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CASUMMIT LAKE

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REPORT

ON

PHASE 2 EXPLORATION PROGRAM  
GEOLOGICAL INTERPRETATION OF AIRBORNE  
GEOPHYSICAL DATA

RICHARDSON LAKE PROPERTY

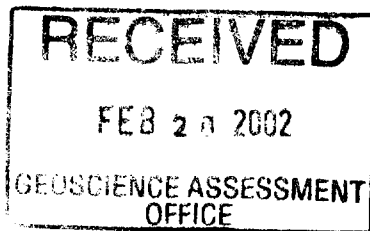
NTS 52N/8,9

Casummit Lake Area (G-1751)

Red Lake Mining Division

Northwestern Ontario

2 23071



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February 24, 2002

Tribute Minerals Corporation  
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Consultants Report:- Patterson, Grant & Watson

Property Agreement with Perry English

## INTRODUCTION

Between the period September 27<sup>th</sup> and September 30<sup>th</sup>, 2001 an airborne geophysical surveys was carried out over six unpatented mining claims comprising seventy-five units of the Richardson Lake property. The results of that survey was presented in our report dated October 5, 2001 . Several follow up programs were recommended as a result of the recent flying. The first of which was to evaluate the airborne data with the intent of constructing a) a regional geologic map of the claim group and b) construct detailed structural/lithologic maps of the claim group. This report presents the results of those studies.

The Property was optioned by Tribute Minerals Corporation from Perry English in August, 2000 (see Appendix).

A Phase 1 exploration program of airborne geophysics was carried out to evaluate the property scale lithological and structural features associated with known and potential gold mineralization in the Richardson and Casummit Lake areas covered by the Property.

The preliminary results identified a number of geological anomalies, principally EM and associated data, and the magnetic data have provided an insight into the geological controls.

The contuing exploration work presented in this report was carried out by Tribute Minerals Corporation under the direction of David G. Wahl, P. Eng. Contracted out analysis of the airborne geophysical data was undertaken by Patterson, Grant & Watson of Toronto. Their report is appended. The detailed magnetic evaluation and geologic interpretation was undertaken by John L. Wahl PhD, PGeo. geologist for Tribute Minerals. Digital base maps used in this detailed magnetic evaluation were generated by Fugro Ltd of Toronto.

## PROPERTY

The Richardson Lake Property is located in the Red Lake Mining Division of northeastern Ontario (Fig 1). The Property consists of 6 contiguous unpatented claims comprising 78 units numbered 1249504, 1248290, 1248293, 1185092, 1234012 and 1231810 covering 1248 hectares situated in the Casummit Lake area – G-1751 (Fig 2). The property is located at NTS reference 52N/8,9.

The Property was optioned by Tribute Minerals Corporation from Perry English in August, 2000 (see Appendix 1) for escalating cash payments,

exploration expenditures and a 2% net smelter royalty (NSR).

## LOCATION AND ACCESS

The Property is located approximately 100 kilometres northeast of the town of Red Lake and covers the waters of Richardson Lake and several gold occurrences and two past producing gold properties, around Richardson Lake, and east and south of Casummit Lake. Richardson Lake and Casummit Lake are readily accessible by fixed wing aircraft from Red Lake.

## REGIONAL GEOLOGY & PREVIOUS WORK

The Richardson Lake area is underlain by Archean rocks of the Birch Lake – Confederation Lake Greenstone Belt.

The local sequences include mafic and felsic metavolcanics, and associated chemical sediments identified as jasperoidal iron formation, magnetite iron formation, siliceous to cherty breccias and sericitic schists. The metavolcanic units are represented by pillowed to massive basalt flows and felsic pyroclastics. Structural data indicates extensive folding, particularly evident within the chemical sediments, with moderate to steeply dipping trends. Quartz veins accompanied by sulphide mineralization transect the metavolcanic and metasedimentary units. Medium to coarse grained, orthoclase porphyritic, commonly gneissic, granitic and quartz dioritic rocks occur east and north of the Property. Biotite, the principal ferromagnesian phase, increases at the expense of hornblende, toward the contact with the metavolcanic units. Late stage structural features within the granitoids may contain minor sulphides including arsenopyrite, chalcopyrite, pyrite and gold.

On the Property, there are five known areas which host significant gold mineralization; the areas of principal interest have been identified as the Richardson Lake zone, Burnt Lake zone, Penson Lake zone, Argosy North zone and Argosy East zone.

Although initially presented in our assessment report dated October 5, 2001 the following occurrence descriptions are provided for continuity.

### Richardson Lake Zone

Two past producing mines are located on the adjacent properties known as the Argosy Mine and the Kostynuk Brothers mine. The Argosy Mine produced 101,875 ounces of gold with an average grade of 0.368 ounces

per ton during the 1940's and 1950's and is situated approximately 800 metres west of the Burnt Lake zone on the Property. The Kostynuk Bros. Mine produced only 1126 ounces of gold and 102 ounces of silver from 636 tons of ore milled (average 1.77 ounces per ton) and is located only 20 metres from the Property boundary on the northern shore of Richardson Lake.

The mineralized breccia was drill tested by Golden Terrace in 1987 and 1988. Reported drilling results included 15 feet grading 0.20 ounces per ton from D-88-33 and 15 feet grading 0.29 ounces per ton gold from D-88-34. A sulphide-rich chert breccia containing high gold values has been exposed by previous workers. The alteration zone hosts disseminated pyrite and arsenopyrite. The zone is 3 to 10 metres in width, trends 165° for a length of 150 metres and plunges to the southwest.

Placer Dome drill tested the Shaft zone with nine drill holes in 1986 and delineated 24,096 tonnes grading 0.31 opt Au across an average width of 7 feet. The Arseno zone also known as the West zone is situated approximately 400 metres west southwest of the shaft. The Arseno zone is 11 metres wide, trends 350° and consisted of silicified felsic tuff and quartz-sericite schist containing abundant disseminated arsenopyrite and pyrite. Grab samples collected by the Ontario Geological Survey reported 510 ppb and 1420 ppb Au from the Arseno zone. The KRL-10218 showing is located approximately 600 metres west southwest of the shaft. The showing consists of old trenches and drill holes completed by the Richardson Lake syndicate in the 1930's. A trench was excavated on two quartz veins which are 30 cm width and hosted by a fracture zone within pyritic, chloritic and carbonatized mafic metavolcanic rocks. The veins trend 100°/60°S and host disseminated pyrite, sphalerite, galena and native gold. The drillings results include assays from 0.04 opt to 0.68 opt Au across widths of 0.9 feet to 5.3 feet.

A grab sample collected by Golden Terrace in the 1980's assayed 0.48 opt Au. The KRL-10129 showing is located 300 metres west southwest of the shaft and 100 metres southeast of the Arseno zone. The showing consists of trenches put down on an intensely S- and Z- folded east-trending quartz vein dipping from horizontal to vertical. The D zone is located 800 metres west of the shaft. This zone was identified by Golden Terrace from a soil anomaly and an IP anomaly. The E zone or East zone is the area drill tested by Golden Terrace with an inferred tonnage of 700,000 grading 0.20 opt Au. The F zone is located approximately 1000 metres west southwest of the shaft on the north shore of Richardson Lake. The zone was defined by Golden Terrace from soil geochemical anomalies. Also, geophysical surveys conducted by Golden Terrace indicate that the cherty breccia is strongly folded to the southwest of the

F zone beneath the waters of Richardson Lake.

