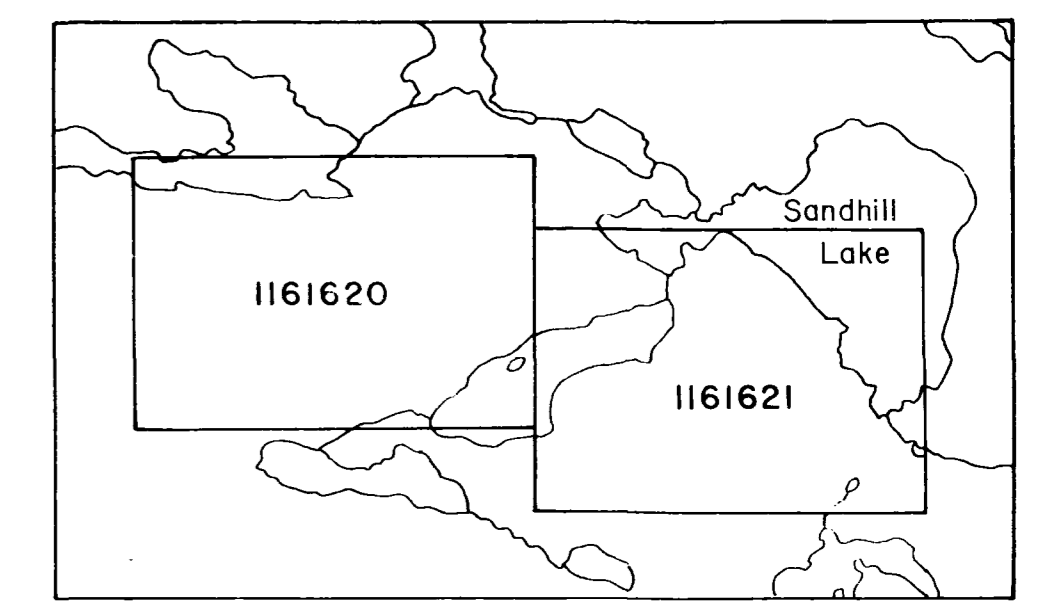
Date MARCH, 1984

Number

G-2670



- LEGEND**
- MIDDLE PRECAMBRIAN
MAFIC INTRUSIVE ROCKS**
8a Diabase
- EARLY PRECAMBRIAN
FELSIC INTRUSIVE ROCKS**
7a Felsite
b Feldspar porphyry
c Quartz-feldspar porphyry
- MAFIC TO INTERMEDIATE INTRUSIVE ROCKS**
6a Gabbro
- CHEMICAL SEDIMENTARY ROCKS**
5a Chert
b Iron formation
- CLASTIC SEDIMENTARY ROCKS**
4a Arenite
b Siltstone
c Argillite
- FELSIC VOLCANIC ROCKS**
3a Flow
b Tuff
c Lapilli-tuff
d Lapillistone
e Tuff breccia
f Sericite schist
g Cherty tuff
- INTERMEDIATE VOLCANIC ROCKS**
2a Flow
b Tuff
c Lapilli-tuff
d Lapillistone
e Tuff breccia
- MAFIC VOLCANIC ROCKS**
1a Massive flow
b Pillowed flow
c Tuff
d Chlorite schist
- ALTERATION AND MINERALIZATION**
s Silicification
ch Chloritization
c Carbonitization
fc Iron carbonitization
p Pyritization
se Sericitization
- py Pyrite
cpy Chalcopyrite
sph Sphalerite
mal Malachite
qv Quartz vein
qc Quartz-carbonate vein
tour Tourmaline
po Pyrrhotite
cv Carbonate vein
hem Hematite
lim Limonite
- SYMBOLS**
Outcrop
Bedding; inclined, vertical
Bedding; top known; inclined, vertical
Pillows; top known
Foliation; inclined, vertical
Lineation with plunge
Fault; observed, inferred
Contact; observed, inferred
Sample location and number
Swamp and/or low ground
Claim and/or line post
Topographic break



