LOAD: COMBO/35

52° / 03NW-0026

2.7678
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INTRODUCTION

Interest in the Kaginot Lake region was stimulated by examination of the regional mapping efforts of the O.G.S. A 110-unit claim block was staked in March, 1984 to cover an area deemed favourable as a potential environment for exhalative stratiform gold deposits of the Bousquet-Hemlo type. Favourable exploration criteria inherent in the area included an abundance of felsic metavolcanics of tuffaceous origin, greenschist facies metamorphism, a lengthy metavolcanic-granodiorite contact, the presence of small felsic porphyritic intrusive bodies and the existence of known auriferous veins on adjacent claims along strike.

Previous work on this ground was apparently limited to examination of felsic fragmentals for massive sulfides in the early 1970's and quartz vein prospecting for gold in the 1930's and 1940's.

LOCATION & ACCESS

The Kaginot claim group is in the District of Kenora, 220 miles (365 km) NNW of Thunder Bay. Relevant data concerning geographical location is listed below.

Latitude: 91°27' west
Longitude: 51°14' north
NTS Map Sheet: 52-0/3, Bamaji Lake, 1:50,000
OGS Map Sheet: No. 2482, Moosetegon Lake, 1:31,680
Claim Map Sheet: No. G-2046, Fry Lake
MNR Administrative District: Sioux Lookout
Mining Division: Patricia
Land Titles/Registry Division: Kenora
Claim Group: 60 miles (100 km) WSW of Pickle Crow
60 miles (100 km) N of Sioux Lookout
Nearest Railway: 60 miles (100 km) S
Nearest Road: 50 miles (80 km) E
Nearest Hydro Line: 4 miles (6.7 km) S

Access may be gained to the property by single-engine, fixed-wing, float-equipped aircraft out of Sioux Lookout.

Within the property access is by small craft with outboard engine and pace and compass orienteering. Access to the easternmost portion of the claim group requires two 1000 ft. (300 m)-long portages from Kaginot Lake into Fry Lake.
PHYSIOGRAPHY & VEGETATION

This region is the typical unpleasant-to-work-in bush of much of Northern Ontario or Quebec. Maximum relief is approximately 100 ft. or 30 m. Outcrop distribution is fairly even accounting for about 10% of the land area. Best exposures may be found along lakeshores.

Approximately 25% of the claim group is occupied by lakes. Drainage is to the south although the claims lie within a few miles of the Arctic-Atlantic water divide.

The Boreal Forest vegetation is dominated by black spruce. Mature Jackpine forest covers well-drained uplands of deep sandy overburden. Birch and poplar enjoy well-drained regions of unconsolidated glacial drift and also occur with cedar as gallery-effect vegetation patterns along lakeshores. Balsam and tamarack are found with black spruce and Labrador tea in open swampy areas.

Topography is dominated by NE-SW trending valleys and ridges. Gabbros, granites and more felsic metavolcanics weather high and are well exposed. Mafic metavolcanics are deeply weathered and are poorly exposed. Glacially streamlined features parallel the NE-SW regional strike.
The Kaginot claim group falls within the Uchi Subprovince of the Superior Province. The geology is dominated by mafic to felsic greenschist facies, metavolcanics and a notable lack of metasediments. It is a south facing monoclinal sequence with northeast to east strikes and moderately steep dips to the south. The structural foliations parallel this regional strike. Stretching of primary features ranges from nil to axial ratios of 3:1.

The general geology may be broken into 3 broad domains (Fig. 1):

(1) The Northern Batholithic Complex;
(2) The Central Tuff Belt;
(3) The Southern Flow Belt.

The criteria used to distinguish basic, intermediate and felsic metavolcanics in the field are outlined in Table 1. Although these criteria may fail to distinguish silicified mafics from chloritized felsics, they were nevertheless useful in discerning mappable field lithologies. These mine-scale alteration types typical of syngenetic ore environments should display distinctive characteristic lithogeochemical signatures.

The Northern Batholithic Complex

This is a large medium-grain holocrystalline, hypidiomorphic-granular, felsic intrusive body bounding the greenstones to the northwest. It is tonalitic to granodioristic in composition and bears accessory biolite.