#### Burnt Lake Zone

The Burnt Lake zone is located approximately 800 metres east of the Argosy Mine #1 vein in claim 1210174, currently claim # 1248293. The Argosy Mine is known also as the Jason Mine or the Casey Mine. Drilling programs conducted by Cochenour Willans in 1960, 1962 and 1975, and by Golden Terrace in 1988 intersected argillite and iron formation. On surface, mineralized quartz veins occurred both in and along the diorite dyke. Three other quartz veins were exposed in a test pit put down on a three metre wide northeasterly trending shear zone. The early drilling completed by Cochenour Willans in 1960 and 1962 intersected numerous bluish quartz veins containing pyrite and arsenopyrite. However, the assays were not submitted with the assessment work. In the drill logs, the mineralization was described as similar to that of the Jason Mine. In 1974 and 1975, Cochenour Willans completed twenty-one drill holes totaling 1887 metres on the property. Only the drill logs from 1975 include assays. Several of the significant assays are as follows:

DDH	Opt Au/ft
C-75-1	0.04 / 2'
C-75-1	0.06 / 2'
C-75-1	4.43 / 0.5'
C-75-7	0.21 / 3'
C-75-7	0.07 / 3'
C-75-7	0.38 / 3'
C-75-10	0.33 / 0.7'

In 1988, Golden Terrace completed a drill program on the Burnt Lake zone. All of the drill holes except C-88-4 were drilled on a 180° or 360° azimuth as the company was focused on drilling across stratigraphy. Drill hole C-88-4 was drilled at 270° and intersected significant gold mineralization. Though the assays were not included with the drill log, visible gold was reported in numerous places between depths of 238.8 feet and 254.3 feet.

An Ontario Geological Survey airborne magnetic survey over the Burnt Lake area indicated the presence of a complex folded structure striking approximately 045°. The Argosy Mine also is located proximal to a magnetic anomaly due to the presence of an oxide iron formation.

#### Penson Lake Zone

The Penson Lake zone is located on McIntyre Bay on the north part of Birch Lake approximately 5 kilometres southeast of the Argosy Mine.

The McIntyre Mine which produced only 23 ounces is located only 800 metres west of the Penson Lake zone.

The Ontario Geological Survey airborne magnetic survey indicated that three parallel oxide facies formations strike east-west through the McIntyre Mine area and continue into the Penson Lake zone. A shadow plot of the magnetometer data indicated folds and/or breaks in the iron formation. The Ontario Geological Survey collected grab samples from the sulphidized iron formation and pyritized metavolcanics adjacent to the iron formation. Assay values of 4460 ppb gold and 13,430 ppb gold were returned.

In 1987 and 1988 Gabbs Resources Ltd. in a joint venture with Ex-Terra Resources Ltd. completed seven holes totaling 740.6 metres. The iron formation returned gold values of 0.14 opt Au over 12.5 feet and 0.27 opt Au over 8 feet. The drill holes were collared east of the McIntyre Mine along the iron formation which strikes into the Penson Lake zone. Despite the encouraging drill results, no follow up work was reported.

#### Argosy North Zone

The Argosy North zone is located approximately 600 metres of the Argosy Mine. A number of northeasterly striking quartz veins have been delineated. Two of the quartz veins reportedly carry small amounts of arsenopyrite and native gold (Horwood, 1938). One of the quartz veins has been exposed for a strike length of 200 feet. The vein has a maximum width of 22 inches and dips 60° west. These veins may be the extension of the gold-bearing veins from the Argosy Mine. A limited diamond drilling program on the Argosy North zone was completed in 1936 Ellen Gold Mines Ltd. Since 1936, work on the area has been limited to geophysical and geochemical surveys, and some geological mapping.

#### Argosy East Zone

The Argosy East zone is centred on a geochemical anomaly approximately 100 metres southeast of the Argosy Mine (#1 vein). Geological mapping (Horwood, 1938) indicated that the folded metavolcanic breccia underlies the Argosy East zone. Much of the area is covered by overburden and remains untested.

### CURRENT PROGRAM

Upon review of the data from the airborne geophysical survey described in our report dated October 5, 2001 the recommended process of detailed evaluation of that data over the winter months commenced. At the

property scale level the raw airborne data was provided to Patterson, Grant & Watson for further enhancement and evaluation. The results of those enhancement techniques was the generation of a interpreted geologic map of the property to which the known gold occurrences could be related. The results of the PGW data evaluation are presented in their report which is appended.

Concurrent with the PGW work the raw airborne magnetic data was retrieved and presented in posted form for manual contouring by a geologist. The airborne data was posted along all flight lines at an equivalent sample density of one value per 6 meters on the ground. This posted data was contoured by hand and results used to evaluate structural features believed to be so critical in the localization of known gold occurrences in the area. This analysis provided in far greater detail the location of probable and possible fault traces than was possible from the initial computer generated magnetic presentation. The detailed contouring also provided valuable information on the strike of the underlying lithologies within the claim block.

The results of the initial inhouse evaluation of the posted magnetic data is presented on Map 1 entitled:- Structural and Lithologic Analysis of Total Field Magnetic Data. For this initial evaluation the southern half of the property, covered by the airborne survey, includes claims 1185092, 1234012 and the southern portion of claim 1248293. The remainder of the property covered by the airborne survey, claims 1249504, 1248290 and the northern portion of claim 1248293 remain the subject of ongoing evaluation.

With the regional datum of 59,000nt removed from all values the magnetic intensity of the present study area varies from values in the 100nt range up 4,000nt. Contour interval was varied to maximize contrast.

The detailed magnetic evaluation indicates that the strike of the underlying rock units trends typically easterly throughout the study area. Within the central portion of claim 1185092 the magnetic data suggests that the underlying lithologies are folded to a greater degree than elsewhere in the study area. The folding is possibly due to proximity of the rock units to numerous major north northwesterly trending faults inferred to cut this claim. The low magnetic character of the underlying lithologies in the western half of claim 1185092 relative to the remained of the study areas suggests that the source rocks may be more felsic in nature while the remainder of the area is represented by more mafic members. Several distinct units of elevated magnetic response within the mafic complex may represent lean iron formation type units. These inferences with respect to rock type of underlying

lithologies will be the subject of verification in the field but in view of the limited amount of outcrop reported the magnetic data provides some initial insight.

Locating fault structures within the study area was the fundamental reason for undertaking the detailed magnetic evaluation. The direct association of the known gold occurrences in the area to quartz veining, brecciation, alteration and other structurally related characteristics focuses attention on locating sources of such features which can most likely be related to faulting. In areas of heavy overburden and/or water as is the case with this property remote sensing methods provide the greatest amount of information in locating such structures. From the magnetic evaluation 4 probable and 1 possible fault structures were identified. In all cases the trends of the structures in north northwesterly. All faults appear to be normal. In view of the relatively small area of coverage it is however difficult to determine amounts of displacement along all faults. Only along the one "possible" fault that cuts claim 1234012 (western structure) is it possible to infer a displacement which in this case appears to be up to 100m to 150m.

Within the present magnetic study area three known gold occurrences are located. These are the Burnt Lake, Argosy East and Penson Lake zones. Each of these was described earlier in this report. At present the exact location of each of these zones on the ground is not known. As a result it is not possible at this time to position these occurrences relative to the recently inferred fault structures. However, it will be possible to recover the exact intercepts of the inferred fault structures with the airborne flight lines. With these positions determined it will be possible to locate the faults on the ground. Such recovery will be done prior to the summer field season so that once fieldwork on the ground begins it will then be possible to directly tie the locations of the known gold occurrences, when located in the field, with the ground locations of the inferred fault structures. A direct match between inferred fault structure and known gold occurrences would be extremely significant in planning future exploration.

The resulting geologic interpretation based on the detailed magnetic evaluation extended considerably the geologic detail presently known in each of the study area and shall prove an invaluable guide once field work commences. Based on these successes this process of detailed magnetic evaluation will be extended to include the remainder of the property. The results of those evaluations will be the subject of a subsequent submission.


## PROPOSED PROGRAM


Detailed magnetic evaluation and geologic interpretation as completed in this report shall be continued to include the remainder of the property. A follow-up program of line cutting, detailed geological mapping, stripping and rock lithogeochemistry is planned as much of the area is characterized by areas of moss-covered outcrop and subcrop, many of which are not described in the historical property geology maps.

In addition, the proposed program will include a review of the historical drill core from the gold occurrences on the Property.

All of which is respectfully submitted.

