

GHS

Geochemical Services Ltd.

87-496-16323

7/88

1986 EXPLORATION REPORT

H&H CLAIM GROUP

OLIVINE MOUNTAIN, TULAMEEN AREA
SIMILKAMEEN MINING DIVISION
(NTS: 92H/10)

LAT. 49°31'N LONG. 120°52'W

Owned and Operated by:

North American Platinum Ltd.
615 Lillooet Street
Vancouver, B.C.

Report Written by:

John Gravel, M.Sc.A.

January 7, 1987

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,323

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Summary

North American Platinum holds title to 19 contiguous lode claim units in the Tulameen River area of the Similkameen Mining Division. The claims principally overly the Tulameen Ultramafic complex, a zoned "Alaskan type" ultramafic intrusion. A core of dunite forming the summit of Olivine Mountain, is asymmetrically ringed by successive layers of olivine clinopyroxenite, hornblende clinopyroxenite, and syenogabbro to syenodiorite. The complex intruded Nicola Group metasediments and metavolcanics.

A geochemical program was carried out by GHS Geochemical Services Ltd. on October 6th to 12th, 1986. A total of 318 samples were collected in a region of anomalous platinum and gold. Samples were fire assayed for gold, platinum and palladium as well as ICP spectrometer analysed for 30 other elements.

Anomalous high levels of gold (up to 288 ppb) and platinum (up to 355 ppb) were encountered in rock and soil. Three targets having potential of economic mineralization have been defined;

- 1) a chromite rich zone having anomalous platinum concentration found in clinopyroxenite;
- 2) a zone of deformation along the Tulameen Ultramafic Complex/Nicola Group contact having anomalous levels of platinum and palladium in serpentinized clinopyroxenite, and gold-copper mineralization in quartz-carbonate veins hosted by the Nicola rocks; and
- 3) an inferred sulfide zone with gold-platinum values found in or adjacent to the above described deformation zone.

Further work is warranted on these targets. The source of gold-copper anomalies down slope of the deformation zone should be clarified and the soil grid should be expanded to cover the entire Claim Group.


John Gravel, M.Sc.A.

Recommendations

Priority is given to the defining of economic material in the three target zones.

Chromite rich pod: continued sampling of soils and rocks to pinpoint high grade zones, followed by backhoe trenching, mapping and sampling of bedrock.

Deformation zone: due to the present inaccessibility of known showings, a hand trenching and blasting program is recommended followed by mapping and sampling of the bedrock.

Sulfide zone: hand trenching and blasting followed by mapping and sampling is recommended.

A lower priority is given on defining the source of the gold-copper anomaly downslope of the deformation zone. Good accessibility will allow the trenching of this zone by backhoe. The remainder of the property should be geochemically sampled and mapped to define other potential zones of mineralization.


A program for 1987 is recommended at a total cost of \$80,000.

Estimated Cost of Recommendations

-	Completion of Road to Property	\$15,000
-	Labour, Room & Board	
	1 geologist & 3 assistants for 1 month	\$17,000
-	Rental of Vehicles	\$3,000
-	Stripping, blasting & trenching	
	backhoe @ \$80/hr & blasting for 50 hrs.	\$5,000
-	Analysis of Samples	\$15,000
-	Report Preparation	\$5,000
-	Contingencies	\$5,000
	Subtotal	\$65,000
-	Administration	\$15,000
	TOTAL	\$80,000

Should results of the 1987 program prove encouraging, a Phase II program entailing diamond drilling would be warranted.

Respectfully Submitted


John Gravel, M.Sc.A.

Introduction

The sharp increase in platinum prices since 1984 have spurred a heightened interest in platinum exploration. Western world demand in 1985 outstripped supply by 100,000 oz, (2,810,000 oz. vs. 2,740,000 oz.), a scenario that is forecasted to continue in the near future (Stockmarket; The Examiner, October 1986).

North American Platinum Ltd. holds title to the H&H claim Group consisting of 19 units in the Tulameen River area of British Columbia. The property overlies a portion of the Tulameen Ultramafic Complex, believed to be the lode source of the rich platinum placers found in and around the property.

A program comprising geological mapping, soil, stream and rock sampling was undertaken from October 6th to October 12th, 1986. Exploration was carried out by GHS Geochemical Services Ltd. involving J. Gravel, D. Morneau and J. Dykes. Efforts were concentrated along Hines Creek where previous surveys uncovered modestly anomalous levels of platinum and pathfinder elements. The following report summarizes the results of the 1986 and previous exploration programs and reviews known literature on the area.

Location, Access and Physiography

The H&H Claim Group lie on the northeastern flank of Mount Olivine approximately 10 kms. west of the town of Tulameen and 25 kms. northwest of Princeton (fig.1). The property is accessible via paved road from Princeton to Tulameen, from there a good gravel road follows the north bank of the Tulameen River to the property's northern boundary. At present a cable car suspended over the Tulameen river provides access to the main portion of the property.

The topography varies from moderately sloping, over most of the claim group, to precipitous along the Tulameen River and sections of Hines Creek. Elevation ranges from 850 metres (2800 ft. above sea level) along the Tulameen River to 1800 metres (5900 ft. a.s.l.) at the summit of Olivine Mountain. Thick (10 m.) outwash covers a terrace found along the lower 100 metres (500 ft.) of the property. Thin (typically <1 metre) locally derived glacial till or residual soil overlies the mid and upper slopes. A moderate climate sustains a mature forest comprising cedar, spruce, pine, birch and alders. The snowpack averages 1 to 2 metres and generally lasts until late May or early June.

Claim Status

North American Platinum holds 100% title to the H&H Claim group comprising 19 contiguous claim units in the Similkameen Mining Division of British Columbia (fig. 2). The boundary of the Claim Group was surveyed in October, 1986 by S. Buzikievich, a professional surveyor. Claim status of the H&H Claim Group prior to acceptance of this report is as follows:

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
H&H +	4	128	October 18, 1987
H&H +	8	265	August 29, 1987
Eastside +	2	1709	September 9, 1987
Eastside 3*	1	541110	October 15, 1987
Eastside 4*	1	541109	October 15, 1987
Westside *	1	1747	October 5, 1987
Westside *	1	1748	October 5, 1987
Westside *	1	1749	October 5, 1987

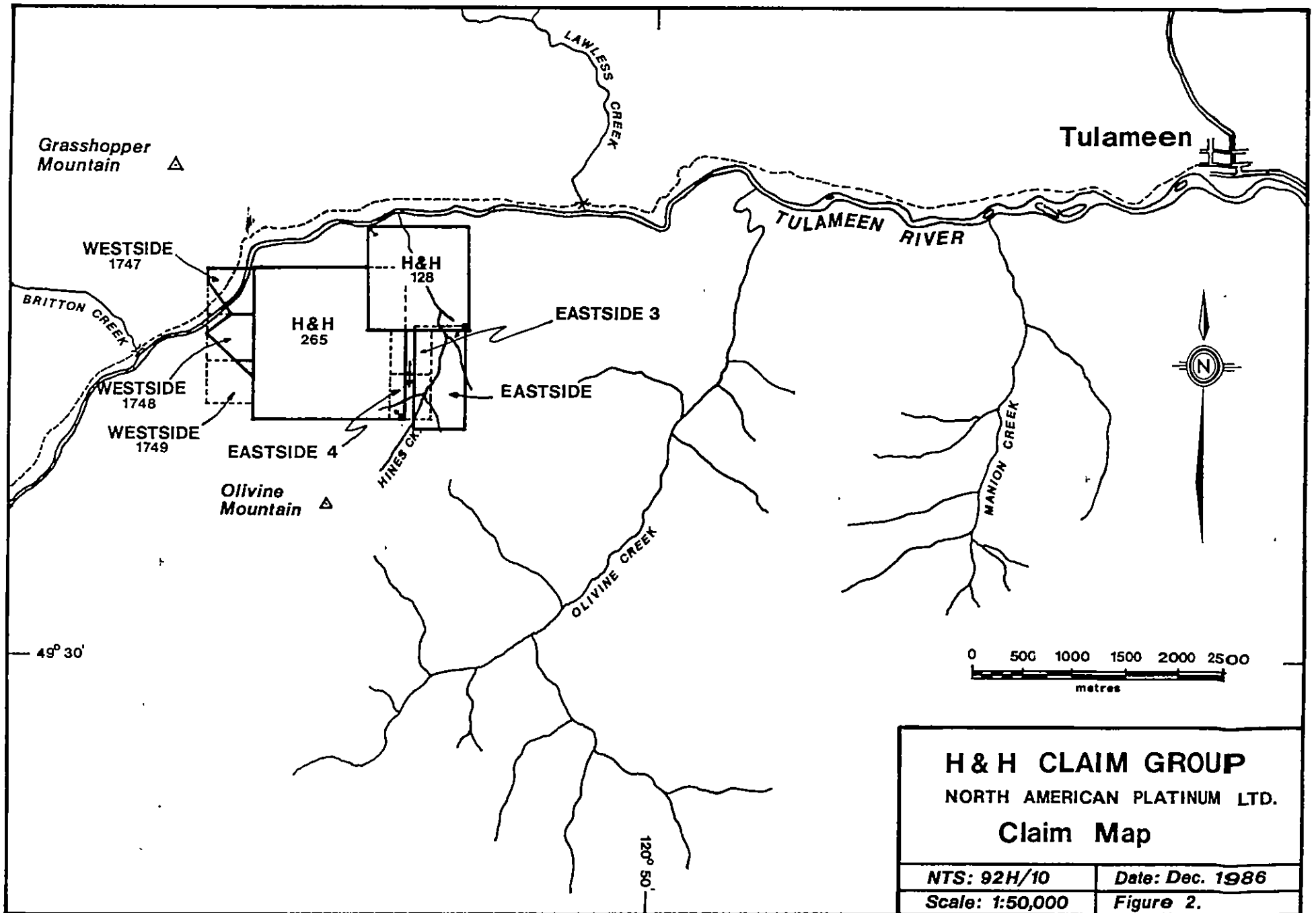
+ Modified Mineral Claim

* 2 post claim

History

The Tulameen area is one of British Columbia's oldest placer camps having been discovered prior to 1885. In 1891 the camp was recognized as an important producer of platinum. Recorded gold production from the camp from 1886 to 1941 is 37,422 ounces of gold (Holland, 1950). Platinum production is not well documented but has been estimated by O'Neill and Gunning (1934) at about 20,000 ounces. Other economic minerals found in the area include diamonds, copper, magnetite, chromite, molybdenite, asbestos, coal and clay.

The geology and placer deposits of the area have been studied by numerous private and government workers such as Law (circa 1900), Camsell (1912, 1913 and 1919), Poitevin (1924), O'Neill and Gunning (1934), Rice (1948), Holland (1950), Ruckmick (1956), Eastwood (1959), Steiner (1960), Findlay, (1969) and most recently by St. Louis (1986). Examination of literature has shown little, if any, systematic exploration has been carried out by the industry for lode platinum deposits in the Tulameen Ultramafic Complex.



H & H CLAIM GROUP NORTH AMERICAN PLATINUM LTD. Claim Map	
NTS: 92H/10	Date: Dec. 1986
Scale: 1:50,000	Figure 2.

Geology

Regional Geology

The H&H Claim group lies in the Princeton Map Sheet (fig. 3) mapped by Rice (1947). The area is underlain by metasedimentary and metamorphic schists of the upper Triassic Nicola Group that have been intruded by syenodioritic to ultramafic rocks of the Tulameen complex. According to Findlay (1969), Nicola rocks of the Tulameen area are dominantly albite-epidote-amphibole schists and calcareous greenschists derived from andesitic to basaltic flows. Metasediments, including argillaceous quartzites, quartz-mica-plagioclase schists and crystalline limestone bands, are subordinate. Other intrusions in the area include the Eagle Mountain granodiorite (a member of the Coast Mountain Complex, unit 3) and the Copper Mountain intrusions (unit 4). The latter are indicated by Findlay to be related to the gabbroic phases of the TUC. Tertiary sedimentary rocks (units 6 and 7) outcrop to the east and southeast of the Complex.

Local Geology

The H&H Claim Group overlays the northeastern margin of the Tulameen Ultramafic Complex (fig. 4). The TUC is an "Alaskan-type" ultramafic complex as described by Findlay (1969);

"... the ultramafic units form an elongate body that dips steeply to the west and is bordered by, and partly overlain by gabbroic rocks. Gabbroic and ultramafic rocks occur in about equal amounts, but their distribution is asymmetric, with the former mainly restricted to the eastern and southeastern parts of the complex. The total exposure area of the complex is about 22 sq. mi. (57 km²).

Ultramafic rocks outcrop in three areas within the complex...

The principal ultramafic rocks are dunite, olivine clinopyroxenite, and hornblende clinopyroxenite. Peridotite, clinopyroxenite, hornblende-olivine clinopyroxenite, and hornblendite are subordinate and generally not mappable units. A minor feldspathic rock - mafic pegmatite - is probably a late-differentiate of the ultramafic suite.

In the northern part of the complex, the ultramafic units display the characteristic zonal pattern of similar intrusions in Alaska and U.S.S.R., comprising a dunite core surrounded by shells of olivine clinopyroxenite and hornblende clinopyroxenite. South of Olivine Mountain, where dunite is not

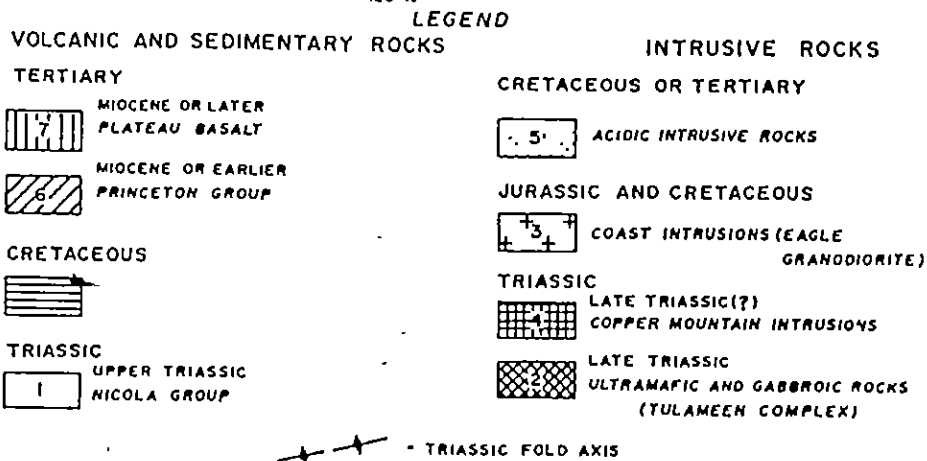
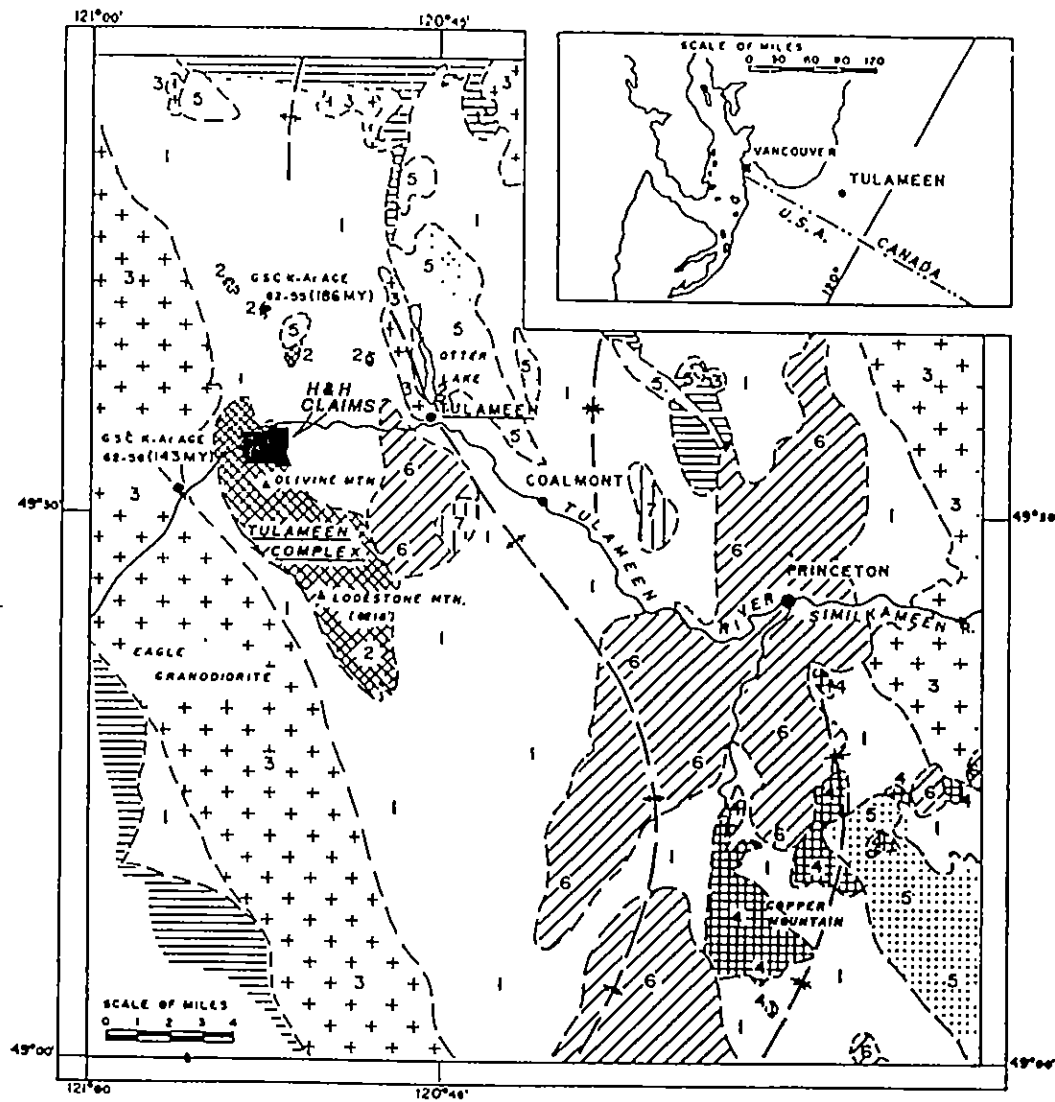


Figure 3. Regional geology of the Tulameen area.

exposed, the two main ultramafic zones contain a median zone of olivine clinopyroxenite bounded by hornblende clinopyroxenite. In the Tanglewood Hill area, hornblende clinopyroxenite is the principal ultramafic type exposed.

The principal gabbroic types are syenogabbro and syenodiorite with the former most abundant. In addition to forming the large mass lying to the east of Lodestone Mountain, gabbroic rocks occur elsewhere as smaller bands and lenses notably south of Olivine Mountain along the west margin of the complex, on the northeast flank of Olivine Mountain, and on Lodestone Mountain."

Outcrops are abundant on the summit of Olivine Mountain and along the bed of the Tulameen River, exposures are less common along Hines Creek and rare or non-existent on the gentler slopes. A core of dunitite (1a in Figure 5) forms Olivine Mountain in the southwest corner of the claim group. Alternating bands of Olivine Clinopyroxenite (1b), Hornblende Clinopyroxenite (1c) and syenodiorite to syenogabbro (1d) having a southeast to northwest trend underlies most of the claim group. Nicola Group rocks are found in the northeastern corner of the property.

Mineralization

Placer Deposits

The Tulameen River area is well known for its placer gold and platinum deposits. The placer deposits were described by Iaw (circa 1900), Camsell (1913), O'Neill and Gunning (1934) and Raicevic and Cabri (1976). Steiner (1961), in studying a placer deposit on the Tulameen River near Lawless Creek immediately east of the Claim Group, states on page 4 of his report an average grade of 14.6 oz. platinum and 6.9 oz. gold per ton of heavy mineral concentrate.

The gold and platinoid minerals in the camp are accompanied by chromite, magnetite, and in places, native copper. The platinoid minerals, magnetite and chromite are derived by erosion of the ultramafic rocks of the Tulameen Complex. The gold is thought to have originated from gold bearing quartz veins in both the Tulameen Complex and Nicola group rock. According to Raicevic and Cabri:

"The gold and platinum of the placers must have been released from the parent rocks in preglacial time and deposited in preglacial placers, because, since glacial times, although canyons have been cut in the floors of some of the valleys, erosion has not

succeeded in removing the mantle of glacial debris over most of the areas much less eroding any quantity of the underlying rock. Some dissipation of preglacial placers must have occurred, as well as further concentration during postglacial times by reworked deposits in the present river beds. The ice-sheet also filled up some valleys with detritus so that, in some cases, the streams did not re-occupy their original channels after the retreat of the ice. There is, therefore, the possibility of the occurrence of buried placers deposits."

Lode Deposits

Platinum: the ultramafic complex is undoubtedly the source of platinoid minerals in the Tulameen placer deposits. The distribution can be highly erratic but overall a strong correlation exists between platinum concentration, chromite content and rock type. St. Louis (1986) assayed over 300 rocks, the results are given in Table 1.

The most promising rock units based on studies by Findlay (1969) and St. Louis (1986) are dunites, serpentinites and olivine clinopyroxenites as these units are most likely to contain chromite rich pods that can accumulate platinum in economic concentrations. A chromite rich sample collected by B. Holliday (see Appendix IV) from the H&H claim group assayed 0.160 oz./t Pt (\$108 Cdn./ton at \$675 Cdn./oz.) and 32.1% Cr₂O₃.

A second less studied but potentially lucrative target would be sulfide rich veins and lenses in the complex. Typically, platinum group elements are mined from sulfide rich horizons in ultramafic complexes. Accumulation of PGE by sulfides can produce enrichments ranging from 3 ppm in Sudbury type ore to 2,500 ppm in Merensky Reef (Bushveld Complex) type ore (Gravel, 1984).

Gold: background levels of gold vary greatly from rock unit to rock unit. St. Louis (1986) measured the highest concentrations in the syenodiorites and syenogabbros having an average content of 40 ppb. It is highly probable that hydrothermal events could scavenge gold from these units and precipitate economic enrichments in quartz-carbonate veins. Chisholm (1982) in a private report for Tarnation Mining Ltd. reports that gold values have been obtained from the property.

Table 1. Mean Pt and Au contents \pm standard error on the mean of lithologies present in the Tulameen Complex

<u>Lithology</u>	<u>Pt (ppb)</u>	<u>Au (ppb)</u>
Dunite and Peridotite	48 \pm 12 (17)	0.29 \pm 0.05 (19)
Serpentinite and Serpentinite-Dunite	180 \pm 60 (19)	4.1 \pm 3.4 (20)
Dunite, peridotite, serpentinite and serpentinite-dunite	110 \pm 30 (37)	1.9 \pm 1.5 (39)
Olivine clinopyroxenite and clinopyroxenite	30 \pm 10 (5)	0.4 \pm 0.2 (8)
Hornblende clinopyroxenite and hornblendite	50 \pm 20 (4)	3.4 \pm 2.9 (4)
Magnetite rich	40 \pm 10 (7)	0.5 \pm 0.3 (7)
Syenogabbro and syenodiorite	20 \pm 10 (5)	40 \pm 40 (8)
Sulfide rich	50 \pm 20 (5)	30 \pm 30 (8)
Chromite rich	3,410 \pm 2,220 (12)	8.2 \pm 5.4 (14)

Number of samples in each case is given in parenthesis.

Copper: copper concentrations are reported in the Olivine Mountain area. According to Camsell (1913) they appear to be confined to east-west zones of shearing although chalcopyrite is a primary mineral in places.

Chromite: chromite occurs near the outer borders of the peridotite and olivine pyroxenite phases of the Tulameen complex. It is a primary mineral and occurs as disseminated grains and locally as irregular veins or masses up to 10-15 centimeters in diameter.

Magnetite: magnetite in the Tulameen Complex was studied by Eastwood (1959) and Ruckmick (1956). Abundant magnetite is found in the pyroxenite phase and locally in the peridotite-dunite. Mapping by Ruckmick outlined a large area containing greater than 20% magnetite. Drilling by Imperial Metals on Lodestone Mountain and Tanglewoodhill has outlined 176.9 million tonnes grading 14.5% iron. Similar material may be present on the claim group.

Diamonds: Camsell (1913) reports the presence of diamonds, which are associated with chromite in the dunite. The diamonds are small and of industrial quality (borts) which break up on exposure to the atmosphere.

