84-#932-12614

Report On

GEOLOGY, GEOPHYSICS, ROCK TRENCHING

and SAMPLING

HOODOO CLAIM GROUP

Hoodoo 1 - 5 (2447-2451)

LIARD MINING DIVISION, B.C.

NTS: 104B/14W

Latitude: 56°48' N

Longitude: 131°18' W

Owned and Operated

By

Kerr Addison Mines Limited

Vancouver, B.C.

R. J. Fraser F.G.A.C.,

P. Geol. (N.W.T.)

October 23, 1984

TABLE OF CONTENTS

TABLE OF CONTENTS (cont'd)

LIST OF FIGURES

MAPS APPENDED

Map No.	Title
1	Topography - Discovery Grid
2	Geology - Discovery Grid
3	DEEPEM Pulse - Vertical Component - Discovery Grid
4	DEEPEM Pulse - Horizontal Component - Discovery Grid
5	Magnetic Survey - Discovery Grid
6	Topography - North Grid
7	Geology - North Grid
8	DEEPEM Pulse - Vertical Component - North Grid
9	DEEPEM Pulse - Horizontal Component - North Grid
10	Induced Polarization - Apparent Chargeability - North Grid
11	Induced Polarization - Apparent Resistivity - North Grid
12	Magnetic Survey - North Grid

1. Summary and Recommendations

During the 1984 field season exploration work on the Hoodoo Claims consisted of detailed followup on the Discovery and North Zones, two areas outlined in 1983 with geochemically anomalous silver values.

Work consisted of detailed geological mapping at 1:1000, excavation of 15 rock trenches with subsequent systematic chip sampling and Pulse EM, I.P. and Magnetic Surveys.

The two zones are hosted by two different lithologies. The Discovery Zone is in a silicified felsic volcanic tuff and lapilli-tuff whereas the North Zone occurs at the structural top of a carbonatized mafic volcanic tuff in sharp contact with a band of shales and argillites.

Despite the differing lithologies the mineralization is essentially identical in the two areas. Two types and possible stages of pyrite mineralization are present. The most common is a coarse grained, brassy yellow disseminated variety with low silver values which occurs throughout the two zones. The second, argentiferous variety, is a black coloured, very fine grained, "sooty" type which occurs as narrow 2 to 5 cm wide massive seams and veinlets and is more localized in occurrence.

The tenor of the silver mineralization is low, ranging from less than 1 ppm in gossanous yet sulphide poor rock to 4.80 oz/ton Ag in a selected grab from a 5 cm wide vein of fine grained pyrite.

Based on surface sampling, significant silver values were found to be restricted to a 150 meter long portion of the Discovery gossan despite the presence of gossanous material over a strike length of 350 meters. The argentiferous veins are present as closely spaced extension joint fillings and in one trench returned 1.26 oz/ton Ag across 7.4 meters. Gold values are neglible.

Surveying of the North Zone with Pulse EM did not outline any conductive material at depth.

In the North Zone anomalous silver values occur over the entire exposed strike length of the gossan, 500 meters. The silver rich veins are more irregular in their trend and are not localized within a preferred joint set. They are also much more widely dispersed occuring as irregular fracture fillings. Gold values are higher than those in the Discovery Zone, ranging from 50 to 250 ppb. Gold values also display an increase in tenor with decreasing elevation.

Pulse EM and I.P. surveys were both unsuccessful in outlining the mineralization or any change in character with depth.

Despite the low tenor of the silver mineralization the consistency of the anomalous values is interesting and encouraging. Additional rock trenching would not be of much use in evaluation of the mineralization.

A diamond drilling program is warranted to provide information on depth continuity, widths and grade of the mineralization.

As a first phase this could best be accomplished by drilling a minimum of three 300 meter holes through each of the North and Discovery Zones.

Due to the remote location of the claim group and the high risk involved this might best be accomplished through a joint venture.

2. Introduction

2.1 Location and Access

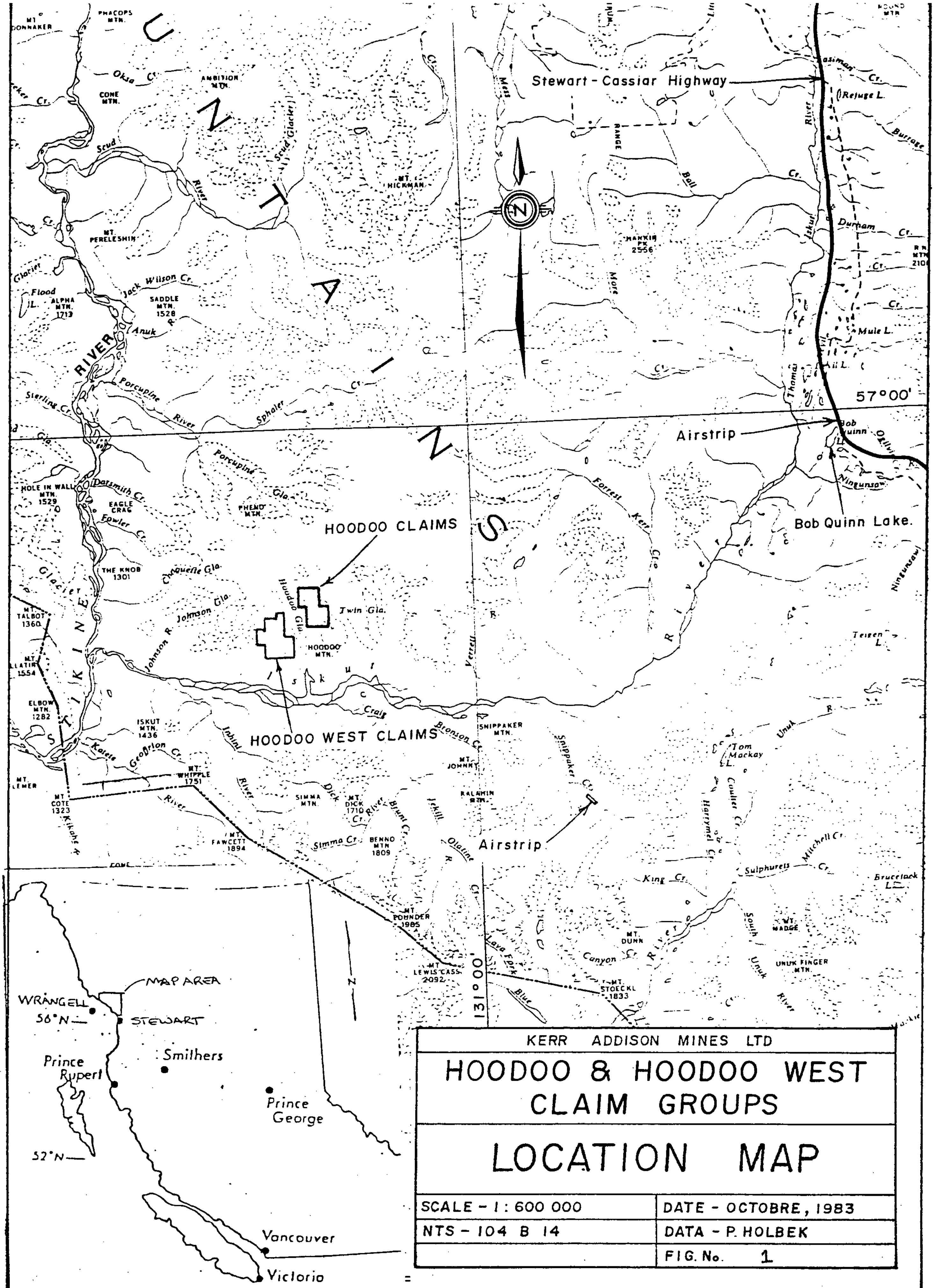
The Hoodoo claim group consists of 61 units in 5 contiguous claims situated on a narrow spur of land immediately to the north of Hoodoo Mountain, north of the Iskut River. The area lies within the Liard Mining Division, British Columbia, NTS 104B/14W at latitude 56° 48' N and longitude 131° 18'W (Figures 1 and 2).

The nearest settlements to the project area are Wrangell, Alaska, 75 miles to the west and Stewart, British Columbia, 120 miles to the southeast.

Access to the claim group is by helicopter from a gravel airstrip situated on Snippaker Creek, 47 kilometers to the southeast. During the summer Trans Provincial Airlines runs frequent scheduled service to the airstrip from Terrace and Dease Lake, British Columbia.

Hoodoo Group Claim Data

Claim Name	Owner	Units	Located	Recorded	No.
Hoodoo 1	Kerr Addison	10	Aug. 15, 1982	Sept. 8. 1982	2447
Hoodoo 2	Kerr Addison	15	Aug. 15, 1982	Sept. 8. 1982	2448
Hoodoo 3	Kerr Addison	15	Aug. 15, 1982	Sept. 8. 1982	2449
Hoodoo 4	Kerr Addison	20	Aug. 15, 1982	Sept. 8. 1982	2450
Hoodoo 5	Kerr Addison	1	Aug. 15, 1982	Sept. 8. 1982	2451

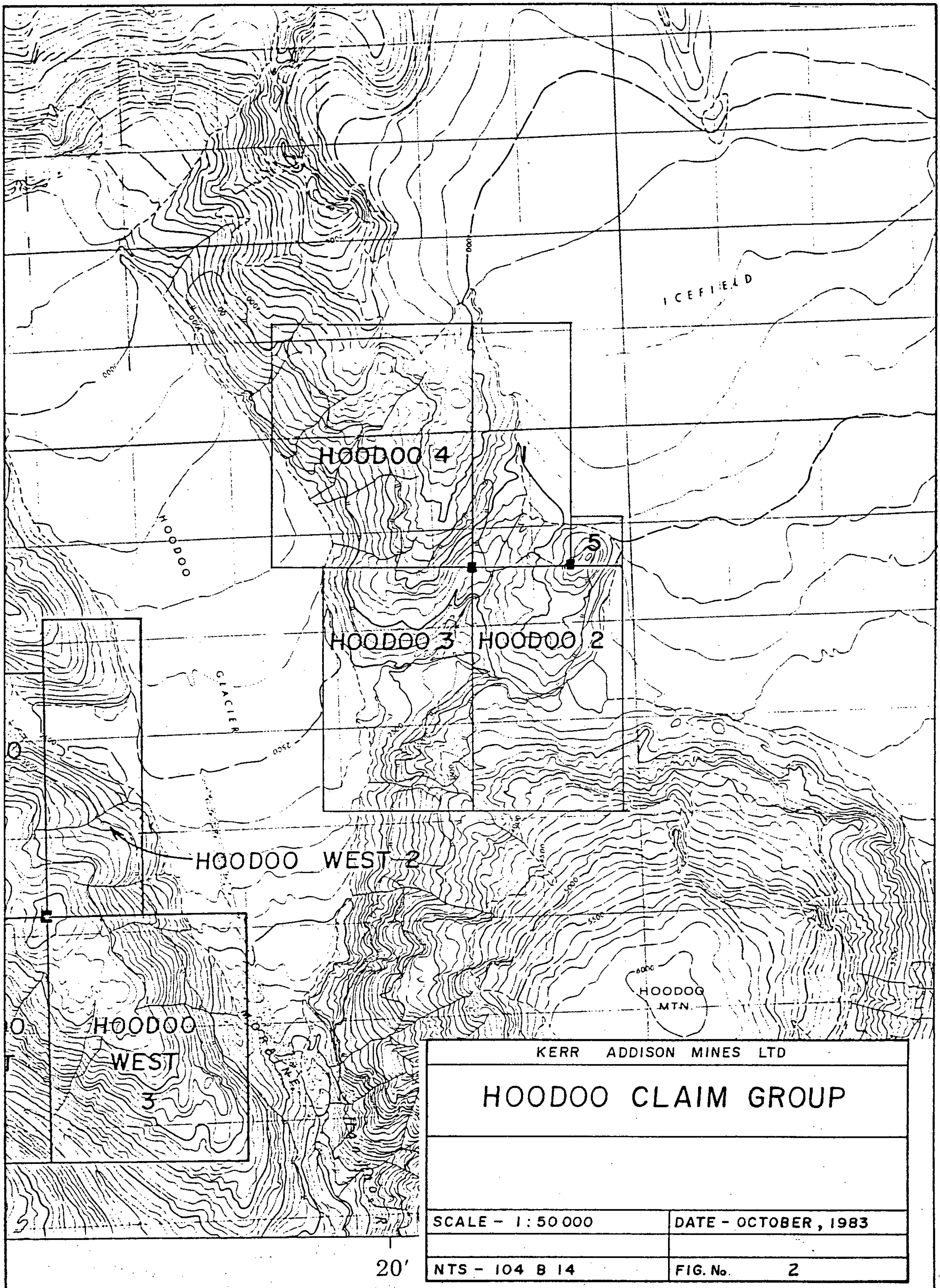


KERR ADDISON MINES LTD

HOODOO & HOODOO WEST CLAIM GROUPS

LOCATION MAP

SCALE - 1 : 600 000	DATE - OCTOBRE, 1983
NTS - 104 B 14	DATA - P. HOLBEK
	FIG. No. 1


ICEFIELD
HOODOO 4
1
5
HOODOO 3
HOODOO 2
HOODOO
GLACIER
HOODOO WEST 2
HOODOO WEST 3
MORAINE
HOODOO MTN.
20'
KERR ADDISON MINES LTD
HOODOO CLAIM GROUP
SCALE - 1:50 000
DATE - OCTOBER, 1983
NTS - 104 B 14
FIG. No. 2

2.2 Physiography

The claim group is located on a northerly trending ridge of land on the southern margin of a large ice field. Glaciers bound the property on both the east and west. Hoodoo Mountain, a classical cone shaped, dormant volcano, is situated to the immediate south.

Relief on the claim group varies from about 800 meters to 1,350 meters above sea level and with the exception of a few relatively mature stands of timber, at the lower elevations, the vegetation is alpine.

Recent glacial retreat has provided good bedrock exposure over much of the area.

2.3 Purpose and Scope

The purpose of the examination was to follow-up indications of epithermal-type silver mineralization occuring within silicified and carbonatized volcanic rocks, discovered during the 1982 and 1983 field seasons.

The two distinct zones worked are called the Discovery and North Zones. A program of gridding (13.4 km), geological mapping at 1:1000, (13.4 km), Pulse EM surveying (6.8 km), Magnetic surveying (13.4 km), and Induced Polarization (0.6 km) was completed on the two zones. In addition 15 rock trenches were excavated and 121 rock samples analyzed for Au, Ag and As.

This report describes the work undertaken and the results with recommendations for further work.

3. Previous Work

Prior to 1982 when Kerr Addison Mines acquired the Hoodoo claims there are no records of any previous work despite the fact prospecting has been carried out sporadically in the Iskut River area for the past 70 to 80 years.

The potential for epithermal silver mineralization on the Hoodoo claims was recognized during the 1982 field season in the course of a regional mapping and evaluation program carried out by Kerr Addison.

A limited amount of sampling on gossanous zones now covered by the Hoodoo Claims returned anomalous amounts of Ag, Hg, As, Sb and Ba typical of that associated with epithermal deposits.

Work in 1983 continued the initial sampling which in conjunction with a limited amount of semi-detailed mapping outlined two distinctly anomalous zones of Ag mineralization. These are termed the North and Discovery Zones.

Work was concentrated on these two zones during the past field season to assess their ecomonic potential.

4. Regional Geology

The Iskut River Area is situated on the contact between the Coast Crystalline Belt and the Intermontone belt where it intersects a major transverse structural zone known as the Stikine Arch.

The oldest rocks in the area belong to the Stikine Assemblage, a sequence of mafic to felsic pyroclastics, volcaniclastics, shales, cherts and greywackes.

Triassic rocks overlie the Stikine Assemblage and consist of relatively fresh basalt to andesite flows with intercalated green and maroon coloured tuffs and breccias.

Uplift during the late Triassic resulted in the accumulation of conglomerates, sandstones, arkosic wackes, argillites, shales and cherts.

The youngest volcanic rocks in the area are of recent age and consist of columnar basalt and pahoehoe flows best exemplified by Hoodoo Mountain.

The rocks have been intruded by numerous intrusives with granodiorite being volumetrically the most important. The most recent intrusives of significance consist of fault bound quartz-feldspar porphyry dykes related to resurgence of felsic magma.

Structurally the area is characterized by major east-northeast trending faults. Numerous transverse faults which have been reactivated over many different periods are present and appear to be primarily normal block faults although rotation of individual blocks is common.

Metomorphism related to mountain building during the late Triassic period has been of lower greenschist facies. Contact metamorphic aureoles are present around major intrusives with occassional upper greenschist to lower amphibolite facies mineralogy present.

5. Discovery Zone

5.1 Gridding

One base line with an azimuth of 075° was established bisecting the Discovery Zone gossan with a length of 600 meters. Traverse lines were run normal to the baseline at 50 meter intervals with stations established every 25 meters. The traverse lines were extended 250 meters north and south of the baseline. All lines were secant chained and elevations recorded at each station. In all, approximately 7.1 kilometers of line was secant chained and picketed.

The topography of the grid area is illustrated on Map No. 1, appended to this report.

5.2 Geology

5.2.1 Lithology

The Discovery Zone is underlain by a sequence of mafic to felsic volcanics, primarily pyroclastic in character. The volcanic rocks have been subsequently intruded by a gabbroic body. Late intrusive mafic dykes related to recent volcanism in the area have intruded all rock types. Map No. 2.

5.2.1.1 Mafic Volcanic Rocks

Mafic volcanic rocks predominate in the north half of the grid area and generally trend west-northwest and dip from 70° north to near vertical.

They are generally dark gray to black in colour and consist of a series of tuffs and lapilli-tuffs with minor accumulations of agglomeratic material. Locally a few of the tuffaceous units are maroon coloured due to the presence of abundant hematite in the groundmass. In general the pyroclastics are comprised of lithic fragments of andesitic composition in an aphanitic mafic groundmass.

The northeast portion of the grid is underlain by a distinctive hematite and magnetite unit. This particular unit has a strong magnetic response.

The mafic rocks have been weakly metamorphosed to low to mid greenschist facies with chlorite and epidote the principal metamorphic minerals formed.

The rocks are strongly jointed with infilling of quartz and epidote. An S_1 cleavage is moderately developed with the same orientation as that of individual tuff beds suggesting transposition of the S_0 bedding.

Near faults the mafic volcanics have been bleached to a mid gray colour due to silicification.

5.2.1.2 Intermediate Volcanic Rocks

Volcanic rocks of intermediate composition are most common in thge southern portion of the grid area.

Light gray to dark gray in colour they consist primarily of tuffs and lapilli-tuffs although thin horizons of agglomerate are locally present. The fragments are lithic in nature, fine grained to aphanitic and generally are lighter coloured than their surrounding groundmass. The fragments are quite distinct but in general show no preferred orientation. Cleavage development is poor but is probably the same as in the mafic volcanics; S_0 transposed S_1.

Metamorphism is of low to mid greenschist facies with resultant pervasive sericitization and minor chloritization.

Adjacent to major faults silicification has bleached the rocks to a lighter colour so that they resemble felsic volcanics.

Minor amounts of pyrite in the intermediate units has imparted a rusty appearance to the weathered surfaces. This is most common along fault scarps in the vicinity of Line 1+50 East to Line 2+50 East, south of the baseline.

5.2.1.3 Felsic Volcanic Rocks

Felsic volcanic rocks on the grid vary from light gray to cream to almost snow white on weathered surfaces. Fresh surfaces are light gray to mid gray in colour.

All of the felsic volcanics are pyroclastic in character and consist of tuff, lapilli-tuffs and agglomerates. The fragments are very siliceous in composition, fine grained to aphanitic and are set in a darker coloured aphanitic groundmass.

The bulk of the felsic rocks are confined to the central portion of the grid where they comprise a belt 75 meters wide and 400 meters in length. Two other prominant locations are as a thin band of tuffs north of the baseline and as a 75 meter wide band of coarse pyroclastics in the southwest portion of the grid.

The felsic volcanic rocks trend east-west to west-northwest and dip from 65°N to near vertical.

Two unique sub-units of the felsic volcanics have been recognized, a cherty "distal looking" tuff and a heterolithic tuff.

The cherty tuffs are finely laminated with alternating bands of cherty material and darker coloured, but siliceous, rock. The rock displays very prominant banding and has been extensively folded in almost a ptygmatic style. It shows no preferred fold axis orientation or axial plane cleavage. The unit is 7 to 10 meters wide and can be traced over a strike length of 185 meters from 0+95N/1+75W to 0+70N/0+10E. It is also present, sporadically, near the structural top of the main felsic horizon.

A unique heterolithic tuff, consisting of a chaotic array of mafic and felsic lithic fragments of varying size from tuffs through agglomerates in an intermediate to felsic groundmass, was outlined. It occurs as a discrete unit at the structural base of a thicker felsic unit from L2+50W/1+50S to L1+00W/2+00S. It has an apparent thickness of approximately 25 to 30 meters. The unit is possibly an explosion breccia and is conformable to the surrounding stratigraphy.

Metamorphism is of low to mid greenschist facies with localized strong sericitic alteration and local patches of kaolinite. Silicification due to hydrothermal processes is also strong.

5.2.1.4 Sedimentary Rocks

Sedimentary rocks are scarce on the grid and are restricted to a few narrow shale units near the northern portion of the grid.

These rocks are black in colour and appear somewhat carbonaceous. They are quite fissle with strong cleavage development. No good exposures are present as they have been badly broken-up by faulting.

They appear to occupy narrow troughs in the volcanic sequence and are probably much more common than indicated but they are readily eroded and now covered with overburden.

5.2.1.5 Mafic Intrusive Rocks

A body of gabbro was outlined from L1+00E/0+45N trending grid west across the entire grid and remains open on strike. It varies in width from 10 meters at its eastern extremity to over 125 meters at the western end of the grid. It post dates all of the volcanic rocks as evidenced by its intrusive relationships.

The gabbro is coarse grained, equigranular and has a mottled appearance. It is composed chiefly of plagioclase, quartz and hornblende and appears relatively fresh. Contacts with the volcanic rocks, where observed, are sharp and are vertically dipping. Chilled margins, approximately 10-15 cm wide, are present.

A small contact aureole is present and best observed in the felsic volcanics. They have been bleached to a snow white colour with apparent coalescence of pyroclasts.

The intrusive appears to occupy a major east-west trending fault zone and itself appears to have been little affected by later faulting.

5.2.1.6 Late Mafic Intrusive Rocks

Late mafic intrusive rocks, herein termed Hoodoo Dykes, are the youngest rocks present on the grid.

They are mafic in composition, often resembling diabase but they are usually badly rotted preventing determination of mineralogy.

They are quite narrow, varying from 0.6 m to 2 m in width and trend west-northwest, subcordant to bedding and cutting all rock types, including the gabbro.

The dykes are believed to be related to one of Hoodoo Mountains more recent thermal events although they are also faulted indicating very recent movement in the immediate area.

5.2.2 Structure

The volcanic rocks underlying the Discovery grid trend west-northwest and dip vertically or steeply to the north. Graded bedding observable in several of the pyroclastic exposures gives similiar attitudes as the more prominant S_1 cleavage. Tops therefore are believed to be towards the north. Bedding and cleavage attitudes do not suggest the presence of any major folds however a dip reversal in an intermediate tuff unit in the southwestern part of the grid does suggest the possibility of tight, isoclinal folding.

Intrusion of the gabbro mass has caused local structural disruption best evidenced by the chaotic style of folding in the banded felsic tuffs.

Faults are extremely common in the area and several different sets have formed, over time, with re-activation of many of the faults.

Four major fault trends have been recognized as follows:

Orientation	Inferred Sense of Movement
070° - 080°	Dextral
160° - 170°	Dextral
025° - 035°	Sinistral
115° - 125°	Sinistral

The faults are all interpreted to be normal block faults generally with minor strike slip movement and an unknown dip slip component.

The principal faults associated with mineralization on the Discovery Zone consist of a series of 070° - 080° faults represented by strong topographic linears in the central portion of the grid. This fault has dextral movement, implied by the sigmoidal shape and orientation of filled joints.

The last known movement in the area is indicated by displacement of late Hoodoo dykes with movement along the 025° - 035° and the 160° - 170° fault sets.

5.2.3 Mineralization and Alteration

Mineralization on the Discovery grid occurs in two areas. The principal zone is the Discovery Gossan represented by a highly oxidized zone 350 meters in length with a width varying from 10 to 50 meters, averaging 25 meters. This zone is located along the baseline within a unit of felsic volcanic pyroclastics from L2+00 West to L1+50 East. A second poorly defined gossanous area occurs in the southeast part of the grid.

In the Discovery Gossan, mineralization was observed to consist of from 2-5 % pyrite as disseminations, small masses and stringers, partly controlled by jointing. The host rocks for the sulphide mineralization consist of highly silicified felsic tuffs and lapilli tuffs. In some isolated localities such as in Trench 5, 0+75E/0+10N, pyrite has replaced much of the groundmass of the rock.

Two types and probably stages of pyrite mineralization are present in the rocks, an extremely fine grained "sooty" variety which occurs as joint fillings and irregular stringers and a coarser grained brassy yellow variety which is ubiquitous in the Discovery gossan as fine disseminations. It also occurs as small masses, groundmass replacements and irregular stringers. Assaying of rock samples of both types of material indicates that silver mineralization is associated with the "sooty" pyrite and not the coarser grained variety. The argentiferous variety was only observed in the vicinity of Trench 1, 0+75 West/0+15 South. The other variety is widespread throughout the zone and due to oxidation has imparted a dark brown to yellow stain over a large area.

A fine quartz stockwork is present immediately to the north of the gossan, within felsic pyroclastics, between L0+00 and L0+50W. Quartz stockwork is also pesent in an isolated wedge of felsic pyroclastics at 1+75 North/2+00 East.

In the southeast portion of the grid a large area of spotty, coarse grained pyrite is present and stands out as a gossanous area. It is not as strongly developed or as colourful as the Discovery Gossan. Up to 5% pyrite is present in isolated localities although 1-2% is the norm. It occurs as fine disseminations, threads and small masses within silicified zones in intermediate tuffs and lapilli-tuffs. The silicification is fault related.

This zone is too spotty to be of significance and no additional work has been done.

Alteration of rocks in the Discovery Gossan has been primarily silicification by hydrothermal fluids with subsequent feldspar destruction liberating additional silica and forming sericite and kaolinite. Kaolinite is usually confined to narrow shears, within the zone, subjected to greater movement and solution passage. Sericite is ubiquitous but not strongly developed. It is best seen as selvedges around fractures in the felsic rocks.

On a large scale, crude alteration zoning around the Discovery gossan can be seen. It is similiar to that observed around epithermal deposits in the southwest United States. The core of the Discovery Gossan is silica and sericite rich with some kaolin present which crudely corresponds to a phyllic Zone. An argillic zone is not present, as nowhere is kaolinite the principal alteration mineral. A propylitic zone is present and is quite widespread although there are a few sizeable gaps. Quartz and epidote occurs as joint fillings, and irregular stringers in all rock types, but with a distinct preference for the mafic volcanics. A few veinlets of quartz and epidote are present within the gabbro implying that there was a mineralizing event post gabbro implacement. Other periods may or may not have existed.

The quartz and epidote veining in a general manner decreases in abundance away from the Discovery Gossan to both the north and the south. The alteration halo disappears within 100 meters south of the gossan but is still present 250 meters north of the gossan.

The mineralization appears to be confined to a specific rock unit, the felsic pyroclastics. Under stress the felsic rocks are more liable to fail in a brittle manner than the more ductile mafic and intermediate volcanics. As such, ground preparation proceeded in the felsic units resulting in the formation of a favourable host rock for both fluid transport and mineral deposition.

Further details on mineralization are in Chapter 5.4, Trenching and Sampling.

5.3 Geophysics

5.3.1 DEEPEM Pulse

Four grid lines, 0+50E, 0+50W, 1+50W and 2+50W were surveyed using a Crone Pulse EM unit in the DEEPEM mode. A 300 m x 300 m transmitter loop was laid out immediately to the north of the survey lines. Readings were then taken at 25 meter intervals of both the horizontal and vertical components of the secondary EM field decay curve. The results of the survey are shown on Map No.'s 3 and 4 appended to this report. Raw data is listed in Appendix A.

Overall the EM survey was not successful in outlining any conductive material. Both the Horizontal and Vertical field readings are flat over the entire length of the survey lines. A small amount of system noise can be seen in the later channels of the in-line horizontal field but there are no indications of deeply buried conductors.

5.3.2 Magnetic Survey

Two zones of anomalously high magnetics were outlined on the Discovery Grid.

The first zone is centred on L1+00W/0+50N and has an amplitude of 650 gammas above background. Background readings approximate 57,400 gammas. The feature has an east-west trend, is closed to the east at 0+25E but is open on strike to the west. Geological mapping has shown this feature to be due to a gabbroic intrusive. Although the gabbro body has been mapped as far east as L1+00E it is not reflected in the magnetic pattern. This is probably due to its narrow width and lack of depth extent.

A second zone of anomalous magnetics can be attributed to a sequence of hematite and magnetite bearing mafic tuffs. These volcanics have an apparent west-northwest trend from L2+50E/0+50N to L0+50E/1+25N. Widths appear to be in the order of 50 meters.

No other rock types could be distinguished from the magnetics suggesting they all have a similiar magnetic suceptibility.

The results of the magnetic survey are presented in contour form on Map No. 5 appended to this report.

5.4 Trenching and Sampling

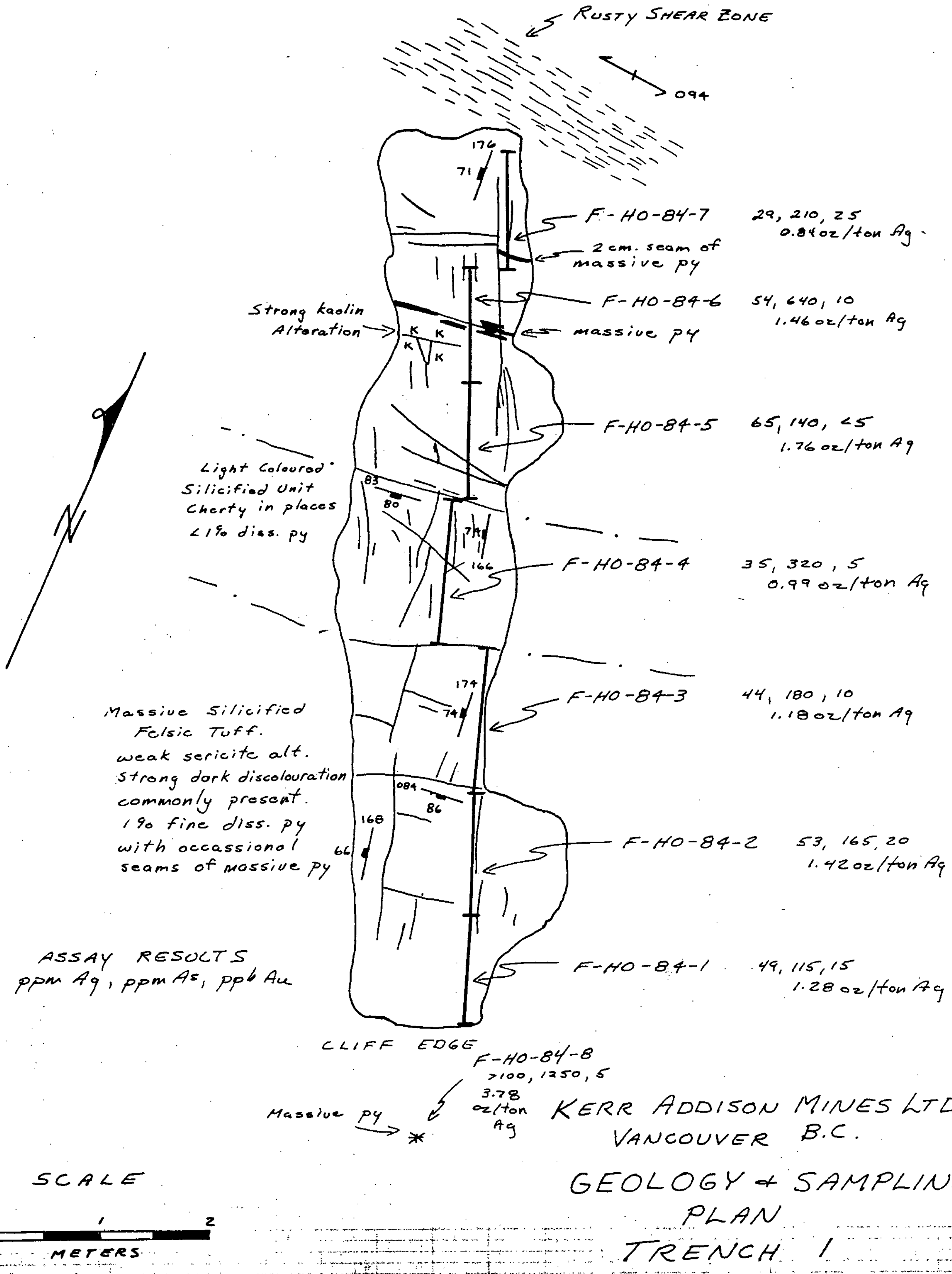
Due to the strong oxidation of the favourable felsic volcanic rocks, five trenchs were excavated to facilitate sampling of unweathered material. The fresh exposures also permitted a detailed examination of small scale mineralization controls.

