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Consulting
Geologists
and
Engineers

PROPERTY FILE

Geological and Geophysical
Report on the
TRAC LAKE PROPERTY
Houston Area
Omineca Mining Division
Central British Columbia

Latitude 54° 23'N
Longitude 126° 34'W
NTS: 93L/7E

For

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SUMMARY

The TRAC LAKE property of Amanda Resources Ltd. contains two separate geological environments of different ages and with different types of mineralization, each with good potential for the discovery of economically-significant deposits of copper, lead, zinc and silver, and possibly gold.

The Western Sector of the property covers a belt of Jurassic rhyolitic pyroclastics that form a typical acidic volcanic pile similar to those elsewhere in British Columbia and eastern Canada that contain many of Canada's principal mines. In this belt, geophysical and geochemical surveys have identified seven drilling targets consisting of electromagnetic conductors accompanied by magnetic anomalies and, in one case, by both a copper soil anomaly and an Induced Polarization anomaly. The conductors range in length from 200 to 1500 metres. The copper soil anomaly is 400 metres wide and at least 400 metres long, being open at its north end. The IP anomaly coincides with the soil anomaly and is 800 metres long. Exposures of copper occur along this belt for a known distance of 750 metres and there are local exposures of lead, zinc and silver. Grab samples from these showings contained from 0.06 to 4.56% copper, 0.2 to 7.8% zinc and 0.06 to 0.81 ounces of silver per ton. The rhyolite belt is 400 - 600 metres wide and at least 5200 metres long, being open on the north. Towards the north end of the belt, coarse, poorly-bedded breccias suggest that an explosive volcanic vent existed nearby. Areas in proximity to the vent constitute favourable sites for metal deposition of the exhalative or volcanogenic type. Electromagnetic conductors and linear magnetic anomalies in such an environment may represent layers of sulphides

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with some pyrrhotite content. There is direct evidence of lead, zinc, copper and silver mineralization in the rocks and conductors may therefore carry those metals as well as pyrite or pyrrhotite. Eight drill holes are recommended to test the seven conductors, based on a layered or bedded sulphide deposit target containing lead, zinc, copper and iron with some silver.

The Southeast Sector of the TRAC LAKE property contains an Induced Polarization anomaly in a favourable geological setting, close to a Tertiary-age quartz monzonite porphyry plug. The plug contains mineralization of copper and molybdenum with small amounts of gold and silver and traces of lead and zinc. The target IP or Percent Frequency Effect anomaly is approximately 500 metres long, indicating a zone of "chargeable" material - that is, rock containing disseminated sulphides. In this district and in others around the world a typical zoning pattern is recognized in which copper and molybdenum tend to occur inside such a porphyry plug while lead, zinc and silver occur some distance outwards from the boundaries of the intrusive plug. The presence of small amounts of gold, silver, lead and zinc inside the porphyry plug in this Southeast Sector suggests that the Induced Polarization anomaly could be caused by concentrations of the sulphides of those metals, accompanied by pyrite. The mixed sulphides could occur as a breccia filling or as a wide stockwork of veins. This mineralization would be of Tertiary age. At least one hole should be drilled in this anomaly, and the budget allows for a second hole as dictated by results of the first hole.

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For the TRAC LAKE property a program of exploration is recommended consisting of two phases, as follows:

Phase 1 - Drilling (750m), trenching, mapping	\$ 120,000
Phase 2 - Delineation Drilling (1500m)	<u>217,000</u>
TOTAL	<u>\$ 337,000</u>

The Phase 2 program would be contingent upon successful results from Phase 1. The writer considers that results of the work done to date are amply encouraging and the Phase 1 program outlined here is recommended to be implemented.

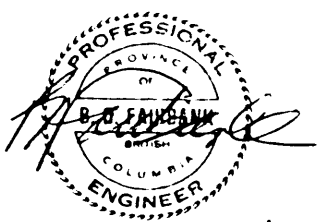
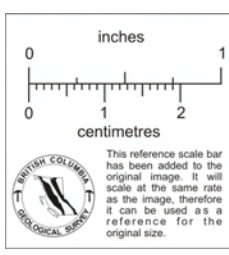
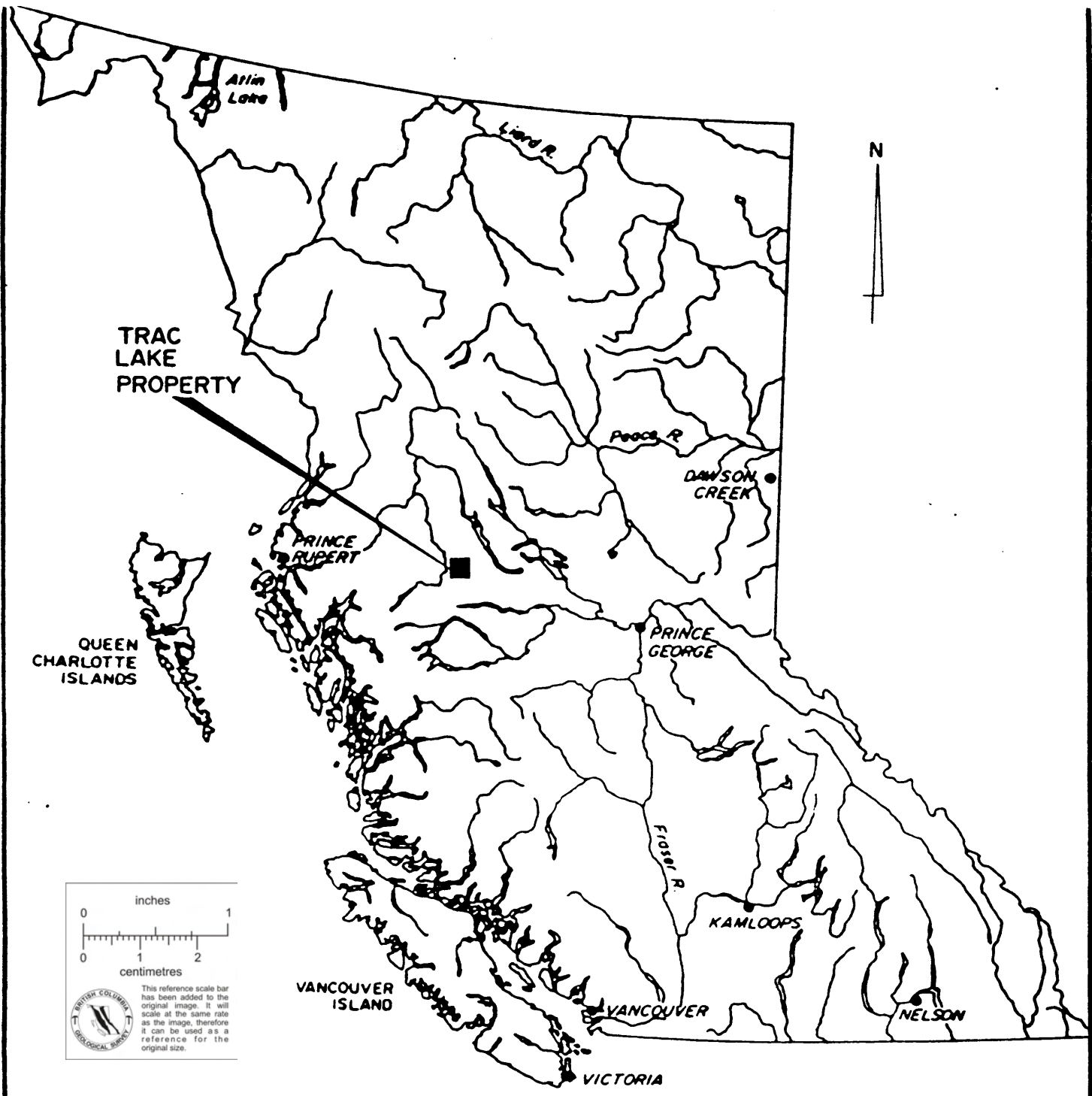
INTRODUCTION

Fairbank Engineering Ltd. was commissioned by Dr. F.B. Whiting of Amanda Resources Ltd. ("Amanda") to review recent exploration results and provide an independent appraisal of the TRAC LAKE property near Houston, B.C. (Figure 1). This report is based on a personal inspection of the property in the company of Dr. Whiting on October 18, 1986, reports on exploration programs conducted by Amanda, Orion Resources Ltd. and others and on the writer's experience in the district.

Exploration for copper-molybdenum porphyry-type mineralization was carried out in the 1960s and '70s by several companies on a Tertiary porphyry plug that has been referred to as the "Star-Klondike" or "Dungate Creek" porphyry extending onto the property from the south. Exploration for copper-lead-zinc-silver deposits in altered volcanic rocks, correlated by Tipper (1976) with the Jurassic Telkwa Formation, part of the Hazelton Group, was carried out in 1968 and 1972 on showings in the central part of the Trac Lake property that were called the "Deer" showings.