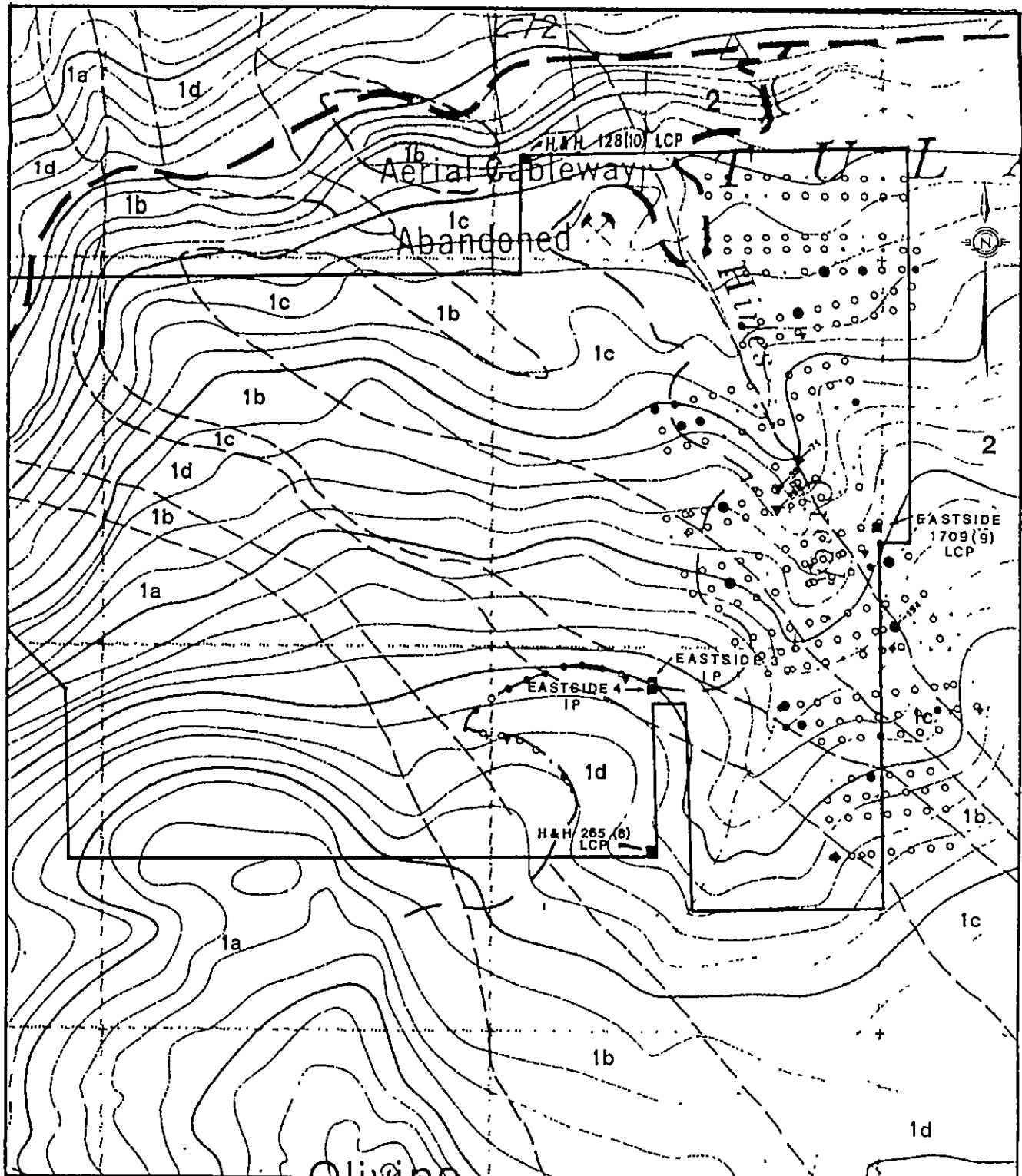
Geochemical Survey

A soil, silt and rock chip sampling program was conducted in the vicinity of Hines Creek from October 6th to 12th, 1986. A total of 318 samples were collected. Sampling concentrated on gold and platinum anomalies defined by a previous survey (Jones, 1983). Grid lines were established by compass and topofil chaining using the 1983 survey grid as a base. The ragged nature of the lines is a result of the highly magnetic nature of some bedrock units. A total of 318 samples were collected at 50 metre intervals on lines 50 metres apart. Sampling and analytical procedures are outlined in Appendix III.

Description of Results

Dot maps were computer generated for the elements; gold (fig. 6a), platinum (fig. 6b), palladium (fig. 6c), silver (fig. 6d), copper (fig. 6e), nickel (fig. 6f), chromium (fig. 6g), cobalt (fig. 6h), iron (fig. 6i), manganese (fig. 6j), magnesium (fig. 6k) and calcium (fig. 6l). Stated simply, each dot on a map represents a sample site, the size of the dot relates the concentration of the element in question in the sample collected at that site. A more detailed discussion of statistical and plotting procedures is given in Appendix III.

Anomaly patterns were compared between elements, a compilation was produced (fig. 7) that outlines multielement anomalous zones. Anomaly patterns from previous surveys was used



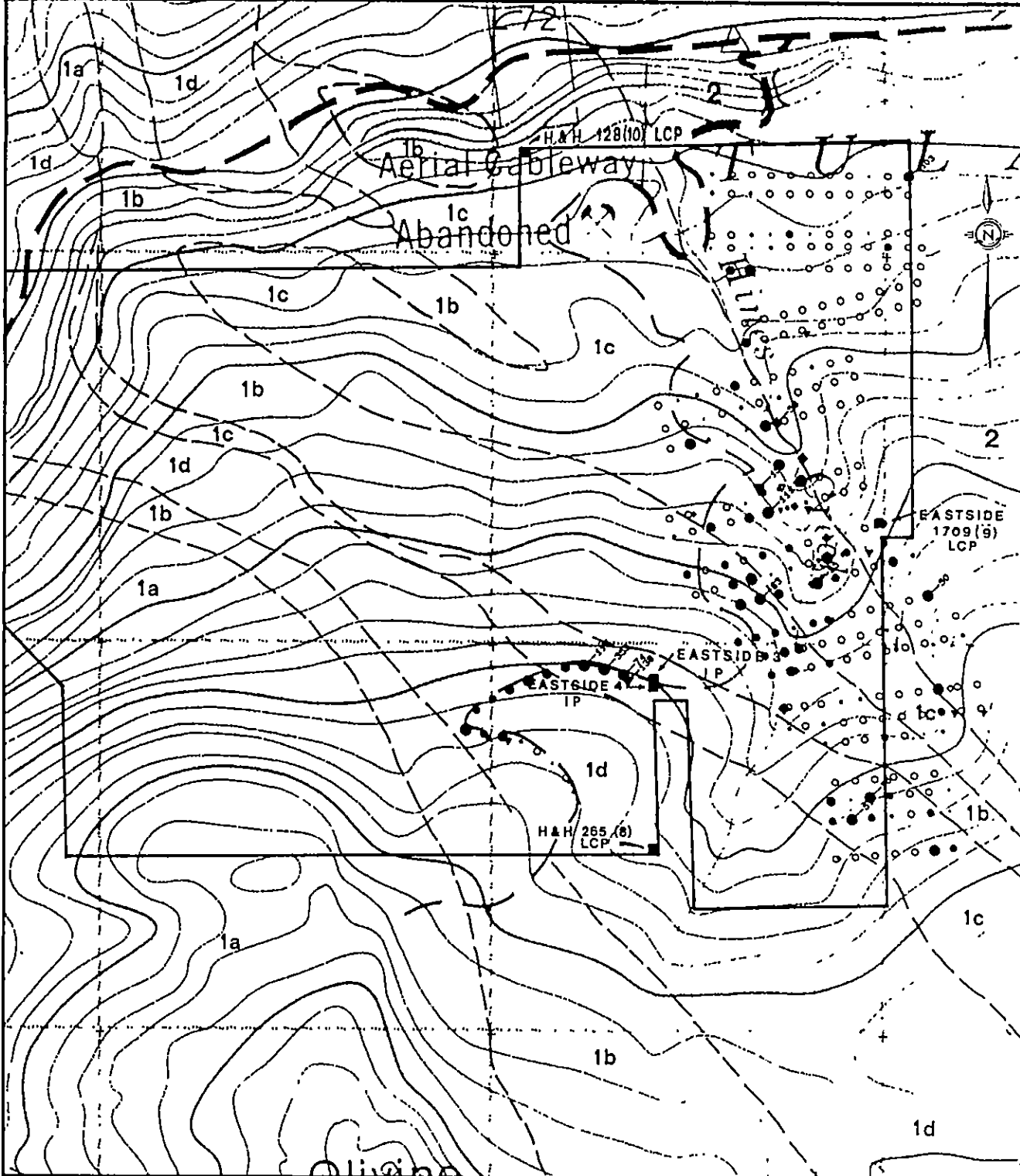
LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p>Bridge</p> <p>Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p>Elevation Contours 100 ft. Intervals</p> <p>Geological Contact</p> <p>Mineral Deposit</p> <p>Road</p> <p>Sample Site</p>	<p>SOIL</p> <p>● > 50</p> <p>● >30 TO 50</p> <p>● >20 TO 30</p> <p>● >15 TO 20</p> <p>● >10 TO 15</p> <p>● >5 TO 10</p> <p>○ 0 TO 5</p> <p>SILT</p> <p>◆ > 50</p> <p>◆ >30 TO 50</p> <p>◆ >20 TO 30</p> <p>◆ >15 TO 20</p> <p>◆ >10 TO 15</p> <p>◆ >5 TO 10</p> <p>○ 0 TO 5</p> <p>ROCK</p> <p>▼ > 50</p> <p>▼ >30 TO 50</p> <p>▼ >20 TO 30</p> <p>▼ >15 TO 20</p> <p>▼ >10 TO 15</p> <p>▼ >5 TO 10</p> <p>▼ 0 TO 5</p>
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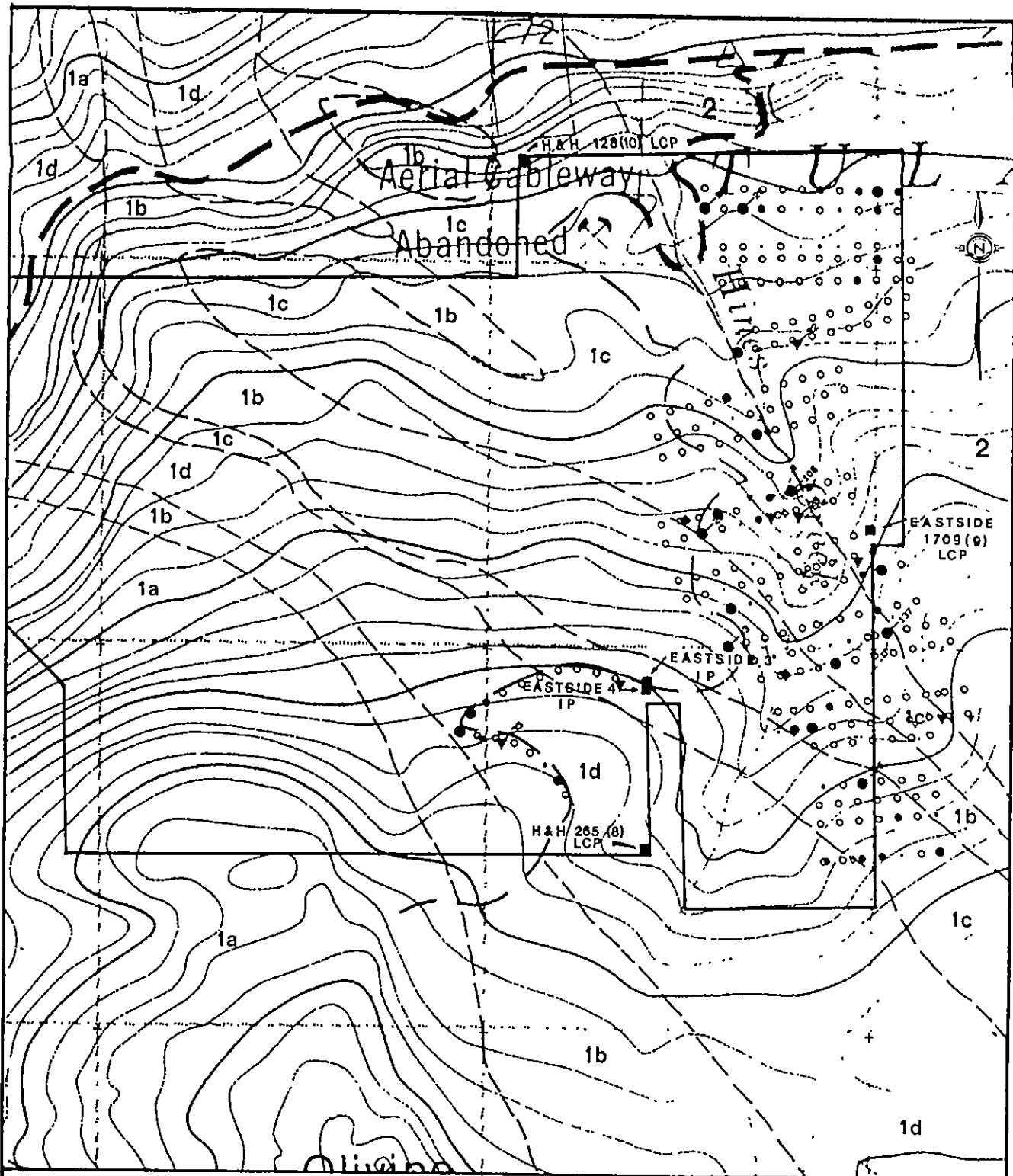
100 50 0 100 200
Meters

NORTH AMERICAN PLATINUM H&H CLAIMS 1986 GEOCHEMICAL SURVEY Gold (ppb)	
DATE 18 Dec 1986	PROJECT# 345
MAP: 92/H10	SCALE 1:15000
Fig. 6 #	



LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p>— Bridge</p> <p>└ Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p>— 3400 — Elevation Contours 100 ft. Intervals</p> <p>— Geological Contact</p> <p>⚡ Mineral Deposit</p> <p>— Road</p> <p>*650123 Sample Site</p>	<p>BHS Geochemics S27221 J.D.</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">SOIL</td> <td style="text-align: center;">SILT</td> <td style="text-align: center;">ROCK</td> </tr> <tr> <td style="text-align: center;"> <ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 </td> <td style="text-align: center;"> <ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 </td> <td style="text-align: center;"> <ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 </td> </tr> </table> <p style="text-align: center;">100 50 0 100 200 Scale in meters</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>NORTH AMERICAN PLATINUM H&H CLAIMS 1986 GEOCHEMICAL SURVEY Platinum (ppb)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: small;">DATE: 18 Dec 1986</td> <td style="font-size: small;">PROJECT#: 345</td> </tr> <tr> <td style="font-size: small;">MAP: 92/H10</td> <td style="font-size: small;">SCALE: ± 15000</td> </tr> </table> <p style="font-size: small;">Fig. 6 b</p> </div>	SOIL	SILT	ROCK	<ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 	<ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 	<ul style="list-style-type: none"> ● > 50 ● > 30 TO 50 ● > 20 TO 30 ● > 10 TO 20 ● > 5 TO 10 ● > 3 TO 5 ○ 0 TO 3 	DATE: 18 Dec 1986	PROJECT#: 345	MAP: 92/H10	SCALE: ± 15000
SOIL	SILT	ROCK										
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DATE: 18 Dec 1986	PROJECT#: 345											
MAP: 92/H10	SCALE: ± 15000											



LEGEND

Geology

- 1 TULAMEEN COMPLEX
 - 1a Dunite
 - 1b Olivine Clinopyroxenite
 - 1c Hornblende Clinopyroxenite
 - 1d Syenogabbro and Syenodiorite

- 2 NICOLA GROUP
 - Metasedimentary and Metavolcanic Rocks

Symbols

- Bridge
- Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)
- Elevation Contours 100 ft. Intervals
- Geological Contact
- Mineral Deposit
- Road
- Sample Site

SOIL

- > 20
- > 11 TO 20
- > 9 TO 11
- > 7 TO 9
- > 5 TO 7
- > 3 TO 5
- 0 TO 3

GHS

GEOCHEMICAL SERVICES LTD.

SILT

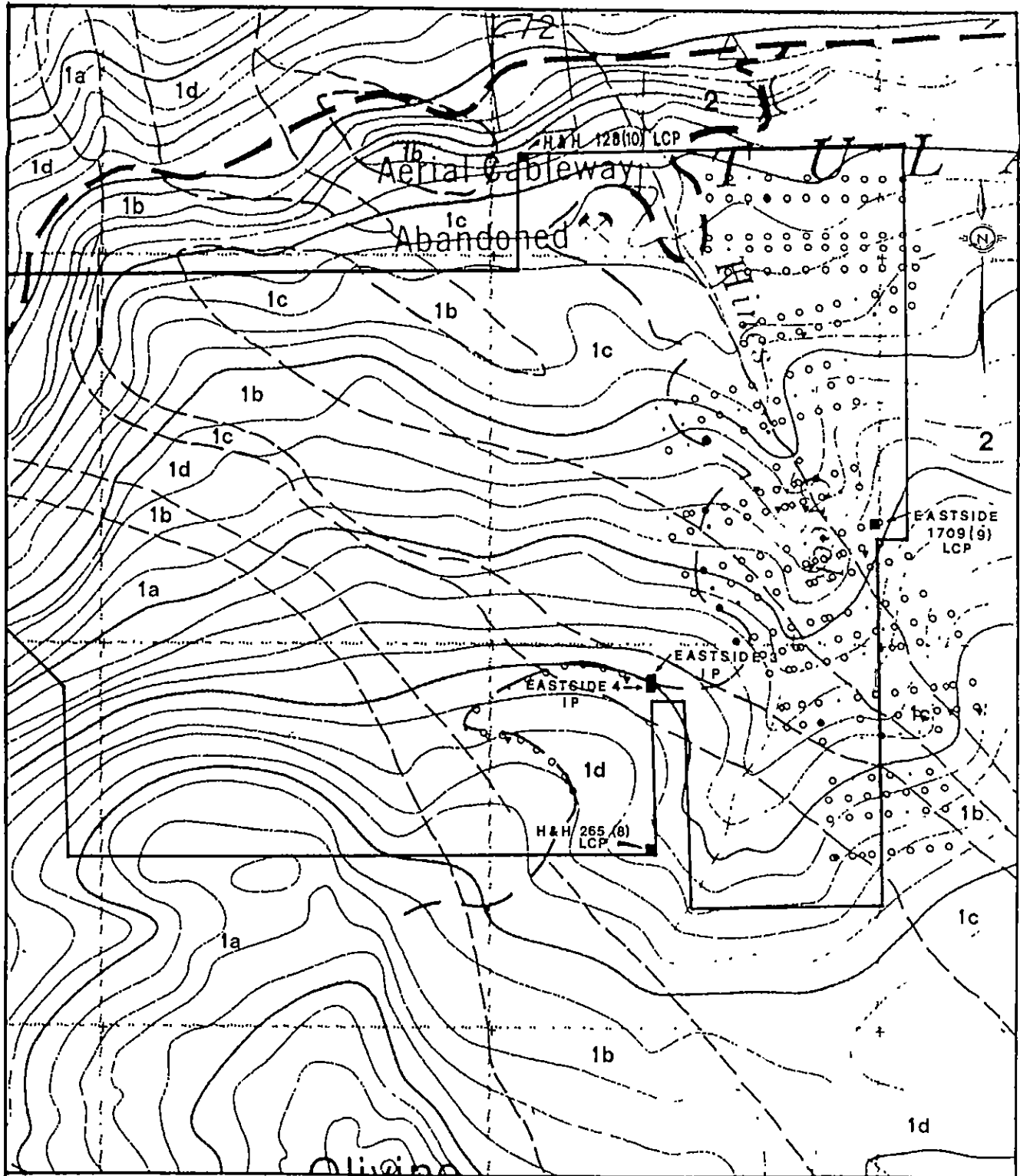
- > 20
- > 11 TO 20
- > 9 TO 11
- > 7 TO 9
- > 5 TO 7
- > 3 TO 5
- 0 TO 3

ROCK

- > 20
- > 11 TO 20
- > 9 TO 11
- > 7 TO 9
- > 5 TO 7
- > 3 TO 5
- 0 TO 3



NORTH AMERICAN PLATINUM H&H CLAIMS 1986 GEOCHEMICAL SURVEY Palladium (ppb)	
DATE: 18 Dec 1986	PROJECT: 345
MAP: 92/110	SCALE: 1:15000
Fig 6c	



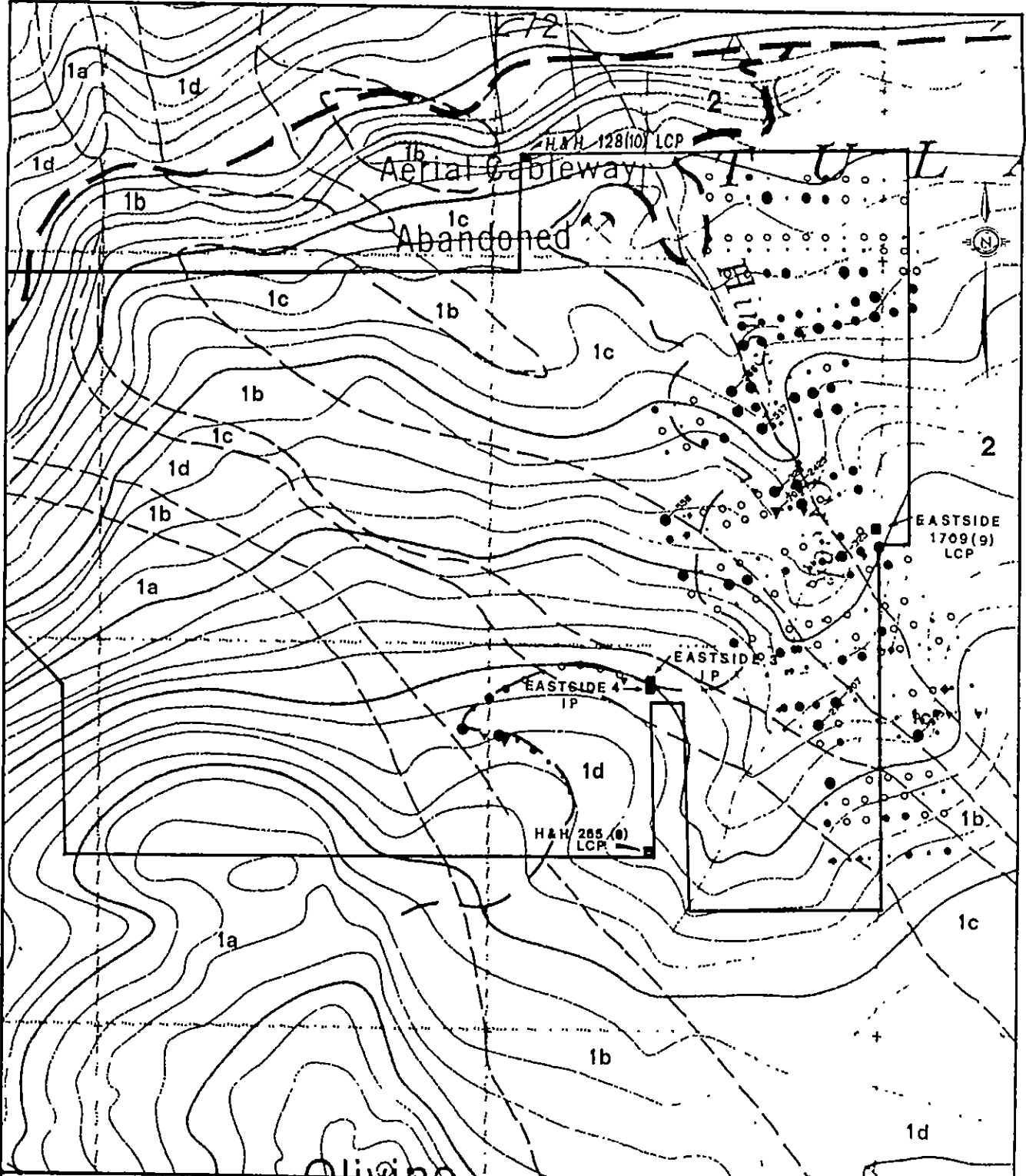
LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p>— Bridge</p> <p>└ Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p>— 3400 — Elevation Contours 100 ft. Intervals</p> <p>— Geological Contact</p> <p>⚡ Mineral Deposit</p> <p>— Road</p> <p>x650123 Sample Site</p>	<p style="text-align: center;">GHS Geometrics S27C25 10</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">SOIL</td> <td style="text-align: center;">SILT</td> <td style="text-align: center;">ROCK</td> </tr> <tr> <td style="text-align: center;"> <ul style="list-style-type: none"> ● > 1.5 ● > 1 TO 1.5 ● > .8 TO 1 ● > .6 TO .8 ● > .4 TO .6 ● > .2 TO .4 ○ 0 TO .2 </td> <td style="text-align: center;"> <ul style="list-style-type: none"> ◆ > 1.5 ◆ > 1 TO 1.5 ◆ > .8 TO 1 ◆ > .6 TO .8 ◆ > .4 TO .6 ◆ > .2 TO .4 ○ 0 TO .2 </td> <td style="text-align: center;"> <ul style="list-style-type: none"> ▼ > 1.5 ▼ > 1 TO 1.5 ▼ > .8 TO 1 ▼ > .6 TO .8 ▼ > .4 TO .6 ▼ > .2 TO .4 ○ 0 TO .2 </td> </tr> </table> <p style="text-align: center;">100 50 0 100 200 Scale in meters</p>	SOIL	SILT	ROCK	<ul style="list-style-type: none"> ● > 1.5 ● > 1 TO 1.5 ● > .8 TO 1 ● > .6 TO .8 ● > .4 TO .6 ● > .2 TO .4 ○ 0 TO .2 	<ul style="list-style-type: none"> ◆ > 1.5 ◆ > 1 TO 1.5 ◆ > .8 TO 1 ◆ > .6 TO .8 ◆ > .4 TO .6 ◆ > .2 TO .4 ○ 0 TO .2 	<ul style="list-style-type: none"> ▼ > 1.5 ▼ > 1 TO 1.5 ▼ > .8 TO 1 ▼ > .6 TO .8 ▼ > .4 TO .6 ▼ > .2 TO .4 ○ 0 TO .2
SOIL	SILT	ROCK						
<ul style="list-style-type: none"> ● > 1.5 ● > 1 TO 1.5 ● > .8 TO 1 ● > .6 TO .8 ● > .4 TO .6 ● > .2 TO .4 ○ 0 TO .2 	<ul style="list-style-type: none"> ◆ > 1.5 ◆ > 1 TO 1.5 ◆ > .8 TO 1 ◆ > .6 TO .8 ◆ > .4 TO .6 ◆ > .2 TO .4 ○ 0 TO .2 	<ul style="list-style-type: none"> ▼ > 1.5 ▼ > 1 TO 1.5 ▼ > .8 TO 1 ▼ > .6 TO .8 ▼ > .4 TO .6 ▼ > .2 TO .4 ○ 0 TO .2 						

NORTH AMERICAN PLATINUM
H&H CLAIMS
1986 GEOCHEMICAL SURVEY
Silver (ppm)