Tribute Minerals Corporation

  
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Consulting Engineer



David G. Wahl P. Eng.  
Consulting Engineer

## **APPENDIX I - Structural - Lithologic Analysis of Total Field Magnetic Data**

## **APPENDIX II - Patterson, Grant & Watson - Geophysical Data Processing**

Geophysical Data Processing and  
Interpretation  
Richardson/Casummit Lake Area,  
Northwestern, Ontario

*prepared for*  
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## **Summary**

A high-resolution airborne geophysical survey was completed over the Casummit Lake – Richardson Lake Area, Ontario in January 2002. The results of this study have been processed and interpreted by Paterson, Grant & Watson Limited. The primary objective of the survey and the interpretation has been identification of prospective targets for Au mineralization.

The interpretation of the lithology, intrusive activity and structural fabric of the study area, combined with the application of geological criteria for Au deposition, has resulted in the selection of five (5) prospect sized targets.



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- 3) Geological Criteria for Gold Target Selection
- 4) Target Selection and Interpretation
- 5) Summary and Recommendations

### Certificate

#### List of Maps (in pockets)

- Interpretation: Richardson/Casummit Lake Area, N. Ontario  
Scale 1:10,000
  
- First Vertical Derivative (Downward Continued and RTP): Richardson/Casummit Lake Area, N. Ontario  
Scale 1:10,000



## **1) Introduction**

In January, 2002, Paterson, Grant and Watson were contracted by Tribute Minerals Corporation to carry out data processing and geophysical interpretation of a recent airborne electromagnetic and magnetic survey flown over the company's property in the Richardson Lake – Casummit Lake area of northwestern, Ontario (see Figure 1: Location map). The survey lies within the regional Red Lake area – a favourable terrain for gold deposition.

The recent airborne survey (October 2001) was flown by Fugro Airborne Surveys Corp. of Mississauga, Ontario and all digital and map products produced as deliverable products were made available to PGW Ltd. by Tribute Minerals Corp.

The primary objectives of the current data processing of the airborne magnetic data and interpretation of the enhanced magnetic products and electromagnetic results were:

- i) determine the regional structure and lithology underlying the survey area, with particular attention to the delineation of regional fault structures and intrusive bodies, and
- ii) select target areas for ground follow-up that are prospective for gold mineralization based on favourable geophysical signatures of geological criteria that have historically controlled gold deposition in the Red Lake Camp.



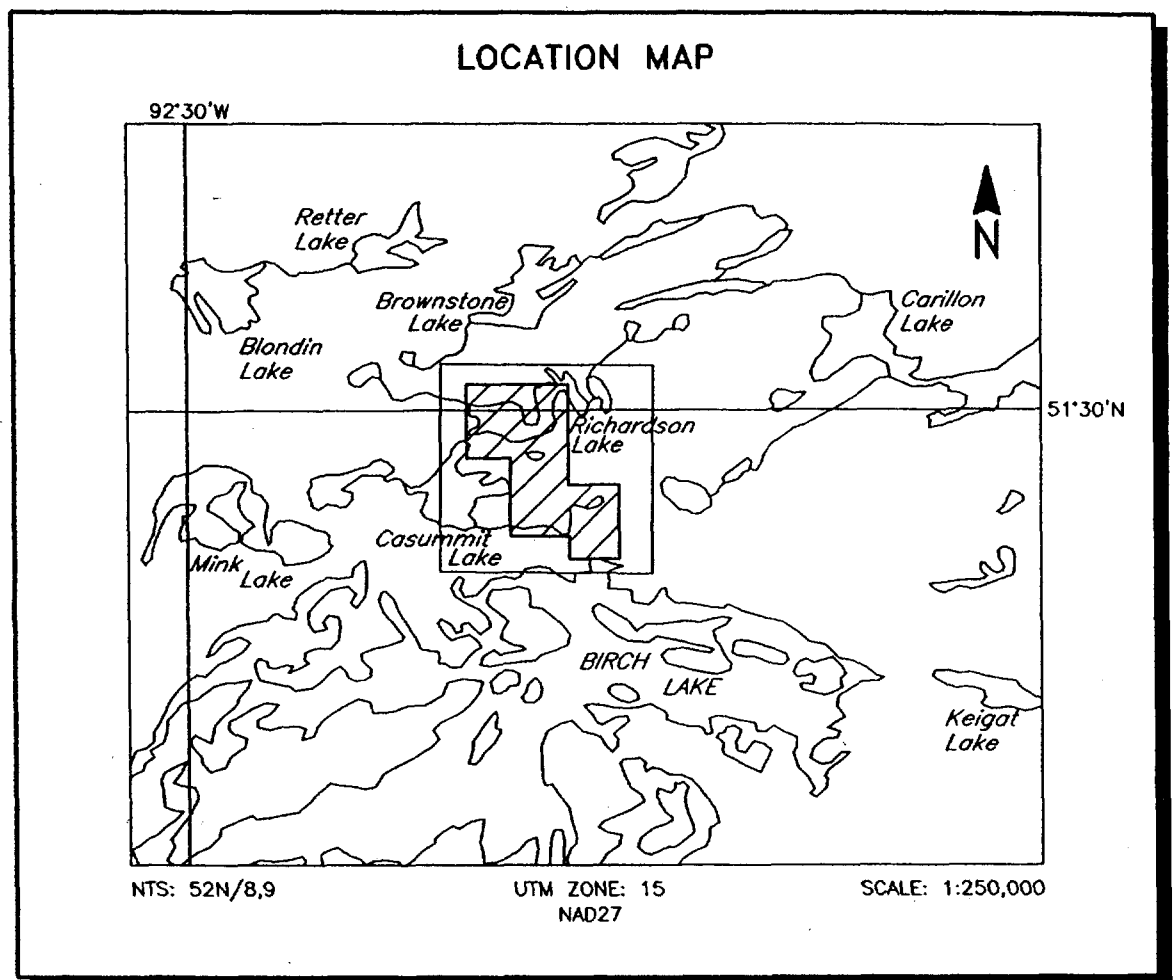


Figure 1  
Tribute Minerals Corporation  
Richardson/Casummit Lake Area, Ontario

## **2) Summary of Processing and Interpretation**

### **2a) Data Processing**

The processing and interpretation of the geophysical data was carried out at a scale of 1:10,000. The original flight lines were flown north-south at a nominal line spacing of 100 m. For the current study, the original profile data was edited and microlevelled in order to remove any “noise” or non-geological signal from the recorded total magnetic field and then gridded using a grid cell size of 25 m, representing 2.5 mm at map scale.

In order to facilitate the interpretation of the magnetic data, the following enhanced, or processed, magnetic field maps were produced.

- i) Pole-Reduced Total Field and Pole Reduced First Vertical Derivative. The first vertical derivative is the calculated equivalent of the measured vertical gradient. This process preferentially enhances anomalies over near surface bodies and helps to separate overlapping or inter-referencing anomaly patterns. The pole-reduction filter results in the recalculation of the total magnetic field, or derived products, as if it were measured at the north magnetic pole. This filter has the advantage of positioning the peak of normally magnetized bodies directly above the causative source.
- ii) Analytical Signal. The calculation of the analytical signal uses the “total” gradient (i.e. the combination of the vertical derivative and the horizontal derivatives in X and Y) to locate sources of magnetization. It is relatively immune to magnetic inclination and to magnetic remanence, which may both distort the geometry of magnetic anomalies. The analytical signal is particularly useful for outlining discrete magnetic sources and, in the present study, was a positive aid in the delineation of subtle fault signatures.



## 2b) Regional Geology and Structure

Previous geological mapping, based on drill hole data and relatively sparse outcrop sampling has indicated a general E-W to ENE-WSW for the underlying lithology across the survey area.

South and east of Casummit Lake, east of the major NNW-SSE Structural Zone, the underlying lithology is predominantly mafic metavolcanic flows and breccias, intermixed with relatively thin layers of chemical sediments and iron formation. Across the NNW Structural Zone the basic volcanics terminate or are faulted to the north and are replaced by more intermediate to felsic volcanics to the south of Casummit Lake. North of Casummit Lake and extending northeast to Richardson Lake the area, has been largely mapped as mafic metavolcanics, intruded by a granodiorite stock along the western shore of Richardson Lake and by a small gabbroic plug in the northwest corner of the survey area.

