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REPORT of WORK
WEISNER LAKE PROPERTY
for
FLINT ROCK MINES LIMITED

MARCH 8, 1985

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Geologist

OM 83-261

Flint Rock Mines Limited holds a group of 24 mining claims located in the Cameron Lake Area of northwestern Ontario. A sample of banded magnetite iron formation, taken during staking, returned an assay of 0.52 oz. /ton gold. This result prompted a follow-up geological/sampling/prospecting program which was carried out during the period of October 17-21, 1984.

This program did not find any evidence of gold-bearing iron iron formation on the property; but did locate several auriferous molybdenum, pyrite, chalcopyrite mineralized quartz veins within the Stephen Lake Pluton, (high assays of 0.011 and 0.085 oz./ton gold) .

The main economic feature of the property was the discovery of widespread disseminated volcanogenic sulphide mineralization within intermediate-felsic metavolcanics, which also host significant copper-zinc-silver mineralization that has been exposed just to both the west and to the southeast.

Mineralized zones within the property are characterized by elevated Cu-Zn-(Au) values, and also by well defined HLEM and I.P. signatures.

Further work is recommended to fully evaluate the property's potential for economic base metal mineralization.



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	Page
SUMMARY	i
1.0 INTRODUCTION	1
2.0 PROPERTY DESCRIPTION, LOCATION, AND ACCESS	1
3.0 EXPLORATION HISTORY	2
4.0 GEOLOGICAL SURVEY	2
5.0 PROPERTY GEOLOGY	2
5.10 Lithologies	3
5.11 Metavolcanics and Metasediments	3
5.12 Syn- to Post-tectonic Intrusives	5
5.20 Structure	5
5.30 Mineralization	6
6.0 SAMPLING PROGRAM	8
6.10 Results and Data Presentation	8
7.0 DISCUSSION and CONCLUSIONS	9
8.0 RECOMMENDATIONS	11
9.0 LITERATURE REFERENCES	13
CERTIFICATE	14

LIST of FIGURES

Figure 1	Property Location Map
Figure 2	Claim Sketch Map
Figure 3	Property Geology

1.0 INTRODUCTION

During the period of October 17-21,1984 a limited program of geological mapping,prospecting,and sampling was carried out on Flint Rock Mines' wholly owned Weisner Lake Property in the Cameron Lake Area.

The main objective of this program was to provide a preliminary evaluation of the property's potential for economic gold mineralization;especially in light of previous sampling,undertaken during staking of the claim group,which returned one assay value of 0.52 oz./ton gold from a sample of banded magnetite-iron formation.

2.0 PROPERTY DESCRIPTION, LOCATION, AND ACCESS

The property is situated just north of Weisner Lake within the Dogpaw Lake Area (M 2585), Kenora Mining Division,and is located approximately 15 miles northeast of the town of Nestor Falls,Ontario (Figure 1).

The property consists of a contiguous group of 24 unpatented mining claims (Figure 2),which are wholly owned by Flint Rock Mines Limited of Downsview,Ontario.

These claims are numbered:

- 685143 to 685154 inclusive,
- 685194 to 685203 inclusive ,and
- 685212 to 685213 inclusive.

Access to the property is either by float-equipped aircraft,or by water via Kakagi and Wicks Lakes,and