A total of 44 samples were collected, 42 of which were systematic chip samples from fresh exposures in the trenches. Complete sampling results and analytical procedures are in Appendix B and C.

TRENCH NO.	LOCATION	SIZE	AMOUNT OF ROCK EXCAUATED	
1	0+70W/0+15S	1.3 m x 8.0 m x 0.8 m	5.2 cu m	14.6 TONNES
2	0+14E/0+06N	1.7 m x 8.6 m x 0.4 m	5.8 cu m	16.2 TONNES
3	0+45W/0+09S	1.5 m x 8.0 m x 0.3 m	3.6 cu m	10.1 TONNES
4	1+40W/0+25S	1.4 m x 5.6 m x 0.4 m	3.1 cu m	8.7 TONNES
5	0+75E/0+10N	1.6 m x 7.0 m x 0.4 m	4.5 cu m	12.6 TONNES
			22.2 cu m	62.2 TONNES

Detailed sketches of the geology, sampling plan and assay results are illustrated in figures 3 through 8.

Significant silver values were only encountered in trench 1, sample numbers F-HO-84-1 to F-HO-84-7, which returned 1.26 oz/ton Ag over 7.4 meters. The values are consistent over individual 1 meter sample lengths; as such the average over the larger width is not heavily weighted by one individual sample.



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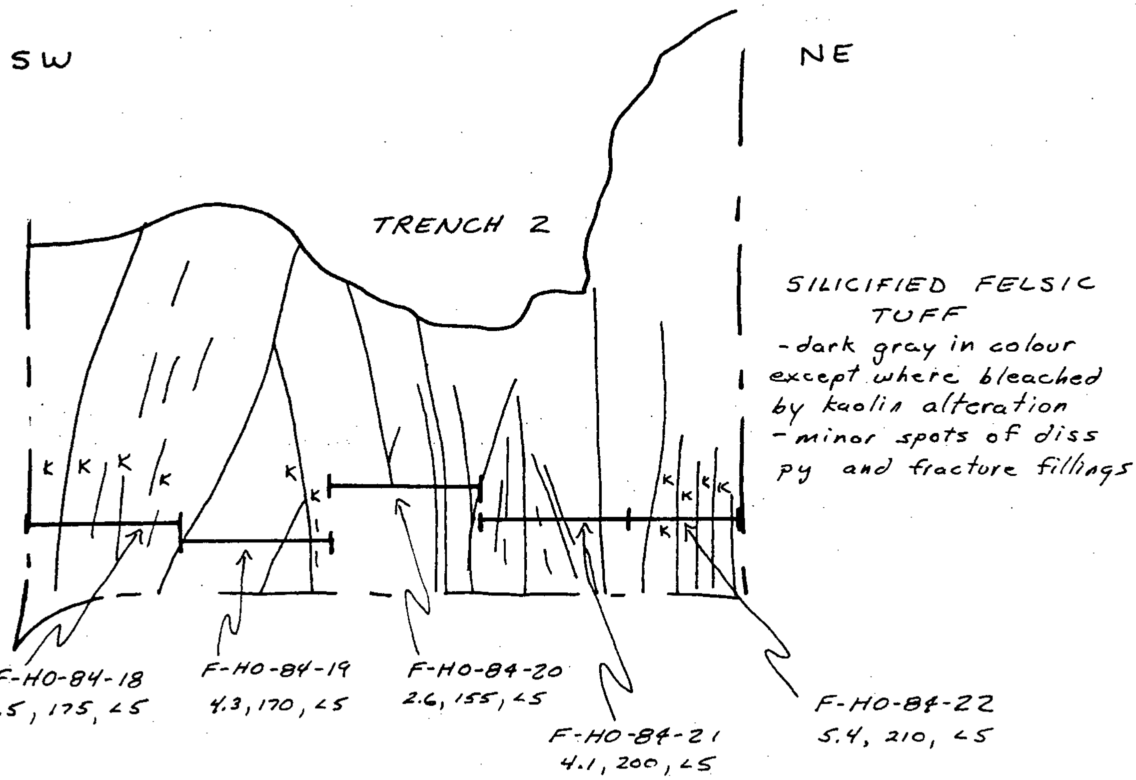
GEOLOGY & SAMPLING PLAN
TRENCH 1
HOODOO CLAIMS

26/7/84 R.J. [signature]

FIG. No. 3



ASSAY RESULTS

ppm Ag, ppm As, ppb Au

SCALE

1:50

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GEOLOGY + SAMPLING PLAN

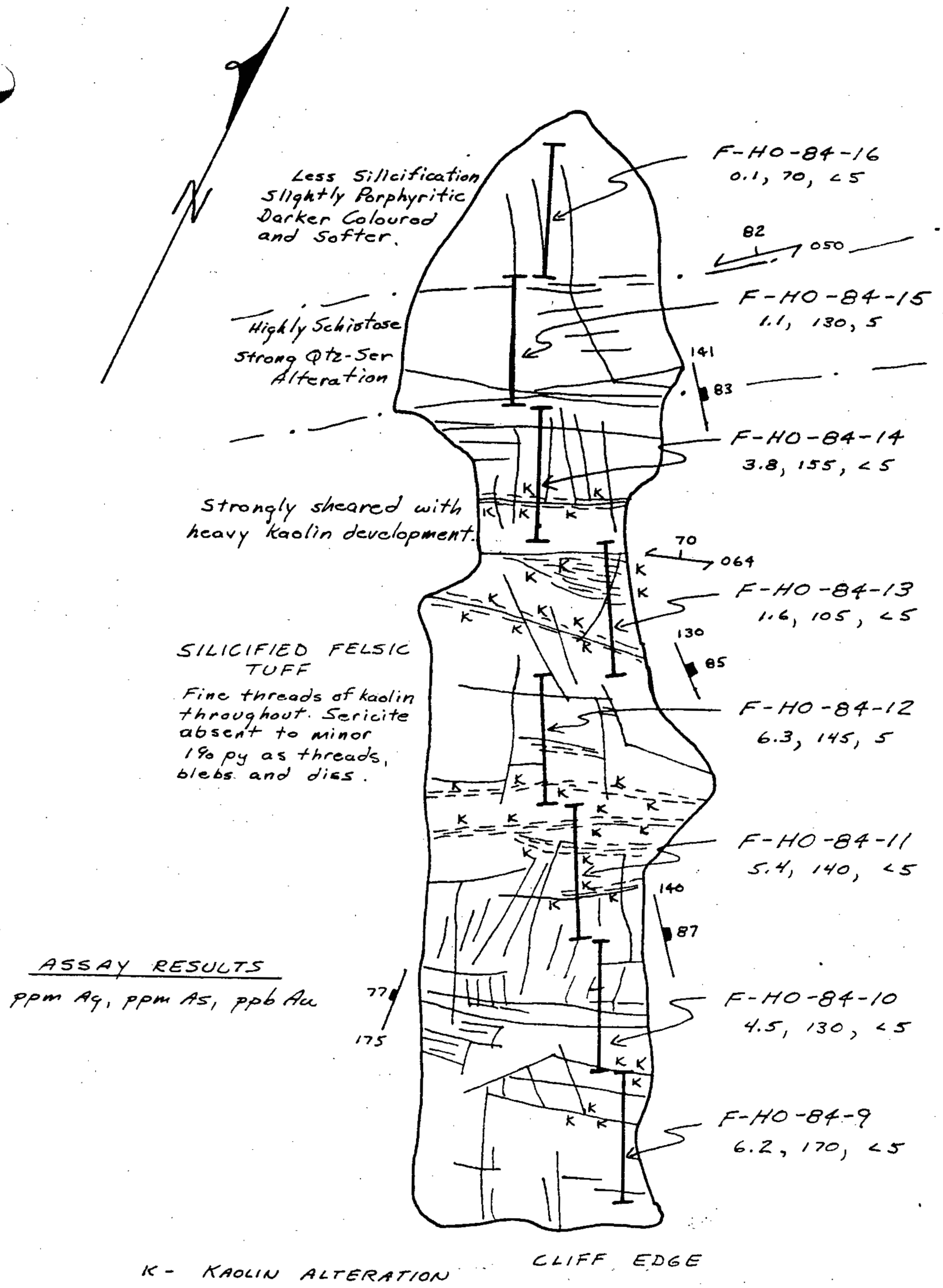
TRENCH 2 - FACE

HooDoo CLAIMS

29/7/84

R.J. [signature]

FIG. No. 4



SCALE

0 1 2

METERS

1:50

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GEOLOGY & SAMPLING
PLAN
TRENCH 2
HOO DOO CLAIMS

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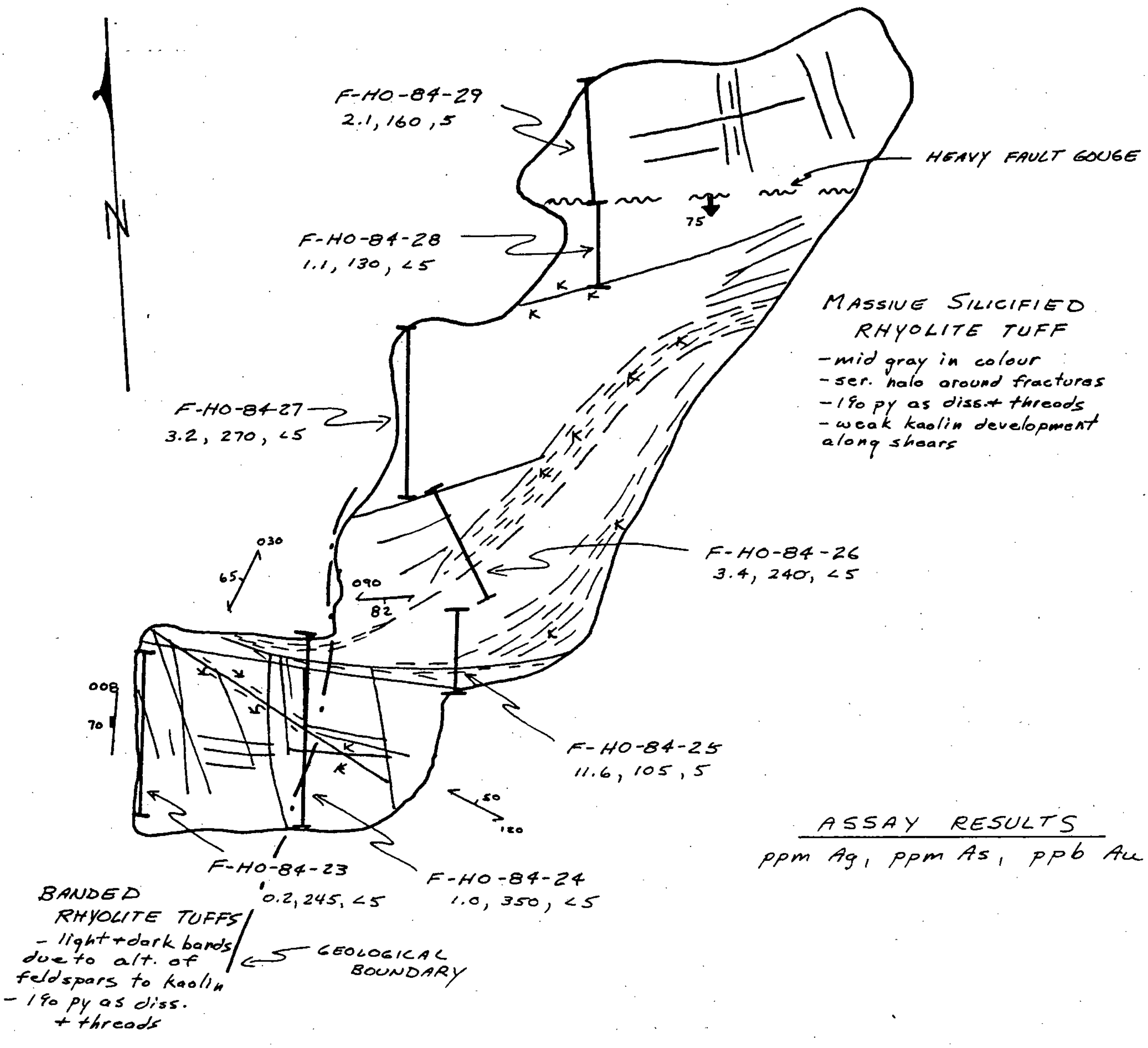
FIG. No. 5



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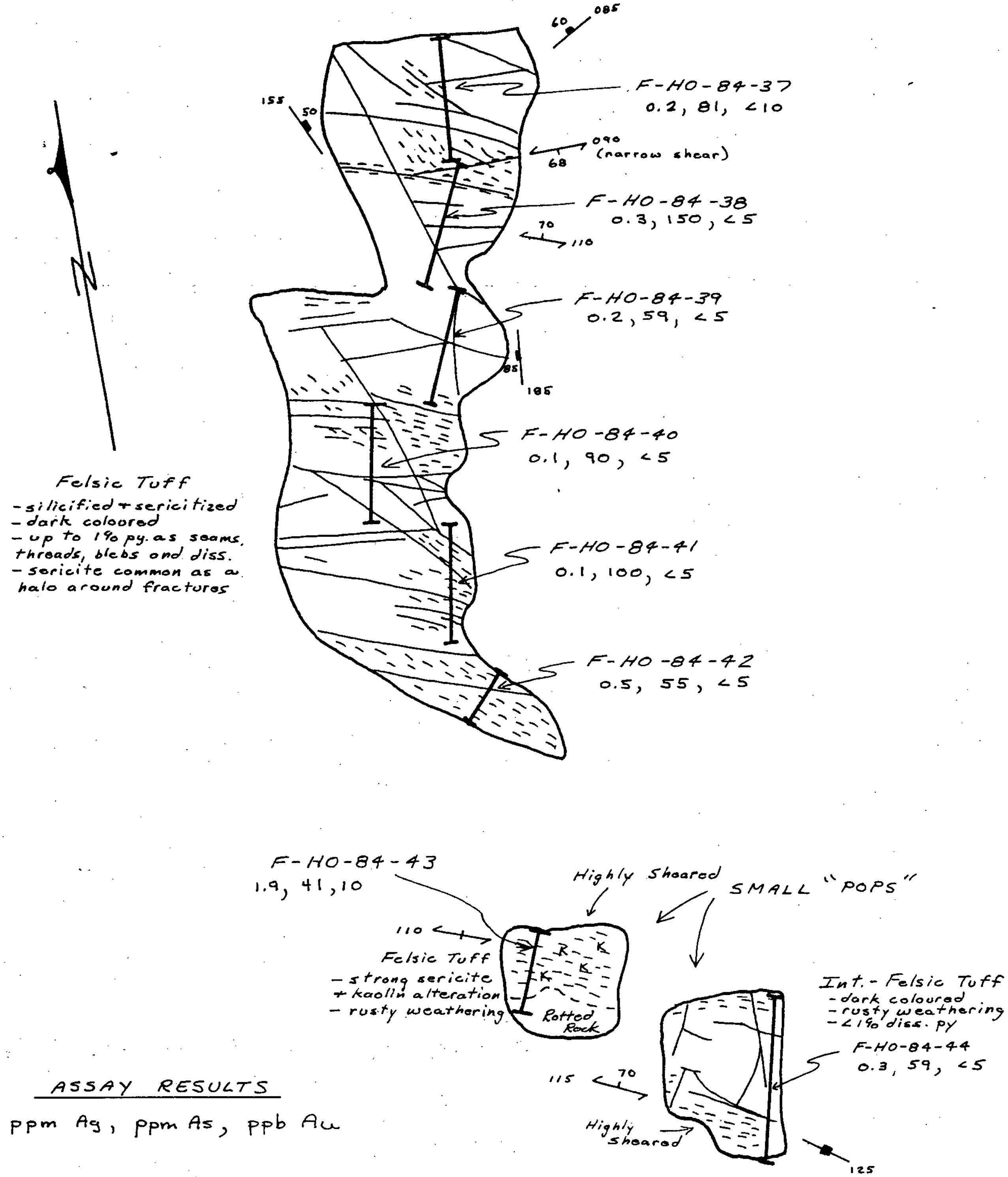
VANCOUVER, B.C.

GEOLOGY + SAMPLING
PLAN
TRENCH 3
HOO DOO CLAIMS

SCALE
0 1 2
METERS
1:50

29/7/84 R J Fraser

FIG. No. 6



SCALE

0 1 2

METERS

1 : 50

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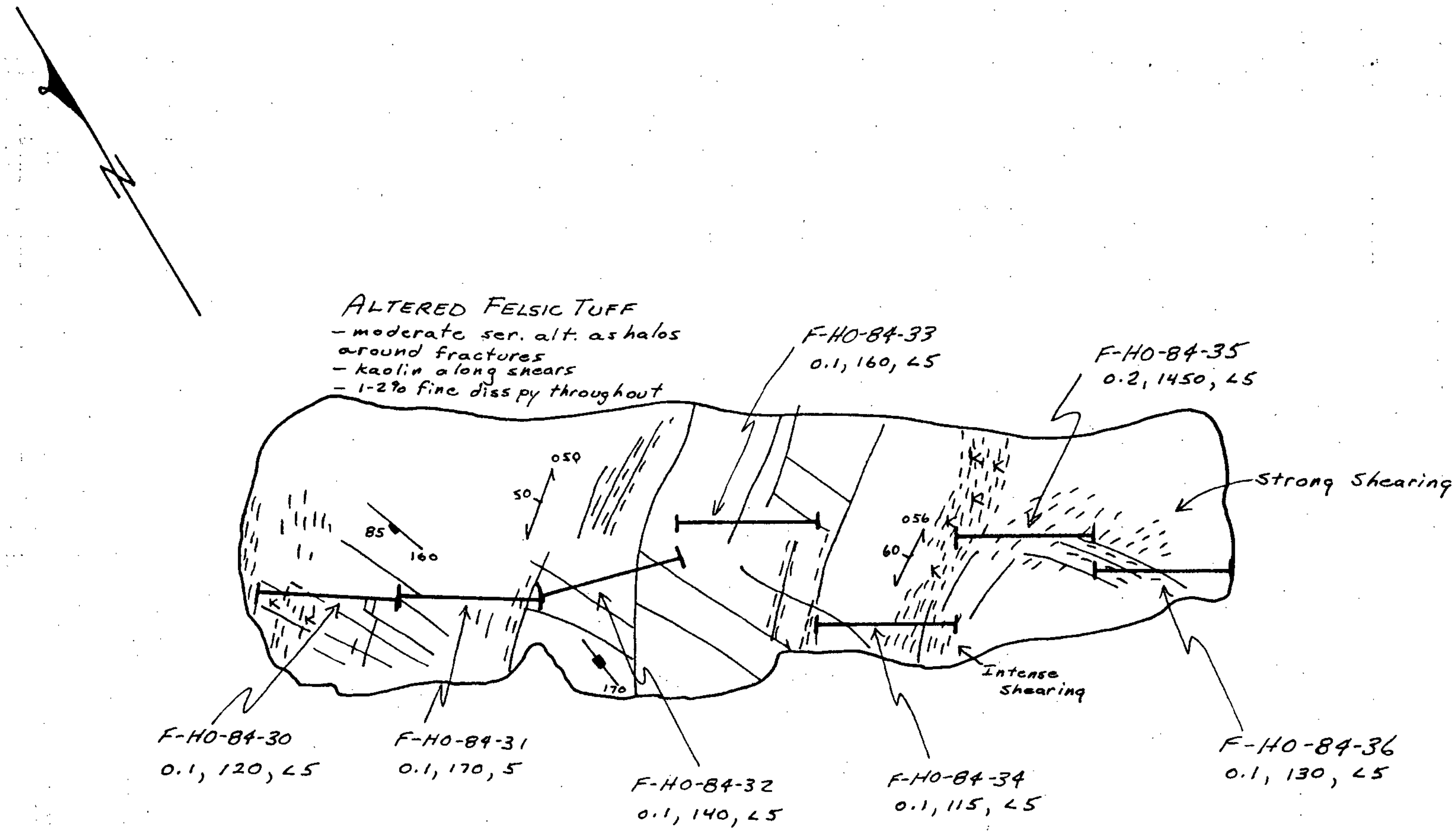
GEOLOGY + SAMPLING
PLAN
TRENCH 4
HOODOO CLAIMS

29/7/84 [signature]

FIG. No. 7



26

ASSAY RESULTS

ppm Ag, ppm As, ppb Au

SCALE

1 : 50

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GEOLOGY + SAMPLING PLAN

TRENCH 5

HOODOO CLAIMS

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FIG. No. 8

Detailed examination of trench 1 has shown the mineralization to be related to narrow threads and seams of "sooty" pyrite occupying east-west trenching fractures and joints. The sulphide seams vary from 1 to 5 mm in width and are erratically distributed over the entire length of the trench. Host rock for the mineralization is a massive silicified felsic tuff, weakly sericitized, but with a strong dark discolouration.

Anomalous silver values are also present in trenches 2 and 3 although not as high as in Trench 1. No "sooty" pyrite was observed in the fractures and joints but rather a coarser grained, brassy variety is present. The host rock is identical to that in Trench 1, a discoloured silicified felsic tuff. Small kaolin shears are also present generally trending east-west buy they have no apparent affect on mineralization.

Trenches 4 and 5 are on the western and eastern extremities of the gossan respectively.

Trench 4 returned only background Ag values, from 0.1 to 0.5 ppm, despite a strongly developed gossan. The host rocks are intensely sericitized and silicified felsic tuffs and resemble the phyllic zone of alteration characteristic of epithermal precious metal deposits.

Trench 5 occurs within sericitic felsic volcanic tuffs and lapilli tuffs but has not been silicified to the same extent as other parts of the zone. Pyrite, both coarse and fine grained varieties are present as fine disseminations and as a replacement of part of the groundmass to the lithic fragments. Only background silver values were obtained in chip sampling despite the presence of fine grained pyrite. This may be a function of sampling and would suggest a very erratic distribution of values.

Trenching and systematic rock sampling have targeted the anomalous zone of silver to an area between L0+50E and L1+00W, centred on the baseline.

5.5 Discussion of Results

The Discovery Gossan is definitely geochemically anomalous with respect to silver. Detailed mapping has shown the silver mineralization to be associated with a fine grained pyrite that appears to preferentially occupy fractures and open joints trending in a west-northwest direction.

The host rock for the mineralization is a silicified felsic lapilli-tuff to tuff. It has been more extensively fractured than the surrounding mafic to intermediate volcanic rocks due to its brittle nature. Mineralization does appear to be restricted to a short strike length of approximately 150 meters, from L1+00W to L0+50E. No ore control restricting the mineralization to such a short interval has been observed. The short strike length is also remarkable considering the size of the gossan and the intensity of alteration throughout the zone. It is possible that the silver mineralization was a very late event such that many of the open structures within the favourable host rock had become plugged with silica and other alteration minerals thus channeling the mineralizing solutions into a small area. Quick sealing of the system probably reduced the length of time of the event with resultant lack of appreciable silver values.

The Pulse EM survey failed to detect any concentration of sulphides at depth or even near surface. Despite the lack of a sulphide rich section, economic values may still be present.

It has not been possible to evaluate the gossan over its entire width due to the presence of a very steep scarp immediately south of the baseline and abundant talus associated with the south slope. Abnormal snow conditions also prevented examination and sampling of much of the gossan.

Any further evaluation of this zone would have to be by diamond drilling.

6. North Zone

6.1 Gridding

One baseline with an azimuth of 100° was established bisecting the North Zone gossan with a length of 450 meters. Traverse lines were run normal to the baseline at 50 meter intervals with stations established every 25 meters. The traverse lines were extended 300 meters north and south of the baseline. All lines were chained and surveyed using a clinometer so that elevations could be calculated for each station. In all, approximately 6.3 kilometers of line was chained and picketed.

The topography of the grid area is illustrated on Map No. 6.

6.2 Geology

6.2.1 Lithology

The North Grid area is underlain by a sequence of mafic to intermediate volcanic tuffs and lapilli-tuffs with intercalated sediments and volcaniclastics. Later intrusions of gabbro and narrow diabasic dykes are also present but not common. Map No. 7.

6.2.1.1 Mafic Volcanic Rocks

Mafic volcanic rocks occupy the north half of the grid and a small area on the south eastern side.

The rocks are dark gray to black in colour on a fresh surface and weather brown. They are composed of alternating beds of tuffs, lapilli-tuffs and local horizons of agglomerate. Where fragments are not visible the rocks resemble flows.

Adjacent to Twin Glacier on the eastern side of the grid the mafic rocks are hematite rich and maroon in colour. They are also slightly magnetic.

Graded bedding was observed in a few localities giving general east-west strikes and dips from 70°N to near vertical. Overall, bedding is not very distinct nor is there a well developed cleavage.

Metamorphism is lower greenschist facies with minor chloritization. Calcite both in the groundmass and as veinlets is common as is quartz and epidote veining and joint fillings.

South of the baseline between L1+50E and L2+00E a discordant unit of mafic volcano-conglomerate was outlined. It consists of an unsorted, chaotic mixture of mafic and felsic fragments in a mafic groundmass, locally portions of the unit are hematite rich. The unit probably represents a debris flow formed during uplift of the volcanic package.

6.2.1.2 Intermediate Volcanic Rocks

Volcanic rocks of intermediate composition are confined to the southwestern quarter of the grid area and a few other isolated occurrences.

The rocks are light gray to mid gray in colour often appearing massive. They are comprised chiefly of tuffs with a few horizons of coarser lapilli-tuffs. Large bombs were only observed in the vicinity of L1+50W/1+25S.

Cleavage is so poorly developed structural measurements could not be taken. The aforementioned agglomeratic unit did yield an east-west south dipping bedding trend as did a 20 cm wide band of chert believed to be conformable, within the intermediate rocks.

Jointing is moderately developed with quartz and epidote infillings but in lesser intensity than in the mafic volcanic rocks.

6.2.1.3 Sedimentary Rocks

Sedimentary rocks composed of shales and argillites are common on the North Grid. They are present as a 25 to 75 meter band trending east-west across the grid south of the baseline, where they form the structural hanging wall to the North Zone Gossan. They also occur in the northeast and southwest corners of the grid. They are also present as narrow intercalations in the volcanic package.

The sediments are buff to brown to gray in colour where argillaceous and black to dark brown where shale predominates. The shaly members also appear somewhat carbonaceous.

The sediments are generally fault bound except adjacent to the main North Zone gossan where a sharp but conformable contact is present.

6.2.1.4 Mafic Intrusive Rocks

A small body of gabbro was found occurring between lines 2+50W and 3+00W at approximately 1+75N.

The gabbro is similiar in composition and appearance to that outlined on the Discovery Grid. It is coarse grained, equigranular and mottled in appearance. The rock consists chiefly of plagioclase, quartz and hornblende and has been little altered, retaining a fresh appearance.

Contacts with the surrounding mafic volcanic rocks appear gradational.

The rock is weakly magnetic and from the magnetic survey undertaken appears to dip to the south under a cover of mafic volcanic rocks.

6.2.1.5 Late Mafic Intrusive Rocks

Narrow, 1-2 meter wide dykes of mafic composition crosscut all rock types on the property. Not as common on the North Grid as the Discovery Grid they persist in maintaining an east-west to west-northwest orientation.

The rocks appear to be diabasic in composition, weathering a brown to orange colour typical of other diabase dykes. The dykes are badly rotted in most places and as such their mineralogy could not be determined.

The dykes have been termed "Hoodoo Dykes" due to their mafic affinity and probable relationship to one of Hoodoo Mountains more recent thermal events.

6.2.2 Structure

The strata underlying the North Grid trend in an east-west to west north-west direction. Dips vary from steeply north to near vertical on the north part of the grid to steeply south on the southern half of the grid. This dip reversal may be due to an anticline in the central portion of the grid. Alternatively the north dips may be a local phenomenon related to gabbro intrusion as they are only observed in the vicinity of the intrusive.

Graded bedding is commonly observed and represented by alternating sequences of coarse to fine pyroclastic material. These suggest a stratigraphic top towards the south.

Three main fault sets are present as follows:

Orientation	Inferred Sense of Movement
045°	Dextral
080°	Unknown
170°	Dextral

The faults are all believed to be high angle normal faults with limited strike slip movement and an unknown dip slip component.

An examination of the disruption of individual rock units suggests that the first faulting was the 080° set followed by the 170° set. The last movement in the area was probably along the 045° fault set.

6.2.3 Mineralization and Alteration

Mineralization on the North Grid is present as a continuous 25 meter wide gossanous zone trending east-west across the entire grid in the vicinity of the baseline. The zone has been faulted off to the west but remains open on strike to the east where it is covered by Twin Glacier.

Other discontinuous areas of gossanous material occur in the southeast and north central portions of the grid.

The mineralization consists of 2-7% disseminated and stringer pyrite within a carbonatized mafic volcanic. Locally crosscutting seams of massive pyrite up to 15 cm in width are present.

As in the Discovery Gossan, two types of pyrite are present, a black, extremely fine grained "sooty" variety and a coarse, well crystallized brassy yellow type. In a similiar fashion silver mineralization is of higher grade, greater than 1.0 oz/ton in the sooty variety but is still anomalous, 2-10 ppm, in association with the coarser type.

Pyrite mineralization both coarse and fine grained also occurs as a groundmass replacement in a coarse fragmental phase of the host rocks in and near trench 5, 1+90W/Baseline 0+00.

The mineralization displays a sharp contact to the south with the overlying shales and argillites but a gradational contact to the north with the mafic volcanic rocks.

Material freshly exposed from trenching quickly weathers to a greenish yellow colour possibly due to high arsenic content.

Several other, patchy, areas of disseminated pyrite are present on the grid, with anomalous silver values, but they lack continuity and are not considered significant at this point.