Recent work by Amanda Resources Ltd. has been based on two new interpretations of the two different geological environments contained within the claim block. The "Deer" showings are part of a rhyolitic belt similar to others in the Houston-Smithers-Topley district which have copper-lead-zinc-gold-silver in varying proportions either as stratabound "volcanogenic" deposits following the bedding in rhyolitic to andesitic tuffs or as veins and pods in and around intrusive plugs, dykes and lenses of rhyolite. Such deposits are formed by mineralizing events

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AMANDA RESOURCES LTD.		
TRAC LAKE PROPERTY LOCATION MAP		
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Dwg No 1	FAIRBANK ENGINEERING LTD.	

that took place in Jurassic times and are interpreted as being closely associated with the intrusion or extrusion of the rhyolites. The geological environment in the southeast portion of the TRAC LAKE property is related to the Tertiary porphyry plug and consists of an Induced Polarization anomaly in mixed volcanic rocks near to, but outside of, the porphyry body. This mineralization would be of Tertiary age.

In September and October 1986, Amanda completed an exploration program including installation of a survey control grid, 52 line-km of ground magnetometer surveys, 52 line-km of electromagnetic (VLF-EM) surveys, preliminary mapping and prospecting. This report summarizes the results in the context of previous work and the writer's own observations.

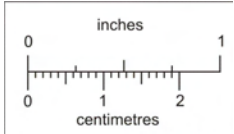
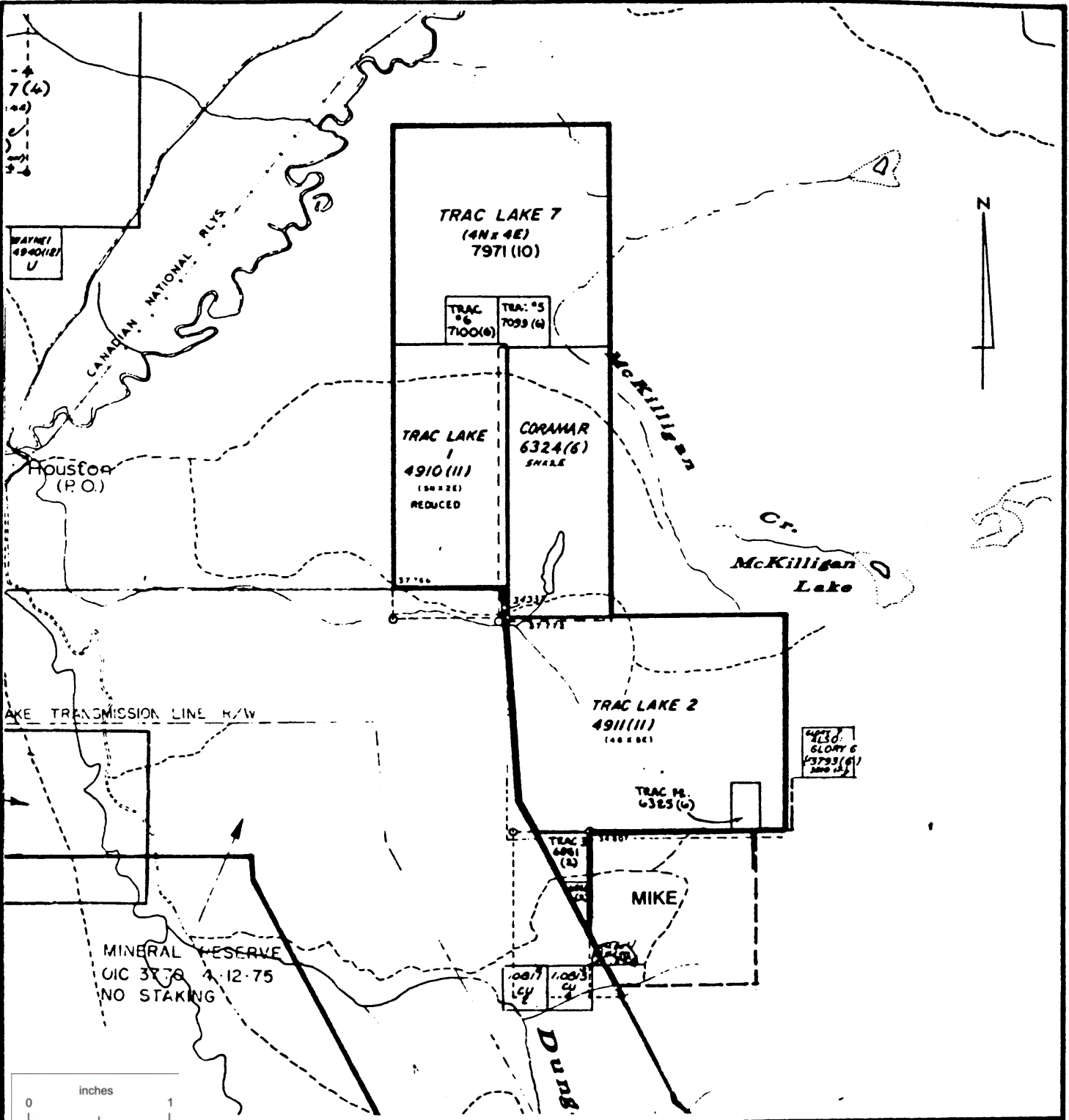
PROPERTY AND OWNERSHIP

Property under the control of Amanda Resources Ltd. totals 60 contiguous claim units (Figure 2). Claim information obtained from the mining recorder's office is summarized in Table 1. All claims are metric claims unless otherwise noted. It is my opinion upon inspection that they have been staked in accordance with the B.C. Mineral Act.

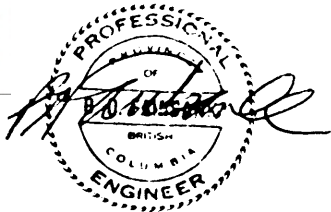
TABLE 1: CLAIM DATA

<u>Claim Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Record Date</u>	<u>Expiry Date</u>	<u>Recorded Owner</u>
Trac Lake 1	4910(11)	10	Nov.17/82	Nov.17/89	F.B.Whiting
Trac Lake 2	4911(11)	20	Nov.17/82	Nov.17/89	F.B.Whiting
Coramar	6324(6)	10	June 28/84	June 28/91	Amanda
Trac Fr.	6325(6)	-	June 28/84	June 28/90	F.B.Whiting
Trac 3	6851(2)	1*	Feb.27/85	Feb.27/91	Amanda
Trac 4	6852(2)	1*	Feb.27/85	Feb.27/91	Amanda
Trac 5	7099(6)	1*	June 20/85	June 20/92	F.B.Whiting
Trac 6	7100(6)	1*	June 20/85	June 20/92	F.B.Whiting
Trac Lake 7	7971(10)	16	Oct. 7/86	Oct. 7/91	Amanda

Amanda = Amanda Resources Ltd.
 * = 2-post claims



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AMANDA RESOURCES LTD.		
TRAC LAKE PROPERTY CLAIM MAP		
NTS 93L/7E		
Project No 111-86	Scale: 0 500 1000m	Date: June 24/87
Dwg No 2	FAIRBANK ENGINEERING LTD.	

The property is bounded on the west by a power-line right of way reserved from staking under the Mineral Act by Order in Council and to the south by the MIKE claim covering the southern half of the Star-Klondike porphyry zone.

Amanda Resources Ltd. has an option to acquire a 100 percent interest in the Coramar, Trac 3 and Trac 4 claims from Orion Resources Ltd. subject to a 15 percent net profit interest and has purchased the remainder of claims owned by Dr. Whiting subject to a 2% net smelter return royalty. The Orion option calls for cash payments totalling \$50,000 by December 1988 and cumulative exploration expenditures of \$250,000 on or before December 31, 1989.

LOCATION, ACCESS AND PHYSIOGRAPHY

The Trac Lake property is 620 km northwest of Vancouver and 5 km east of Houston, B.C. in the Omineca Mining Division (Figures 1 and 2).

Houston is located in the Bulkley River valley on Highway 16 and from there the property is readily accessible by all weather gravel roads. The claims are crisscrossed by logging roads giving excellent access throughout the area. Scheduled daily jet service from Vancouver is available to Smithers, 65 kilometers northwest of Houston.

Skilled labour, heavy equipment, timber, water, power and other infrastructure required for mining operations are locally available. Houston is serviced by the Canadian National Railway with connections to Prince Rupert at the coast or to the Interior and Lower Mainland of B.C.