These relatively broad lithological units have been delineated in more detail as a result of the interpretation of the processed magnetic derivative maps. In particular it is noted that;

- i) Four major regional fault trends cross the survey area:
  - Major Regional NNW-SSE faults, across the centre of the area. Between Richardson and Casummit Lake these structures form Structural Zones "A" and "B".
  - Major Regional ENE-WSW faults occur throughout the area and form an important zone, the Casummit-Richardson Lake Corridor, striking ENE in a broad 1 km wide zone between the north shore of Casummit Lake and the southern end of Richardson Lake.
    - Regional N-S faults.
    - Regional NE-SW faults.
- ii) The two intrusive units (gabbro and granodiorite) exhibit distinct magnetic signatures and appear to be more extensive than shown on previous mapping.



- iii) The chemical sediments and, in particular, the iron formations, have been mapped in more detail. Internal faulting and folding of individual formations has been possible as a result of the current data processing.
- iv) Two important deformation zones, the NNE Structural Zone and the Casummit-Richardson Lake Corridor have been delineated in the present study.



### **3) Geological Criteria for Gold Target Selection**

In order to select specific target areas for gold mineralization, based on the interpretation of the geophysical data, two steps, or procedures were carried out:

- 1) Based on the enhanced magnetic map our interpreted structure/lithology map was produced. Where possible, known geological units, from outcrop or drill holes, were correlated with interpreted geophysical responses and these correlations were extrapolated into unmapped areas.
- 2) Based on studies of known gold mines and gold occurrences, a set of geological criteria that appear to be necessary for, or contribute to, gold deposition has been formulated, an eight-criteria set has been used in the present study. This set has resulted from discussion with Tribute Minerals staff and from recent publications on gold mineralization in the Red Lake Camp (Parker, 2000).  
The current lithological/structural interpretation has then been examined in order to determine areas, or targets, where the geophysical signatures indicated the presence of some, or all, of the gold deposition criteria. Note is also made of previous mapping, drilling, or Au-mineralization in the area. The areas that do exhibit positive geological criteria have been then selected as follow-up targets.

The geological criteria for target selection have been listed on TABLE A.



**TABLE A**  
**Geological Criteria for Gold Targets**  
**Casummit Lake – Richardson Lake Area**

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1) Proximity to, or correlation with, major Deformation Zone.

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2) Local scale  $\pm$  semi-regional faulting/shearing in at least one of these directions:

- Mine Trend – generally NW-SE or WNW-ESE (Detta Trend)
  - Campbell Trend (approx N-S)
  - East Bay Trend – approximately NE-SW
- 

3) Proximity to local scale heat source i.e. INT.

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4) Oxidized (Skarn) phase of mv, ms, package at edge of large INT.

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5) Dominant brittle fracture.

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6) Deep source for fluids i.e. INT or Regional Deformation

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7) I.F. or ferro dolomite veining.

Note: late sulphide arsenopyrite replacement in  
Fe-Carb. Veins always exhibits anomalous Au.

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8) Alteration: Carbonate plus intense K+.

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#### **4) Target Selection and Interpretation**

At this stage, five targets have been selected as first priority due to the favorably interpreted gold mineralization criteria, the similarity, in a number of cases, with the lithology and structure of known occurrences and the correlation of many of the targets with anomalous sulphide content and or gold occurrences. For each target we have noted a summary of the major geological criteria that apply to the target. Where appropriate, we note anomalous geophysical signatures and recorded geological or drill-hole data.

Within the survey we have selected a relatively large (2.5 km E-W by 1.5 km N-S) “area of interest” that has been denoted as the Primary Target Area (P.T.A.). Historically, four, or more occurrences of Au and associated sulphides have been observed within the PTA, the majority are located on iron formation – basic volcanic contacts at, or near major NNW-SSE shears. Two of our selected targets lie within the P.T.A.



**Target P.T.A. – 1      (546500E, 5704550N)**

- Located on the south shore of Richardson Lake, at the eastern edge of the NNW-SSE Structural Zone “A”.
- East-west striking iron formation in contact with clastic metasediments/greywackes and basic metavolcanics.
- I.F./metavolcanic contact located 200 m south of granodiorite intrusive contact.
- Area strongly deformed by favourable N-S Campbell Trend shears and NE-SW East Bay Trend shears.



## **Target P.T.A. – 2      (546450E, 5703590N)**

- Target P.T.A. – 2 lies at the eastern end of a small lake lying 500 m south of Richardson Lake.
- Sulphide occurrences have been discovered at the NW corner of the lake and a moderately conductive zone, indicative of bedrock conductivity has been detected by the current study. This zone strikes approximately E-W across the target and correlates with the southern bounding ENE fault of the Casummit-Richardson Lake corridor.
- The underlying mafic volcanic/clastic metasedimentary sequence has been disrupted by both NNW-SSE shears and by the favourable major N-S Campbell Trend faults.

The remaining targets all lie with the favourable NNW-SSE Structural Zone “A”.



## **Target 1-A (545250W, 5705200N)**

- Target 1-A lies over a small island at the northern end of Richardson Lake.
- Immediately to the north of the target area, multiple occurrences of Au and metallic sulphides have been discovered.
- The target lies within a “pinch-out” zone of highly deformed mafic volcanics, located between the granodiorite to the east and the gabbro intrusive to the west.
- Major NNW-SSE faults disrupt the mafic volcanics and minor, but possible important N-S and E-W faults also occur within the target area.



## **Target 2-A (Burnt Lake Zone) (546900W, 5703250N)**

- Target 2-A covers an anomalous Au-zone lying approximately 1 km east of the eastern end of Casummit Lake.
- Anomalous zone associated with folded iron-formation in contact with altered mafic metavolcanics and clastic metasediments.
- Three favourable shear trends traverse target 2-A and increase the potential for gold mineralization; N-S Campbell Shear Trend, WNW-ESW Detta shears and major NE-SW East Bay type fault.



### **Target 3-A (546600W, 5702500N)**

- Target 3-A is underlain by folded iron formation in contact with basic metavolcanics; the southern end of the target is on the mafic/felsic regional lithological contact.
- A major NNW-SSE structure, the western edge of Structural Zone "A", cuts the regional lithology and the older fault trends. In addition, favourable iron carbonate alteration (siderite) has been noted 200 south southeast of the target, along the regional shear.
- Favourable N-S Campbell shears and WNW-ESE Detta shears intersect within the target are more numerous than elsewhere within the survey area.



## 5) Summary and Recommendations

The processing and interpretation of the recent airborne geophysical survey results over the Casummit Lake – Richarson Lake Area have been successful in achieving the primary objectives of the study; namely,

- 1) to present a more detailed picture of the bedrock geology and structure, and
- 2) to select priority target areas for Au mineralization based on the geophysical characteristics of a set of geological and ore genesis criteria.

The new processed geophysical results have facilitated the identification of major deformation zones, individual faults and zones of intense structural deformation. Broad regional changes in susceptibility and local pattern and susceptibility changes have assisted in regional lithology classifications and in identification of various metavolcanic and metasedimentary units. Also, zones of alteration/metasomatism have been interpreted within the individual volcanosedimentary units. Intrusive units, ranging in size and composition, either at surface or buried, exhibit distinctive geophysical responses and these igneous features have been noted on the interpretation maps. Based on the geophysical characteristics of some, or all of the eight Au deposition criteria five (5) priority targets have been identified.

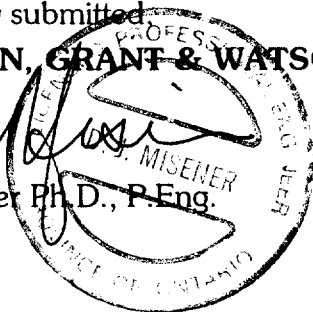
Prior to drilling the five targets we recommend that the following steps be carried out:

- 1) Working session with PGW geophysicist and Tribute Minerals geologists to update target areas with respect to latest mapping, geochemistry and drilling.
- 2) If necessary, revise and/or expand target selection.
- 3) Prepare detail cross-sections over the targets with depth-to-basement and interpreted structure and lithology. Using these cross sections and available surface sampling results, plan drill locations.