DATE: 18 Dec 1986	PROJECT# 345
MAP: 92/H10	SCALE 1:15,000

fig. 6 d



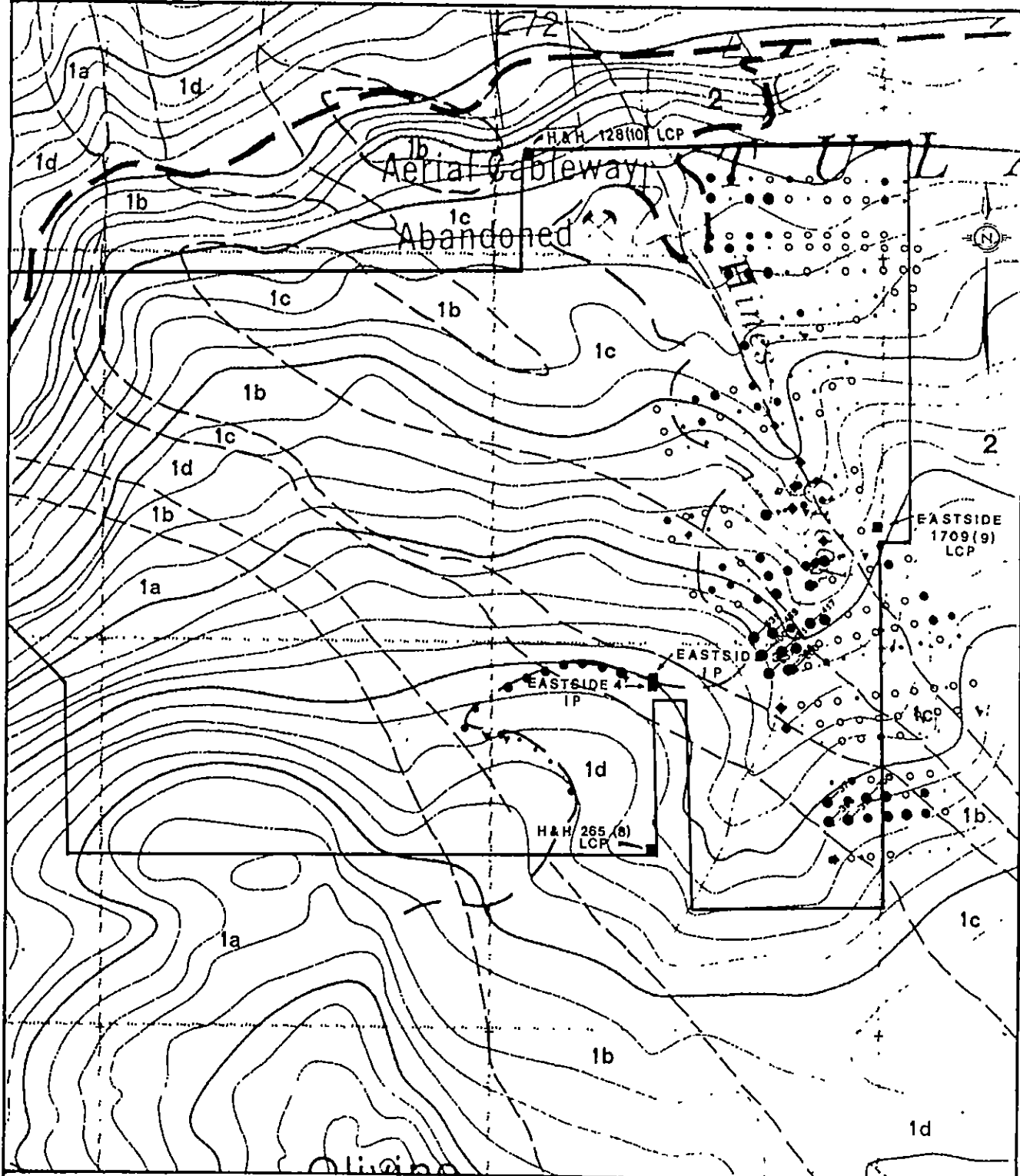
LEGEND		GHS Geochemica Services Ltd		
Geology	Symbols	SOIL	SILT	ROCK
1 TULAMEEN COMPLEX 1a Dunite 1b Olivine Clinopyroxenite 1c Hornblende Clinopyroxenite 1d Syenogabbro and Syenodiorite	Bridge Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP) Elevation Contours 100 ft. Intervals Geological Contact Mineral Deposit Road Sample Site	SOIL ● > 200 ● >105 TO 200 ● >80 TO 105 ● >55 TO 80 ● >40 TO 55 ● >30 TO 40 ○ 0 TO 30	SILT ● > 200 ● >105 TO 200 ● >80 TO 105 ● >55 TO 80 ● >40 TO 55 ● >30 TO 40 ○ 0 TO 30	ROCK ● > 200 ● >105 TO 200 ● >80 TO 105 ● >55 TO 80 ● >40 TO 55 ● >30 TO 40 ○ 0 TO 30
2 NICOLA GROUP Metasedimentary and Metavolcanic Rocks				

Scale in Miles

NORTH AMERICAN PLATINUM
 H&H CLAIMS
 1986 GEOCHEMICAL SURVEY
 Copper (ppm)

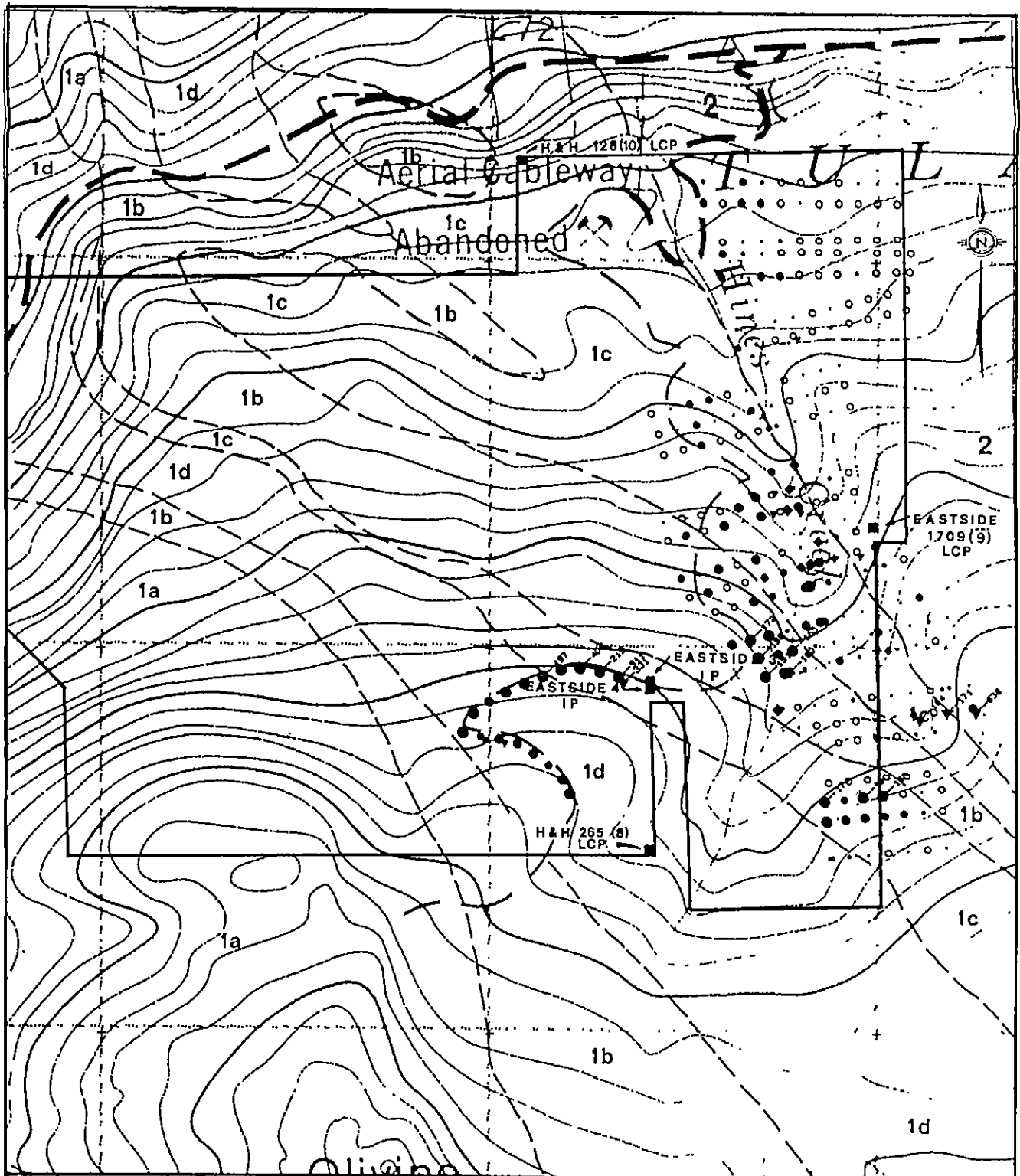
DATE: 18 Dec 1986	PROJECT#, 345
MAP: 92/H10	SCALE 1:15000

Fig. 6 #



LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p> Bridge</p> <p> Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p> Elevation Contours 100 ft. Intervals</p> <p> Geological Contact</p> <p> Mineral Deposit</p> <p> Road</p> <p> Sample Site</p>	<p style="text-align: center;">GHS Geosystems Services Ltd.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%; text-align: center;"> <p>SOIL</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p> </td> <td style="width: 33%; text-align: center;"> <p>SILT</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p> </td> <td style="width: 33%; text-align: center;"> <p>ROCK</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p> </td> </tr> </table> <p style="text-align: center;">100 50 0 100 200 SCALE IN METERS</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">NORTH AMERICAN PLATINUM H&H CLAIMS 1986 GEOCHEMICAL SURVEY Nickel (ppm)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DATE: 18 Dec 1986</td> <td style="width: 50%;">PROJECT# 345</td> </tr> <tr> <td>MAP: 92/ML0</td> <td>SCALE 1:15000</td> </tr> </table> <p style="text-align: right;">Fig. 67</p> </div>	<p>SOIL</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>	<p>SILT</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>	<p>ROCK</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>	DATE: 18 Dec 1986	PROJECT# 345	MAP: 92/ML0	SCALE 1:15000
<p>SOIL</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>	<p>SILT</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>	<p>ROCK</p> <p> > 250</p> <p> > 150 TO 250</p> <p> > 75 TO 150</p> <p> > 55 TO 75</p> <p> > 45 TO 55</p> <p> > 35 TO 45</p> <p> 0 TO 35</p>							
DATE: 18 Dec 1986	PROJECT# 345								
MAP: 92/ML0	SCALE 1:15000								

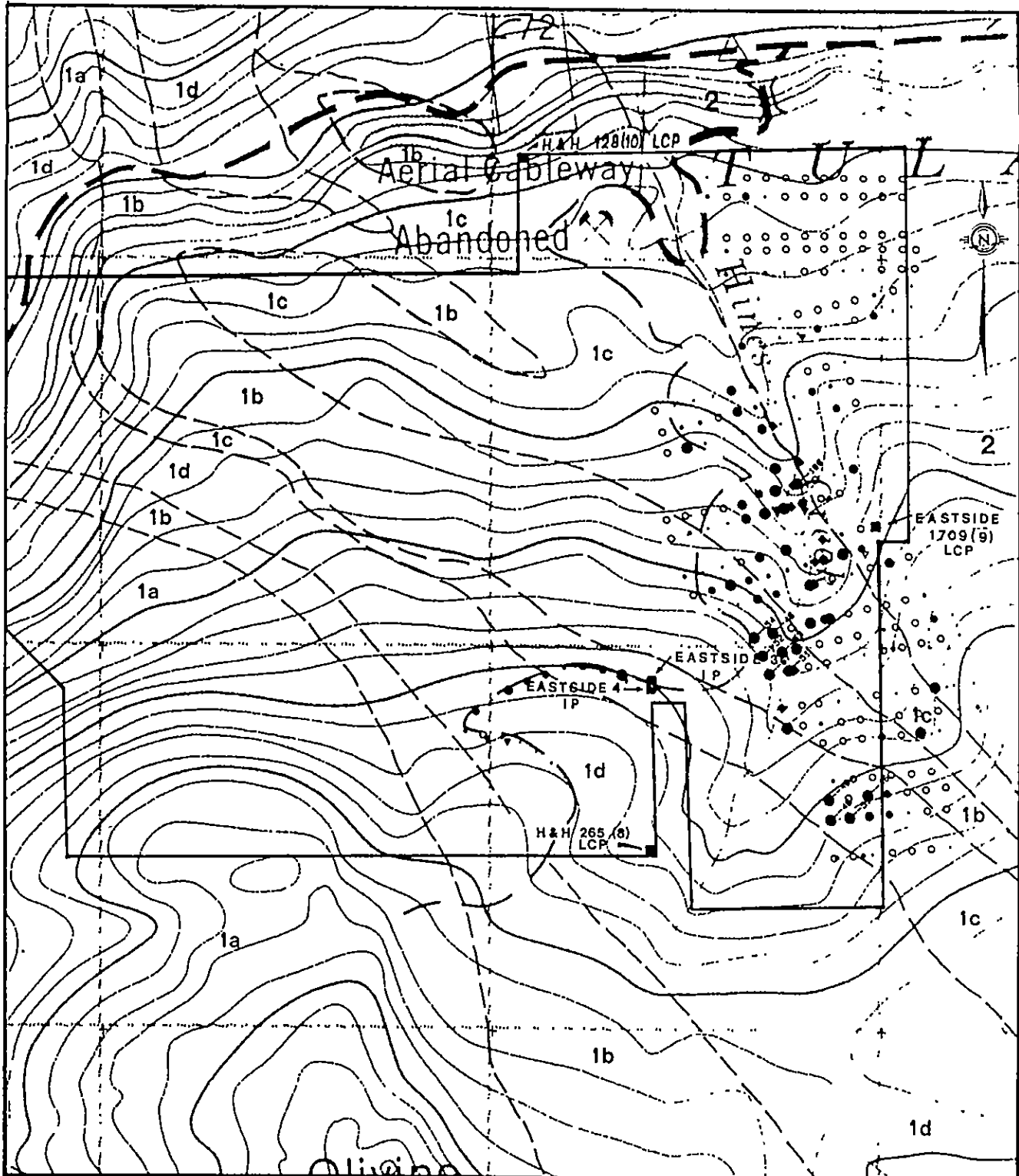


LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p>— Bridge</p> <p>└ Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p>— Elevation Contours 100 ft. Intervals</p> <p>— Geological Contact</p> <p>⚡ Mineral Deposit</p> <p>— Road</p> <p>⊙ Sample Site</p>	<p style="text-align: center;">GHS Geotechnical Services Ltd.</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">SOIL</td> <td style="text-align: center;">SILT</td> <td style="text-align: center;">ROCK</td> </tr> <tr> <td style="text-align: center;"> ● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40 </td> <td style="text-align: center;"> ● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40 </td> <td style="text-align: center;"> ● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40 </td> </tr> </table> <p style="text-align: center;">100 50 0 100 200 feet 1:25000</p>	SOIL	SILT	ROCK	● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40	● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40	● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40
SOIL	SILT	ROCK						
● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40	● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40	● > 165 ● > 140 TO 165 ● > 90 TO 140 ● > 60 TO 90 ● > 50 TO 60 ● > 40 TO 50 ○ 0 TO 40						

NORTH AMERICAN PLATINUM
H&H CLAIMS
1986 GEOCHEMICAL SURVEY
Chromium (ppm)

DATE: 18 Dec 1986	PROJECT#, 345
MAP: 92/M10	SCALE 1:15000
fig. 6 g	



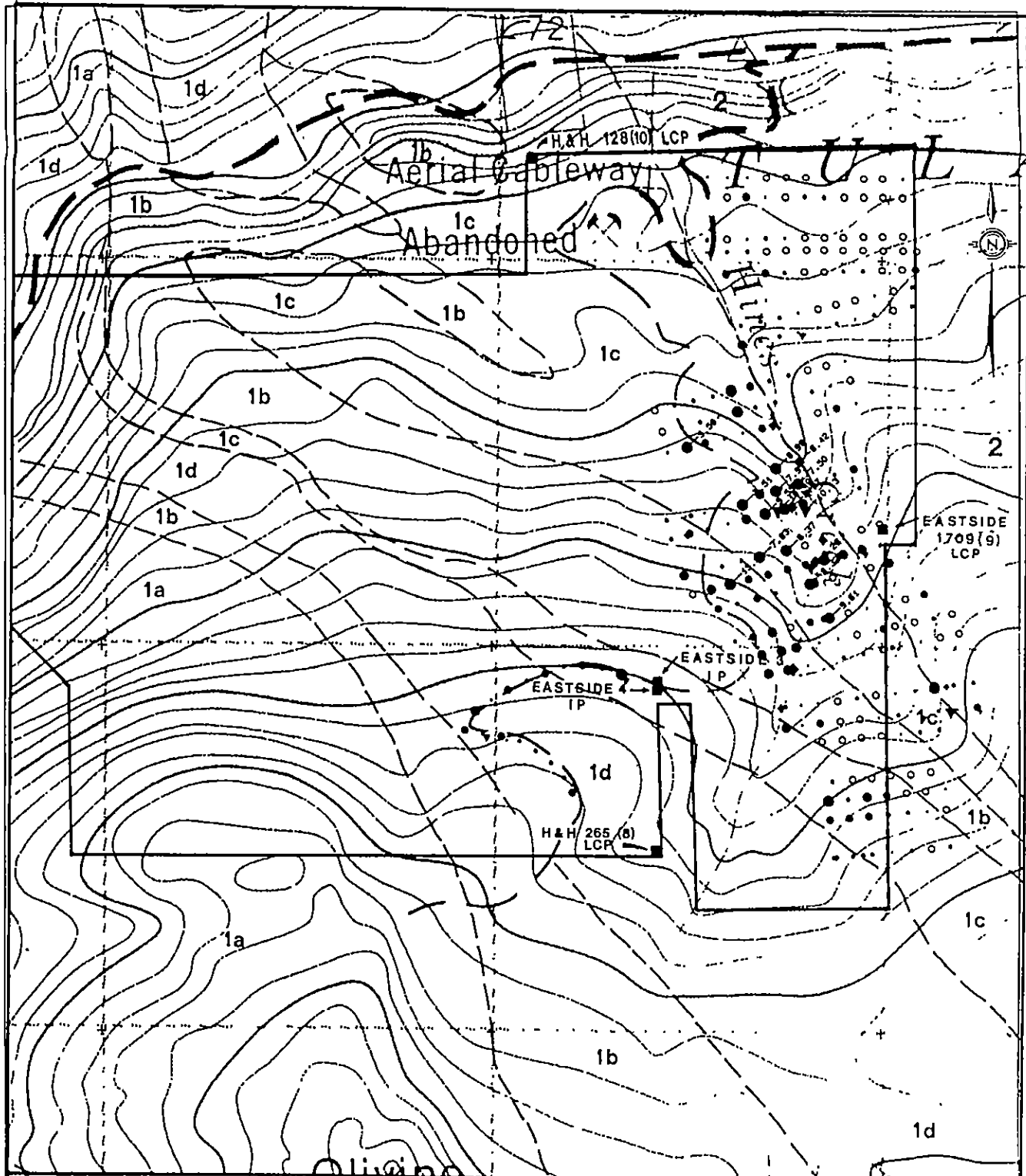
LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p> Bridge</p> <p> Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p> Elevation Contours 100 ft. Intervals</p> <p> Geological Contact</p> <p> Mineral Deposit</p> <p> Road</p> <p> Sample Site</p>	<p>GHS Geotechnical Services Ltd.</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">SOIL</td> <td style="text-align: center;">SILT</td> <td style="text-align: center;">ROCK</td> </tr> <tr> <td style="text-align: center;"> > 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16 </td> <td style="text-align: center;"> > 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16 </td> <td style="text-align: center;"> > 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16 </td> </tr> </table> <p style="text-align: center;"> 100 50 0 100 200 Feet in metres </p>	SOIL	SILT	ROCK	> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16	> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16	> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16
SOIL	SILT	ROCK						
> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16	> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16	> 45 > 34 TO 45 > 28 TO 34 > 24 TO 28 > 20 TO 24 > 16 TO 20 0 TO 16						

NORTH AMERICAN PLATINUM
H&H CLAIMS
1986 GEOCHEMICAL SURVEY
Cobalt (ppm)

DATE: 18 Dec 1986	PROJECT#: 345
MAP: 92/H 0	SCALE 1:15000

Fig. 6 h



LEGEND

- | | |
|--|--|
| <p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p> | <p>Symbols</p> <p> Bridge</p> <p> Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p> Elevation Contours 100 ft. Intervals</p> <p> Geological Contact</p> <p> Mineral Deposit</p> <p> Road</p> <p> Sample Site</p> |
|--|--|

SOIL	SILT	ROCK
<p>> 7.5</p> <p>>7 TO 7.5</p> <p>>6 TO 7</p> <p>>5 TO 6</p> <p>>4 TO 5</p> <p>>3.5 TO 4</p> <p>0 TO 3.5</p>	<p>> 7.5</p> <p>>7 TO 7.5</p> <p>>6 TO 7</p> <p>>5 TO 6</p> <p>>4 TO 5</p> <p>>3.5 TO 4</p> <p>0 TO 3.5</p>	<p>> 7.5</p> <p>>7 TO 7.5</p> <p>>6 TO 7</p> <p>>5 TO 6</p> <p>>4 TO 5</p> <p>>3.5 TO 4</p> <p>0 TO 3.5</p>

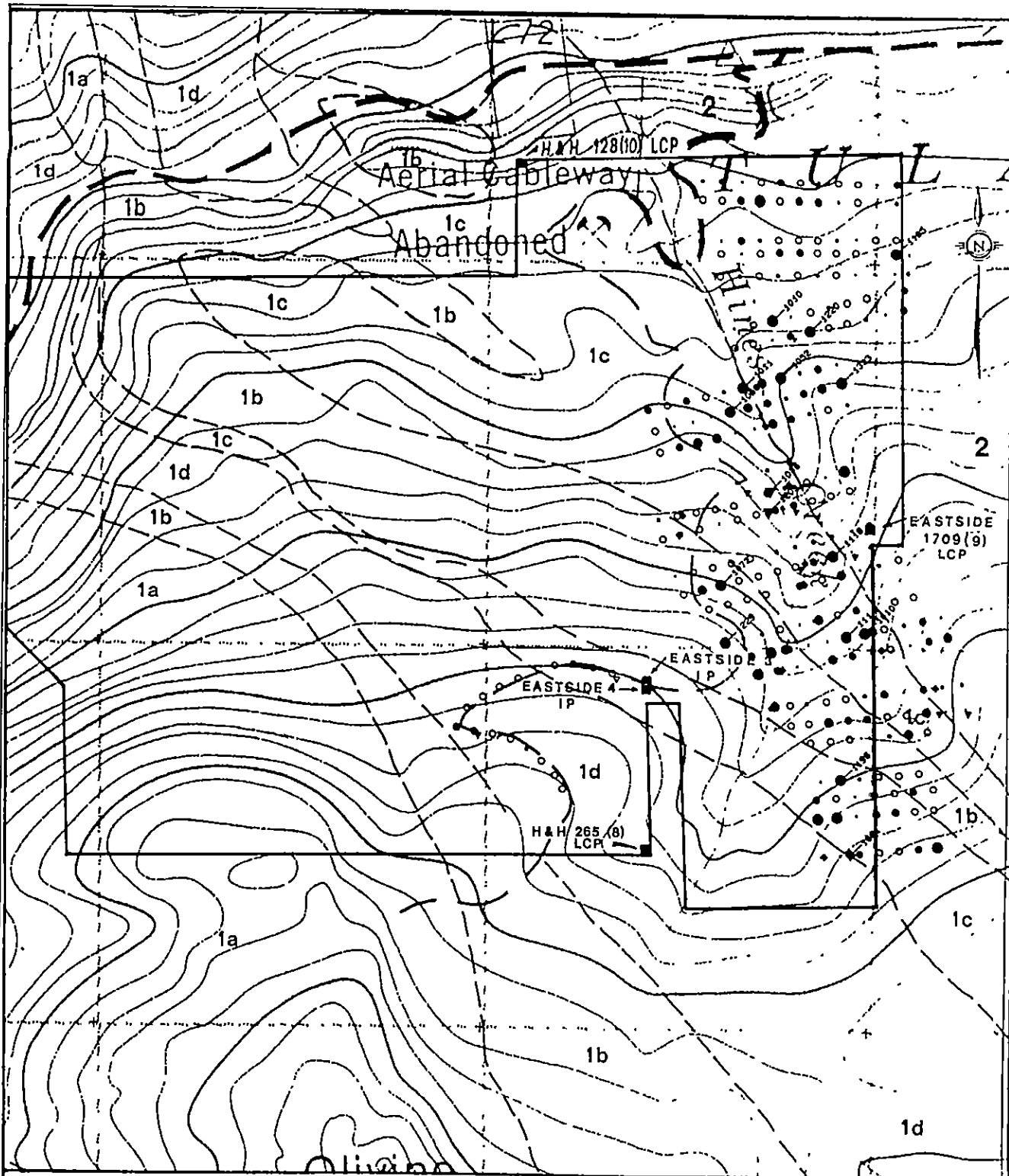


GHS Geochemical Services Ltd.