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The property is on a moderately rolling northwest slope overlooking the Bulkley River valley. Elevations on the claims range from 700m (2300 ft) to 1000m (3500 ft). Bedrock exposure is generally poor. The region is forested with stands of spruce, pine, balsam and poplar some of which are currently being logged. It is generally free of snow from early April through to November. Summers are pleasantly warm, winters are cold with many days below freezing, and precipitation is moderate.

HISTORY

The area outwards from Houston for a radius of 100 km was the focus of an intensive exploration effort in the 1960's and 70's for porphyry copper and molybdenum deposits. Production was achieved from several new mines including Endako (Mo), Granisle (Cu) and Bell Copper (Cu). Other porphyry deposits explored during that era include Huckleberry, Sam Goosly, Big Onion and Morrison Lake among others.

Continued exploration at Sam Goosly 30 km southeast of Trac Lake led to the discovery of a new type of silver-gold antimony and copper mineral deposit. Ore occurs in tabular zones (Southern Tail, Main Zone, Waterline Zone) grossly conformable to a sequence of sediments, pyroclastics, and volcanic flows. Equity Silver Mines Limited, 70% owned by Placer Development Limited, commenced production in 1980 at 5500-6000 tonnes per day. Reserves as of December 31, 1984 are given at 19,282,000 tonnes averaging 107.8 gr/tonne silver, 1.04 gr/tonne gold and 0.37% copper (Canadian Mines Handbook, 1985-86).

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Exploration of the region for precious metal and polymetallic sulphide deposits was renewed in the early 1980's. Prospects with volcanic affinities currently being explored within 30 km of the Trac Lake property are the Topley Richfield (175,000 tonnes; 158.7 gr/tonne Ag, 3.52 gr/tonne Au, 2% Pb-Zn), Grouse Mountain (181,440 tonnes; 0.53% Cu, 4.5% Zn, 20.41 gr/tonne Ag) (BCDMPR), Dome Mountain (265,000 tonnes; 15.68 gr/tonne Au, 60 gr/tonne Ag) (Canadian United Minerals, pers. comm.) and Bob Creek (BCDMPR).

The history of the Trac Lake property parallels that of the district.

Exploration for disseminated copper-molybdenum porphyry-type deposits was carried out in the 1960s and '70s on a Tertiary quartz biotite porphyry plug straddling the south boundary of the property by Normont Copper Limited, Mountain Pass Mines Ltd., Cities Service Minerals Corp. and Canadian Superior Exploration Ltd. That area has been referred to in assessment reports and government publications as the "Star-Klondike", "Hot", "Chief" or "Dungate Creek" showing. Most of the drilling was concentrated inside the porphyry body, where the highest contents of copper and molybdenum occur. Some percussion drilling was done in a circular "halo" defined by a 1967 Induced Polarization survey. Sub-economic grades of copper-molybdenum were found, and small amounts of gold and silver (A.Rs. 909,1157,1181,4954,5759,5935,5882).

Exploration for copper-zinc-lead-silver deposits in altered Jurassic acidic volcanic rocks was carried out in 1968 by Amax Exploration Inc. and in 1972 by Rio Tinto Canadian Exploration Ltd. on a set of showings in the central portion of the Trac Lake property. Those

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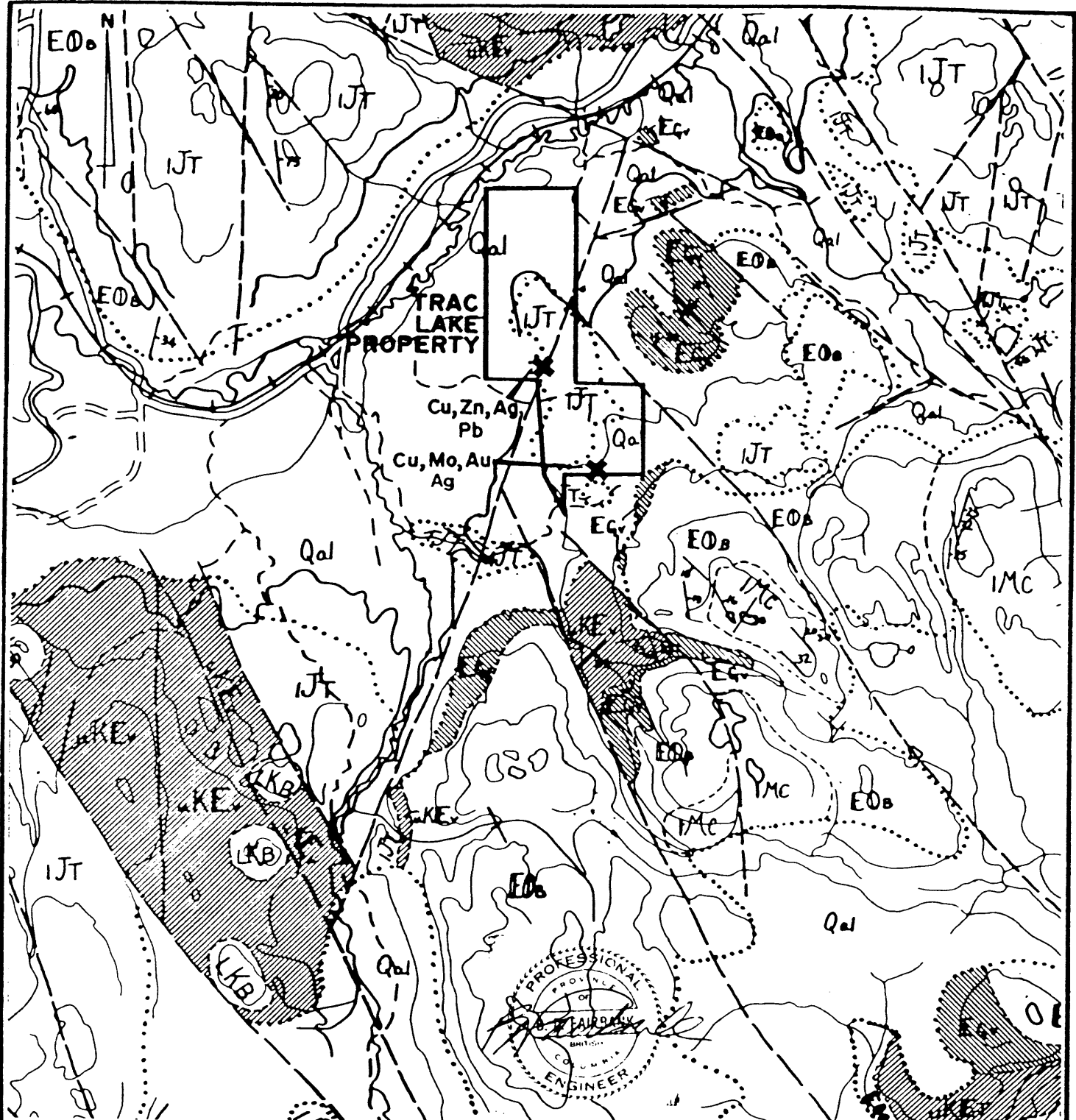
showings have been called the "Deer" or "Lund Option" workings, and consist of one pit 1.5 x 1.5 m by 2 m deep and at least 10 shallow bulldozer cuts distributed over an area approximately 50 m wide and 250 m long from south to north. All these diggings expose low-grade copper mineralization and in two locations galena and sphalerite were seen, accompanied by fluorite. Rio Tinto reported that the copper mineralization had been seen in three separate localities spread over a distance of "2500 feet" (Ass.Rpt. 1608). See also A.R. 3767 and BCMMAR 1972 p.391-3.

Little work was done after 1976 until the potential for sulphide deposits associated with the volcanic lithologies was recognized by Dr. Whiting who staked the Trac Lake #1 and #2 claims in 1982 and subsequently the various other claims forming the property. Orion Resources Ltd. carried out preliminary mapping, prospecting, and sampling and optioned their interest in the Trac 3, Trac 4 and Coramar claims to Amanda Resources Ltd. in 1986. Amanda consolidated the property and carried out mapping, magnetometer and electromagnetic surveys in the fall of 1986.

REGIONAL GEOLOGY AND MINERALIZATION

Detailed regional geology has been compiled by Tipper (1976) in G.S.C. Open File 351. A portion of this map is reproduced in Figure 3.