BROOKS LAKE G-2670

2.16995

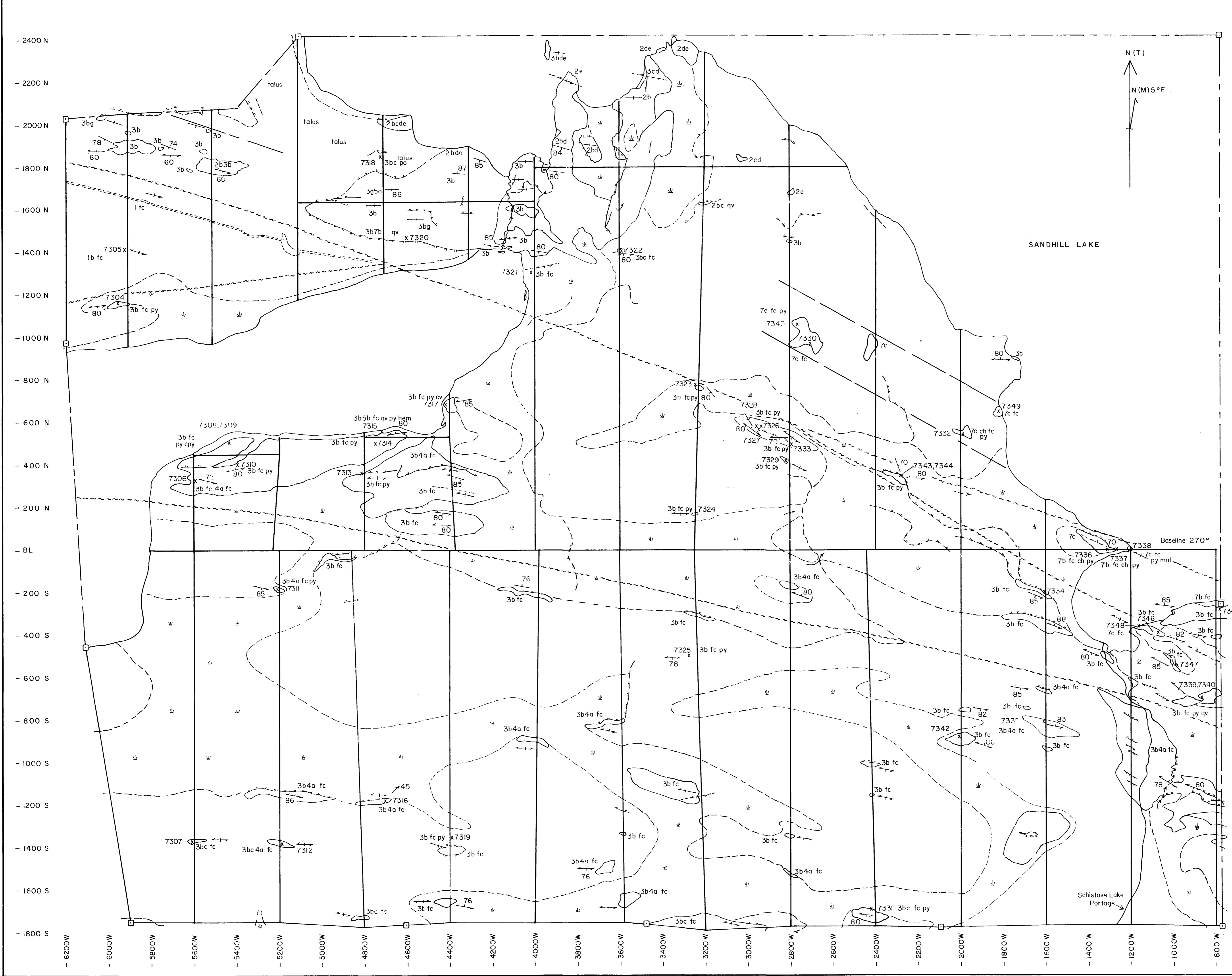


KAKAGI-SCHISTOSE LAKE PROJECT

FIGURE 4
GEOLOGY AND SAMPLES FROM
CLAIM NO. 1161620
KENORA MINING DIVISION
SANDHILL LAKE AREA
SCALE 1" = 2400'