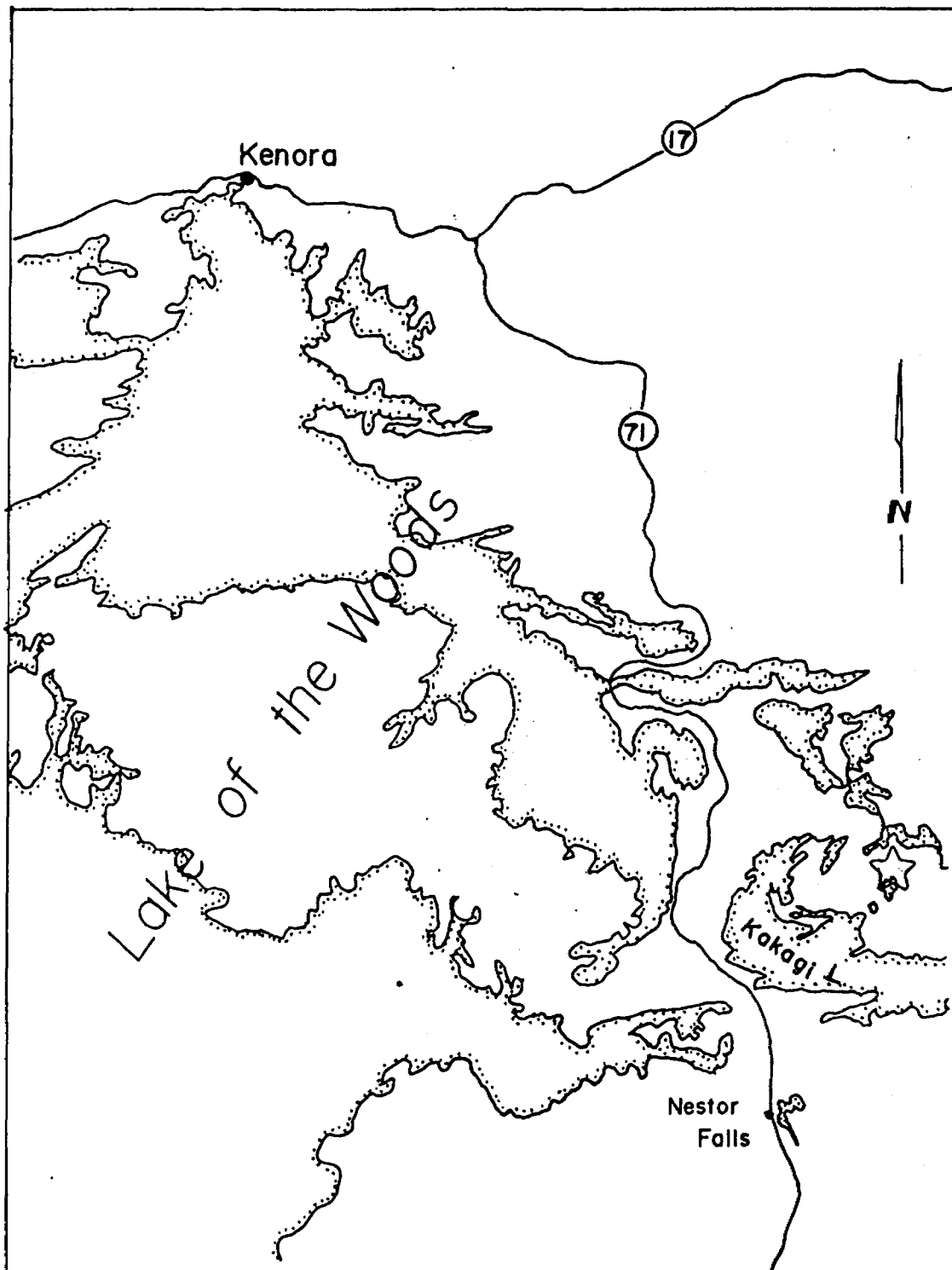


Figure 1; Property Location Map

1" = 8miles

☆ property location

Handwritten signature or initials

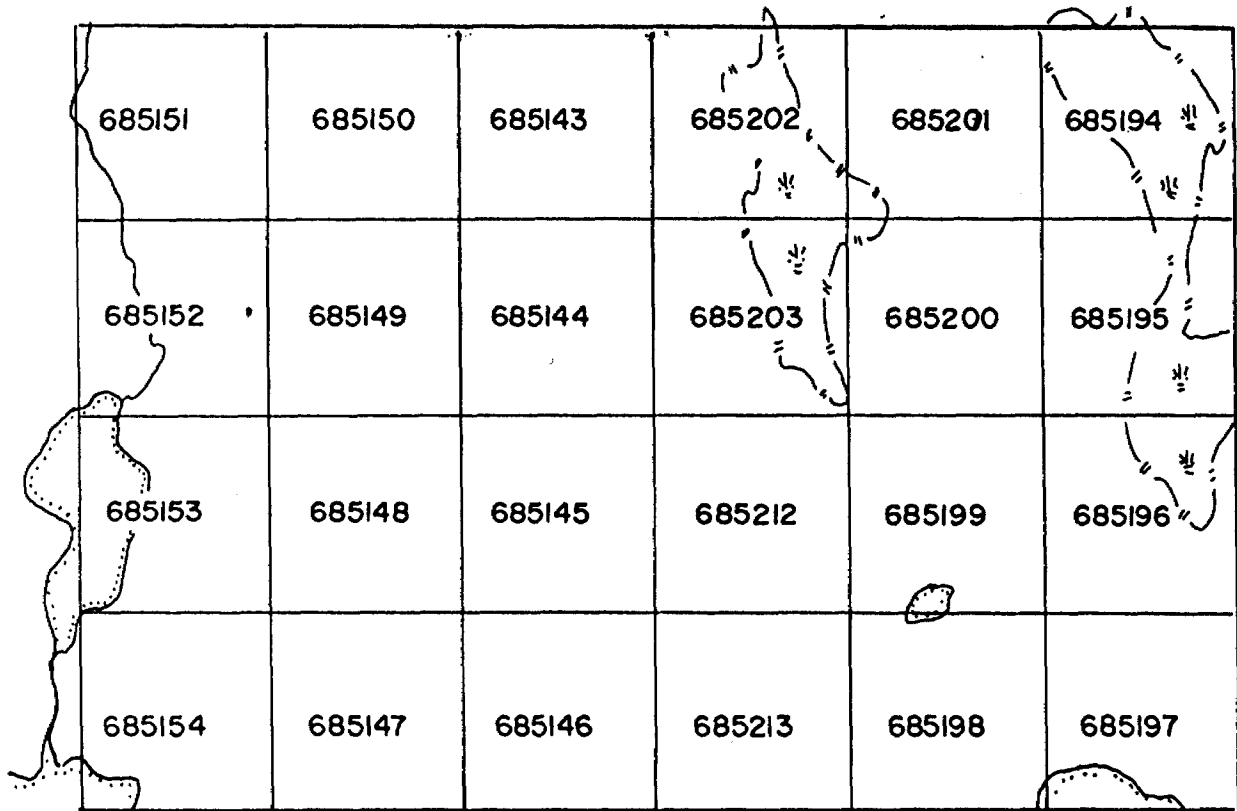


FIGURE 2
 Weisner Lake Property
 CLAIM SKETCH

1" = 1320 feet.

WEISNER LAKE

associated portage routes.

Topography is rugged with relief generally less than 200 feet.

3.0 EXPLORATION HISTORY

Information concerning previous exploration on the property has been compiled from government publications and available assessment data.

In 1961, geological mapping by Noranda Mines covered the southern portion of the present claim group. In 1977-79 Mattagmi Lake Exploration carried out geological/prospecting work with electromagnetic, magnetometer, and induced polarization surveys on the southern part of the property (Map 3). All previous work was primarily concerned with base metal exploration

4.0 GEOLOGICAL SURVEY

A reconnaissance geological survey was carried out on the southern portion of the claim group as part of a preliminary investigation of the property's economic potential. Pace and compass traverses were undertaken using claim lines, topographic features and old grid-lines for control, (Map 2).