NORTH AMERICAN PLATINUM
H&H CLAIMS
1986 GEOCHEMICAL SURVEY
Iron (C)

DATE: 18 Dec 1986	PROJECT# 345
MAP: 92/110	SCALE 1:15000

fig 6 f



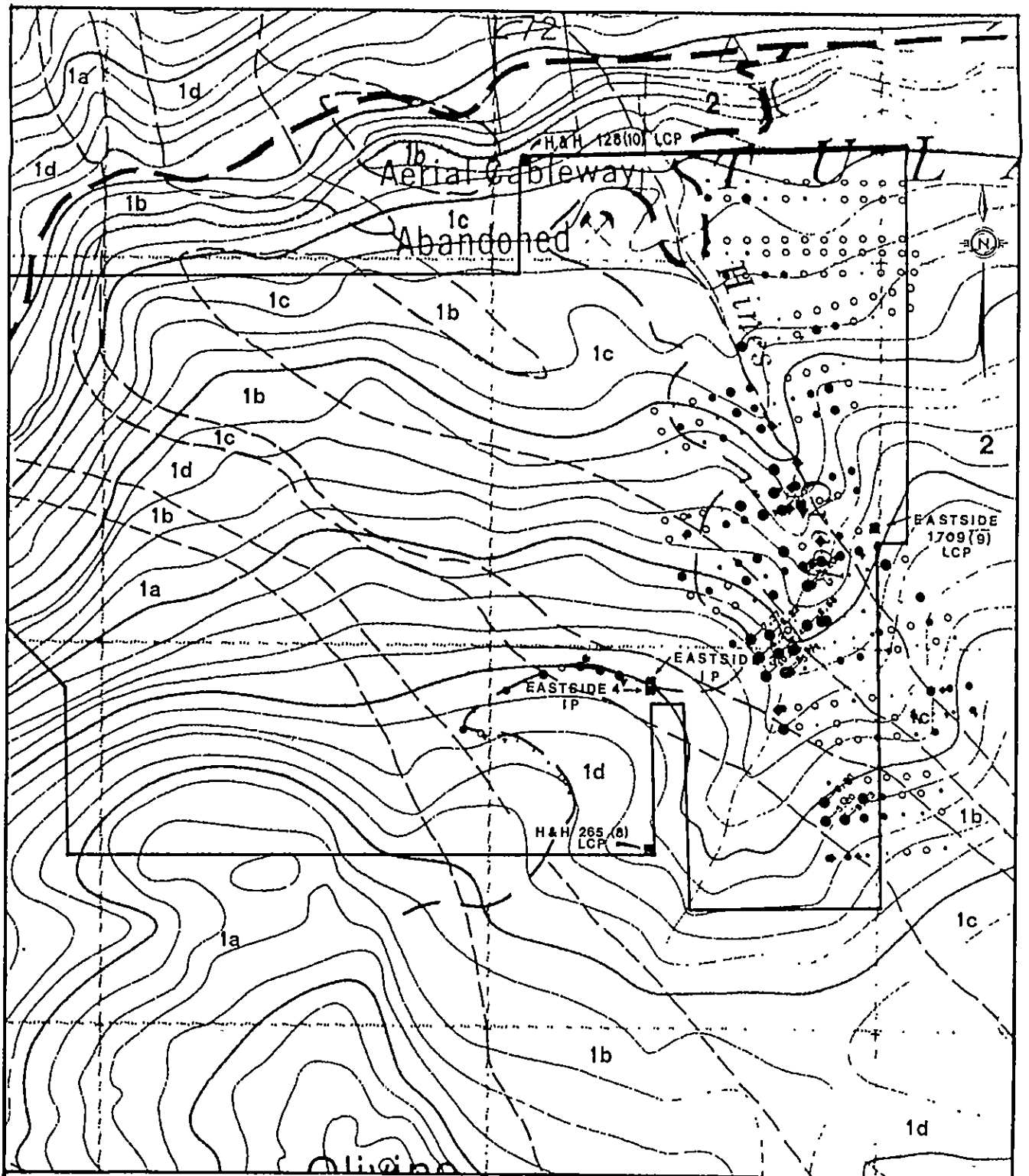
LEGEND		GHS Geotechnical Services Ltd		
Geology	Symbols	SOIL	SILT	ROCK
1 TULAMEEN COMPLEX 1a Dunite 1b Olivine Clinopyroxenite 1c Hornblende Clinopyroxenite 1d Syenogabbro and Syenodiorite	Bridge Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP) Elevation Contours 100 ft. Intervals Geological Contact Mineral Deposit Road Sample Site	> 1000 > 900 TO 1000 > 800 TO 900 > 650 TO 800 > 550 TO 650 > 450 TO 550 0 TO 450	> 1000 > 900 TO 1000 > 800 TO 900 > 650 TO 800 > 550 TO 650 > 450 TO 550 0 TO 450	> 1000 > 900 TO 1000 > 800 TO 900 > 650 TO 800 > 550 TO 650 > 450 TO 550 0 TO 450
2 NICOLA GROUP Metasedimentary and Metavolcanic Rocks				

Scale in metres: 100 200 300 400

NORTH AMERICAN PLATINUM
 H&H CLAIMS
 1986 GEOCHEMICAL SURVEY
 Manganese (ppm)

DATE 18 Dec 1986	PROJECT# 345
MAP 92/H10	SCALE 1:15000

Fig. 6f



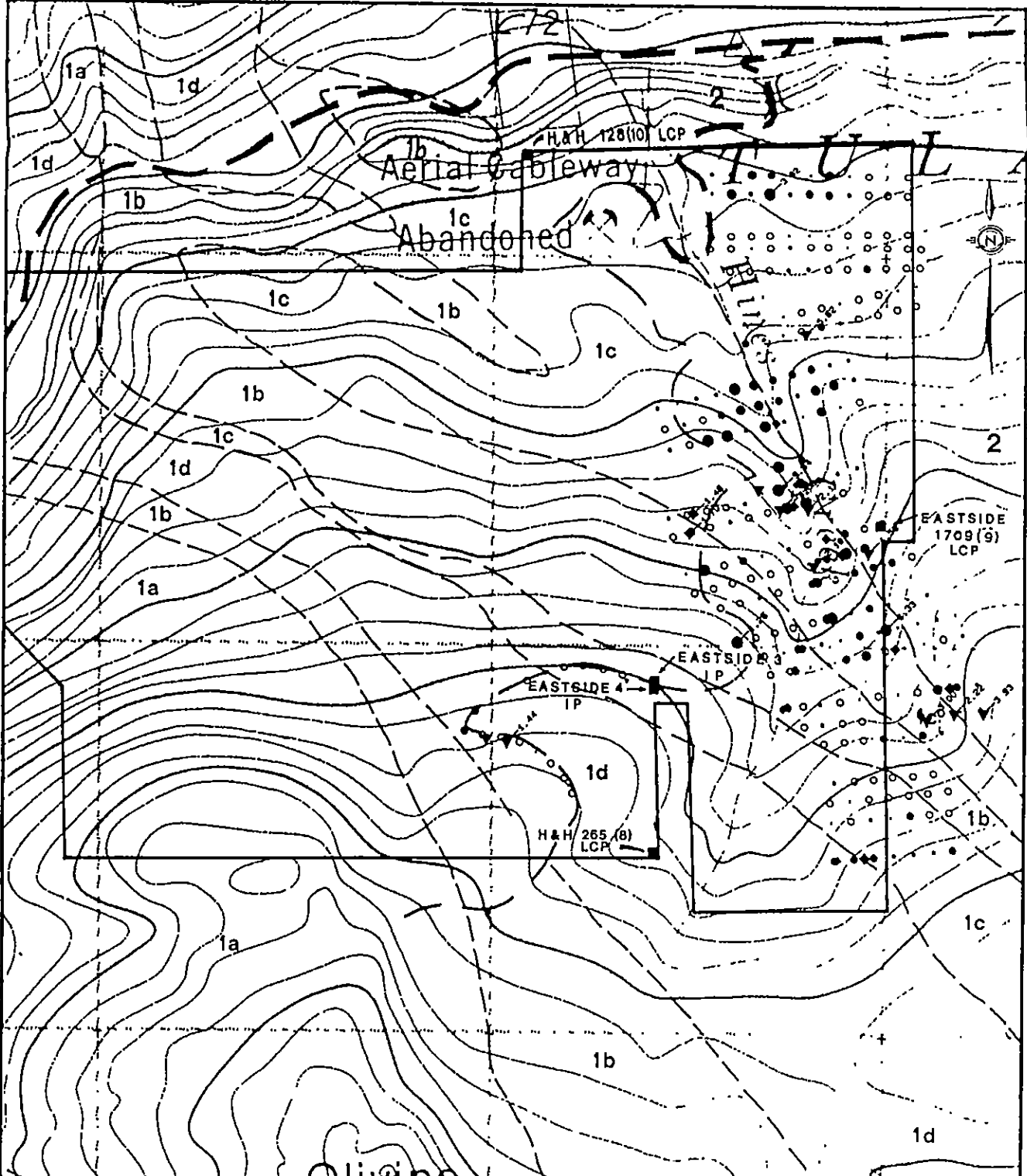
LEGEND		SOIL			SILT			ROCK		
1 TULAMEEN COMPLEX			Bridge		> 5		> 5		> 5	
1a Dunite		Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)		> 3 TO 5		> 3 TO 5		> 3 TO 5		
1b Olivine Clinopyroxenite		Geological Contact		> 2 TO 3		> 2 TO 3		> 2 TO 3		
1c Hornblende Clinopyroxenite		Mineral Deposit		> 1.5 TO 2		> 1.5 TO 2		> 1.5 TO 2		
1d Syenogabbro and Syenodiorite		Road		> 1.2 TO 1.5		> 1.2 TO 1.5		> 1.2 TO 1.5		
2 NICOLA GROUP		Sample Site		> 1 TO 1.2		> 1 TO 1.2		> 1 TO 1.2		
Metasedimentary and Metavolcanic Rocks				0 TO 1		0 TO 1		0 TO 1		

Elevation Contours 100 ft. Intervals
 Geological Contact
 Mineral Deposit
 Road
 Sample Site

BHS Geochemical Services Ltd.
 Scale in metres: 100 50 0 100 200
 NORTH AMERICAN PLATINUM H&H CLAIMS
 1986 GEOCHEMICAL SURVEY
 Magnesium (Mg)

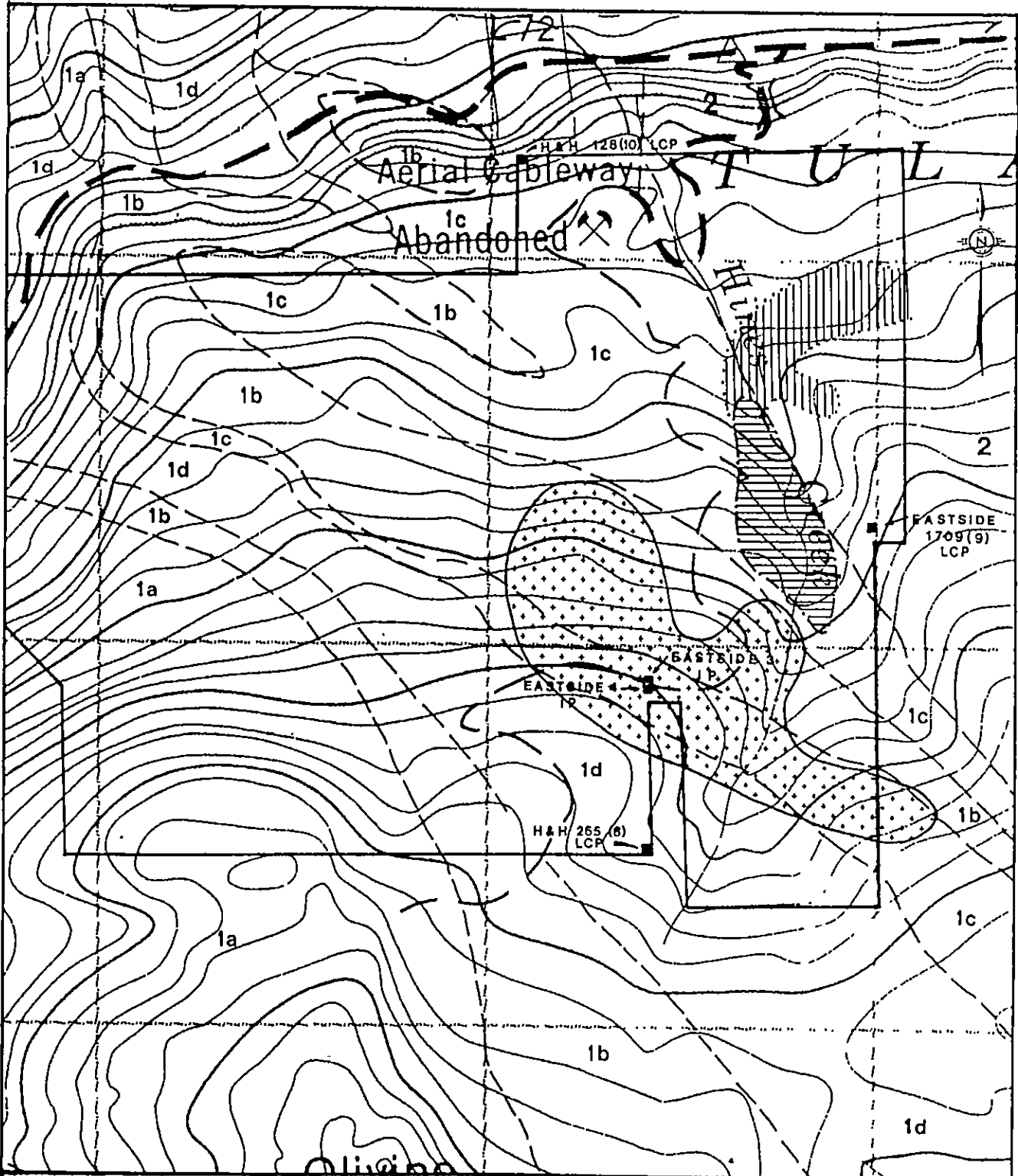
DATE: 18 Dec 1986	PROJECT#: 345
MAP: 92/H10	SCALE: 1:15 000

fig. 6 k



LEGEND

<p>Geology</p> <p>1 TULAMEEN COMPLEX</p> <p>1a Dunite</p> <p>1b Olivine Clinopyroxenite</p> <p>1c Hornblende Clinopyroxenite</p> <p>1d Syenogabbro and Syenodiorite</p> <p>2 NICOLA GROUP</p> <p>Metasedimentary and Metavolcanic Rocks</p>	<p>Symbols</p> <p>— Bridge</p> <p>└ Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)</p> <p>— Elevation Contours 100 ft. Intervals</p> <p>— Geological Contact</p> <p>⚒ Mineral Deposit</p> <p>— Road</p> <p>⊕ Sample Site</p>	<p style="text-align: center;">GHS Geometrics Services Ltd</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%; text-align: center;"> <p>SOIL</p> <p>● > 1.25</p> <p>● > .9 TO 1.25</p> <p>● > .7 TO .9</p> <p>● > .55 TO .7</p> <p>● > .45 TO .55</p> <p>● > .35 TO .45</p> <p>○ 0 TO .35</p> </td> <td style="width: 33%; text-align: center;"> <p>SILT</p> <p>◆ > 1.25</p> <p>◆ > .9 TO 1.25</p> <p>◆ > .7 TO .9</p> <p>◆ > .55 TO .7</p> <p>◆ > .45 TO .55</p> <p>◆ > .35 TO .45</p> <p>○ 0 TO .35</p> </td> <td style="width: 33%; text-align: center;"> <p>ROCK</p> <p>▼ > 1.25</p> <p>▼ > .9 TO 1.25</p> <p>▼ > .7 TO .9</p> <p>▼ > .55 TO .7</p> <p>▼ > .45 TO .55</p> <p>▼ > .35 TO .45</p> <p>▼ 0 TO .35</p> </td> </tr> </table> <p style="text-align: center;">100 50 0 100 200 Scale in metres</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>NORTH AMERICAN PLATINUM H&H CLAIMS 1986 GEOCHEMICAL SURVEY Calcium (Ca)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">DATE 18 Dec 1986</td> <td style="width: 50%;">PROJECT# 345</td> </tr> <tr> <td>MAP 92/H10</td> <td>SCALE 1:15 000</td> </tr> </table> <p>fig. 6 /</p> </div>	<p>SOIL</p> <p>● > 1.25</p> <p>● > .9 TO 1.25</p> <p>● > .7 TO .9</p> <p>● > .55 TO .7</p> <p>● > .45 TO .55</p> <p>● > .35 TO .45</p> <p>○ 0 TO .35</p>	<p>SILT</p> <p>◆ > 1.25</p> <p>◆ > .9 TO 1.25</p> <p>◆ > .7 TO .9</p> <p>◆ > .55 TO .7</p> <p>◆ > .45 TO .55</p> <p>◆ > .35 TO .45</p> <p>○ 0 TO .35</p>	<p>ROCK</p> <p>▼ > 1.25</p> <p>▼ > .9 TO 1.25</p> <p>▼ > .7 TO .9</p> <p>▼ > .55 TO .7</p> <p>▼ > .45 TO .55</p> <p>▼ > .35 TO .45</p> <p>▼ 0 TO .35</p>	DATE 18 Dec 1986	PROJECT# 345	MAP 92/H10	SCALE 1:15 000
<p>SOIL</p> <p>● > 1.25</p> <p>● > .9 TO 1.25</p> <p>● > .7 TO .9</p> <p>● > .55 TO .7</p> <p>● > .45 TO .55</p> <p>● > .35 TO .45</p> <p>○ 0 TO .35</p>	<p>SILT</p> <p>◆ > 1.25</p> <p>◆ > .9 TO 1.25</p> <p>◆ > .7 TO .9</p> <p>◆ > .55 TO .7</p> <p>◆ > .45 TO .55</p> <p>◆ > .35 TO .45</p> <p>○ 0 TO .35</p>	<p>ROCK</p> <p>▼ > 1.25</p> <p>▼ > .9 TO 1.25</p> <p>▼ > .7 TO .9</p> <p>▼ > .55 TO .7</p> <p>▼ > .45 TO .55</p> <p>▼ > .35 TO .45</p> <p>▼ 0 TO .35</p>							
DATE 18 Dec 1986	PROJECT# 345								
MAP 92/H10	SCALE 1:15 000								



LEGEND

Geology

Symbols

- 1 TULAMEEN COMPLEX
 - 1a Dunite
 - 1b Olivine Clinopyroxenite
 - 1c Hornblende Clinopyroxenite
 - 1d Syenogabbro and Syenodiorite

- 2 NICOLA GROUP
 - Metasedimentary and Metavolcanic Rocks

- Bridge
- Claim Boundary with Legal Corner Post (LCP) or Initial Post (IP)
- Elevation Contours 100 ft. Intervals
- Geological Contact
- Mineral Deposit
- Road
- Sample Site

- Platinum - Chromium Zone**
Anomalous Pt, Cr, Ni, Mg, Co
- Gold - Platinum Zone**
Anomalous Au, Pt, Pd, Cu, Fe, Co
- Gold - Copper Zone**
Anomalous Au, Cu, Mn



**NORTH AMERICAN PLATINUM
 H&H CLAIMS
 1986 GEOCHEMICAL SURVEY
 COMPILATION MAP**

DATE, 18 Dec 1986	PROJECT#: 345
MAP: 92/H10	SCALE: 1:50000
Fig. 7	

to fully define the anomalies. Three multielement zones have been defined. These are:

- 1) Platinum-Chromium Zone: a northwest trending zone found in the southwest quadrant of the property.
- 2) Gold-Platinum Zone: a north trending zone overlying Hines Creek in the east central portion of the property.
- 3) Gold-Copper Zone: a northeast trending zone found in the northeast quadrant of the claim group.

Platinum-Chromium Zone:

The Pt-Cr zone has a northwesterly trend, similar to the underlying pyroxenite units. Anomalous elements are platinum (up to 138 ppb in rock and 355 ppb or 0.010 oz./t in soil), chromium (up to 331 ppm in rock and 911 ppm in soil), nickel (up to 657 ppm in soil) magnesium (up to 10.8%), cobalt (up 67 ppm) and moderately anomalous levels of iron (up to 7.5%). Gold and palladium exhibit sporadic low level enrichments (30 ppb and 86 ppb respectively) in this zone.

Gold-Platinum Zone:

The trend of this zone is along Hines creek suggesting either a structural (e.g. fault) or alluvial basis for the anomaly. Anomalous elements are: gold, up to 288 ppb or .009 oz/t in rock; platinum, up to 153 ppb in rock; palladium, up to 106 ppb in soil; copper, up to 708 ppm in rock and 2425 ppm or 0.24% in soil; iron, up to 10.1% in rock and 15.61% in soil; with minor enrichments in chromium, nickel and manganese.

Gold-Copper Zone:

The gold-copper zone extends northeasterly from Hines Creek to the edge of the property in the northeast quadrant. Anomalous elements are: gold, up to 50 ppb; copper, up to 517 ppm; and manganese up to 1323 ppm.

Discussion of Results

The platinum-chromium anomalous zone is believed to be reflecting an underlying chromite rich pod within clinopyroxenite. St. Louis (1986) and Findlay (1969) have shown that three pods can locally have economic concentrations of platinum in which the platinum is tied up in the chromite grains or interstitial to the grains.

The platinum-gold zone is potentially a region of structural deformation found along the contact between the ultramafic complex and the surrounding Nicola group rocks. This suggested zone of deformation is observed as serpentinization of the ultramafics (St. Louis, 1986) along the contact. Accompanying the serpentinization is an enrichment of platinum, possibly to ore grade levels. The deformation is also seen as quartz-carbonate veining within the chloritic schists of the Nicola Group. Associated with the veining is enhanced levels of gold and copper. A zone of sulfide or magnetite, although not observed, is inferred by high levels of iron with accompanying anomalous concentrations of copper, lead and zinc in soils. The iron-rich area lies within the platinum-gold zone.

The gold-copper zone cannot readily be explained in a lithological or structural sense. The shape and position of the anomaly may be due to placer enrichment from Hines Creek and the Tulameen River.

Conclusion

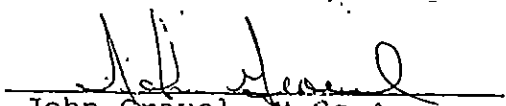
The follow-up geochemical survey has defined three targets each having a potential for economic mineralization.

A chromium enriched area suggests an underlying chromite accumulation in clinopyroxenite. Past studies of the TUC have found economic platinum grades within samples of the chromite cumulates.

A zone of serpentinization and quartz-carbonate veining found along the contact is thought to outline a deformation zone between the Tulameen Complex and Nicola Group rocks. Sampling of these areas have returned anomalously high levels of platinum, gold and copper.

An inferred sulfide zone is believed to occur within the ultramafic complex near the deformation zone. Sulfide horizons have proven to be the main platinum bearing units as outlined by case histories from major platinum producers.

Priority is given to further testing of these targets, the defining of the source of the gold-copper anomalous zone, and expansion of the exploration grid to cover the remainder of the property.


John Gravel, M.Sc.A.

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APPENDIX I

Certificate

I, John Gravel, of the city of Vancouver, Province of British Columbia, hereby certify as follow

1. I am a graduate with a Bachelor of Science degree in Geology from McGill University in 1979 and a Master of Science Applied degree in Mineral Exploration from McGill University in 1985.
2. I have practiced my profession as an exploration geologist/geochemist in the Province of British Columbia since 1979.
3. I am a Fellow of the Geological Association of Canada and a Voting member of the Association of Exploration Geochemists.
4. I have no financial interest either directly or indirectly in the securities of North American Platinum Ltd., Vancouver, British Columbia, or in the properties described within this report, nor do I expect to acquire or receive any interest.
5. This report is based on work performed by the writer assisted by D. Morneau and J. Dykes and on a revision of pertinent literature by private and government workers.
6. I consent to the use of this report in connection with the raising of funds for the project described herein.

Date Vancouver, British Columbia this 30th day of December, 1986


John Gravel, M.Sc.A.

APPENDIX II

Statement of
Exploration Expenditures
1984-1986

Statement of Exploration Expenditures
H&H Claims from 1984 to 1986

E.O. Chisholm, P.Eng.	March 23, 1984	\$285.00
Harold M. Jones, P.Eng.	July 24, 1984	23.33
Bondar-Clegg, Rock Analysis	Sept. 28, 1984	191.25
Vradimir Cukor, P.Eng.	January 17, 1986	165.50
Normand Champigny, P.Eng.	September 24, 1986	500.00
Cliff Stanley, M.Sc.	September, 1986	68.20
Min-En Laboratories Ltd. Analysis of 130 soil samples	July 23, 1986	2,320.50
Steven Buzikievich survey of property boundaries	October 6, 1986	6,470.22
George Obrecht title search of claims, preparation for survey crew	Sept. to Oct. 1986	4,500.00
GHS Geochemical Services Ltd. 1986 Exploration programs on H&H claims	December 30, 1986	13,200.00
	Total Expenditures	\$27,724.00



Geochemical Services Ltd.

December 30, 1986

H&H CLAIMS 1986 EXPLORATION PROGRAM
STATEMENT OF COSTS AND EXPENSES

Salaries

J. Gravel 5 days @ \$150/day.....\$750.00
D. Morneau 5 days @ \$115/day.....\$575.00
J. Dykes 5 days @ \$100/day.....\$500.00

----->\$1,825

Room & Board

15 man days @\$45/day..... \$675

Transportation

Rental of 4X4 truck
5 days @ \$40/day.....\$200.00
800 kms @ \$0.30/km.....\$240.00
gas & oil.....\$80.00

-----> \$520

Purchase of Field Supplies.....\$300

Analysis of Samples

30 element ICP + FIRE ASSAY for AU, Pt and Pd
304 soils @ \$20/sample.....\$6080.00
14 rock samples @ \$25/sample.....\$350.00

----->\$6,430

Total Field Expenditures \$9,750

Computer Analysis and Plotting.....\$900

Drafting, Typing and Reproduction.....\$850

Report Writing

J. Gravel 8 days @ \$150/day.....\$1200.00
D. Allen.....\$500.00

----->\$1,700

Total Cost \$13,200


John Gravel M.Sc.A.

APPENDIX III

Sampling, Analytical, Statistical
and Plotting Procedures

1966

Sampling Procedures

Sampling procedures for soils consists of using a shovel to collect 0.5 to 1.0 kg. of B horizon material at a depth of 20 to 50 cm. After placing the soil in a marked Kraft paper bag, site specific data concerning texture, color, horizon and depth of the sample as well as percentage and shape of rock fragments was noted on specially prepared forms.

Stream sediment sampling involves collecting the sand and silt fraction from several sites within a 10 metre distance of the station thus reducing the bias of a single sample site. Data concerning texture, color, amount of heavy minerals and amount of organics in the sample as well as average width and depth of the stream were recorded on prepared forms.

Rock sampling comprises the collection of a dozen or more rock chips from across the rock exposure within a 5 metre radius of the sample station in an effort to obtain a representative sample of the exposure. Geological notes were collected in a geological note book.

Analytical Procedures

All samples were sent to Acme Analytical Laboratories in Vancouver for fire assay analysis of gold, platinum and palladium followed by ICP analysis of 30 other elements. The general analytical procedures are as follow:

1. Samples are oven dried at 80°C.
2. Soil and silt samples are screened to produce a -80 mesh size fraction, rocks are crushed and milled to produce a -100 mesh size fraction.
3. A 10 gm split of the fine fraction is mixed with a flux containing lead and silver and melted at 750°C. A lead button is recovered from the cooled flux and subsequently melted to produce a silver bead contain the gold, platinum and palladium. The bead is dissolved in aqua regia and the solution subjected to mass spectrometry for quantitative determination of gold, platinum and palladium.
4. A 0.5 gm split of the fine fraction is dissolved in aqua regia at 95°C for 1 hour then diluted by water and aspirated into an inductively coupled plasma mass spectrometer for determination of molybdenum, copper, lead, zinc, silver, nickel, cobalt, manganese, iron, arsenic, uranium, gold, thorium, strontium, cadmium, antimony, bismuth, vanadium, calcium, phosphorus, lanthanum, chromium, magnesium, barium, titanium, boron, aluminum, sodium, potassium and tungsten.

