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ST. JOE CANADA INC.

FINAL REPORT FOR OMEP APPLICATION ON 82-1-JV-191

DIAMOND DRILLING, GEOLOGICAL SURVEY

BIRCH LAKE AREA - NORTHWESTERN ONTARIO

TORONTO, OCTOBER 1983

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Introduction

This report describes diamond drilling, a geological survey and related studies carried out by St. Joe Canada under OMEP project OM 82-1-JV-191, between March 1, 1983 and the time of writing, October 10, 1983, Between March 1, 1983 and June 10, 1983, including the period in which diamond drilling was carried out, a joint venture between St. Joe Canada and Geddes Resources Ltd. was in effect. This joint venture was terminated on June 10, 1983 and subsequent work during the period of designation was carried out by St. Joe Canada.

Property - Description, Location, Access

St. Joe holds a 100% interest in 69 contiguous mining claims in the Birch Lake area of Northwestern Ontario, 100 kilometers east of Red Lake (Figures 1, 2). Approximately 75% of the claims are water covered.

Access is by float plane from Red Lake or Ear Falls, Ontario, an air distance of 102 and 99 km. respectively. The South Bay Mine Road, a gravel secondary highway, terminates some 34 km. south of the property.

History of Property

- 1935: A vein is indicated on Ontario Department of Mines Map No. 45C, based on field work carried out in 1935 by W.D. Harding. Initial prospecting and trenching was likely carried out on Horseshoe Island prior to this time.
- 1944: A winter diamond drill program consisting of 16 holes is reported to have been carried out on the southeast shore of Horseshoe Island in the vicinity of two mineralized trenches, and from the ice along strike in both directions. A zone of

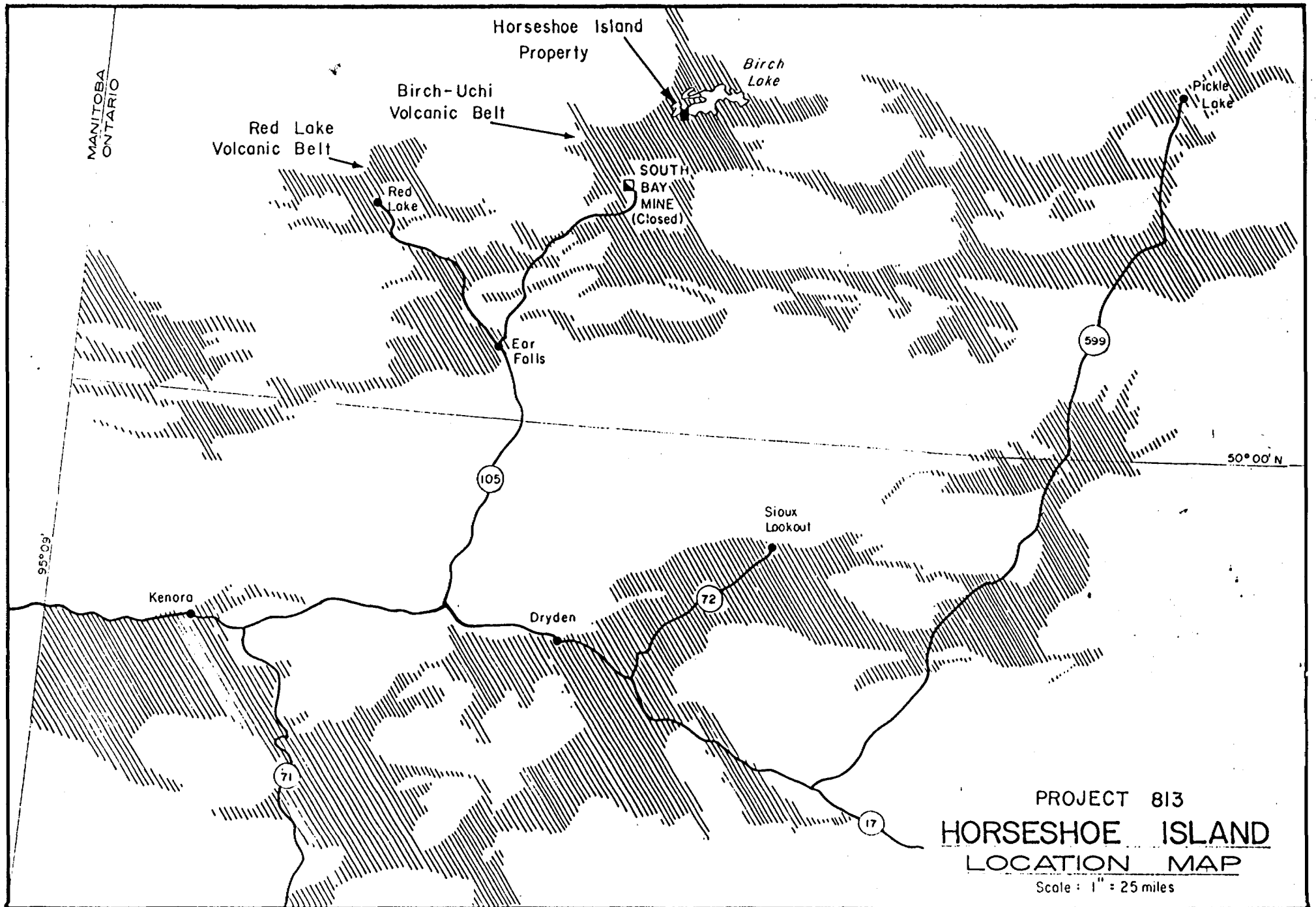


FIGURE 1

374m by 2.1m with a grade of 6.69g/tonne Au was reported to have been outlined. The only reference to this work is found in Ontario Geological Survey's Assessment Files (file no. 2.1443) in the assessment report for Goldsearch Ltd., 1974, listed below. This information was confirmed during the 1982 field season by Oscar Peterson, a Birch Lake resident who was present at the time and who remembers drills set up in the proper locations. He indicated that the work was carried out by Mr. Karl Springer. Three drill collars that probably were from this program were found on the shore of Horseshoe Island. No work reports, drill logs, etc. are available.

1974: Goldsearch Limited carried out a magnetic and VLF-EM survey centred on the known gold mineralization. The fluxgate magnetic survey outlined a strong positive anomaly that has a strike length of approximately 370 meters. It is centred under the lake and is associated with the mineralized trenches. Other magnetic anomalies are centred 400 meters northeast along strike and 670 meters southwest along strike from the mineralized trenches.

The VLF survey picked up three short conductors south and east of Horseshoe Island in Birch Lake.

Other Work

Various other individuals or companies have held the property over the years; however, no records exist of any work having been carried out. The claims were held by a Red Lake resident and lapsed approximately one month before being staked by St. Joe Canada in August 1982.

St. Joe Work Summary

August, September 1982:	Reconnaissance mapping Trench sampling Humus survey
October, 1982:	Waterborne I.P. survey
February, 1983:	Ground I.P. and magnetic survey
March, 1983:	DDH 5 holes, total 990m
July, 1983:	Detailed mapping of Horseshoe Island

Geology

The property lies in the Birch-Uchi Greenstone Belt. Cycle III Archean mafic and felsic volcanic rocks and related sediments have been intruded by a late stage multi-phase gabbro to granodioritic intrusion, herein called the Horseshoe Island Intrusion Complex.

This intrusion is roughly ellipsoidal in plan, approximately 1.5 km. by 0.5 km, with the long axis perpendicular to regional stike.

These lithologies and their inferred age relations are indicated on Figure 1.

Figure 1:

Table of Formations

Horseshoe Island Intrusive Complex

- Highly Altered and Deformed Granodiorite
- Altered Granodiorite (Chloritized)
- Granodiorite
- Gabbro
- intrusive contact
- Feldspar Porphyry
- intrusive contact
- Sediments, chiefly greywacke
- Intermediate tuff and lapilli tuff
- Andesite Pyroclastic
- Mafic volcanics

The Highly Altered and Deformed Granodiorite is the host rock for gold mineralization upon which present exploration efforts are being focussed. The unit is exposed in a series of old trenches on the south shore of Horseshoe Island, and in drill holes HI 83-04 and HI 83-05. The bulk of the unit appears to be under Birch Lake, and consequently its dimensions are very poorly known.

The Highly Altered and Deformed Granodiorite is a tectonically deformed and hydrothermally altered equivalent of the Altered Granodiorite (Chloritized). It consists of intensely sericitized feldspar, quartz and carbonate. Potassic feldspar is 70% to 100% sericitized, and some grains have been deformed into irregular masses of sericite.

Quartz grains have been fractured and rounded with highly irregular outlines where some recrystallization has taken place. The grains are highly strained. There is an average of 1% disseminated pyrite with local concentrations up to 10% and 1% disseminated magnetite. Visible gold was encountered in one place in this unit and high gold values correspond in a general way with an increase in pyrite.

Altered Granodiorite (Chloritized), in contact with the Highly Altered and Deformed Granodiorite, is an intrusive rock with sericitized potassic feldspar, quartz and chlorite replacement of ferromagnesian silicates. Euhedral to subhedral feldspar grains are surrounded by undeformed poikilitic quartz grains. Carbonate is developed locally. This unit contains trace to .5% pyrite with local concentrations to 3% over widths of less than 1 metre. The granodiorite in these pyritic zones is commonly silicified with grey quartz replacing feldspar. Visible gold was observed at three places in this unit, corresponding to mineralized zones of less than one metre. These pyritic, silicified sections of Altered Granodiorite are commonly bounded by thin (2mm) chloritic shears.

Feldspar Porphyry is a sill-like sub-volcanic intrusive (or possible porphyritic flow). A zone of silicification within the unit has been traced for 250 metres in a series of old trenches. Gold values from grab samples up to 4.07g/tonne were obtained from these trenches and HI 83-03, which intersected this zone assayed up to .67g/tonne over 3.2m. The relationship between gold mineralization in this unit and the Highly Altered and Deformed Granodiorite is unclear.

Sediments, chiefly greywacke were found in DDH HI 83-01 and 02, and at 26+00 E, 6+50 N. These sediments are best exposed at a fishing lodge 1.4 km SW of Horseshoe Island where graded bedding, load casts and flame structures are well displayed. Graded bedding was observed in this unit in HI 83-01 at approximately 10m. Magnetite rich bands and streaks occur in this unit, parallel to bedding, and appears to be the cause of the magnetic anomaly in this area.

Intermediate tuff and lapilli tuff occurs in HI 83-01 and 02. It varies from bedded to massive tuff to lapilli tuff with rounded lapilli up to 3 cm wide. The composition appears to be in the andesite to dacite range.

The Andesite pyroclastic appears to be a debris flow unit with several clast types and sizes ranging from 1 cm to 10 cm in section. Some clasts contain abundant magnetite and may, in fact, be iron formation, and the unit is the principal cause of the magnetic anomaly. The unit contains 1% to 2% py in hole HI 83-03 and less than .25% in hole 5. In hole 3 the unit contains 0.5g/tonne gold over 7.5m in slightly silicified andesite pyroclastic. In hole HI 83-04, the unit is barren.

Mafic Volcanics are exposed at 14+00 E, 8+50 N and on an island at 26+00 E, 13+00 N. It is thought to be a tuffaceous unit.

Diamond Drilling

(Refer to Table 1 in text. Plan 1, sections 13+00, 18+00, 20+00, 21+00 in back pocket.)

A total of 990.4m (3,249 ft.) of BQ core was drilled at Horseshoe Island located on Birch Lake in northwestern Ontario between March 10 and March 25, 1983. The holes are indicated on Plan 1. Drilling was carried out by St. Lambert Drilling of Valleyfield, Quebec using a JKS 300 unitized, skid-mounted drill. Core diameter was 3.6 cm. Core recovery averaged more than 98%. Drilling proceeded at a rate of 62 metres/day, including moves.

The objectives of the holes were as follows:

- HI 83-01 - drilled to test a coincident magnetic and charge-ability anomaly associated with a small reef in Birch Lake where gold mineralization was reported but not substantiated by St. Joe.
- HI 83-02 - drilled to test a coincident magnetic and charge-ability anomaly.
- HI 83-03 - drilled to test a magnetic and resistivity anomaly coincident with mineralized trenches in silicified feldspar porphyry.
- HI 83-04 - drilled to test a coincident magnetic and resistivity anomaly coincident with mineralized trenches in highly altered and deformed granodiorite.
- HI 83-05 - drilled to test for an on-strike extension of the highly altered and deformed granodiorite of HI 83-04 in the area of a conspicuous magnetic low.

The objective of all holes was to test for the existence of the reported 375 m zone of gold mineralization.