5.0 PROPERTY GEOLOGY

The northern and eastern portions of the claim group

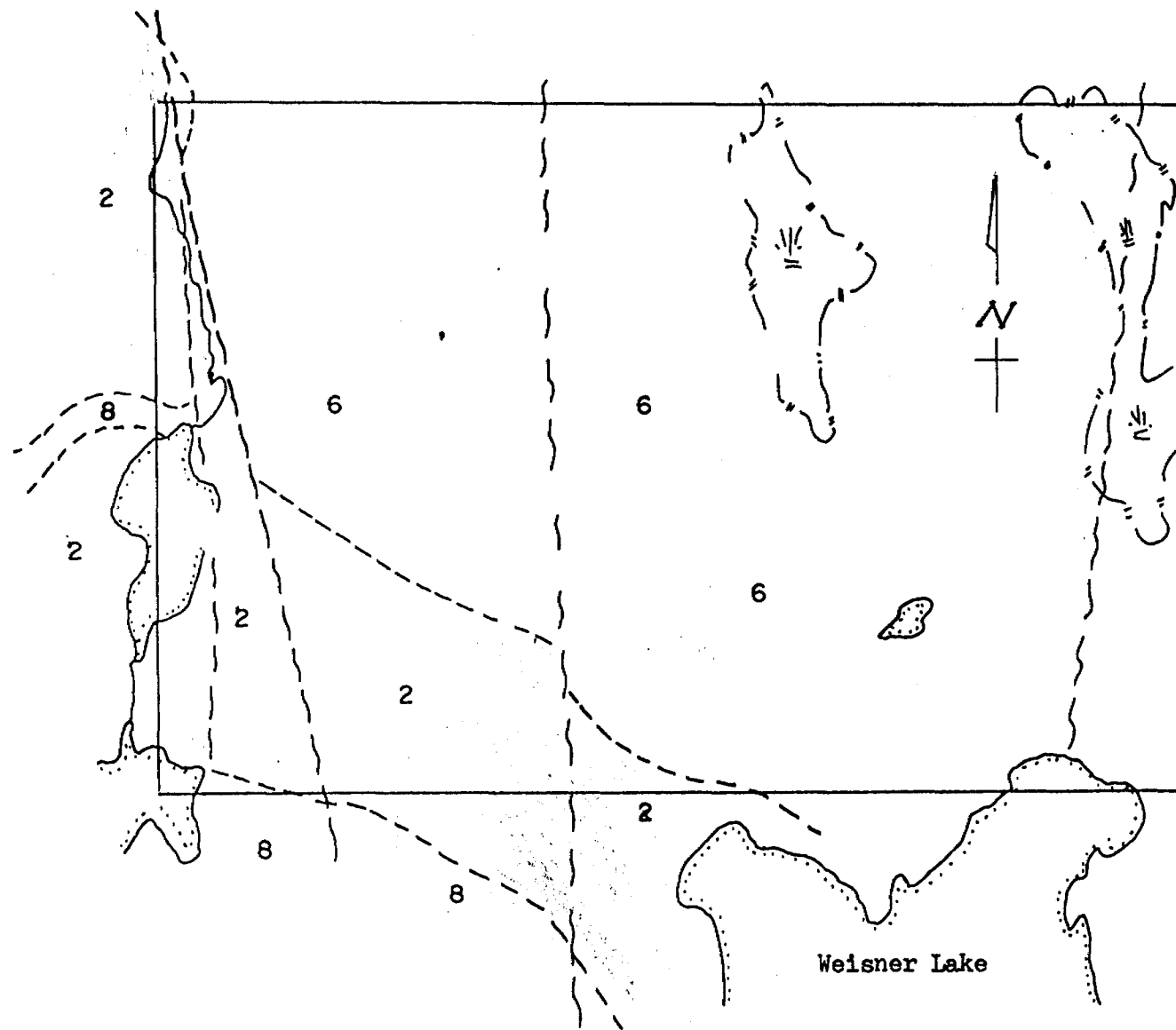


Figure 3
 Property Geology
 1 inch to 1320 feet

LEGEND

- 2 Intermediate volcanics
- 6 Granodiorite
- 8 Gabbro

after : Davies and Morin
 1972

are underlain by a large granodiorite pluton (Stephen Lake Pluton), which reportedly hosts auriferous cpy, py, mo-bearing quartz vein systems, (Figure 3). This intrusive is flanked to the south by a relatively thin WNW trending metavolcanic sequence composed of massive dacite to rhyolite flows and associated intermediate volcanoclastics. Silica-rich chemical and clastic metasediments are also present; generally as relatively thin interflow horizons. This metavolcanic- metasedimentary sequence is bordered to the south by a large gabbroic intrusive which is positioned just outside and roughly along the southern edge of the claim group.

Metamorphism is of medium greenschist grade.

Significant copper-zinc-silver mineralization occurs near both the western and south-central boundaries of the property, and is situated within the same metavolcanic sequence which transects the southern portion of the Weisner Lake Property.

5.10 Lithologies

5.11 Metavolcanics and Metasediments

Intermediate-Felsic Metavolcanics (map unit 2,3) generally consist of siliceous, aphanitic, massive dacitic to rhyolitic flows. These vary in color from grey-green to dark grey to dark grey-black, and weather to a buff whitish grey

appearance. Textural variations include relatively minor flow banding, weak foliation and isolated small-scale schistose zones. Alteration consists of fairly widespread weak to intense silicification and isolated weak sericitization. Silicification is most evident near the the contact with the Stephen Lake Pluton and along the wall-rock margins of late cross-cutting quartz veins.

Interflow intermediate volcanoclastic units (map unit 2a) are comprised of grey-brown, fine grained, granular massive, laminated and porphyritic tuffaceous sequences. Porphyritic units (2b) are characterized by up to 10% evenly distributed 2-3 mm subhedral rounded white plagioclase laths or 1-2%, 2mm rounded, grey to blue-grey 'quartz-eye phenocrysts'.