Respectfully submitted

**PATERSON, GRANT & WATSON LIMITED**

  
D. J. Misener Ph.D., P.Eng.  
President

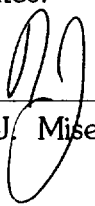
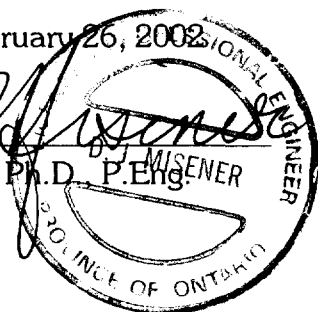


## Certificate

*Donald James Misener, B.A.Sc., M.A.Sc., Ph.D., P.Eng. of Toronto, Ontario certify the following:*

- 1) I am employed by Paterson, Grant & Watson Limited (PGW) a consulting geophysical firm whose address is 85 Richmond Street West, 8<sup>th</sup> Floor, Toronto, Ontario M5H 2C9.
- 2) I reside at 17 Calvin Avenue, Toronto, Ontario M2N 5E4
- 3) I am a registered professional engineer in Ontario (#31985013). I am a graduate of the University of Toronto with a Bachelor of applied Science in Engineering and a Doctorate of Philosophy in Geology and Geophysics from the University of British Columbia.
- 4) I have been actively employed as a consulting geophysicist by PGW for over 25 years.
- 5) PGW has completed the work referred to below for Tribute Minerals Corporation regarding the Casummit Lake – Richardson Lake Property. I have been the person at PGW who has been responsible for the work including the PGW report “Geophysical Processing/Interpretation, Casummit Lake – Richardson Lake Area, Northwestern, Ontario”.
- 6) During January and February Mr. Karl Kwan and Ms. Pauline Lawrence of PGW worked on the report, preparing geophysical data and computer drafting for the final results.
- 7) I am responsible for all of the Report.
- 8) I am not aware of any material fact or material change with respect to the subject matter of the Report which is not reflected in the report, the omission to disclose which makes the Report misleading.
- 9) I am independent of Tribute Minerals Corporation, as set out and applying the test in section 1.5 (4) of NI 43-101.

Dates: February 26, 2002

  
D.J. Misener Ph.D. P.Eng.  




**APPEXDIX III - Perry English Richardson Lake Property Agreement**

## Work Report Summary

Transaction No: W0220.00369 Status: APPROVED  
 Recording Date: 2002-FEB-28 Work Done from: 2002-FEB-01  
 Approval Date: 2002-MAR-01 to: 2002-FEB-26

Client(s):  
 129617 ENGLISH, PERRY VERN

Survey Type(s):  
 DATA

### Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
KRL 1185092	\$2,765	\$2,765	\$4,800	\$4,800	\$0	0	\$0	\$0	2003-MAR-05
KRL 1231810	\$1,364	\$1,364	\$5,600	\$5,600	\$0	0	\$0	\$0	2003-MAR-05
KRL 1234012	\$2,765	\$2,765	\$2,500	\$2,500	\$265	265	\$0	\$0	2002-JUN-10
KRL 1248290	\$2,259	\$2,259	\$0	\$0	\$2,259	2,259	\$0	\$0	2004-JAN-24
KRL 1248293	\$1,629	\$1,629	\$0	\$0	\$1,629	1,629	\$0	\$0	2004-JAN-24
KRL 1249504	\$2,118	\$2,118	\$0	\$0	\$2,118	2,118	\$0	\$0	2004-JAN-24
	\$12,900	\$12,900	\$12,900	\$12,900	\$6,271	\$6,271	\$0	\$0	

External Credits: \$0

Reserve:  
 \$0 Reserve of Work Report#: W0220.00369  
 \$0 Total Remaining

Status of claim is based on information currently on record.



52N08NW2012 2.23071 CASUMMIT LAKE

900

Date: 2002-MAR-01

GEOSCIENCE ASSESSMENT OFFICE  
933 RAMSEY LAKE ROAD, 6th FLOOR  
SUDBURY, ONTARIO  
P3E 6B5

PERRY VERN ENGLISH  
BOX 414  
SOURIS, MANITOBA  
R0K 2C0 CANADA

Tel: (888) 415-9845  
Fax: (877) 670-1555

**Submission Number:** 2.23071  
**Transaction Number(s):** W0220.00369

Dear Sir or Madam

**Subject: Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact LUCILLE JEROME by email at [lucille.jerome@ndm.gov.on.ca](mailto:lucille.jerome@ndm.gov.on.ca) or by phone at (705) 670-5858.

Yours Sincerely,



Ron Gashinski  
Senior Manager, Mining Lands Section

**Cc:** Resident Geologist

Perry Vern English  
(Claim Holder)

Assessment File Library

Perry Vern English  
(Assessment Office)



MINISTRY OF  
NORTHERN DEVELOPMENT  
AND MINES  
PROVINCIAL MINING  
RECORDERS' OFFICE

# MINING LAND TENURE MAP

Date / Time of Issue Mar 1 2002 14:29h Eastern

TOWNSHIP / AREA PLAN  
CASUMMIT LAKE AREA G-1751

ADMINISTRATIVE DISTRICTS / DIVISIONS  
Mining Division Red Lake  
Land Titles/Registry Division KENORA  
Ministry of Natural Resources District RED LAKE

## TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession Lot
- Province Line
- Iron Mine
- Culvert and Box
- Channel
- Channel - Approx. Justified Extension
- Shed
- Mini Road/Trail
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Hydro Line
- Communication Line
- Wooded Area
- Major and Minor Roads, Highways, Creeks

## LAND TENURE

- Freehold Patent
  - Surface and Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Leasehold Patent
  - Surface and Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- License of Occupation
  - Leases and Subleases
  - Surface and Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Land Use Plans
  - Order in Council
  - Water Power Lease Agreement
- Mining Claims