Statistical Procedure

The analytical results received from Acme were entered into a computer for simple univariate statistical analysis. After examining their histograms, gold, platinum, palladium, silver, copper, nickel, chromium, cobalt, iron, manganese, magnesium and calcium were chosen for further study as they are either precious metals (Au, Pt, Pd, Ag), pathfinder elements (Cu, Co, Cr, Ni) or rock forming elements that would help to distinguish underlying rock types (Fe, Mg, Mn and Ca).

Plotting Procedures

Six concentration intervals were chosen for each element based on the nature of their histograms. A dot map is computer generated for each element using the geochemical program GEOMHM. On a dot map, the location of a dot represents a sample site, the shape of the dot defines the type of sample collected, thus a circle represents a soil, a triangle signifies a rock and a diamond means a stream silt sample was collected. The size of the dot reflects the concentration of the element in question in the sample collected at that site. For example on the gold dot map (fig. 6a) an open circle means that the concentration of gold at that site is 5 ppb or less, the smallest solid dot signifies a gold concentration of greater than 5 ppb up to a maximum of 10 ppb. The next larger dot would represent a concentration of greater than 10 ppb up to a maximum of 15 ppb, and so on up the scale of dot sizes. The largest dot would relate a concentration between 30 and 50 ppb., If a sample should exceed 50 ppb gold, the largest dot is plotted with the actual gold concentration of that sample printed next to the dot.

In this method of treating geochemical data, the absolute concentration of an element at a sample site is considered of secondary importance compared to the relative difference in concentration between sample sites up to a predetermined concentration level. The patterns formed by the various dot sizes for each element and the similarity in patterns between elements allows a refined interpretation of the data without losing sight of the concentration, a tendency with more sophisticated statistical treatments of geochemical data.

APPENDIX IV

1986 Analytical Results

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN, FE, CA, P, CR, MG, BA, TI, W, AL, NA, V, M, SI, ZK, CE, SN, Y, ND AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
AUX: PT: PD: BY FA-MS. SAMPLE TYPE: SOILS - BOMESH P9-ROCK >

DATE RECEIVED: OCT 15 1986 DATE REPORT MAILED: *Oct 27/86* ASSAYER: *D. J. Toy* DEAN TOYE, CERTIFIED B.C. ASSAYER.

GHS GEOCHEMICAL PROJECT - 345 FILE # 86-3190

PAGE 1

SAMPLE#	Mo	Cu	Pb	Zn	As	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	M	Aufl	Ptfl	Pdfl
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPM	PPM	PPM	
50345 450001	1	42	3	67	.1	46	23	465	5.67	5	5	ND	1	25	1	2	2	168	.43	.039	2	40	1.81	62	.17	2	1.80	.06	.07	1	1	28	4
50345 450002	2	124	4	60	.1	86	27	450	6.43	2	5	ND	1	45	1	2	2	265	.70	.082	2	54	3.79	89	.15	4	2.44	.09	.11	1	2	16	17
50345 450003	2	81	6	54	.1	48	22	429	4.71	8	5	ND	2	38	1	2	2	110	.53	.020	3	58	1.50	53	.20	3	2.00	.05	.07	1	1	2	2
50345 450004	1	67	5	73	.2	50	17	513	4.05	6	5	ND	2	24	1	2	2	97	.38	.067	2	38	1.06	80	.13	2	1.96	.05	.06	1	5	2	3
50345 450005	1	85	5	95	.1	39	18	484	3.57	11	5	ND	1	24	1	2	2	87	.35	.115	2	32	.99	156	.14	4	2.29	.06	.07	1	1	2	2
50345 450007	1	118	5	79	.1	35	26	1220	3.63	8	5	ND	2	29	1	2	2	99	.67	.048	2	36	2.01	89	.15	3	2.64	.11	.05	1	1	2	2
50345 450009	1	91	4	71	.2	45	20	431	4.24	13	5	ND	2	33	1	2	2	98	.48	.050	3	59	1.56	54	.15	2	2.21	.05	.08	1	5	2	2
50345 450009	1	94	7	106	.4	33	15	376	3.61	18	5	ND	2	19	1	2	2	84	.24	.092	3	33	.82	93	.10	2	2.78	.04	.07	1	1	2	2
50345 450010	2	135	8	125	.5	50	27	636	4.08	26	5	ND	2	21	1	2	2	86	.30	.140	2	37	1.09	98	.12	2	2.57	.04	.06	1	1	2	2
50345 450011	1	100	4	103	.2	45	20	464	3.44	9	5	ND	2	21	1	2	2	77	.35	.137	4	37	.97	95	.11	4	2.17	.05	.06	1	1	2	2
50345 450012	1	93	4	131	.1	11	17	698	4.02	3	5	ND	1	16	1	2	2	90	.31	.249	2	16	.55	60	.13	4	1.53	.04	.04	1	1	2	2
50345 450013	2	97	5	139	.2	28	19	712	4.41	6	5	ND	2	22	1	2	2	141	.36	.107	2	22	.74	69	.20	5	2.12	.06	.08	1	1	2	2
50345 450014	1	36	6	70	.1	31	14	452	3.11	4	5	ND	1	26	1	2	2	75	.36	.042	3	38	.91	58	.15	4	1.78	.05	.06	1	1	2	2
50345 450015	1	172	3	108	.2	47	24	345	3.76	25	6	ND	1	16	1	2	2	88	.29	.117	2	38	.98	50	.13	5	2.30	.05	.05	1	1	2	2
50345 450016	1	82	8	97	.4	38	15	304	3.36	13	5	ND	2	22	1	2	2	76	.24	.089	3	34	.74	80	.14	5	2.55	.05	.06	1	1	2	2
50345 450017	1	49	6	77	.1	40	16	583	3.27	3	5	ND	1	25	1	2	2	78	.36	.047	4	41	.82	113	.15	4	2.53	.05	.09	1	1	2	2
50345 450018	2	55	9	87	.1	45	14	372	3.22	7	5	ND	2	21	1	2	2	70	.29	.078	6	36	.81	98	.14	4	2.28	.04	.06	1	1	2	2
50345 450019	2	62	5	121	.2	62	16	460	3.73	9	5	ND	2	21	1	2	2	83	.29	.116	4	43	.96	124	.15	5	2.58	.05	.07	1	33	2	2
50345 450020	1	69	5	78	.1	54	18	1010	4.35	13	5	ND	1	29	1	2	2	101	.40	.080	4	49	1.14	152	.13	3	2.10	.05	.07	1	2	2	2
50345 450021	2	65	4	65	.1	40	17	390	4.11	3	5	ND	1	32	1	2	2	102	.45	.035	3	41	1.31	52	.17	5	2.06	.05	.05	1	2	2	2
50345 450022	2	82	5	76	.2	43	19	488	4.41	7	5	ND	2	38	1	2	2	100	.51	.055	4	54	1.40	74	.17	5	1.93	.05	.08	1	16	2	5
50345 450023	2	93	7	64	.2	34	18	432	4.76	11	5	ND	1	29	1	2	2	115	.42	.045	3	39	1.62	42	.16	5	2.21	.05	.06	1	2	2	2
50345 450024	1	47	7	78	.6	38	13	318	3.58	6	5	ND	2	18	1	2	2	82	.23	.100	3	27	.77	74	.13	5	2.27	.04	.05	1	10	2	2
50345 450025	1	28	6	79	.1	56	14	438	3.93	7	5	ND	1	22	1	2	2	98	.36	.078	3	38	.80	97	.18	5	2.02	.05	.07	1	5	2	2
50345 450026	1	121	5	99	.1	63	31	660	6.29	2	5	ND	1	47	1	2	2	267	1.24	.312	7	137	3.53	218	.23	5	2.91	.09	.97	1	1	8	2
10345 450028	2	48	6	48	.1	198	33	622	8.27	2	6	ND	2	40	1	2	2	204	.71	.130	5	151	4.36	86	.10	4	1.13	.07	.11	1	4	18	2
50345 450029	2	33	5	82	.1	47	38	721	7.50	7	5	ND	1	42	1	2	2	354	2.01	.082	4	16	5.14	165	.28	2	3.27	.09	.80	1	6	10	2
50345 450031	1	24	8	50	.1	242	39	407	9.55	4	5	ND	1	16	1	2	2	238	.28	.023	2	135	4.24	53	.18	2	1.28	.06	.07	1	1	111	8
50345 450032	1	15	9	81	.1	51	30	411	6.95	4	5	ND	1	15	1	2	2	233	.33	.021	2	46	1.77	135	.28	3	3.21	.06	.07	1	2	22	5
50345 450033	1	29	3	66	.1	32	20	543	3.75	2	5	ND	1	22	1	2	2	125	.49	.021	2	102	1.55	91	.22	3	1.94	.09	.07	1	1	2	2
50345 450034	1	34	8	133	.6	49	17	381	4.05	10	5	ND	2	19	1	2	2	97	.24	.187	4	38	.76	126	.14	6	2.32	.05	.06	1	2	21	22
50345 450035	1	46	7	70	.2	47	23	579	5.04	4	5	ND	2	36	1	2	2	151	.59	.021	6	64	1.72	203	.18	4	2.10	.06	.08	1	2	3	2
50345 450036	1	66	9	61	.4	57	20	737	5.18	4	5	ND	1	49	1	2	2	147	1.70	.068	4	59	1.60	217	.09	6	1.64	.07	.09	1	4	5	5
50345 450037	1	62	10	54	.2	30	13	254	4.03	2	5	ND	1	18	1	2	2	109	.34	.035	4	38	.67	78	.16	5	2.21	.05	.04	1	8	9	2
50345 450038	1	558	7	84	.4	61	16	584	4.26	3	5	ND	2	23	1	2	2	113	.46	.058	5	42	.69	234	.14	6	2.91	.05	.06	1	2	2	2
50345 450039	1	32	5	67	.1	14	13	277	3.65	2	5	ND	1	46	1	5	2	130	.28	.046	3	16	.97	84	.07	6	1.79	.04	.06	1	1	3	2
STD C/FA-SX	22	60	49	135	.2	71	28	1027	3.97	38	16	7	35	49	18	19	68	.48	.102	39	58	.88	185	.08	37	1.72	.10	.14	13	98	101	105	

GHS GEOCHEMICAL PROJECT - 345 FILE # 26-1190

SAMPLE#	Mo	Cu	Pb	Zn	Au	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Ri	V	Ca	P	La	Cr	Mg	Na	Ti	B	Al	Na	V	K	Ag	Pt	Pd
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	PPM	%	%	%	PPM	PPM	PPM	PPM	
10345 650040	1	55	5	58	.1	48	17	668	4.46	7	5	ND	1	47	1	2	117	1.48	.066	4	44	1.46	194	.08	7	1.54	.07	.07	1	?	*	16	
50345 650041	1	22	8	77	.1	22	13	277	3.88	4	5	ND	1	16	1	2	100	.28	.071	2	32	.71	81	.15	4	1.72	.05	.05	1	1	5	2	
50345 650042	1	25	6	58	.1	24	16	283	3.81	2	5	ND	2	19	1	2	106	.29	.026	2	25	1.11	118	.17	3	1.81	.05	.05	1	41	2	16	
50345 650043	1	9	7	73	.1	39	34	400	7.51	2	5	ND	1	12	1	2	273	.49	.012	2	98	3.12	266	.33	5	2.68	.07	.42	1	1	5	2	
50345 650044	1	24	5	69	.1	48	26	475	6.63	2	5	ND	1	13	1	2	198	.45	.033	2	91	1.49	104	.15	6	1.65	.06	.03	1	1	17	4	
50345 650047	2	177	6	80	.1	49	40	769	7.91	8	5	ND	1	28	1	2	351	1.20	.112	4	38	4.43	251	.23	5	3.01	.09	.88	1	1	10	9	
50345 650048	1	46	5	43	.1	190	32	605	6.97	2	5	ND	1	34	1	2	4	167	.69	.117	3	122	4.40	83	.09	4	1.11	.07	.10	1	4	14	2
50345 650049	1	2425	5	65	.1	67	106	701	7.50	10	5	ND	1	24	1	2	290	.83	.243	3	58	2.40	134	.15	5	1.96	.08	.29	1	1	38	106	
50345 650050	1	54	4	57	.1	32	14	379	3.82	2	5	ND	1	25	1	2	3	79	.47	.049	2	41	1.01	63	.14	4	1.87	.05	.07	1	1	2	2
50345 650051	1	79	5	71	.1	54	18	531	4.67	7	5	ND	1	29	1	2	2	93	.46	.101	4	58	1.73	46	.14	5	2.05	.06	.08	1	10	2	2
50345 650052	1	100	5	92	.1	24	30	975	5.60	27	5	ND	1	26	1	2	3	129	.48	.037	2	23	1.65	44	.15	6	2.68	.06	.07	1	7	2	2
50345 650053	1	49	6	76	.1	98	32	449	7.83	8	5	ND	1	23	1	2	2	232	.45	.026	2	121	2.20	96	.21	8	1.79	.09	.07	1	2	11	5
50345 650054	1	30	7	68	.1	31	15	413	4.00	20	5	ND	1	16	1	2	2	103	.23	.047	2	34	.81	73	.16	4	1.87	.05	.05	1	1	3	2
50345 650055	1	21	6	59	.1	74	19	339	4.59	2	5	ND	1	19	1	2	2	116	.27	.042	2	96	1.28	67	.14	3	1.43	.05	.04	1	4	14	2
50345 650056	1	54	5	79	.8	49	17	440	4.36	10	5	ND	3	41	1	2	2	97	1.04	.053	5	57	1.12	291	.10	6	2.70	.07	.05	1	3	2	3
50345 650057	1	194	8	54	.2	39	23	457	6.02	4	5	ND	2	16	1	2	2	216	.40	.017	3	80	2.04	155	.20	7	3.05	.06	.05	1	1	12	2
50345 650058	1	15	4	52	.1	19	10	350	2.84	2	5	ND	1	15	1	2	2	76	.31	.036	2	28	.51	73	.19	2	1.50	.05	.04	2	1	2	2
50345 650059	1	37	10	80	.6	57	27	885	6.82	14	5	ND	2	16	1	2	2	190	.25	.059	5	129	1.84	155	.04	6	2.71	.06	.06	1	1	2	2
50345 650060	1	139	15	128	.1	58	38	1072	15.56	38	5	ND	2	17	1	2	2	185	.27	.054	6	21	.52	174	.02	2	1.58	.06	.08	1	38	24	5
50345 650061	1	131	5	91	.1	39	28	432	5.16	4	5	ND	1	18	1	2	2	180	.34	.021	2	23	2.01	138	.24	5	2.74	.08	.07	1	1	43	2
50345 650062	1	31	5	76	.1	89	21	266	5.33	6	5	ND	1	20	1	2	2	125	.28	.143	2	76	1.26	61	.11	6	1.53	.06	.04	1	6	5	2
50345 650063	1	56	2	72	.1	79	21	363	5.39	3	5	ND	1	23	1	2	2	128	.35	.124	3	76	1.61	81	.12	5	1.78	.06	.06	1	1	6	2
50345 650064	1	31	6	84	.1	78	24	337	5.64	5	5	ND	1	22	1	2	2	100	.44	.085	4	66	2.06	122	.21	6	3.11	.08	.04	1	1	2	2
50345 650065	1	71	5	61	.2	157	33	661	7.25	2	5	ND	2	28	1	2	2	183	.65	.067	2	107	3.54	51	.14	4	1.46	.08	.09	1	1	42	2
10345 650066	1	50	7	51	.1	209	34	653	7.36	7	5	ND	1	38	1	2	2	170	.69	.138	4	150	4.69	73	.09	5	1.15	.08	.10	2	1	9	2
10345 650068	1	63	7	49	.1	55	23	533	6.87	3	5	ND	1	34	1	2	3	205	.92	.075	2	82	1.97	136	.11	6	1.46	.08	.14	1	1	7	2
50345 650069	2	325	2	95	.1	54	37	1118	6.69	6	5	ND	1	41	1	2	2	231	1.07	.112	4	47	2.83	117	.15	3	2.56	.08	.17	1	1	13	6
50345 650070	1	82	3	67	.1	38	25	463	6.24	2	5	ND	1	44	1	2	2	250	.71	.018	3	21	2.56	53	.29	4	2.33	.11	.19	1	1	4	2
50345 650072	1	148	2	80	.1	58	23	605	4.51	6	5	ND	1	20	1	2	3	117	.37	.051	2	66	1.72	124	.27	2	3.05	.07	.09	1	1	3	2
50345 650073	1	39	4	82	.2	29	20	744	3.20	7	5	ND	1	17	1	2	2	73	.29	.044	3	29	.75	88	.10	3	1.68	.05	.07	1	1	2	2
50345 650074	1	22	2	83	.1	29	13	520	3.36	5	5	ND	1	22	1	2	2	90	.35	.104	2	29	.79	83	.14	2	1.70	.06	.07	1	1	2	2
50345 650075	2	56	6	78	.1	54	21	636	4.97	5	5	ND	2	32	1	2	2	123	.58	.041	2	52	1.90	48	.17	9	1.91	.07	.11	1	1	4	2
50345 650076	1	50	2	48	.1	198	32	633	6.53	3	5	ND	1	37	1	2	3	150	.71	.120	2	126	4.41	91	.09	3	1.15	.07	.10	1	1	28	2
50345 650077	1	21	2	114	.3	42	20	612	3.44	4	6	ND	1	20	1	2	2	67	.26	.396	2	42	.74	188	.10	2	1.87	.04	.05	1	3	2	2
50345 650078	1	28	5	67	.1	53	37	604	8.37	5	5	ND	1	16	1	2	2	343	.54	.011	3	23	3.60	203	.37	2	2.54	.07	.45	1	3	19	6
50345 650090	1	73	7	63	.2	31	13	647	3.54	6	5	ND	2	27	1	2	2	107	.52	.022	3	42	.99	189	.15	3	2.04	.05	.05	1	2	2	2
STD C/FA-5X	21	58	37	131	6.8	67	28	985	3.94	37	15	7	33	46	17	15	21	65	.48	.103	34	58	.88	173	.08	34	1.73	.09	.13	13	101	96	98

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PAGE 7

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Pt	V	Ca	P	La	Cr	Hg	Ba	Ti	F	Al	Na	I	M	AuI	PtI	PdI
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	I	I	PPM	PPM	I	PPM	I	PPM	I	I	I	PPM	PPM	PPM	PPM
50345 450091	1	207	6	48	.3	26	17	328	3.50	2	5	ND	1	21	1	2	2	100	.29	.108	11	33	.92	70	.15	4	2.02	.06	.05	1	1	10	8
50345 450092	1	45	9	68	.1	50	20	430	4.04	2	5	ND	1	24	1	4	2	100	.36	.055	9	56	1.30	55	.17	5	2.06	.06	.05	1	1	9	2
50345 450093	1	33	7	75	.2	23	14	587	3.28	2	5	ND	1	16	1	2	2	81	.22	.178	8	31	.68	56	.12	4	1.79	.04	.03	1	1	2	2
50345 450094	1	40	6	71	.1	34	17	695	3.84	2	5	ND	1	27	1	2	2	91	.43	.073	10	48	1.18	98	.16	3	2.32	.05	.07	1	1	2	2
50345 450095	1	25	10	74	.1	24	14	518	3.69	4	5	ND	1	24	1	2	2	88	.32	.149	11	41	1.02	79	.12	4	1.98	.05	.05	1	1	2	2
50345 450096	1	29	6	81	.1	30	37	727	7.42	2	5	ND	1	25	1	2	2	297	.89	.051	15	17	2.95	355	.25	10	2.57	.08	.14	1	1	39	2
10345 450097	1	83	7	80	.1	38	20	676	4.39	2	5	ND	1	38	1	2	2	120	1.15	.088	14	56	1.83	183	.12	7	2.09	.08	.16	1	1	2	2
50345 450098	1	54	6	64	.2	34	20	603	4.42	2	5	ND	1	31	1	2	2	124	.60	.034	13	55	1.74	122	.16	7	2.15	.06	.10	1	1	2	2
50345 450099	1	46	10	61	.1	28	19	581	4.54	5	5	ND	1	30	1	2	2	130	.50	.036	8	44	1.52	74	.15	4	2.01	.06	.06	1	7	2	2
50345 450101	1	36	10	59	.1	52	22	488	5.89	5	5	ND	1	22	1	4	2	134	.46	.041	11	129	1.60	67	.14	7	1.81	.06	.06	1	5	2	2
50345 450102	1	40	8	67	.2	31	17	482	3.94	2	8	ND	2	28	1	2	2	101	.41	.058	7	46	1.27	68	.15	5	2.26	.06	.08	1	1	2	2
50345 450104	1	59	9	83	.2	27	16	891	3.92	4	5	ND	1	20	1	2	2	106	.27	.090	9	34	1.03	86	.10	5	2.40	.05	.05	1	17	11	2
50345 450106	1	21	10	73	.1	35	13	295	3.96	2	5	ND	2	14	1	2	2	103	.25	.125	11	49	.81	58	.16	4	2.55	.06	.05	1	1	2	2
50345 450107	1	43	10	56	.2	33	14	320	4.12	7	5	ND	1	29	1	2	2	111	.41	.114	9	45	.90	64	.13	3	1.80	.06	.05	1	1	3	2
50345 450108	1	48	8	72	.4	33	17	709	3.98	7	5	ND	1	25	1	9	2	92	.36	.114	9	47	1.19	79	.11	3	2.37	.05	.05	1	1	2	2
50345 450109	1	33	7	70	.2	25	14	694	3.33	2	5	ND	1	28	1	2	2	82	.34	.158	10	37	1.06	84	.13	3	2.25	.06	.06	1	1	3	2
50345 450110	1	26	7	70	.3	26	15	816	3.11	2	5	ND	1	27	1	2	2	77	.35	.098	8	39	.94	85	.14	3	1.99	.06	.06	1	1	3	2
50345 450111	1	271	7	69	.7	28	24	399	5.52	2	5	ND	2	29	1	2	2	172	.54	.379	11	34	1.10	50	.12	5	1.92	.08	.06	1	1	7	19
50345 450112	1	37	8	76	.2	36	15	334	3.94	2	5	ND	2	20	1	2	2	97	.29	.088	7	44	.79	58	.14	3	2.01	.05	.05	1	27	2	11
50345 450113	1	44	8	73	.1	94	36	528	6.30	3	7	ND	1	19	1	4	2	201	.43	.033	8	47	3.73	71	.26	9	2.17	.07	.07	1	1	7	3
10345 450114	1	52	9	49	.2	228	33	442	5.75	4	7	ND	1	39	1	5	2	118	.61	.138	11	144	4.91	59	.08	5	1.12	.07	.11	1	1	34	5
50345 450115	1	66	6	77	.2	41	20	870	4.35	2	5	ND	2	35	1	2	2	92	.62	.079	12	56	1.59	57	.14	2	2.08	.06	.08	1	21	2	2
50345 450116	1	93	4	63	.1	29	13	228	3.84	2	5	ND	1	19	1	2	2	101	.29	.124	7	37	.70	73	.14	4	2.08	.05	.03	1	1	3	2
50345 450117	1	39	10	71	.1	45	35	576	8.96	2	5	ND	1	35	1	2	2	407	1.15	.248	4	88	4.46	100	.22	7	3.06	.08	.50	1	1	41	2
10345 450118	1	60	12	52	.2	194	35	452	8.42	2	8	ND	1	37	1	2	2	267	.73	.131	11	144	4.36	90	.10	8	1.25	.08	.12	1	71	36	2
50345 450119	1	23	10	38	.1	167	38	241	7.26	2	5	ND	1	6	1	2	2	189	.20	.007	3	911	2.95	41	.12	5	1.85	.05	.01	1	1	74	2
50345 450121	1	29	9	43	.1	137	28	342	4.61	4	6	ND	1	19	1	2	2	112	.29	.017	10	215	2.24	48	.14	2	1.37	.05	.04	1	1	355	2
50345 450122	1	22	8	51	.1	88	28	238	5.49	4	5	ND	1	14	1	2	2	130	.21	.016	9	406	2.17	54	.16	5	2.30	.05	.03	2	1	116	2
50345 450123	1	15	9	35	.1	78	24	217	4.73	2	5	ND	1	18	1	2	2	118	.24	.011	8	156	.96	145	.18	3	2.00	.05	.03	1	1	22	2
50345 450124	1	32	8	47	.1	110	27	451	5.12	11	5	ND	1	23	1	2	2	142	.36	.018	7	197	2.03	138	.16	4	1.96	.06	.06	2	1	24	2
50345 450125	1	23	7	71	.1	143	28	285	4.40	2	5	ND	2	16	1	4	2	100	.20	.049	2	156	1.37	122	.16	2	3.01	.05	.05	1	1	35	2
50345 450126	1	63	9	82	.3	76	29	441	5.99	4	5	ND	1	38	1	3	2	160	.42	.101	7	142	1.99	78	.18	2	2.19	.06	.12	1	1	24	2
50345 450127	1	82	8	53	.4	66	17	412	3.86	2	5	ND	1	34	1	2	2	117	.37	.021	7	101	1.09	92	.15	3	1.70	.06	.05	1	1	20	2
50345 450128	1	48	10	91	.1	74	28	345	6.91	2	5	ND	1	29	1	2	2	170	.34	.136	8	147	1.26	90	.14	3	2.29	.05	.05	1	2	20	14
50345 450129	2	140	11	78	.5	73	24	671	5.07	6	5	ND	2	39	1	2	2	141	.57	.031	11	142	1.91	95	.16	5	2.27	.07	.13	1	12	41	15
50345 450130	1	34	6	75	.2	37	13	200	4.29	2	5	ND	2	21	1	2	2	104	.21	.067	4	89	.70	49	.17	2	1.99	.05	.04	1	1	14	2
STD C/FA-SI	22	58	42	135	7.2	70	29	1020	3.98	38	15	7	34	47	18	15	19	68	.48	.105	35	62	.88	178	.08	34	1.73	.09	.14	13	95	100	98