Grey to grey-black cryptocrystalline chert (4a) and grey, fine grained, clastic metasediments (4b) occur frequently as thin (<2 cm. wide) interflow units within the metavolcanic sequence. A thin unit (100-200 feet wide) of grey, fine grained, granoblastic quartzite (4c) is exposed near the west-central border of the property. This unit trends in a northerly direction and is traceable for at least 600 feet. The quartzite is composed of approximately 80-90% fine grained quartz, 10-20% medium grained biotite, and <1% very fine grained disseminated pyrite.

5.12 Syn- to Post-tectonic Intrusives

Stephen Lake Pluton: The main portion of the pluton consists of medium grained, equigranular pink granodiorite (map unit 6). Specifically this granodiorite is comprised of 60-70%, 2-3 mm, subhedral plagioclase laths and 10-20%, < 2mm subhedral to anhedral orthoclase crystals, with finer grained interstitial quartz, hornblende, and biotite. Alteration consists of minor, weak saussuritization and isolated hematization. Hybrid border and internal dioritic phases (6,7) consist of fine grained, granular, weakly to moderately foliated or schistose diorite to quartz-diorite (7) in which fine grained hornblende and subordinant biotite account for 40-60% of the rock. Border phases are marked by variable, weak to moderate silicification, frequent jointing, and disseminated fine grained magnetite, pyrrhotite, and pyrite. Internal dioritic zones are characterized by attendant shearing, moderate chloritization and carbonitization, quartz veining; with fine grained disseminated pyrrhotite, pyrite, magnetite, and minor chalcopyrite.

5.3 Structure

Within the border phases of the Stephen Lake Pluton planar features such as foliation, joints, and attitude of quartz veins generally parallel the intrusive/volcanic

contact; and are oriented: 280° - 310° / 55° - 70° . At the volcanic/intrusive interface, a second joint set is evident, within both the intrusive and adjacent volcanics; and is oriented 210° - 220° / 70° - 80° . Late generation faulting and shearing within the pluton is oriented 330° - 030° /subvertical.