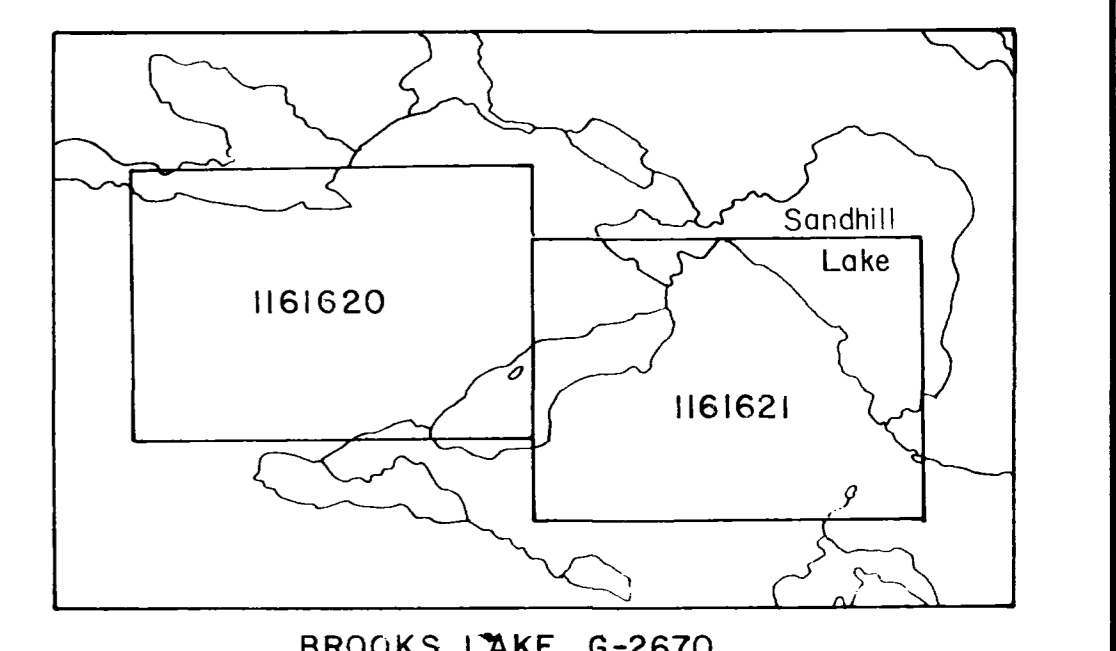
0 200 400 600
FEET

MICHAEL E. CHUTE
JAN 19, 1995



- LEGEND**
- MIDDLE PRECAMBRIAN
 - MAFIC INTRUSIVE ROCKS
 - 8a Diabase
 - EARLY PRECAMBRIAN
 - FELSIC INTRUSIVE ROCKS
 - 7a Felsite
 - b Feldspar porphyry
 - c Quartz-feldspar porphyry
 - MAFIC TO INTERMEDIATE INTRUSIVE ROCKS
 - 6a Gabbro
 - CHEMICAL SEDIMENTARY ROCKS
 - 5a Chert
 - b Iron formation
 - CLASTIC SEDIMENTARY ROCKS
 - 4a Arenite
 - b Siltstone
 - c Argillite
 - FELSIC VOLCANIC ROCKS
 - 3a Flow
 - b Tuff
 - c Lapilli-tuff
 - d Lapillistone
 - e Tuff breccia
 - f Sericite schist
 - g Cherty tuff
 - INTERMEDIATE VOLCANIC ROCKS
 - 2a Flow
 - b Tuff
 - c Lapilli-tuff
 - d Lapillistone
 - e Tuff breccia
 - MAFIC VOLCANIC ROCKS
 - 1a Massive flow
 - b Pillowed flow
 - c Tuff
 - d Chlorit. schist
 - ALTERATION AND MINERALIZATION
 - s Silicification
 - ch Chloritization
 - c Carbonitization
 - fc Iron carbonitization
 - p Pyritization
 - se Sericitization
 - py Pyrite
 - cpy Chalcopyrite
 - sph Sphalerite
 - mal Malachite
 - qv Quartz vein
 - qc Quartz-carbonate vein
 - tour Tourmaline
 - po Pyrrhotite
 - cv Carbonate vein
 - hem Hematite
 - lim Limonite

