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REPORT

ON

Geological Reconnaissance

and

Scintelometer Survey

for

WESTFIELD MINERALS LIMITED

Nairn Township Property
Sudbury Mining Division
Ontario

by

Frank P. Tagliamonte, P. Eng.

GEOLOGICAL ENGINEERING SERVICES
29 Beaver Crescent
NORTH BAY, Ontario

November
1978

2.2851

REPORT

ON

Geological Reconnaissance

and

Scintelometer Survey

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COMPANY

WESTFIELD MINERALS LIMITED
P. O. Box 27
Toronto Dominion Centre
TORONTO, Ontario
M5K 1A1

PROPERTY and LOCATION

Nairn Township Property
South-East portion of Nairn Township, Sudbury Mining Division, Ontario.
See also claim location sketch on attached map.

Claim Numbers		Anniversary Date
501317 - 501322	- 6	23 November 1977
504747 - 504751	- 5	23 November 1977
Total	- 11	

ACCESS

The claim group is readily accessible by boat on Wabagishik Lake. Good gravel roads connect tourist camps at the head of Wabagishik Lake to highway #17 a distance of about 1 mile.
The village of Nairn centre is about 2.5 miles by road from the head of Wabagishik Lake.

Nairn Centre is about 35 miles West of Sudbury on Highway #17.

TOPOGRAPHY

There are abundant areas of outcrop on the property as can be seen on the attached plan.

Very high quartzite hills with a thin cover of vegetation are present on the Southern 3 claims. These hills have high, sharp, scarp edges along their Northern and particularily their Southern margins.

A very high hill on the North-East claim is composed of gabbro with a prominent talus slope on its Southern edge.

The intervening outcroppings of quartzite and greywacke are relatively low relief but abrupt exposures.

There are a few very small local bogs on the property. Small lakes and streams are as shown on the plan.

Hardwoods, mainly maple, are the predominant trees on the claims with local patches of birch and poplar. Evergreens are randomly distributed throughout.

PREVIOUS WORK and DEVELOPMENT

There was no field evidence of previous mineral exploration work on the property.

Two summer camps and ancilary facilities are located within the claim group and are shown on the plan.

REFERENCES

GR #35, Nairn and Lorne Township, by R. M. Ginn , Ontario Department of Mines , 1965.

DATA ATTACHED

Geological Reconnaissance and Scintelometer Survey Plan - 1" = 200' ±

GENERAL GEOLOGY

All the rock units in Nairn township as well as those in adjacent Lorne township have a prominent North-East trend. Most of the major faults are similarily oriented.

The rocks comprise Precambrian sedimentary units, mainly quartzite, greywacke and conglomerate as well as mafic intrusives of gabbro and diabase.

The sedimentary rocks have been subdivided lithologically into upper, middle, and lower units.

Sedimentary rock units on the Westfield claims lie within the lower unit sequence except for a middle unit greywacke. All the sedimentary rocks strike North-Easterly and dip steeply South-East.

The prominent gabbro unit on the property cross-cuts the stratigraphy and is postulated to occupy a North-West trending fault structure.

The regional Murray fault traverses Nairn township 3.5 miles North of the property whereas the Espanola fault lies about 1 mile to the South. A Multiple fault system identified as the Lorne faults actually

traverse the central portion of the claim group. They are doubtlessly reponsible for many of the scarp features on the outcrops.

LOCAL GEOLOGY

A gross identification of the geology was obtained symultaneously with the scintelometer survey, supplemented by some spot checking on certain well-exposed outcrops.

Quartzite is the most prevalent rock unit. It is well exposed on the highest hills in the area within the South tier of 3 claims.

The quartzite is generally massive, usually pink and pale pink in color, and frequently exhibits thin bedding features. Sparse rusty staining suggests a very minor pyrite content. Sharp, steep, prominent scarps are common on virtually all of the outcrops.

The greywacke units appear to be mixed in composition, are weakly micaceous, and thinly bedded and foliated. Exposures are numerous but features are masked by shallow overburden, moss, and weathering. Some of the greywacke exposures contain bands of pink quartzite.

The North-East claim contains a prominent meta gabbro exposed on a high hill. The meta gabbro is massive, dark green in color, and medium to fine grained. Other exposures of gabbro occur as dykes cutting the sedimentary rocks. One portion of the dyke in the North-West claim is sheared.