The geology of the region surrounding the Trac Lake property (Figure 3) is dominated by bedded volcanic rocks. Low hills surrounding Houston including the claim area are underlain primarily by TELKWA FORMATION (IJT) basaltic to rhyolitic breccia, tuff and flows of Jurassic age. On



LEGEND

- | | | |
|--|---|------------------|
| | Qal Alluvium | |
| | IMC CHINA NOSE BRECCIAS | ENDAKO GROUP |
| | EOb BUCK CREEK VOLCANICS | |
| | EGV GOOSLY LAKE VOLCANICS | OOTSA LAKE GROUP |
| | LKEV Undivided acidic volcanic flows, tuffs and breccias, related felsite and porphyry intrusions | |
| | LKET TIPTOPHILL VOLCANICS andesite, dacite | HAZELTON GROUP |
| | IJT TELKWA FORMATION (VOLCANICS) | |
| | T Tertiary Intrusives | |

AMANDA RESOURCES LTD.		
TRAC LAKE PROPERTY REGIONAL GEOLOGY		
Project No 111-86	Scale:	Date: June 24/87
Dwg No 3		FAIRBANK ENGINEERING LTD

the TRAC LAKE property the TELKWA rocks are represented in part by rhyolites, thin bedded tuffs and breccias with subordinate interbedded andesite and in the southwest corner of the property, by massive rhyolite. The TELKWA Formation is part of the Hazelton Group. Southward and eastward, the Telkwa Formation is overlain unconformably by relatively flat-lying Tertiary-age GOOSLY LAKE trachytic flows and sills (EGV), in turn overlain by BUCK CREEK volcanics (EOB) comprised of aphanitic andesite, dacite flows and breccias, minor basalt and sediments.

An undifferentiated acid volcanic sequence of rhyolite and dacite flows, tuffs and breccias (uKEV) underlying the Goosly Lake Volcanics is mapped south of the property. Tipper (1976) has lumped his undifferentiated volcanics (uKEV) and the Goosly Volcanics (EGV) together in the Ootsa Lake Group of Eocene age.

Mineral deposits in this district are abundant and several are of large economic value. They can be grouped into three principal types (there are scattered showings of other diverse types of lesser economic significance, as well as coal and industrial minerals):

Type 1: Copper-molybdenum porphyries.

Examples are: Granisle Mine, Bell Copper Mine, Poplar, Big Onion, Berg, Lennac Lake and many others. Porphyry type occurrences include mineralization associated with the granitic to quartz monzonitic stock just west of the Equity Silver deposit, and the Star-Klondike quartz feldspar porphyry lying immediately south of the TRAC LAKE property.

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In B.C. Ministry of Energy, Mines and Petroleum Resources Bulletin 64 "Porphyry Copper and Molybdenum Deposits - West-Central British Columbia, by N.C. Carter it is reported that around many of the porphyry copper or Cu-Mo deposits, veins with lead, zinc and silver occur. Examples mentioned include Granisle, Newman Peninsula, and the group of molybdenum properties at Alice Arm.

Type 2: Breccia fillings, disseminations, fracture stockworks and veins peripheral to and in places partly within granitic, dioritic, rhyolitic or quartz feldspar porphyry stocks or plugs. Examples are: Equity Silver Mine, Mineral Hill, and the Silver Queen Mine (Nadina).

Type 3: Rhyolite-associated deposits. Two types occur: Stratabound deposits with gold-silver-lead-zinc-copper in varying proportions, formed in the late stages of explosive acidic volcanic activity that typically formed "piles" of interlayered rhyolitic and andesitic tuffs and fine to coarse breccias. Base and precious metals are considered to have been exhaled from volcanic vents in a submarine environment and settled in thinly laminated beds on the sea-floor. Examples are the Topley Richfield property north of Topley, and the Lakeview north of Perow. The New Moon deposit west of Morice Lake is said to be of volcanogenic origin (Exploration in B.C., 1978, p.108).

Veins, lenses, stockworks and sheeted zones in and adjacent to intrusive bodies of rhyolite such as lenses, domes and dykes. Examples are the Cronin Mine NE of Smithers, Dome Mountain, Grouse Mountain (Cassiar Crown), Selco's Buck property on Bob Creek 9 km southwest of the Trac Lake property, Apex and Rio Grande - Rico Aspen.

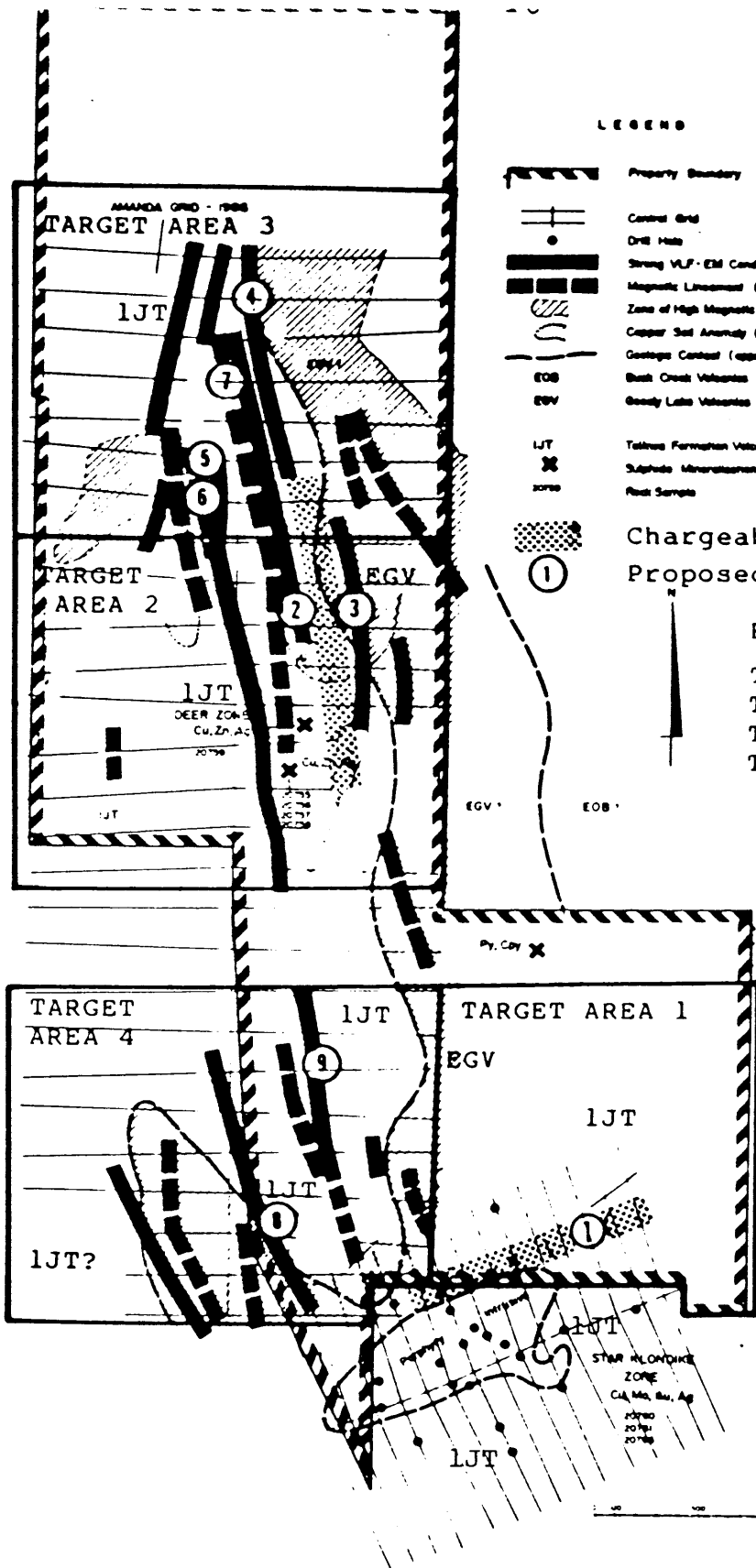
In both the extrusive-explosive acid volcanic environment and the intrusive rhyolite environment there is a close genetic relationship between the extrusion or intrusion of the rhyolites and the processes of metal deposition, both being integral parts of the intrusive or extrusive igneous activity. Where massive rhyolite bodies occur, veins and pods of mixed base and precious metals are apt to occur. Where rhyolitic tuffs and breccias are found, and especially where these breccias are poorly bedded and composed of coarse fragments, strata-bound or bedded volcanogenic deposits may occur.

PROPERTY GEOLOGY (Figure 4)

Knowledge of the bedrock geology is derived from some 50 natural outcrops and one pit and 14 trenches ranging in length from 20 to 270 feet long in the areas east and west of Mud Lake (Target Areas 2 and 3) and by one large outcrop, 7 trenches and numerous drill holes in the southern portion of the property (Target Areas 1 and 4).

Flat-lying Tertiary volcanics east of Mud Lake have a characteristic magnetic pattern which assists in determining the area over which they occur on top of the Jurassic formations.