## LAND TENURE WITHDRAWALS

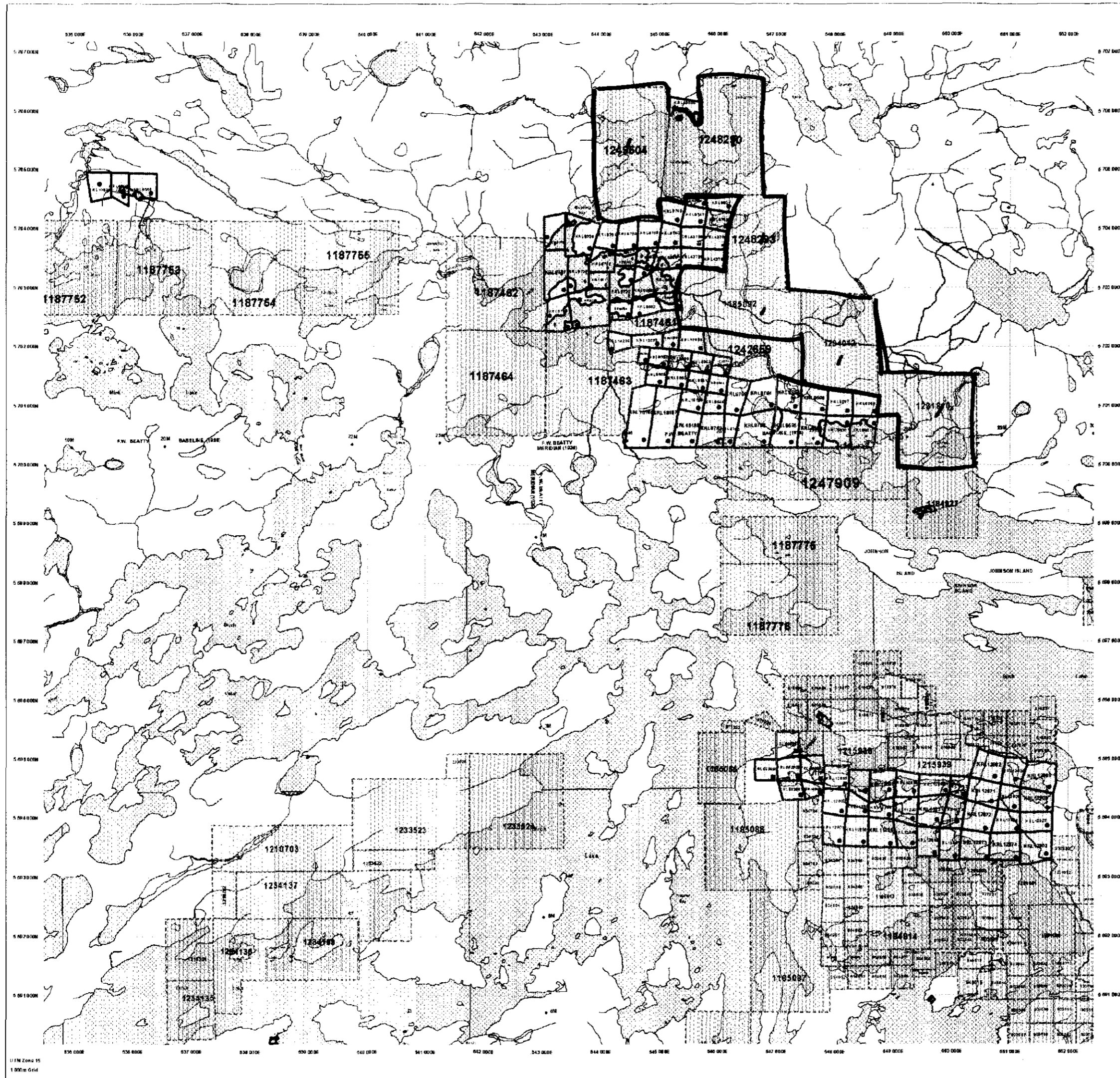
- Area Withdrawal from Disposition
  - Mining Act Withdrawal Types
    - Surface and Mining Rights Withdrawal
    - Surface Rights Only Withdrawal
    - Mining Rights Only Withdrawal
  - Order in Council Withdrawal Types
    - Surface and Mining Rights Withdrawal
    - Surface Rights Only Withdrawal
    - Mining Rights Only Withdrawal

## IMPORTANT NOTICES

## LAND TENURE WITHDRAWAL DESCRIPTIONS

## IMPORTANT NOTICES

Please refer to the special regulations, terms and conditions that affect mining prospecting, staking and mineral development activities.



## General Information and Limitations

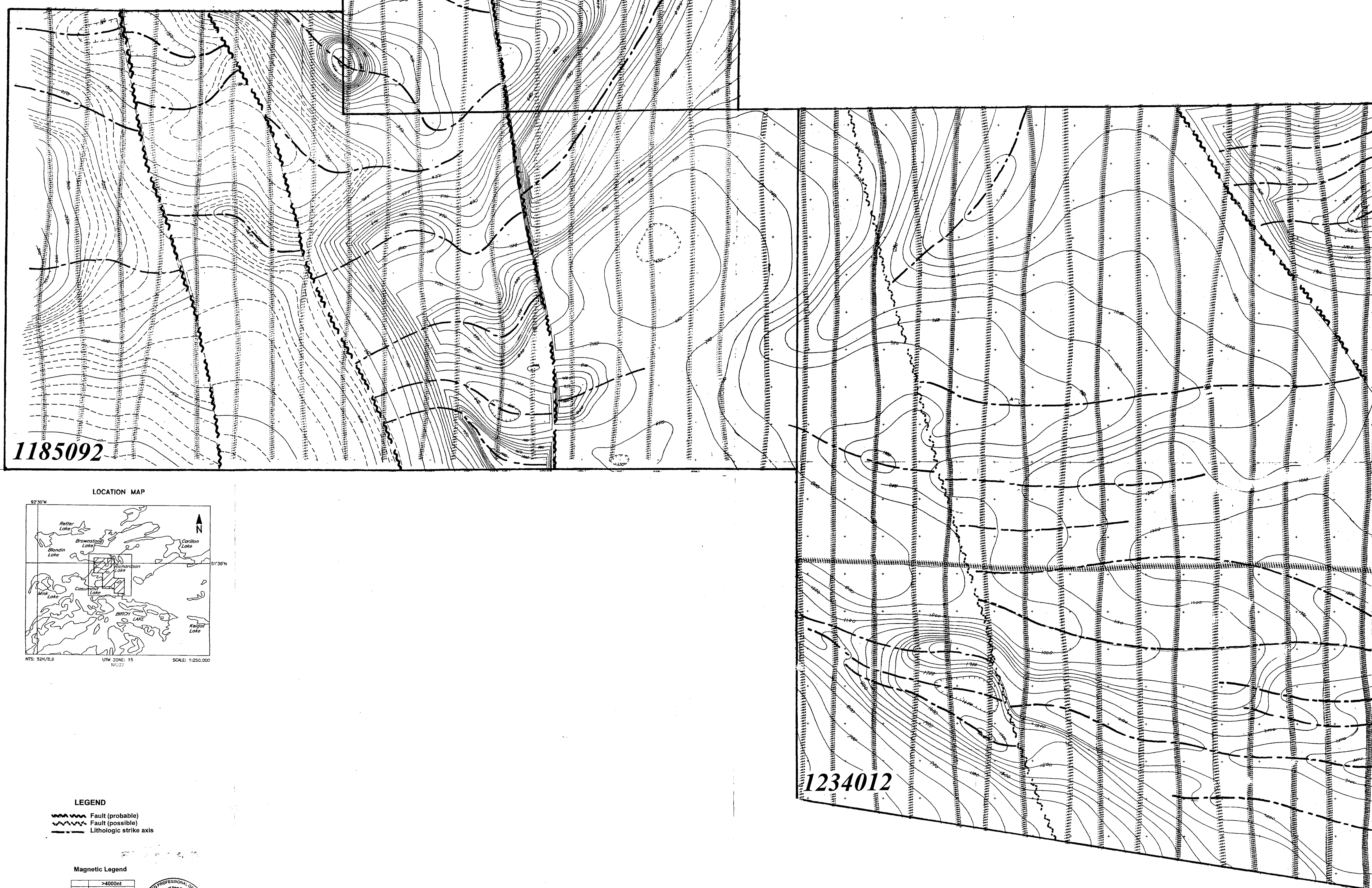
Contact Information:  
Provincial Mining Recorder's Office - Toll Free  
905-941-3333 (toll-free)  
3233 Highway 104, Kenora  
Kenora, ON P7A 6B5  
E-mail: [recorder@mining.mn.gov.on.ca](mailto:recorder@mining.mn.gov.on.ca)

Map Datum: NAD 83  
Projection: UTM (Zone 18N)  
Topographic Data Source: Land Information Ontario  
Mining Land Tenure Source: Provincial Mining Recorder's Office