SCINTELOMETER SURVEY - Statistics

Grid Control

Base Lines: Chained and flagged E-W claim lines.
Grid Lines: Chained and flagged N-S claim lines.
Chained and flagged 400'± spaced N-S lines.

Air photos and air photo blow-ups were used to tie in claim corners and grid lines to topographic check points.

Area Covered

The whole claim group excluding water covered portions.

Station Intervals

50' interval on N-S claim & grid lines.
50' & 100' interval on some E-W claim lines.
Continuous reading traverse along West shoreline of Wabagishik lake as shown on the plan.

Personnel

Frank P. Tagliamonte, P.Eng.
R. Graham - assistant.

Field Survey Period

5 - 13 October 1978.

Instrument Used

Scintrex GIS 4 Integrating Gamma Ray Spectrometer.

Values Measured

Counts per second - total count

Height of Instrument

Waist level.

Number of Stations

900 ±

Number of Readings

866 ± excluding shore line traverse.

Anomalous Readings & Areas

The coverage area appears to be relatively flat radiometrically with a mean of about 160 cps.

Four local areas with single readings above 300 cps were encountered and these are identified by the circled numbers: 1 , 2 , 3 , 4 on the plan.

Some of the more obvious groupings of readings above 200 cps were roughly contoured on the plan.

The 1 , 2 and 4 areas appear to suggest locales where anomalous cps are present relative to those cps readings recorded over most of the property.

APPRAISAL

The prominent quartzite rocks, which are well exposed, sparsely wooded, and mantled by thin overburden do not yield anomalous counts in general. A slight cps build-up is evident near scarp edges such as those along the Northerly margins of the quartzite within the Southern tier of 3 claims. These readings are likely proximal to fault traces.

The number 1 area is slightly anomalous relative to the quartzite and is in an area of bedded greywacke adjacent to a gabbro dyke or apophysis.

The number 2 area is the broadest area of slightly anomalous readings and overlies greywacke with some quartzite bands.

The number 3 and 4 areas are characterized by virtual one reading highs.

CONCLUSIONS and RECOMMENDATIONS

The scintolometer survey conducted over the property appears to be very sensitive to changes in rock type and overburden thickness as is evident over the gabbro dyke in claim 501321 and over the small circular bog on the same claim and along the West boundary of claim 504751.

Though there does not appear to be any prominent radiometric anomalies within the survey area, the number 2 and 4 areas may be considered for more detailed radiometric surveying in the event that narrow beds of radioactive material is indicated or present.

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Respectfully submitted

Frank P. Tagliamonte

Frank P. Tagliamonte, P.Eng.
NORTH BAY, Ontario
20 November 1978

REGISTERED PROFESSIONAL ENGINEER
MINING
F. P. TAGLIAMONTE
PROVINCE OF ONTARIO

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GEOLOGICAL ENGINEERING SERVICES
29 Beaver Crescent
NORTH BAY, Ontario

41105SE0032 0015A1 NAIRN

DUPLICATE
Revised: 80/11/28
AP.3

File

Natural Resources

900 OGICAL – GEOCHEMICAL
Ontario 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) Geological Reconnaissance & Radiometric
Township or Area Nairn S&3
Claim Holder(s) WESTFIELD MINERALS LIMITED
P.O Box. 27, T-D Centre, Toronto
Survey Company Geological Engineering Services.
Author of Report Frank P. Tagliamente, P.Eng.
Address of Author 29 Beaver Cres., North Bay, Ont.
Covering Dates of Survey 5-13 Oct. 1978 (Field Work)
(linecutting to office)
Total Miles of Line Cut Chained & Flagged Compass lines 7½ mi±

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological

Geochemical

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

Magnetometer ____ Electromagnetic ____ Radiometric ____
(enter days per claim)

DATE: 27 Oct. 1978 SIGNATURE: Frank P. Tagliamente
Author of Report or Agent

Revised 30 Nov. 1978

Res. Geol. I.D. Qualifications 2.703

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) Geology	(number) Radiometric	
✓	S 501317	1/4 not covered
✓	S 501318	1/4
✓	S 501319	✓
✓	S 501320	✓
✓	S 501321	✓
✓	S 501322	1/3
✓	S 504747	1/4
	S 504748	
	S 504749	
✓	S 504750	1/4
✓	S 504751	✓

Circled mining claims not covered
No Credits

TOTAL CLAIMS

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations 900± Number of Readings 866±

Station interval 50' Line spacing 400'±

Profile scale

Contour interval High Readings and 200 s.p.s.± contour.

SEISMIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

GRAVITY

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency (specify V.L.F. station)

Parameters measured

MAGNETIC

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

ELECTROMAGNETIC

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters - On time Frequency

- Off time Range

- Delay time

- Integration time

RESISTIVITY

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument GIS4 Integrating Gamma Ray Spectrometer

Values measured cps - Total count.

Energy windows (levels) 0·05 MeV (T.C.) 1·38 MeV (K+U+Th)

Height of instrument waist height Background Count 160-170 c.p.s

Size of detector 1·5" X 1·5' (93 cm³)

Overburden Varying thickness + Lithology.
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

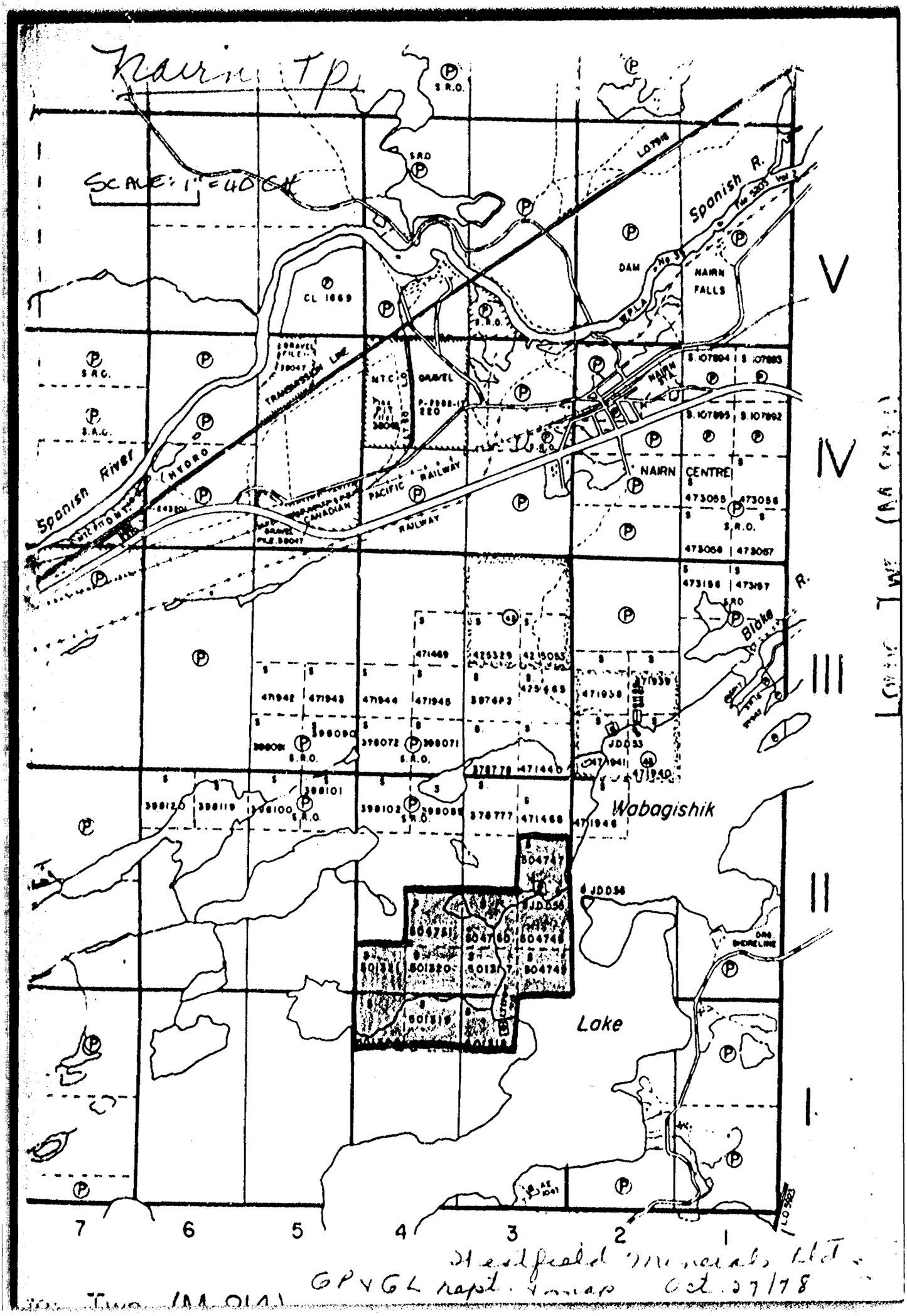
Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