Alteration associated with mineralization is chiefly carbonate. This is abundant throughout the groundmass of the host rock and as narrow veinlets and vesicle fillings. The rocks show no evidence for silicification except in the surrounding country rocks where quartz and epidote occurs as joint and fracture fillings.

Alteration zoning such as that observed with the Discovery Grid is not present.

The mineralization appears to be associated with the contact between mafic volcanic rocks and sediments, probably a major, early formed east-west fault.

Further details on mineralization are in Chapter 6.4, Trenching and Sampling.

6.3 Geophysics

6.3.1. DEEPEM Pulse

Grid lines 2+00E, 1+50E, 1+00E, 0+50E, 0+00, 1+00W, 2+00W and 3+00W were surveyed by Pulse EM equipment. A transmitter loop 300 m x 600 m was laid out immediately to the south of the grid. Readings were then taken at 25 meter intervals of both the horizontal and vertical components of the secondary EM field decay curve. The results of the survey are shown on Map No.'s 8 and 9 appended to this report. Raw data is listed in Appendix A.

The survey outlined one possible conductive zone "A" shown on the prints accompanying this report. It was detected from L0+00/0+30S to L1+50/0+25S. The zone is very weakly conductive as the response is only visible in the early channels, 1 and 2. The source of the conductivity is near surface and associated with carbonaceous shales and not sulphide mineralization.

The only other feature to note is a one station anomaly at L3+00W/B.L.00. This anomaly only appears in the vertical component data and is due to slight movement of the receiving coil during the time the readings were taken.

Overall the Pulse EM survey has indicated that there is no significant concentration of conductive material in the grid area.

6.3.2 Induced Polarization (I.P.)

One line of I.P. was run to determine whether the argentiferous gossan would give a measurable response. Grab samples indicated 5-7% sulphides by volume, suggesting that I.P. would be an effectve technique for outlining zones of greater sulphide concentration. L0+00 was surveyed primarily because of the ease of getting good ground contact with the electrodes.

The time domain system employed was set up in a Pole-Dipole configuration, as a comprimise between deep penetration and good definition of conductive zones. The results are shown on Map No.'s 10 and 11 accompanying this report.

No appreciable response was detected from surveying with apparent resistivities averaging 1100-1200 ohm-meters, similar to that obtained for barren volcanic rocks. The chargeabilities are all low with a very slight measurable increase associated with a shale unit at 0+50 to 0+75 south. There was no anomalous response associated with the gossanous zone.

As a final test of the I.P. response of the gossan, all of the electrodes were planted in the gossan and several readings taken down strike. Again, no anomalous readings were recorded.

The lack of an anomaly associated with the gossan despite the presence of abundant sulphides on surface suggests that there is no depth extent to the pyrite mineralization.

The lack of a response and the difficulty in getting ground contact with the electrodes led to termination of I.P. surveying.

6.3.3 Magnetic Survey

Two distinct zones of anomalous magnetics were outlined by the magnetometer survey. An irregular zone of high magnetics was outlined trending approximately north-south from 0+75N/0+50E to 0+50S/1+50E. The local geology is mafic volcanics and volcaniclastics with abundant hematite fracture fillings. This adequately explains this feature.

A second anomolous zone was outlined in the northwestern portion of the grid.

The peak response in this area can be attributed to an outcropping of gabbro. the more diffuse magnetic pattern to the south suggests a south dip or plunge to the intrusive.

Background magnetics over the grid average 57,500 gammas. It is not possible to distinguish from the magnetics, rock types other than those described above.

A few isolated, spot, magnetic highs are also present on the grid but they can not be explained at present although they do not appear to be of significance.

All of the magnetic results are contoured and presented on Map No. 12 appended to this report.

6.4 Trenching and Sampling

Ten rock trenches were excavated on the north grid to permit chip sampling of fresh bedrock and to allow a detailed examination of the mineralized zone.

A total of 76 samples were collected of which 57 are systematic chip samples from fresh exposures in the trenches. The remaining samples are selected grabs of material suspected as being high in silver content.

Complete sampling results and analytical procedures are in Appendix B and C.

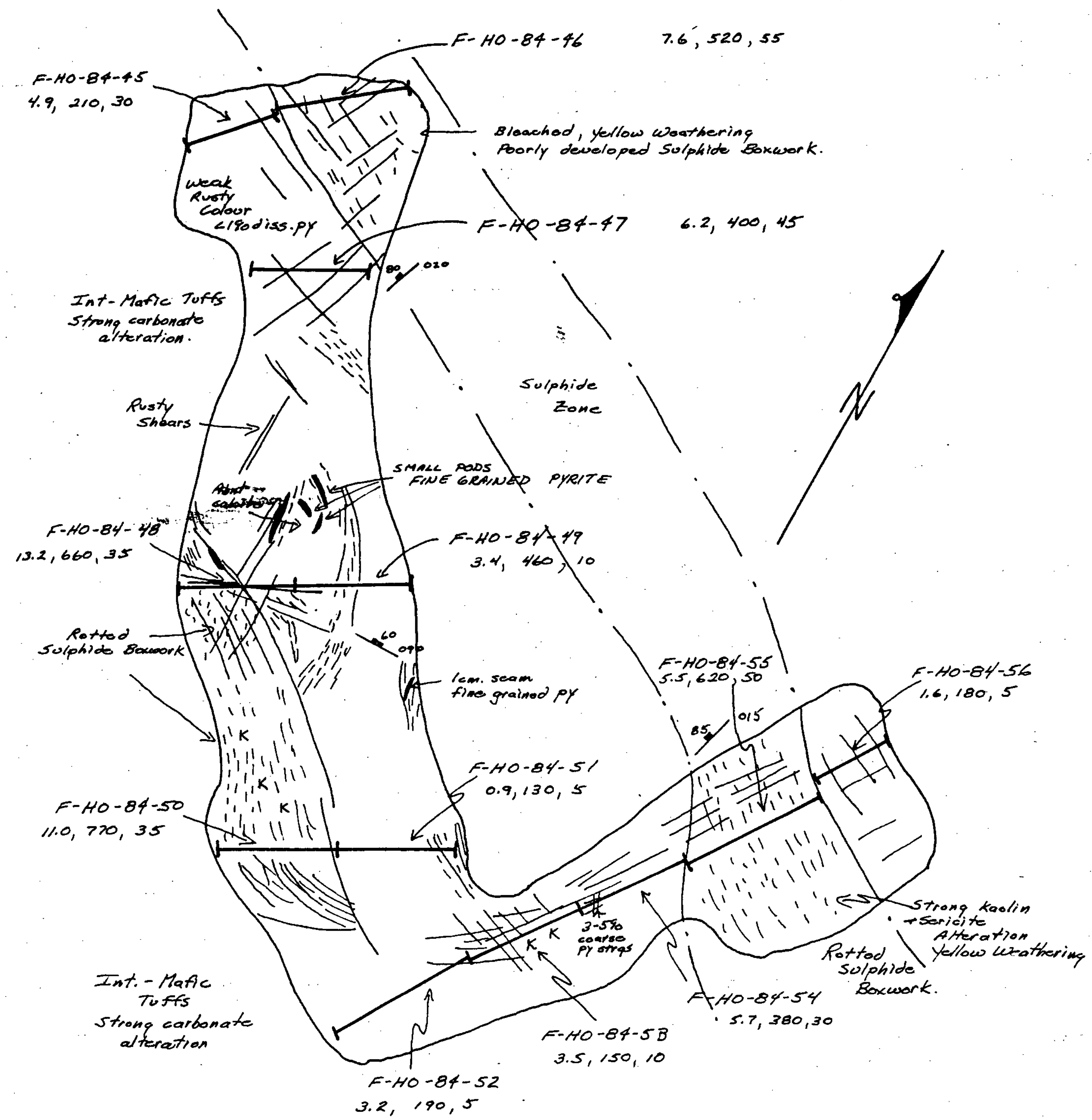
TRENCH NO.	LOCATION	SIZE	AMOUNT OF ROCK EXCAUATED	
1	2+90W/1+50N	8.5 m x 1.5 m x 0.4 m		
		3.8 m x 1.2 m x 0.4 m	6.9 cu m	19.3 TONNES
2	2+60W/1+20N	6.0 m x 0.8 m x 0.3 m	1.4 cu m	3.9 TONNES
3	2+60W/1+00N	2.0 m x 2.0 m x 0.4 m	1.6 cu m	4.5 TONNES
4	2+55W/0+90N	3.0 m x 1.5 m x 0.4 m	1.8 cu m	5.0 TONNES
5	2+00N/B.L.00	7.0 m x 1.3 m x 0.5 m	4.6 cu m	12.9 TONNES
6	1+10W/0+05S	5.5 m x 1.5 m x 0.5 m	4.1 cu m	11.5 TONNES
7	0+22W/0+05S	7.0 m x 1.0 m x 0.5 m	3.5 cu m	9.8 TONNES
8	0+03W/0+08N	5.0 m x 1.5 m x 0.4 m	3.0 cu m	8.4 TONNES
9	1+00E/0+07N	2.0 m x 1.0 m x 0.5 m	1.0 cu m	2.8 TONNES
10	1+50E/0+04S	6.3 m x 1.0 m x 0.5 m	3.2 cu m	9.0 TONNES
			31.1 cu m	87.3 TONNES

Detailed sketches of the geology sampling plan and assay results of the trenchs on the North Zone are illustrated in figures 9 to 18.

The bulk of the samples collected returned geochemically anomalous results with the majority averaging 3-5 ppm Ag with values up to 4.80 oz/ton Ag.

In general the mineralization is associated with 2 to 5 cm wide veins of a black fine grained "sooty" pyrite. These veins are discontinuous and irregular, often occuring as 2-3 cm wide podiform masses.

The host rock for the mineralization is an extensively carbonatized mafic pyroclastic. Sulphides are common as coarse, brassy yellow disseminations and occasionaly seams. The sulphide content approximates 3-5% by volume.



KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING PLAN

TRENCH 1 - NORTH ZONE

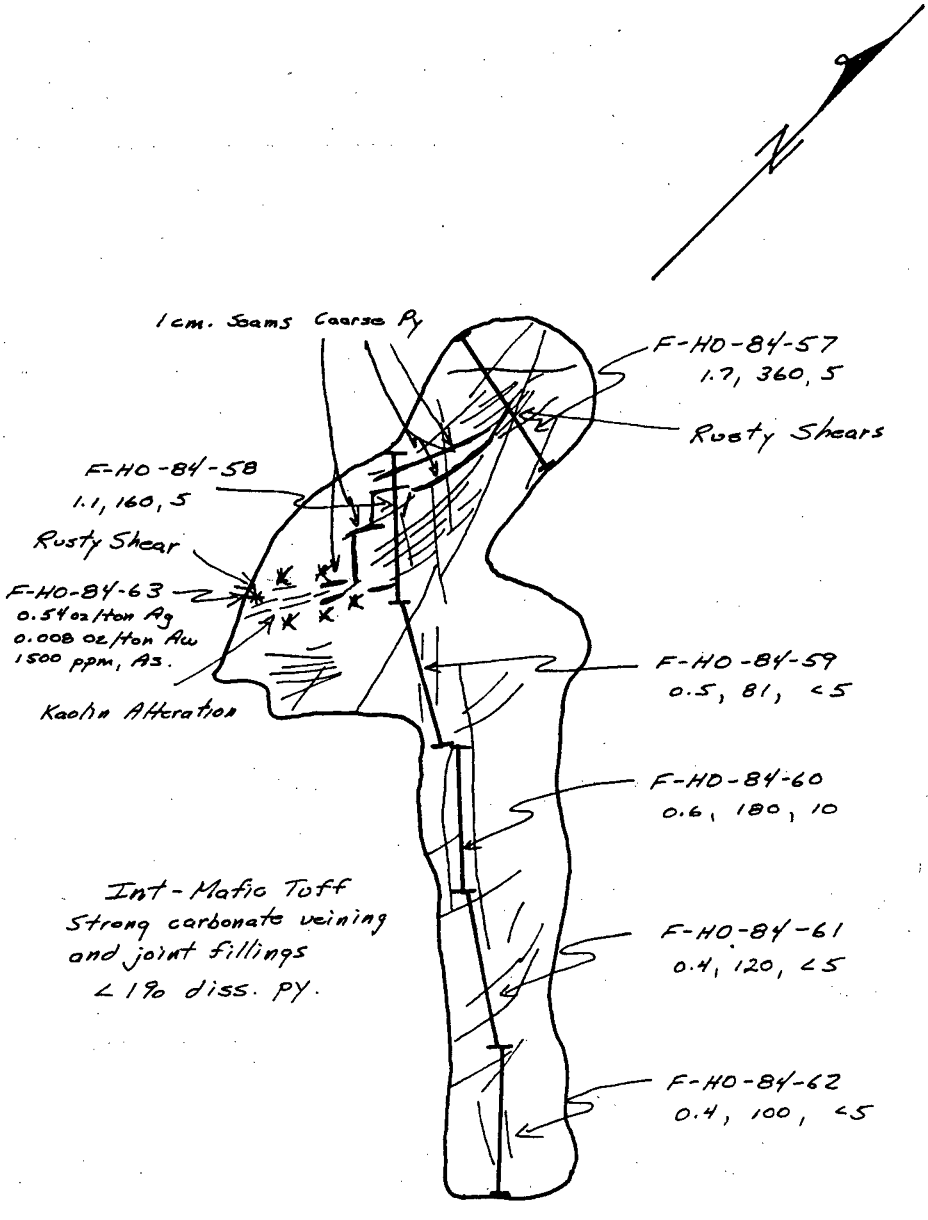
HOO DOO CLAIMS

ASSAY RESULTS
ppm Ag, ppm As, ppb Au.

SCALE
0 1 2
METERS
1:50

31/8/84 R.J. [signature]

FIG. No. 9



ASSAY RESULTS

ppm Ag, ppm As, ppb Au

SCALE

1:50

KERR ADDISON MINES LTD.
VANCOUVER, B.C.

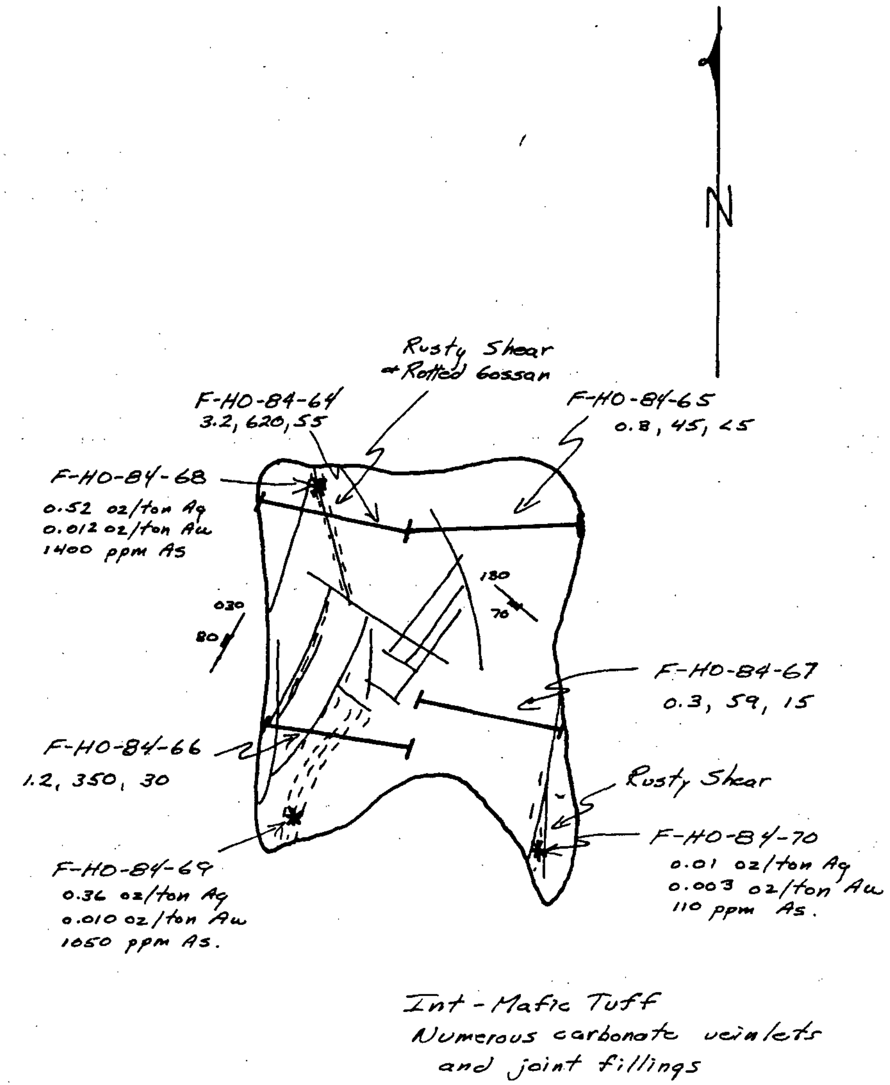
GEOLOGY AND SAMPLING PLAN

TRENCH 2 - NORTH ZONE

HOODOO CLAIMS

31/8/84 [signature]

FIG. No. 10



ASSAY RESULTS

ppm Ag, ppm As, ppb Au

SCALE

0 1 2

METERS

1:50

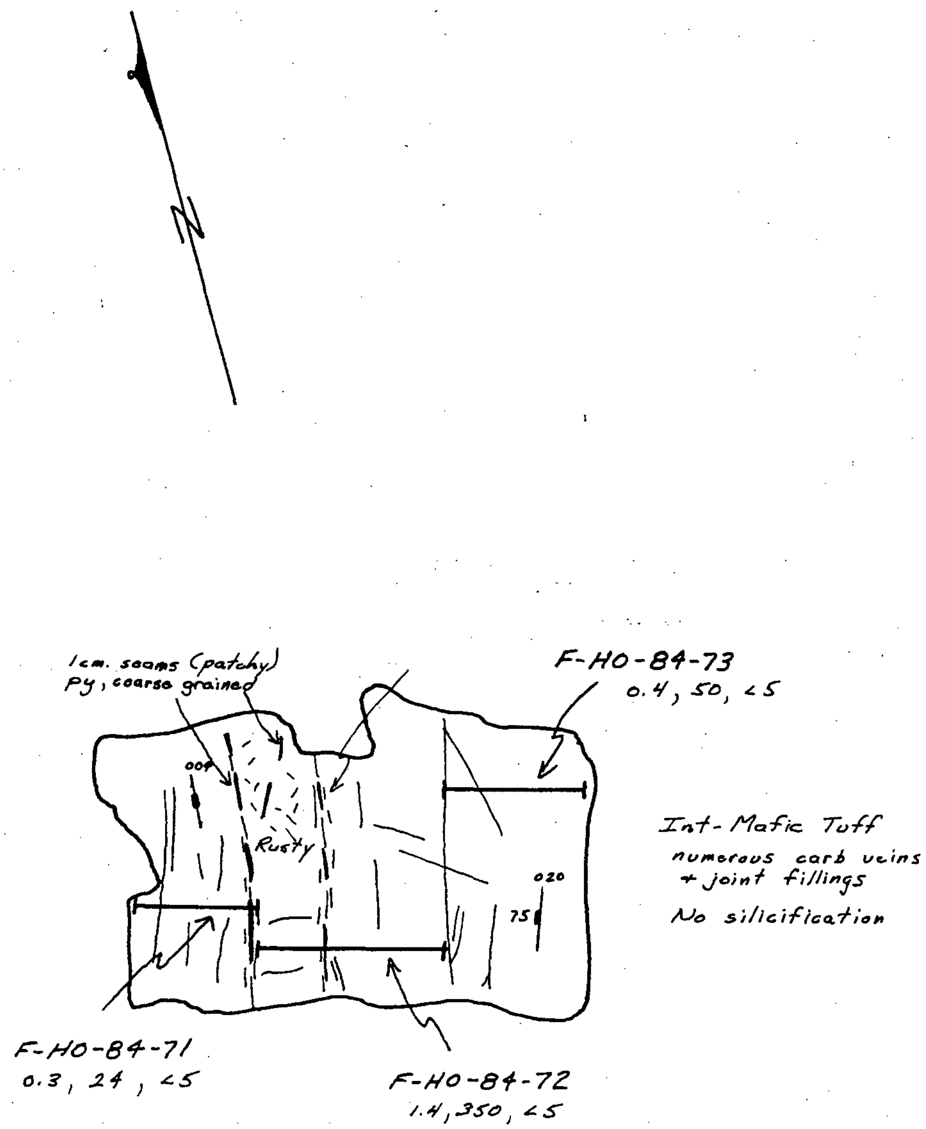
KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING PLAN

TRENCH 3 - NORTH ZONE
HOODOO CLAIMS

31/8/84 [signature]

FIG. No. 11



ASSAY RESULTS

ppm Ag, ppm As, ppb Au

SCALE

1 : 50

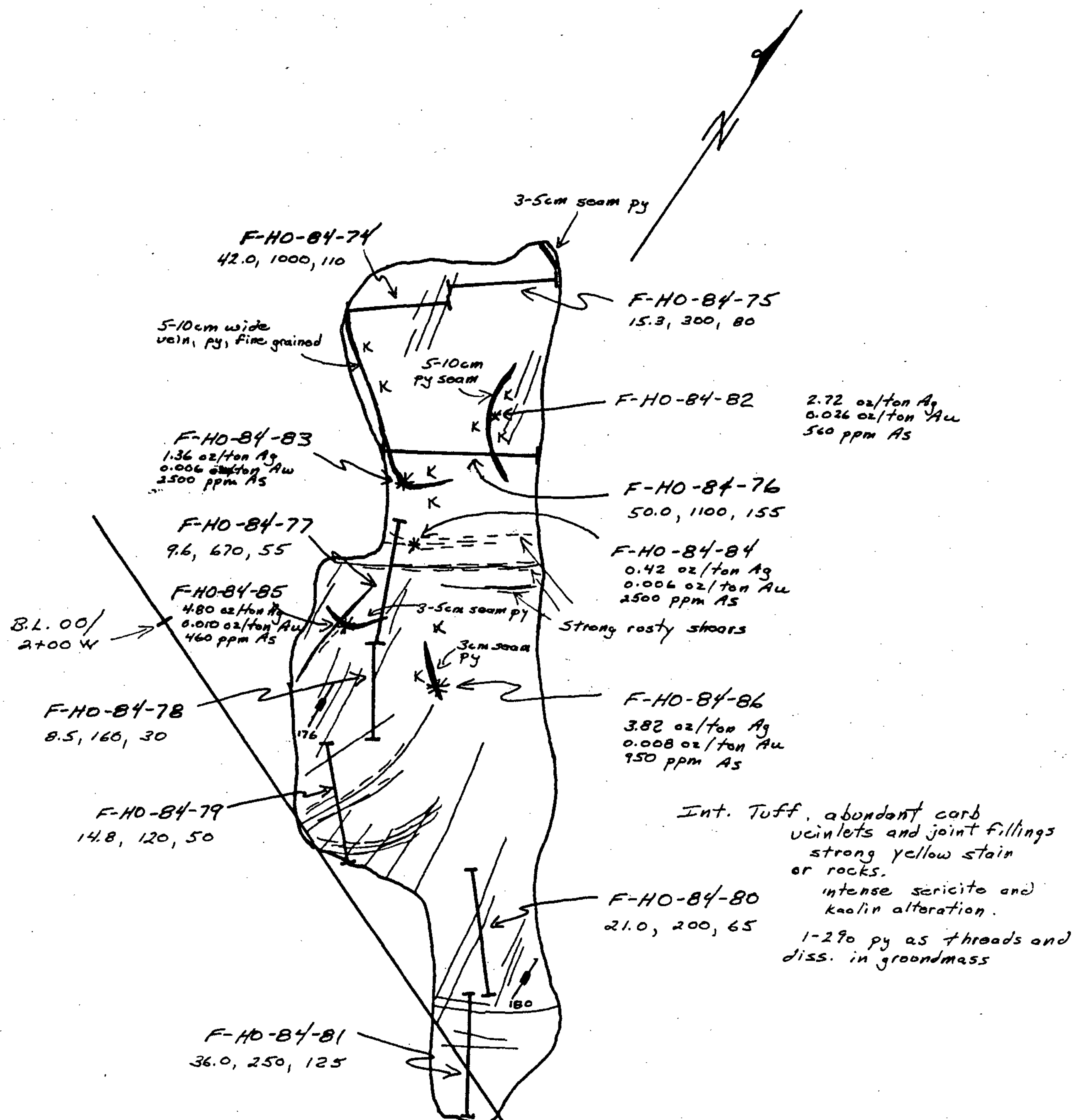
KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING PLAN

TRENCH 4 - NORTH ZONE
HOODOO CLAIMS

4/8/84 R.I. Fraser

FIG. NO. 12



ASSAY RESULTS
ppm Ag, ppm As, ppb Au

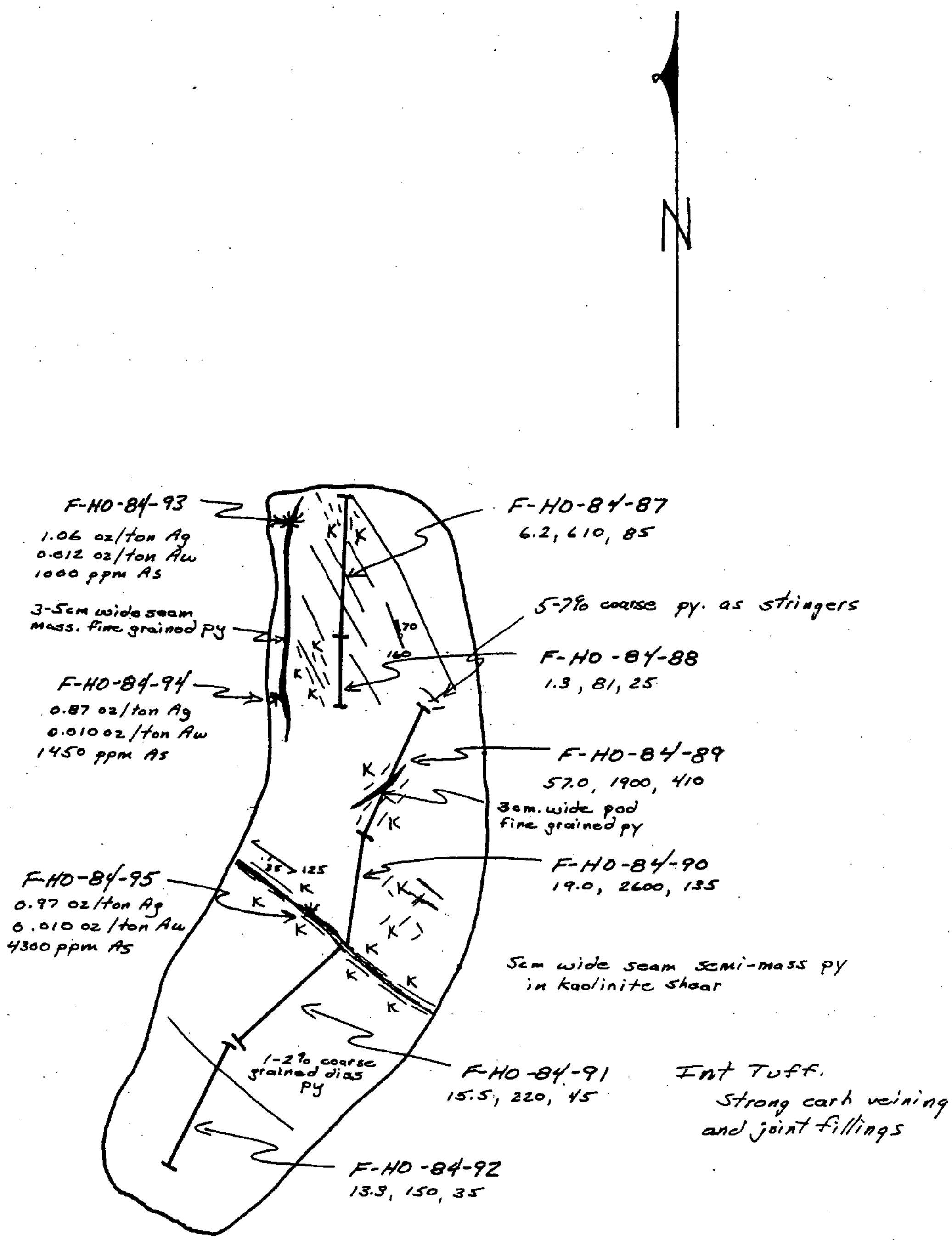
SCALE
0 1 2
METERS
1 : 50

KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING
PLAN
TRENCH 5 – NORTH ZONE
HOODOO CLAIMS

4/9/84 R.J. Frase

FIG. No. 13



ASSAY RESULTS
ppm Ag, ppm As, ppb Au

SCALE

0 1 2

METERS

1:50

KERR ADDISON MINES LTD.
VANCOUVER, B.C.