TABLE 1

PHASE I, HORSESHOE ISLAND DIAMOND DRILLING

Hole	Location	Azimuth	Dip	Length	Rock Types Intersected	Relevant Assays
H1 83-01	L13+00E 6 + 12N	168°	-45°	243m	metasediments & pyroclastic rocks	all .03 g/tonne gold
H1 83-02	L13+00E 8 + 72N	168°	-45°	248.4m	pyroclastic rocks, metasediments	all .5 g/tonne gold
H1 83-03	L18+00E 8 + 40N	168°	-45°	230.5m	quartz-feldspar porphyry, Andesite pyroclastic	1.06 g/t over 1.4m (13.2 - 14.6m) 1.54 g/t/1.5m (161.8 to 163.3)
H1 83-04	L21+00E 8 + 50N	168°	-45°	143.5m	Altered Granodiorite, (Chloritized) Highly Altered and Deformed Granodiorite Andesite Pyroclastic	- 2.67 g/t/0.3m (17.4 - 17.7m) - 2.47 g/t/0.6m (29.7 - 30.3m) - 2.78 g/t/0.3m (47.0 - 47.3m) - 3.26 g/t/0.4m (57.8 - 58.2m) - 2.57 g/t/1.0m (73.8 - 74.8m) or 1.47 g/t/10.0m (70.0 - 80.0m)
H1 83-05	L20+00E 8 + 00N	168°	-45°	125m	Altered Granodiorite (Chloritized) Highly Altered and Deformed Granodiorite	- 2.57 g/t/3m (74.3 - 77.3m) 10.29 g/t/1m (94.6 - 95.6m) or 6.00 g/t/2.4m (93.2 - 95.6m) or 4.60 g/t/3.4m (93.2 - 96.6m) - 2.64 g/t/6m (110.3 - 116.3m) or 1.34 g/t/51.7m (73.3 - 125.0m)

Results of Drilling

Significant gold mineralization was encountered in holes HI 83-04 and HI 83-05. Hole HI 83-05 encountered a section of Highly Altered and Deformed Granodiorite, grading 0.039 oz/ton over a length of 51.7m (169.6 ft.). Within this section are intersections of 0.30 oz/ton over 1 metre and 0.077 oz/ton over 6m.

The Highly Altered and Deformed Granodiorite in holes HI 83-04 and 05 is considered to be equivalent to material found in mineralized trenches on the shore of Horseshoe Island. Hole HI 83-04 was drilled directly under one of these trenches and intersected 0.043 oz/ton over 10.0m in this material. There is an average of 1% disseminated pyrite with local concentrations of up to 10%, and 1% disseminated magnetite. Visible gold was encountered in one place in this unit and high gold values correspond in a general way with an increase of pyrite.

The Altered Granodiorite (Chloritized) contains trace to .5% pyrite with local concentrations to 3% over widths of less than 1 metre. The granodiorite in these pyritic zones is commonly silicified with grey quartz replacing feldspar. Visible gold was observed at three places in this unit, corresponding to mineralized zones of less than one metre. These mineralized zones assayed up to 4983 ppb Au (.145 oz/ton) over .3m. This unit occurs in holes HI 83-04 and HI 83-05.

Holes HI 83-03 and HI 83-04 terminated in a magnetic Andesite Pyroclastic which correlates with the strongest positive magnetic anomalies of the magnetic survey. Hole HI 83-05, which failed to encounter this Andesite Pyroclastic, was drilled on a conspicuous break in the magnetic anomaly. In Hole HI 83-04, the Highly Altered and Deformed Granodiorite and Andesite Pyroclastic contact correlates with a steep negative resistivity gradient. This gradient may be used to predict the same contact in adjacent sections. This unit assayed up to 1560 ppb Au (.046 oz/ton) over 1.5m in hole HI 83-03 at the feldspar porphyry contact. The unit was barren in HI 83-04.

Hole HI 83-03 penetrated 98m of feldspar porphyry. This unit was intensely silicified in places (explaining the resistivity anomaly) and assayed up to 1060 ppb Au (.031 oz/ton) over 1.4m.

Holes HI 83-01 and HI 93-02 encountered greywacke and intermediate tuff and lapilli tuff without significant gold values.

Sampling and Assaying of Drill Core

Sampling of drill core consisted of a preliminary phase and a follow-up phase. The preliminary sampling was carried out on site during the drill operations and consisted of splitting and sampling prospective sections of core, particularly sections with substantial pyrite mineralization.

In view of the initial encouraging assay results, the core was retrieved prior to break-up and flown to Red Lake, where the entire 990 metres was sampled and sent out. Previously split core was sampled separately from unsplit core, and some of the narrow sample intervals were combined to make the intervals as close to 1.5 metres as possible. Sample intervals in split core, where both halves were assayed separately, were averaged (using weighted averages where necessary) to arrive at a representative assay value for each section. For this reason, the logs of holes 4 and 5 do not refer to a specific sample number.

The assays were carried out by the fire assay - atomic absorption method. Regular check assays were made and, in the case of very high values, a second sample cut was made from the pulp. Correlation of assays between halves of split core was good. A total of 984 samples were analysed. Assay certificates are included as Appendix 2.

The remaining core consists of the split halves of the preliminary sample series. Approximately half of this core was flown back to Horseshoe Island in July, 1983 and is currently stored at 18+00 E, 7+25 N, adjacent to the drill road to HI 83-03. The remaining core is stored in the yard of Green Airways at Red Lake and will be moved to Horseshoe Island during the next phase of drilling as aircraft space permits.

SUMMER 1983 GEOLOGICAL SURVEY

Objectives

A geological survey was carried out on the property between July 10 and July 23, 1983. The purpose of the mapping was to tie in 1982 geological survey to the present grid, determine the extent of the key Highly Altered and Deformed Granodiorite Unit, outline the contact of the Horseshoe Island intrusives as closely as possible, and to test for gold and trace element anomalies.

Results

The geological survey results are presented on Plan 1. The survey allowed rock units described in the drill core to be correlated with surface outcrop, particularly exposures of andesite pyroclastic and feldspar porphyry.

The contact of the Horseshoe Island Intrusive Complex with the enclosing supracrustals is considered a potential site of gold mineralization, and considerable effort was made to map this contact. The eastern contact is north trending and roughly parallel to 19+00 E. Another contact is exposed at the east end of Horseshoe Island at 23+30 E. Shearing is observed in both the granodiorite and tuffaceous volcanics, however, the sheared granodiorite does not resemble the Highly Altered and Deformed Granodiorite and five samples all returned less than 5 ppb Au. No outcrop was discovered between 21+50 E and 22+75 E.

Highly Altered and Deformed Granodiorite is not observed outside the trench area at 21+00 E, 8+00 N. A number of thin sections, whole rock and trace element analyses were made from sample material in this area and the results are described below. In summary, the Highly Altered and Deformed Granodiorite is observed on surface only in the trenches at 21+00 E, 8+00 N, and possibly in a poorly exposed and water-filled pit at 21+25 N, 8+25 N. This surface distribution,

as shown on Plan 1, is somewhat inconsistent with the geology observed in HI 83-04, where the Highly Altered and Deformed Granodiorite is in contact with andesite pyroclastic. Instead, east of HI 83-04, the Highly Altered and Deformed Granodiorite appears to lie within Altered Granodiorite (chloritized), thus raising new questions about the nature of this unit.

Results of Thin Section Analysis

A suite of 33 thin sections were prepared and examined. Of this total, 9 were from core specimens and 24 were from rocks collected during July, 1983. All but two of the thin sections are from granodioritic rocks of the Horseshoe Island Intrusive Complex. The location, rock type and other pertinent data for these thin sections is summarized on Table 1.

The Altered Granodiorite (chloritized) and the granodiorite are probably lithologically in the granodiorite range, although feldspar composition could not be measured. There appears to be 2 feldspars, a larger phenocryst type, with carlsbad twinning, heavy sericitization and a smaller, probably more sodic feldspar (albite) with prominent albite twinning. Quartz is interstitial to the feldspar. Carbonate is developed locally, probably from Ca released during sericitization combining with hydrothermal CO_2 . Primary ferromagnesian minerals are biotite and hornblende. Progressive alteration of these minerals to chlorite with proximity to the Highly Altered and Deformed Granodiorite is observed. Hornblende alters more readily than biotite. Altered Granodiorite (chloritized) is defined as having 50% or more of the biotite and hornblende altered to chlorite and, as defined, represents a halo of approximately 100 m around the Highly Altered and Deformed Granodiorite.

Magnetite is associated with chlorite and is probably both primary and secondary, containing iron released from biotite alteration. Pyrite, based on hand specimen examination, is rare. Pyritic

sections of the Altered Granodiorite (chloritized) are probably associated with fractures that have tapped the same sulphur source (and gold source) as the Highly Altered Granodiorite. A few accessory grains with high refractive index and curving fractures (probably zircon) were observed in most specimens. Examination of the nine thin sections from the drill core indicated a clear distinction between primary poikilitic quartz grains in Altered Granodiorite (chloritized) and rounded deformed quartz in Highly Altered and Deformed Granodiorite, suggesting a common relationship between deformation and gold mineralization. However, examination of thin sections of samples collected in the vicinity of the mineralized trenches indicated a moderate degree of deformation in all samples; this suggests that while intense deformation occurred in the Highly Altered and Deformed Granodiorite, more moderate deformation occurred in the adjacent weakly to non-mineralized Altered Granodiorite (chloritized) than was previously believed.

Highly Altered and Deformed Granodiorite

This rock is a mechanically deformed and, to a lesser extent, a hydrothermally altered equivalent of Altered Granodiorite (chloritized). Quartz grains have been fractured and rounded with highly irregular outlines where some recrystallization has occurred. The grains are highly strained. There is not an appreciable increase in quartz compared with Altered Granodiorite (chloritized).

Feldspar grains are slightly more corroded and sericitized. Shearing is evident in bent and fractured albite twin lamellae. The relative freshness of the smaller feldspar population (albite) is more contrasted with alteration in larger feldspar (oligoclase - andesine) which is 60% to 80% sericite, suggesting some secondary albite has been formed. Chlorite has been almost completely altered to sericite and carbonate. There is an increase in pyrite from 0 to 25% to .5% to 5% with the highest pyrite content in the sample (#1) with the highest gold (4450 ppb). The same accessory

zircon grains are present. Carbonate is more abundant and, in slide #1 with the highest gold, it has replaced almost all of the sericite, even within feldspar grains. Iron, which does not vary significantly chemically, is inferred to move from biotite to chlorite + magnetite to magnetite + pyrite. This suggests that a magnetic anomaly should be present at the margin of the granodiorite, but in Holes 4 and 5 it is masked by the much more highly magnetic andesite pyroclastic.

Examination of the thin sections suggests the following paragenetic sequence from hornblende biotite granodiorite to gold-bearing Highly Altered and Deformed Granodiorite:

1. Sericitization of primary feldspar
2. Alteration of biotite and hornblende to chlorite
3. Fracturing and crushing of poikilitic quartz
4. Crystallization of secondary albite
5. Alteration of chlorite to magnetite + sericite + carbonate + quartz
6. Addition of sulphur and gold
7. Development of fine masses of quartz + albite + sericite replacement of primary altered feldspar.

The crystallization of secondary albite (step 4) has been placed somewhat arbitrarily and may occur at other stages. The most critical steps regarding gold mineralization, in addition to step 6, are steps 3 and 5.

The existence of chlorite in samples JB 8301B, 01C and 01D adds a measure of uncertainty in locating the extension of the Highly Altered and Deformed Granodiorite east of 21+00 E. These slides have deformation textures characteristic of the Highly Altered and Deformed Granodiorite, but with 5 to 10% green chlorite. Additional surface work and drilling will be required to resolve this uncertainty.