A belt of rhyolites with minor andesitic interbeds (1JT) trends north-northwest throughout the west-central part of the claim group. It appears to be 400-600 metres wide and has been observed for a total length of 5200 m, being open to the north. At the south end of the belt outcrops are of massive pinkish rhyolite. From just southwest of Mud Lake and as far north as outcrops have been found, the rhyolites are thinly-bedded and contain beds of fine angular breccia composed of several rock types. These are evidence of explosive volcanic activity.



AMANDA RESOURCES LTD. TRAC LAKE PROPERTY COMPILATION MAP	Project No. III / 86	Scale: as shown	Date: June 24/87
	Dwg No. 4	FAIRBANK ENGINEERING LTD.	

Towards the far north end of the exposed rhyolite belt the breccias are much coarser and less bedded. The breccias are composed of angular fragments up to several inches across, some of which are rimmed with quartz. Such features, and the lack of bedding suggest that these rocks are on the edge of a volcanic "pile" and that an explosive center or vent existed close by.

West of the rhyolite belt is a wide area devoid of outcrops; it is presumed that the TELKWA FORMATION underlies that area, since there is a wide zone of this formation seen south of the property in the canyon of Dungate Creek extending west to a point 2 km west of the western boundary of the claims.

East of the exposed rhyolite belt, on the east side of Mud Lake, an area 500 - 600 metres wide and at least 3 km long, overlapping the eastern boundary of the property, is underlain by porphyritic, reddish andesite flows which are tentatively assigned to the Eocene GOOSLY VOLCANICS, (EGV), the uppermost member of the OOTSA LAKE GROUP. These rocks are shown by mapping carried out by Orion Resources Ltd. to have a sub-horizontal attitude and appear to form a thin cap-rock lying unconformably on top of the older Jurassic beds. It is not known what compositions the underlying Jurassic beds have. The Eocene andesites have a distinctive magnetic signature marked by abrupt strong variations in their magnetic susceptibility which permits reasonable mapping of the areas in which they occur.

On the TRAC LAKE #2 M.C., pyritized andesite with chalcopyrite was found in one trench in the central-northern part of that claim and TELKWA FORMATION andesites and felsic tuffs were found in drill holes and trenches adjoining the Star-Klondike porphyry plug.

Straddling the southern boundary of the Trac Lake property is a quartz biotite feldspar porphyry plug of Tertiary age. The porphyry and adjacent andesites and sediments of the Telkwa Formation are mineralized with disseminated and veinlet pyrite, chalcopyrite, molybdenite and small amounts of galena and sphalerite. Cu-Mo grades are sub-economic, being in the range of 0.1 - 0.2% Cu for most drillhole assays, with generally less than 0.02% Mo. Church (1972) reports small amounts of gold (trace to 0.02 oz Au/ton) and silver (0.2 to 0.4 oz Ag/ton).

More details of the bedrock geology and of the observed mineralization are given in the following discussions of the four Target Areas which have been defined, and whose locations are shown on Figure 4.

PROPERTY MINERALIZATION

The two favorable geological environments within the Trac Lake property are:

- the off-shoot in the I.P. chargeability anomaly adjacent to the porphyry plug, in the southeast sector of the property;
- the extrusive and possibly intrusive rhyolite settings in the western sector of the property.

In each environment, evidence as to the existence of mineralization of copper, lead, zinc with minor gold and silver is given by direct and indirect data.

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The direct evidence consists of:

- visible copper-lead-zinc-silver mineralization exposed in the trenches and the pit in the "Deer" zone; associated with strong K-feldspar alteration, pyrite, quartz veining, calcite veining and shearing;
- an angular float boulder beside one of the coarse breccias at the north end of the mapped area with 5-10 percent magnetic pyrrhotite and 1% chalcopyrite; (Salazar, 1986);
- heavily iron-stained coarse rhyolite breccias in Target Area 3, one with strongly anomalous arsenic;
- three trenches in the north central sector of the TRAC LAKE #2 M.C. with small amounts of chalcopyrite, pyrite and pyrrhotite in grey andesite with magnetic and IP coincidence;
- visible chalcopyrite-molybdenite-pyrite mineralization in 3 trenches and drill cores in and beside the south-end porphyry plug, accompanied by subordinate galena, sphalerite, bornite, low gold values, and typical porphyry style alteration (phyllic, argillic);
- anomalous arsenic content in rock samples reported by Church (1985).

The indirect evidence consists of:

- IP chargeability "highs" (in Target Areas 1 and 2; P.F.E. or millisecond readings) and around the three trenches with copper mineralization in the north central part of the TRAC LAKE #2 M.C.;
- linear trends of high magnetic susceptibility in the west-central sector (Target Areas 2, 3 and 4) which may be caused by magnetic pyrrhotites accompanied by base metals;

. . . .

- numerous E.M. conductors, with lengths of 200 to 1850 metres, generally coincident or closely associated with the magnetic linears, which may represent sulphide layers within the rhyolitic sequence;

- an area with anomalous amounts of copper in the soil, coincident with an E.M. conductor, a chargeability high and a magnetic linear.

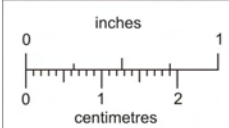
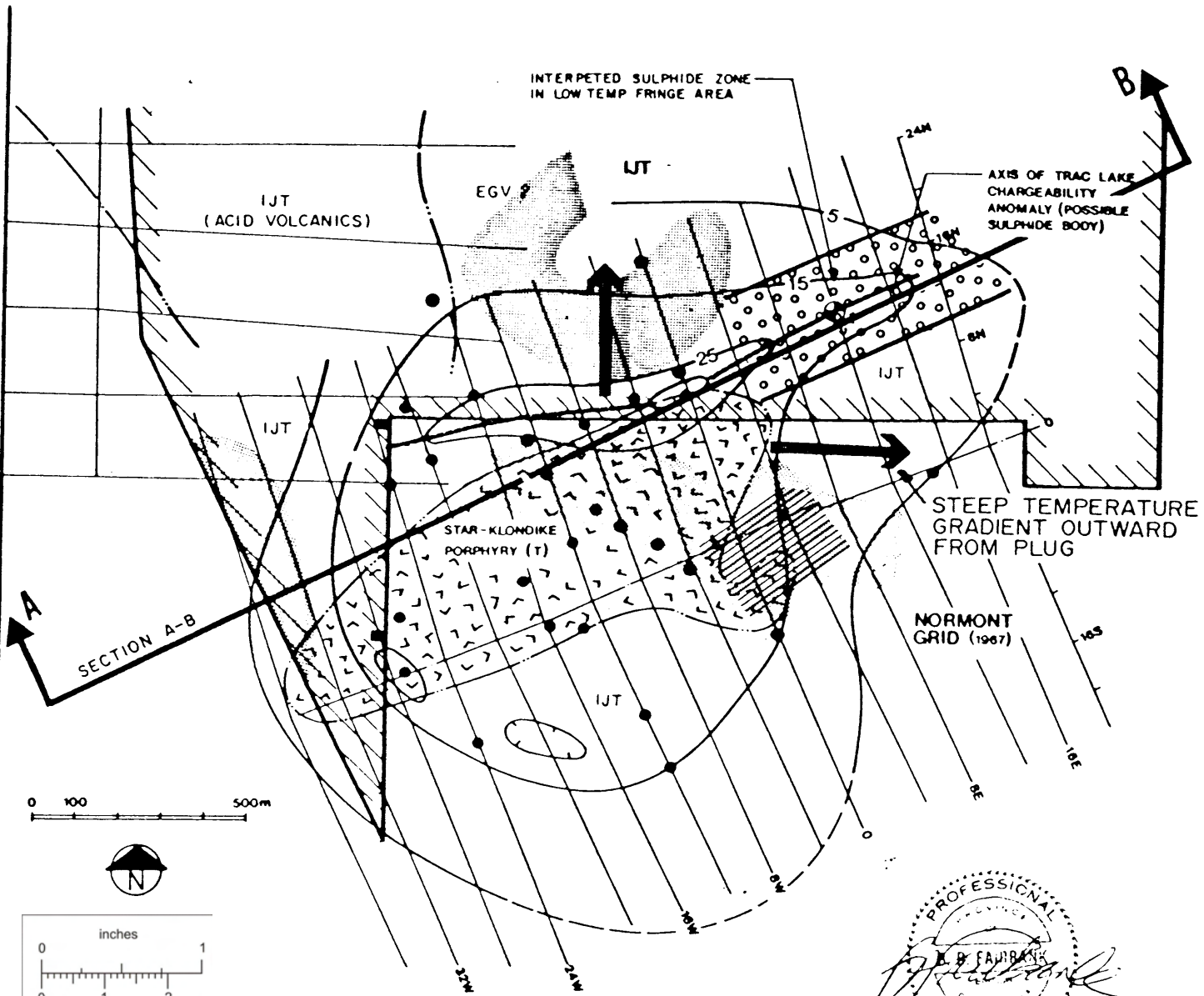
Based upon the foregoing the Trac Lake property is considered to have excellent exploration potential for Type 2 and Type 3 mineral deposits as defined in an earlier section of this report. The Type 2 potential is for a breccia filling, a vein stockwork or a disseminated deposit just peripheral to the porphyry plug, under the chargeability high there. The Type 3 potential is for stratabound deposits (associated with extrusive-explosive rhyolitic rocks) and possibly hydrothermal deposits in and around intrusive rhyolites.