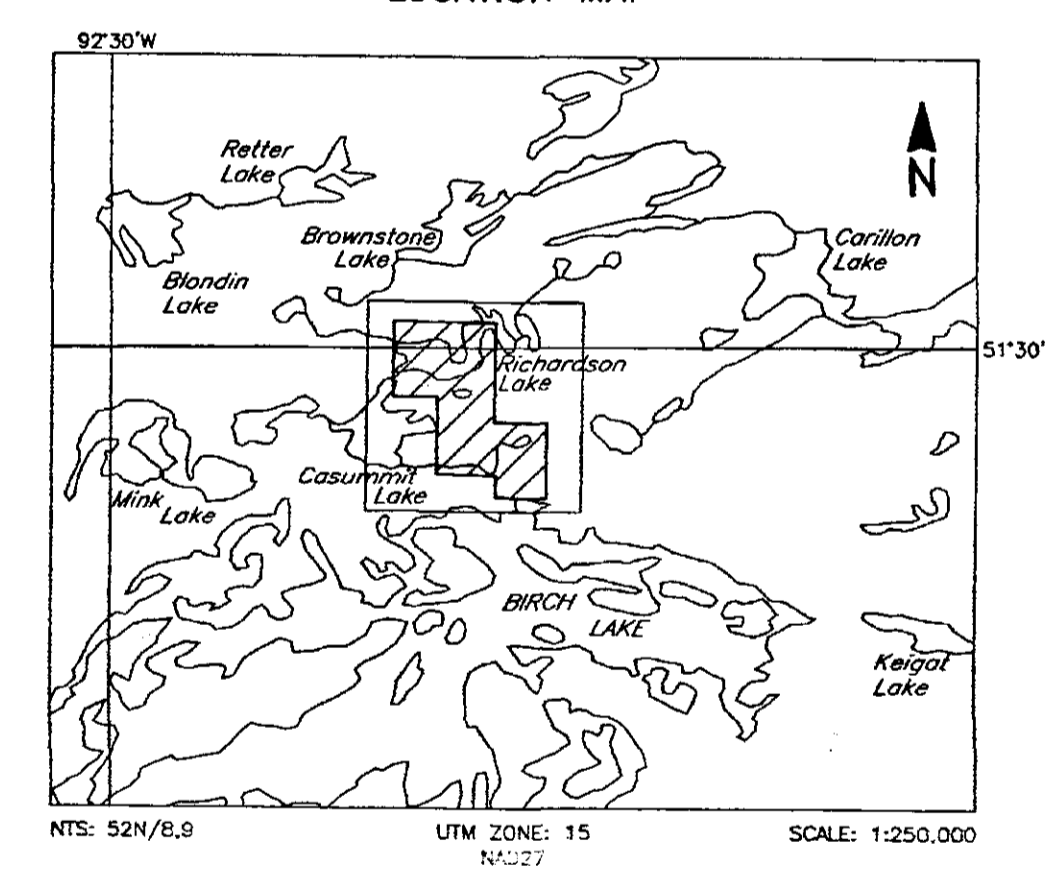
This map may not show all registered land tenure and interests and does not constitute a guarantee of accuracy. It is intended for general information only. For more detailed information, please contact the Provincial Mining Recorder's Office.

This map is a reproduction of the original map. It is not intended to be used as a legal document. The information shown is derived from digital data available in the Provincial Mining Recorder's Office. The Province of Ontario is not responsible for any errors or omissions in this map.

1248293



LOCATION MAP

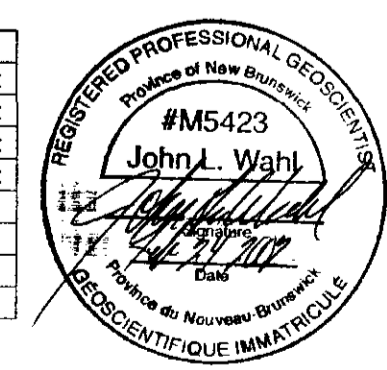


LEGEND

- ~~~~~ Fault (probable)
- ~~~~~ Fault (possible)
- Lithologic strike axis

Magnetic Legend

>4000nt
3000nt - 4000nt
2000nt - 3000nt
1500nt - 2000nt
1000nt - 1500nt
750nt - 1000nt
500nt - 750nt
250nt - 500nt
<250nt