It is locally gneissic and/or K-spar porphyritic near the contact with metavolcanics where it has intruded concordantly in a sheet-like fashion incorporating tabular xenoliths of mafic metavolcanics.

Clear crosscutting field relationships confirm a younger age than the metavolcanics.

The Central Tuff Belt

The stratigraphy of this domain is best observed on the large peninsula in the central portion of Kaginot Lake. The units here are typically laterally extensive and display very clear primary tuffaceous bedding. Crystal tuffs contain 1 to 5% monomineralic, pale-green to white, euhedral plagioclase phenocrysts 1 to 4 mm in diameter which are commonly fractured.

This belt is cored by a thick gabbroic sill which locally displays more leucocratic phases of intermediate composition. Plagioclase
<table>
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<tr>
<th>Lithology</th>
<th>Suspected Composition</th>
<th>Field Criteria</th>
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<tbody>
<tr>
<td>Mafic Metavolcanics</td>
<td>Basaltic</td>
<td>Colour: Dark green&lt;br&gt;Hardness: Soft (deeply scratched with a knife)&lt;br&gt;Mineralogy: chlorite-rich&lt;br&gt;Textures: Thick (1cm), bleached weathering rinds&lt;br&gt;- Pillows&lt;br&gt;- Flow-top and pillow breezes&lt;br&gt;- Amygdales</td>
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<tr>
<td>Intermediate Metavolcanics</td>
<td>Andesitic-Dacitic</td>
<td>Colour: Medium to pale green&lt;br&gt;Hardness: Moderately hard (still scratchable with a knife)&lt;br&gt;Mineralogy: chlorite + feldspar&lt;br&gt;Textures: Pillows (thick selvages)&lt;br&gt;- Hackly thermal fracturing</td>
</tr>
<tr>
<td>Felsic Metavolcanics</td>
<td>Rhyolitic</td>
<td>Colour: Pale green to buff white&lt;br&gt;Hardness: Hard (unable to scratch with a knife)&lt;br&gt;Mineralogy: felsic&lt;br&gt;Textures: Quartz phenocrysts&lt;br&gt;- Cherty tuffs&lt;br&gt;- Devitrified glass&lt;br&gt;- Rare spherulites&lt;br&gt;- Very thin weathering rinds (&lt;1mm)</td>
</tr>
</tbody>
</table>
porphyritic zones bearing euhedral phenocrysts up to 1.5 cm in diameter are prominent towards the southwest. Where foliated and finer-grained, this unit may be identified by a prominent 140°/90° joint set, its high relief and good exposure. It is speculated that the gabbro was a differentiating basic intrusion which served as a magma chamber for the metavolcanics.

A distinct marker horizon bounds the metagabbro on the northwest. This is a mafic tuff with interbedded felsic bands up to 5 cm width averaging 1 to 2 cm width. The felsic beds are cherty and may represent a chemical sediment. One-cm-wide cherty beds bearing 1 to 2% disseminated magnetite with lesser pyrite were found at 2 localities.

The stratigraphy observed in a NW-SE traverse across the peninsula is represented in Fig. 2.

The Southern Flow Belt

This domain is dominated by very well-preserved intermediate and mafic flows. The flows are interpreted to be lenticular in form and narrow felsic tuff and intermediate to felsic pyroclastic belts are observed intercalated amongst them.

The thickest accumulation of intermediate flow occurs in the uplands centred by Moose Lake. This region has the highest relief and best outcrop exposure in the map area. These flows are medium to pale green and can barely be scratched with a knife. Well-formed pillows and flow-top pillow breccias with hyaloclastic selvages are common. Also common are hackly fracture patterns and autobrecciation. It is speculated that these were porous zones in mafic volcanics which may have been subjected to high water:rock type sub-seafloor alteration. This would provide a sourcebed for current convective ore genesis conceptual models. Sodium enrichment should be checked to confirm spilitization.

The thick accumulation of flows in this region and flanking intermediate to felsic pyroclastics may suggest proximity to a volcanic centre but occurrence of rhyolitic flows are rare.