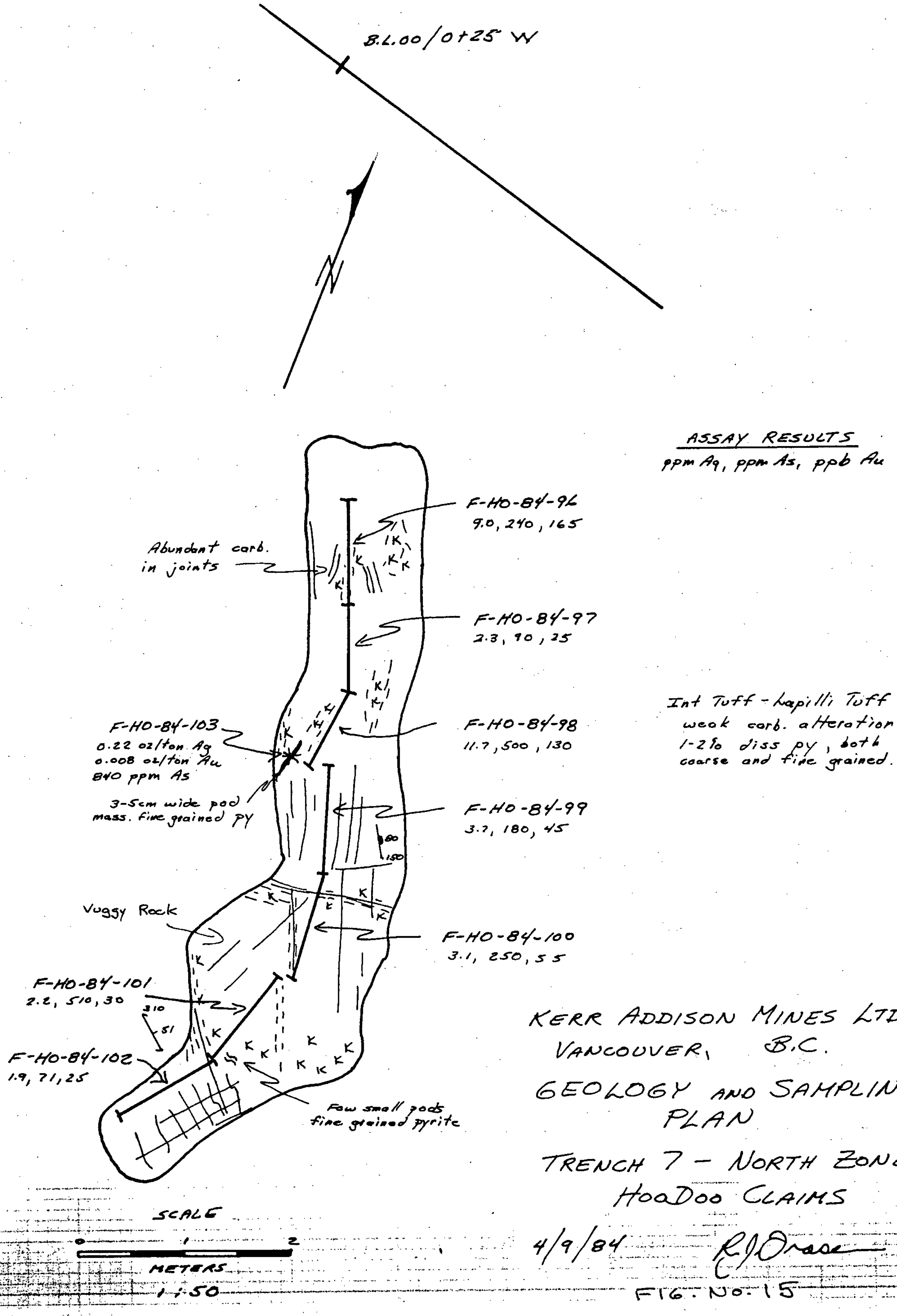
GEOLOGY AND SAMPLING PLAN

TRENCH 6 - NORTH ZONE

HOODOO CLAIMS

4/9/84

FIG. No. 14



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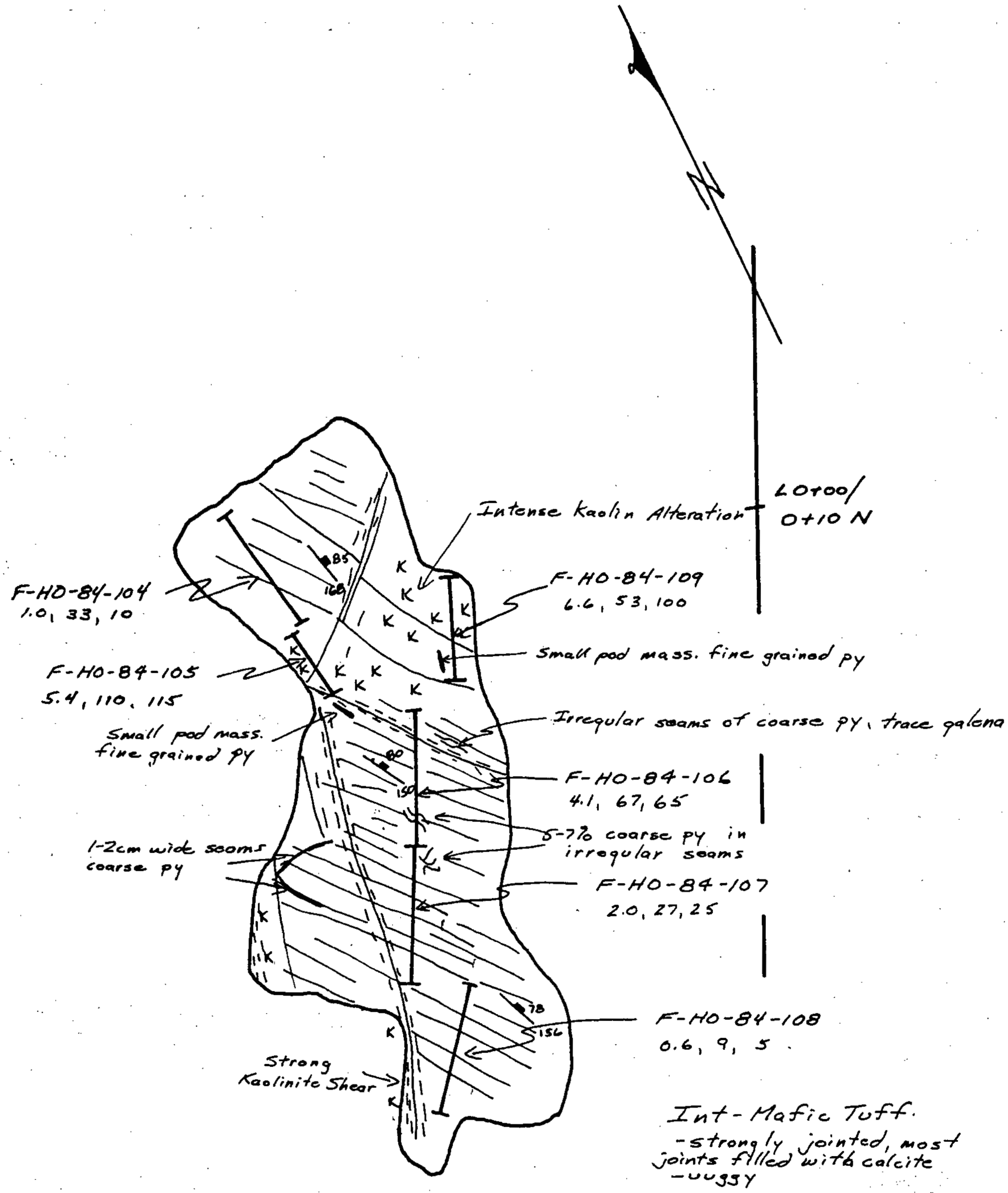
GEOLOGY AND SAMPLING PLAN

TRENCH 7 – NORTH ZONE
HOODOO CLAIMS

4/9/84 R.J. Drase

FIG. No. 15



ASSAY RESULTS
ppm Ag, ppm As, ppb Au

SCALE

0 1 2
METERS
1:50

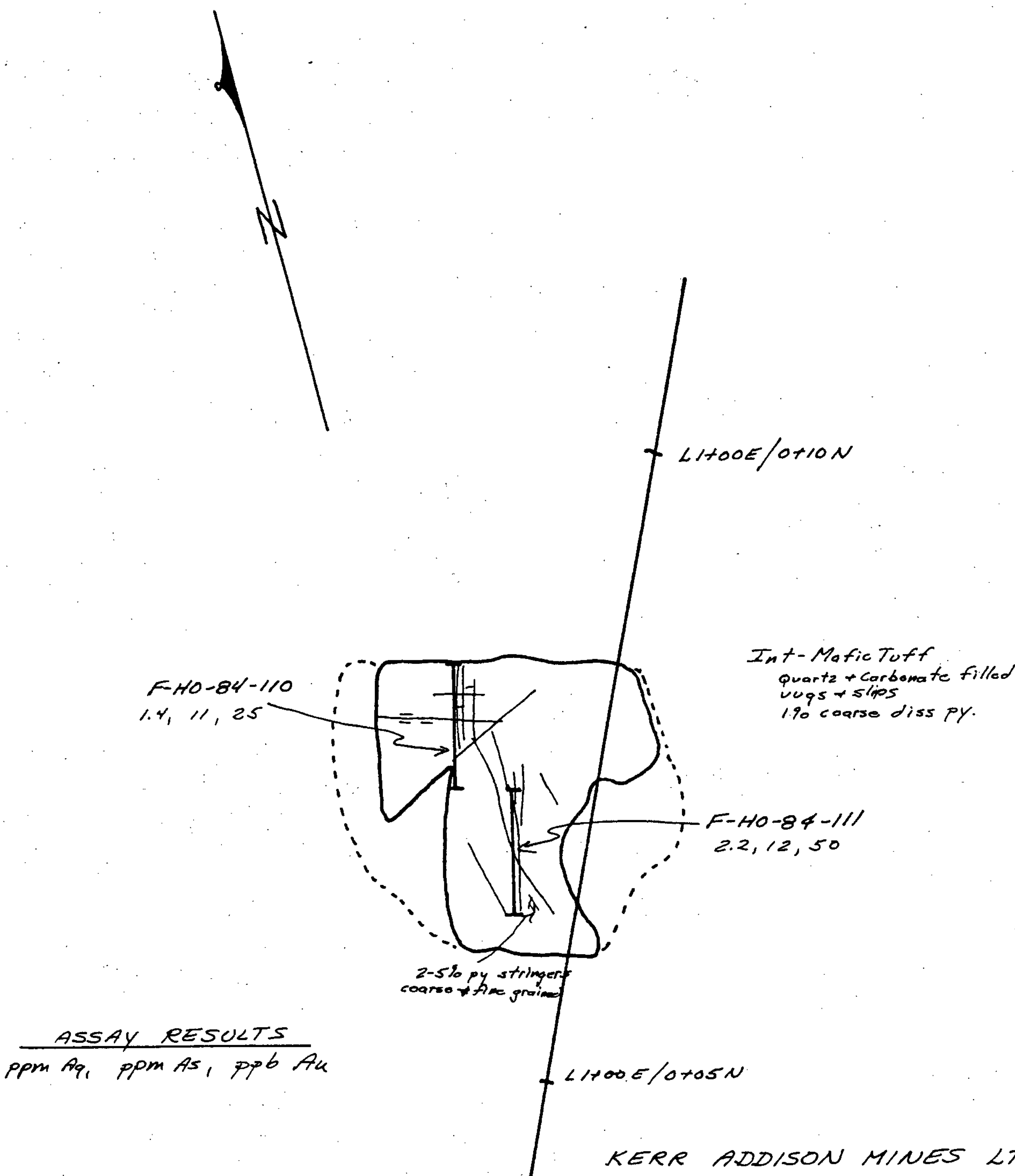
KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING PLAN

TRENCH 8 - NORTH ZONE
HooDoo CLAIMS

4/9/84

FIG. No. 16



SCALE

0 1 2

METERS

1:50

KERR ADDISON MINES LTD.
VANCOUVER, B.C.

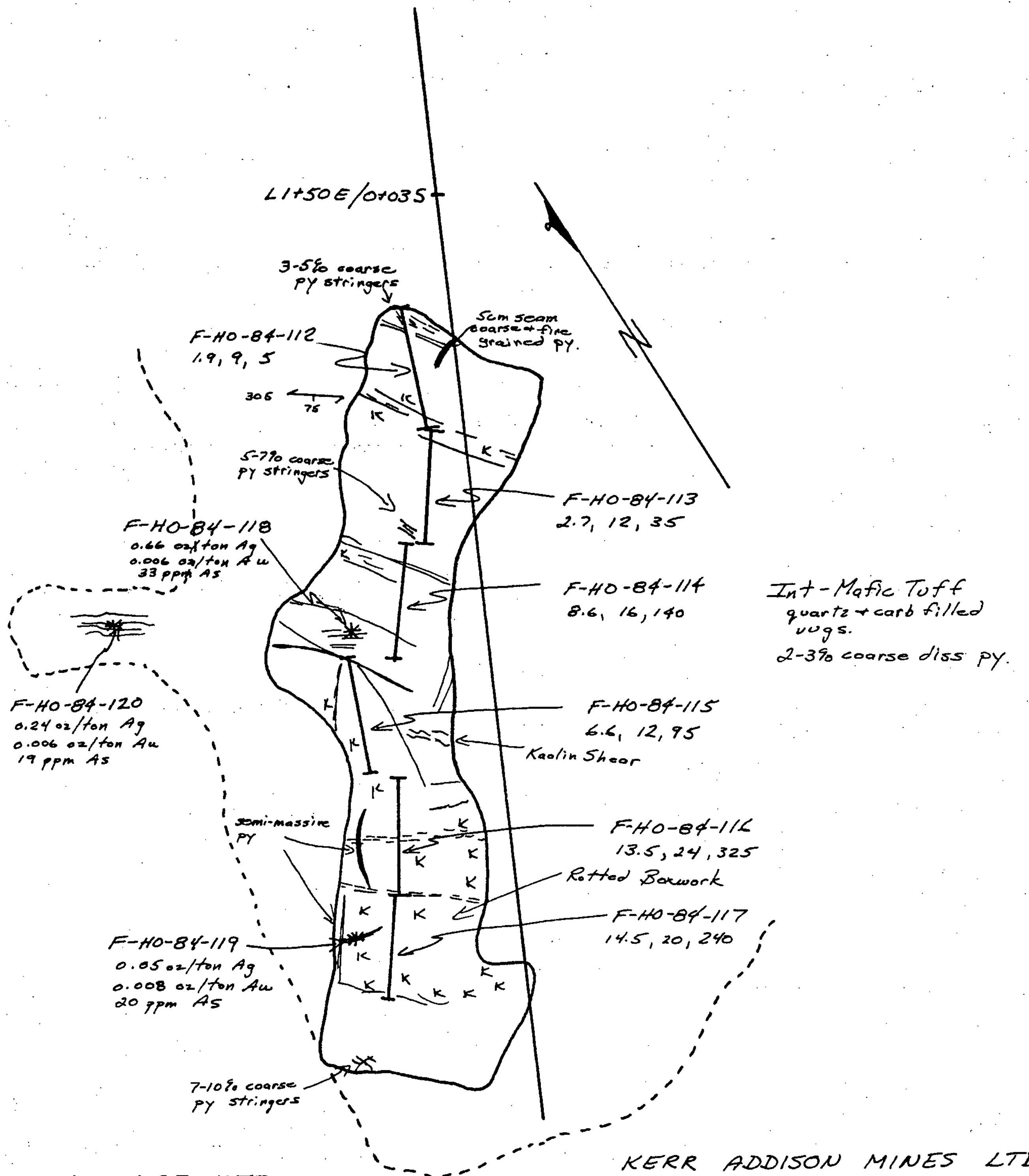
GEOLOGY AND SAMPLING PLAN

TRENCH 9 — NORTH ZONE

HOODOO CLAIMS

4/9/84

FIG. No. 17



ASSAY RESULTS
ppm Ag, ppm As, ppb Au

SCALE
0 1 2
METERS
1:50

KERR ADDISON MINES LTD.
VANCOUVER, B.C.

GEOLOGY AND SAMPLING PLAN

TRENCH 10 - NORTH ZONE

HooDoo CLAIMS

4/9/84 R. J. [signature]

FIG. No. 18

In trench 5, the rock matrix has been locally replaced by massive fine grained sulphide.

Gold values, although not high, do show a slight increase in grade with a decrease in elevation. This phenomenon although not clearly defined is illustrated in figure 19. Gold increases from background levels of less than 50 ppb in trenches 1 to 4 at the highest elevations to approximately 100-150 ppb at the lower elevations, trenches 8 to 10. Silver values are more erratic, with high values occuring regardless of elevation although they do appear to be more common in the higher elevations.

Two stages of mineralization are also postulated with differing Au:Ag ratios. In figure 20 two different trends are suggested. A steep slope for mineralization at higher elevations and a shallow slope for mineralization at lower elevations.

6.5 Discussion of Results

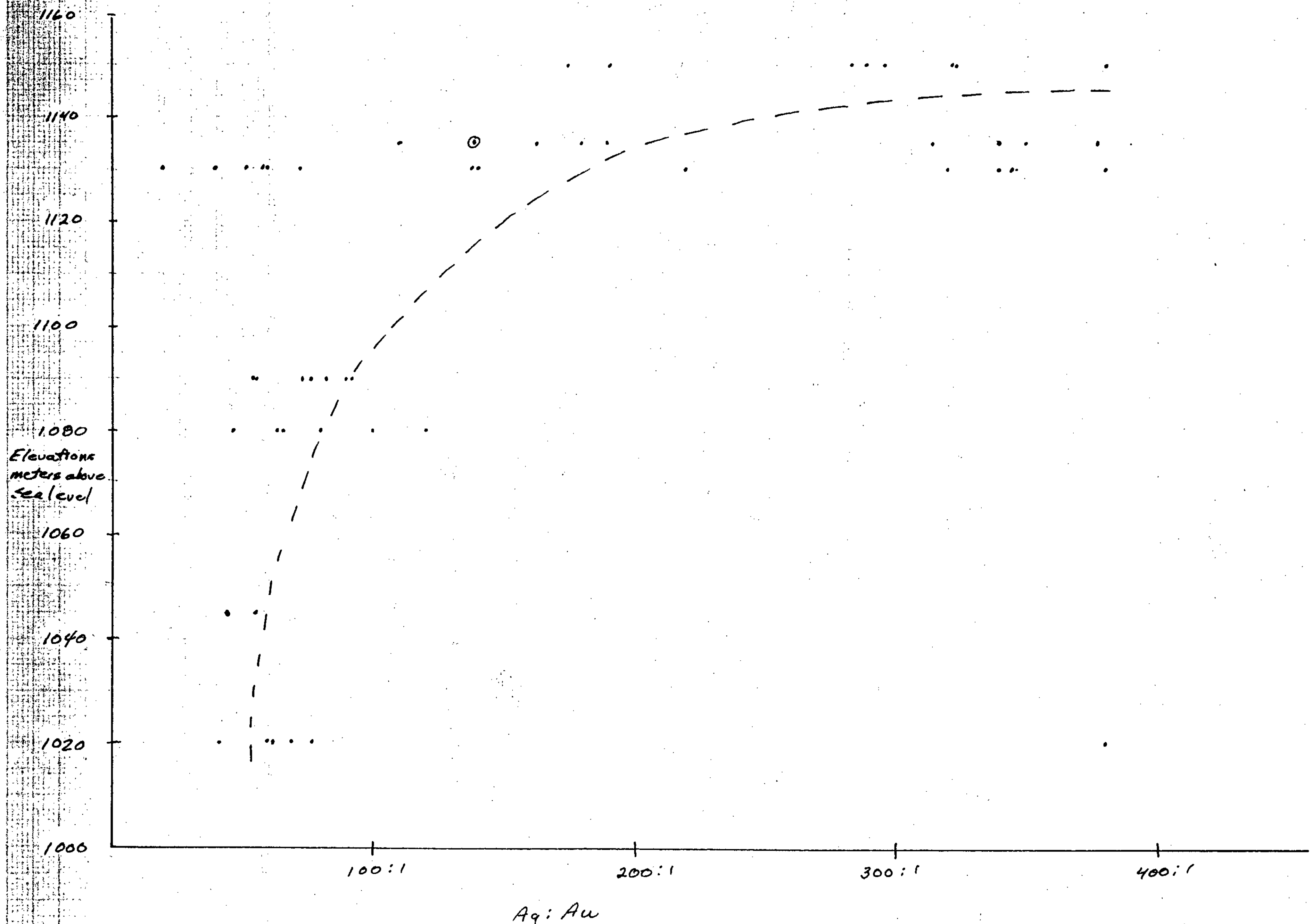
In a similiar fashion as the Discovery Zone, silver mineralization in the North Zone is associated with narrow seams and veins of a black, fine grained "sooty" pyrite.

The host rock for the mineralization is a carbonatized mafic volcanic tuff to lapilli tuff. The mineralization displays a sharp contact with the overlying argillites and shales and a more gradational contact into the mafic volcanics.

Silver mineralization although of low tenor, 10-50 ppm, occurs throughout the exposed strike length of 500 meters and over an elevation difference of 140 meters. The direct association of silver with sulphide content is useful but unfortunately there is little in the way of an EM response from the zone. Coupled with the lack of an I.P. anomaly from the gossan, little sulphide is believed to be present below the present surface. This does not discount the possibility of ore grades occuring at depth. There is also a marked increase in gold content with decreasing elevation.

FIG. No. 19 NORTH ZONE

Ag:Au RATIO vs. ELEVATION ABOVE SEA LEVEL



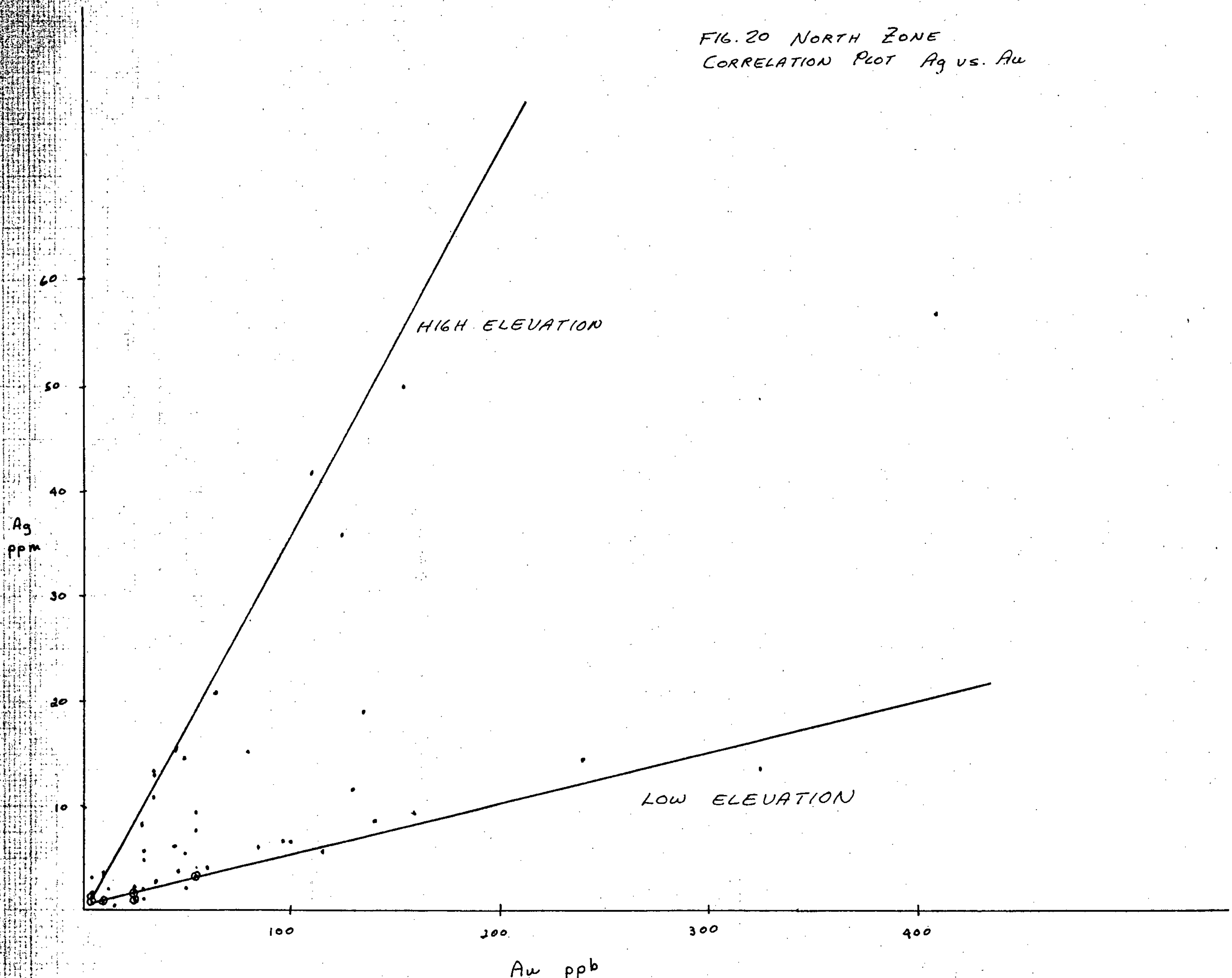


FIG. 20 NORTH ZONE
CORRELATION PLOT Ag vs. Au

The North Zone gossan displays a marked preference for the mafic volcanic-sediment contact. This contact is believed to have been a zone of weakness and functioned as a channelway for mineralizing solutions related to geothermal activity with subsequent deposition of pyrite and silver mineralization.

Several other prominant gossans on the property are all fault bounded and their relationship to each other and the principal gossan is unknown.

The mineralized zone has been well examined and sampled by the 10 trenches. Additional surface work does not appear to be warranted. The most expediant way to test the zone would be by diamond drilling.

7. Conclusions

Exploration work on the Hoodoo claims to date has outlined two geochemically anomalous zones of silver mineralization.

Both systems appear different in their host rock characteristics, silicified felsic volcanics in the Discovery Zone and carbonatized mafic volcanics in the North Zone. Mineralization is identical being associated with veins and seams, generally from 2-5 cm in width, of a black fine grained "sooty" pyrite.

Overall tenor of the silver mineralization is low averaging less that 15 ppm although selected grab samples run as high as 4.80 oz/ton Ag. Gold content is low, averaging less that 50 ppb although there is an apparent increase in grade with decreasing elevation.

The similiar geochemical characteristics of the two zones suggests that they had a common source although the lack of silica in the North Zone is puzzling.

The lack of an EM response on both zones is not a negative factor. It has indicated that there are no strongly conductive zones in the area, although a bulk mineable precious metal deposit may still be present.

Further work is warranted on the property. A minimum of three 100 meter holes should be drilled on both the Discovery and North Zones to test the depth potential of the mineralization. This will also enable systematic sampling across the entire width of the zones.

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Kerr Addison Mines Ltd.

Appendix A

Geophysical Techniques and Raw Data

Pulse EM - DEEPEM

Induced Polarization

Magnetic Surveying

Pulse EM Raw Data

Pulse EM - DEEPEM

The Pulse EM survey was carried out using a wideband time domain EM system manufactured by Crone Geophysics, Mississauga, Ontario.

The pulse electromagnetic system is a time domain electromagnetic system which measures the secondary field directly rather than a resultant field reading.

The primary current wave form through the transmitter loop is 10.8 ms on, 10.8 ms off with ramps of 1.5 ms. The current wave form pattern is transmitted to the receiver by a radio signal. After the current shut-off the time derivative of the transient magnetic field is measured by integrative sampling over eight, contiguous time gates at 0.15, 0.30, 0.55, 0.90, 1.45, 2.40, 4.00 and 6.40 ms to the mid point of the sample. This gives an approximate frequency equivalent range of 20 to 2,000 Hertz.

The sample amplitude is normalized by setting to 1,000 a sample taken of the maximum shut-off voltage, measured at the receiver.

The DEEPEM method uses large square or rectangular transmit loops, from 100 m x 100 m to 500 m x 1000 m depending on the target depth and geometry.

Survey lines are run outside and perpendicular to the long side of the loop. Length of the survey line is in the order of 5 times the width of the transmit loop.

At each receiver station measurements are made of the vertical and in-line horizontal components of the time derivative of the secondary EM field (dBz/dt and dBx/dt). A third horizontal, cross line component, dBy/dt, may be measured if the strike of the conductor is not perpendicular to the grid.

This method is excellent for deep target exploration. Maximum coupling is achieved with conductive bodies with dips of greater than 45° at depths equivalent to the width of the transmit loop. The geometry of the primary field leaves a "blind zone" for small near surface (less than half the width of the transmit loop) vertical conductors. Smaller transmit loops must be employed in exploration for such targets.

Induced Polarization

The induced polarization (I.P.) survey was carried out using a pulse type system the principal components of which are manufactured by Huntec Limited of Metropolitan Toronto, Ontario.

The system consists basically of three units: a receiver, a transmitter and a motor generator. The transmitter, which provides a maximum of 2.5 kw d.c. to the ground, obtains its power from a 2.5 kw 400 c.p.s. three phase alternator driven by a gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurement of the current (I) in amperes flowing through electrodes C_1 and C_2, the primary voltage (v) appearing between the two potential electrodes, P_1 and P_2, during the "current-on" part of the cycle, and the apparent chargeability (Ma) presented as a direct readout using a 200 millisecond delay and a 1,000 millisecond sample window by the receiver, a digital receiver controlled by a microprocessor.

The apparent resistivity (P_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode C_1, and the two potential electrodes, P_1 and P_2, are moved in unison along the survey lines. The spacing "na" (n an integer) between C_1 and P_1 is kept constant for each traverse at a distance roughly equal to the depth to be explored by that traverse, while that of P_1 and P_2 (the dipole) is kept constant at "a". The second current electrode C_2 is kept constant at "infinity".

Thus usually on a "pole-dipole" array traverse with an electrode spacing of 100 meters a body lying at a depth of 50 meters will produce a strong response, whereas the same body lying at a dept of 100 meters will only just be detected. By running subsequent traverses at different electrode separations, more precise estimates can be made of depth, width, thickness and percentage of sulphides of causative bodies located by the I.P. method.

Magnetic Survey

The magnetic survey was carried out using a Geometrics G-816 portable proton precession magnetometer as manufactured by Exploranium Geometrics Ltd. of Toronto, Ontario.

The proton precession or nuclear resonance magnetometer depends on the measurement of the free precession frequency of hydrogen nuclei (protons) which have been polarized in a direction approximately normal to the direction of the earth's field. When the polarizing field is suddenly removed, the proton precess about the earth's magnetic field.

The protons precess at an angular velocity which is proportional to the magnetic field strength. A signal derived from the precession of the protons can be measured by means of a coil surrounding the sample. Protons, being moving charges, induce in the coil a voltage which varies at the precession frequency. This allows determination of the magnetic field strength.

When the polarizing field is cut off, the protons precess about the direction of the earth's field. Hence only the absolute total field may be measured.

To conduct the survey a base station was established with all subsequent readings taken relative to this value. By reading the baseline in this manner, it can be used as a series of base stations from which the rest of the grid lines are read at 25 meter intervals.

As the earth's magnetic field fluctuates with time it is periodically necessary to take readings at a base station to descern possible instrument or magnetic drift. Any apparent changes in the magnetic intensity which occurs during the time interval between baseline checks is then applied as a progressive adjustment to the readings taken during that period of time.