TABLE 2

HADG = Highly Altered and Deformed Granodiorite
 AG(c) = Altered Granodiorite (chloritized)

<u>Slide No.</u>	<u>Rock Type</u>	<u>Location</u>	<u>Au Assay (ppb)</u>	<u>Whole Rock Sample #</u>	<u>Comments</u>
1	HADG	DDH 5	1445	2375	Carbonate replaces all sericite.
2	AG(c)	DDH 5	70	3019	
3	AG(c)	DDH 5	200	-	Unusually weakly deformed.
4	HADG	DDH 5	1670	2364	
5	HADG	DDH 5	1220	-	
6	HADG	DDH 4	650	2310	
7	HADG	DDH 5	1675	2349	
8	AG(c)	DDH 5	Nil	3006	
9	HADG	DDH 5	180	-	
JB83-01A	HADG + chlorite	21+15 E, 8+00 N	65	-	Texture as for HADG but contains chlorite.
01B	HADG-AG(c) transitional	21+15 E, 8+15 N	<5	-	" " "
01C	"	21+15 E, 8+25 N	30	-	"
01D	"	21+15 E, 8+25 N	125	2420	"
01E	AG(c)	21+35 E, 8+15 N	15	-	Moderate deformation.
01F	AG(c)	21+50 E, 8+15 N	<5	2423	
01G	HADG	21+05 E, 8+00 N	45	2424	Unusually low Au assay
02	AG(c)	20+80 E, 9+60 N	100	-	Moderate deformation.
04C	AG(c)	23+35 E, 8+80 N	<5	2428	Mylonitic
04D	AG(c)	23+35 E, 8+85 N	<5	-	Highly deformed.
14	Greywacke	27+00 E, 6+75 N	<5	-	Possibly tuffaceous volcanic.
15C	AG(c)	19+25 E, 8+25 N	5	2441	Transitional between AG(c) & granodiorite.
16	AG(c)	19+45 E, 7+87 N	<5	2444	
17A	AG(c)	19+75 E, 7+75 N.	<5	2445	Moderate deformation biotite < hornblende.
18A	AG(c)	19+25 E, 7+65 N	60	-	Moderate deformation, hornblende < biotite.
18B	AG(c)	19+25 E, 7+62 N	290	-	Au analysis related to 2-3% pyrite.
18C	AG(c)	19+25 E, 7+55 N	10	2450	Moderate deformation.

<u>Slide No.</u>	<u>Rock Type</u>	<u>Location</u>	<u>Au Assay (ppb)</u>	<u>Whole Rock Sample#</u>	<u>Comments</u>
JB83-24A	AG(c)	19+15 E, 7+30 N	< 5	2456	Moderate deformation, biotite present.
24D	AG(c)	19+15 E, 7+35 N	< 5	-	Moderate deformation, biotite present.
24E	AG(c)	19+20 E, 7+35 N	< 5	-	Moderate deformation. no biotite.
25	Granodio- rite	20+75 E, 11+05 N	< 5	-	Biotite replacement of hornblende.
2405	Granodio- rite	Sudbury Con- tact #5-38m	30	2405	Undeformed
2410	Granodio- rite	Sudbury Con- tact #5-160m	15	2410	Undeformed
SH 83-03	Feldspar porphyry	17+00 E, 8+00 N.	5	-	Contains 15% opaque mineral in matrix, non- magnetic.

Major Oxides and Trace Element Analyses

A total of 9 core samples and 13 surface samples were analysed in two batches for major oxides and 26 trace elements by Bondar-Clegg & Company Ltd. The analytical results are included in Appendix 3.

The major oxide analyses are determined by direct coupled plasma atomic emission spectroscopy with samples prepared by the borate fusion method. The trace element analyses are also determined by DCP atomic emission spectroscopy with preparation using a "total extraction" HNO_3 - HCl leach. The pulps of drill core were returned from Swastika Labs and forwarded to Bondar & Clegg. The pulverizing equipment used at Swastika was found to have contaminated the pulps with chromium and tungsten, and apparent anomalous results for these elements compared to the surface samples have been discounted. The major oxide analyses have been divided into six analyses of Highly Altered and Deformed Granodiorite, and 16 analyses of Altered Granodiorite (chloritized) and Granodiorite. The averages for each of the major oxides in both groups are shown on Table 3 and indicate a depletion of silica in the Highly Altered and Deformed Granodiorite, compensated by slight increases in the other oxides. The data indicate that there are no alkali depletion trends characteristic of many gold deposits.

The trace element data do not indicate any other anomalous elements in the Highly Altered and Deformed Granodiorite that approach the magnitude of the gold content in this unit. The gold content of the Highly Altered and Deformed Granodiorite is approximately 300 times background. Silver is approximately 6 times background and arsenic 2 times background.

A number of trace elements, however, are anomalous in sample 2360, with the highest gold assay (11.2 g/tonne Au). Cu and Sn are highly anomalous in this sample, and As is weakly anomalous.

TABLE 3

	<u>SiO₂</u>	<u>Al₂O₃</u>	<u>Feo Total</u>	<u>MgO</u>	<u>CaO</u>	<u>Na₂O</u>	<u>K₂O</u>	<u>LOI</u>
Average of 6 analyses of Highly Altered and Deformed Granodiorite	60.1	14.30	5.34	1.57	4.17	5.09	1.87	5.08
Average of 16 analyses of Granodiorite and Altered Granodiorite (chloritized)	64.3	15.14	4.90	1.69	3.35	4.87	2.15	4.04

Analyses in Wt %

Sample Numbers for Highly Altered and Deformed Granodiorite:

2310, 2349, 2360, 2364, 2375, 3077

Sample Numbers for Granodiorite and Altered Granodiorite (Chloritized):

2340, 3006, 3019, 3347, 2405, 2410, 2424, 2428, 2432,
2441, 2444, 2445, 2450, 2456*, 2420, 2423, 2433.

* Sample 2456 was omitted from the above average calculation due to anomalous pyrite content.

Recommendations

A second phase of a minimum of 1000 metres of diamond drilling is recommended to follow-up the results of phase 1. Initially hole H1 83-05 would be deepened until a southern contact is established. Subsequently two to three short holes (50 to 100m) will be drilled to further outline the contact of the Highly Altered and Deformed Granodiorite particularly to the west of H1 83-05. The dimensions of this unit will then be outlined sufficiently to place a vertical hole at the estimated center of the unit to a depth of 350 to 400m, to probe for higher grade material at depth.

Immediately prior to drilling a detailed magnetic survey will be carried out on 10 metre centers to assist in outlining the contact of the Highly Altered and Deformed Granodiorite.

Certificate of Qualifications

I James G. Brisco do hereby certify:

1. That I reside at 1458 Avenue Road, Apt. 2, Toronto, Ont.
2. That I am a graduate of the University of Toronto with the degree of Bachelor of Science - Geology, 1976,
3. That I have been engaged in mineral exploration for over six years.
4. That I personally supervised the drill program, logged the core and prepared the drill logs with respect to this submission. That I supervised the summer geological program, and prepared this report.

James Brisco
Toronto, Oct 14, 1983

APPENDIX 1

Diamond Drill Logs

OM 82-1-JV-191

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):

- ① DRILL HOLES HI-83-1 to HI-83-5, March 1983, St. Joe Canada Inc. ⇒ TORONTO FILE, SATTERLY LK. D.D.R.#11 ⇒ MINING RECORDER, REPORT OF WORK FOR 1983, #29

APPENDIX 2



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis *File*

Certificate No. 54698

Date: March 23 1983

Received Mar.18/83

49

Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario

Att'n: Mr. D. Molloy

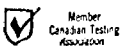
SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2001	Nil	2018	30	2035	30
2002	Nil	2019	10	2036	10
2003	10	2020	30	2037	30
2004	20	2021	10		20
2005	30	2022	Nil	2038	10
	30	2023	Nil	2039	Nil
2006	20	2024	30	2040	10
2007	10		20	2041	10
2008	Nil	2025	30	2042	10
2009	Nil	2026	20	2043	10
2010	Nil	2027	10	2044	Nil
2011	Nil	2028	10	2045	10
2012	Nil	2029	Nil	2046	Nil
2013	Nil	2030			Nil
2014	Nil	2031			Nil
2015	Nil	2032	10	2049	Nil
2016	Nil	2033	Nil		
2017	Nil	2034	10		

ST. JOE CANADA INC.			
ATTENDED BY: <i>J.B.</i>	READ BY: 2048		
10 MAR 23 1983			
RECORDED BY: <i>J.B.</i>	OH	READ BY: <i>J.B.</i>	OH
<i>Copy for G.R.H.</i>			
Per <i>G.R.H.</i>		Per <i>G. Lebel</i>	

3.5 Assay File

G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54711

Date: March 24 1983

Received Mar.21/83 85 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe Page 1 of 2

SAMPLE NO.	GOLD PPB
2050	10
2051	30
2052	Nil
2053	10
2054	Nil
2055	Nil
2056	Nil
2057	30
2058	30
2059	30
2060	60 110
2061	Nil
2062	10
2063	10
2064	100
2065	Nil
2066	110
2067	20
2068	30
2069	30
2070	100
2071	50

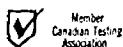
SAMPLE NO.	GOLD PPB
2072	270 340
2073	30
2074	70
2075	30
2076	80
2077	30
2078	30
2079	50
2080	130
2081	30
2082	70
2083	60
2084	40
2085	60
2086	120
2087	50
2088	100
2089	30
2090	60
2091	420 430
2092	270

ST. JOE CANADA INC.			
ATTENTION:		READ:	
PROJECT:		FILES:	
MAR 28 1983			
RECEIVED TO	ON	RECEIVED BY	ON
J.B.		<i>[Signature]</i>	
NOTES: <i>Copy for G.R.L.</i>			

Cont'd.....

Per *[Signature]*
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54711

Date: March 24 1983

Received Mar. 21/83 85 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

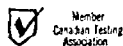
Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2093	30	2115	10
2094	70	2116	Nil
2095	100	2117	Nil
2096	120	2118	Nil
2097	100	2119	Nil
	100	2120	Nil
2098	30	2121	Nil
2099	30	2122	Nil
2100	70	2123	Nil
2101	50	2124	Nil
2102	Nil	2125	10
2103	Nil	2126	Nil
2104	Nil	2127	Nil
2105	10	2128	Nil
2106	30	2129	NIL
2107	10	2130	Nil
2108	10	2131	Nil
2109	Nil	2132	Nil
2110	20	2133	Nil
2111	Nil	2134	20
2112	30		
	30		
2113	Nil		
2114	10		

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54738

Date: March 30 1983

Received Mar.25/83 92 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Project - Horseshoe

Page 1 of 2

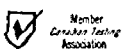
SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2135	Nil	2154	20	2173	10
2136	10	2155	80	2174	420
2137	Nil	2156	10	2175	1060 1180
2138	Nil	2157	Nil	2176	Nil
2139	30	2158	40	2177	Nil
2140	80 80	2159	30	2178	Nil
2141	30	2160	110 100	2179	Nil
2142	Nil	2161	60	2180	10
2143	10	2162	10	2181	30
2144	Nil	2163	Nil	2182	250 270
2145	Nil	2164	10	2183	Nil
2146	10	2165	Nil	2184	Nil
2147	20	2166	Nil	2185	10
2148	10	2167	Nil	2186	Nil
2149	Nil	2168	Nil	2187	100
2150	10	2169	Nil	2188	100
2151	10	2170	270	2189	30
2152	40	2171	40	2190	30
2153	Nil	2172	10	2191	60

ST. JOE CANADA INC.
 ATTENTION: 18
 PROJECT: 115
 APR 5 1983
 REFERRED TO: DM JB
 BY: J.B.
 DATED: 3/15/83
 NOTES:

Cont'd.....

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54738 Date: March 30 1983

Received Mar. 25/83 92 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2192	150	2211	30
2193	40	2212	470
2194	40		310
2195	10	2213	10
2196	30	2214	10
2197	10	2215	Nil
2198	10	2216	Nil
2199	30	2217	Nil
2200	20	2218	10
2201	Nil	2219	Nil
2202	Nil	2220	Nil
2203	90	2221	Nil
	50	2222	10
2204	70	2223	Nil
2205	60	2224	10
2206	100	2225	10
2207	30	2226	10
2208	80		
2209	70		
2210	10		

Per

G. Lebel - Manager



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54750

Date: March 31 1983

Received Mar. 28/83 68 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Page 1 of 2

Project - Horseshoe

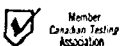
SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2227	360	2244	830
2228	10	2245	1340
2229	10	2246	70
2230	Nil	2247	30
2231	10	2248	20
2232	10	2249	Nil
2233	10	2250	260
2234	780	2251	520
	680	2252	750
2235	20	2253	750
2236	10	2254	1280
2237	100	2255	170
2238	160	2256	10
2239	130	2257	2790
2240	620		3220
2241	90	2258	960
2242	60	2259	560
2243	1540	2260	270
	1510		

ST. JOE CANADA INC.			
ATTENTION: <u>ICM</u>	READ:		
PROJECT:	FILE:		
APR 5 1983			
RECEIVED:			
NOTES:			

Cont'd.....