- SYMBOLS**
- Outcrop
 - Bedding; inclined, vertical
 - Bedding; top known; inclined, vertical
 - Pillows; top known
 - Foliation; inclined, vertical
 - Lamination with plunge
 - Fault; observed, inferred
 - Contact; observed, inferred
 - Sample location and number
 - Swamp and/or low ground
 - Claim and/or line post
 - Topographic break



BROOKS LAKE G-2670

2.16995

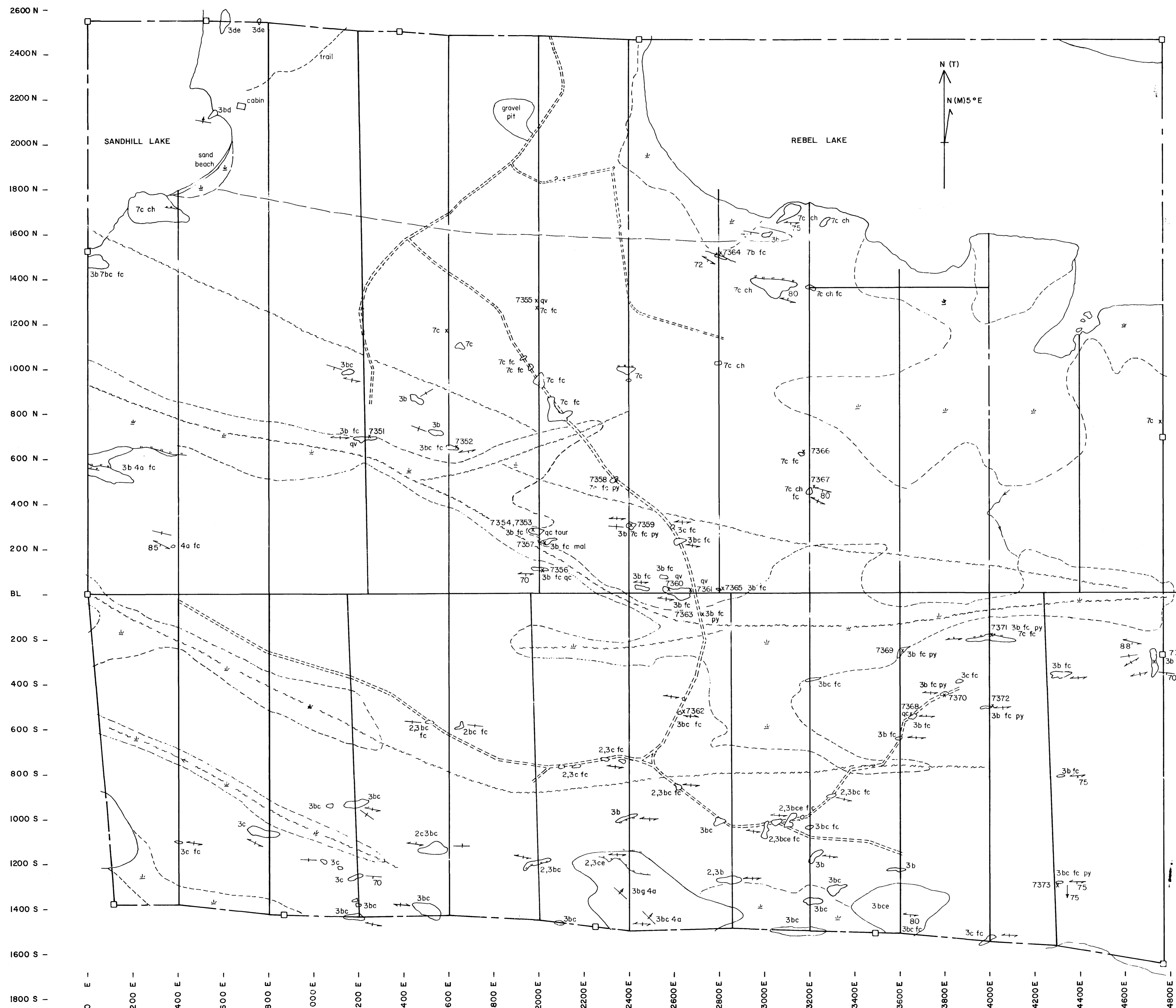


KAKAGI-SCHISTOSE LAKE PROJECT

FIGURE 5
 GEOLOGY AND SAMPLES FROM
 CLAIM NO. 1161621
 KENORA MINING DIVISION
 SANDHILL LAKE AREA
 SCALE 1:2400

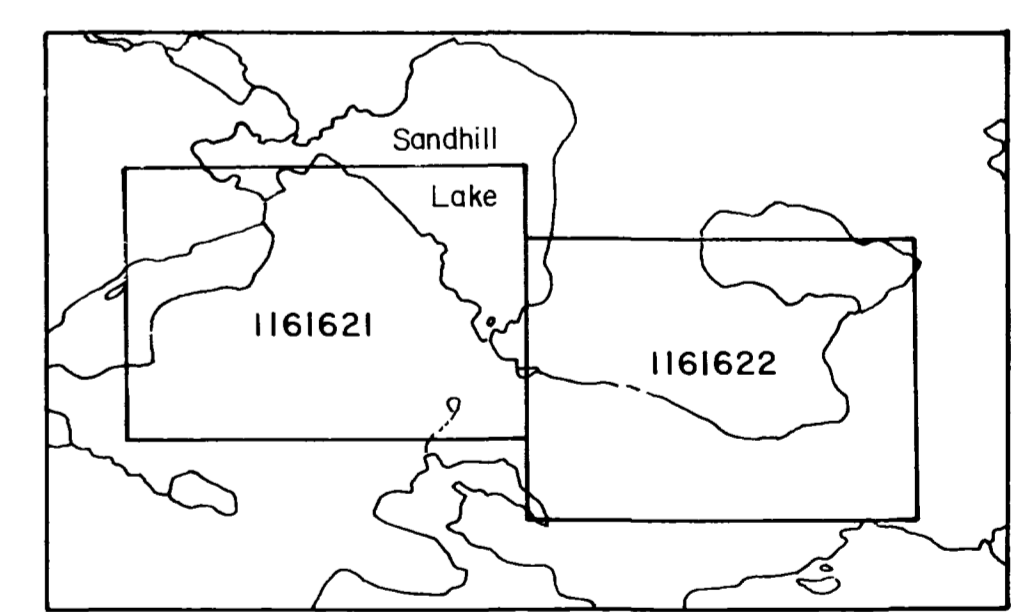
0 200 400 600
 FEET

MICHAEL E. CHUTE
 JAN 19, 1995



- LEGEND**
- MIDDLE PRECAMBRIAN
 - MAFIC INTRUSIVE ROCKS
 - 8a Diabase
 - EARLY PRECAMBRIAN
 - FELSIC INTRUSIVE ROCKS
 - 7a Felsite
 - b Feldspar porphyry
 - c Quartz-feldspar porphyry
 - MAFIC TO INTERMEDIATE INTRUSIVE ROCKS