PULSE EM DATA - DEEPEM

Date/time 40/8 31:5
Line # 50E
Tx LOOP: 1
Gain: 700 Ramp time: 1.5MS

ZTS: 623
Grid: DISCOVERY
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-24.4	-19.6	-13.3	-8.8	-5.9	-3.9	-1.1	1.2
	23.0	11.0	4.5	2.3	1.9	-0.1	0.6	3.1
225S	-25.0	-19.1	-13.3	-8.9	-5.8	-3.7	-1.3	1.6
	21.7	10.4	5.8	1.4	0.9	0.5	1.5	1.7
200S	-24.7	-19.7	-13.2	-9.3	-5.8	-3.6	-1.1	1.0
	22.2	9.8	4.2	2.1	0.9	-0.8	0.1	2.5
175S	-25.7	-20.4	-13.3	-9.2	-5.3	-3.1	-0.5	1.6
	20.2	10.8	3.7	2.3	1.7	-0.2	1.1	2.3
150S	-27.9	-20.7	-13.3	-9.1	-5.9	-3.6	-0.8	1.0
	22.0	10.4	3.9	1.7	0.5	0.5	-0.1	1.3
125S	-28.3	-21.2	-13.1	-9.2	-5.6	-3.7	-0.8	1.0
	25.1	8.8	3.2	0.4	0.9	-0.4	0.5	1.8
100S	-29.6	-21.1	-13.3	-9.1	-5.6	-3.9	-1.4	0.5
	22.1	8.7	3.7	1.5	0.9	-0.2	-0.4	0.2
75S	-30.9	-21.7	-13.8	-9.2	-5.8	-3.5	-1.8	0.7
	23.5	8.6	3.1	0.7	0.4	-0.5	-0.5	1.8
50S	-33.3	-22.4	-13.9	-9.7	-6.1	-4.2	-2.2	-0.8
	25.4	7.8	3.2	0.2	-0.2	0.2	-0.1	2.6
25S	-36.3	-23.2	-14.1	-9.5	-6.2	-4.9	-2.8	-1.1
	23.2	7.3	2.6	0.4	0.5	-0.2	-0.2	0.8
BL	-36.9	-21.5	-12.2	-8.6	-5.3	-3.9	-1.7	0.9
	21.4	6.9	1.8	-0.1	-0.5	-0.4	0.2	-3.2
25N	-37.5	-21.8	-12.7	-8.8	-5.3	-3.6	-2.0	0.5
	19.1	6.2	2.2	0.8	0.4	-0.5	-0.3	0.3
50N	-38.4	-21.6	-12.2	-7.9	-4.0	-2.9	-1.1	0.5
	17.2	4.8	1.6	-0.3	-0.7	-2.6	-2.4	-2.5
75N	-32.9	-20.7	-11.8	-8.3	-4.7	-3.5	-1.5	0.5
	13.3	4.1	1.6	0.0	1.1	-1.5	0.0	0.6
100N	-36.4	-22.0	-12.6	-8.5	-5.2	-3.8	-2.4	-0.6
	13.2	3.5	0.8	-0.4	-0.7	-1.6	-1.4	-0.8
125N	-36.2	-21.1	-11.9	-7.9	-4.5	-2.9	-1.4	0.0
	11.6	3.6	0.7	-0.1	0.2	-1.7	-0.1	0.1
150N	-35.1	-21.7	-11.9	-8.0	-4.3	-2.8	-1.6	-0.2
	7.6	2.3	-0.2	-1.2	-1.0	-2.0	-2.4	-1.8
175N	-32.5	-21.6	-12.2	-8.5	-4.9	-3.1	-1.8	-0.2
	4.4	1.5	-0.5	-1.5	-1.5	-1.4	-1.1	-0.2
200N	-26.4	-20.0	-10.9	-7.2	-3.8	-2.5	-1.1	0.1
	-0.4	1.4	-0.8	-1.4	-0.9	-1.4	-1.9	-1.2

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L50WKA1

Client: KERR
Date/time 40/8 42:3
Line # 50W
Tx LOOP: 1
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: DISCOVERY
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-20.6	-17.2	-11.6	-8.9	-5.0	-3.4	-1.9	-1.1
	21.4	9.6	3.9	2.0	1.5	0.4	-1.0	-2.1
225S	-22.4	-17.6	-12.2	-8.2	-5.5	-3.2	-2.0	-1.2
	22.7	10.0	5.7	1.7	2.9	-1.2	-1.0	-0.2
200S	-23.2	-18.1	-12.3	-8.5	-5.5	-3.4	-2.2	-0.8
	21.3	9.6	3.7	2.4	1.3	0.3	-0.5	0.2
175S	-24.1	-18.4	-12.3	-8.1	-5.1	-3.1	-1.9	-0.8
	20.0	8.6	3.5	1.6	1.5	0.0	-0.7	0.2
150S	-25.8	-19.3	-12.4	-8.4	-5.1	-3.2	-1.4	-0.7
	20.2	8.4	3.6	1.1	0.5	-0.2	-1.4	-0.5
125S	-26.7	-19.3	-12.7	-8.6	-4.9	-2.9	-2.0	-0.6
	18.0	8.6	3.2	1.7	1.1	-0.1	-0.2	0.2
100S	-28.0	-20.1	-12.9	-8.2	-5.0	-2.9	-2.2	-1.3
	19.5	8.4	3.9	1.4	0.4	0.3	-0.2	-0.4
75S	-27.7	-20.6	-13.1	-9.1	-5.1	-3.0	-1.7	-1.7
	20.7	7.9	4.0	0.8	0.5	-0.2	-0.9	0.2
50S	-30.4	-21.3	-13.4	-8.8	-5.3	-2.8	-2.3	-0.6
	21.1	7.4	2.3	0.7	-0.5	-0.5	-1.9	0.3
25S	-31.0	-20.1	-12.4	-8.3	-4.9	-2.7	-2.2	-1.1
	17.8	6.8	2.3	0.3	0.3	0.0	0.0	0.2
BL	-31.8	-20.1	-12.0	-8.1	-4.9	-2.6	-1.7	-0.6
	18.6	6.0	1.5	-0.1	0.3	-0.3	-0.3	0.5
25N	-33.4	-20.5	-11.9	-8.2	-4.7	-2.7	-1.0	0.2
	16.4	5.7	2.2	1.0	0.4	-0.3	-0.5	0.1
50N	-33.9	-20.5	-11.6	-7.8	-4.8	-2.6	-1.7	-0.5
	14.8	5.3	2.0	2.1	-1.1	-1.4	0.7	0.8
75N	-32.9	-20.0	-12.5	-7.7	-5.0	-2.3	-1.1	0.2
	12.9	4.7	1.1	0.2	0.0	0.6	-1.9	0.8
100N	-34.5	-20.7	-12.2	-7.7	-4.7	-2.5	-0.9	0.4
	10.8	4.4	1.8	-0.3	-1.7	1.3	-0.6	0.7
125N	-32.8	-20.7	-11.6	-7.4	-4.1	-2.1	-0.5	1.4
	10.2	3.7	0.7	-0.1	-0.2	-0.7	-0.2	1.8
150N	-31.5	-20.3	-11.4	-7.7	-4.1	-1.8	-0.4	0.9
	7.4	2.2	-0.5	0.6	1.0	-0.9	-0.3	0.8
175N	-25.8	-19.3	-10.5	-6.8	-3.5	-1.6	-0.8	0.7
	4.4	3.0	1.6	-0.5	-0.2	-1.4	-1.3	-2.2
200N	-15.8	-16.5	-8.3	-4.4	-2.1	-0.2	1.3	3.1
	-5.0	2.6	-1.5	0.2	-1.6	-0.1	-1.7	-0.8

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L150WKA1

Client: KERR
Date/time 40/8 65:7
Line # 150W
Tx LOOP: 1
Gain: 700   Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: DISCOVERY
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-18.4	-16.0	-11.9	-8.1	-5.4	-3.0	-0.5	0.7
	17.9	10.6	4.0	6.7	2.3	0.8	0.0	1.9
225S	-19.5	-16.3	-10.8	-7.8	-4.5	-2.8	0.4	1.5
	17.0	10.4	3.9	1.2	-0.1	2.9	-1.4	2.6
200S	-21.4	-17.2	-11.8	-8.0	-5.1	-3.0	-1.3	0.8
	20.1	9.3	5.9	-0.8	-1.4	-1.6	-1.2	1.1
175S	-21.4	-17.6	-11.9	-8.7	-5.1	-3.4	-1.3	0.9
	20.6	9.8	2.3	2.9	0.6	0.3	1.7	2.3
150S	-23.6	-17.8	-12.1	-8.2	-4.8	-3.3	-1.1	1.1
	21.4	7.0	2.6	2.3	1.1	-0.1	-0.2	1.5
125S	-25.3	-19.2	-12.7	-8.6	-5.5	-3.3	-1.2	1.3
	23.2	8.1	2.6	3.9	2.8	-1.5	-0.6	0.5
100S	-27.2	-19.1	-12.6	-7.9	-5.8	-3.6	-1.1	0.3
	20.9	7.4	1.1	1.7	-0.7	-0.2	0.6	-1.5
75S	-28.7	-19.8	-12.5	-8.3	-5.1	-2.6	-1.6	0.1
	22.6	6.3	2.8	2.7	-0.4	-0.2	0.6	2.4
50S	-30.5	-20.8	-13.1	-8.5	-5.3	-2.8	-0.8	0.7
	19.8	7.0	3.3	3.8	1.1	0.8	1.5	-2.4
25S	-31.6	-20.5	-12.4	-8.3	-5.1	-2.7	-1.4	0.4
	20.4	6.4	0.2	-0.7	1.1	-0.8	0.3	1.2
BL	-32.8	-20.5	-12.2	-8.1	-4.7	-2.4	-1.7	0.2
	20.4	6.5	2.0	1.0	1.0	0.7	-0.9	-0.3
25N	-32.9	-20.2	-12.2	-7.8	-4.6	-2.4	-1.1	0.3
	20.2	5.8	3.5	1.8	-0.2	-0.2	-1.9	0.1
50N	-33.2	-20.2	-12.0	-7.5	-4.8	-2.6	-0.8	0.3
	15.3	5.5	-0.3	0.2	1.0	0.1	-1.1	-0.1
75N	-33.2	-20.3	-12.2	-8.1	-5.4	-3.0	-1.7	0.0
	15.2	3.9	2.3	1.2	-1.3	-1.0	-0.8	-1.7
100N	-33.2	-20.4	-12.0	-7.6	-4.7	-2.3	-0.9	0.3
	13.5	3.4	2.3	-0.2	-0.8	-1.7	-0.1	2.9
125N	-32.1	-20.1	-11.7	-7.7	-4.2	-1.4	-0.8	0.5
	12.1	2.6	2.7	-2.4	0.5	-2.0	-2.4	1.8
150N	-30.8	-19.5	-10.8	-7.2	-3.9	-1.4	-0.8	0.5
	10.8	1.7	1.3	-1.7	-2.0	-0.1	-0.8	0.1
175N	-29.2	-20.6	-11.4	-7.4	-4.4	-2.3	-0.5	1.1
	10.2	2.5	-0.7	-1.6	0.8	0.8	-0.5	0.2
200N	-17.6	-18.0	-9.0	-5.1	-2.2	-0.6	1.2	1.6
	10.3	3.2	2.0	0.1	0.6	0.9	0.8	-0.3

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L250WKA1

Client: KERR
Date/time 40/8 71:6
Line # 250W
Tx LOOP: 1
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: DISCOVERY
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-18.8	-15.9	-11.2	-7.8	-4.7	-2.8	-1.2	0.6
	18.8	10.0	6.8	3.5	0.6	0.6	1.0	1.3
225S	-20.4	-16.4	-11.9	-7.5	-5.0	-2.8	-0.8	0.5
	22.3	9.9	3.9	2.6	3.3	-2.4	0.3	2.3
200S	-21.2	-16.7	-11.5	-7.8	-5.1	-3.2	-0.6	0.7
	20.2	7.2	3.5	1.1	0.2	-1.8	-0.6	2.1
175S	-21.3	-17.9	-12.8	-7.4	-4.0	-2.9	-1.0	1.0
	21.2	8.1	3.6	4.1	-2.9	1.4	1.1	4.0
150S	-21.4	-17.2	-11.9	-7.8	-5.2	-3.2	-0.6	1.4
	17.1	8.3	3.5	0.4	0.3	0.2	5.1	3.2
125S	-23.1	-17.8	-11.7	-7.7	-5.3	-2.7	-0.5	1.4
	18.6	8.2	3.8	0.2	0.7	-0.2	1.5	0.5
100S	-25.3	-18.4	-12.1	-8.1	-5.2	-1.9	0.2	1.3
	22.4	8.4	3.0	1.6	-0.2	-2.0	1.1	0.1
75S	-27.3	-19.4	-12.2	-7.9	-4.8	-2.7	-0.6	1.1
	17.4	6.5	2.3	0.2	0.5	0.1	-0.2	1.8
50S	-26.7	-19.4	-11.9	-7.7	-4.5	-3.3	-0.3	1.1
	16.2	6.9	2.4	0.2	1.4	-1.3	0.8	0.4
25S	-29.1	-19.7	-12.2	-7.4	-4.6	-2.3	-1.4	1.4
	20.2	6.7	1.5	1.7	2.0	-0.5	0.8	2.4
BL	-29.3	-18.6	-10.8	-7.4	-5.9	-2.0	-0.2	0.7
	15.8	6.1	1.4	-1.1	-2.5	0.2	6.3	1.4
25N	-30.3	-20.0	-11.9	-7.3	-4.3	-2.0	-0.2	1.1
	17.4	5.7	1.6	1.3	-0.1	-2.3	0.5	0.8
50N	-30.6	-18.6	-11.2	-7.3	-4.8	-2.2	-0.1	1.7
	12.3	3.5	0.6	1.1	-1.1	1.3	1.4	1.6
75N	-29.8	-19.8	-11.4	-7.1	-4.2	-2.1	-0.4	1.8
	13.9	2.9	3.0	0.7	-1.9	-0.5	1.0	2.3
100N	-32.9	-19.1	-11.9	-7.3	-4.3	-2.9	-0.8	1.5
	15.1	5.1	2.1	1.9	-1.1	0.2	0.2	2.4
125N	-32.9	-19.4	-12.1	-7.7	-4.6	-1.8	0.5	2.2
	15.7	4.8	3.7	0.1	0.8	-2.4	1.7	3.2
150N	-27.0	-18.9	-11.7	-7.9	-4.8	-3.5	-0.8	1.7
	7.0	1.6	-0.8	-0.5	-1.2	0.7	0.3	4.5
175N	-31.0	-20.3	-11.6	-7.8	-4.7	-2.7	-0.2	2.3
	14.9	4.5	1.1	0.2	-0.3	2.9	1.1	3.0
200N	-31.3	-21.2	-12.7	-7.7	-4.6	-1.8	1.2	3.5
	7.8	0.4	-0.8	-1.7	-1.2	-1.0	-1.7	0.7

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L300WKA2

Client: KERR
Date/time 80/9 12:34
Line # 300W
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-12.0	-24.1	-10.5	-4.6	0.5	2.3	5.1	5.9
	19.3	4.8	2.5	0.4	1.1	-0.5	-0.5	-1.9
225S	-53.9	-35.1	-19.2	-11.7	-6.3	-3.0	-1.2	-1.4
	18.6	4.7	1.9	1.2	1.7	0.2	0.6	0.2
200S	-62.0	-36.7	-21.0	-13.6	-8.0	-5.3	-2.4	-0.8
	16.6	4.6	2.5	0.5	0.9	-0.1	-0.6	-0.2
175S	-65.9	-38.6	-22.9	-15.4	-9.7	-6.8	-4.0	-3.1
	16.5	5.4	2.0	0.1	0.8	-0.5	0.5	-1.3
150S	-68.4	-38.6	-21.9	-13.8	-8.4	-4.8	-2.3	-1.4
	22.3	7.3	3.2	1.6	2.0	-1.1	-0.5	-1.1
125S	-68.8	-38.8	-22.3	-14.3	-8.0	-4.9	-2.4	-2.1
	23.6	8.0	3.2	1.0	0.8	-0.3	0.2	-1.3
100S	-68.9	-38.8	-22.6	-14.5	-8.4	-4.8	-2.6	-2.0
	23.2	8.1	3.7	1.0	1.3	0.2	0.4	-1.6
75S	-67.5	-39.7	-23.0	-14.7	-8.1	-5.3	-2.9	-2.4
	29.0	9.5	3.9	1.4	1.5	-0.2	0.4	-1.1
50S	-66.5	-38.7	-22.7	-15.0	-9.0	-5.2	-3.1	-1.5
	30.8	10.9	4.1	2.0	1.1	-0.3	0.1	-1.3
25S	-64.3	-38.0	-22.8	-14.9	-8.6	-5.4	-3.4	-3.0
	31.9	10.9	5.3	1.7	1.3	-0.8	-1.0	-0.6
BL	-58.2	-30.2	-12.0	-0.1	10.0	9.1	5.7	-19.1
	32.4	12.3	5.5	2.3	2.0	0.5	-0.6	-1.3
25N	-63.3	-38.2	-22.9	-15.2	-8.9	-5.9	-2.8	-2.2
	35.5	12.5	6.0	2.4	1.4	-0.7	-1.1	-2.0
50N	-61.0	-38.0	-23.1	-15.1	-8.8	-5.6	-2.7	-2.6
	39.7	13.8	6.5	3.2	2.3	-0.4	-0.3	-1.7
75N	-57.4	-36.9	-23.4	-15.2	-9.1	-6.0	-2.8	-2.3
	39.8	14.8	6.0	2.2	1.7	0.0	0.0	-1.0
100N	-56.1	-37.4	-23.3	-15.3	-9.1	-6.2	-3.4	-2.4
	41.4	16.0	7.7	3.7	2.4	0.2	-0.2	-0.9
125N	-54.4	-36.9	-23.0	-15.3	-8.8	-6.0	-3.2	-3.0
	41.6	16.6	8.2	3.2	2.6	0.2	-0.3	-1.1
150N	-51.4	-35.5	-22.9	-15.3	-9.1	-6.0	-3.2	-3.2
	41.3	16.8	8.5	3.6	2.9	-0.3	-1.6	-1.6
175N	-50.9	-35.8	-22.8	-15.3	-8.8	-6.0	-2.9	-2.6
	42.5	18.1	8.5	4.3	3.1	-0.7	-1.4	-0.3
200N	-48.9	-34.8	-22.3	-15.3	-9.5	-6.4	-3.0	-3.0
	42.1	18.3	8.6	3.8	2.3	-0.4	-0.2	-0.5
225N	-45.9	-34.0	-22.5	-15.1	-9.2	-6.0	-3.3	-3.2
	42.5	18.9	9.5	4.2	2.9	0.0	-0.4	-0.6
250N	-42.2	-33.1	-22.7	-14.6	-8.9	-6.3	-3.3	-2.5
	45.1	20.2	10.3	4.6	3.2	0.3	-0.3	-1.6
275N	-39.9	-32.6	-22.3	-15.3	-9.3	-6.0	-2.9	-2.4
	45.9	21.3	11.5	5.2	3.2	-0.2	-1.4	-0.9
300N	-34.2	-30.6	-21.3	-14.9	-9.1	-5.8	-2.8	-2.3
	45.3	21.9	11.2	5.1	3.1	0.5	-0.7	-1.6

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L200WKA2

Client: KERR
Date/time 80/9 14:05
Line # 200W
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-44.8	-33.0	-17.3	-10.8	-5.2	-2.3	-0.2	0.2
	11.4	2.6	0.6	-0.7	0.2	-0.5	-0.7	-1.3
225S	-55.1	-35.1	-19.9	-12.7	-7.4	-4.2	-1.7	-1.1
	16.7	3.9	2.2	0.9	1.2	-0.6	-0.3	-1.7
200S	-74.8	-38.5	-21.2	-13.0	-7.2	-3.7	-0.7	-0.5
	24.0	7.1	2.0	0.2	1.0	-0.4	-0.3	-0.9
175S	-72.2	-38.8	-22.2	-14.0	-7.8	-4.2	-1.8	-1.4
	22.4	6.2	2.8	1.4	0.2	-0.6	0.3	-0.1
150S	-66.1	-37.6	-22.0	-13.6	-7.6	-4.8	-1.7	-1.7
	22.6	7.4	2.7	1.4	1.3	-0.5	-1.0	-1.7
125S	-67.8	-38.3	-22.2	-14.4	-8.3	-4.8	-2.0	-1.9
	26.2	8.0	4.4	1.1	1.4	0.0	-0.7	-0.5
100S	-66.9	-38.3	-22.7	-14.6	-8.6	-5.1	-2.5	-1.9
	26.4	8.4	3.9	1.3	1.2	-0.2	-0.2	-1.3
75S	-66.6	-38.7	-22.7	-15.0	-8.8	-5.4	-2.5	-2.1
	28.6	9.1	4.3	2.0	1.2	-1.2	0.1	-1.4
50S	-63.9	-38.3	-22.9	-15.0	-8.5	-5.4	-2.7	-2.3
	31.3	10.7	5.1	1.3	0.8	-0.4	-0.6	-0.5
25S	-63.4	-37.9	-23.1	-14.7	-8.4	-5.4	-3.3	-3.2
	33.8	11.8	5.3	2.0	1.4	-0.4	-0.4	-1.0
BL	-63.0	-38.7	-23.4	-15.2	-9.6	-5.7	-2.9	-2.7
	39.0	12.6	5.8	2.2	2.0	-0.4	-0.8	-1.7
25N	-60.3	-39.1	-24.0	-16.4	-9.4	-6.6	-2.9	-2.9
	37.4	13.3	6.3	2.0	1.8	0.2	0.3	-1.1
50N	-58.8	-38.5	-24.2	-15.7	-9.4	-6.1	-3.1	-1.9
	35.5	12.3	5.7	3.1	2.3	-0.3	0.3	-0.8
75N	-55.5	-38.2	-23.6	-15.7	-9.4	-5.8	-3.1	-3.1
	38.4	14.1	6.5	2.8	2.0	-0.2	-0.5	-1.0
100N	-53.5	-37.6	-23.9	-15.9	-9.7	-6.1	-2.2	-2.9
	42.8	16.2	7.8	3.4	1.8	-0.4	-0.4	-0.9
125N	-54.1	-37.8	-24.2	-16.4	-9.6	-6.4	-3.1	-3.4
	43.4	16.2	8.2	3.5	2.9	0.5	0.5	-2.0
150N	-52.9	-37.6	-24.0	-15.9	-9.6	-6.2	-3.2	-2.6
	44.2	18.2	8.6	3.9	3.0	0.3	-0.5	-1.3
175N	-48.5	-35.9	-23.3	-15.3	-9.7	-6.0	-3.4	-2.6
	45.8	19.6	9.2	3.8	2.7	0.0	0.4	-1.4
200N	-46.4	-34.9	-23.0	-15.3	-9.5	-6.3	-3.3	-2.9
	42.5	18.9	9.3	4.5	2.6	0.4	-0.2	-1.6
225N	-44.0	-34.1	-22.4	-15.3	-9.7	-6.5	-2.4	-2.5
	41.7	19.1	10.2	4.9	3.2	0.6	0.2	-1.1
250N	-40.0	-32.2	-22.1	-15.2	-9.2	-6.2	-2.6	-2.8
	43.9	19.9	9.8	4.8	2.5	0.3	-0.5	-1.4
275N	-37.9	-31.5	-21.5	-15.0	-9.0	-6.1	-3.0	-2.2
	42.5	21.2	11.2	5.9	3.4	0.5	-0.5	-1.0
300N	-36.2	-30.9	-21.1	-15.0	-8.9	-6.1	-3.1	-2.6
	44.5	21.5	11.4	5.5	3.2	1.1	-0.1	-1.0

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L100WKA2

Client: KERR
Date/time 81/0 13:59
Line # 1+00W
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-46.5	-21.2	-6.5	-0.5	1.3	5.1	2.3	-3.6
	18.9	7.6	5.9	5.6	2.9	3.7	0.4	-4.9
225S	-39.5	-24.7	-11.3	-4.6	-3.5	3.0	-0.1	-4.6
	16.6	5.8	4.5	3.0	-0.1	3.2	-1.1	-6.4
200S	-47.6	-28.4	-15.1	-8.0	-6.4	1.2	-4.4	-6.5
	19.7	6.7	4.2	3.4	-0.3	3.9	-2.3	-5.8
175S	-48.6	-29.8	-16.2	-9.3	-8.4	0.2	-3.7	-7.8
	19.6	8.0	4.7	3.7	-0.8	3.7	-1.8	-6.6
150S	-47.7	-30.0	-17.1	-10.8	-10.2	-0.8	-5.0	-7.3
	20.0	7.2	3.9	3.4	-2.1	3.5	-3.2	-6.6
125S	-51.8	-32.6	-19.0	-12.1	-10.8	-0.1	-4.2	-5.0
	18.4	7.4	4.3	2.5	-1.7	3.5	-3.7	-6.3
100S	-53.5	-33.5	-20.1	-11.7	-12.1	-1.1	-5.8	-5.3
	21.9	8.3	3.4	3.1	-2.8	3.3	-3.4	-5.6
75S	-55.1	-34.8	-20.7	-12.8	-13.4	-3.9	-10.6	-8.2
	26.7	10.2	4.5	2.2	-3.7	2.6	-3.5	-5.2
50S	-54.4	-35.1	-20.8	-12.5	-12.4	-1.6	-6.3	-5.6
	24.3	9.2	2.9	2.0	-3.1	2.5	-4.0	-4.2
25S	-51.6	-34.3	-21.8	-13.0	-12.8	-2.1	-6.9	-6.3
	28.5	10.9	4.6	3.5	-2.7	3.3	-3.6	-4.5
BL	-49.4	-35.5	-21.9	-13.4	-12.4	-1.6	-6.3	-5.4
	27.8	10.3	4.8	3.6	-3.1	2.9	-4.1	-2.9
25N	-50.6	-34.6	-21.9	-13.7	-13.0	-2.6	-6.7	-5.3
	28.3	12.2	5.7	4.0	-1.9	3.2	-2.7	-4.4
50N	-48.1	-34.6	-22.2	-13.8	-13.0	-2.7	-6.8	-4.6
	31.8	12.7	7.0	4.1	-2.1	3.6	-3.9	-4.2
75N	-47.2	-34.5	-22.7	-14.1	-13.8	-2.6	-7.7	-6.4
	32.7	13.4	6.7	4.0	-2.1	3.5	-3.7	-3.7
100N	-47.2	-34.2	-21.9	-13.9	-13.5	-3.3	-6.5	-4.8
	33.5	13.0	7.4	4.6	-1.9	3.4	-3.2	-3.2
125N	-46.5	-34.0	-22.4	-13.6	-13.5	-3.2	-6.2	-4.3
	34.8	15.4	8.1	5.3	-2.6	3.2	-3.5	-2.9
150N	-41.8	-32.7	-21.9	-13.7	-13.1	-3.1	-6.2	-3.9
	36.8	16.2	8.9	5.6	-1.4	3.3	-3.8	-2.7
175N	-40.4	-32.2	-21.4	-13.8	-12.8	-2.9	-5.6	-3.6
	37.0	17.2	9.7	5.6	-1.1	3.7	-3.0	-3.2
200N	-35.4	-31.5	-21.4	-13.2	-13.2	-3.2	-5.8	-3.4
	39.0	18.1	10.2	6.0	-0.9	2.6	-2.5	-2.8
225N	-34.8	-30.6	-21.3	-13.4	-12.5	-3.6	-6.7	-3.9
	35.6	17.4	9.2	6.1	-0.8	2.9	-2.5	-2.1
250N	-34.4	-29.7	-20.9	-13.4	-12.2	-3.2	-6.6	-3.0
	38.5	18.6	10.3	6.3	-0.7	3.4	-2.9	-1.4
275N	-32.0	-29.2	-20.9	-13.2	-12.6	-3.6	-6.3	-3.2
	36.3	18.6	10.5	6.8	-0.2	2.3	-2.1	-2.5
300N	-32.4	-28.6	-20.3	-13.4	-11.9	-3.9	-6.9	-5.7
	37.9	18.9	11.3	7.5	-0.4	2.5	-3.5	-1.9

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:LOOKA2

Client: KERR
Date/time 81/0 15:20
Line # 0+00
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-29.0	-14.1	0.5	6.8	7.2	9.0	7.4	9.5
	17.1	6.2	4.3	3.2	0.7	1.5	-0.5	1.7
225S	-46.1	-25.0	-10.1	-2.7	-0.6	2.5	3.1	6.0
	18.7	6.2	2.7	1.5	-0.6	-0.8	-1.1	2.6
200S	-51.3	-29.7	-14.7	-6.6	-4.1	-0.5	0.1	4.9
	12.2	3.6	1.5	0.5	-1.6	-1.0	-1.0	1.9
175S	-56.9	-33.5	-18.5	-10.3	-7.4	-3.6	-2.1	3.1
	19.0	4.9	1.4	1.1	-3.1	-3.2	-1.5	2.1
150S	-57.9	-34.2	-19.6	-11.2	-8.2	-3.6	-2.0	3.1
	19.6	7.1	3.2	1.0	-2.1	-2.0	-2.0	1.6
125S	-59.0	-35.8	-20.9	-12.7	-10.1	-5.0	-2.9	2.6
	20.0	5.7	2.1	0.8	-2.4	-1.8	-1.6	2.0
100S	-57.7	-35.5	-20.7	-12.3	-9.5	-4.4	-2.6	1.5
	25.8	8.6	3.6	1.1	-2.5	-1.7	-1.7	1.3
75S	-56.5	-35.8	-21.5	-13.1	-10.4	-6.0	-3.2	1.4
	28.9	9.6	4.3	1.7	-2.6	-1.4	-2.3	0.8
50S	-54.9	-35.8	-22.2	-14.3	-11.0	-5.8	-3.6	1.7
	30.9	9.9	4.5	2.7	-2.0	-2.9	-1.0	2.4
25S	-51.3	-36.8	-23.1	-14.9	-11.8	-6.3	-4.3	1.7
	32.4	12.0	5.7	2.5	-1.9	-1.1	-2.1	1.7
BL	-51.5	-35.8	-23.1	-14.5	-11.8	-5.8	-4.1	1.7
	36.0	14.8	6.9	3.1	-1.6	-0.8	-3.2	3.0
25N	-50.4	-35.6	-23.4	-15.3	-13.9	-6.7	-4.6	4.0
	33.6	13.9	6.3	4.0	-2.1	-1.7	-2.7	1.7
50N	-47.6	-34.7	-22.6	-14.3	-12.3	-5.8	-3.8	1.0
	35.0	14.2	7.7	3.9	-1.7	-0.9	-2.1	1.5
75N	-45.9	-33.9	-22.5	-14.3	-12.3	-5.7	-4.4	-0.1
	37.0	16.1	8.0	5.1	-0.2	0.9	-1.2	0.5
100N	-41.3	-33.2	-22.1	-14.4	-12.7	-5.8	-5.2	-0.8
	30.0	13.0	7.0	4.8	-0.8	1.2	-0.7	0.5
125N	-41.4	-32.1	-22.2	-13.7	-12.5	-5.1	-5.0	0.1
	29.7	13.4	7.5	4.3	-1.1	1.5	-2.5	0.8
150N	-38.8	-31.8	-22.2	-14.0	-12.7	-5.2	-4.8	-0.1
	35.1	16.2	8.5	4.7	-1.2	1.1	-1.4	1.1
175N	-36.0	-30.8	-21.8	-13.8	-12.1	-4.6	-5.0	-0.6
	35.2	16.9	9.3	5.4	0.1	1.8	-2.0	0.2
200N	-34.6	-29.9	-21.3	-13.8	-12.4	-4.4	-5.2	-1.7
	34.9	17.3	9.4	5.8	-0.8	2.6	-1.8	-1.0
225N	-32.1	-29.6	-21.6	-13.5	-12.9	-5.2	-6.2	-2.4
	35.8	17.8	10.1	5.8	-0.7	1.6	-2.6	-1.1
250N	-30.7	-28.8	-21.2	-14.0	-13.2	-4.2	-5.6	-2.3
	35.7	18.6	11.4	6.2	0.2	2.5	-1.9	-0.2
275N	-29.8	-28.5	-21.0	-13.5	-12.5	-4.9	-6.0	-3.0
	35.2	19.2	11.3	6.2	0.4	2.1	-2.6	-0.5
300N	-27.8	-27.2	-20.8	-13.6	-12.5	-5.0	-6.6	-3.8
	33.5	20.5	11.8	7.0	0.4	2.7	-2.6	-2.2