Planar structures including foliation, jointing and small-scale shears within the volcanics are oriented 135° - 145° , with a variable, steep inclination; and are generally parallel to observed bedding attitudes.

The dominant structural features on the property are several northerly trending (340° - 020°) large-scale faults which cross-cut and offset all lithologies.

5.3 Mineralization

Evident mineralization on the property occurs in a variety of settings and styles which are summarized below:

i) Py-mo-cpy mineralized quartz vein systems within granodiorite. Individual veins range size from stringers (occurring as stockworks) to up to 10 feet in width and are traceable for lengths of up to 60 feet.

Mineralized veins most frequently occur within 300 feet of the main volcanic/pluton contact, are localized along shear/joint systems which are usually oriented sub-parallel to this contact (approximately east-southeast).

Less frequent are veins within or along NW to northerly trending shears.

Veins contain up to 5% mo, 5 % py, and 3% cpy as fine grained disseminations, and blebby, patchy, or thin stringer fracture fills.

ii) Variably mineralized contact zones:

- a) Moderately to extensively silicified intermediate volcanics, proximal to the Stephen Lake Pluton, with ~ 1% fine grained disseminated pyrite.

Variably silicified dioritic border phases of the Stephen Lake Pluton containing 1-2% fine grained disseminated magnetite, hematite, pyrite or pyrrhotite.

iii) Variably mineralized, sheared, chloritized-carbonitized, veined internal dioritic phases of the Stephen Lake Pluton. Mineralization consists of 1-5 % fine grained, disseminated magnetite, pyrrhotite or pyrite with minor isolated chalcopyrite.

iv) Volcanogenic pyrite, pyrrhotite and chalcopyrite mineralization; which is most evident in the SW to

south-central portion of the property. Mineralization consists of fine grained disseminations, with coarser blebby and nodular fine grained aggregates (1-2 cm in width) . Sulphide content varying up from trace to 15%. Variably magnetic po dominates as total sulphide content increases.

v) Volcanic-hosted, shear or fault localized mineralization; generally this consists of 1-20%, very fine grained to medium grained (2-3 mm) euhedral pyrite which is concentrated in or along , small-scale (< 10 feet wide) WNW trending shears, large-scale northerly fault and fault breccia zones, and late cross-cutting quartz stringers .

6.0 SAMPLING PROGRAM

A total 57 samples representing all rock types and mineralization styles were selected for gold assay. In addition 14 the samples were also analyzed for copper and zinc.

Sampled outcrops were routinely marked with orange and blue flagging; the flagging also bears the field designation for each sample.

6.1 Results and Data Presentation

Sample descriptions and assay results together with analytical data from sampling carried out by Mattagami Lake Explorations are listed in Appendix I . Sample locations and

analytical results are presented in plan form (Map 2) at a scale of 1"= 200 feet

The results of previous geophysical surveys conducted on the southern portion of the property by Mattagami Lake Exploration in 1978 are presented in plan form at a scale of 1' = 400 feet (Map 3). Magnetic, I.P., and HLEM anomalies are illustrated together with the location of anomalous analytical results. Generally, elevated base metal and, to a lesser degree, gold values within intermediate to felsic volcanics correlate fairly well with previously indicated I.P. and HLEM anomalies .

7.0 DISCUSSION and CONCLUSIONS

One of the economic features of the property is a sample, of magnetite iron formation (float ?) taken during staking, which assayed 0.52 oz./ton Au . In the course of follow-up work no evidence of iron formation was found; available geological and drilling information from adjacent properties also failed to confirm the presence of iron formation in the region. Therefore, even though the above assay value is significant, it cannot be considered an important factor with regards to the property's economic potential.