Detailed descriptions follow for each of four identified Target Areas and for nine recommended Drilling Sites within them. Target Area 1 is given first priority for drilling, followed by decreasing priorities for Areas 2, 3 and 4.

Target Area 1 - STAR KLONDIKE CHARGEABILITY ANOMALY

Target Area 1 (Figure 5) is situated in the southeast sector of the Trac Lake property, on the Trac Lake #2 and Trac Fraction, Trac #3 and Trac #4 M.Cs.

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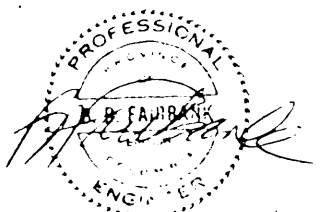


LEGEND

- INTERPRETED SULPHIDE BODY
IP CHARGEABILITY (PFE)
dipole length = 400ft;n=2
- CHARGEABILITY ANOMALY AXIS
- RESISTIVITY GREATER THAN
150 ohm.ft.
- PROPOSED DRILL HOLE
- EXISTING DRILL HOLE
- PROPERTY BOUNDARY and
LEGAL CORNER POST

GEOLOGY

- Area of intense
silicification
- Geologic contact
(approx)
- T** Star Klondike Porphyry
- IJT** Telkwa Volcanics
- EGV** Goosly Lake Volcanics



AMANDA RESOURCES LTD

TARGET AREA 1

STAR KLONDIKE CHARGEABILITY ANOMALY

Scale As shown Date June 24/87

FAIRBANK
ENGINEERING LTD

Proj no 111-86 Dwg no 5

(modified after A.R. 1157)

A Tertiary quartz-biotite-feldspar porphyry plug intrudes mixed volcanics and sediments of Jurassic age. Within the porphyry plug, copper-molybdenum mineralization with small amounts of lead, zinc, gold and silver occur in several trenches and many drillholes. Copper grades inside the plug range from 0.01 to 0.5% (Church, 1972) and assayed sections of the drill core are within the range of 0.1 - 0.2% copper. Molybdenum content ranges from 0.001 to 0.015% in assayed sections reported in Assessment Reports. Church gives the precious metal contents of bulk samples provided by Normont Copper as Tr. to 0.02 ounces gold and 0.2 - 0.4 ounces silver per ton. Samples of core collected by the writer (see Table 2) confirmed the presence of small amounts of gold and silver in acidic phases of the porphyry and in late-stage stockwork veinlets. Most of the body of the intrusive plug lies just south of the southern boundary of the Trac Lake property; portions of it extend into the Trac Lake property along the south boundary of the Trac Lake #2 M.C. and into Trac #3 and #4 M.Cs.

A 1967 Induced Polarization survey done for Normont Copper found a generally circular anomaly centered over the Star-Klondike plug and, around most of the periphery of the plug, fading out abruptly a short distance away from the contacts of the plug. Past drilling was aimed at testing inside the plug for copper-molybdenum porphyry-type mineralization, and found widespread low-grade copper/moly in the porphyry body. Some later percussion holes were drilled on the north and south sides of the porphyry; these were assayed only for copper and molybdenum, giving values in the range of 0.01 - 0.13% Cu and 0.001 - 0.014% Mo, neither gold nor silver being assayed, nor lead or zinc.

. . .

As a consequence of the discovery in the late 1960s of the Equity Silver deposit 30 km to the southeast, where the orebody was found adjacent to a similarly-mineralized quartz monzonite plug of Tertiary age, the un-drilled extension of the Percent Frequency Effect readings that trends northeast into the bordering Jurassic volcanics and sediments is considered an attractive exploration target. Such P.F.E. measurements indicate the presence of sulphide mineralization as the mixture of sulphides with rock minerals creates a "chargeable" mass. Drilling of the P.F.E. anomaly along strike west of the target area (Figure 5) indicated an increase in silica and veining intensity relative to other holes in the porphyry body.

In mining districts around the world there is commonly a metal zonation around mineralized intrusive bodies (eg. Bingham Canyon, Utah; Central City District, New Mexico). Porphyry copper is found inside and close around the intrusive. In the intruded rocks some distance away, copper content decreases and zinc increases. In peripheral zones still farther out from the central intrusion, silver-bearing galena may locally predominate. Mercury may be found out beyond the Pb-Ag zone.

The foregoing considerations lead to the conclusion that there is a reasonable possibility that the "chargeable" mass indicated by the northeast extension of the high P.F.E. measurements could consist of a mixture of sulphides of similar character but formed under quite different temperature and pressure conditions from those found inside the plug and in the high-temperature belt immediately surrounding it. The target zone could contain higher contents of lead, zinc, gold and/or silver than are seen inside the porphyry. A comparison can be made with the Equity Silver and Silver Queen deposits in this district.

While there is no intention of comparing the TRAC LAKE property directly with Equity Silver or Silver Queen (Nadina) there are points of similarity with both. Summary descriptions:

TRAC LAKE I.P. ANOMALY: Situated 250-500m E.N.E. from a Tertiary quartz monzonite plug that contains pyrite, chalcopyrite, molybdenite, magnetite, sericite and secondary biotite alteration with traces of gold and silver and galena and sphalerite. Related to Buck Creek caldera: on rim. Rock samples show anomalous arsenic (Church and this report). Evidence of E.N.E.-striking quartz veins on south side of I.P. anomaly. Intruded rocks are Jurassic Telkwa Formation volcanics and sediments (andesitic agglomerates, tuffs, siltstone). Fluorite seen on property away from plug. No antimony analyses.

EQUITY SILVER DEPOSIT: Situated 500-800m E.N.E. from a Tertiary quartz monzonite porphyry plug that contains pyrite, chalcopyrite and molybdenite. Orebody contains pyrrhotite, tetrahedrite, chalcopyrite, etc. with silver and minor gold, lead and zinc. Related to Buck Creek caldera: interpreted by Church (1985) as a "resurgent centre" p. 175-187. Anomalous arsenic and antimony. Intruded rocks are Cretaceous volcanics and sediments (dust tuff, shales and sandstones, siltstones, pebble conglomerate etc.). Weak fluorine anomaly reported surrounding the orebody.

SILVER QUEEN (NADINA MINE): Orebodies are veins 4-15 feet wide cutting Hazelton Group tuff breccias and Eocene microdiorite and quartz porphyry. Interpreted by Church (1985) to lie on rim of Buck Creek caldera.

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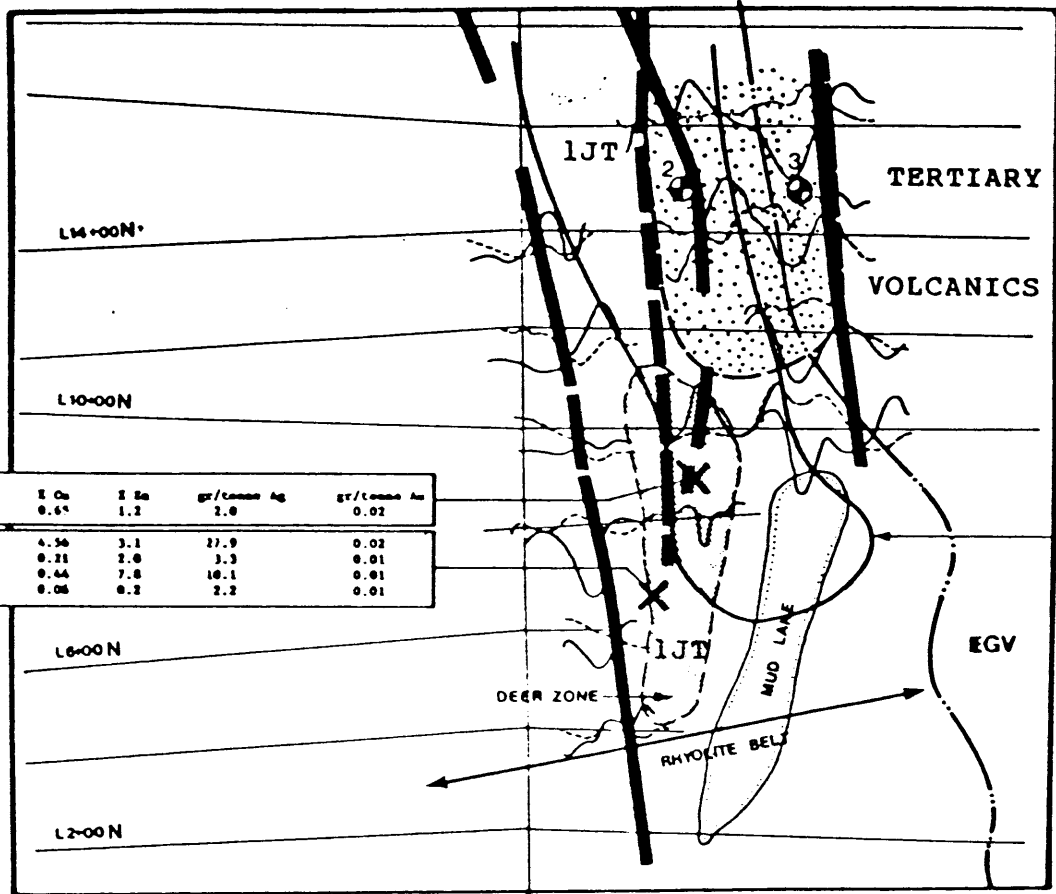
moderately-higher resistivity appears on the north side of the chargeability high and may be a parallel zone of silicification. Those zones are not considered as drilling targets (refer to Figures 6 and 6a).