Station interval in METER

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L50EKA2

Client: KERR
Date/time 80/9 15:18
Line # 50E
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-24.7	-15.8	-3.7	1.7	5.1	5.6	5.5	4.2
	36.9	12.7	8.4	5.1	6.1	3.9	2.4	0.4
225S	-47.6	-26.1	-11.3	-5.1	0.1	1.5	2.1	2.2
	30.1	7.8	4.2	1.9	2.3	1.0	1.2	-0.5
200S	-62.2	-34.7	-18.6	-10.6	-5.0	-2.0	-0.2	0.2
	21.4	2.9	0.0	-0.<	-0.8	-0.8	-1.1	-1.2
175S	-70.6	-39.6	-22.2	-13.1	-6.9	-3.5	-0.7	-0.3
	35.5	9.1	2.5	-0.8	-0.7	-1.7	-1.8	-1.8
150S	-71.7	-39.7	-22.8	-14.5	-7.7	-3.8	-1.1	-0.7
	29.1	7.0	2.2	0.2	0.1	-1.3	-0.4	-1.0
125S	-71.7	-40.8	-23.3	-14.8	-7.7	-4.2	-1.1	-1.0
	39.0	10.6	3.7	0.3	0.0	-0.5	-0.5	-1.9
100S	-69.4	-40.9	-24.3	-15.5	-8.5	-5.1	-1.7	-1.3
	38.5	11.2	3.8	0.2	0.7	-0.8	-1.1	-2.3
75S	-68.5	-41.3	-24.9	-16.1	-9.6	-6.3	-3.8	-2.9
	45.8	13.4	5.6	1.7	0.6	-0.6	1.5	-1.6
50S	-61.7	-40.8	-25.5	-16.2	-9.9	-5.7	-2.3	-1.6
	51.9	14.9	6.7	1.6	0.3	0.0	-1.0	-1.0
25S	-54.1	-36.6	-22.4	-14.0	-7.9	-4.7	-1.9	-1.5
	55.0	17.7	6.0	1.1	1.1	-1.4	-0.8	-1.7
BL	-50.8	-36.1	-23.4	-15.0	-8.5	-5.0	-2.6	-1.8
	50.7	16.9	6.3	2.3	0.5	-1.0	-0.5	-1.1
25N	-50.4	-35.7	-23.3	-14.7	-8.5	-4.6	-1.2	-2.3
	47.6	17.0	7.6	2.9	1.7	-0.8	-0.5	-1.1
50N	-47.4	-36.0	-23.4	-15.8	-8.4	-5.1	-2.2	-1.7
	45.4	16.6	7.7	3.2	0.9	-0.5	-0.2	-0.3
75N	-44.4	-34.7	-23.1	-15.2	-9.4	-5.9	-2.6	-1.4
	53.8	20.5	9.0	3.7	1.5	-0.4	-1.0	-0.8
100N	-42.5	-34.8	-24.0	-16.5	-10.1	-6.6	-2.9	-2.6
	52.6	21.4	9.8	5.0	2.7	0.4	0.2	-1.0
125N	-37.4	-33.7	-23.5	-16.2	-10.2	-6.5	-3.0	-2.6
	49.8	21.0	10.5	5.0	2.5	0.8	0.3	0.3
150N	-34.8	-32.3	-23.5	-16.5	-10.0	-6.3	-3.4	-2.6
	46.2	20.8	10.4	4.4	2.9	0.9	-0.6	-1.2
175N	-33.1	-32.3	-22.8	-16.0	-9.7	-6.2	-3.0	-2.0
	42.4	18.9	10.0	4.8	3.2	0.5	0.1	-1.0
200N	-30.4	-31.2	-22.8	-15.8	-9.9	-6.9	-5.2	-4.6
	45.9	21.1	11.2	5.3	2.3	0.2	-0.2	-2.0
225N	-25.3	-30.3	-22.2	-16.1	-10.0	-6.4	-3.5	-3.3
	47.3	22.5	12.1	5.9	3.7	1.4	0.1	-1.4
250N	-25.3	-29.6	-22.0	-15.7	-10.1	-6.1	-3.6	-2.1
	47.3	23.8	12.6	7.3	3.2	0.5	-0.5	-0.8
275N	-24.9	-28.4	-21.8	-16.2	-10.5	-7.4	-4.3	-2.7
	35.6	18.1	8.4	1.8	-1.8	-6.7	-10.3	-14.7
300N	-24.1	-28.0	-21.5	-16.1	-10.6	-6.7	-3.6	-2.4
	46.0	24.3	14.1	6.9	4.4	0.7	-0.1	-1.7

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L100EKA2

Client: KERR
Date/time 80/8 11:23
Line # 100E
Tx LOOP: 2
Gain: 700   Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-40.4	-34.9	-21.1	-13.6	-7.2	-3.0	1.0	3.6
	17.3	6.6	1.3	-0.5	-0.5	-1.3	-1.3	-1.9
225S	-49.9	-36.6	-22.4	-14.6	-9.2	-5.7	-2.9	-0.6
	19.0	5.3	1.1	0.0	0.8	-0.5	-0.8	-0.6
200S	-56.4	-38.8	-24.0	-15.3	-8.9	-4.5	-2.3	-1.8
	21.9	5.9	1.6	0.0	1.0	0.2	0.1	0.6
175S	-63.7	-42.0	-25.8	-16.7	-9.6	-5.4	-2.8	0.3
	25.4	8.9	3.2	0.9	0.8	-0.3	-0.3	-0.2
150S	-61.9	-40.7	-25.8	-17.0	-9.7	-5.3	-2.2	-0.3
	28.7	10.1	3.9	1.7	0.9	-0.3	-0.8	-1.3
125S	-61.3	-40.5	-25.7	-17.2	-10.2	-6.3	-3.5	-3.1
	31.3	10.9	4.7	1.9	1.4	0.2	0.0	-0.3
100S	-60.8	-40.8	-26.4	-18.3	-11.5	-6.7	-2.0	1.2
	36.7	13.4	6.2	2.6	1.7	0.6	0.1	0.1
75S	-58.1	-39.5	-25.5	-17.3	-10.3	-5.7	-1.8	1.1
	31.9	11.2	4.5	1.4	0.5	-1.6	-1.6	-1.8
50S	-55.5	-39.2	-26.2	-17.7	-10.9	-5.7	-1.7	-1.1
	34.6	12.5	5.3	3.1	2.0	-0.9	-1.1	-0.1
25S	-50.9	-37.8	-25.7	-17.4	-10.9	-6.5	-3.7	-1.9
	41.8	16.2	7.2	3.2	2.2	-0.1	-0.8	-0.4
BL	-48.5	-37.6	-25.6	-17.8	-11.1	-6.4	-3.1	-1.5
	42.4	17.5	8.1	3.4	2.2	0.3	0.8	-0.9
25N	-48.3	-37.4	-25.4	-17.6	-10.9	-6.4	-2.7	-0.8
	43.7	18.3	8.7	3.9	2.3	-0.1	-1.4	-1.2
50N	-44.0	-36.0	-25.1	-17.5	-11.0	-6.7	-2.8	-0.5
	45.0	19.3	9.7	4.7	3.1	0.6	0.4	-0.7
75N	-39.1	-33.4	-23.7	-16.8	-10.7	-7.2	-3.8	-0.9
	45.0	20.2	10.2	4.3	2.6	0.7	0.3	-0.5
100N	-37.5	-33.3	-23.9	-16.8	-10.5	-6.5	-3.5	-2.3
	39.4	18.4	9.3	4.4	2.6	0.7	-0.6	-0.6

Station interval in METER.

CRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L150EKA2

Client: KERR
Date/time 81/0 17:08
Line # 1+50E
Tx LOOP: 2
Gain: 700   Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-24.7	-14.4	-1.9	4.2	7.0	9.6	8.7	4.9
	6.4	-0.8	-1.4	-2.5	-3.0	-0.2	-1.0	-4.3
225S	-44.0	-26.5	-12.5	-6.0	-1.7	2.7	3.9	1.4
	10.0	-0.4	-1.8	-3.6	-3.8	-1.6	-1.4	-3.9
200S	-51.3	-32.4	-18.7	-11.0	-6.4	-1.7	-0.1	-0.7
	16.8	5.0	-0.3	-0.5	-1.9	-1.0	-1.8	-1.1
175S	-51.0	-33.4	-20.0	-12.2	-7.1	-2.1	0.1	-1.2
	17.4	6.0	1.9	1.3	1.7	-1.7	0.5	-2.7
150S	-52.0	-34.6	-21.2	-13.5	-8.5	-2.9	-0.9	-1.5
	19.6	5.3	3.7	0.9	-0.5	-0.8	0.4	-1.5
125S	-53.1	-35.7	-22.2	-14.4	-8.9	-3.8	-1.4	-1.8
	16.6	6.0	2.4	1.1	0.7	-0.2	-0.1	-2.1
100S	-51.0	-35.6	-22.7	-14.6	-9.2	-4.2	-1.6	-1.9
	26.3	9.5	3.7	1.4	-0.2	-0.1	0.0	-2.9
75S	-50.2	-36.2	-23.3	-15.3	-10.2	-4.8	-2.1	-2.4
	26.5	10.2	4.7	1.5	-0.5	0.0	0.4	-1.1
50S	-49.7	-36.9	-24.4	-16.8	-11.7	-6.0	-2.2	0.4
	33.7	11.5	6.2	2.0	-0.2	0.7	-0.1	-1.4
25S	-45.6	-36.0	-24.3	-16.5	-11.1	-4.6	-1.6	-1.0
	45.2	18.0	8.6	3.1	0.7	1.2	-0.8	-1.9
BL	-42.4	-34.6	-23.7	-16.0	-10.9	-4.8	-2.6	-2.7
	32.2	12.7	6.5	2.3	-0.4	1.0	0.2	-2.4
25N	-40.7	-34.3	-23.6	-16.7	-11.3	-5.7	-2.7	-3.1
	32.7	13.8	7.6	3.5	1.7	-0.1	-0.6	-1.6
50N	-35.3	-32.0	-23.2	-15.0	-11.1	-5.1	-2.3	-3.0
	38.4	18.5	9.5	4.5	0.7	1.7	0.5	-2.1

Station interval in METER.

$$$$$$$$GRONE GEOPHYSICS Ltd.
DEEPEM DATA

File:L200EKA2

Client: KERR
Date/time 80/8 10:57
Line # 200E
Tx LOOP: 2
Gain: 700 Ramp time: 1.5MS

Project: HOODOO

ZTS: 623
Grid: NORTH
Time base: 10MS

STATION	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5	Ch.6	Ch.7	Ch.8
250S	-36.5	-32.8	-21.6	-15.0	-8.6	-4.5	-0.6	0.8
	11.2	2.4	1.1	0.0	0.5	-0.4	-0.2	0.2
225S	-40.5	-34.1	-22.6	-16.0	-9.8	-6.2	-3.0	-1.5
	12.2	2.9	0.8	0.0	0.6	-0.7	-0.3	0.5
200S	-46.0	-36.4	-24.4	-16.7	-9.7	-5.1	-2.0	-0.8
	22.1	6.8	2.4	0.7	1.1	0.0	-0.2	-0.5
175S	-44.6	-36.7	-24.6	-16.8	-10.2	-5.7	-2.6	-0.5
	27.5	9.5	3.0	1.1	0.4	-0.6	-0.2	-0.1
150S	-42.1	-35.6	-25.1	-18.0	-11.7	-7.7	-3.9	0.8
	24.5	9.3	3.9	2.0	1.3	-0.1	-0.6	0.5
125S	-40.6	-34.9	-24.3	-16.9	-10.4	-6.3	-2.9	-1.6
	24.5	9.6	5.0	2.6	1.1	0.0	-0.2	-1.0
100S	-42.6	-36.0	-25.4	-17.5	-10.7	-6.7	-3.4	-1.4
	24.0	9.4	4.6	1.9	1.8	0.1	-0.3	-0.7
75S	-40.7	-35.9	-25.1	-17.7	-10.8	-6.4	-2.9	-0.8
	33.9	14.0	6.7	2.8	2.0	0.2	-0.5	-0.4
50S	-39.1	-35.4	-25.1	-17.6	-11.0	-6.4	-3.5	-2.0
	38.8	16.0	7.2	2.7	1.6	-0.5	-0.5	-1.4

Station interval in METER.

69

Appendix B

Analytical Techniques

Analytical Techniques

All rock samples were prepared and analyzed by Chemex Labs Ltd., North Vancouver, B.C.

Rock samples weighing approximately 5-6 kilograms were crushed and split, with a 200 g subsample, ring pulverized to approximately -100 mesh. Prepared sample splits of 10-20 g were then digested in a media appropriate for extraction, perchloric-nitric acid for arsenic and aqua regia for silver. Analysis was done by atomic absorption. Gold was analyzed using a conventional fire assay start but with an atomic absorption finish.

Silver analyses greater than 15 ppm were checked by analyzing another split from the pulp by fire assay.

As well gold and silver was analyzed by fire assaying in a few cases where high values were anticipated.

Appendix C

Analytical Results

Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Telephone: (604) 984-0221
Telex: 043-52597

COPY

AUG 13
KERR ADDISON

CERTIFICATE OF ANALYSIS

TO : KERR ADDISON MINES LTD.
(ATTN: RAY DUJARDIN)
703 - 1112 W. PENDER ST.
VANCOUVER, B.C.
V6E 2S1

CERT. # : A8414263-001-A
INVOICE # : I8414263
DATE : 8-AUG-84
P.O. # : 24774
B-13
Hoodoo - Discovery Gossan

	Sample description	Prep code	Ag ppm Aqua R	AS ppm	Au ppb FA+AA	Width meters			
Trench #1 above sample #RB2C34	F-HO-84-01	205	49.0	115	15	1.0	--	--	--
	F-HO-84-02	205	53.0	165	20	1.0	--	--	--
	F-HO-84-03	205	44.0	180	10	1.2	--	--	--
	F-HO-84-04	205	35.0	320	5	1.2	--	--	--
	F-HO-84-05	205	65.0	140	<5	1.2	--	--	--
	F-HO-84-06	205	54.0	640	10	1.0	--	--	--
	F-HO-84-07	205	29.0	210	25	1.0	--	--	--
Below trench #1	F-HO-84-08 GRAB. [illegible]	205	>100.0	1250	5	GRAB	--	--	--
Trench #2	F-HO-84-09	205	6.2	170	<5	1.0	--	--	--
	F-HO-84-10	205	4.5	130	<5	1.0	--	--	--
	F-HO-84-11	205	5.4	140	<5	1.0	--	--	--
	F-HO-84-12	205	6.3	145	5	1.0	--	--	--
	F-HO-84-13 Intense Kaolin Alt.	205	1.6	105	<5	1.0	--	--	--
	F-HO-84-14	205	3.8	155	<5	1.0	--	--	--
	F-HO-84-15	205	1.1	130	5	1.0	--	--	--
	F-HO-84-16	205	0.1	70	<5	1.0	--	--	--
near Trench #1	F-HO-84-17 GRAB. 1-2% dissem Py	205	0.1	105	25	GRAB	--	--	--

Certified by .... Hart Bichler

CTA

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Canada V7J 2C1
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Telex: 043-52597

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TO : KERR ADDISON MINES LTD.
(ATTN: RAY DUJARDIN)
703 - 1112 W. PENDER ST.
VANCOUVER, B.C.
V6E 2S1

CERT. # : A8414311-001-A
INVOICE # : I8414311
DATE : 8-AUG-84
P.O. # : 24778
B-13
Hoodoo - Discovery Gossan

ATTN: MR. R. DUJARDIN

	Sample description	Prep code	AS ppm	Ag ppm Aqua R	Au ppb FA+AA	*Width meters*			
Trench #2 Face Sample	F-HO-84-18	205	175	4.5	<5	*1.0*	--	--	--
	F-HO-84-19	205	170	4.3	<5	*1.0*	--	--	--
	F-HO-84-20	205	155	2.6	<5	*1.0*	--	--	--
	F-HO-84-21	205	200	4.1	<5	*1.0*	--	--	--
	F-HO-84-22	205	210	5.4	<5	*0.75*	--	--	--
Trench #3	F-HO-84-23	205	245	0.2	<5	*1.25*	--	--	--
	F-HO-84-24	205	350	1.0	<5	*1.40*	--	--	--
	F-HO-84-25	205	105	11.6	5	*0.60*	--	--	--
	F-HO-84-26	205	240	3.4	<5	*1.0*	--	--	--
	F-HO-84-27	205	270	3.2	<5	*1.3*	--	--	--
	F-HO-84-28	205	130	1.1	<5	*0.7*	--	--	--
	F-HO-84-29	205	160	2.1	5	*1.0*	--	--	--
Trench #4	F-HO-84-30	205	120	0.1	<5	*1.0*	--	--	--
	F-HO-84-31	205	170	0.1	5	*1.*	--	--	--
	F-HO-84-32	205	140	0.1	<5	*1.*	--	--	--
	F-HO-84-33	205	160	0.1	<5	*1.*	--	--	--
	F-HO-84-34	205	115	0.1	<5	*1*	--	--	--
	F-HO-84-35	205	1450	0.2	<5	*1.*	--	--	--
	F-HO-84-36	205	130	0.1	<5	*1.*	--	--	--
Trench #5	F-HO-84-37	205	81	0.2	<10	*1.*	--	--	--
	F-HO-84-38	205	150	0.3	<5	*1.*	--	--	--
	F-HO-84-39	205	59	0.2	<5	*1.*	--	--	--
	F-HO-84-40	205	90	0.1	<5	*1.*	--	--	--
	F-HO-84-41	205	100	0.1	<5	*1.*	--	--	--
	F-HO-84-42	205	55	0.5	<5	*0.5*	--	--	--
	F-HO-84-43	205	41	1.9	10	*0.7*	--	--	--
	F-HO-84-44	205	59	0.3	<5	*1.4*	--	--	--

✓

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Certified by ......*Hart Bichler*......

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CERTIFICATE OF ANALYSIS

TO : KERR ADDISON MINES LTD.
(ATTN: RAY DUJARDIN)
703 - 1112 W. PENDER ST.
VANCOUVER, B.C.
V6E 2S1

CERT. # : A8415234-001-A
INVOICE # : I8415234
DATE : 28-AUG-84
P.O. # : NONE
B-13

Sample description	Prep code	AS ppm	Ag ppm Aqua R	Au ppb FA+AA			
F-HO-84-45	205	210	4.9	30	--	--	--
F-HO-84-46	205	520	7.6	55	--	--	--
F-HO-84-47	205	400	6.2	45	--	--	--
F-HO-84-48	205	660	13.2	35	--	--	--
F-HO-84-49	205	460	3.4	10	--	--	--
F-HO-84-50	205	770	11.0	35	--	--	--
F-HO-84-51	205	130	0.9	5	--	--	--
F-HO-84-52	205	190	3.2	5	--	--	--
F-HO-84-53	205	150	3.5	10	--	--	--
F-HO-84-54	205	380	5.7	30	--	--	--
F-HO-84-55	205	620	5.5	50	--	--	--
F-HO-84-56	205	180	1.6	5	--	--	--
F-HO-84-57	205	360	1.7	5	--	--	--
F-HO-84-58	205	160	1.1	5	--	--	--
F-HO-84-59	205	81	0.5	<5	--	--	--
F-HO-84-60	205	180	0.6	10	--	--	--
F-HO-84-61	205	120	0.4	<5	--	--	--
F-HO-84-62	205	100	0.4	<5	--	--	--
F-HO-84-64	205	620	3.2	55	--	--	--
F-HO-84-65	205	45	0.3	<5	--	--	--
F-HO-84-66	205	350	1.2	30	--	--	--
F-HO-84-67	205	59	0.3	15	--	--	--
F-HO-84-71	205	24	0.3	<5	--	--	--
F-HO-84-72	205	350	1.4	<5	--	--	--
F-HO-84-73	205	50	0.4	<5	--	--	--
F-HO-84-74	205	1000	42.0	110	--	--	--
F-HO-84-75	205	300	15.3	80	--	--	--
F-HO-84-76	205	1100	50.0	155	--	--	--
F-HO-84-77	205	670	9.6	55	--	--	--
F-HO-84-78	205	160	8.5	30	--	--	--
F-HO-84-79	205	120	14.8	50	--	--	--
F-HO-84-80	205	200	21.0	65	--	--	--
F-HO-84-81	205	250	36.0	125	--	--	--
F-HO-84-87	205	610	6.2	85	--	--	--
F-HO-84-88	205	81	1.3	25	--	--	--
F-HO-84-89	205	1900	57.0	410	--	--	--
F-HO-84-90	205	2600	19.0	135	--	--	--
F-HO-84-91	205	220	15.5	45	--	--	--
F-HO-84-92	205	150	13.3	35	--	--	--
F-HO-84-96	205	240	9.0	165	--	--	--

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Chemex Labs Ltd.

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VANCOUVER, B.C.
V6E 2S1

CERT. # : A8415234-002-A
INVOICE # : I8415234
DATE : 28-AUG-84
P.O. # : NONE
B-13

Sample description	Prep code	AS ppm	Ag ppm Aqua R	Au ppb FA+AA			
F-HO-84-97	205	90	2.3	25	--	--	--
F-HO-84-98	205	500	11.7	130	--	--	--
F-HO-84-99	205	180	3.7	45	--	--	--
F-HO-84-100	205	250	3.1	55	--	--	--
F-HO-84-101	205	510	2.2	30	--	--	--
F-HO-84-102	205	71	1.9	25	--	--	--
F-HO-84-104	205	33	1.0	10	--	--	--
F-HO-84-105	205	110	5.4	115	--	--	--
F-HO-84-106	205	67	4.1	65	--	--	--
F-HO-84-107	205	27	2.0	25	--	--	--
F-HO-84-108	205	9	0.6	5	--	--	--
F-HO-84-109	205	53	6.6	100	--	--	--
F-HO-84-110	205	11	1.4	25	--	--	--
F-HO-84-111	205	12	2.2	50	--	--	--
F-HO-84-112	205	9	1.9	5	--	--	--
F-HO-84-113	205	12	2.7	35	--	--	--
F-HO-84-114	205	16	8.6	140	--	--	--
F-HO-84-115	205	12	6.6	95	--	--	--
F-HO-84-116	205	24	13.5	325	--	--	--
F-HO-84-117	205	20	14.5	240	--	--	--

CTA

Certified by .... Hart Bichler

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CERT. # : A8415233-001-A
INVOICE # : I8415233
DATE : 28-AUG-84
P.O. # : NONE
B-13

Sample description	Prep code	Ag oz/T RUSH FA	Au oz/T RUSH FA				
F-HO-84-63	236	0.54	0.008	--	--	--	--
F-HO-84-68	236	0.52	0.012	--	--	--	--
F-HO-84-69	236	0.36	0.010	--	--	--	--
F-HO-84-70	236	0.01	0.003	--	--	--	--
F-HO-84-82	236	2.72	0.026	--	--	--	--
F-HO-84-83	236	1.36	0.006	--	--	--	--
F-HO-84-84	236	0.42	0.006	--	--	--	--
F-HO-84-85	236	4.80	0.010	--	--	--	--
F-HO-84-86	236	3.82	0.008	--	--	--	--
F-HO-84-93	236	1.06	0.012	--	--	--	--
F-HO-84-94	236	0.87	0.010	--	--	--	--
F-HO-84-95	236	0.97	0.010	--	--	--	--
F-HO-84-103	236	0.22	0.008	--	--	--	--
F-HO-84-118	236	0.66	0.006	--	--	--	--
F-HO-84-119	236	0.05	0.008	--	--	--	--
F-HO-84-120	236	0.24	0.006	--	--	--	--
F-HO-84-121	236	0.40	0.016	--	--	--	--

B. Swaite

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CERT. # : A8415233-001-A
INVOICE # : I8415233
DATE : 28-AUG-84
P.O. # : NONE
B-13

Sample description	Prep code	AS ppm					
F-HO-84-63	236	1500	--	--	--	--	--
F-HO-84-68	236	1400	--	--	--	--	--
F-HO-84-69	236	1050	--	--	--	--	--
F-HO-84-70	236	110	--	--	--	--	--
F-HO-84-82	236	560	--	--	--	--	--
F-HO-84-83	236	2500	--	--	--	--	--
F-HO-84-84	236	2500	--	--	--	--	--
F-HO-84-85	236	460	--	--	--	--	--
F-HO-84-86	236	950	--	--	--	--	--
F-HO-84-93	236	1000	--	--	--	--	--
F-HO-84-94	236	1450	--	--	--	--	--
F-HO-84-95	236	4300	--	--	--	--	--
F-HO-84-103	236	840	--	--	--	--	--
F-HO-84-118	236	33	--	--	--	--	--
F-HO-84-119	236	20	--	--	--	--	--
F-HO-84-120	236	19	--	--	--	--	--
F-HO-84-121	236	11	--	--	--	--	--

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CERT. # : A8415768-001-A
INVOICE # : I8415768
DATE : 18-SEP-84
P.O. # : NONE
B-13

N

Sample description	Prep code	Ag FA oz/T					
F-HO-84-74	214	1.34	--	--	--	--	--
F-HO-84-75	214	0.50	--	--	--	--	--
F-HO-84-76	214	1.46	--	--	--	--	--
F-HO-84-79	214	0.44	--	--	--	--	--
F-HO-84-80	214	0.56	--	--	--	--	--
F-HO-84-81	214	1.02	--	--	--	--	--
F-HO-84-89	214	1.54	--	--	--	--	--
F-HO-84-90	214	0.58	--	--	--	--	--
F-HO-84-91	214	0.48	--	--	--	--	--
F-HO-84-117	214	0.46	--	--	--	--	--

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CERT. # : A8415197-001-A
INVOICE # : I8415197
DATE : 30-AUG-84
P.O. # : NONE
B-12/B-13

Sample description	Prep code	Ag FA oz/T					
F-HO-84-01	214	1.28	--	--	--	--	--
F-HO-84-02	214	1.42	--	--	--	--	--
F-HO-84-03	214	1.18	--	--	--	--	--
F-HO-84-04	214	0.99	--	--	--	--	--
F-HO-84-05	214	1.76	--	--	--	--	--
F-HO-84-06	214	1.46	--	--	--	--	--
F-HO-84-07	214	0.84	--	--	--	--	--
F-HO-84-08	214	3.78	--	--	--	--	--

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Appendix D

Itemized Cost Statement

Itemized Cost Statement

Period May 15 - September 7, 1984

SECTION A PHYSICAL

ROCK TRENCHING

Labour Costs

S. Davies	12 days at $ 70.00/day =	$ 840.00
J. Thomlinson	11 days at $ 85.00/day =	935.00
D. Whalen	16 days at $150.00/day =	2,400.00
	Total Labour Cost	$ 4,175.00

Groceries

39 man days at $18.10/man/day =	$ 705.90

Supplies and Accomodation

39 man days at $46.58/man/day =	$ 1,816.62

Air Transportation - Helicopter and Fixed Wing

39 man days at $157.24/man/day =	$ 6,132.36
Powder, Fuse and Blasting Caps =	686.80
Plugger Rental =	1,712.00
Total Trenching Costs	$15,228.68

Section D Geological, Geophysical, Geochemical

Gridding and Topographic Surveying

Labour Costs

S. Davies	11 days at $ 70.00/day	=	$ 770.00
J. Thomlinson	13 days at $ 85.00/day	=	1,105.00
R. Fraser	5 days at $150.00/day	=	750.00
	Total Labour Cost		$2,625.00

Groceries

29 man days at $18.10/man/day = $ 524.90

Supplies and Accomodation

29 man days at $46.58/man/day = $1,350.82

Air Transportation - Helicopter and Fixed Wing

29 man days at $157.24/man/day = $4,559.96

Total Gridding and Topographic Costs $9,060.68

Geology and Sampling Costs

Labour Costs

R. Fraser	30 days at $150.00/day	=	$4,500.00
J. Thomlinson	5 days at $ 85.00/day	=	425.00
S. Davies	2 days at $ 70.00/day	=	140.00
	Total Labour Cost		$5,065.00

Groceries

37 man days at $18.10/man/day =	$ 669.70

Supplies and Accomodation

37 man days at $46.58/man/day =	$ 1,723.46

Air Transportation - Helicopter and Fixed Wing

37 man days at $157.24/man/day =	$ 5,817.88
Assaying Costs including sample preparation	
121 samples Au, Ag, As at $15.50/sample =	1,875.50
Total Geology and Sampling Costs	$15,151.54

Geophysical Surveying Costs

Labour Costs

R. Fraser	2 days at $150.00/day =	$ 300.00
J. Thomlinson	8 days at $ 85.00/day =	680.00
S. Davies	13 days at $ 70.00/day =	910.00
	Total Labour Costs	$ 1,890.00

Geophysical Contractor

Peter Walcott and Associates	$12,668.72
Pulse EM, IP, 2 men	
August 4 to August 13, 1984	
16 man days in camp	

Groceries

39 man days at $18.10/man/day =	$ 705.90

Supplies and Accomodation

39 man days at $46.58/man/day =	$ 1,816.62

Air Transportation - Helicopter and Fixed Wing

39 man days at $157.24/man/day =	$ 6,132.36
Total Geophysical Costs	$23,213.60

Drafting and Report Preparation up until September 7, 1984

Labour Costs

R. Fraser	8 days at $150.00/day =	$ 1,200.00
S. Davies	2 days at $ 70.00/day =	140.00
	Total Labour Costs	$ 1,340.00
	Total Section D Geological, Geophysical, Geochemical	$48,765.82
	Grand Total Section A and D	$63,994.50

R. J. Fraser

Appendix E

Statement of Qualifications

Statement of Qualifications

I, Robert John Fraser, with a business address of 703 - 1112 West Pender Street, Vancouver, B.C., V6E 2S1, do hereby certify that:

1. I am a Professional Geologist, registered with the Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories, since 1981.

2. I am a Fellow of the Geological Association of Canada (1979) and a member of the Canadian Institute of Mining and Metallurgy.

3. I am a graduate of Queen's University, Kingston, Ontario with an Hon's B.Sc. degree in Geology (1973) and an M.Sc. degree in Geology (1984).

4. I have been employed in mineral exploration since 1970 of which 11 years has been in a supervisory capacity as a geologist and a geophysicist throughout Canada and South America.

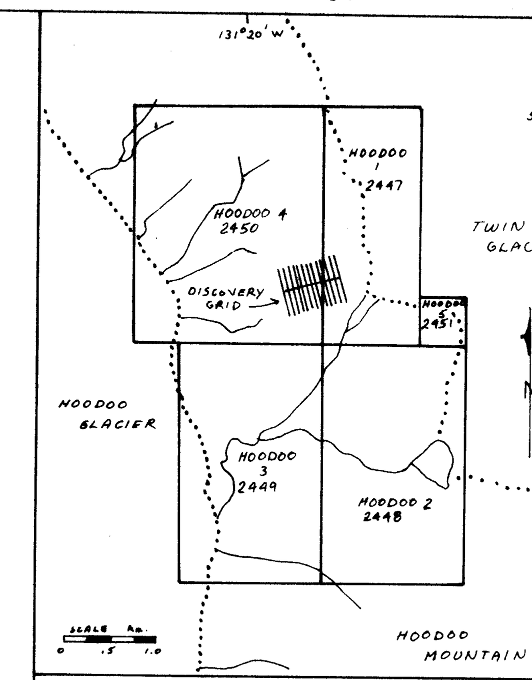
5. This report is based on personal examination and supervision of all work carried out on the property since May 9, 1984.