 - 6a Gabbro
 - CHEMICAL SEDIMENTARY ROCKS
 - 5a Chert
 - b Iron formation
 - CLASTIC SEDIMENTARY ROCKS
 - 4a Arenite
 - b Siltstone
 - c Argillite
 - FELSIC VOLCANIC ROCKS
 - 3a Flow
 - b Tuff
 - c Lapilli-tuff
 - d Lapillistone
 - e Tuff breccia
 - f Sericite schist
 - g Cherty tuff
 - INTERMEDIATE VOLCANIC ROCKS
 - 2a Flow
 - b Tuff
 - c Lapilli-tuff
 - d Lapillistone
 - e Tuff breccia
 - MAFIC VOLCANIC ROCKS
 - 1a Massive flow
 - b Pillow flow
 - c Tuff
 - d Chlorite schist
- ALTERATION AND MINERALIZATION**
- s Silicification
 - ch Chloritization
 - c Carbonitization
 - fc Iron carbonitization
 - p Pyritization
 - se Sericitization
- py Pyrite
 - cpy Chalcopyrite
 - sph Sphalerite
 - mal Malachite
 - qv Quartz vein
 - qc Quartz-carbonate vein
 - tour Tourmaline
 - po Pyrrhotite
 - cv Carbonate vein
 - hem Hematite
 - lim Limonite
 - fu Fuchsite