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PAGE 4

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	M	Aux	Pt	Pd
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
50345 450132	2	121	7	98	.2	63	21	354	5.43	.2	5	ND	1	36	1	2	2	139	.30	.111	5	120	1.37	92	.16	5	2.87	.05	.06	1	1	25	2
50345 450134	2	42	5	71	.1	52	17	252	4.64	7	5	ND	1	28	1	2	2	112	.24	.076	3	106	1.05	69	.17	4	2.41	.04	.04	1	1	8	2
50345 450135	1	72	8	102	.1	47	20	565	4.92	2	5	ND	2	44	1	2	2	127	.39	.293	3	92	1.09	81	.17	7	2.21	.05	.05	1	1	2	2
50345 450136	2	44	4	72	.1	46	17	304	4.61	4	5	ND	1	23	1	2	2	115	.25	.112	4	87	1.05	65	.16	5	2.44	.05	.04	1	6	4	6
50345 450137	1	40	6	86	.1	39	18	286	4.66	2	5	ND	1	38	1	2	2	113	.25	.098	4	112	.84	51	.18	3	2.24	.04	.04	1	18	3	11
50345 450138	1	47	6	90	.1	70	19	412	5.07	2	5	ND	2	44	1	2	2	112	.32	.139	3	142	1.29	81	.14	8	2.79	.05	.05	1	15	8	2
10345 451001	2	61	6	57	.1	136	31	681	7.26	8	5	ND	1	46	1	2	2	204	.80	.108	6	105	3.70	178	.12	6	1.46	.08	.10	1	41	22	11
50345 451002	2	27	6	79	.1	145	22	301	5.01	7	5	ND	1	22	1	2	2	116	.28	.103	4	75	1.70	75	.12	4	1.85	.05	.04	1	12	26	3
50345 451003	2	22	3	94	.2	94	17	572	3.83	3	5	ND	1	18	1	2	2	91	.24	.222	3	49	.88	104	.11	6	2.08	.04	.05	1	1	45	2
50345 451004	1	66	6	70	.2	78	21	421	5.30	12	5	ND	2	26	1	2	2	123	.35	.068	2	65	1.73	75	.12	6	1.76	.05	.06	1	1	5	2
50345 451005	3	92	8	85	.2	49	19	565	4.76	13	5	ND	1	34	1	2	2	104	.47	.123	7	69	1.58	128	.12	5	2.11	.05	.06	1	8	5	2
50345 451006	1	31	6	77	.1	25	10	333	3.02	2	5	ND	1	35	1	2	2	73	.52	.059	4	37	.77	64	.15	5	1.45	.04	.07	1	1	2	2
50345 451007	2	40	5	110	.1	42	12	619	3.06	4	5	ND	1	23	1	2	2	63	.30	.159	6	38	.75	110	.12	5	1.95	.04	.07	1	34	2	2
50345 451008	2	198	4	65	.1	15	17	398	4.75	13	5	ND	1	24	1	2	2	102	.31	.077	4	16	.95	78	.01	7	2.55	.04	.11	1	1	2	2
50345 451009	2	95	6	72	.1	52	18	494	4.69	15	5	ND	2	38	1	2	2	105	.60	.020	9	60	1.14	82	.14	6	2.57	.05	.07	1	24	2	8
50345 451010	1	31	9	104	.2	34	11	534	3.10	2	5	ND	2	19	1	4	2	65	.24	.162	4	34	.72	113	.11	5	2.18	.04	.06	1	1	2	2
50345 451011	1	21	7	99	.1	30	9	489	2.59	2	5	ND	2	19	1	2	2	58	.22	.094	4	27	.54	104	.12	3	1.86	.04	.06	1	1	2	2
50345 451012	1	21	6	84	.1	26	8	608	2.41	2	5	ND	1	20	1	2	2	54	.26	.093	5	24	.48	93	.11	5	1.60	.04	.05	1	16	2	2
50345 451013	1	32	3	96	.2	27	8	492	2.47	2	5	ND	2	19	1	2	2	53	.22	.075	5	27	.54	125	.10	3	1.85	.04	.06	1	1	2	2
50345 451014	1	17	6	105	.1	30	9	1195	2.20	2	5	ND	1	18	1	3	2	51	.23	.066	4	27	.49	134	.12	3	1.84	.04	.05	1	1	2	2
50345 451015	2	22	6	81	.1	30	9	451	2.47	2	5	ND	2	21	1	5	2	57	.29	.061	5	32	.61	99	.13	4	1.79	.04	.06	1	15	12	11
50345 451016	1	45	6	58	.1	30	12	365	3.33	6	5	ND	2	26	1	2	2	76	.31	.052	5	45	.83	56	.14	6	1.53	.04	.07	1	11	2	2
50345 451017	1	51	7	91	.2	29	12	443	3.14	7	5	ND	2	33	1	3	2	72	.44	.110	4	37	.79	82	.13	4	1.82	.05	.08	1	13	2	2
50345 451018	1	47	6	75	.1	38	13	606	3.54	6	5	ND	1	22	1	2	2	86	.30	.059	6	39	.96	58	.15	6	2.16	.05	.05	1	19	2	4
50345 451019	1	195	8	72	.1	39	28	443	5.20	19	5	ND	2	18	1	2	2	157	.37	.018	7	44	2.65	53	.10	5	3.46	.07	.05	1	14	2	2
50345 451020	1	85	4	76	.1	23	18	641	3.07	6	5	ND	1	28	1	2	2	88	.77	.036	3	22	1.98	49	.15	5	2.36	.15	.08	1	6	2	2
50345 451021	3	52	5	114	.1	54	17	750	4.17	8	5	ND	1	26	1	2	2	88	.41	.080	4	42	.96	81	.13	3	1.83	.05	.09	1	2	2	2
50345 451022	2	43	8	100	.1	45	17	881	3.72	4	5	ND	1	34	1	2	2	83	.48	.107	6	55	1.12	111	.14	6	1.73	.05	.10	1	1	3	2
10345 451023	2	60	7	56	.1	149	32	787	7.00	7	5	ND	1	44	1	2	2	205	.85	.098	9	83	3.49	100	.12	8	1.56	.09	.12	1	14	53	11
50345 451024	1	517	5	65	.1	34	29	537	5.97	5	5	ND	1	64	1	2	2	234	1.14	.167	6	28	2.94	137	.17	7	2.34	.11	.20	1	1	43	19
50345 451025	1	32	9	75	.1	41	18	478	3.60	3	5	ND	1	24	1	2	2	104	.55	.035	5	33	1.41	166	.16	4	1.96	.06	.09	1	1	4	2
50345 451026	1	87	6	66	.4	50	19	831	4.18	11	5	ND	2	46	1	2	2	100	.99	.072	9	36	1.58	148	.12	5	1.65	.07	.09	1	14	4	2
50345 451027	1	73	6	77	.9	55	20	858	5.75	6	5	ND	2	48	1	2	2	149	.98	.063	7	67	1.46	337	.09	5	1.97	.06	.10	1	1	6	3
50345 451028	2	10	12	101	.4	43	38	732	9.50	22	5	ND	1	9	1	3	2	210	.17	.039	6	19	.80	169	.08	2	1.83	.05	.06	1	3	39	2
50345 451029	2	48	6	64	.1	30	15	381	3.73	6	5	ND	1	32	1	2	2	93	.54	.054	4	40	1.10	57	.14	4	1.95	.05	.07	1	1	2	2
50345 451030	1	30	7	101	.4	34	13	317	3.39	2	5	ND	1	19	1	2	2	79	.28	.055	3	28	.68	118	.13	5	2.15	.04	.06	1	4	2	2
STD C/FA-SI	22	59	38	131	7.0	66	28	1004	3.95	37	18	7	35	48	17	15	18	66	.48	.099	38	61	.88	182	.08	35	1.73	.09	.13	13	103	98	100

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PAGE 5

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Mn	Co	Ni	Fe	As	U	Au	Tl	Sr	Cd	Sb	Pt	V	Ca	P	La	Cr	Mg	Ba	Ti	W	Al	Na	K	Aut	Pt#1	Pt#2	
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	
50345 651031	1	32	5	92	.4	53	23	501	4.96	8	5	ND	2	37	1	4	2	133	.54	.045	15	46	1.55	326	.14	10	2.60	.06	.08	1	22	3	2
50345 651032	1	17	7	69	.1	59	21	538	4.23	5	5	ND	1	22	1	2	2	114	.32	.079	8	69	.96	59	.15	8	1.44	.05	.05	1	22	4	2
50345 651033	1	44	9	71	.2	29	13	521	3.6*	5	5	ND	1	38	1	2	2	88	.62	.064	8	47	1.25	69	.16	7	1.77	.06	.07	1	15	2	4
50345 651034	1	107	8	95	.3	55	32	1058	7.01	6	5	ND	1	33	1	2	2	275	.86	.082	19	46	2.79	178	.19	16	2.59	.09	.22	1	8	10	4
50345 651035	1	83	10	90	.2	63	23	867	4.74	10	5	ND	1	39	1	2	2	119	.72	.075	17	66	1.80	147	.14	9	2.01	.07	.12	1	13	2	2
50345 651058	1	62	7	84	.2	39	18	799	4.20	4	5	ND	2	39	1	2	2	96	.68	.089	13	58	1.59	63	.16	6	1.98	.07	.11	1	7	2	2
50345 651059	1	28	8	87	.3	30	14	549	3.57	2	5	ND	1	32	1	2	2	83	.47	.048	9	53	1.22	71	.16	8	2.07	.05	.08	1	3	2	2
50345 651060	1	39	5	100	.1	33	15	542	3.53	2	5	ND	1	27	1	3	2	80	.43	.131	8	42	1.12	90	.12	8	2.22	.05	.08	1	3	2	4
50345 651061	1	29	11	68	.1	29	15	1114	3.24	3	5	ND	1	35	1	2	2	74	.67	.069	5	49	1.08	93	.13	25	1.67	.05	.09	1	2	2	6
50345 651062	1	32	7	93	.2	27	18	1010	3.91	4	5	ND	1	34	1	2	2	87	.53	.096	8	46	1.25	88	.16	6	1.86	.05	.10	1	2	2	2
10345 651063	1	92	9	77	.3	51	23	881	5.12	2	5	ND	1	39	1	2	2	147	1.33	.091	10	68	1.69	180	.13	8	1.87	.08	.12	1	1	9	2
50345 651064	1	18	5	63	.2	35	14	364	3.48	7	5	ND	1	29	1	5	2	86	.44	.072	6	42	.92	66	.16	5	1.80	.05	.05	1	194	2	137
50345 651065	1	23	10	91	.2	29	14	605	3.35	4	5	ND	1	29	1	2	2	77	.41	.084	5	41	.98	67	.13	3	1.95	.05	.07	1	10	2	2
50345 651066	1	42	7	88	.1	84	26	670	4.54	7	5	ND	1	28	1	5	2	147	.49	.069	7	57	1.70	80	.16	7	1.83	.07	.08	1	1	5	2
50345 651067	1	30	6	58	.1	63	18	543	3.44	6	5	ND	1	21	1	2	2	98	.36	.062	4	42	.96	73	.16	6	1.77	.05	.08	1	12	2	2
50345 651068	1	39	7	55	.1	50	19	816	3.47	3	5	ND	1	33	1	2	2	87	.53	.074	7	44	1.29	61	.11	4	1.60	.05	.08	1	6	6	3
50345 651069	1	23	8	73	.3	22	13	754	2.85	6	5	ND	1	19	1	2	2	68	.30	.146	3	27	.56	51	.11	3	1.64	.04	.06	1	2	2	2
50345 651070	1	35	8	89	.2	50	16	477	3.58	5	5	ND	1	29	1	2	2	79	.40	.139	5	46	1.05	65	.15	4	2.20	.05	.09	1	7	2	2
50345 651071	1	25	8	73	.1	54	15	379	3.69	6	5	ND	1	26	1	2	2	84	.41	.084	6	47	.78	91	.14	4	2.12	.05	.06	1	2	2	2
50345 651072	1	74	5	70	.2	48	22	742	4.99	6	5	ND	1	35	1	2	2	134	.86	.085	10	64	1.92	113	.15	5	1.98	.07	.11	1	5	8	2
50345 651073	1	28	4	107	.4	36	16	574	3.33	2	5	ND	1	24	1	3	2	77	.34	.142	5	41	1.04	58	.14	5	2.18	.05	.07	1	3	2	2
50345 651074	1	83	7	82	.3	40	19	766	4.51	12	5	ND	2	36	1	2	2	100	.74	.075	11	56	1.68	54	.16	8	2.23	.07	.08	1	1	2	2
50345 651075	1	91	8	95	.1	46	20	836	4.82	6	5	ND	2	40	1	2	2	104	.69	.076	13	67	1.84	52	.18	3	2.46	.07	.09	1	15	2	14
50345 651076	1	34	10	82	.2	34	15	493	3.88	8	5	ND	1	28	1	4	2	83	.42	.046	9	47	1.05	82	.15	4	2.17	.05	.06	1	1	2	2
50345 651077	1	45	8	82	.1	32	16	472	3.91	2	5	ND	1	27	1	2	2	88	.40	.055	4	52	1.22	51	.16	4	2.15	.05	.08	1	1	2	2
10345 651078	1	51	5	53	.1	266	38	706	7.04	6	5	ND	2	47	1	2	3	149	.71	.163	8	180	5.71	61	.09	5	1.13	.08	.12	1	1	17	18
50345 651079	1	53	6	58	.1	388	51	695	6.22	7	5	ND	1	24	1	2	4	118	.33	.091	3	150	6.91	28	.08	5	.94	.07	.05	1	1	22	3
50345 651080	1	41	8	54	.1	657	67	983	6.39	6	5	ND	1	15	1	2	6	79	.25	.064	10	191	10.79	28	.06	8	.80	.06	.05	1	4	17	2
50345 651081	1	29	6	64	.1	400	52	737	6.11	5	5	ND	1	21	1	2	3	104	.27	.046	3	196	6.21	37	.10	5	.96	.06	.04	1	2	20	2
50345 651082	1	98	8	62	.1	461	53	980	6.79	6	5	ND	1	22	1	2	4	128	.38	.094	5	136	7.45	61	.07	5	1.07	.08	.09	1	1	21	7
10345 651083	1	62	6	56	.1	230	37	826	6.44	6	5	ND	1	43	1	2	3	147	.65	.125	5	165	4.91	76	.10	2	1.27	.08	.10	1	1	21	4
50345 651084	1	79	7	71	.2	386	46	995	5.69	8	5	ND	2	31	1	2	2	98	.44	.052	10	144	5.20	62	.14	9	1.61	.08	.10	1	1	19	2
50345 651085	1	22	7	62	.2	321	59	971	5.83	11	7	ND	1	19	1	2	5	66	.34	.061	2	117	6.13	58	.08	4	1.02	.07	.04	1	1	51	2
50345 651086	1	25	6	58	.1	137	33	478	5.18	2	5	ND	1	38	1	2	2	110	.50	.065	4	112	2.29	39	.19	2	1.50	.07	.07	1	1	18	2
50345 651087	1	77	9	87	.1	247	26	667	4.85	6	5	ND	1	30	1	2	2	106	.44	.045	8	84	1.68	100	.14	3	2.31	.06	.07	1	1	6	2
STD C/FA-51	22	58	40	138	7.2	72	29	1033	3.96	42	16	7	33	47	18	16	21	69	.48	.108	36	59	.88	177	.08	37	1.73	.10	.14	13	102	96	100

GHS GEOCHEMICAL PROJECT 045 FILE # 86-3190

PAGE 6

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	AuII	PtII	PdII
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	PPM	PPM	
50345 651088	2	44	11	66	.3	217	20	734	4.13	2	5	ND	1	35	1	2	2	93	.57	.036	6	88	1.46	97	.12	2	1.87	.06	.05	1	2	2	9
50345 651089	2	27	6	64	.1	85	14	240	3.93	5	5	ND	1	23	1	3	2	92	.31	.071	2	59	1.22	54	.11	3	1.47	.05	.04	1	1	11	3
50345 651090	2	20	8	54	.1	34	9	288	3.31	2	5	ND	1	22	1	2	2	92	.30	.061	2	38	.68	72	.14	3	1.49	.05	.03	1	1	4	6
50345 651091	3	76	7	74	.2	37	17	930	4.33	9	5	ND	1	33	1	4	2	112	.60	.044	9	48	1.28	88	.11	5	2.46	.06	.07	1	1	11	10
50345 651092	2	53	6	67	.2	36	14	687	3.29	2	5	ND	1	32	1	2	2	81	.52	.041	7	34	.97	79	.11	3	1.87	.05	.06	1	1	34	2
50345 651093	1	68	7	59	.2	36	13	432	4.03	5	5	ND	1	33	1	2	2	99	.55	.027	6	41	.97	68	.12	5	2.36	.05	.06	1	1	2	5
50345 651094	1	37	5	51	.1	27	14	387	3.66	6	5	ND	1	33	1	2	2	97	.53	.017	4	37	1.20	53	.16	3	2.12	.05	.04	1	1	2	8
50345 651095	2	36	6	68	.2	28	17	660	4.02	2	5	ND	1	38	1	2	2	93	.64	.065	2	42	1.34	55	.16	3	2.24	.05	.08	1	3	2	8
10345 651096	2	76	6	77	.2	46	21	1091	4.43	13	5	ND	1	45	1	2	2	97	.94	.067	6	46	1.63	86	.13	6	2.13	.06	.11	1	1	4	2
50345 651097	1	48	8	61	.1	33	16	488	4.39	4	5	ND	1	48	1	2	2	106	.65	.059	3	56	1.66	40	.24	4	2.41	.05	.08	1	3	3	2
10345 651098	1	57	5	56	.2	92	22	706	4.29	18	5	ND	1	36	1	2	2	98	.68	.051	5	54	2.25	100	.11	6	1.63	.06	.09	1	37	8	3
50345 651099	2	44	5	67	.1	31	15	510	4.49	5	5	ND	1	41	1	3	2	111	.59	.038	4	53	1.60	44	.22	5	2.15	.05	.08	1	1	2	3
50345 652001	2	30	8	78	.1	122	24	337	4.73	6	5	ND	1	27	1	2	2	115	.40	.044	2	63	1.65	68	.15	6	1.78	.06	.05	1	1	9	22
50345 652002	1	15	5	30	.1	39	10	146	2.61	2	5	ND	1	27	1	2	2	67	.72	.010	2	36	.49	63	.12	5	1.54	.05	.04	1	1	2	2
50345 652003	2	48	4	64	.1	113	25	679	5.17	2	5	ND	1	31	1	2	2	122	.54	.032	2	79	2.02	57	.12	2	1.39	.06	.06	1	14	8	26
50345 652004	3	138	5	61	.8	211	17	907	3.62	7	9	ND	1	111	1	2	2	70	3.52	.063	5	75	1.45	114	.05	10	1.50	.08	.08	1	7	2	9
50345 652005	2	33	8	63	.1	27	10	396	3.34	2	5	ND	2	41	1	2	2	77	.54	.043	6	40	.98	66	.14	5	1.40	.05	.09	1	1	2	2
50345 652006	3	85	9	91	.2	40	14	725	4.17	11	5	ND	2	39	1	2	2	79	.69	.093	11	43	1.25	115	.10	7	1.93	.06	.17	1	1	2	5
50345 652007	3	77	8	82	.2	35	14	684	4.01	8	5	ND	2	39	1	2	2	76	.59	.081	11	39	1.14	86	.14	6	1.73	.05	.13	1	1	2	2
50345 652008	1	26	6	60	.1	22	9	479	2.67	2	5	ND	1	34	1	2	2	66	.47	.040	4	39	.81	95	.14	5	1.44	.04	.08	1	5	2	7
50345 652009	1	36	5	80	.1	31	7	390	2.44	2	5	ND	1	19	1	3	3	57	.23	.040	2	26	.45	105	.10	4	1.81	.05	.05	1	1	2	2
50345 652010	1	35	8	155	.3	74	12	502	3.27	6	5	ND	2	22	1	2	3	66	.27	.093	4	36	.64	109	.14	6	2.75	.04	.09	1	1	2	8
50345 652011	2	22	7	129	.1	48	10	579	3.07	7	5	ND	1	18	1	4	4	61	.24	.171	2	35	.52	108	.10	7	2.28	.04	.06	1	1	2	2
50345 652012	1	32	7	111	.1	53	13	800	3.76	6	5	ND	1	20	1	2	2	85	.28	.144	2	50	.75	121	.09	6	2.00	.04	.06	1	1	103	8
50345 652013	2	34	8	114	.1	63	11	548	3.39	6	5	ND	2	22	1	2	2	75	.39	.064	4	45	.65	81	.12	7	2.29	.04	.04	1	13	2	13
50345 652014	1	21	5	36	.1	37	9	174	2.68	2	5	ND	1	22	1	5	2	68	.31	.042	2	45	.63	43	.08	5	1.01	.04	.04	1	1	5	8
50345 652015	1	22	6	87	.1	95	18	263	4.07	4	5	ND	2	22	1	2	2	96	.29	.227	2	51	.99	85	.14	6	2.03	.05	.05	1	2	2	8
50345 652016	1	12	8	74	.1	33	14	538	3.27	2	5	ND	1	16	1	2	4	82	.21	.133	2	36	.47	51	.12	6	1.29	.04	.03	1	1	3	2
50345 652017	1	22	6	111	.1	65	15	690	3.93	3	5	ND	1	23	1	2	2	88	.32	.244	2	47	.71	99	.11	5	1.95	.04	.05	1	1	10	2
50345 652018	2	22	8	106	.1	59	15	644	4.05	7	5	ND	1	21	1	2	2	95	.28	.206	2	48	.64	73	.12	8	1.89	.04	.05	1	1	5	5
50345 652019	2	30	7	47	.1	34	12	250	3.55	2	5	ND	1	29	1	2	2	91	.38	.036	4	57	.85	45	.12	5	1.37	.05	.05	2	1	14	2
50345 652020	1	29	4	68	.1	28	11	249	2.95	3	5	ND	1	27	1	2	2	71	.39	.050	4	36	.65	61	.14	5	1.81	.04	.05	1	2	5	4
50345 652021	2	26	5	71	.1	28	10	286	2.88	2	5	ND	1	24	1	2	2	64	.36	.097	5	33	.58	62	.13	7	1.73	.04	.05	1	4	3	7
50345 652022	1	32	7	67	.1	27	11	613	2.85	5	5	ND	1	28	1	2	2	64	.35	.106	4	35	.71	69	.12	7	1.69	.04	.07	1	5	2	4
50345 652023	1	18	6	66	.1	21	7	517	2.37	2	5	ND	1	20	1	2	2	54	.24	.155	4	28	.44	76	.12	4	1.44	.03	.05	1	6	5	2
50345 652024	2	30	8	83	.1	31	10	411	2.74	4	5	ND	1	24	1	2	2	61	.29	.051	6	32	.69	89	.15	4	1.98	.04	.06	1	1	2	2
50345 652025	1	53	7	97	.2	41	11	331	3.19	3	5	ND	2	24	1	2	2	65	.31	.078	6	38	.87	89	.13	5	2.47	.04	.07	1	7	2	5
STD C/FA-57	21	58	38	127	6.9	64	27	960	3.92	38	19	6	34	47	16	15	20	65	.48	.097	37	55	.88	177	.08	35	1.72	.09	.13	13	104	99	100