6. I am employed as a Senior Geologist with Kerr Addison Mines, based in Vancouver.

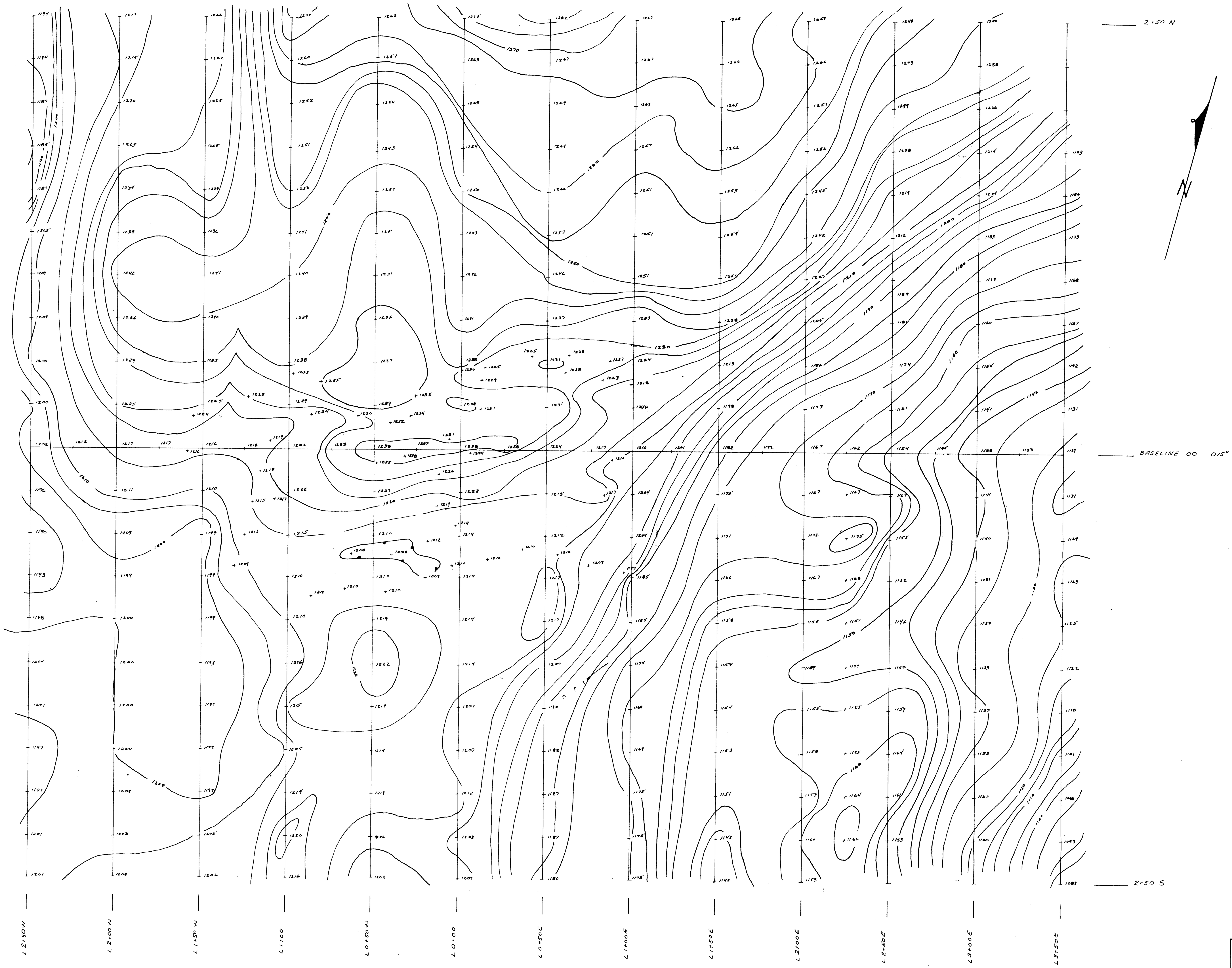
7. Written permission is required to use this report or any part of it in a prospectus or other statement of material facts.

R. J. FRASER
P. Geol (NWT) F.G.A.C.

Vancouver, B.C.
October 23, 1984



LOCATION MAP
HOODOO CLAIMS — LIARD MINING DIV.
NTS # 104B/14W SCALE 1:50,000



GEOLOGICAL BRANCH ASSESSMENT REPORT

12,614

ELEVATION IN METERS
CONTOUR INTERVAL 5.0 m.

SCALE IN METERS

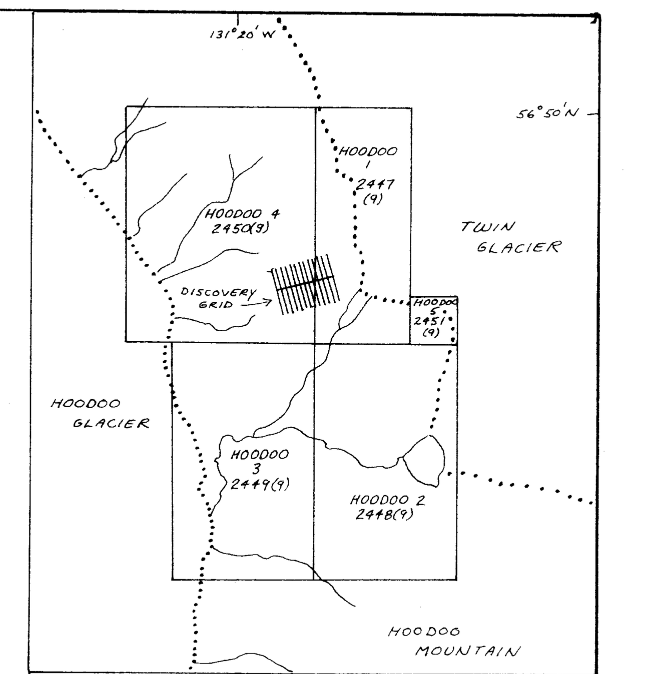
Oct 23/84.

TOPOGRAPHIC MAP
DISCOVERY GRID

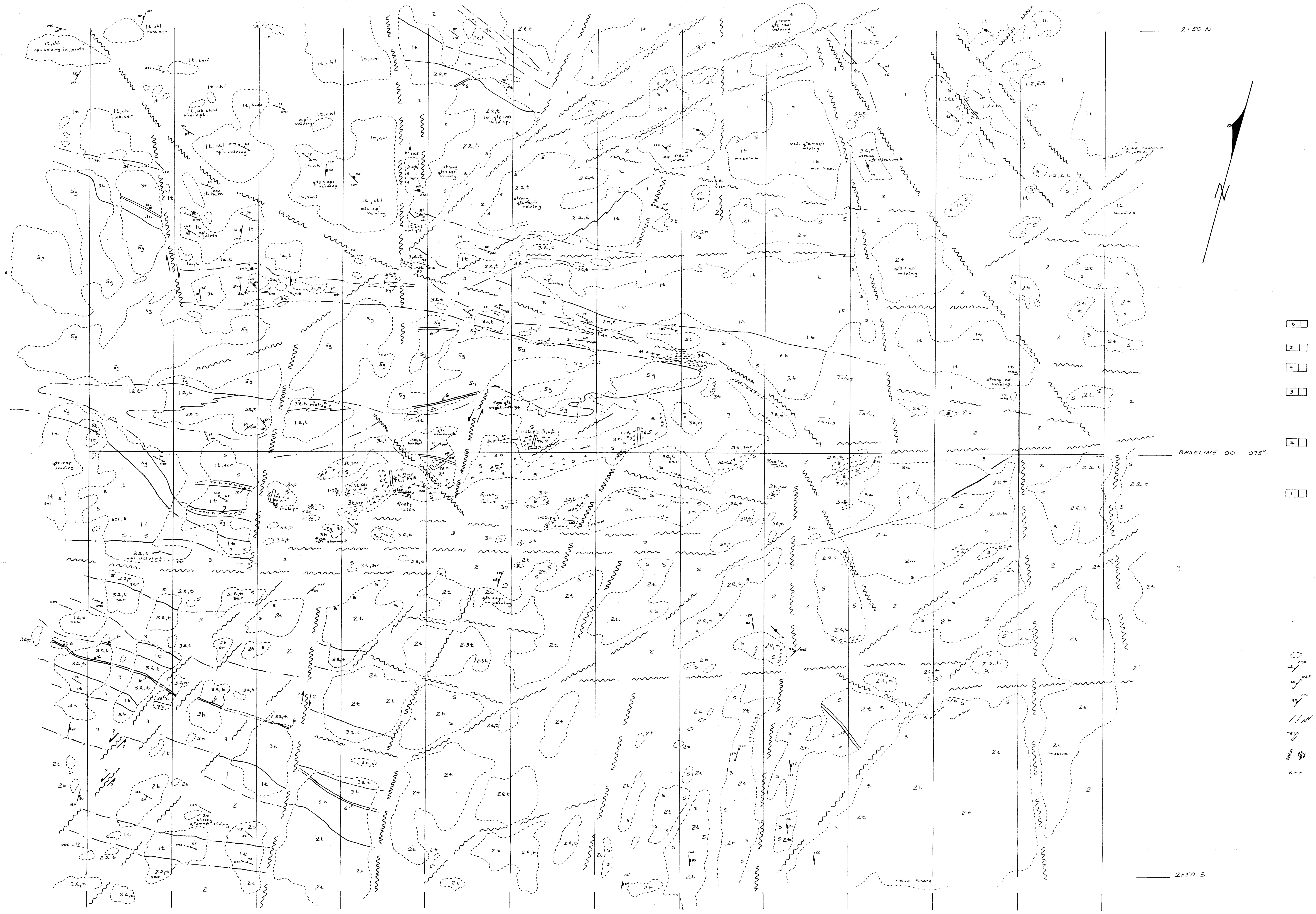
HOODOO CLAIMS
LIARD MINING DIV. B.C

KERR ADDISON MINES LTD.
VANCOUVER OFFICE

SCALE - 1:1000	DATE - SEPT 1984
DRAWN BY - RJF	DATA - S.D, J.T
NTS - 104B/14W	MAP No. - 1



LOCATION MAP
HooDoo CLAIMS — LIARD MINING DIV.
NTS # 104B/14W SCALE 1:50,000



LEGEND

6	LATE MAFIC INTRUSIVES HooDoo DYKES
5	MAFIC INTRUSIVES g) GABBRO
4	SEDIMENTARY ROCKS s) SHALE
3	FELSIC VOLCANIC ROCKS a) AGGLOMERATE l) LAPILLI-TUFF t) TUFF c) CHERT (INTERBEDDED h) HETEROLITHIC TUFF
2	INTERMEDIATE VOLCANIC ROCKS a) AGGLOMERATE l) LAPILLI-TUFF t) TUFF h) HETEROLITHIC TUFF
1	MAFIC VOLCANIC ROCKS a) AGGLOMERATE l) LAPILLI-TUFF t) TUFF

chl - CHLORITIC ALTERATION
epi - EPIDOTE
ser - SERICITIC ALTERATION
qtz - QUARTZ
hem - HEMATITE
mag - MAGNETITE
s - SILICIFICATION
wk - WEAK
shrd - SHEARED
min - MINOR
PY - PYRITE

SYMBOLS

AREA OF ROCK OUTCROP
STRIKE + DIP OF BEDDING
STRIKE + DIP OF S1 CLEAVAGE
STRIKE + DIP OF JOINTING
GEOLOGICAL BOUNDARY; DEFINED, ASSUMED, GRADATIONAL
TR.1 TRENCH
FAULT; MOVEMENT KNOWN, INFERRED
xxx STRONG GOSSAN DEVELOPMENT.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

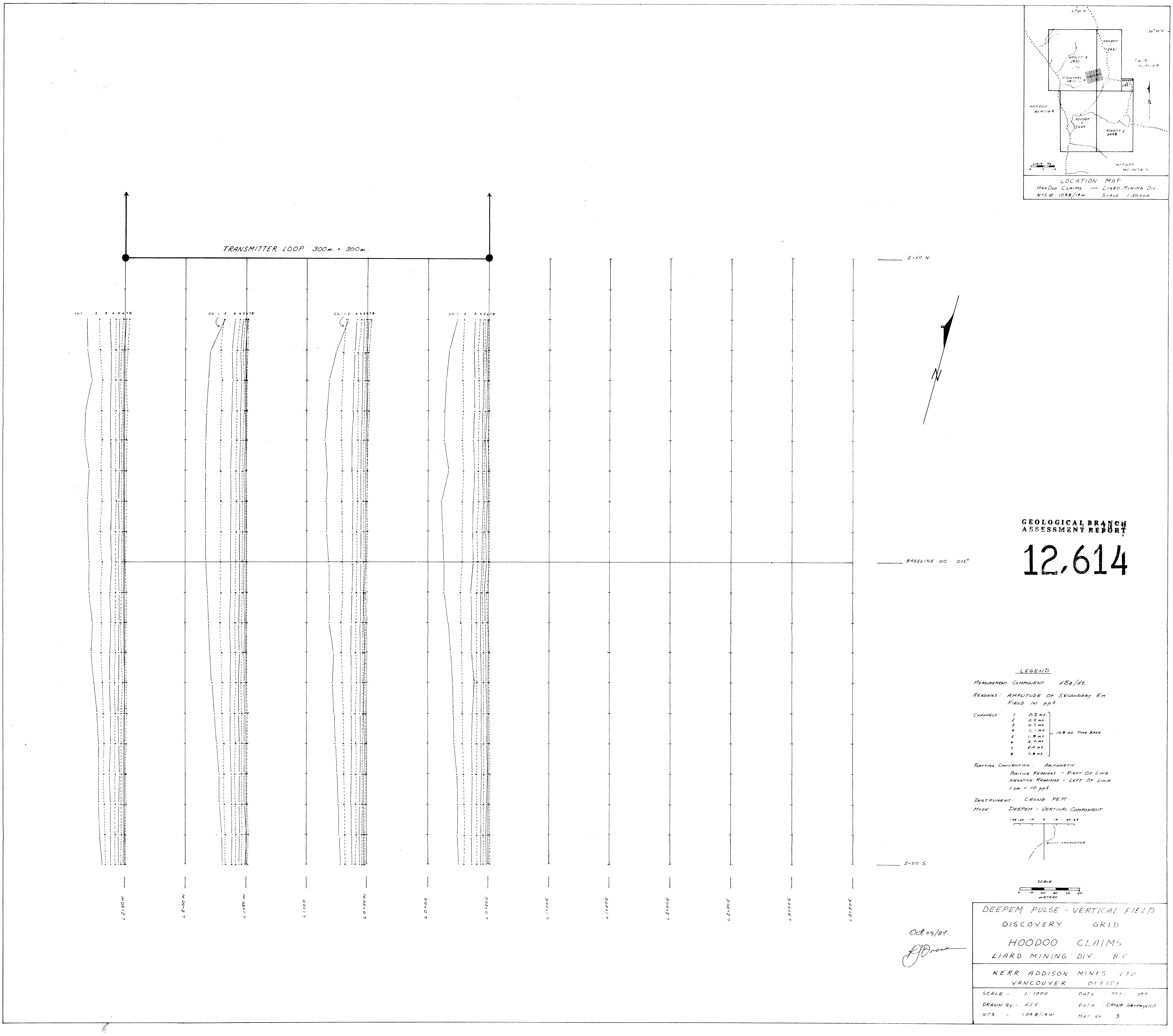
12,614

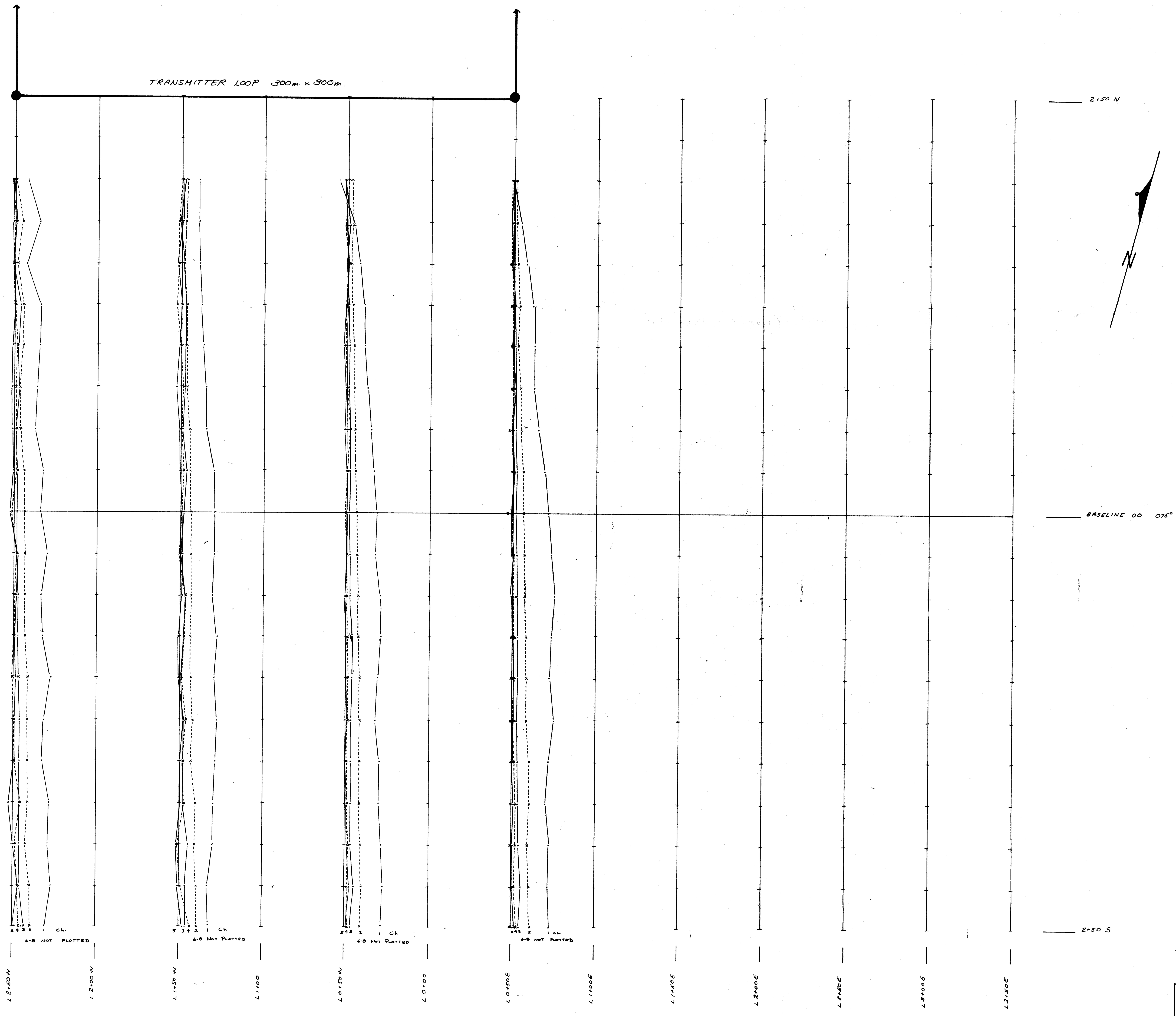
Oct. 23/84

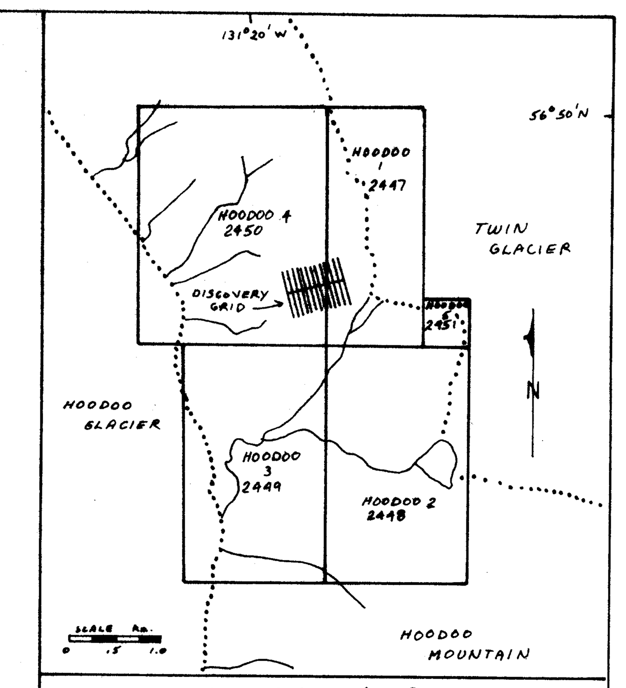
GEOLOGICAL SURVEY
DISCOVERY GOSSAN
HOODOO CLAIMS
LIARD MINING DIV. B.C.

KERR ADDISON MINES LTD.
VANCOUVER OFFICE

SCALE 1:1000	DATE: August 1984
NTS: 104B/14W	SURVEY BY: R.J. Bruce MAP No. 2


LOCATION MAP
HooDoo CLAIMS — LIARD MINING DIV
NTS # 104B/14W SCALE 1:50,000
56°50'N
TWIN GLACIER
HOODOO GLACIER
HOODOO MOUNTAIN
HOODOO 1 2447
HOODOO 2 2448
HOODOO 3 2449
HOODOO 4 2450
HOODOO 5 2451
DISCOVERY GRID
TRANSMITTER LOOP 300m. × 300m.
2+50 N
BASELINE 00 035°
2+50 S
N
L 2+50W
L 2+00 W
L 1+50 W
L 1+00
L 0+50W
L 0+00
L 0+50E
L 1+00E
L 1+50E
L 2+00E
L 2+50E
L 3+00E
L 3+50E
GEOLOGICAL BRANCH
ASSESSMENT REPORT
12,614
LEGEND
MEASUREMENT COMPONENT dBz/dt
READINGS: AMPLITUDE OF SECONDARY EM FIELD IN ppk.
CHANNELS: 1 0.2 ms. 2 0.4 ms. 3 0.7 ms 4 1.1 ms 5 1.8 ms 6 3.0 ms 7 6.0 ms 8 7.8 ms — 10.8 ms. TIME BASE
PLOTTING CONVENTION: ARITHMETIC
POSITIVE READINGS - RIGHT OF LINE
NEGATIVE READINGS - LEFT OF LINE
1 cm = 10 ppk.
INSTRUMENT: CRONE PEM
MODE: DEEPEM - VERTICAL COMPONENT
CONDUCTOR
SCALE
0 10 20 30 40 50
METERS
Oct 23/84
DEEPEM PULSE - VERTICAL FIELD
DISCOVERY GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C
KERR ADDISON MINES LTD
VANCOUVER OFFICE
SCALE - 1:1000
DATE
DRAWN BY - RJF
DATA - CRONE GEOPHYSICS
NTS - 104B/14W
MAP No 3





LOCATION MAP
HooDoo CLAIMS — LIARD MINING DIV.
NTS # 104B/14W SCALE 1:50,000

LEGEND

MEASUREMENT COMPONENT dBx/dt

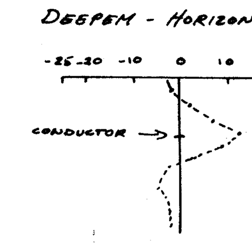
READINGS: AMPLITUDE OF SECONDARY EM FIELD IN ppk.

CHANNELS:

1	0.2 ms.	10.8 ms. TIME BASE
2	0.4 ms.	
3	0.7 ms	
4	1.1 ms	
5	1.8 ms	
6	3.0 ms	
7	5.0 ms	
8	7.8 ms	

PLOTTING CONVENTION: ARITHMETIC
POSITIVE READINGS - RIGHT OF LINE
NEGATIVE READINGS - LEFT OF LINE
1 cm = 10 ppk

INSTRUMENT: CRONE PEM
MODE: DEEPEM - HORIZONTAL COMPONENT



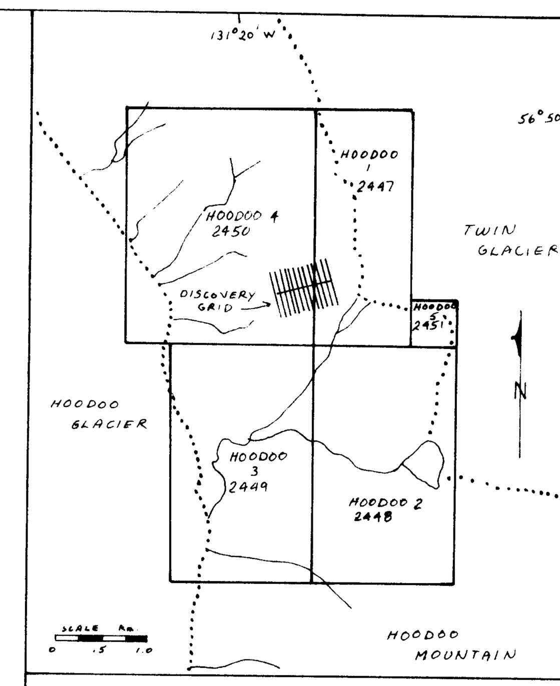
SCALE
0 10 20 30 40 50
METERS

Oct. 23/84

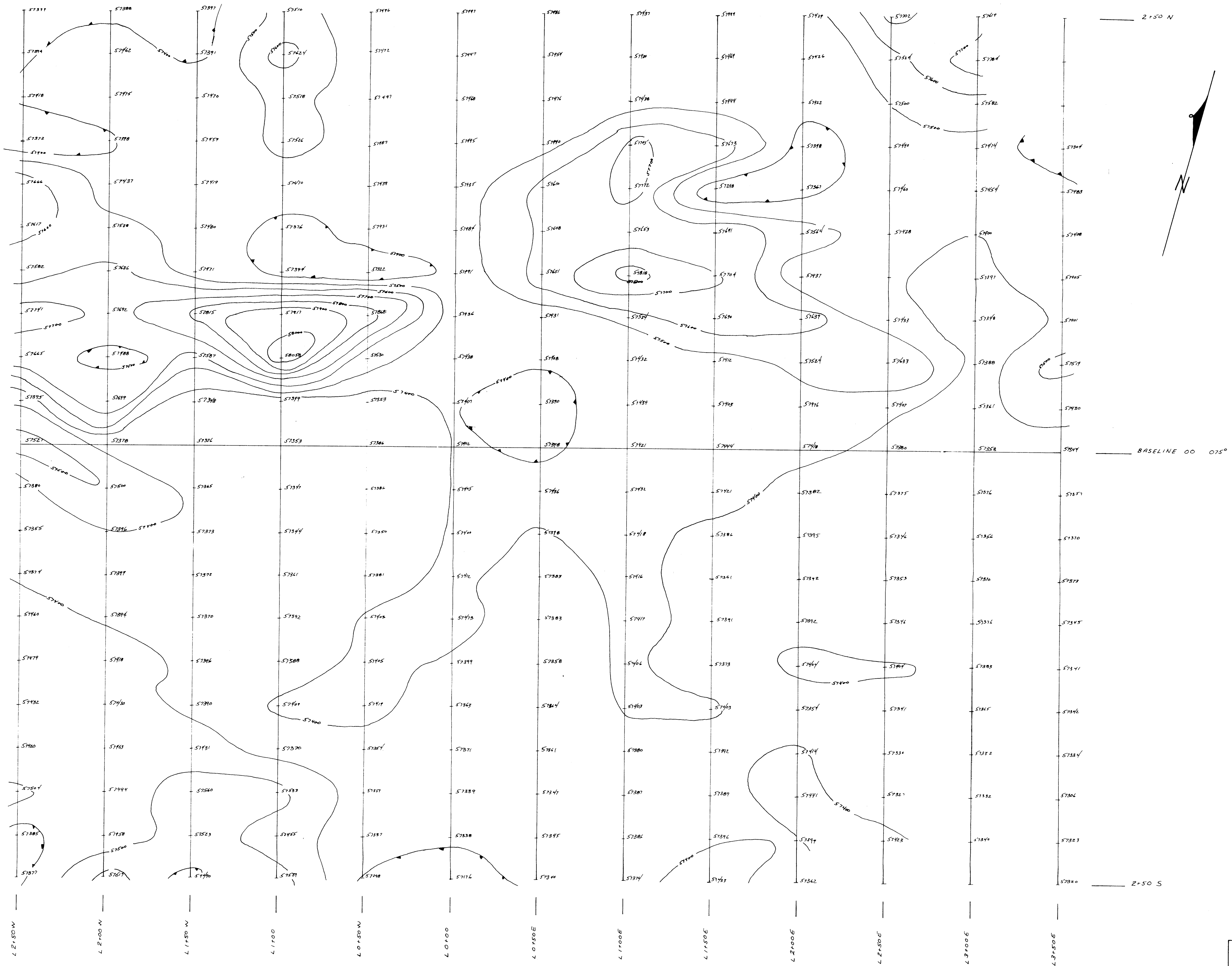
DEEPEM PULSE - HORIZONTAL FIELD
DISCOVERY GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C

KERR ADDISON MINES LTD.
VANCOUVER OFFICE

SCALE - 1:1000	DATE - SEPT 1984
DRAWN BY - RJF	DATA - CRONE GEOPHYSICS
NTS - 104B/14W	MAP No. - 4



LOCATION MAP
HooDoo CLAIMS — LIARD MINING DIV.
NTS # 104B/14W SCALE 1:50,000



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,614

LEGEND

INSTRUMENT	GEOMETRICS G-816 PROTON PRECESSION MAGNETOMETER
ACCURACY	± 5 GAMMAS
CONTOUR INTERVAL	150 GAMMAS
(symbol)	MAGNETIC LOW
SURVEY BY	S. DAVIES, J. THOMLINSON
MEASUREMENT	TOTAL FIELD IN GAMMAS

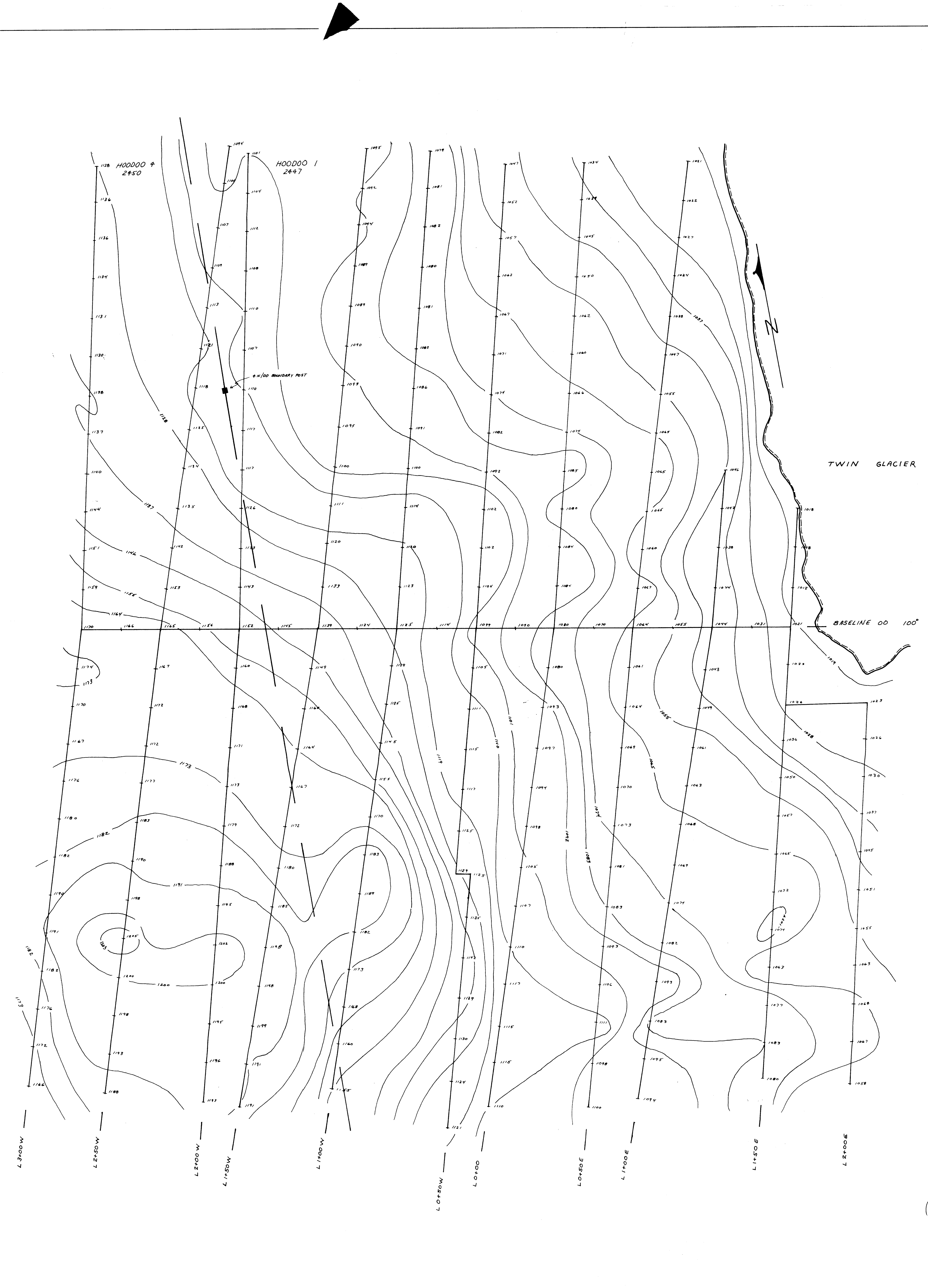
SCALE IN METERS
0 10 20 30 40 50 60 70 80 90 100

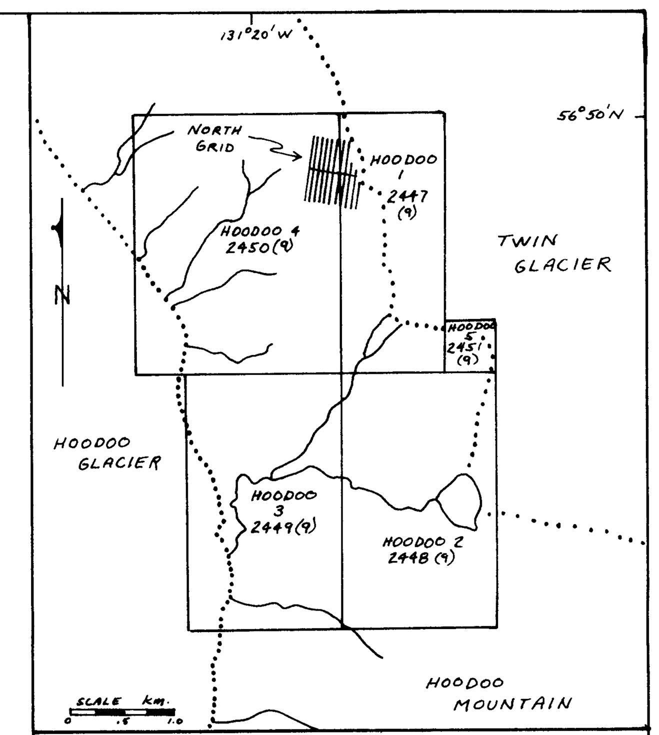
Oct 23/84
[signature]

MAGNETIC SURVEY
DISCOVERY GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C

KERR ADDISON MINES LTD.
VANCOUVER OFFICE

SCALE - 1:1000	DATE - SEPT 1984
DRAWN BY - RJF	DATA - S.D, J.T.
NTS - 104B/14W	MAP No. - 5





LOCATION MAP
HOODOO CLAIMS — LIARD MINING DIV.
NTS# 104B/14W SCALE 1:50,000

CONTOUR INTERVAL 9.0 m.