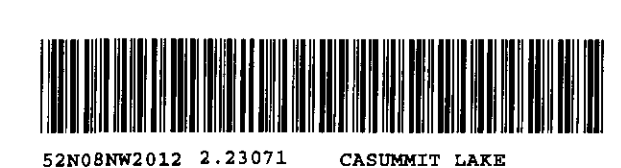


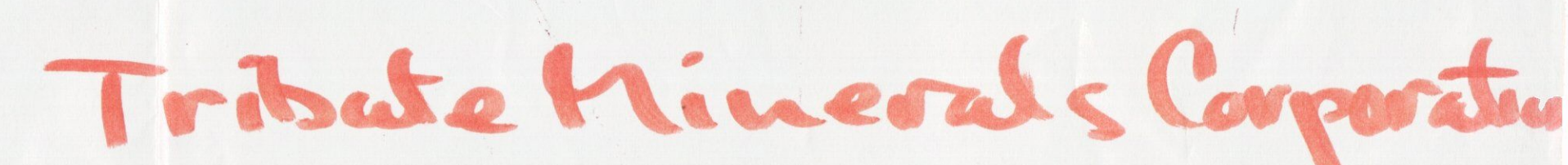
**TRIBUTE MINERALS CORPORATION**

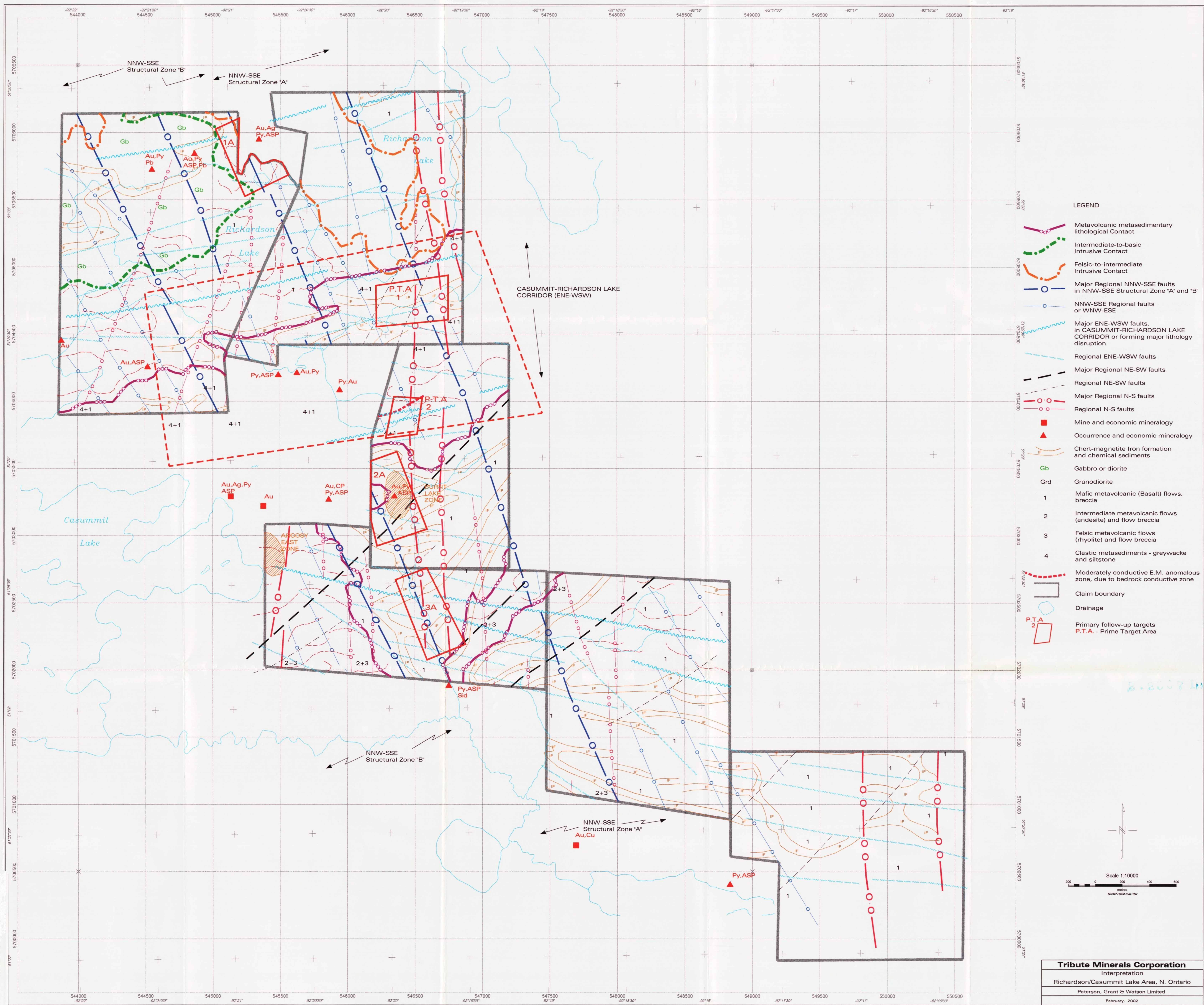
**RICHARDSON LAKE PROJECT**

Structural & Lithologic Analysis  
Or  
Total Field Magnetic Data

Scale 1 : 5000  
metres



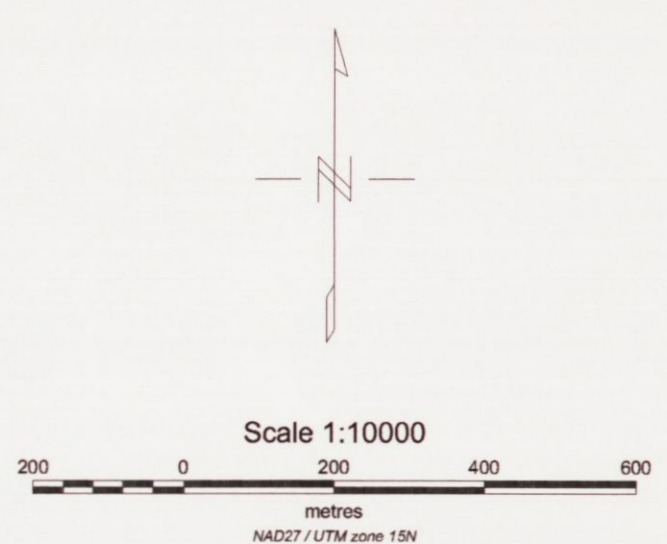
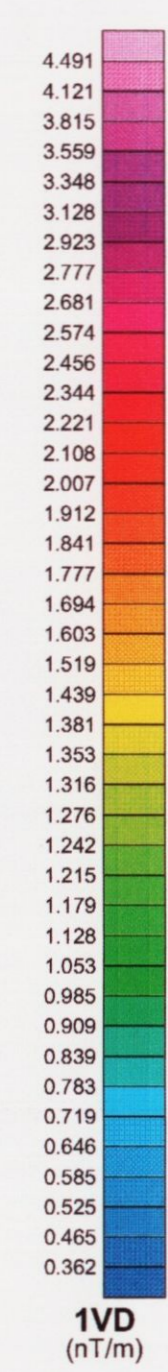
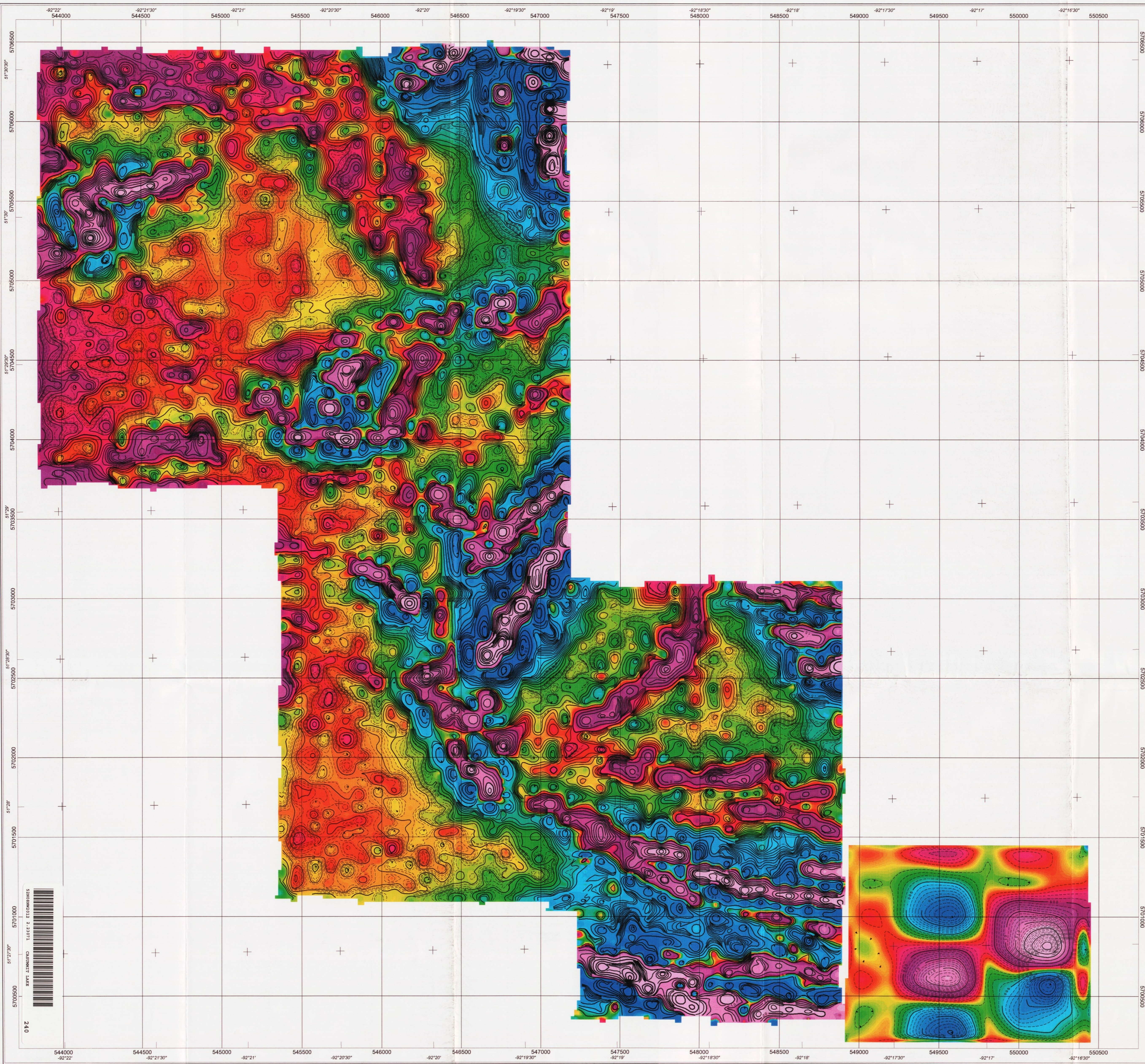




LEGEND

- Metavolcanic metasedimentary lithological Contact
- Intermediate-to-basic Intrusive Contact
- Felsic-to-intermediate Intrusive Contact
- Major Regional NNW-SSE faults in NNW-SSE Structural Zone 'A' and 'B'
- NNW-SSE Regional faults or WNW-ESE
- Major ENE-WSW faults in CASUMMIT-RICHARDSON LAKE CORRIDOR or forming major lithology disruption
- Regional ENE-WSW faults
- Major Regional NE-SW faults
- Regional NE-SW faults
- Major Regional N-S faults
- Regional N-S faults
- Mine and economic mineralogy
- Occurrence and economic mineralogy
- Chert-magnetite Iron formation and chemical sediments
- Gabbro or diorite
- Grd
- Granodiorite
- Mafic metavolcanic (Basalt) flows, breccia
- Intermediate metavolcanic flows (andesite) and flow breccia
- Felsic metavolcanic flows (rhyolite) and flow breccia
- Clastic metasediments - greywacke and siltstone
- Moderately conductive E.M. anomalous zone, due to bedrock conductive zone
- Claim boundary
- Drainage
- P.T.A. 2
- Primary follow-up targets
- P.T.A. - Prime Target Area

Scale 1:10000  
metres  
NAD27 / UTM zone 18N



Tribute Minerals Corporation  
First Vertical Derivative  
(Downward Continued and RTP)  
Richardson/Casummit Lake Area, N. Ontario  
Paterson, Grant & Watson Limited February, 2002



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