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54750

Date: March 31 1983

Received Mar. 28/83 68 Samples of split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

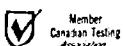
Page 2 of 2

Project - Horseshoe

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2261	210	2278	180
2262	480	2279	2240
2263	60		2740
2264	230	Second Pulp ..	2510
2265	10	2280	790
2266	220	2281	1190
2267	40	2282	80
2268	420	2283	3160
2269	10		2550
2270	300	2284	70
2271	2130	2285	1680
	1690	2286	480
2272	580	2287	830
2273	510	2288	170
2274	40	2289	250
2275	80	2290	1080
2276	900		1030
2277	160	2291	510
		2292	930
		2293	340
		2294	930

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54780

Date: April 7 1983

Received Apr. 4/83 92 Samples of split core

Submitted by St. Joe Canada Incorporated, Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2295	850	2314	410	2334	1640
2296	1260	2315	430		1650
2297	1590	2316	180	2335	410
2298	880	2317	110	2336	320
2299	1830	2318	10	2337	340
2300	2330	2319	10	2338	540
	3090	2320	10	2339	30
2301	1430	2321	730	2340	5930
2302	1250	2322	820		5560
2303	1740				30
	1920	2323			620
2304	230	2324			30
2305	1570	2325	70	2344	30
2306	470	2326	30	2345	10
2307	100	2327			260
2308	300	2328	630		660
2309	100	2329	350		6520
2310	610	2330	920		5830
2311	270	2331	140		1800
2312	180	2332			1080
2313	700	2333			1020
	620				1130

STB200E CANADA IN 2341			
ATTENTION:	130 JOM	READ:	2342
PROJECT:	40	FILE:	2343
APR 13 1983			
REFERS TO:	200 CN	READ BY:	2346
			2347
			2348
			2349
			2350
NOTE:	180		2351
	550		2352

Cont'd...

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54780

Date: April 7 1983

Received Apr. 4/83 92 Samples of split core

Submitted by St. Joe Canada Incorporated, Toronto, Ontario Att'n: Mr. D. Molloy

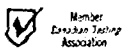
Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2353	270	2371	1250
2354	260	2372	2240
2355	480	2373	4310
2356	2040		4870
	1990	2374	2530
2357	2070	2375	3000
2358	340		3090
2359	2520	2376	830
2360	10080	2377	310
	10560	2378	600
Second Pulp	11590	2379	180
2361	820	2380	20
2362	1460	2381	1780
2363	610	2382	1940
2364	1740	2383	140
2365	920	2384	2390
2366	470		2810
2367	380	2385	1130
2368	580	2386	30
2369	270		
2370	1860		

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54852

Date: April 22 1983

Received Apr. 20/83 34 Samples of whole and split core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

SAMPLE NO.	GOLD PPB.	SAMPLE NO.	GOLD PPB.
3001	Nil	3021	Nil
3002	380	3022	30
	420	3023	10
3003	Nil	3024	70
3004		3025	400
3005		3026	450
3006	Nil	3027	340
3007	Nil	3028	210
3008	Nil	3029	320
3009		3030	10
3010		3031	220
3011	Nil	3032	170
3012	80	3033	440
3013	Nil	3034	410
3014	10	3035	20
3015	Nil		Nil
3016	Nil		
3017	130		
3018	90		
3019	70		
3020	100		

ST. JOE CANADA INC.

ATTENTION: Nil READ:

PROJECT: _____

APR 26 1983

REFERRED TO: _____

DATE: 4/26/83

INITIALS: LS

SIGNATURE: [Signature]

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54837 Date: April 21 1983

Received Apr. 18/83 78 Samples of split and whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3034	1400	3055	300
	1650	3056	370
3036	130	3057	Nil
3037	810	3058	Nil
3038	Nil	3059	Nil
3039	Nil	3060	Nil
3040	30	3061	Nil
3041	180	3062	80
3042	Nil	3063	1060
3043	Nil	3064	3650
3044	Nil	3065	3980
3045	60	3066	1500
3046	170	3067	1090
3047	680	3068	270
3048	160	3069	1080
3049	30	3070	1880
3050	140	3071	1780
3051	180	3072	390
3052	4050	3073	160
	4390	3074	870
3053	70		1460
3054	Nil		Nil

ST. JOE CANADA INC.

ATTENTION: RM READ:

PROJECT: FILE:

APR 25 1983

REFERRED TO:	ON	READ BY:	ON
<u>J.B.</u>		<u>J.P.</u>	<u>4/25/83</u>
<u>J.S.</u>		<u>J.B.</u>	<u>26/4/83</u>

NOTES:

Cont'd.....

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54837 Date: April 21 1983

Received Apr. 18/83 78 Samples of split and whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3075	270	3094	1550
3076	530	3095	2020
3077	1470		1650
3078	560	3096	300
3079	100	3097	430
3080	Nil	3098	700
3081	690	3099	380
3082	2460	3100	1020
3083	1590	3101	2740
3084	9060	3102	2510
	8580	3103	4600
Second Pulp	10390		4670
3085	1610	3104	2640
3086	810	3105	2620
3087	2220	3106	890
3088	420	3107	400
3089	270	3108	130
3090	80	3109	Nil
3091	460	3110	750
3092	1260	3111	1860
3093	340	3112	2870
			3160

3113

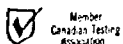
445

(TSL)

G. Lebel

Per

G. Lebel - Manager



ESTABLISHED 1928



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54853

Date: April 22 1983

Received Apr. 20/83 114 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3301	40	3320	1330	3340	50
3302	130	3321	50	3341	320
3303	40	3322	80	3342	3700
3304	70	3323	130		3570
3305	420	3324	1940	3343	440
	470		1700	3344	110
3306	100	3325	240	3345	430
3307	30	3326	1820	3346	240
3308	50	3327	80	3347	1230
3309	60	3328	900	3348	1030
3310	Nil	3329	910		1130
3311	80	3330	480	3349	340
3312	50	3331	80	3350	3070
3313	4050	3332	230		3430
	3640	3333	90	Second Pulp....	4080
3314	200	3334	340	3351	350
3315	30	3335	Nil	3352	610
3316	180	3336	140	3353	470
3317	520	3337	Nil	3354	220
3318	30	3338	150	3355	780
3319	220	3339	200	3356	920
				Cont'd.....	

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54853

Date: April 22 1983

Received Apr. 20/83 114 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

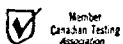
Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3357	160	3376	130	3396	Nil
3358	760	3377	30	3397	Nil
3359	1360	3378	10	3398	Nil
3360	1060	3379	30	3399	Nil
3361	1910	3380	20	3400	10
3362	2350 2470	3381	10		20
3363	1820	3382	30	3401	Nil
3364	1200	3383	Nil	3402	Nil
3365	1100	3384	Nil	3403	Nil
3366	100	3385	Nil	3404	Nil
3367	2370 3290	3386	Nil	3405	Nil
3368	160	3387	Nil	3406	Nil
3369	730	3388	Nil	3407	Nil
3370	800	3389	Nil	3408	Nil
3371	350	3390	Nil	3409	Nil
3372	310	3391	Nil	3410	10
3373	800	3392	Nil	3411	Nil
3374	330	3393	Nil	3412	Nil
3375	350	3394	Nil	3413	Nil
		3395	Nil	3414	Nil

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54858

Date: April 26 1983

Received Apr.20/83 85 Samples of split and whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 1 of 2

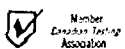
SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3415	10	3437	Nil	3459	Nil
3416	30	3438	60	3460	30
3417	1030 1000	3439	60 30	3461	30 10
Second Pulp	1000	3440	30	3462	20
3418	340	3441	Nil	3463	10
3419	Nil	3442	Nil	3464	Nil
3420	10	3443	Nil	3465	Nil
3421	20	3444	Nil	3466	10
3422	60	3445	Nil	3467	Nil
3423	30	3446	Nil	3468	Nil
3424	10	3447	Nil	3469	Nil
3425	30	3448	20	3470	Nil
3426	10		10	3471	Nil
3427	Nil	3449	10	3472	Nil
3428	Nil	3450	Nil	3473	Nil
3429	Nil	3451	Nil	3474	30
3430	Nil	3452	Nil	3475	10
3431	Nil	3453	Nil	3476	Nil
3432	10	3454	10	3477	Nil
3433	10	3455	Nil	3478	Nil
3434	Nil	3456	Nil	3479	Nil
3435	Nil	3457	10	3480	Nil
3436	Nil	3458	Nil		

Cont'd....

Per G. Lebel

G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54858

Date: April 26 1983

Received Apr. 20/83 85 Samples of split and whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

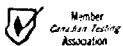
Page 2 of 2

SAMPLE NO.	GOLD
	PPB
3481	Nil
3482	Nil
3483	Nil
3484	Nil
3485	Nil
3486	Nil
3487	Nil
3488	50
3489	80
3490	30
3491	1450
	2030
Second Pulp	1380
3492	410
3493	10
3494	10
3495	20
3496	30
3497	620
	1190
3498	30
3499	Nil

Per G. Lebel

G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54860

Date: April 26 1983

Received Apr.20/83 103 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3500	720 780	3520	30	3542	Nil
3501	10	3521	Nil	3543	Nil
3502	10	3522	10	3544	Nil
3503	40	3523	20	3545	Nil
3504	10	3524	10	3546	Nil
3505	10	3525	10	3547	Nil
3506	Nil	3526	Nil	3548	Nil
3507	Nil	3527	140	3549	Nil
3508	Nil	3528	10	3550	Nil
3509	470	3529	130	3551	Nil
3510	320	3530	300	3552	Nil
3511	900 930	3531	Nil	3553	Nil
Second Pulp 1180		3532	400 310	3554	Nil
3512	310	3533	10	3555	Nil
3513	370	3534	Nil	3556	Nil
3514	30	3535	Nil	3557	Nil
3515	10	3536	Nil	3558	Nil
3516	10	3537	Nil	3559	Nil
3517	70	3538	Nil	3560	Nil
3518	680 630	3539	Nil	3561	Nil
3519	10	3540	Nil	3562	10
		3541	Nil		

Cont'd. . . .

Per G. Lebel
G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

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Certificate of Analysis

Certificate No. 54860

Date: April 26 1983

Received Apr. 20/83 103 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3563	10	3587	Nil
3564	10	3588	Nil
	10		10
3565	10	3589	Nil
3566	Nil	3590	Nil
3567	Nil	3591	Nil
3568	Nil	3592	Nil
3569	Nil	3593	Nil
3570	Nil	3594	Nil
3571	Nil	3595	Nil
3572	Nil	3596	Nil
3573	Nil	3597	Nil
3574	Nil	3598	Nil
3575	Nil	3599	Nil
3576	Nil	3600	Nil
3577	Nil	3601	Nil
3578	Nil	3602	Nil
3579	10		
3580	Nil		
3581	Nil		
3582	Nil		
3583	Nil		
3584	Nil		
3585	Nil		
3586	Nil		

Per *G. Lebel*
G. Lebel - Manager

ESTABLISHED 1928





SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0
TELEPHONE: (705) 642-3244
ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54863 Date: April 26 1983
Received Apr. 22/83 96 Samples of Whole core
Submitted by St. Joe Canada Incorporated, Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3603	Nil	3626	Nil	3650	Nil
3604	Nil	*** 3627	10	3651	10
3605	Nil	3628	10	3652	Nil
3606	Nil	3629	Nil	3653	Nil
3607	Nil	3630	Nil	3654	10
3608	Nil	3631	Nil	3655	30
3609	Nil	3632	Nil	3656	Nil
3610	Nil	3633	Nil	3657	10
3611	Nil	3634	Nil	3658	10
3612	Nil	3635	Nil	3659	10
3613	Nil	3636	Nil	3660	30
3614	Nil	3638	Nil	3661	60
3615	10	3639	Nil	3662	30
3616	Nil	3640	Nil	3663	20
3617	Nil	3641	Nil	3664	30
3618	10	3642	Nil	3665	Nil
3619	Nil	3643	Nil	3666	60
3620	Nil	3644	Nil	3667	90
3621	10	3645	Nil	*** 3668	Nil
3622	Nil	3646	Nil	3669	Nil
3623	Nil	3647	Nil		
3624	Nil	3648	Nil		
3625	Nil	3649	Nil		

ST. JOE CANADA INC.

ANALYST: Nil READ: 3632

RECORDED: Nil FILE: 3633

APR 29 1983

3636

10 4/23/83

10 4/25/83

10 4/25/83

3640

3641

3642

3643

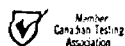
TO

J B

Cont'd.....

NOTE: *** Indicates where two sample tickets were found in one sample bag.