To the east and south of Moose Lake, in the Fry Lake region, the geology is dominated by east-striking mafic pillow lavas with lesser intercalated intermediate to felsic pyroclastics. These are lapilli tuffs and bomb tuffs. Lapilli and bombs are felsic in composition displaying one millimeter diameter chloritic specks which represent devitrified glass. The felsic clasts comprise 5 to 30% of the rock in an intermediate to felsic matrix. These belts were lumped for mapping purposes into an intermediate metavolcanic grouping which is likely representative of their overall chemistry. It should be noted that the volcanics in this region are more laterally extensive belts and less lenticular in morphology.

Throughout the Southern Flow Belt, narrow felsic cherty tuffs up to 2 meters in true thickness are found although their surface exposure
Figure 2
Stratigraphy of the Central Tuff Belt

NORTHERN BATHOLITH COMPLEX

AMPHIBOLITIZED ZONE
CHLORITE SCHIST

INTERMEDIATE TO MAFIC CRYSTAL TUFF

CHLORITE SCHIST

MAFIC TUFF WITH FELSIC BEDS

METAGABBRO

BANDED MAFIC TUFFS
AND CHLORITE SCHIST

INTERMEDIATE CRYSTAL TUFF

CHLORITE SCHIST

INTERMEDIATE TUFF

METAGABBRO

DISCONFORMITY

MARKER BED

Intermediate
Crystal &
Lapilli Tuff

Intermediate
Crystal Tuff

MARKY SHOWING

NW

SE
is very limited. In one locality sugary-appearing carbonate alteration was noted although these zones are typically void of sulfide mineralization.

Large differentiated gabbroic sills occur throughout the region.

WORK UNDERTAKEN

Geologic Mapping/Prospecting

Geologic mapping and prospecting was conducted along shorelines and inland with traverse intervals of 100 m. Traverses were NW-SE at right angles to the strike. Map El.

Map coverage in the Fry Lake region is more open with efforts having been concentrated on shoreline exposures.

Pleistocene geology and vegetation were mapped on daily traverses.

Geochemistry

Lithogeochemical sampling was conducted at 100 m intervals on traverse lines when outcrop exposure permitted. This density was increased over favourable-appearing lithologies.

Glacial Studies

Glacial straie were rarely observed but indicated an ice direction between 230° to 240°. Glacial drift throughout the map region is typified by low relief, rounded, linear ridges paralleling geologic strike. These are nonstratified boulder-cobble-sand and sand-cobble-boulder tills. Tills are very poorly sorted, extremely well rounded and unconsolidated. Boulders and cobbles are of exotic provenance and are predominantly granitic.

A sinuous, symmetrical ridge traverses the southern portion of the claim group in an east-west orientation. This is a typical esker deposit with a wide apron of sandy till bearing rare kettle lakes.

Glacial drift is of glaciofluvial origin and is interpreted as a large braided stream network.

One test pit was dug for a till fabric analysis study in the vicinity of camp. The pit was dug on a 25 m-wide, low, rounded ridge with a maximum relief of 3 m. Less than 10% of pebbles had measurable long axes. A very distinct 280° - 290° imbrication is apparent on the resultant rose diagram. This is thought to represent a glaciofluvial channel deposit and is inclined approximately 40° to observed glacial straie. (Fig. 3, Fig. 4)

Soil development is somewhat immature podzolic. The unconsolidated porous nature of the till should permit hydromorphic transport of bedrock components to the B horizon. No proglacial clays were observed anywhere on the property. Till components have characteristically attained a high degree of physical and chemical maturity in terms of the weathering process.
FIG. 3: SOIL/TILL ABRIC TEST PIT

\( A_0 \) - Black Humus, 75-100% organic

\( A_1 \) - Grey-brown silt, roots

\( B_1 \) - bright orange
  - poorly sorted
  - 70-80% sand & silt
  - 10-30% rounded to subangular gravel & cobbles

\( B_2 \) - orange
  - grit-sand-gravel-cobble till

B-C TRANSITIONAL
  - brown-orange
  - grit-sand-gravel-cobble till

\( C \) - grey-buff
  - partially cemented grits and sand with 10-15% angular to rounded pebbles and gravel and 5% rounded cobbles and boulders.
Two 5 kg. till samples were panned to yield approximately 5 grams of black sand. This contained magnetite, quartz, garnet and epidote but no colours.