Drill Site #1 (Figure 5) has been selected at 12E-14N on the old Normont I.P. grid, which is at 15+00S - 17+50E on Amanda Resources' new grid. One hole at least 150 metres long should be drilled with an allowance for deepening the hole and drilling a second hole to the northeast. Figure 6a illustrates the drilling target in a peripheral position outside the high temperature aureole around the porphyry plug on Section A-B from Figure 5.

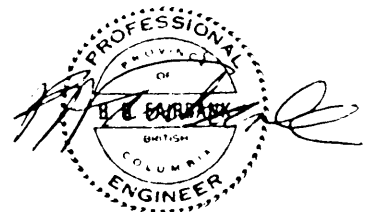
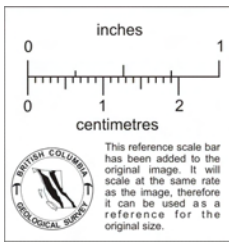
Target Area 2 - DEER ZONE EXTENSION

Target Area 2, shown in Figure 7, lies in the west-central sector of the TRAC LAKE property. Outcrops occur mainly on low ridges and hilltops west and northwest of Mud Lake. Shallow trenches provide additional information on the bedrock geology along the trend of the old "Deer" showing, and there are a few small natural outcrops east of Mud Lake. In part, the geology is interpreted from the magnetic response observed over outcrop areas and extrapolated to surrounding overburden-covered areas.

Acidic volcanics, mainly rhyolitic tuffs and breccias, with some thin interbeds of andesite, occur in a belt 400-600 metres wide that extends north and south all the way through this Target Area and Target Area 3 to the north and Target Area 4 to the south. The whole belt has a length of 5200 metres and is open to the north in



	I Cu	I Zn	gr/tonne Ag	gr/tonne Au
20759	0.64	1.2	2.0	0.02
20755	4.56	3.1	27.9	0.02
20756	0.21	2.0	3.3	0.01
20257	0.44	7.8	10.1	0.01
20758	0.08	0.2	2.2	0.01



LEGEND

- IP CHARGEABILITY (PFE) ZONE (A.R. 3767)
- EM CONDUCTOR (Rockel, 1986)
- MAGNETIC ANOMALY (Salazar, 1986)
- COPPER SOIL ANOMALY (20-120ppm Cu, A.R. 1608)
- "DEER" ZONE MINERALIZATION/ ALTERATION
- PROPOSED DRILL HOLE

GEOLOGY

- Geologic contact (approx)
- IJT Acid Volcanics: Telkwa Fm.
- EGV Tertiary Volcanics

AMANDA RESOURCES LTD	
TARGET AREA 2	
DEER ZONE EXTENSION	
COMPILATION	
Scale As shown	Date June 24/87
FAIRBANK ENGINEERING LTD	Proj no 111-86
	Draw no 7

un-mapped terrain. According to Tipper's compilation these rocks are part of the Jurassic Telkwa Formation which is a unit in the Hazelton Group. They are the host rocks for the "Deer" showings west of Mud Lake and for Induced Polarization, magnetic and electromagnetic anomalies.

West of the acidic rocks is an area with little or no outcrop, believed to be underlain by Telkwa andesites. East of Mud Lake, reddish andesites have a sub-horizontal attitude and are interpreted to be a thin capping of Tertiary Goosly Volcanics lying unconformably on underlying Jurassic rocks. These reddish andesites are interpreted from their magnetic signature to overlie an area some 800 m wide and extending north-northwest for a length of 3000 metres along the east boundary of the Coramar claim.

Mineralization in this area is that of the "Deer" showing. In A.R. 1608 Rio Tinto reported that the mineralization had been seen in three localities spread over a length of 2500 feet in rhyolites and andesites that have been intensely altered to massive pink K-feldspar. The workings consist of one pit in bedrock, 1.5 x 1.5 m by 2 m deep, plus at least 10 shallow bulldozer trenches. Pyrite, chalcopyrite, sphalerite and galena (+ silver) mineralization in fractures, gouge zones and small veinlets occurs in siliceous, ankeritic felsite. Fluorite occurs in association with metallic mineralization. Black copper oxide (tenorite, chalcocite?) is common indicating possible zones of copper enrichment at depth.

A sample of a narrow shear in the pit assayed 4.56% Cu, 3.1 & Zn, 27.9 grams Ag/tonne and 0.02 grams Au/tonne. A second sample with late stage vuggy quartz contained 0.44% Cu, 7.8% Zn, 10.1 grams Ag/tonne and 0.01 grams Au/tonne. A bulldozer trench 50 m northwest of the pit

exposes black rhyolite breccia with about 5% pyrite, a grab sample of which assayed 0.06% Cu, 0.2% Zn, 2.2 grams Ag/tonne and 0.01 grams Au/tonne. (Samples taken by B. Fairbank, Table 2, Figure 7a).

The "Deer" zone demonstrates the existence of polymetallic mineralization within the acidic belt. By itself, the "Deer" is uneconomic, but sulphides and precious metals in the rhyolite system are corroborating evidence that Induced Polarization, VLF-EM and magnetic anomalies may be caused by sulphides rather than by dykes or rock contacts.

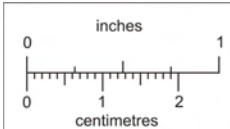
Drill Site #2 is located on a high priority conductor that has a total length of 1500 metres. It is closely parallel to a persistent linear magnetic high and is coincident with both the copper soil anomaly (Figure 7b) and an I.P. chargeability high (Figure 7c) that extends south for 700 metres and north for an unknown distance as the site is at the northern limit of the I.P. survey. The site is on strike to the north from the known mineralization of the "Deer" zone. There are no outcrops nearby.

The coincidence of the several types of anomalies within the favourable belt of brecciated rhyolites, at a location north along strike from the visible polymetallic mineralization of the "Deer" zone, make this a high-priority drilling target. The proposed drill site is at 15+00N, 3+50E and the hole should be at least 100 m long. A second hole (Drill Site 3) is recommended to test a parallel EM conductor, also within the copper soil anomaly, 300 metres to the east.

. . .