- SYMBOLS**
- Outcrop
 - Bedding; inclined, vertical
 - Bedding; top known; inclined, vertical
 - Pillows; top known
 - Foliation; inclined, vertical
 - Lineation with plunge
 - Fault; observed, inferred
 - Contact; observed, inferred
 - Sample location and number
 - Swamp and/or low ground
 - Claim and/or line post
 - Topographic break

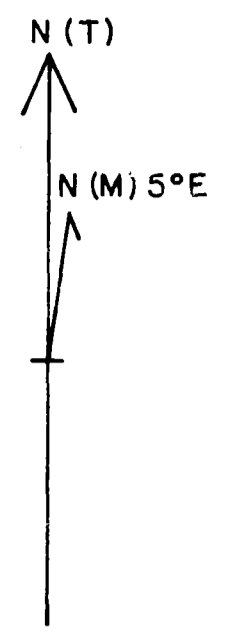
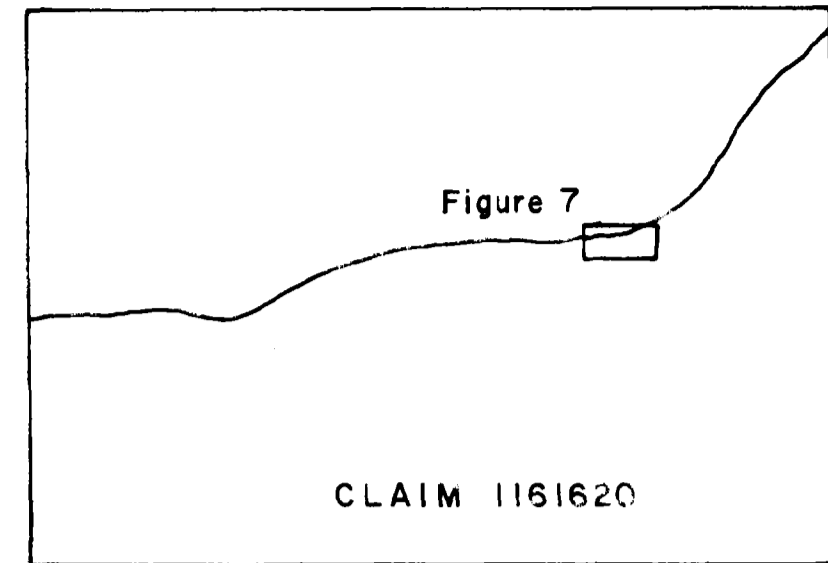
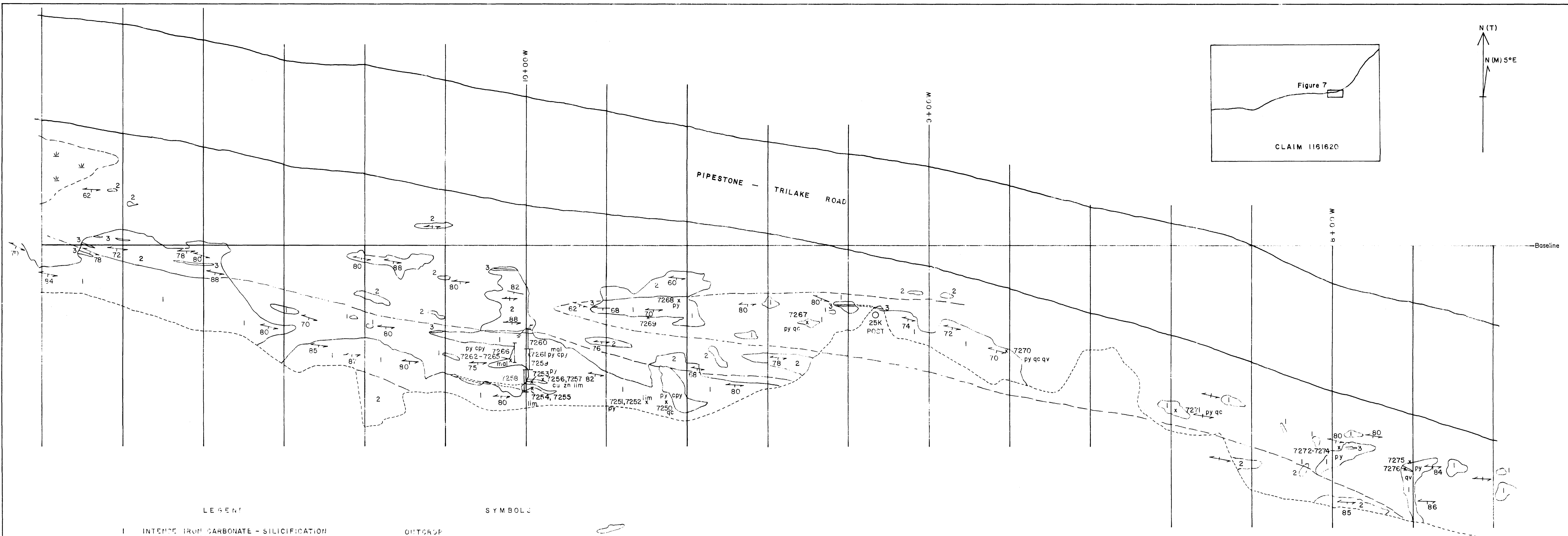