Per G. Lebel
G. Lebel - Manager



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SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54863

Date: April 26 1983

Received Apr. 22/83 96 Samples of whole core

Submitted by St. Joe Canada Incorporated, Toronto, Ontario Att'n: Mr. D. Molloy

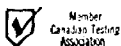
Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3670	Nil	3691	40
3671	Nil		40
3672	Nil	3692	Nil
3673	Nil	3693	Nil
3674	Nil	3694	Nil
3675	10	3695	Nil
3676	Nil	3696	Nil
3677	Nil	3697	Nil
3678	Nil	3698	Nil
3679	Nil	3699	Nil
3680	Nil	3700	Nil
3681	Nil		
3682	Nil		
3683	Nil		
3684	Nil		
3685	Nil		
3686	10		
3687	10		
3688	Nil		
3689	Nil		
3690	Nil		

Per G. Lebel
G. Lebel - Manager

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SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54872

Date: April 27 1983

Received Apr. 20/83 88 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

Project - Horseshoe

Page 1 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3701	Nil	3723	Nil
3702	Nil	3724	Nil
3703	Nil	3725	10
3704	Nil	3726	Nil
3705	Nil	3727	Nil
3706	10	3728	Nil
3707	Nil	3729	30
3708	Nil	3730	60
3709	Nil	3731	50
** 3710	Nil	3732	Nil
3711	Nil	3733	Nil
3712	Nil	3734	Nil
3713	Nil	3735	Nil
3714	Nil	3736	Nil
3715	Nil	3737	Nil
3716	130 140	3738	Nil
3717	Nil	3739	Nil
3718	Nil	3740	Nil
3719	Nil	3741	Nil
3720	Nil	3742	10
3721	Nil	3743	Nil
3722	40	3744	Nil

ST. JOE CANADA INC. 3730

ATTENTION: NUM READ: _____

PROJECT: _____ FILE: 3731

MAY 2 1983

REFERRED TO	ON	READ BY	ON
<u>J.S.</u>		<u>J.S.</u>	<u>5/3/83</u>
<u>J.B.</u>		<u>J.P.</u>	<u>5/3/83</u>

NOTES:

NOTE: ** Indicates where two sample tickets were found in one sample bag.

Per G. Lebel
G. Lebel - Manager



ESTABLISHED 1928



SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

Certificate of Analysis

Certificate No. 54872

Date: April 27 1983

Received Apr. 20/83 88 Samples of whole core

Submitted by St. Joe Canada Inc., Toronto, Ontario Att'n: Mr. D. Molloy

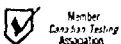
Project - Horseshoe

Page 2 of 2

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
3745	Nil	3768	Nil
3746	10		10
3747	Nil	3769	Nil
3748	Nil	3770	10
3749	Nil	3771	10
3750	Nil	3772	30
3751	Nil	3773	20
3752	Nil	3774	30
3753	Nil	3775	Nil
3754	Nil	3776	30
3755	Nil	3777	10
3756	100	3778	30
	100	3779	30
3757	Nil		30
3758	Nil	3780	20
3759	30	3781	10
3760	Nil	3782	Nil
3761	20	3783	Nil
3762	10	3784	Nil
3763	30	3875	Nil
3764	10	3786	Nil
3765	10	3787	10
3766	Nil	3788	Nil
3767	Nil	3789	Nil

Per G. Lebel
G. Lebel - Manager

ESTABLISHED 1928



APPENDIX 3



REPORT: 113-1817

PROJECT: PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	S PCT	NOTES
2405		63.60	0.50	14.90	4.79	0.06	1.72	3.79	4.58	2.23	0.05	3.95	0.07	
2410		65.60	0.50	15.30	4.91	0.06	1.65	3.40	5.32	1.88	0.05	2.95	0.05	
2424		62.70	0.50	14.60	4.74	0.07	1.74	3.94	6.68	1.85	0.16	5.70	0.04	
2428		65.70	0.57	16.20	5.17	0.05	1.94	1.69	4.82	3.51	0.01	3.00	0.07	
2432		64.20	0.44	14.60	4.48	0.07	1.59	4.11	4.55	2.10	0.09	5.00	0.04	
2441		64.10	0.55	15.70	5.06	0.07	1.78	3.60	4.76	2.60	0.09	4.50	0.01	
2444		66.20	0.55	16.10	4.77	0.06	1.69	2.56	5.00	2.14	0.09	3.60	0.03	
2445		63.70	0.54	15.00	4.78	0.06	1.65	3.66	4.98	2.05	0.07	4.75	0.04	
2450		65.60	0.56	15.00	4.91	0.08	1.21	1.87	4.59	2.76	0.08	3.30	0.09	
2456		57.30	0.80	16.90	7.88	0.09	2.06	3.30	4.06	3.82	0.30	4.70	0.02	

[This section contains several large, empty rectangular boxes, likely intended for handwritten notes or additional data.]



PORT: 113-2029

PROJECT:

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3* PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	S PCT	NOTES
2420		63.60	0.49	15.20	4.57	0.06	1.66	3.69	4.86	2.31	0.13	4.95	<0.01	
2423		65.00	0.53	15.80	4.82	0.06	1.73	3.12	5.09	2.37	0.20	3.95	0.04	
2433		65.30	0.50	15.40	4.73	0.06	1.74	3.44	5.07	1.64	0.18	2.75	<0.01	



REPORT: 213-1817/313-1817 PROJECT:

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mn PPM	Co PPM	Ni PPM	Cr PPM	Mn PPM	Cd PPM	Ag PPM	Bi PPM	Fe PCT	As PPM	Te PPM	Sb PPM	Se PPM	Sn PPM	NOTES
2405		22	16	66	12	14	37	32	448	<0.5	<0.2	<2	3.08	<5	<3	<2	<5	<1	
2410		21	16	69	1	13	28	29	490	<0.5	<0.2	<2	3.18	<5	<3	<2	<5	<1	
2424		24	9	49	1	14	23	24	621	<0.5	<0.2	<2	2.84	<5	<3	<2	<5	<1	
2428		11	9	57	3	11	22	25	428	<0.5	<0.2	<2	2.83	<5	<3	<2	<5	<1	
2432		4	10	45	1	7	16	18	523	<0.5	<0.2	<2	2.71	<5	<3	<2	<5	<1	
2441		21	24	90	5	14	26	34	479	<0.5	<0.2	<2	2.90	<5	<3	<2	<5	3	
2444		15	14	63	1	10	21	32	421	<0.5	<0.2	<2	2.80	<5	<3	<2	<5	2	
2445		16	21	99	<1	14	25	30	474	<0.5	<0.2	<2	2.92	<5	<3	<2	<5	3	
2450		8	14	71	<1	10	23	54	525	<0.5	<0.2	<2	2.88	<5	<3	<2	<5	<1	
2456		12	20	83	1	23	28	49	605	<0.5	<0.2	<2	5.35	<5	<3	7	<5	<1	

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REPORT: 213-2029/313-2029

PROJECT:

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Co PPM	Ni PPM	Cr PPM	Mn PPM	Cd PPM	Ag PPM	Bi PPM	Fe PCT	V PPM	As PPM	Te PPM	U PPM	W PPM	Sb PPM	Se PPM	Sn PPM	NOTES
2420		18	15	68	3	12	23	31	465	<0.5	<0.2	2	30.8	86	8	<3	<2	<1	3	9	2	
2423		8	11	50	2	10	16	22	381	<0.5	<0.2	2	23.9	65	<5	<3	<2	<1	<2	<5	<1	
2433		9	22	61	4	14	24	30	552	<0.5	<0.2	<2	34.2	87	<5	<3	<2	<1	4	<5	1	



REPORT: 013-1817

PROJECT: PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	wt/Au GM	NOTES	SAMPLE NUMBER	ELEMENT UNITS	Au PPB	wt/Au GM	NOTES
2401		190			2454		<5		
2402		<5			2455		20		
2403		40			2456		<5		
2404		<5			2457		<5		
2405		30			2458		<5		
2406		10			2459		<5		
2407		5			2460		<5		
2408		10			2461		<5		
2409		<5							
2410		15							
2411		5			2417		65		
2412		20			2418		<5		
2413		<5			2419		30		
2414		<5			2420		125		
2415		<5			2421		15		
2416		<5			2423		<5		
2424		45			2425		40		
2428		<5			2426		<5		
2429		<5			2427		<5		
2430		<5			2433		10		
2431		<5			2439		<5		
2432		100							
2434		<5							
2435		10							
2436		25							
2437		<5							
2438		<5							
2440		<5							
2441		5							
2442		170							
2443		<5							
2444		<5							
2445		<5							
2446		<5							
2448		50							
2449		290							
2450		10							
2451		35							
2452		1840							
2453		290							

Analyses of Horseshoe Island Drill Core

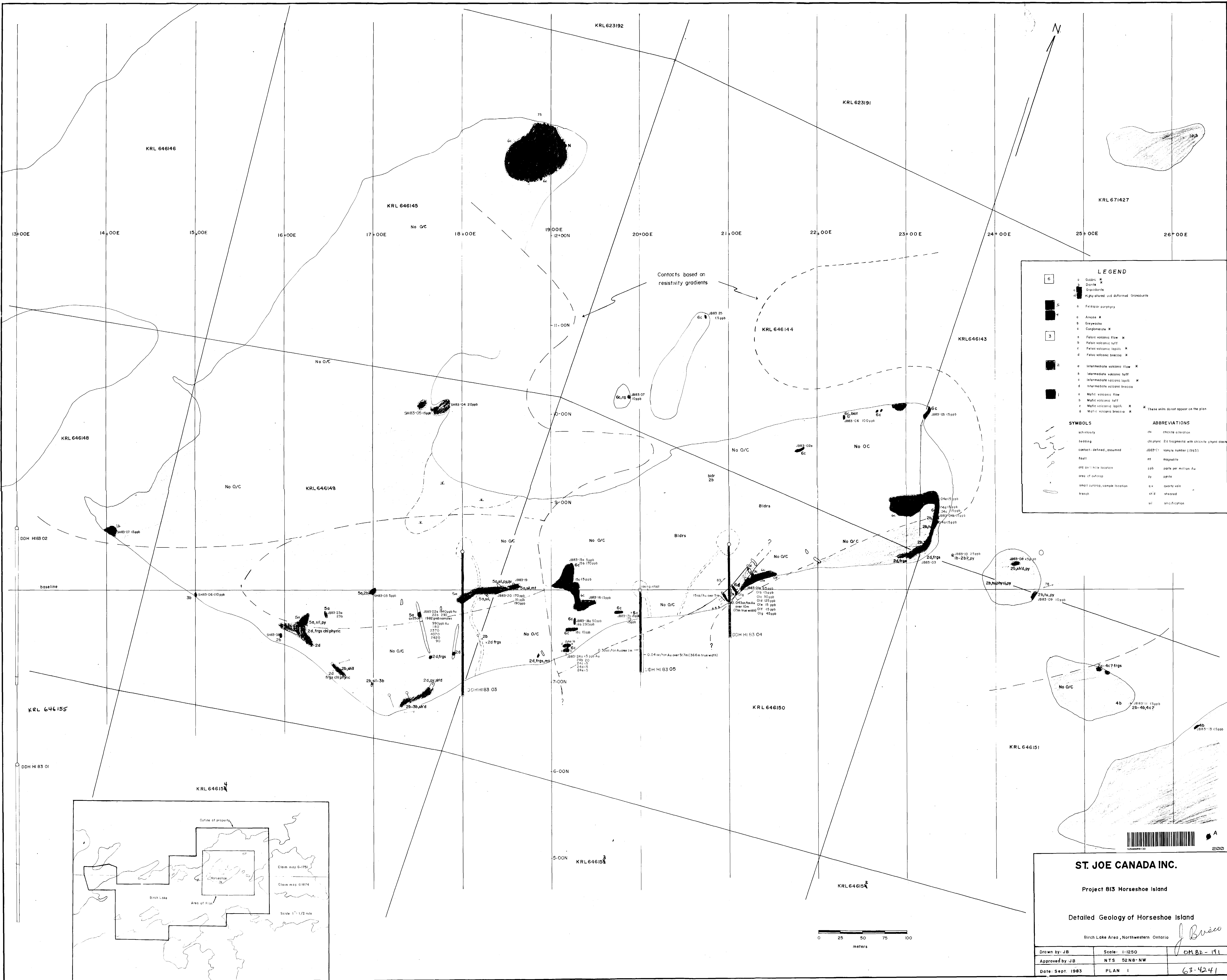
REPORT: 013-0959 PROJECT:

PAGE 1

Sample Number	Au ppb	ELEMENT UNITS	SiO2 PCT	TiO2 PCT	Al2O3 PCT	Fe2O3 PCT	MnO PCT	MgO PCT	CaO PCT	Na2O PCT	K2O PCT	P2O5 PCT	LOI PCT	NOTES
5	2310	610	60.80	0.49	13.90	4.57	0.07	1.11	4.86	5.72	1.30	0.23	5.00	
3	2340	5930	63.20	0.53	14.80	5.01	0.06	1.77	3.03	4.10	1.88	0.13	3.00	
7	2349	1800	62.60	0.48	13.60	4.74	0.05	1.63	3.60	4.83	1.63	0.20	4.75	
10	2360	11180	58.00	0.60	13.20	6.32	0.08	1.78	4.10	5.44	1.45	0.21	5.45	
8	2364	1740	58.90	0.60	14.10	6.34	0.08	1.80	4.22	5.66	1.47	0.26	5.00	
9	2375	3045	56.20	0.72	16.40	5.30	0.05	1.25	4.05	4.59	2.99	0.22	5.00	
1	3006	NIL	63.80	0.51	15.20	5.18	0.07	1.80	4.35	4.27	1.64	0.16	4.20	
2	3019	70	63.00	0.53	13.90	5.81	0.06	1.66	3.26	4.21	1.59	0.25	4.70	
6	3077	1750	62.10	0.52	14.60	4.75	0.07	1.82	3.75	4.09	2.40	0.24	5.25	
4	3347	1230	63.20	0.50	14.60	4.74	0.05	1.64	4.15	5.03	1.65	0.23	4.45	
11		377	55.86	0.55	16.88	4.76	0.05	0.94	4.81	4.07	3.95	0.11	4.99	

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Co PPM	Ni PPM	Cr PPM	Mn PPM	Cd PPM	As PPM	Pi PPM	Fe PCT	NOTES
5	2310	610	29	13	37	2	16	30	591	675	<0.5	1.6	<2	2.3
3	2340	5930	35	18	71	2	19	31	516	496	<0.5	1.8	<2	3.0
7	2349	1800	23	14	69	6	15	31	509	591	<0.5	0.9	<2	2.7
10	2360	11980	119	25	55	2	27	42	528	630	<0.5	2.0	<2	4.3
8	2364	1740	10	17	49	2	18	23	420	465	<0.5	0.9	<2	3.0
9	2375	3045	45	26	53	9	19	29	415	753	<0.5	2.0	<2	3.1
1	3006	NIL	24	18	63	1	18	30	676	573	<0.5	0.6	<2	2.9
2	3019	70	30	20	79	<1	18	25	41	554	<0.5	0.9	<2	3.2
6	3077	1750	30	15	44	1	14	27	312	493	<0.5	0.9	<2	2.6
4	3347	1230	22	11	51	2	14	24	312	511	<0.5	1.0	3	2.1
11		377												

SAMPLE NUMBER	ELEMENT UNITS	V PPM	As PPM	Te PPM	U PPM	W PPM	Sb PPM	Se PPM	Sn PPM	NOTES
2310	610	106	<5	<3	<2	36	<2	<5	<1	
2340	5930	96	<5	3	<2	10	<2	<5	2	
2349	1800	96	<5	<3	<2	24	<2	<5	<1	
2360	11180	128	16	3	<2	28	<2	<5	44	
2364	1740	117	11	<3	<2	12	<2	<5	<1	
2375	3045	110	8	6	<2	28	<2	<5	2	
3006	NIL	102	<5	<3	<2	2	<2	<5	8	
3019	70	75	8	5	<2	6	<2	<5	18	
3077	1750	82	12	<3	<2	20	<2	<5	<1	
3347	1230	81	<5	<3	<2	16	<2	<5	<1	



LEGEND

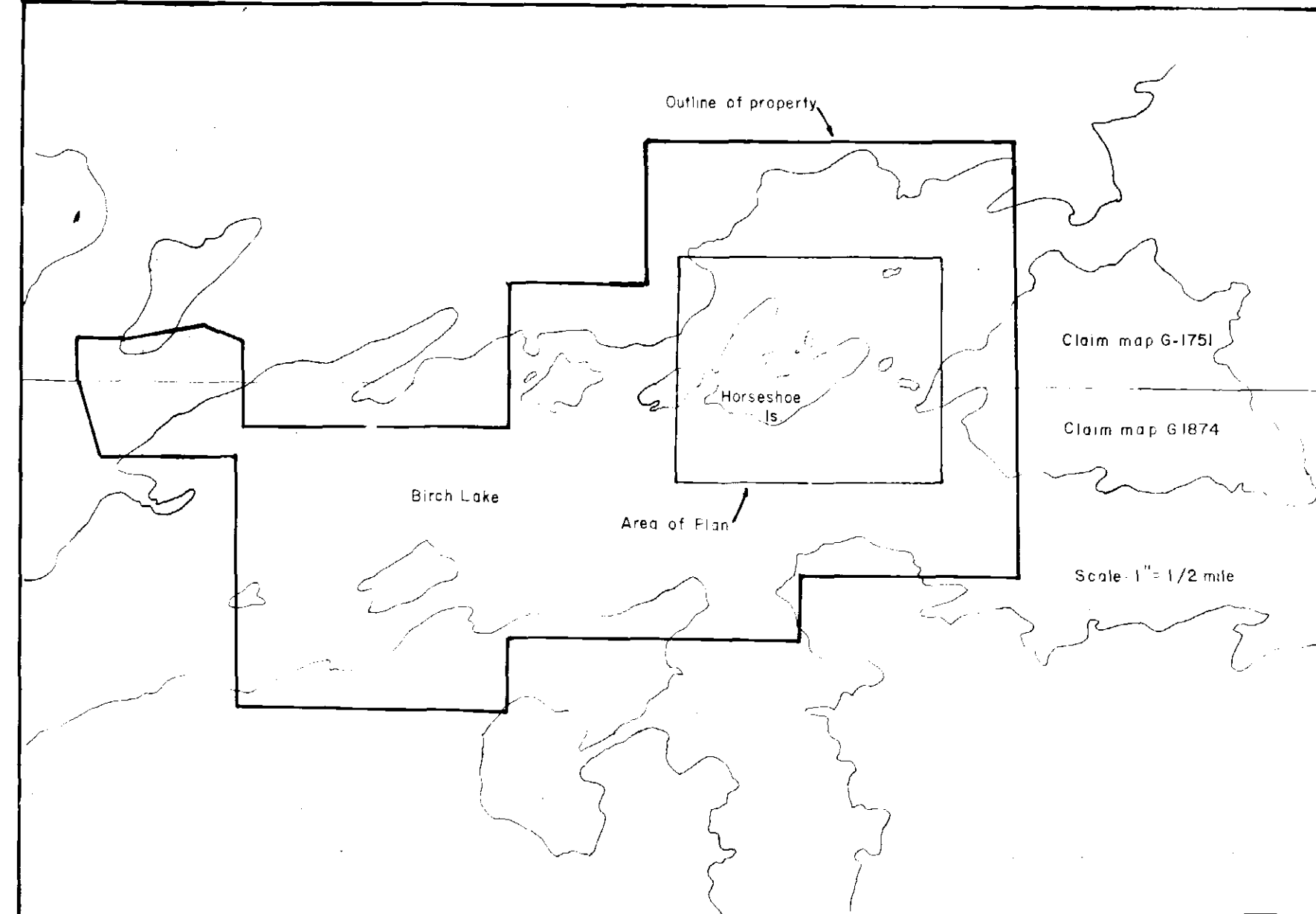
5	Granite	X	These units do not appear on the plan
4	Gneiss		
3	Mylonitic and deformed Gneiss		
2	Felsic porphyry		
1	Andesite		
	Greywacke		
	Comglomerate		
	Felsic volcanic flow		
	Felsic volcanic tuff		
	Felsic volcanic lapilli		
	Felsic volcanic breccia		
	Intermediate volcanic flow		
	Intermediate volcanic tuff		
	Intermediate volcanic lapilli		
	Intermediate volcanic breccia		
	Mafic volcanic flow		
	Mafic volcanic tuff		
	Mafic volcanic lapilli		
	Mafic volcanic breccia		

SYMBOLS

schistosity	ch	chlorite alteration
bedding	ch phnc	2-d fragments with chlorite (chnc) chnc
contact-defined, assumed	J883-C1	sample number (1983)
fault	mt	magnetite
elt str. Nite location	psb	parts per million Au
area of outcrop	py	pyrite
small outcrop, sample location	qv	quartz vein
fracture	sh'd	sheared
	sil	silicification

ABBREVIATIONS

ch	chlorite alteration
ch phnc	2-d fragments with chlorite (chnc) chnc
J883-C1	sample number (1983)
mt	magnetite
psb	parts per million Au
py	pyrite
qv	quartz vein
sh'd	sheared
sil	silicification



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Project 813 Horseshoe Island

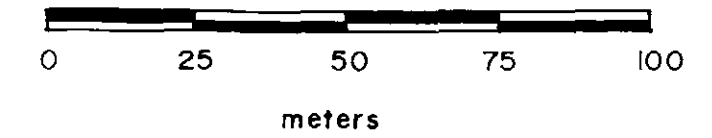
Detailed Geology of Horseshoe Island

Birch Lake Area, Northwestern Ontario

Drawn by: JB Scale: 1:1250 Date: Sept. 1983

Approved by: JB NTS 52N8-NW PLAN 1

DM 82-191 63-4241



SECTION 13 + 00 E

Resistivity (ohm-meters)

-50000

-20000

-10000

-5000

-2000

-1000

Chargeability (Msec)

30

800

700

600

500

400

20

10

0

Total Magnetic Field (Gammas)

63000

62000

61000

60000

800

700

600

500

400

DDH HI 83 02

DDH HI 83 01

181.9 m

197.5

238.2

248 m.

189.4 m

243 m.

Intermediate Tuffs
Greywacke

0 10 20 30 40 50
meters

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Horseshoe Island Project

Diamond Drill Section and Geophysical Profile

Sec 13+00 E

March 1983

Scale 1:1000

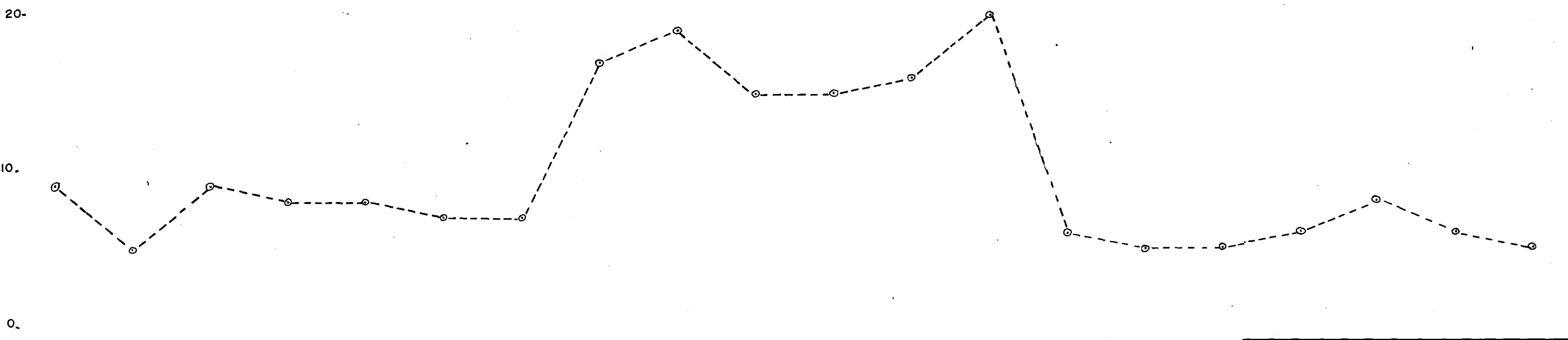
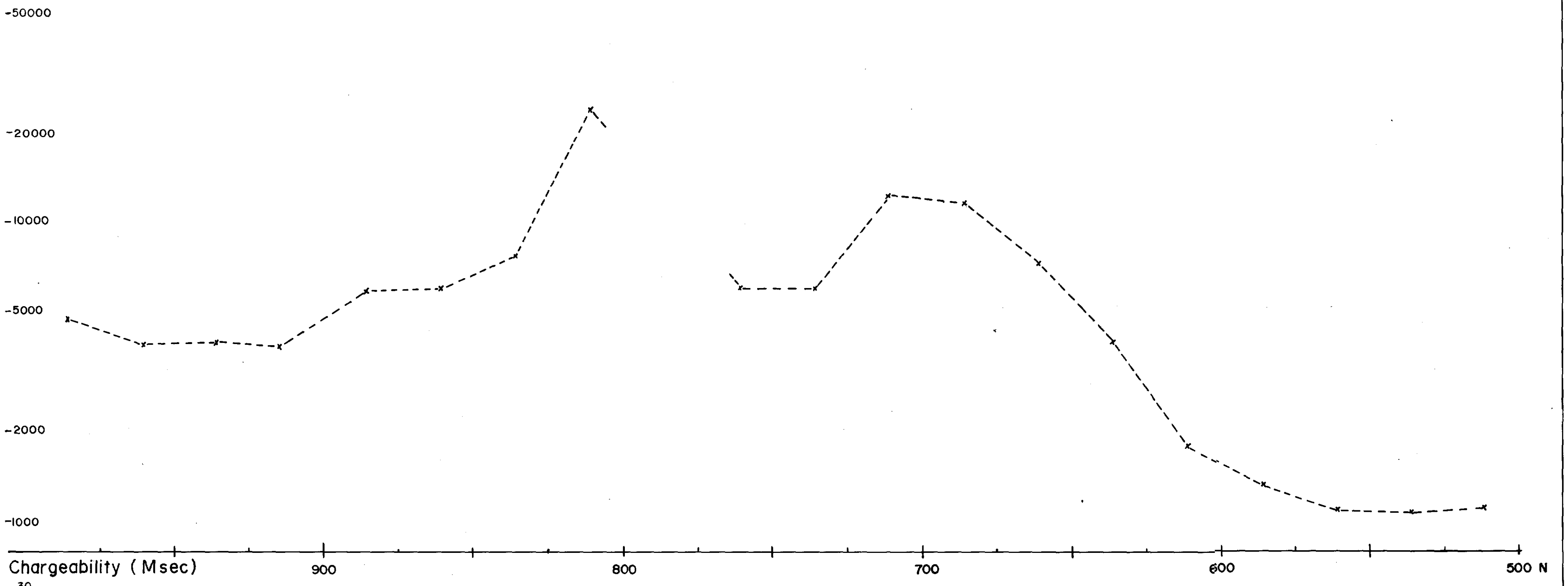
Plan 2