GHS GEOCHEMICAL PROJECT - 345 FILE # 86-3190

FAHSE

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Ca	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	W	Al	Na	K	M	Aut	Plut	Pd
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
50345 452026	1	32	5	80	.2	25	10	276	2.53	2	5	ND	2	20	1	2	2	55	.28	.080	2	31	.53	50	.14	5	2.03	.04	.05	1	1	2	2
50345 452027	1	32	7	92	.1	19	12	753	2.63	7	5	ND	1	21	1	2	2	63	.28	.210	2	27	.45	105	.10	2	1.86	.04	.04	1	1	2	2
50345 452028	2	37	5	105	.2	32	14	654	3.10	2	5	ND	1	29	1	2	2	79	.51	.055	2	39	.78	72	.13	4	1.88	.05	.07	1	1	2	2
50345 452029	2	33	5	75	.2	44	12	449	3.35	2	5	ND	1	21	1	2	2	83	.34	.075	2	41	.73	61	.13	4	1.64	.04	.05	1	3	8	2
50345 452030	2	55	7	73	.2	61	16	490	4.82	9	5	ND	1	25	1	6	2	120	.40	.071	2	60	1.31	80	.13	5	1.68	.05	.05	1	1	5	2
50345 452031	2	34	5	93	.4	130	21	302	4.97	2	5	ND	2	19	1	3	2	117	.28	.120	2	71	1.19	71	.14	5	2.12	.05	.05	1	1	3	2
50345 452032	1	26	5	91	.2	138	21	607	3.78	2	5	ND	1	21	1	2	2	88	.34	.172	2	59	1.68	98	.12	4	1.65	.05	.05	1	29	5	5
50345 452033	2	21	9	78	.1	88	18	608	3.80	2	5	ND	1	24	1	4	2	100	.48	.092	2	53	1.24	85	.12	6	1.17	.06	.05	1	1	8	2
50345 452034	2	23	9	117	.2	89	17	402	3.78	5	6	ND	1	18	1	2	2	91	.31	.141	2	47	.71	87	.12	5	1.82	.04	.05	1	1	2	2
50345 452035	2	65	6	63	.4	55	14	524	3.73	2	5	ND	2	38	1	2	2	84	.78	.054	8	63	1.22	82	.10	4	1.59	.06	.14	1	2	3	2
50345 452036	2	34	7	69	.2	34	11	424	3.44	4	5	ND	1	40	1	3	2	83	.68	.051	6	56	1.07	68	.13	5	1.48	.06	.11	1	3	2	2
50345 452037	2	35	4	104	.3	24	11	741	3.13	2	7	ND	2	28	1	2	2	62	.41	.155	3	31	.72	124	.07	7	1.50	.04	.12	1	2	2	2
50345 452038	1	21	7	90	.2	30	9	335	2.59	2	5	ND	1	25	1	2	2	60	.36	.071	2	33	.66	101	.11	3	1.66	.04	.06	1	6	2	2
50345 452039	3	71	6	72	.3	40	15	620	3.78	6	5	ND	2	41	1	2	2	81	.79	.036	11	49	1.05	76	.12	4	1.83	.05	.08	1	8	2	2
50345 452040	1	22	8	58	.1	22	9	345	2.71	2	5	ND	1	26	1	2	2	64	.39	.030	3	26	.71	65	.10	4	1.43	.04	.11	2	5	2	2
50345 452041	3	54	6	102	.2	57	17	667	4.19	7	5	ND	2	32	1	2	2	90	.58	.058	2	50	1.04	137	.16	3	1.80	.05	.10	1	7	6	2
50345 452042	1	115	7	105	.3	34	20	594	3.58	17	5	ND	2	23	1	5	2	87	.51	.196	3	32	1.27	88	.14	5	2.61	.08	.08	1	1	2	2
50345 452043	1	125	7	80	.3	47	27	708	4.01	15	5	ND	1	31	1	2	2	110	.74	.027	2	46	1.91	85	.17	4	2.93	.12	.08	1	1	2	2
50345 452044	2	100	8	80	.2	35	22	845	3.84	9	5	ND	1	33	1	2	2	106	.76	.031	2	33	2.12	82	.18	4	2.70	.12	.09	1	3	2	2
50345 452045	2	40	8	90	.2	30	14	1323	3.35	7	5	ND	1	27	1	2	2	86	.46	.043	2	34	.88	99	.16	5	2.30	.05	.06	1	1	2	2
50345 452046	2	56	9	118	.3	47	17	483	3.61	9	5	ND	2	29	1	2	2	81	.46	.062	2	44	1.03	88	.17	5	2.58	.05	.06	1	1	2	2
50345 452047	2	29	8	73	.1	40	14	667	2.90	6	5	ND	1	32	1	2	2	72	.52	.054	2	41	.86	78	.17	4	1.95	.05	.07	1	1	2	2
50345 452048	2	53	7	65	.2	36	15	557	3.42	7	5	ND	1	36	1	2	2	91	.62	.029	3	42	.99	107	.20	4	1.79	.05	.08	1	1	10	2
50345 452049	2	54	9	142	.2	49	18	1052	4.01	5	5	ND	1	33	1	2	2	93	.65	.056	2	40	.98	216	.15	6	2.01	.05	.09	1	5	2	2
50345 452050	2	50	7	105	.3	55	17	899	4.28	10	5	ND	1	32	1	2	2	97	.60	.046	2	49	1.01	199	.17	5	2.12	.05	.09	1	7	2	2
50345 452051	2	154	8	116	.2	61	24	1011	5.10	31	5	ND	2	34	1	2	2	120	.83	.104	4	47	1.61	174	.10	8	2.44	.06	.14	1	5	3	4
50345 452052	1	266	7	73	.1	32	31	613	7.08	8	5	ND	1	64	1	2	2	277	.91	.145	2	26	2.84	144	.18	2	2.39	.07	.16	1	1	22	10
50345 452053	1	36	4	64	.2	88	20	429	4.77	5	5	ND	2	26	1	2	2	124	.47	.063	2	68	1.57	44	.15	6	1.65	.06	.10	1	2	3	2
50345 452054	2	19	6	68	.2	73	17	670	4.66	4	5	ND	1	25	1	2	2	119	.49	.094	2	67	.98	79	.13	5	1.44	.05	.05	1	1	6	2
50345 452055	2	37	6	65	.6	39	17	416	4.39	5	5	ND	1	29	1	2	2	111	.44	.029	3	45	1.03	109	.14	4	1.95	.05	.05	1	18	4	2
50345 452056	1	61	6	108	.4	34	12	782	3.30	2	5	ND	2	25	1	2	2	74	.53	.032	2	30	.53	186	.13	6	2.12	.05	.07	1	21	2	2
50345 452061	2	14	7	85	.1	181	25	281	4.52	2	5	ND	2	18	1	2	2	86	.24	.151	2	90	2.21	58	.12	5	1.58	.04	.03	1	1	25	3
50345 452062	1	12	5	51	.2	125	30	400	5.99	4	5	ND	1	19	1	2	2	157	.46	.028	2	105	1.50	75	.14	4	1.47	.06	.04	1	1	63	6
50345 452063	1	46	5	87	.6	30	17	338	4.12	3	5	ND	1	15	1	2	2	127	.31	.044	2	22	.89	69	.21	4	2.12	.06	.04	1	2	31	14
50345 452064	1	27	11	74	.7	34	19	300	5.87	78	5	ND	1	14	1	3	3	142	.18	.042	2	35	.50	167	.02	4	1.87	.04	.07	1	1	8	4
50345 452065	1	67	6	59	.7	58	19	1229	4.97	4	5	ND	2	44	1	2	2	180	1.26	.051	5	108	1.57	319	.18	6	2.71	.09	.06	1	1	12	43
50345 452066	1	21	3	66	.1	531	54	589	5.67	6	6	ND	1	17	1	2	4	62	.19	.053	2	172	7.37	44	.07	5	.92	.05	.03	1	1	18	2
STD C/FA-51	22	57	37	152	.9	67	28	993	3.87	42	16	6	33	47	17	15	20	66	.53	.092	38	58	.86	176	.08	34	1.71	.09	.13	13	102	98	99

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PAGE 8

SAMPLE	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tl	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Si	Al	Mn	K	Rust	Pt	For	For
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	PPM	PPM	PPM	PPM
50345 652067	2	33	5	52	.1	469	46	581	6.70	3	5	ND	1	12	1	2	2	143	.20	.020	2	149	6.93	65	.10	9	1.08	.05	.03	1	1	13	2
50345 652068	1	10	6	46	.1	96	10	145	2.56	4	5	ND	1	15	1	2	2	61	.17	.058	2	56	.58	60	.12	5	1.12	.03	.03	1	1	10	2
50345 652069	2	14	4	49	.1	417	43	449	5.04	5	5	ND	1	16	1	2	2	72	.21	.034	2	133	6.66	36	.08	6	.90	.04	.05	1	1	13	2
50345 652070	1	53	4	49	.1	174	30	640	5.94	3	5	ND	1	43	1	2	2	150	.72	.097	2	115	3.96	78	.09	9	1.13	.07	.09	1	1	11	2
50345 652071	1	26	8	71	.1	46	41	821	9.61	10	5	ND	1	17	1	2	2	349	.92	.017	3	75	3.79	123	.34	2	2.41	.06	.30	1	11	10	6
50345 652072	1	20	3	67	.1	26	12	424	3.16	2	5	ND	2	32	1	2	2	72	.46	.042	2	45	1.12	50	.14	3	1.75	.04	.07	1	1	2	2
50345 652073	1	55	4	76	.3	31	16	700	3.66	5	5	ND	1	38	1	2	2	79	.68	.103	3	48	1.21	157	.10	7	1.68	.05	.10	1	2	2	2
50345 652074	1	29	2	60	.1	28	14	495	3.36	2	5	ND	1	29	1	2	2	78	.46	.036	2	48	1.20	49	.15	6	1.87	.04	.06	1	1	2	2
50345 652075	2	24	6	79	.1	33	13	435	3.36	5	5	ND	1	26	1	2	2	76	.42	.048	2	43	1.06	55	.16	5	1.94	.04	.07	1	1	2	2
50345 652076	1	32	7	47	.1	95	24	359	5.22	9	5	ND	1	29	1	2	2	165	.52	.041	2	78	2.22	43	.18	8	1.63	.07	.08	1	5	50	3
50345 652077	1	29	4	82	.1	27	16	397	3.52	4	5	ND	2	19	1	2	2	93	.28	.273	2	28	.89	69	.12	5	2.02	.04	.05	1	3	6	2
50345 652078	1	87	4	58	.1	96	30	593	6.15	5	5	ND	1	30	1	2	2	234	.64	.043	2	52	3.66	54	.17	8	2.12	.07	.22	1	37	22	18
50345 652079	1	24	2	60	.1	29	14	478	3.41	2	5	ND	1	39	1	2	2	82	.57	.042	2	52	1.24	44	.19	6	1.76	.04	.07	1	17	2	8
50345 652080	1	69	7	74	.2	36	18	848	3.93	9	5	ND	1	36	1	2	2	92	.61	.062	6	49	1.42	101	.12	7	1.99	.05	.09	1	3	2	3
50345 652081	1	32	8	64	.1	34	14	375	3.43	2	5	ND	1	29	1	2	2	78	.42	.056	2	55	1.09	56	.14	6	1.93	.04	.07	1	1	13	2
50345 652082	2	23	4	80	.1	69	31	691	6.95	8	5	ND	1	26	1	2	2	254	.81	.033	2	157	2.37	282	.22	6	1.96	.06	.12	1	1	55	4
50345 652083	2	55	5	66	.1	212	38	692	8.32	10	5	ND	1	36	1	2	2	247	.60	.068	2	110	5.20	61	.14	4	1.24	.08	.08	1	1	20	2
50345 652084	1	25	9	58	.2	43	11	227	3.34	5	5	ND	1	22	1	3	2	88	.30	.099	2	43	.61	67	.14	6	1.44	.05	.04	1	2	8	2
50345 652085	2	69	6	74	.4	28	14	375	3.50	2	5	ND	2	23	1	2	2	100	.30	.113	2	27	.81	81	.13	8	2.00	.04	.05	1	1	2	2
50345 652086	1	40	8	75	.3	26	11	438	3.32	4	5	ND	2	20	1	2	2	77	.22	.128	2	24	.71	80	.10	5	2.27	.04	.05	1	1	2	2
50345 652087	1	35	7	76	.2	17	8	513	2.58	2	5	ND	1	18	1	2	2	66	.23	.083	2	25	.48	84	.11	6	1.48	.04	.05	1	2	2	2
50345 652088	1	44	9	92	.3	30	14	591	3.61	3	5	ND	1	31	1	2	2	90	.44	.067	2	35	.95	116	.12	6	2.23	.05	.06	1	1	2	2
50345 652089	1	973	5	79	.3	39	38	857	4.16	3	5	ND	1	34	1	2	2	112	.57	.060	3	51	1.34	213	.13	6	2.11	.06	.08	1	3	5	3
50345 652090	1	55	5	53	.1	43	20	436	4.50	6	5	ND	1	34	1	2	2	125	.51	.049	2	54	1.57	53	.19	7	1.99	.06	.07	1	1	6	2
50345 652091	1	25	7	78	.1	22	9	425	2.86	4	5	ND	2	16	1	2	2	71	.20	.058	2	24	.55	58	.09	5	2.00	.04	.04	1	1	2	2
50345 652092	1	16	6	65	.3	16	7	286	2.43	2	5	ND	1	15	1	2	2	60	.18	.089	2	21	.39	64	.09	5	1.65	.03	.04	1	1	2	2
50345 652093	1	30	5	73	.1	22	12	414	3.23	2	5	ND	1	22	1	2	2	83	.31	.087	3	29	.85	82	.11	8	1.85	.04	.05	1	1	2	2
50345 652094	1	27	7	120	.1	29	11	567	3.00	2	5	ND	2	20	1	2	3	72	.24	.118	2	28	.61	87	.11	5	2.17	.04	.05	1	25	3	26
50345 652095	1	35	10	189	.4	20	11	1196	2.65	2	5	ND	1	21	1	3	2	69	.32	.093	3	25	.58	119	.07	5	1.71	.04	.07	1	4	2	2
50345 652096	1	162	4	152	.1	47	21	470	4.20	5	5	ND	2	35	1	2	2	107	.51	.053	3	34	1.28	87	.16	6	2.22	.05	.04	1	9	3	6
50345 652097	1	42	7	44	.1	371	48	655	7.02	3	5	ND	1	24	1	2	2	129	.32	.055	2	174	6.26	19	.07	10	.71	.06	.06	1	1	29	2
50345 652098	1	14	6	53	.1	58	12	395	4.35	2	5	ND	1	23	1	2	2	95	.39	.062	2	76	.90	57	.14	8	1.30	.05	.06	1	1	5	2
50345 652099	2	23	7	54	.1	303	46	495	6.27	6	5	ND	1	31	1	2	2	118	.30	.040	2	192	3.62	32	.12	8	1.05	.05	.04	1	1	56	2
50345 652100	1	20	6	54	.1	162	27	290	5.65	2	5	ND	1	28	1	2	2	114	.34	.044	2	168	2.00	33	.12	7	1.01	.05	.04	1	2	15	2
50345 652101	1	24	8	73	.1	33	10	246	3.23	3	5	ND	1	25	1	2	2	84	.32	.070	2	34	.71	69	.12	6	1.67	.04	.05	1	5	2	2
50345 652102	1	32	6	69	.1	94	11	757	2.70	3	5	ND	1	20	1	2	2	70	.27	.045	5	47	.74	74	.11	7	1.49	.05	.04	1	1	3	2
50345 652103	1	48	6	77	.1	37	14	388	3.96	2	5	ND	2	26	1	2	2	102	.34	.070	2	40	1.22	61	.13	7	2.32	.05	.05	1	1	4	2
STD C/FA-51	21	58	39	132	7.0	67	28	994	3.91	38	18	7	34	47	17	16	19	66	.48	.095	35	58	.88	178	.08	37	1.72	.09	.14	12	97	102	95

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SAMPLE#	Hg	Cu	Pb	Zn	As	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mo	Ba	Ti	P	Al	Na	K	W	Ag	Pt	Pd
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
80345 450006	1	78	2	28	.1	18	12	563	2.16	2	5	ND	1	42	1	2	2	74	5.62	.025	2	38	1.22	23	.15	6	1.52	.17	.08	1	1	2	22
80345 450027	1	93	7	90	.1	23	31	730	10.13	7	5	ND	1	76	1	2	2	333	2.17	.259	4	11	3.41	116	.21	2	2.69	.09	.65	1	8	26	29
80345 450030	2	708	9	47	.2	51	42	1209	10.00	14	7	ND	1	170	1	2	2	213	5.34	.044	8	2	1.99	154	.07	2	.29	.08	.14	1	288	7	15
80345 450043	1	8	3	16	.1	46	18	210	4.20	6	5	ND	1	12	1	3	2	99	1.01	.004	2	128	1.66	9	.14	9	.67	.05	.01	1	1	153	8
80345 450046	2	328	6	56	.6	26	25	1036	6.99	8	10	ND	1	322	1	2	2	223	9.34	.022	7	23	4.42	40	.01	5	.57	.08	.01	1	99	2	8
80345 450067	1	4	6	26	.1	32	18	291	9.28	7	5	ND	1	59	1	2	2	377	2.10	.013	2	7	.96	27	.26	2	.76	.19	.09	1	29	6	3
80345 450071	1	8	2	27	.1	19	15	318	6.00	3	5	ND	1	94	1	2	2	234	1.55	.029	3	4	1.57	37	.28	9	1.31	.25	.17	1	26	21	17
80345 450100	1	6	4	8	.1	60	19	242	4.42	3	5	ND	1	40	1	2	3	54	3.93	.005	2	636	1.44	7	.08	9	.52	.05	.01	1	1	20	2
80345 450103	1	3	5	29	.1	38	18	364	7.31	2	5	ND	1	66	1	2	2	227	2.22	.101	7	171	1.65	40	.24	5	1.19	.26	.13	1	1	25	12
80345 450105	1	1	4	27	.1	66	17	369	5.92	3	5	ND	1	90	1	2	2	190	3.00	.060	2	184	1.84	59	.27	7	1.36	.31	.20	1	1	4	2
80345 450120	1	4	2	17	.1	72	22	250	2.85	4	5	ND	1	5	1	5	3	38	.50	.003	2	331	2.77	7	.03	9	.43	.04	.01	1	1	138	12
80345 450131	1	72	5	47	.1	81	15	373	3.08	2	5	ND	1	108	1	2	2	80	1.14	.139	5	95	1.96	36	.21	7	1.43	.18	.06	1	12	2	10
80345 450133	1	136	3	60	.1	15	16	474	3.59	2	5	ND	1	283	1	2	2	129	1.44	.218	4	28	1.41	30	.15	10	1.30	.08	.03	1	1	2	33
STD C/FA-SI	22	59	37	134	7.0	68	28	1003	3.97	43	15	7	35	48	17	14	20	67	.48	.102	37	57	.88	180	.08	41	1.73	.09	.13	13	103	102	98

WHOLE ROCK ICP ANALYSIS

A .1000 GRAM SAMPLE IS FUSED WITH .60 GRAM OF LiBO2 AND IS DISSOLVED IN 50 ML 5% HNO3.

- SAMPLE TYPE: ROCK CHIPS

DATE RECEIVED: OCT 15 1986 DATE REPORT MAILED: *Oct 27/86* ASSAYER: *L. J. J.* DEAN TOYE. CERTIFIED B.C. ASSAYER.

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PAGE 9

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba PPM	Loi %	Sum
<i>pyroxenite</i> 80345 640006	43.12	16.54	8.24	5.42	16.01	2.70	.40	.54	.08	.16	.02	142	6.5	99.76
<i>pyroxenite</i> 80345 650027	35.17	14.48	21.02	8.26	10.31	1.25	1.20	2.39	.83	.18	.01	285	4.6	99.76
<i>pyroxenite</i> 80345 650030	37.25	10.73	18.94	4.10	7.60	2.80	2.25	1.46	.15	.18	.01	440	14.2	99.76
<i>pyroxenite</i> 80345 650045	48.97	2.81	9.98	15.30	18.96	.15	.20	.48	.05	.14	.04	28	2.6	99.69
<i>pyroxenite</i> 80345 650046	34.25	6.31	13.31	7.91	13.95	2.75	.10	.82	.08	.17	.01	85	20.1	99.78
<i>pyroxenite</i> 80345 650067	40.12	7.11	23.55	10.03	13.99	.80	.70	1.35	.08	.17	.01	123	1.8	99.73
<i>hornblende pyroxenite</i> 80345 650071	43.04	10.52	18.82	10.01	12.15	1.20	.80	1.38	.11	.16	.01	149	1.6	99.83
<i>syenite</i> 80345 650100	46.74	1.57	10.26	19.53	14.74	.05	.15	.24	.05	.11	.17	14	6.4	100.01
<i>pyroxenite</i> 80345 650103	41.24	9.04	18.74	10.96	14.08	1.05	.75	1.55	.32	.16	.06	139	1.8	99.78
<i>pyroxenite</i> 80345 650105	41.39	9.97	16.74	11.34	13.48	1.35	.95	1.56	.22	.15	.06	208	2.5	99.75
<i>serp. peridotite</i> 80345 650120	50.31	2.30	8.22	17.28	18.65	.25	.10	.27	.05	.15	.15	16	2.2	99.93
<i>syenogabbro</i> 80345 650131	51.74	15.39	8.92	6.75	7.14	3.65	1.85	1.04	.41	.14	.04	673	2.6	99.80
<i>syenogabbro</i> 80345 650133	50.10	15.06	10.18	5.30	10.83	3.20	1.25	.72	.58	.18	.01	1187	2.2	99.84
STD SD-4	68.02	10.26	3.36	.93	1.58	1.40	2.05	.54	.20	.06	.01	614	11.4	99.93

APPENDIX IV

Pre-1986 Analytical Results

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

Telephone: 299-5242

To

6455 Laurel Street • Burnaby, B.C. V5B 3B4

Hudson Bay Exploration &
Development Co. Ltd.,
1695 Bentall No. 2,
555 Burrard St.,
Vancouver, B. C. V7X 1G6

File No. 7369A
Type of Samples Rock
Disposition _____

ASSAY CERTIFICATE

No.	Sample	Cr ₂ O ₃ %	Pt oz/ton				No.
1	9442	32.10	.160				1
							20

All reports are the confidential property of clients.

Sample taken from
the H.F.H. Claims on
Olivine Mtns. B.C.
Bill Halliday
Tasvation Mining Co. Ltd.
Box 1900 - Hope
British Columbia
869 - 2193

DATE SAMPLES RECEIVED _____

DATE REPORTS MAILED Aug. 2, 1977

ASSAYER Dean Toye

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER

CHEMEX LABS LTD.

212 BROOKSBANK AVI
NORTH VANCOUVER, B.C.
CANADA V7J 2C

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

TELEPHONE (604) 984-022
TELEX 043-5259

CERTIFICATE OF ANALYSIS

TO : SHEARER, JOE

P.O. BOX 1695
HOPE, B.C.
VOX 1L0

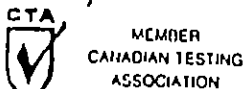
** CERT. # : A8213867-001
INVOICE # : 18213867
DATE : 22-OCT-82
P.O. # : NONE

1 gram per metric tonne = 1 ppm = 0.029167 oz/ton per short ton.

Sample description	Prep code	Cr ppm	Au ppm	FA+AA ppb	Pt ppb	Pt %			
57981	205	>10000		10	1200	0.035	---	---	---
57982	205	--		25	--	0.035	---	---	---
57983	205	--		5	--	0.035	---	---	---
57984	205	--		20	--	0.035	---	---	---
57985	205	144		10	<50	0.035	---	---	---
57986	205	790		<5	400	0.017	---	---	---
57987	205	>10000		<5	<50	0.017	---	---	---
57988	205	126		5	<50	0.017	---	---	---

57981 - Olivine Mountain courtyard Rock cat serpentized Dunite, Magnetite, chromite.
 57982 - " " Footwall schist 0.5 m wide at quartz vein showing
 57983 - " " Quartz vein 0.8 m wide.
 57984 - " " Quartz grab of rock at base of 20 foot decline.
 57985 - " " At Mill site, ground up samples
 57986 - " " DUNITE.
 57987 - " " 3V corner Post H+H #1 chromite + magnetite.
 57988 - " " near 5th switchback coarse pyroxenite.

CAROLIN MINES MADE THIS REPORT
ON TARNATION MINING LTD. PROPERTY



Certified by *Hart Buchler*

290 Pemberton Ave
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone (604) 985-0681
 Telex: 04-352667



BONDAR-CLEGG

Geochem
 Lab Re

PORT: 224-2854

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	ELEMENTS											NOTES
		Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	As PPM	Te PPM	Ri PPM	Sb PPM		
17020		25	50	65	<0.5	800	110	10	10	7	<5		
23476		2900	15	8	3.0	20	3	<5	10	<2	<5		
23480		110	30	60	<0.5	85	30	<5	20	2	<5		
23483		20	40	60	<0.5	800	100	<5	10	6	<5		
23847		25	35	70	<0.5	850	120	<5	10	2	<5		

Copper
Lead
Zinc
Silver
Nickel
Cobalt
Arsenic
Te
Ri
Sb
Antimony

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 983-0681
 Telex: 04-352667



BONDAR-CLEGG

Geochemi
 Lab Rep

Chromium
Gold
Platinum
Palladium
Nickel

ORT: 124-3854

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cr PPM	Au PPB	Pt PPB	Pd PPB	Ni PPM	NOTES
17020		300	<5	80	<5	800	
3476		500	25	<50	<5	20	
3480		450	10	<50	10	85	
23483		2700	<5	185	5	800	
3847		6600	<5	160	<5	850	
		>400	>60	>40	>20	>120	

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Tarnation Mining Eastside Date of report June 16/83.

File No. 3-333 Date samples received June 6/83.

Samples submitted by:

Company: VLH Consultants

Report on: 133 soils, 46 rocks Geochem samples

Assay samples

Copies sent to:

1. VLH Consultants, Richmond, B.C.

2.

3.

Samples: Sieved to mesh -80 soil Ground to mesh -80 rock

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: Au, Pb, Pt-fire; Cr-nitric, perchloric digestion.

A.A.

Remarks:

PROJECT No.: Tarnation Mining Eastside

MIN - EN Laboratories Ltd.

DATE: June 16

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

ATTENTION: V. Hardy

PHONE (604) 980-5814

1983.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ca ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Pd ppb	Pt ppb	Cr ppm
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	90	95	100	105	110	115	120	125	130	135	140	Fire 145	Fire 150	Fire 155	160
1000		185	510W		2.8							82	54	142	35
02			400W		2.0							61	4	3	40
04			300W		9.0							22	4	14	140
06			210W		2.1							61	61	61	45
08			100W		1.9							2	61	61	40
10		185	5450E		2.4							1	4	61	25
12			350E		2.3							9	4	10	30
14			250W		2.4							7	5	2	40
16			150W		2.5							6	4	5	40
18			50E		2.2							23	5	15	40
20		185	50W		3.9							7	3	5	55
22		145	450E		1.7							61	4	10	20
24			350W		3.5							61	3	7	100
26			250W		2.2							61	1	4	10
28			150W		2.9							61	1	6	40
30		145	60E		2.0							15	2	61	25
32		145	50W		3.2							2	6	3	30
34			150W		2.20							61	5	9	100
36			250W		4.4							2	5	6	90
38			350W		1.9							1	6	1	15
40		145	450W		4.6							61	4	11	255
42		105	500E		1.0							2	6	3	20
44			400E		1.1							10	6	7	20
46			300W		2.0							6	6	11	25
48			200W		2.0							34	6	9	30
50			100E		2.8							5	4	4	40
52		105	95		3.8							61	3	10	45
54		85	100W		2.2							5	2	6	10
56			200W		2.1							61	2	9	30
1058		85	300W		2.2							61	3	9	30

Handwritten signature/initials

PROJECT No.: Tarnation Mining Eastside

MIN-EN Laboratories Ltd.

DATE: June

705 WEST 15th ST, NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

ATTENTION: V. Hardy

1983

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Pd ppb	Pt ppb	Cr ppm	
81	90	95	100	105	110	115	120	125	130	135	140	Fire 145	Fire 150	Fire 155	160	
1060		88	400W		59								3	4	26	350
1062		85	500W		48								4	3	17	140
1084		82	500E		10								4	2	5	20
186			400		14								18	1	9	15
188			300		23								4	3	7	25
190			200		24								18	5	10	30
192			100		31								8	7	13	45
194		85	0E		43								7	8	26	30
196		65	450E		22								5	4	13	35
198			350		26								4	3	12	15
1100			250		20								53	6	11	25
102			150		24								13	5	12	30
1104		65	150E		6.6								74	3	25	45
12002		200	150E		23								1	2	13	20
104			150		18								8	4	11	20
106			250		14								4	4	6	10
108			350		21								18	5	3	30
110			450		18								6	3	6	20
112		200	150W		18								20	8	14	30
114			150		28								6	4	14	30
116			250		26								4	1	8	30
118			350		21								6	3	5	40
120			450W		26								4	4	2	70
122		165	0E		16								4	2	3	20
124			100E		18								4	4	2	25
126			200		18								7	1	7	30
128			300		15								4	2	11	25
130			450		27								6	3	7	100
132			500E		24								30	1	4	15
2034		165	100W		27								6	10	10	30

CERTIFIED BY

[Signature]

PROJECT No.: Tarnation Mining Eastside . MIN - EN Laboratories Ltd.