Also of interest is the gold potential of the Stephen Lake Pluton. Sampling results indicate the presence of auriferous molybdenum-chalcopyrite-pyrite mineralized quartz

veins (high assays of 0.011 and 0.085 oz./ton Au), but these vein systems do not appear to be of sufficient grade or size to warrant a high priority for further work. Sampling of various portions of the pluton and immediately adjacent volcanics generally returned background (< 10 ppb) gold values, with only three samples assaying in the 20-40 ppb gold range. Geological mapping of the granodiorite indicates that the pluton lacks essential alteration-mineralization features common to known felsic intrusive-hosted disseminated gold prospects. Further work on most of the pluton is not warranted.

Fairly consistent, widespread volcanic-hosted, disseminated po-py-(cpy) mineralization was observed in the southwestern corner of the property.

This mineralization has also been indicated and roughly outlined by previous I.P. and HLEM surveys. The strongest of the two I.P. zones also overlaps with the indicated HLEM conductor. This I.P.-EM anomaly trends ESE and extends through the south-central boundary and into the adjacent property (Ufangesellschaft) for a distance of over 2000 feet. This anomaly also correlates with an occurrence of stratiform, volcanogenic sulphide mineralization located approximately 1600 feet southeast of the Weisner Lake Property. Mineralization here consists of disseminated to small massive lenses of

pyrite, pyrrhotite, sphalerite and chalcopyrite, within intermediate-felsic volcanics (Davies and Morin, 1976).

Evident disseminated volcanogenic sulphide mineralization within similar intermediate to felsic volcanics on the Weisner Lake claim group, together with anomalous Zn-Cu-(Au) values and associated geophysical expressions indicate a moderate potential for economic base metal mineralization. Therefore, further work is warranted to fully evaluate the copper-zinc potential of the Weisner Lake Property.

8.0 RECOMMENDATIONS

Claims covering the more central portions of the Stephen Lake Pluton do not require further work and the following eleven claims should be permitted to lapse: 685143-685144 inclusive, 685194-685197 inclusive and 685199-685203 inclusive.

Sampling/prospecting is recommended for:

i) portions of the metavolcanic sequence not adequately covered by the previous program.

ii) areas of indicated anomalous Cu-Zn-(Au) concentrations, and iii) especially for the two indicated I.P. zones.

Further work is contingent upon the results of the

aforementioned program, and would ideally consist of reparation and expansion of the old Noranda grid, with attendant magnetometer and deep penetration (600 foot coil separation) Max-Min geophysical surveys. The outlined program of work would provide an enhanced appraisal of the property's economic potential and to facilitate target definition.

Todd S.J. Sanders (B.Sc.)



Geologist.

March 8, 1984

Thunder Bay, Ont.

Davies, J.C., and Morin, J.A.

1972: Cedartree Lake Area, District of Kenora; Ont. Dept. of Mines and Northern Affairs, Prelim map P.731. Scale 1 inch to 1320 feet.

Davies, J.C., and Morin, J.A.

1976: Geology of the Cedartree Lake Area, District of Kenora; Ont. Div. Mines, GR 134, 52p. Accompanied by map 2319, scale 1 inch to 2640 feet.

CERTIFICATE


I, Todd S.J. Sanders, of 149 Duke Street, Thunder Bay, Ontario; hereby state that:

1) I am an exploration geologist living in the city of Thunder Bay.

2) I graduated from Queen's University at Kingston, Ontario in 1982 with an Honours Bachelor of Sciences degree in Geological Sciences.

3) I have been practicing my profession since graduation.

4) I do not hold, nor do I expect to receive an interest in these or any other claims held by Flint Rock Mines Limited.

A handwritten signature in cursive script, appearing to read "Todd Sanders", with a horizontal line extending to the right.

T. Sanders

March 9, 1985



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THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

Report on an Airborne Magnetic and VLF-EM => See File # 2.7797, Report
Survey, Flint Rock Mines Ltd., R.K. Watson, of work #303 for 1984
Jan. 31/85