Figure 4

Till Fabric Rose Diagram
FOLLOW-UP WORK

Three prospects were found in the claims which warranted immediate follow-up work. These are located in Figure 1 and are listed as follows:

(1) The Marry Showing;
(2) Silicified Felsic Fragmentalr;
(3) Quartz-tourmaline-carbonate vein stockwork.

(1) The Marry Showing

This is the most prospective horizon found to date. Outcrop is limited and the bulk of it occurs below the high-water mark. Four grab samples were taken. Seven 1 m. long chip channel samples were taken with the goal of substantiating any favourable assay results encountered by the grab samples. (Figure 5)

The horizon appears to be up to 3 m. true thickness and occurs at the contact between the Central Tuff Belt and the Southern Flow Belt. A detailed description follows.

The A UNIT of the island showing is 10-11 metres in length by 1.5-3.0 metres in true width. In this horizon a 20 cm. wide band of grey silicified ash tuff with very fine grained disseminated pyrite is encountered. Although intermittent, this favourable horizon is located within a white to cream silicified, sericitized felsic tuff. This felsic contains biotite, biotite stringers and medium grained euhedral pyrite. This latter lithology also contains lenses or areas of the more intermediate rock with which it is in contact. This entire A UNIT horizon extends from the southwestern tip of the island along the northwest corner. The bedding/shearing altitude is 048/51°. The exposed surface is heavily oxidized and cleavage planes have a yellow "bloom" similar to moly-bloom. Jointing is at approximately 1 metre intervals oriented 359/+90°.

The B UNIT of the island showing, and possible extension of the A, is on the southeast shore 190 metres due northeast of the A UNIT. Two 1 metre wide (by 1-1 metres long) bands separated by 4 metres distance are of the same silicified, sericitized felsic composition as the A UNIT. Both bands contain biotite, biotite stringers and medium grained euhedral pyrite. Minor amounts of the most favourable grey silicified ash tuff horizon with very fine grained disseminated pyrite are found also. The bedding/shearing altitude is 048/58° for both bands.

The A UNIT's contact with the surrounding banded intermediate to massive intermediate rock is abrupt to gradational. The B UNIT is in contact with these same rock types and is a very distinct and sharp one.

Samples MT159, MT160, MT162, MT163, MT164, MT165 and MT166 were taken at the A UNIT site at 1 metre intervals along strike in a channel sample fashion.
The aeromagnetic survey map BAMAJI-FRY LAKES AREA UPPER KAGINOT LAKE SHEET P.1081 exhibits a series of three concordant highs related to four lows all in the vicinity of the MARRY SHOWING. There is a high to low dipping southeast right over the showing.

Pending favourable geochemical results trenching, VLF, Mag and horizontal loop are suggested.

(2) Silicified Felsic Fragmentals

This occurs as a small outcrop protruding a region of extensive sandy overburden in the SE corner of the property.

It consists of felsic bombs, blocks and lapilli up to 20 cm in diameter. They contain quartz eyes and devitrified glass and are commonly incipient in-situ brecciated with crackle features healed by grey quartz and/or carbonate.

The rocks are strongly silicified and calcified as suggested by the sugary granulose texture. The matrix composes less than 5% of the outcrop and is characterized by recrystallized intermediate to mafic chloritic seams.

Minor, weak, disseminated, very fine-grained pyrite and rare sphalerite were noted.

A 50-sample soil grid was established over the outcrop area with 5 lines at 50 m spacings and 25 m sample intervals along these lines (Fig. 6). Samples are analysed for Cu, Pb, Zn, Ag, Au and As. This is a favourable massive sulphide and/or gold environment. (Figure 6)

(3) Quartz-Tourmaline-Carbonate Vein Stockwork

Quartz-tourmaline-carbonate veins were found sporadically throughout the map area. They appear to have a preferred orientation of approximately 020/30°E (Fig. 7).