J. Brisco

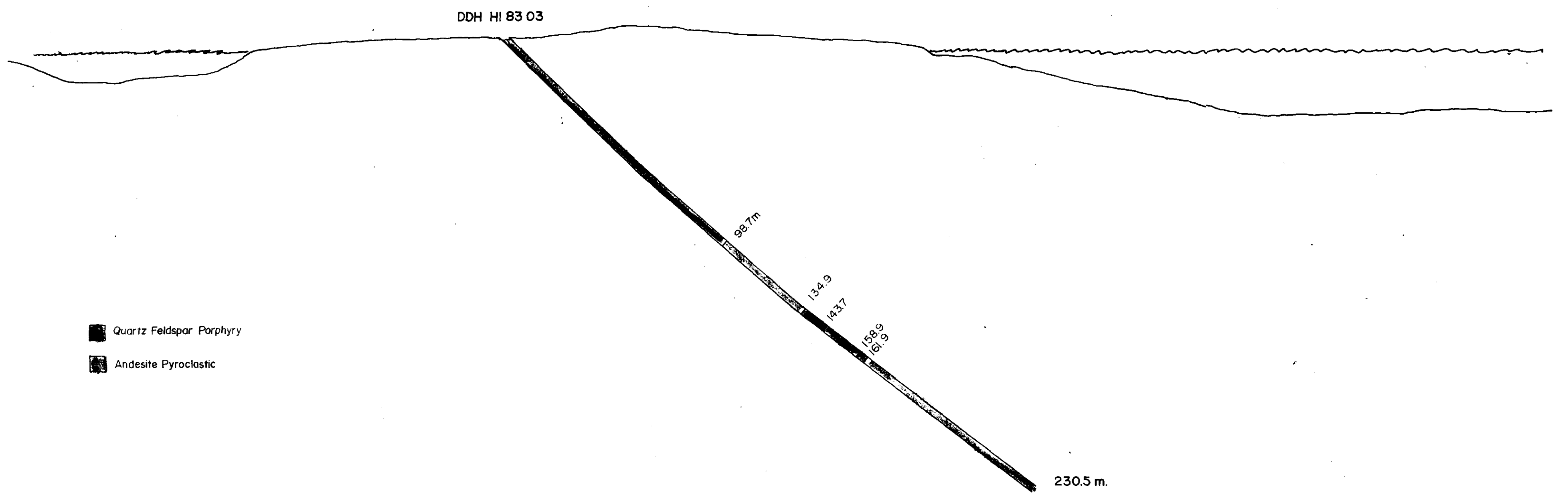
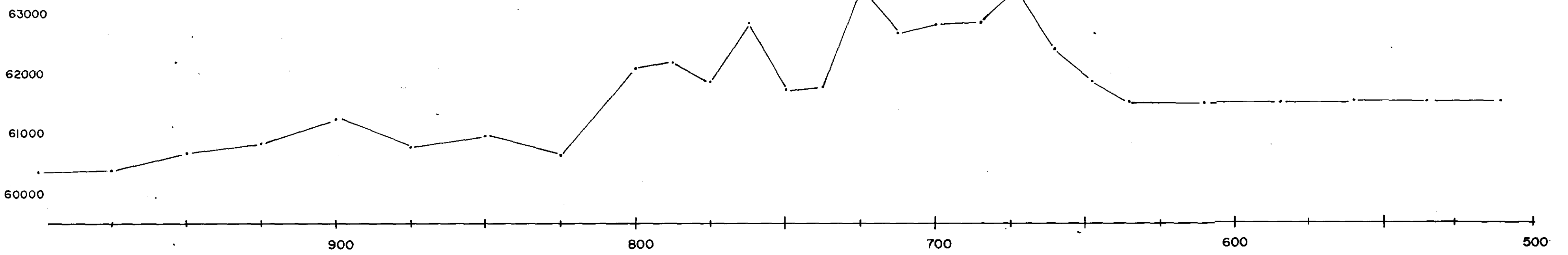


SECTION 18+00 E

Resistivity (ohm-meters)



Total Magnetic Field (Gammas)



0 10 20 30 40 50
meters

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Horseshoe Island Project

Diamond Drill Section and Geophysical Profile

Sec 18+00 E

March 1983

Scale: 1:1000

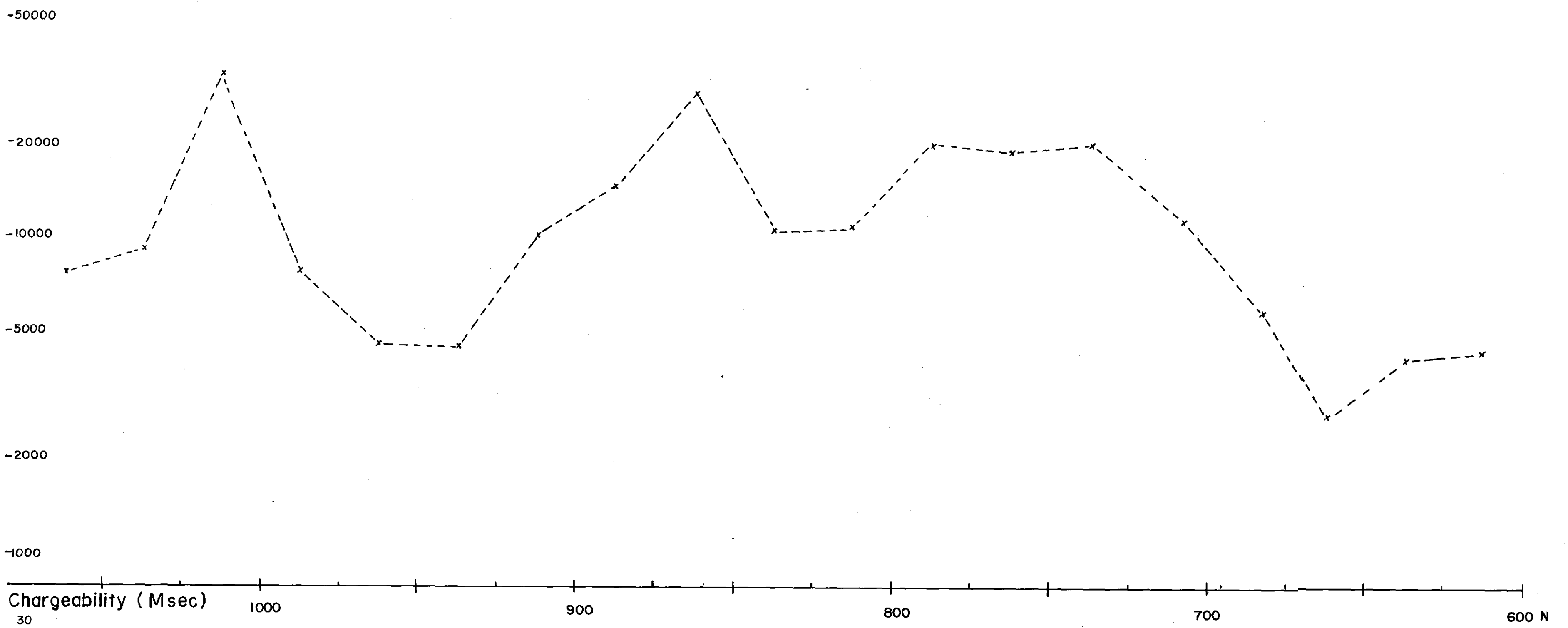
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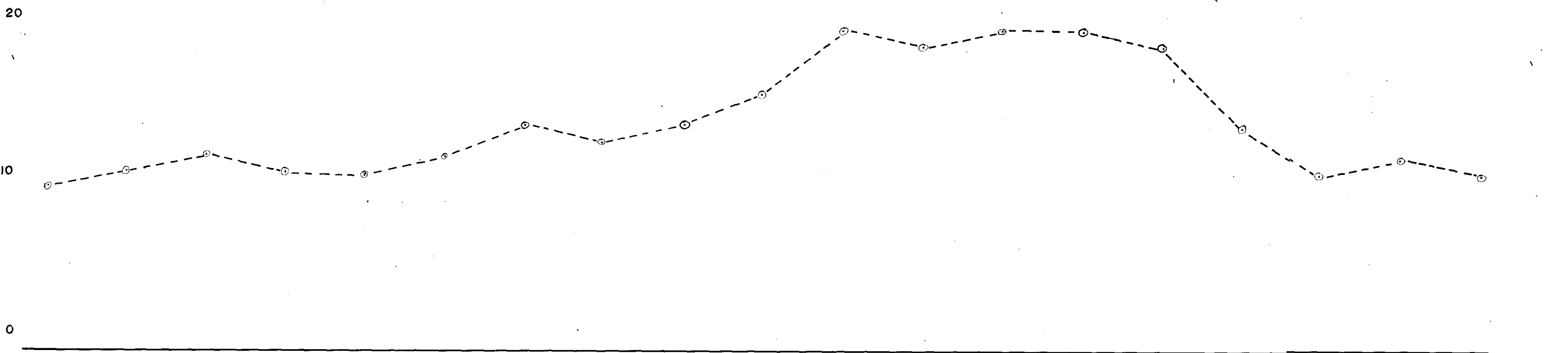
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SECTION 20 + 00 E