DATE: June

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

ATTENTION: V. Hardy

1983

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Pd ppb	Pt ppb	Cr ppm
81	90	95	100	105	110	115	120	125	130	135	140	fire 45	fine 70	fine 75	160
2.0.3.6		165	20.0		29		:					8	4	8	5.0
3.8			30.0		26		:					12	11	11	3.0
4.0			40.0		29		:					13	2	61	4.5
4.2			50.0		60		:					19	7	14	6.5
4.4		12.5	50.0		20		:					4	3	3	4.0
4.6			15.0		18		:					13	8	13	2.0
4.8			25.0		21		:					61	2	9	4.0
5.0			35.0		18		:					27	4	4	2.0
5.2			45.0		10		:					61	3	8	5
5.4		12.5	50.0		30		:					2	1	10	5.0
5.6			15.0		67		:					61	61	6	5.0
5.8			25.0		20		:					31	4	4	2.0
6.0			25.0		18		:					2	3	5	3.5
6.2		12.5	45.0		22		:					19	11	16	6.0
6.4		10.5	50.0		20		:					61	2	7	1.65
6.6			40.0		59		:					1	3	4	8.0
6.8			20.0		38		:					9	6	13	18.0
7.0			20.0		27		:					61	1	5	4.0
2.0.7.2			10.0		21		:					8	3	7	1.5
2.1.0.2		8L	15.0		20		:					13	3	4	3.0
0.4			135.0		62		:					19	5	12	7.5
0.6			165.0		110		:					5	3	4	9.0
0.8			150.0		20		:					28	3	61	2.0
1.0			135.0		22		:					2	2	6	4.5
1.2			125.0		170		:					85	4	10	12.0
1.4			110.0		91		:					61	5	5	8.0
1.6			95.0		79		:					47	1	10	9.0
1.8			85.0		33		:					39	1	6	1.5
2.0			70.0		26		:					47	1	7	3.0
2.1.2.2			55.0		25		:					7	2	5	3.5

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PROJECT No.: Tarnation Mining Eastside

MIN - EN Laboratories Ltd.

DATE: June 10

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

ATTENTION: V. Hardy

1983.

Sample Number	6 100 ppm	10 100 ppm	15 100 ppm	20 100 ppm	25 105 ppm	30 110 ppm	35 115 ppm	40 120 ppm	45 125 ppm	50 130 ppb	55 135 ppm	60 140 ppm	65 fire	70 fire	75 fire	80 160 ppm
2.1.2.4			BL	450		6.4							3	4	2	75
2.6				300		6.2							2.2	7	1	50
2.8				150		3.6							9	7	5	40
2.1.3.0				500		4.0							<1	5	6	50
4.0.0.0			ZS	BL		7.4							5	3	3	60
0.2				1000		2.8							13	5	<1	20
0.4				2000		1.9							5	2	<1	25
0.6				3000		2.5							55	10	17	40
0.8				4000		1.8							24	11	15	20
1.0			ZS	500 F		2.7							80	9	15	25
1.2			HS	450 E		2.3							31	6	6	50
1.4			(4.0M)	350		8							56	7	12	15
1.6				250		1.8							38	3	8	30
1.8				150		2.4							3	6	5	30
2.0			HS	50 E		4.6							1	4	2	35
2.2			DS	0 E		2.0							<1	3	6	30
2.4				100		2.0							11	6	<1	25
2.6				200		1.8							6	7	10	35
2.8				300		1.6							<1	<1	4	25
3.0				400		1.8							<1	<1	11	40
3.2			DS	500 S		2.1							14	<1	8	25
3.2A			DS	50 W		4.2							<1	1	13	50
3.4				150		1.7							13	3	7	35
3.6				250		1.8							4	6	15	30
3.8				350		3.2							26	2	11	60
4.0			DS	450 W		2.0							17	1	21	50
4.0A			ZS	50 W		4.0							5	1	4	40
4.2				150		3.0							5	<1	8	55
4.4				250		2.5							16	3	19	50
4.0.4.6				350 W		2.4							13	1	(1)	40

1/21/83

PROJECT Tarnation-Mining-Eastside

MIN-EN Laboratories Ltd.

DATE: June 16

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1983.

ATTENTION: V. Hardy

6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Sample Number	Mo ppm	Cd ppb	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Pd ppb	Pt ppb	Cr ppm
#1	86	90	100	105	110	115	120	125	130	135	140	145	150	155	160
4048		2.5	45.0 W		28							12	1	8	35
50		6.5	0 W		29							10.2	1	2.8	20
52			1.00 W		19							15	1	1.2	30
54			2.00		26							11.0	6	2.0	20
56			3.00		8							17	2	9	5
58			4.00		22							18	1	7	30
60			5.00 W		14							18	2	9	15
62		4.5	45.0 W		42							37	3	17	50
64			3.50		20							19	4	1.1	10
66			2.50		26							16	2	8	20
68			1.50		20							18	4	1.8	30
4070			1.50		36							14	2	13	35
2054		(DUP.)			48							15	1	5	65

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2000.11.17

PROJECT No.: Tarnation Mining Eastside

MIN - EN Laboratories Ltd.

DATE: June 10

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

1983.

ATTENTION: V. Hardy

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Pd ppb	Pt ppb	Cr ppm	
81	86	90	95	100	105	110	115	120	125	130	135	140	fire ⁶⁵	fire ⁷⁰	fire ⁷⁵	160
3000					34							14	<1	2	20	
01					29							18	5	3	20	
02					47							19	4	3	25	
03					15							17	8	<1	15	
04					22							18	7	1	10	
05					25							181	15	43	20	
06					37							14	4	7	25	
07					45							31	45	22	60	
08					17							23	<1	<1	95	
09					27							27	4	<1	20	
10					46							42	3	16	110	
11					60							30	<1	6	20	
12					80							38	<1	46	910	
13					89							27	<1	1	570	
14					960							31	<1	4	150	
15					97							29	<1	3	95	
16					116							30	<1	21	1000	
17					96							28	<1	<1	660	
18					114							55	<1	13	750	
19					70							43	4	16	470	
20					144							42	2	9	510	
21					134							79	4	26	530	
22					156							64	4	18	540	
23					164							23	6	<1	710	
24					38							19	11	8	90	
25					36							14	1	5	35	
26					26							30	4	9	20	
27					33							14	<1	2	120	
28					40							11	<1	2	175	
3029					24							17	<1	1	25	

[Handwritten signature]

PROJECT No.: Tarnation Mining Eastside

MIN - EN Laboratories Ltd.

DATE: June 10

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1983.

ATTENTION: V. Hardy

Sample Number	6 Me ppm	10 Cu ppm	15 Pb ppm	20 Zn ppm	25 Ni ppm	30 Co ppm	35 Ag ppm	40 Fe ppm	45 Hg ppb	50 As ppm	55 Mn ppm	60 Au ppb	65 Pd ppb	70 Pt ppb	75 Cr ppm	80
#1	#6	#90	#95	#100	#105	#110	#115	#120	#125	#130	#135	#140	fine	fine	fine	#160
3030					34								36	<1	12	30
31					38								292	2	33	25
32					44								15	1	<1	40
33					38								15	2	1	20
34					36								15	5	4	80
35					37								10	3	2	15
36					62								12	2	1	490
37					102								1	6	6	475
38					14								5	2	<1	10
39					44								18	9	17	25
40					34								12	11	28	60
41					40								5	1	7	40
42					36								31	19	53	50
43					50								26	18	13	120
44					34								23	12	7	10
3045					56								18	14	134	90

Handwritten signature and notes

ATTENTION: C. STANLEY/J. WOLCZYK

(604)980-5814 OR (604)988-4524

* TYPE SOIL GEOCHEM *

DATE: JULY 23, 1986

(VALUES IN PPM)	AS 1/2	AS 1/2	CO 1/2	CU 60	NI 1/2	PR 1/2	SAU-PPB	PD-PPB	PT-PPB
1001 185 4+50W	.5	1	9	28	26	23	3	4	9
1003 185 3+50W	.4	5	11	35	53	33	1	2	3
1005 185 2+50W	.8	1	13	65	37	23	1	1	4
1007 185 1+50W	1.0	3	14	43	44	25	1	1	8
1009 185 5+00E	.9	1	10	56	24	28	6	9	6
1011 185 4+00E	.9	8	9	20	26	25	10	20	12
1013 185 3+00E	1.0	5	11	77	34	30	3	2	2
1015 185 2+00E	.7	2	9	37	31	23	4	1	.55
1017 185 1+00E	.8	1	12	45	31	28	1	1	1
1019 185 0+00	.9	1	11	37	31	20	1	1	2
1021 145 5+00E	.8	1	9	33	22	21	7	1	6
1023 145 4+00E	.8	1	10	39	23	21	1	1	1
1025 145 3+00E	1.0	1	13	44	31	18	5	9	3
1027 145 2+00E	.8	1	12	40	28	24	13	21	44
1029 145 1+00E	.9	1	10	33	29	24	9	15	9
1031 145 0+00	.8	1	10	25	25	18	11	21	16
1033 145 1W	.7	1	7	23	20	16	11	22	20
1035 145 2W	.7	1	7	11	34	11	6	12	5
1037 145 3W	1.3	5	12	21	83	29	1	2	1
1039 145 4+00W	1.0	9	12	29	52	29	5	9	1
1041 145 5W	.9	11	14	41	64	34	5	11	25
1043 105 4+50E	.4	1	9	47	27	16	4	10	1
1045 105 3+50E	1.1	1	9	32	25	21	1	1	1
1047 105 2+50E	1.0	1	12	98	31	23	2	2	1
1049 105 1+50E	.7	1	8	26	20	15	5	11	2
1051 105 0+50E	1.0	3	11	49	40	23	6	10	1
1053 85 0+50W	1.3	27	17	25	46	38	2	1	16
1055 85 1+50W	6.6	5	13	27	30	101	100	1	1
1057 85 2+50W	.4	1	7	11	18	17	1	1	1
1059 85 3+50W	.7	1	8	606	35	29	5	13	2
1061 85 4+50W	.5	8	11	7	43	22	8	8	3
1085 85 4+50E	.5	1	9	29	11	10	12	14	15
1087 85 3+50E	.8	6	10	67	24	21	11	6	20
1089 85 2+50E	.7	1	13	95	28	21	4	1	1
1091 85 1+50E	.8	69	21	183	29	46	7	1	1
1093 85 0+50E	1.7	27	28	37	44	46	5	1	2
1095 65 5+00E	.4	1	16	102	31	22	10	12	21
1097 65 4+00E	.6	1	12	110	24	21	14	25	39
1099 65 3+00E	1.2	3	12	58	24	25	1	1	1
1101 65 2+00E	.7	1	10	35	29	10	1	1	1
1103 65 1+00E	1.0	1	12	49	43	18	6	2	11
20'S 100E 2003	.9	1	11	50	32	14	8	8	7
20'S 200E 2005	1.1	1	7	26	19	16	8	9	13
20'S 300E 2007	1.0	1	12	37	30	21	46	1	3
20'S 400E 2009	.9	7	14	59	29	28	1	1	54
20'S 500E 2011	1.3	7	19	157	30	29	14	19	45
20'S 100W 2013	.9	1	9	32	29	12	14	5	69
20'S 200W 2015	1.1	1	15	75	49	27	2	1	2
20'S 300W 2017	1.2	1	9	25	23	19	6	2	2
20'S 400W 2019	.9	1	7	20	20	14	7	5	6
20'S 500W 2021	.7	1	8	23	27	19	11	13	45
16'S 0+50E 2023	.8	1	8	40	20	23	1	1	1
16'S 1+50E 2025	10.2	7	19	311	37	24	62	5	2
16'S 2+50E 2027	1.7	1	19	64	35	16	1	22	94
16'S 3+50E 2029	.9	25	26	9	86	43	3	1	39
16'S 4+50E 2031	.8	1	11	34	26	23	8	8	9
16'S 0+50W 2033	.7	1	12	36	32	22	4	1	16
16'S 1+50W 2035	.5	11	17	39	143	35	1	8	1
16'S 2+50W 2037	.4	16	21	52	145	41	6	1	27
16'S 3+50W 2039	.7	1	6	22	21	15	3	1	3

PROJECT NO:

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 6-4949/P3+4

ATTENTION: C. STANLEY/J. WOLCZYK

(604)980-5814 OR (604)988-4524

* TYPE SOIL BEDCHEM *

DATE: JULY 23, 1986

(VALUES IN PPM)	AG	AS	CO	CU	NI	PB	AU-PPB	PD-PPB	PT-PPB
16'S 4+50W 2041	.3	14	16	45	96	34	31	1	3
12'S 0+00 2043	.4	1	12	36	34	27	2	2	1
12'S 1+00E 2045	.6	1	7	17	22	11	1	1	2
12'S 2+00E 2047	1.4	12	22	186	32	29	1	3	1
12'S 3+00E 2049	.8	1	11	75	31	22	4	1	4
12'S 4+00E 2051	.8	1	10	55	22	16	2	1	1
12'S 5+00E 2053	.7	1	10	49	23	20	1	1	7
12'S 1+00W 2055	.3	16	26	13	238	43	1	1	1
12'S 2+00W 2057	1.0	1	14	80	36	27	3	24	3
12'S 3+00W 2059	.6	1	9	14	26	21	2	1	2
12'S 3+00W 2059A	.7	5	10	14	46	18	1	1	1
12'S 4+00W 2061	.9	6	27	13	123	27	2	3	30
12'S 5+00W 2063	.9	8	16	26	72	31	1	2	3
10'S 4+50W 2065	.7	6	12	35	65	25	1	1	6
10'S 3+50W 2067	.9	30	11	17	161	22	2	1	1
10'S 2+50W 2069	1.2	1	10	19	18	14	2	1	3
10'S 1+50W 2071	1.2	18	9	14	25	26	1	1	1
10'S 0+50W 2073	1.2	59	29	12	50	65	1	1	1
B19+50S0+50W2101	1.0	1	12	80	39	21	1	1	1
B18+50S0+50W2103	.9	1	13	54	29	18	4	8	13
B17+00S0+50W2105	.6	26	26	36	205	42	1	1	1
B15+50S0+50W2107	.8	1	9	26	36	14	2	1	1
B14+50S0+50W2109	.9	1	8	58	24	14	1	2	2
B13+00S0+50W2111	.9	1	17	88	35	20	1	1	1
B11+50S0+50W2113	.9	15	17	15	126	32	4	5	30
B10+50S0+50W2115	1.1	20	19	37	94	33	4	11	30
BL9+00S0+50W2117	1.5	50	24	21	50	57	6	1	2
BL7+50S0+50W2119	1.1	3	12	36	46	24	1	1	1
BL6+50S0+50W2121	.4	6	10	43	30	33	2	1	1
BL5+00S0+50W2123	.3	8	10	30	59	32	1	9	2
BL 3+50'S 0 2125	.9	53	18	42	90	69	4	5	10
BL 2+50'S 0 2127	.5	15	18	52	110	44	6	11	2
BL 1+00'S 0 2129	.3	1	6	10	31	14	1	1	1
4001 2'S 50E	.6	1	11	26	66	22	1	1	2
4003 2'S 150E	.8	1	11	37	47	21	1	1	1
4005 2'S 250E	.7	2	10	80	36	28	3	2	2
4007 2'S 350E	.8	1	7	36	29	13	3	6	26
4009 2'S 450E	.7	1	7	27	26	10	7	1	3
4011 4'S 500E	1.0	2	12	77	38	20	4	1	2
4013 4'S 400E	.7	6	13	83	37	33	2	2	1
4015 4'S 300E	.1	1	10	30	21	23	26	6	2
4017 4'S 200E	.6	1	3	12	10	7	2	5	12
4019 4'S 100E	.7	7	12	52	38	27	1	1	1
4021 4'S BL	1.0	6	14	87	48	32	1	1	15
4023 0'S 50E	.6	1	7	27	23	16	9	1	1
4025 0'S 150E	.5	1	6	12	28	13	1	1	3
4027 0'S 250E	.8	3	9	63	30	28	1	1	2
4029 0'S 350E	.3	1	9	23	43	23	1	2	3
4031 0'S 450E	.8	6	9	33	39	22	12	5	2
4033 0'S 100W	.8	8	9	61	35	24	3	4	1
4035 0'S 200W	.7	1	6	19	29	16	1	1	1
4037 0'S 300W	.8	1	9	31	25	19	1	1	12
4039 0'S 400W	.5	3	6	22	24	19	1	1	3
4041 0'S 500W	.6	4	7	18	20	22	1	1	2
4041A 2'S 100W	.9	5	11	42	50	25	1	2	17
4043 2'S 200W	.9	20	13	51	64	39	1	1	2
4045 2'S 300W	.9	25	12	51	52	38	1	1	1
4047 2'S 400W	.8	1	7	15	24	19	2	1	1
4049 2'S 500W	.8	1	14	30	22	34	17	25	3
4051 6'S 50W	.5	42	12	37	64	37	3	5	14

PROJECT NO:

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2

FILE NO: 6-4945/P5

ATTENTION: C. STANLEY/J. WOLCZYK

(604)980-5814 OR (604)988-4524

* TYPE SOIL GEOCHEM *

DATE: JULY 23, 1986

(VALUES IN PPM)	AS	AS	CO	CU	NI	PR	AU-PPB	PD-PPB	PT-PPB
4053 6S 150W	.5	1	7	17	18	20	2	1	4
4055 6S 250W	.9	3	10	184	21	25	12	1	2
4057 6S 350W	.5	7	10	50	26	25	4	4	1
4059 6S 450W	.4	2	8	15	24	20	3	5	3
4061 4S 500W	.6	24	18	72	80	40	5	12	18
4063 4S 400W	.8	1	10	32	27	20	3	1	1
4065 4S 300W	.4	2	20	188	18	34	4	28	1
4067 4S 200W	.5	4	12	21	27	24	15	7	26
4069 4S 100W	.9	29	19	95	98	51	2	10	1
20S 0+00E 2001	.9	1	9	44	26	22	3	9	2

APPENDIX V

Letter of Review

Donald Allen, P.Eng. (B.C.)



**exploration ltd. GEOLOGY • GEOPHYSICS
MINING ENGINEERING**

Suite 614-850 WEST HASTINGS STREET, VANCOUVER, B.C.
TELEPHONE (604) 681-0191 V6C 1E1

January 7, 1987

The Directors
North American Platinum Ltd.
615 Lillooet Street
Vancouver, B.C.
V5K-4G6

Gentlemen:

This letter is prepared at the request of Mr. John Gravel as an independent assessment of the H & H Claim Group. This assessment is made without benefit of field examination; however, I am familiar with the general claim area, the deposit target types, and with the logistics of working in the area. The subject report and the technical data therein and the abundant published literature of the Tulameen area provide sufficient documentation to permit comment.

Mr. Gravel's report describes results of a geochemical soil survey carried out in 1986. Three zones of interest, defined in part by enhanced levels of platinum, copper and gold, were outlined. Considering the favourable underlying geology, follow-up work to fully define the area of interest, followed by trenching and/or drilling are warranted.

The recommended completion of road construction to the property, additional geochemical sampling, and backhoe trenching of the known and any new targets, is a logical approach to the next phase of evaluating the mineral potential of this property.

I endorse the conclusion and recommendation made by Mr. Gravel in his report.

Yours very truly,

Donald G. Allen,
P.Eng. (B.C.)

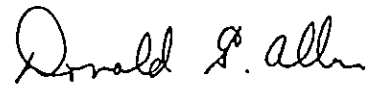
DGA/ap

CERTIFICATE

I, Donald G. Allen, certify that:

1. I am a Consulting Geological Engineer, with offices at Suite 614, 850 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia with degrees in Geological Engineering (B.A.Sc., 1964; M.A.Sc., 1966).
3. I have been practising my profession since 1964 in British Columbia, the Yukon, Alaska, and various parts of the Western United States.
4. I am a member in good standing of the Association of Professional Engineers of British Columbia.
5. This assessment is based on a review of a report written by J. Gravel and on selected published references. I have not visited the property; however, I have worked on the LODE claims which lie two kilometres to the southwest and have a knowledge of the exploration targets and logistics of working in the area.
6. I hold no interest, nor do I expect to receive any in the H & H Claim Group, in North American Platinum Ltd., nor in any other company active in the Tulameen area.
7. I consent to the use of this report in a Statement of Material Facts or in a Prospectus by North American Platinum Ltd.

January 7, 1987
Vancouver, B.C.


Donald G. Allen
P. Eng. (B.C.)



March 25, 1987

TO WHOM IT MAY CONCERN

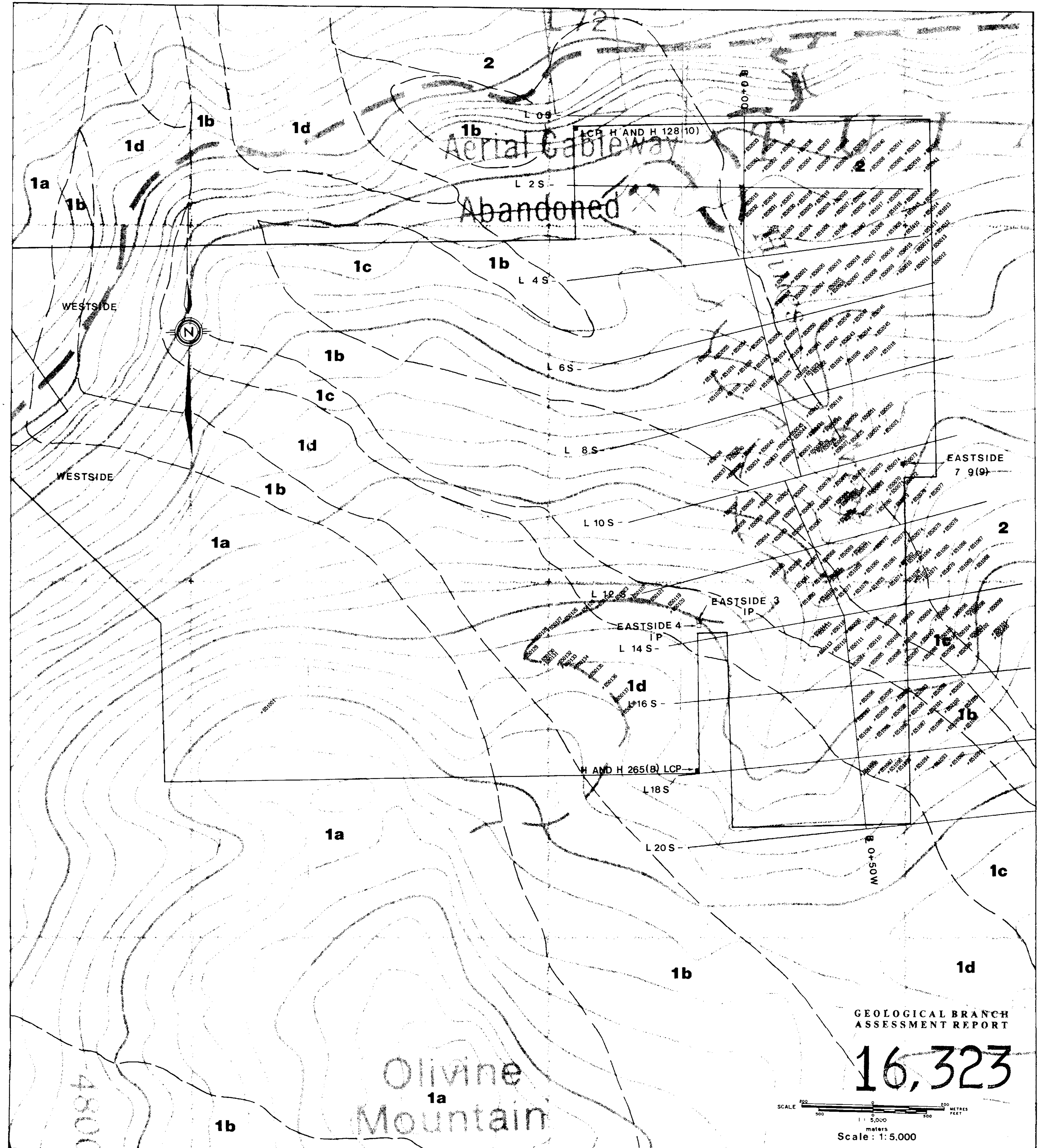
Re: Deficiencies in engineering report of
North American Platinum Ltd.

I have checked the scale in the pocket map (Figure 5) in the Report entitled "1986 Exploration Report, Hand H Group" dated January 7, 1987 by John Gravel. The scale has been adjusted to the correct dimension.

The 11" x 17" fold out maps have been reduced to page size and the scales modified accordingly in the title block.

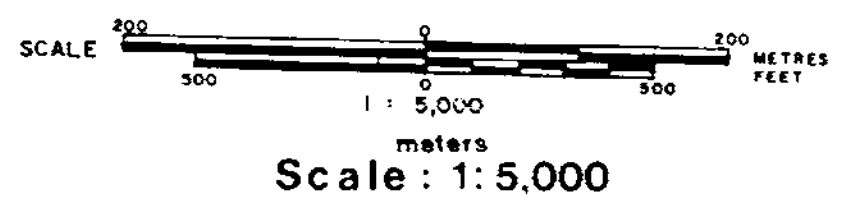
Yours sincerely,

Donald G. Allen,
P. Eng. (B. C.)



GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,323



GEOLOGY		SYMBOLS	
1	TULAMEEN COMPLEX		Bridge
1a	Dunite		Claim Boundary with Legal Corner Post LCP or Initial Post IP
1b	Olivine Clinopyroxenite		Geological Contact
1c	Hornblende Clinopyroxenite		Road
1d	Syenogabbro		Elevation Contour 100 Ft. Interval
2	NICOLA GROUP		Mineral Deposit
	Metavolcanic and Metasedimentary Rocks		Sample Site

GHS Geochemical Services Ltd.

H&H CLAIM GROUPS
NORTH AMERICAN PLATINUM LTD.
Sample Locations

DRAWING NO.	NTS: 92H/10	FIG. 5
REPORT NO.	DATE: DEC. 1986	
DRAWN BY:	JLG	