In this region the veins were abundant and formed a tight stockwork locally.

One could not overlook the similarity in appearance to veins at Les Mines Sigma in Val d'Or, P.Q.

A detailed description follows.

G. Mannard, on June 27, 1984, while on traverse discovered a quartz tourmaline vein stockwork (sample number G- GM-55A) that had intruded an intermediate tuff-agglomerate (sample number G- GM-55) located at grid coordinates L0+00 sta 0+00.

The quartz tourmaline stockwork was described by G. Mannard as several large white and black-smokey quartz veins up to 30 cm wide with a number of smokey quartz veinlets. The prominent orientation of the quartz
The tourmaline veins was 025/50E. The quartz was milky white and massive; the tourmaline was black, massive and contorted. An alteration halo approximately 2 cm wide, consisting of carbonate and chlorite was seen at the contact between the quartz tourmaline veins and the country rock. (Fig. 7)

The country rock was an intermediate tuff-agglomerate. The matrix is intermediate in composition, hosting bomb and block sized felsic fragments and some devitrified glass spheres. The glass spheres were less than 1 mm in size.

**Grid Location and Size**

The grid is located at latitude 51°13'6" N; longitude 91°27'00"W on the O.G.S. preliminary map P.2248 Slate Falls Area (Eastern part); NTS 52-0/3W, 6W.

The grid is approximately 225 m x 200 m and covers an area approximately 45000m². The baseline is 200 m long and oriented at Az 2045. The wing lines are approximately 125 m north of the baseline at Az 315 and 100 m south of the baseline at Az 135.

The soil sample interval was 25 m. The number of samples taken was 50, with the following sample series numbers: G-1101 to G-1150.

**Purpose:** The purpose of the grid is twofold:

1. to locate additional quartz tourmaline veins and/or quartz veins;
2. to determine if Au is present in the soil horizon.

**Topography**

The topography was gentle and undulatory. The northern, eastern and southern quadrants are dominated by a moderately high table dotted by outcrop and covered by a thin mantle of glacial overburden. The western quadrant lies lower and is poorly drained.

**Vegetation**

The predominant vegetation on the grid is black spruce > birch = poplar > balsam and pine. Black spruce and birch = poplar are found over the entire grid. Balsam is found on the northern and eastern quadrants of the grid. The western quadrant is dominated by a black spruce - alder swamp.

**Soil**

Soil horizon development was poor to fair. Relatively mature podzol soils were found on the eastern quadrant of the grid. The soil horizon that was predominantly sampled was the B. The B horizon was orange to orange-brown in colour and was found to persist at an average depth of 20 cm. The soil in the B horizon was silty to sandy silt in texture with as much as 10% organics and 5% rock fragments. The A and B
Figure 5

The Marry Showing
Figure 6

Silicified Felsic Fragmentals

Soil Grid
Figure 7

Soil Grid Over Quartz-Tourmaline-Carbonate Vein System
Figure 8
Orientation of Quartz Veins

- Poles to quartz-tourmaline-carbonate veins
- Poles to primary layering
soil horizon was sampled in the southern quadrant indicating a poor to immature soil horizon. A poorly developed soil horizon was also found in the western quadrant. The ground was low lying and poorly drained (swamp). The soil horizon that was predominantly sampled was the A horizon. The A horizon was black in colour, wet and composed of decayed organics. Some soil horizon development was detected on the slopes leading up to and down from the outcrops. The northern quadrant has a relatively immature soil horizon that lies immediately above the bedrock. The soil was glaciofluvial in origin. Samples were taken from the A, horizon (black in colour, composed of organics) and the B horizon (light brown in colour, silty to clay silt in texture with as much as 10% organics and with 5% rock fragments).

Rock Types

There are three rock types found on the grid. Felsic-tuff-agglomerates (at coordinates L0+50W sta 1+00S) intermediate tuff-agglomerates (at coordinates L0+50W sta 0+75N) and mafic pillowed flows, chloritic schists and tuffs (at coordinates L1+00W sta 1+25N).