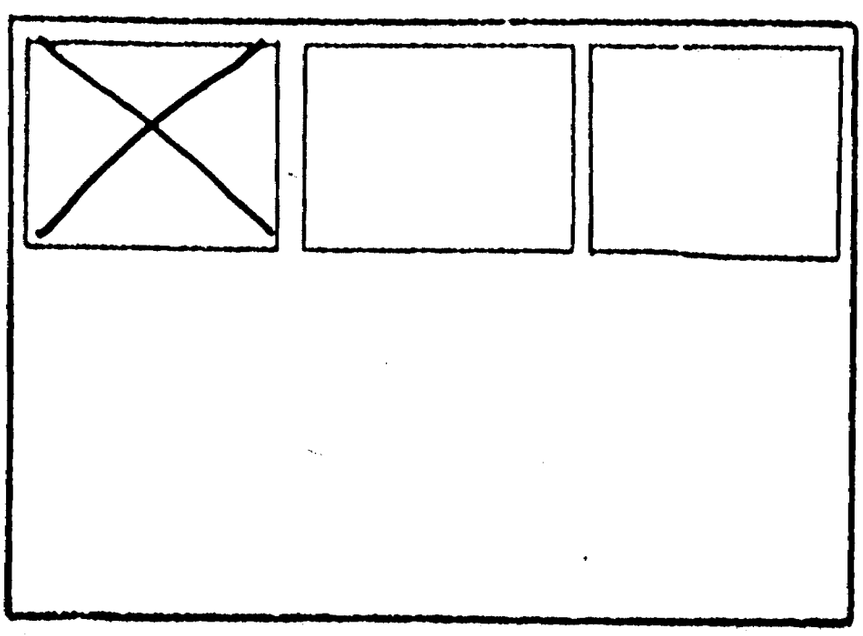
Miles flown over total area _____ Over claims only _____

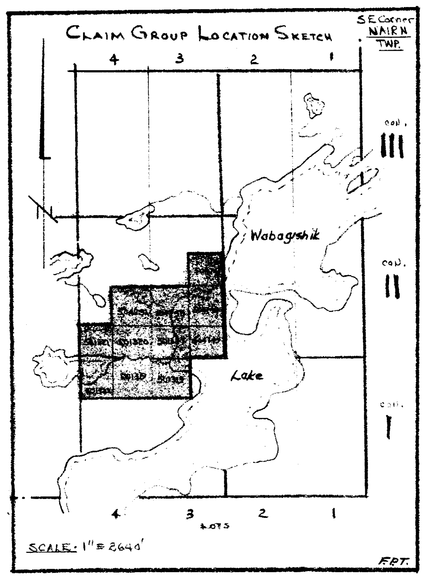


Headfield Minerals Ltd.
GP & GL rapid. 4 mar Oct. 27/78

SEE ACCOMPANYING MAP(S) IDENTIFIED AS NAIRN-0015-A1 #1

LOCATED IN THE MAP CHANNEL IN THE FOLLOWING SEQUENCE (X)





LEGEND

- G Gabbro
- W Greywacke
- Q Quartzite

SYMBOLS

- CLAIM POST
- SCARP with approx. elevation
- STRIKE and DIP
- STREAM and flow direction
- BOUNDARY outcrop area
- SWAMP and BOG
- SHEARING
- SHORELINE TRAVERSE
- (1) LOCATION OF 800' c.p.s.
- CONTOUR OF 200' c.p.s.

504747 504748 504749 504750 504751 501317 501318 501319 501320 501321 501322

WABAGISHIK LAKE

LACELLE LAKE

HIGH HILL

CAMP

Base Line

WESTFIELD MINERALS LIMITED

NAIRN TOWNSHIP PROPERTY

DISTRICT OF SUDBURY

ONTARIO

GEOLOGICAL RECONNAISSANCE AND SCINTELOMETER SURVEY

SCALE: 1" = 200'±

DATE: October 1978

by

Frank P. Tagliamonte, P.Eng

REGISTERED PROFESSIONAL ENGINEER MINING F. P. TAGLIAMONTE PROVINCE OF ONTARIO

GEOLOGICAL ENGINEERING SERVICES

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