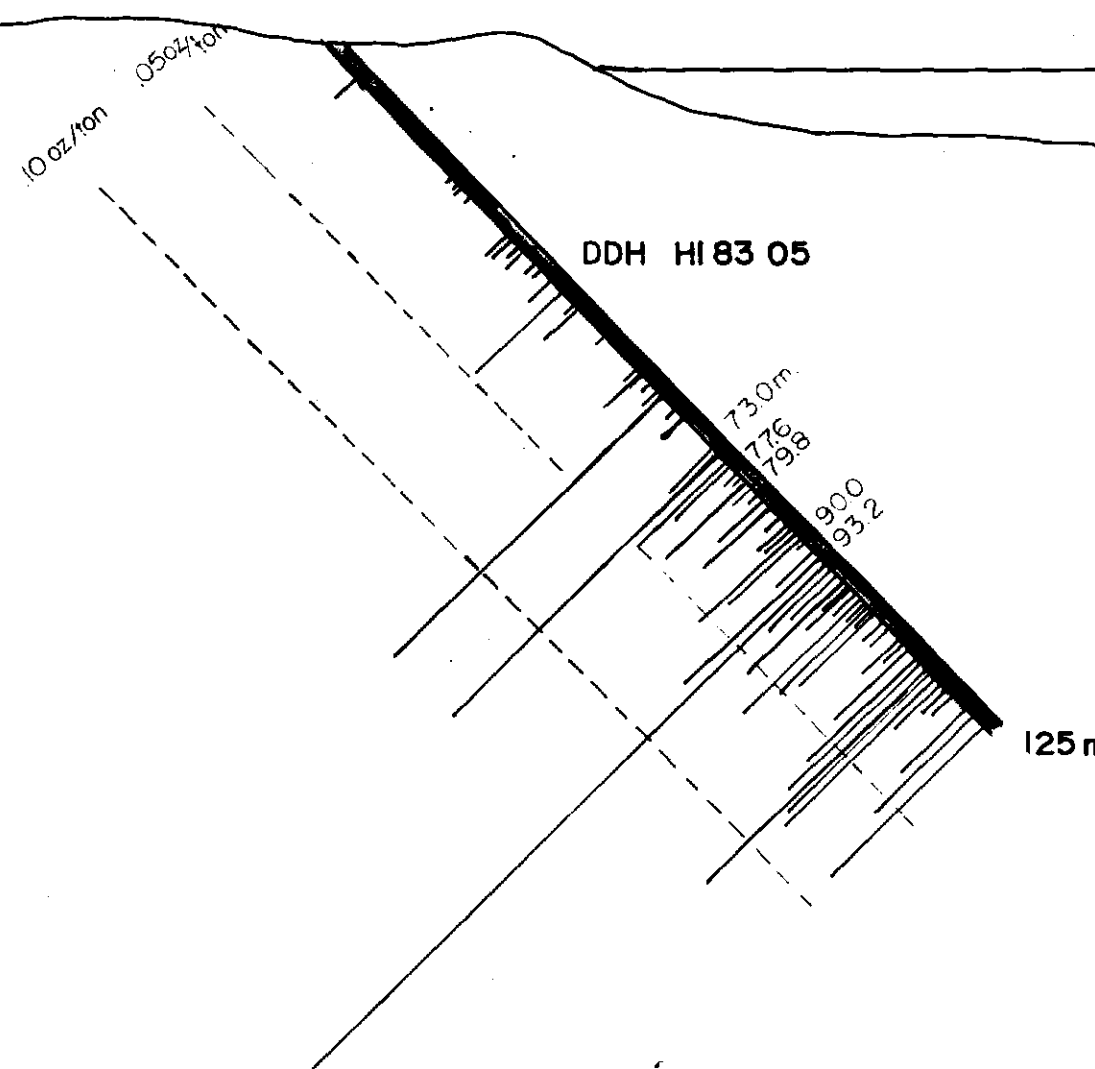
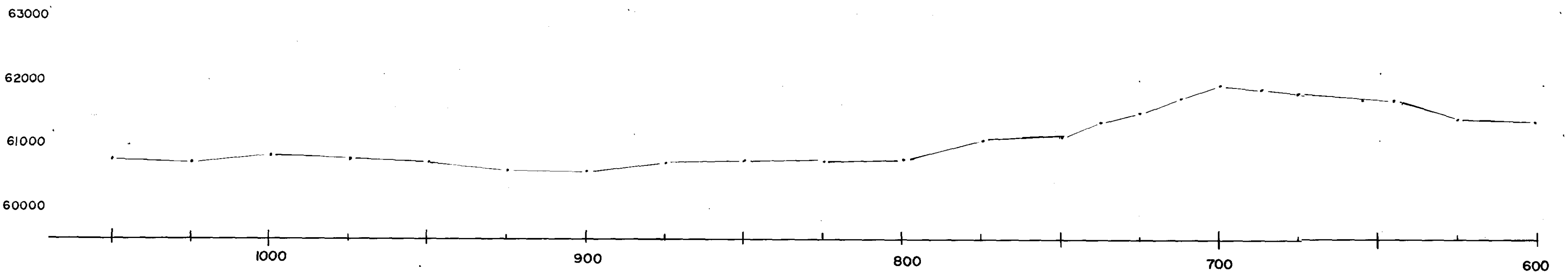
Resistivity (ohm-meters)



Chargeability (Msec)



Total Magnetic Field (Gammas)



- Altered Granodiorite (Chloritized)
- Highly Altered and Deformed Granodiorite

0 10 20 30 40 50 meters

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Diamond Drill Section and Geophysical Profile

Sec 20 + 00 E

March 1983

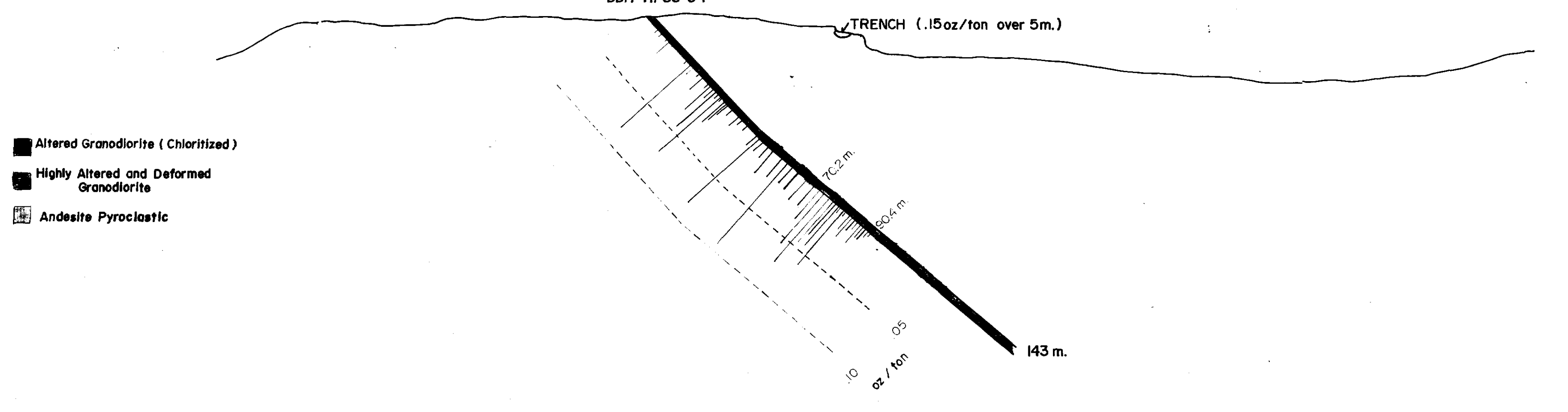
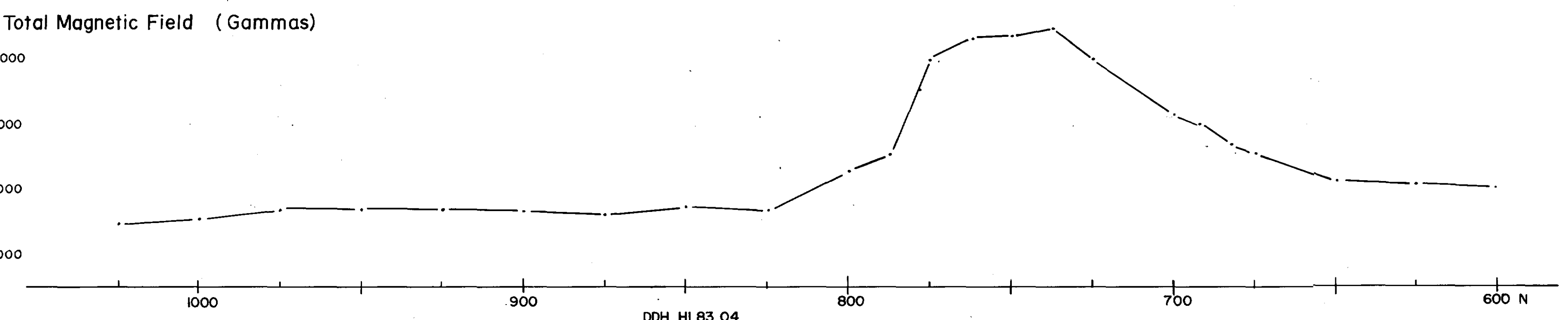
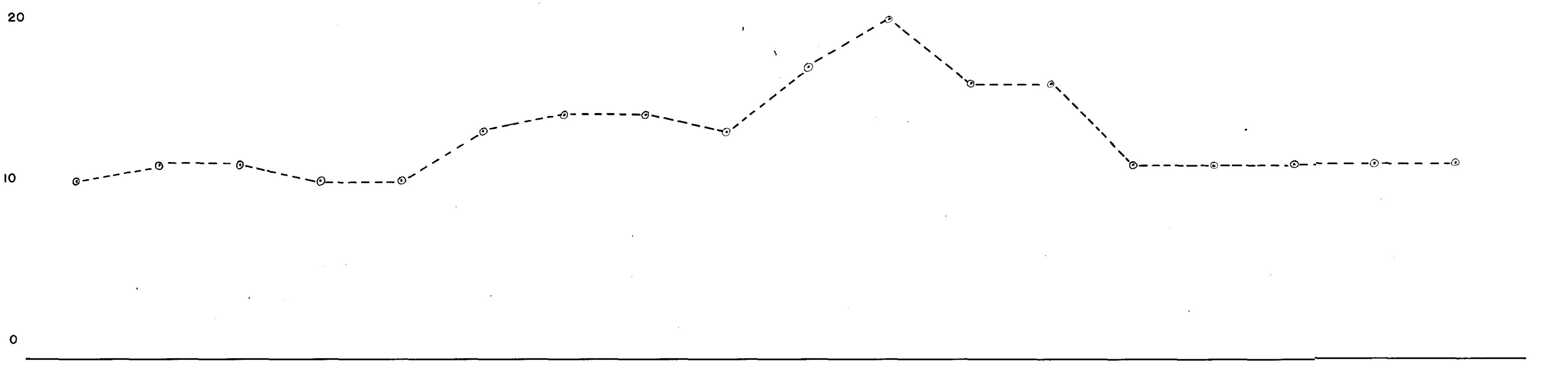
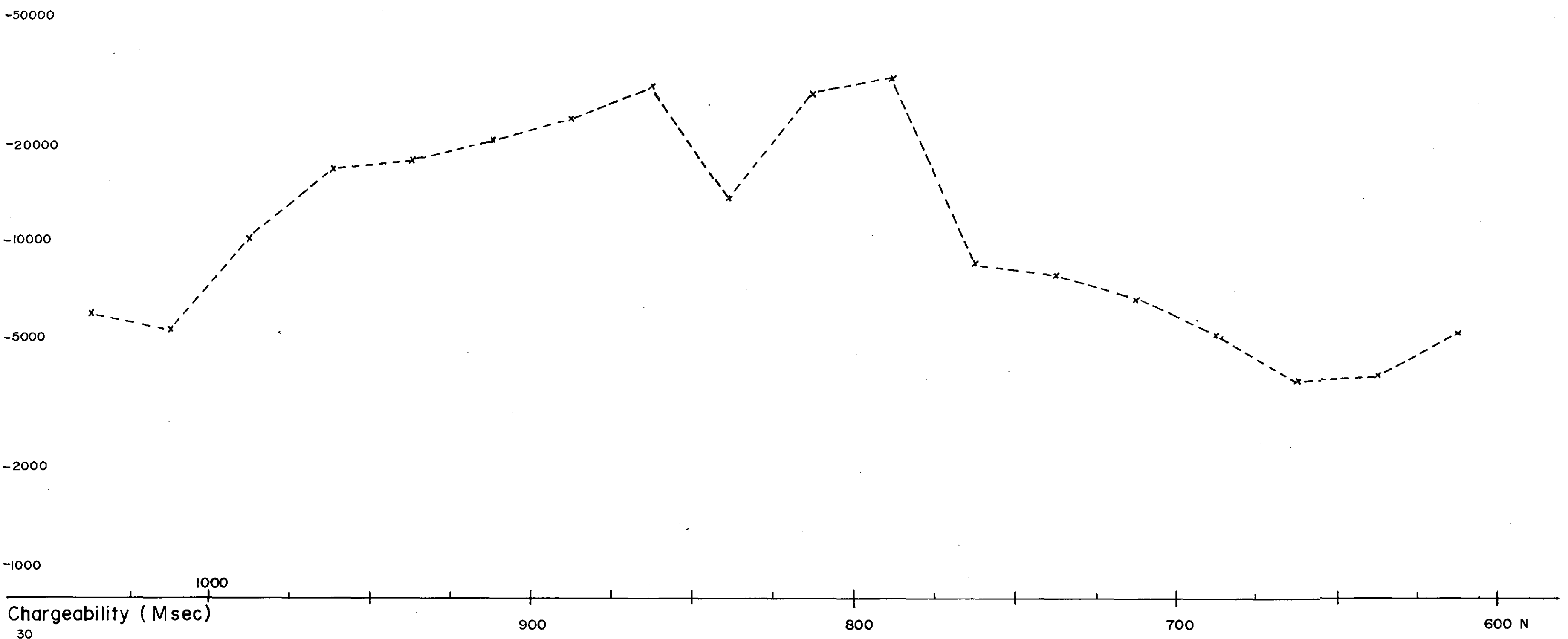
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Plan 4

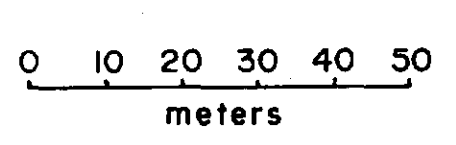


SECTION 21+00 E

Resistivity (ohm-meters)



- Altered Granodiorite (Chloritized)
- Highly Altered and Deformed Granodiorite
- Andesite Pyroclastic



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Horseshoe Island Project

Diamond Drill Section and Geophysical Profile

Sec 21+00E

March 1983 Scale: 1:1000

PLAN 5

J. Brisco