The mafic and intermediate horizons appear to be intercalated along a NNE strike orientation. A felsic tuff-agglomerate is found in the southern quadrant.

Work Done

A recon geochem soil grid was established using flagging. Reconnaissance geological mapping was completed on lines 1+00W and 0+50W; the remainder of the property was not mapped. Soil sampling was done over the entire property.

A smokey quartz vein was discovered at coordinates L0+50W, sta 0+75S. Associated alteration included carbonatization (sample G-WW-47).

A second, smokey quartz vein was discovered at coordinates L0+50W sta 0+75N. The quartz vein is approximately 20 cm wide and oriented at 019/58S (sample G-WW-48).

Recommendations

If gold, Au, is found in either the rock samples or the soil samples, the following is recommended: the anomalous sample area(s) should be resampled and assayed.

If the anomaly persists: (1) a grid should be cut on the existing recon-geochem grid; (2) a detailed geologic map should be done of the grid; (3) representative rock samples should be collected for whole rock geochemistry; (4) a soil pit should be dug on the northern and eastern quadrants of the grid. The soil horizons should be mapped, the fabric analyzed and sampled. (The soils should be sieved separating the matrix and clasts. Both fractions should be assayed for Au. The clast fraction should be described i.e. for rock type, degree of roundness,
PROPERTY EXAMINATION

The gold showing marked on the OGS geological map on Fry Lake is covered by a 14-claim block owned by Rockmere Exploration Ltd. This outfit is controlled by geologist, Harry Dowhaluk, (P.O. Box 118, Tamworth, Ontario, KOK 3G0 - Telephone: 613-379-2914).

A visit was made to his property where we were treated to a royal tour and shown drill core, trenches, assay results, etc.

Three auriferous quartz veins hosted by massive gabbro strike NW dipping 50° NE for 200 ft. before they are sheared-out in a drag fold along a NE trending fault. A quartz-tourmaline-carbonate vein stockwork occurs north of the fault but these are believed to be barren.

The veins were mined in the early 1930's by hand-cobbing methods. In the 1970's Selco drilled the NE fault which showed a good EM conductor. Results were discouraging.

The veins are 5 cm to 30 cm wide and consist of sugary-textured, rusty quartz with 0.1 to 2% disseminated pyrite with lesser pyrrhotite and chalcopyrite. Xenoliths of chloritic gabbro (fault breccia?) are included as well as small "nests" of radiating needles of tourmaline. The chlorite is the bright green, Fe-rich variety.

The gabbro is sheared to a chlorite schist bearing wispy carbonate schleiren immediately adjacent to the quartz veins.

The gold is tied-up in the sulphides and has not been observed in the native state.

Gold values are erratic with the best assay at 0.40 oz./t over 4 feet near the lake. It is hoped that the veins continue and widen into the lake. A Winkie drill was drilling the magnetite taconite banded iron formation to the north when we visited the property. No gold values have been found in the iron formation to date. Rockmere has financed a $50,000 exploration budget to be spent this field season.

Four grab samples were taken from the number 2 vein trench. These are almost certainly auriferous and will serve as a check on analytical methods and will outline the geochemical signature of a known gold occurrence in the area. (Figure 8)

CONCLUSIONS & RECOMMENDATIONS

This is a favourable geological environment for stratiform gold deposits of the Hemlo-Bousquet type.
Figure 9

The Rockmere Gold Showing
The Marry Showing is an exciting prospect. Extremely fine grained pyrite and sericitized felsic cherty tuffs are encouraging field evidence. The mineralized, sericitized bands are very white in colour - identical in appearance to rocks of the Hemlo ore zone.

No conductive overburden was observed on the claims with the possible exception of swamp/bedrock interfaces. These horizontal conductors would be easily screened when interpreted by an experienced geophysicist or geologist.

The following suggestions are forwarded on the basis of field evidence alone.

(1) The granodiorite/metavolcanic contact did not look prospective in the field. When interpreting lithogeochemical data from the contact zone it should be remembered that potassium enrichment is a normal effect of intrusive contact metasomatization under these conditions.