KAKAGI-SCHISTOSE LAKE PROJECT

FIGURE 6
 GEOLOGY AND SAMPLES FROM
 CLAIM NO. 1161622
 KENORA MINING DIVISION
 SANDHILL LAKE AREA
 SCALE 1: 2400

0 200 400 600
 FEET

MICHAEL E. CHUTE
 SEPT 17, 1995

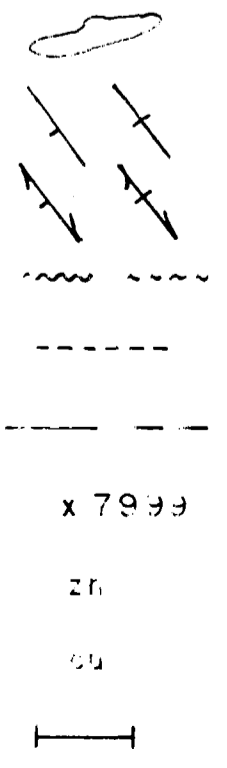


LEGEND

- 1 INTENSE IRON CARBONATE - SILICIFICATION
MAFIC PILLOWED FLOWS
- 2 INTENSE IRON CARBONATE ALTERATION
MAFIC PILLOWED FLOWS
- 3 INTERMEDIATE DIKE
- py PYRITE
- cpy CHALCOPYRITE
- lim LIMONITE
- mal MALACHITE
- qc QUARTZ-IRON CARBONATE VEIN
- qv QUARTZ VEIN

SYMBOLS

- OUTCROP
- BEDDING ; INCLINED, VERTICAL
- FOLIATION ; INCLINED, VERTICAL
- FAULT ; OBSERVED, INFERRED
- EDGE OF STRIPPED AREA
- CONTACT ; OBSERVED, INFERRED
- SAMPLE LOCATION AND NUMBER
- ZINC
- COFFER
- CHIP/CHANNEL SAMPLE



2.16995



KAKAGI - SCHISTOSE LAKE PROJECT

FIGURE 7
GEOLOGY AND SAMPLES FROM
TRILAKE ROAD CU-ZN SHOWING
KENORA MINING DIVISION
SANT HILL LAKE AREA
SCALE 1:120

MICHAEL E. CHUTE
JAN 19, 1994