12,614

TOPOGRAPHY

NORTH GRID
HOODOO CLAIMS

LIARD MINING DIV. B.C.

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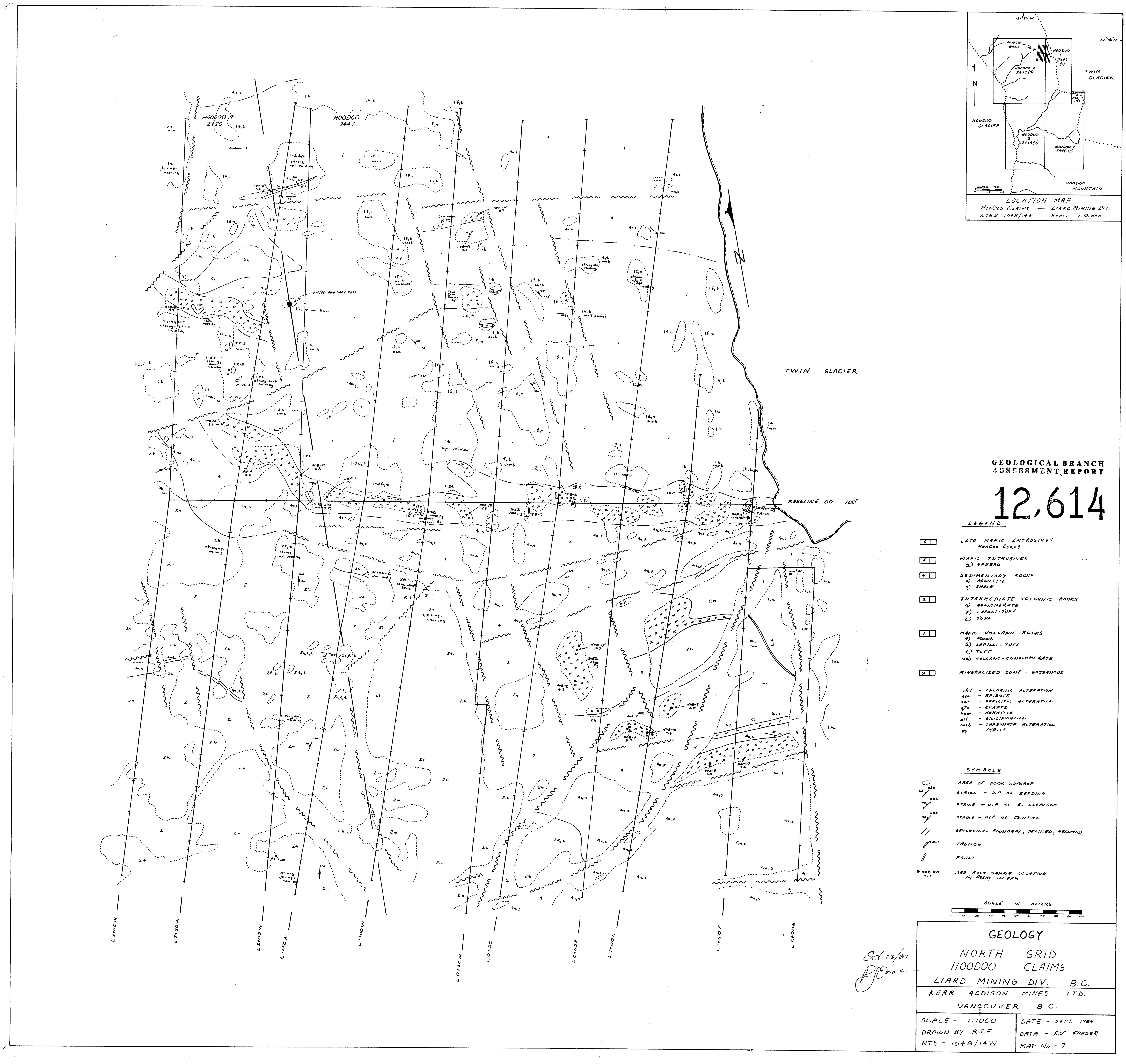
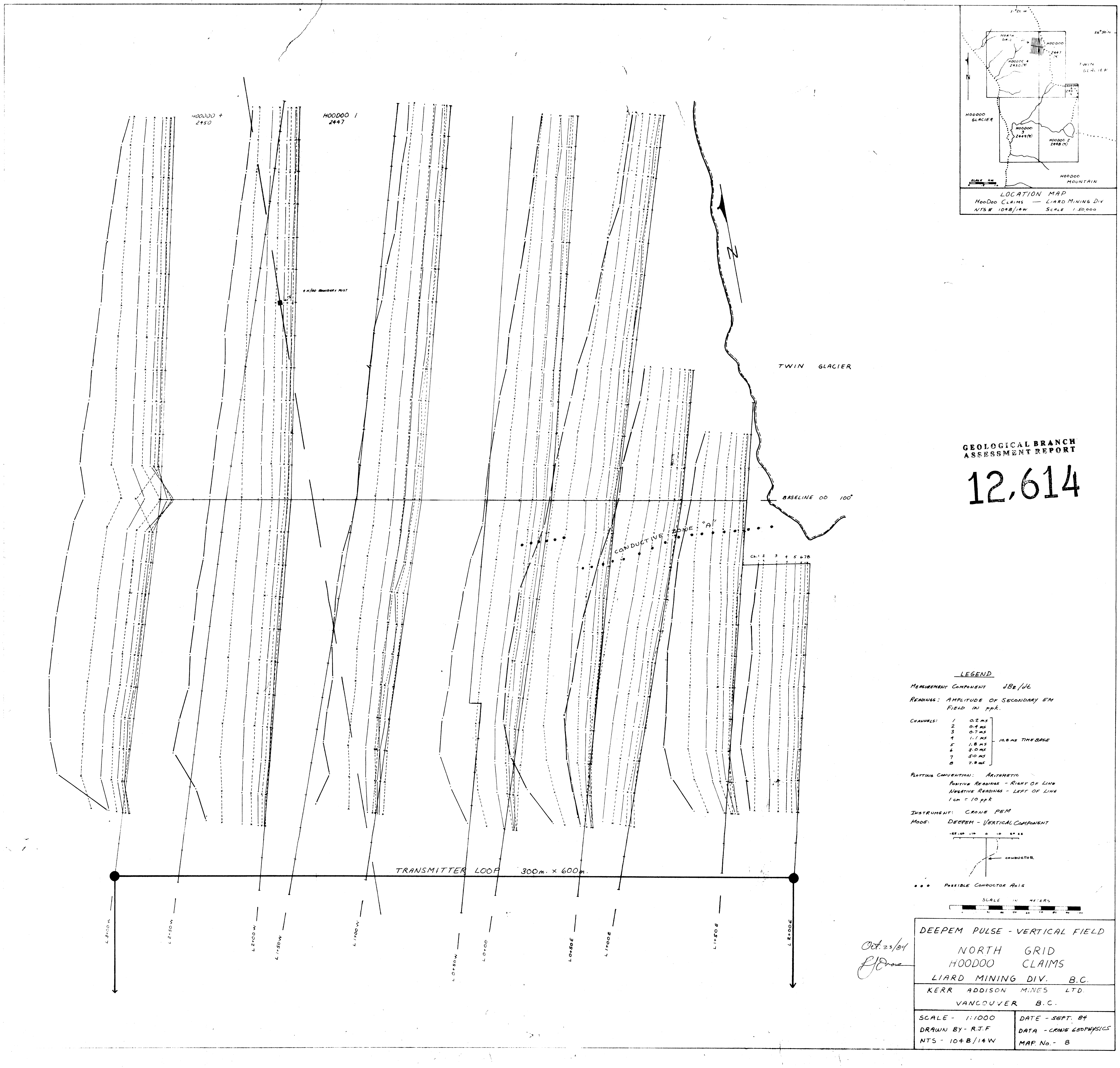
SCALE - 1:1000	DATE - SEPT. 1984
DRAWN BY - R.J.F	DATA - S.D, J.T
NTS - 104B/14W	MAP. No. - 6

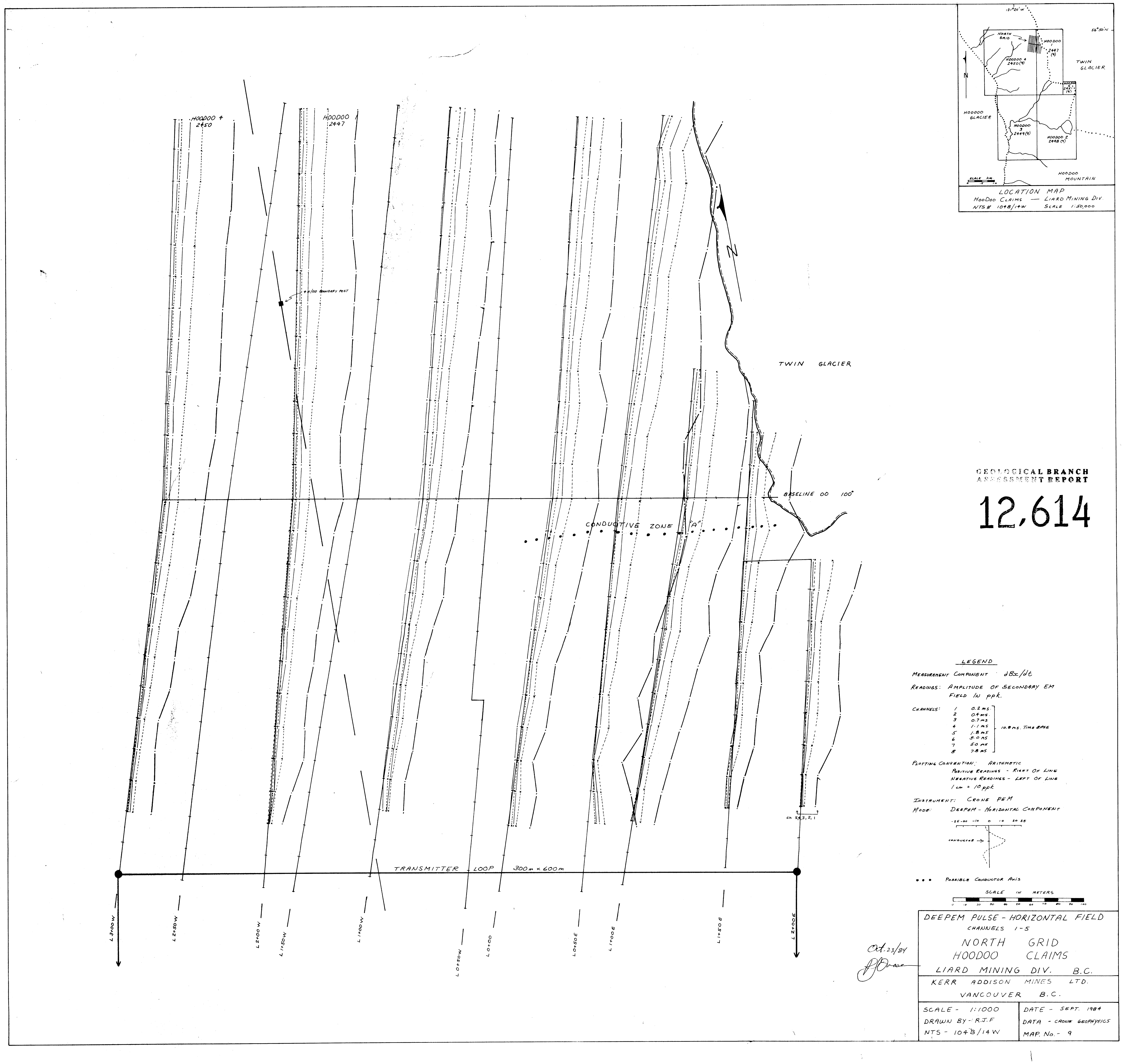
Oct 23/21


GEOLOGICAL BRANCH
ASSESSMENT REPORT
12,614
LOCATION MAP
HooDoo CLAIMS — LIARD MINING DIV.
NTS# 104B/14W SCALE 1:50,000
TWIN GLACIER
HOODOO GLACIER
HOODOO MOUNTAIN
HOODOO 4 2450
HOODOO 1 2447
BASELINE 00 100°
LEGEND
6 LATE MAFIC INTRUSIVES
HooDoo DYKES
5 MAFIC INTRUSIVES
g) GABBRO
4 SEDIMENTARY ROCKS
a) ARGILLITE
s) SHALE
2 INTERMEDIATE VOLCANIC ROCKS
a) AGGLOMERATE
l) LAPILLI-TUFF
t) TUFF
1 MAFIC VOLCANIC ROCKS
f) FLOWS
l) LAPILLI-TUFF
t) TUFF
vc) VOLCANO-CONGLOMERATE
x MINERALIZED ZONE - GOSSANOUS
chl - CHLORITIC ALTERATION
epi - EPIDOTE
ser - SERICITIC ALTERATION
qtz - QUARTZ
hem - HEMATITE
sil - SILICIFICATION
carb - CARBONATE ALTERATION
py - PYRITE
SYMBOLS
AREA OF ROCK OUTCROP
STRIKE + DIP OF BEDDING
STRIKE + DIP OF S1 CLEAVAGE
STRIKE + DIP OF JOINTING
GEOLOGICAL BOUNDARY; DEFINED, ASSUMED
TRENCH
FAULT
*HOB-50 4.7 1983 ROCK SAMPLE LOCATION
Ag ASSAY IN PPM
SCALE IN METERS
0 10 20 30 40 50 60 70 80 90 100
GEOLOGY
NORTH GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C.
KERR ADDISON MINES LTD.
VANCOUVER B.C.
SCALE - 1:1000
DRAWN BY - R.J.F
NTS - 104B/14W
DATE - SEPT. 1984
DATA - R.J. FRASER
MAP. No. - 7
Oct. 23/84

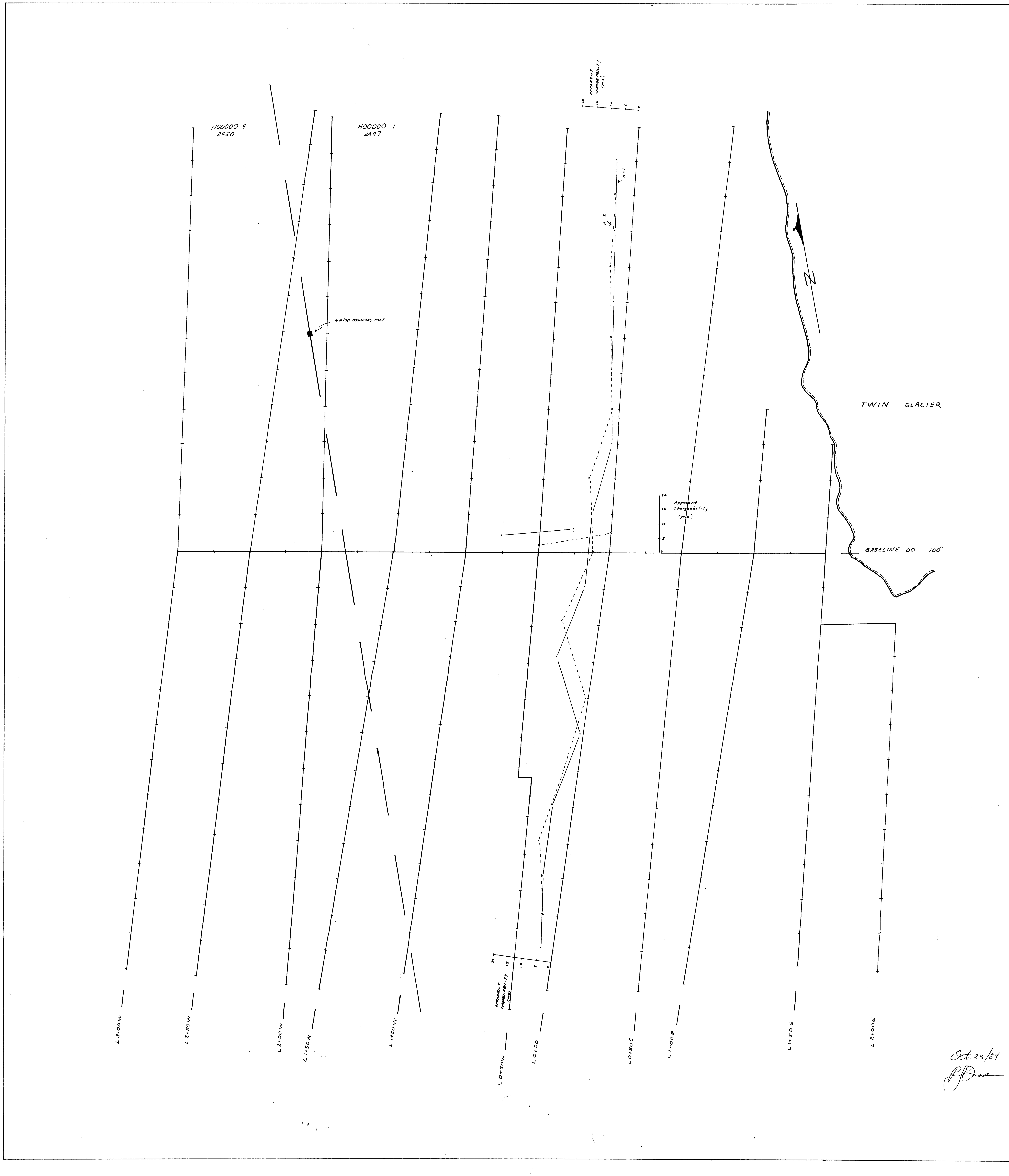


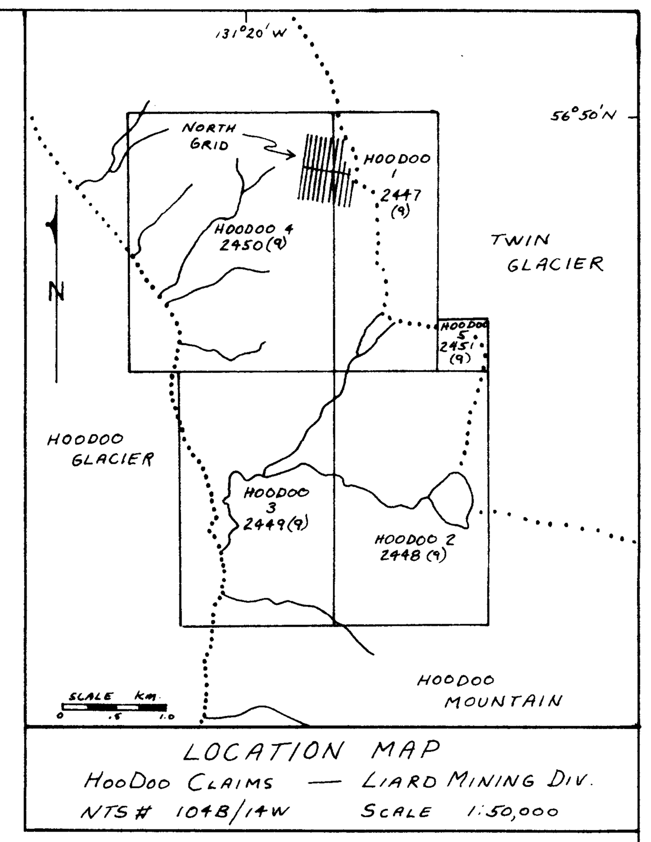
GEOLOGICAL BRANCH ASSESSMENT REPORT

12,614



LOCATION MAP
HOODOO CLAIMS — LIARD MINING DIV
NTS # 104B/14W SCALE 1:50,000
131°20'W
56°30'N
NORTH GRID
HOODOO 2447 (9)
HOODOO 4 2450 (9)
TWIN GLACIER
HOODOO GLACIER
HOODOO 3 2449 (9)
HOODOO 2 2448 (9)
HOODOO MOUNTAIN
HOODOO 4 2450
HOODOO 2447
4 N/00 BOUNDARY POST
N
TWIN GLACIER
BASELINE 00 100°
CONDUCTIVE ZONE "A"
GEOLOGICAL BRANCH ASSESSMENT REPORT
12,614
CH 5,4,3,2,1
TRANSMITTER LOOP 300m x 600m
L 3+00 W
L 2+50 W
L 2+00 W
L 1+50 W
L 1+00 W
L 0+50 W
L 0+00
L 0+50 E
L 1+00 E
L 1+50 E
L 2+00 E
LEGEND
MEASUREMENT COMPONENT : dBx/dt
READINGS: AMPLITUDE OF SECONDARY EM FIELD IN ppk.
CHANNELS: 1 0.2 ms, 2 0.4 ms, 3 0.7 ms, 4 1.1 ms, 5 1.8 ms, 6 3.0 ms, 7 5.0 ms, 8 7.8 ms
10.8 ms. TIME BASE
PLOTTING CONVENTION: ARITHMETIC
POSITIVE READINGS - RIGHT OF LINE
NEGATIVE READINGS - LEFT OF LINE
1 cm = 10 ppk
INSTRUMENT: CRONE PEM
MODE: DEEPEM - HORIZONTAL COMPONENT
CONDUCTOR
POSSIBLE CONDUCTOR AXIS
SCALE IN METERS
0 10 20 30 40 50 60 70 80 90 100
DEEPEM PULSE - HORIZONTAL FIELD
CHANNELS 1-5
NORTH GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C.
KERR ADDISON MINES LTD.
VANCOUVER B.C.
SCALE - 1:1000
DRAWN BY - R.J.F
NTS - 104B/14W
DATE - SEPT. 1984
DATA - CRONE GEOPHYSICS
MAP. No. - 9
Oct. 23/84





GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,614

LEGEND

INSTRUMENT - HUNTEC M-4 I.P. TRASMITTER AND RECEIVER

MEASUREMENTS - PULSE TRANSIENT (TIME DOMAIN)

ELECTRODE SPACING - a = 50m

ELECTRODE CONFIGURATION - POLE - DIPOLE

← na → ← a → ← a →

C_1 P_1 P_2 C_2

Plot Point

——— n = 1

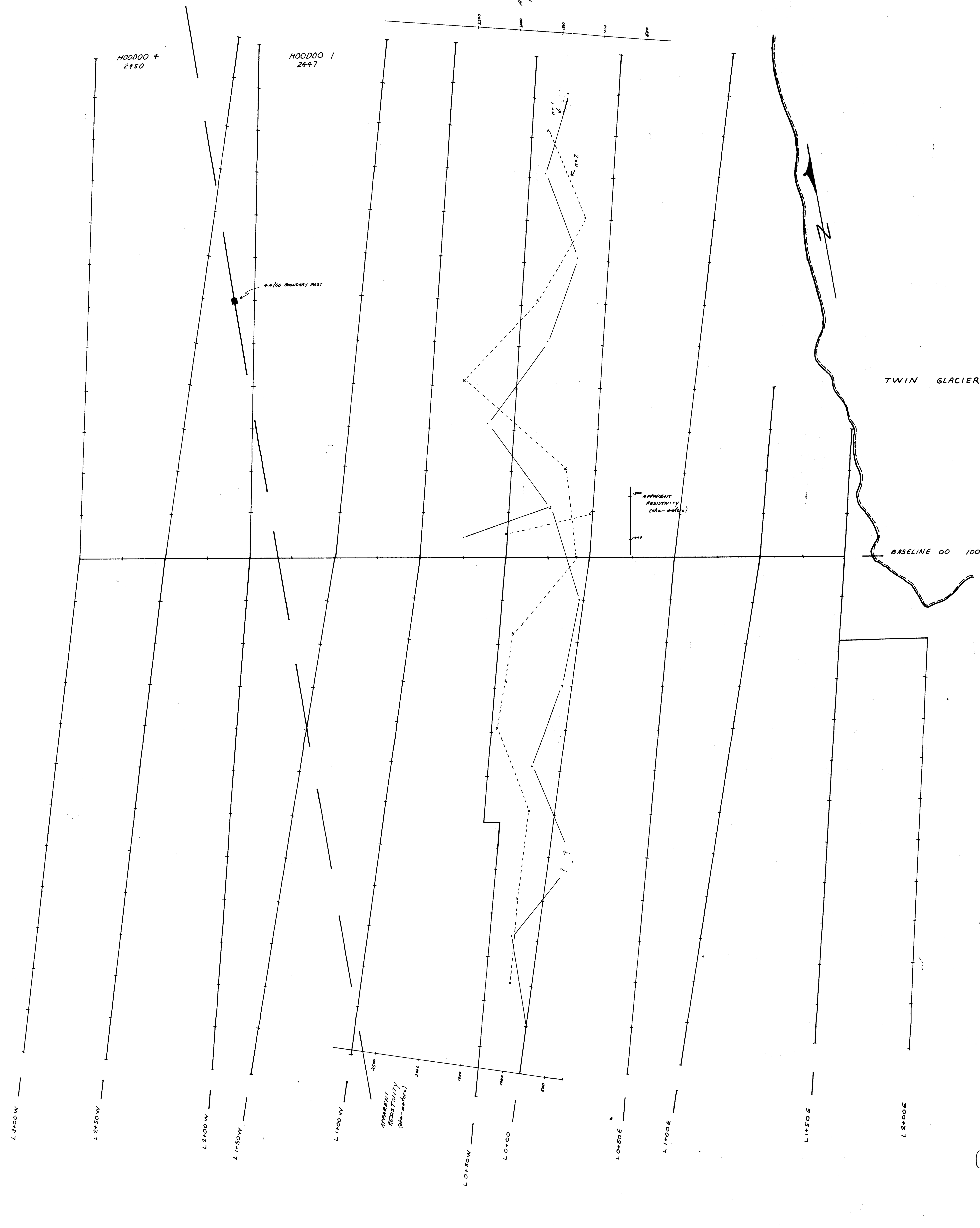
- - - - - n = 2

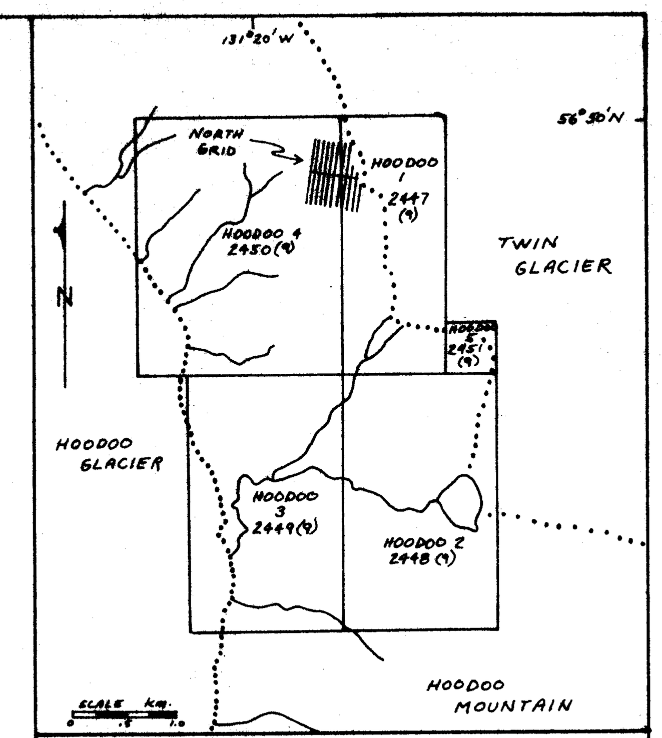
Oct. 23/84

INDUCED POLARIZATION
APPARENT CHARGEABILITY
NORTH GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C.

KERR ADDISON MINES LTD.
VANCOUVER B.C.

SCALE - 1:1000	DATE - SEPT. 1984
DRAWN BY - R.J.F	DATA - P. Walcott + Assoc.
NTS - 104B/14W	MAP. No. - 10





LOCATION MAP
HOODOO CLAIMS — LIARD MINING DIV.
NTS# 104B/14W SCALE 1:50,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,614

LEGEND

INSTRUMENT - HUNTEC M-4 I.P. TRANSMITTER AND RECEIVER

MEASUREMENTS - PULSE TRANSIENT (TIME DOMAIN)

ELECTRODE SPACING - a = 50m.

ELECTRODE CONFIGURATION - POLE-DIPOLE

C1 ← na → P1 ← a → P2 ← a → C2
Plot Point.

APPARENT RESISTIVITY $\rho_a = 2\pi n(n+1) a \Delta V/I$

——— n=1
- - - - - n=2

SCALE IN METERS
0 10 20 30 40 50 60 70 80 90 100

Oct. 23/84
[signature]

INDUCED POLARIZATION
APPARENT RESISTIVITY
NORTH GRID
HOODOO CLAIMS
LIARD MINING DIV. B.C.

KERR ADDISON MINES LTD.
VANCOUVER B.C.

SCALE - 1:1000	DATE - SEPT. 1984
DRAWN BY - R.J.F	DATA - P. Walcott + Assoc.
NTS - 104B/14W	MAP. No. - 11

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,614