(2) Pay close attention to lithogeochemical results taken at or near the narrow felsic tuff horizons outlined on the map. Although poorly exposed these horizons are typically laterally extensive and along-strike geophysical prospecting may detect hidden sulphide-bearing facies.

(3) Check the chemistry on rocks mapped as intermediate flows in the Moose Lake region. Na-enrichment may confirm spilitization.

(4) If geochemistry is favourable at the Marry Showing, strike continuity of the mineralized zone must be explored. Inexpensive VLF prospecting should suffice where the surface showing response may be utilized as a nomogramic interpretative aid. More expensive frequency domain IP should be employed if warranted to delineate drill targets. The success of Fraser Filtering at Hemlo (R. Valliant, personal communication) should not be overlooked if exploration attains this stage.

(5) Contour any favourable soil geochem results on the soil grid maps.

(6) If high Au values are encountered, assay pulps or rejects should be reassayed in at least one assay ton portions by a commercial lab using conventional fire assay methods. This is essential to enhance data reliability and minimize the cumulative variance and nugget effect introduced by splitting procedures during sample preparation.

(7) Avoid overspending on prospects which do not display the high tonnage potential needed to justify possible exploitation in this relatively inaccessible region.

All of which is respectfully submitted,

G. Mannard, M.Sc.

J. L. Wahl, Ph.D.
APPENDIX i

CREW MEMBERS
Supervisor - J. L. Wahl, Ph.D.
Senior Assistant - M. Timlin, B.Sc.
Senior Assistant - W. Wirowatz, B.Sc.
Junior Assistant - M. Lenson
Junior Assistant - C. Hudson
739741 - 739795 - 55 claims
739801 - 739855 - 55 claims

TOTAL - 110 Claims
Total Lithogeochem = 395 samples
Total Soil Geochem = 89 samples
## Orientation of long axes of pebbles: trend → plunge.

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<th>Trend</th>
<th>Plunge</th>
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**NOTE:** Shallow plunges suggest an imbricated channel deposit.
APPENDIX V

PHOTOGRAPHS
Quartz-tourmaline-carbonate vein.
Note stretched felsic fragments in the host rock.

Silicified felsic fragmental prospect.
Felsic cherty tuff outcrops.
Hackly thermal fracturing in intermediate flows in the Moose Lake region.
Pillowed Metabasalts - Fry Lake

Facing direction towards top of page.
The Marry Showing

Perphyritic gabbro - Fry Lake
Sand-cobble-boulder till.

Frosted boulders by an old claim post - Fry Lake.
Auriferous quartz veins from the No. 2 trench of the Rockmore Property - Fry Lake.
Mining Lands Section

Control Sheet

File No 27428

TYPE OF SURVEY

GEOPHYSICAL

GEOLOGICAL

GEOCHEMICAL

EXPENDITURE

MINING LANDS COMMENTS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

________________________
Signature of Assessor

85-02-01

Date
Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s): Geologic Mapping
Township or Area: C-2046, Fry Lake
Claim Holder(s): Kerr Addison Mines Limited, P.O. Box 91,
Commerce Court West, Toronto, Ont., M5L 1C7
Survey Company: Same
Author of Report: Dr. J.J. Wahl
Address of Author: P.O. Box 91, Commerce Court W., Toronto,
Covering Dates of Survey: May 29, 1984 - July 31, 1984
(in/outcutting to office)
Total Miles of Line Cut

SPECIAL PROVISIONS
CREDITS REQUESTED

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other
- Geological
- Geochemical

DAYS per claim

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer
Electromagnetic
Radiometric

DAYS per claim

DATE: Jan. 4, 1985
SIGNATURE: [Signature]

Res. Geol. Qualifications: 2,2544

Previous Surveys

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MINING CLAIMS TRAVERSED
List numerically

PA | 739741
739742
739743
739744
739745
739746
739747
739748
739749
739750
739751
739752
739753
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739760
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**Technical Assessment**

**Work Credits**

**Recorded Holder**  
KERR ADDISON MINES LIMITED

**Township or Area**  
FRY LAKE AREA

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**Section 77 (19) See "Mining Claims Assessed" column**

**Geological**  
16 days

**Geochemical**  

- Man days ☐ ☑ Airborne ☑
- Special provision ☑ Ground ☐

Credits have been reduced because of, partial coverage of claims.

Credits have been reduced because of corrections to work dates and figures of applicant.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical data filed

PA 739802-03

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)— 00; 739 (83) 06.
**Type of Survey(s):**
- Geologic Mapping

**Claim Holder(s):**
- Kerr Addison Mines Limited

**Protester's Licence No.:**
- A.35072

**Survey Company:**
- P.O. Box 91, Commerce Court West, Toronto, Ontario, M5L 1C7

**Date of Survey (from & to):**
- 29 05 84 to 30 07 84

**Number of Mining Claims Traversed:**
- PA 739741
- PA 739764
- PA 739765
- PA 739766
- PA 739767
- PA 739768
- PA 739769
- PA 739770
- PA 739771
- PA 739772
- PA 739773
- PA 739774
- PA 739775
- PA 739776
- PA 739777
- PA 739778
- PA 739779
- PA 739780
- PA 739781
- PA 739782
- PA 739783
- PA 739784
- PA 739785
- PA 739788

**Expenditures (excludes power costs):**
- PA 739758
- PA 739759
- PA 739760
- PA 739761
- PA 739762
- PA 739763

**Number of Mining Claims Covered by this Report of Work:**
- 110

**Certifying Report of Work:**
- Dr. J.L. Wahl, Kerr Addison Mines Limited, P.O. Box 91, Commerce Court West, Toronto, Ontario, M5L 1C7

**Date Certified:**
- Jan. 3, 1985

**Certified by:**
- [Signature]

**Instructions:**
- Total Days Credits should be apportioned at the claim holder's discretion. Enter number of days credits per claim selected in column at right.

**Expenditures:**
- Total Expenditures: $ [Summation]
- Total Days Credits: 15

**Note:** Geophysical credits do not apply to Airborne Surveys.
January 18, 1985

Mr. F. W. Matthews
Mining Administrator
Ministry of Natural Resources
Room 6452, Whitney Block
Toronto, Ontario
M7A 1W3

Dear Mr. Matthews:

Enclosed are two copies of the following report:

Kerr Addison Mines Limited
Kaginot Project
Kaginot Lake Group

Technical Data Statements are enclosed with the reports.

Sincerely yours,

KERR ADDISON MINES LIMITED

J. L. Wahl, Ph.D.
District Geologist

JLW/sm
Enclosures
Dear Sirs:

We received reports and maps on January 21, 1985 for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims PA 739741 et al in the Area of Fry Lake.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-4888

A. Barr:sc

cc: Kerr Addison Mines Limited
P.O. Box 91
Commerce Court West
Toronto, Ontario
M5L 1C7
1985 02 15

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.O. Pichette at 416/965-4888.

Yours sincerely,


S.E. Kundt
Director
Land Management Branch
Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

S. Hurst:mc

Encls.

cc: Kerr Addison Mines Limited
P.O. Box 91
Commerce Court West
Toronto, Ontario M5L 1C7
Attention: Dr. J.L. Wahl

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario
An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.
Mining Recorder  
Ministry of Natural Resources  
P.O. Box 309  
Sioux Lookout, Ontario  
POV 2T0

Dear Sir:

RE: Notice of Intent dated February 15, 1985  
Geological Survey on Mining Claims PA 739741,  
et. al., in the Fry Lake Area

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: (416)965-4888

S. Hurst:mc

cc: Kerr Addison Mines Limited  
P.O. Box 91  
Commerce Court West  
Toronto, Ontario  
M5L 1C7  
Attention: Dr. J.L. Wahl

cc: Mr. G.H. Ferguson  
Mining & Lands Commissioner  
Toronto, Ontario

cc: Resident Geologist  
Sioux Lookout, Ontario

Encl.
See accompanying map(s) identified as

520/03NW-0026#1 & 2

Located in the map channel in the following sequence (X)
For additional information see maps: 

520/03NW-0026 = 1:1 = 3