TABLE 2: ASSAY RESULTS (Samples taken by B. Fairbank)

<u>Location</u>	<u>Cu</u> <u>%</u>	<u>Zn</u> <u>%</u>	<u>Ag</u> <u>gr/tonne</u>	<u>oz/ton</u>	<u>Au</u> <u>gr/tonne</u>	<u>oz/ton</u>	<u>Type/</u> <u>Description</u>
<u>Deer Prospect</u>							
20755	4.56	3.1	27.9	0.81	0.02	0.001	py, cpy, black oxide (gouge)
20756	0.21	2.0	3.3	0.10	0.01	0.001	pinkish felsite, altered brecciated, cu stain black oxide (grab)
20757	0.44	7.8	10.1	0.29	0.01	0.001	vuggy, quartz-rich felsite, black oxide (grab)
20758	0.06	0.2	2.2	0.06	0.01	0.001	5% diss py, wk SiO ₂ , bx; green volcanic (grab)
20759	0.64	1.2	2.0	0.06	0.02	0.001	black oxide, azurite, ankerite within altered andesite
<u>Star Klondike</u>							
20760	0.19		2.7	0.08	0.05	0.001	biotite-feldspar porphyry with diss. py, (core)
20761	0.07		2.1	0.06	0.21	0.006	late quartz vein and bx with open spaces (composite of 4 core samples)
20766	0.12		2.2	0.06	0.36	0.011	quartz feldspar porphyry with diss py, cpy (core)



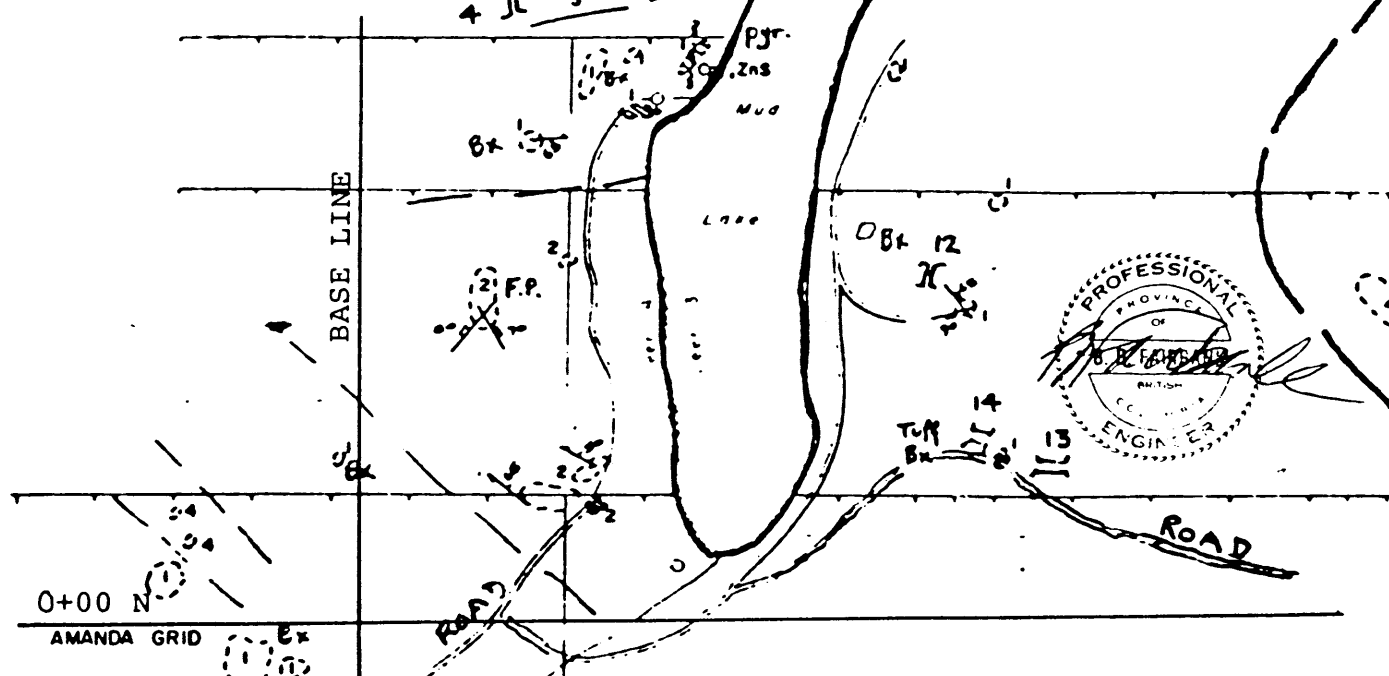
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JURASSIC VOLCS.

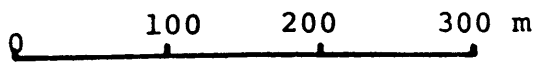
TERTIARY VOLCS

10+00 N
AMANDA GRID

	% Cu	(% Zn	Ag g/t	Au g/t
20759	0.65	1.2	2.0	0.02
20755	4.56	3.1	27.9	0.02
20756	0.21	2.0	3.3	0.01
20757	0.44	7.8	10.1	0.01
20758	0.06	0.2	2.2	0.01



- Fairbank Sample Location
- Bx Breccia
- cpy, pyr Chalcopyrite, pyrite
- == Bulldozer Trench
- F.P. Feldspar Porphyry

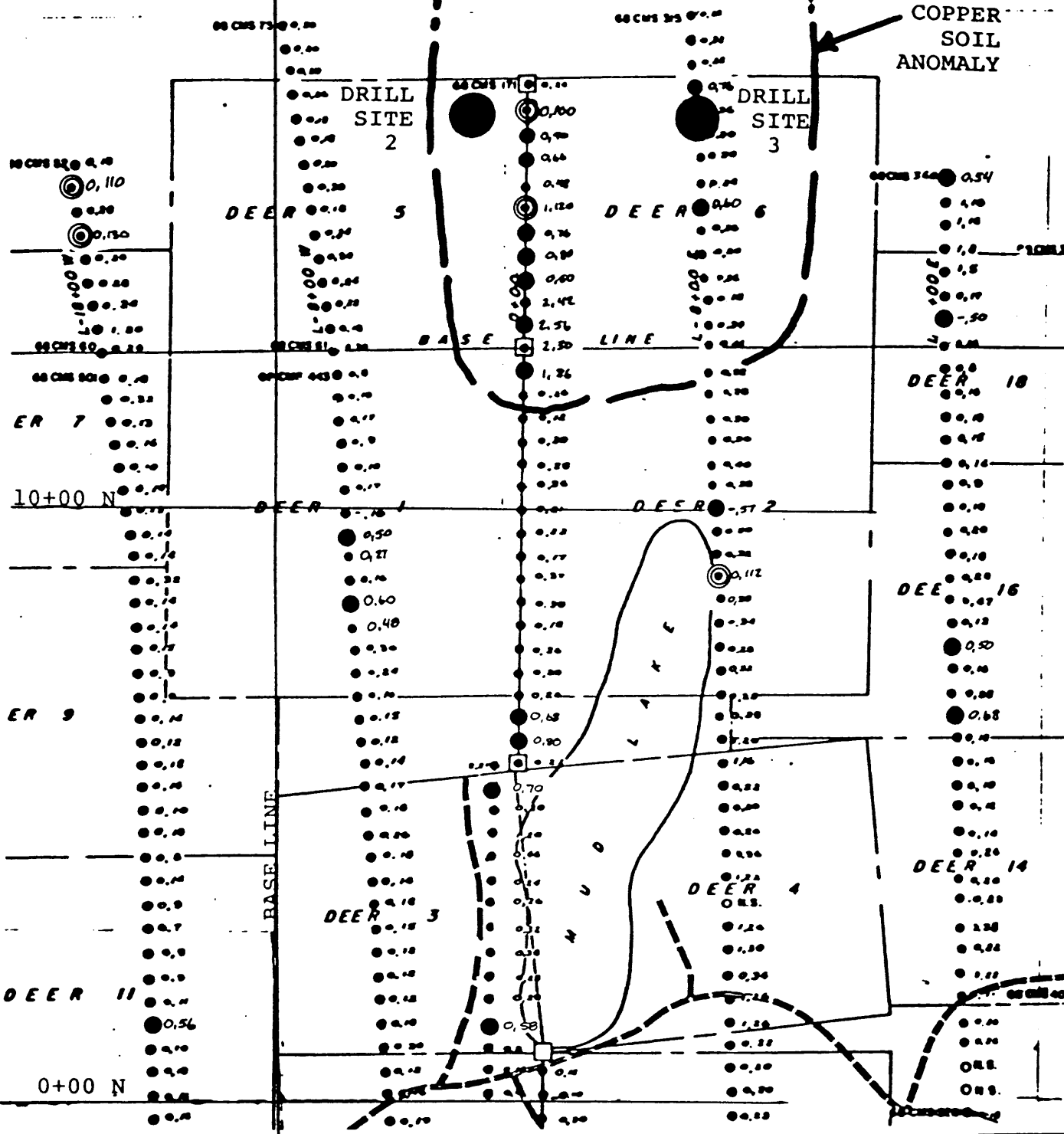


Sources: A.R. 1608, 3767.

AMANDA RESOURCES LTD.	
Target Area 2	
GEOLOGICAL COMPILATION	
Scale: AS SHOWN	Date: Aug. 9, 1987
FAIRBANK ENGINEERING LTD	Proj. No. 7 a

16+00 N

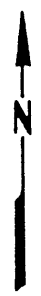
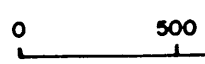
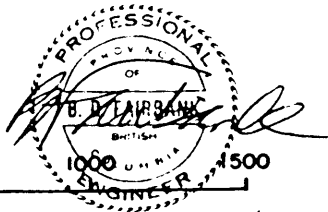
COPPER SOIL ANOMALY



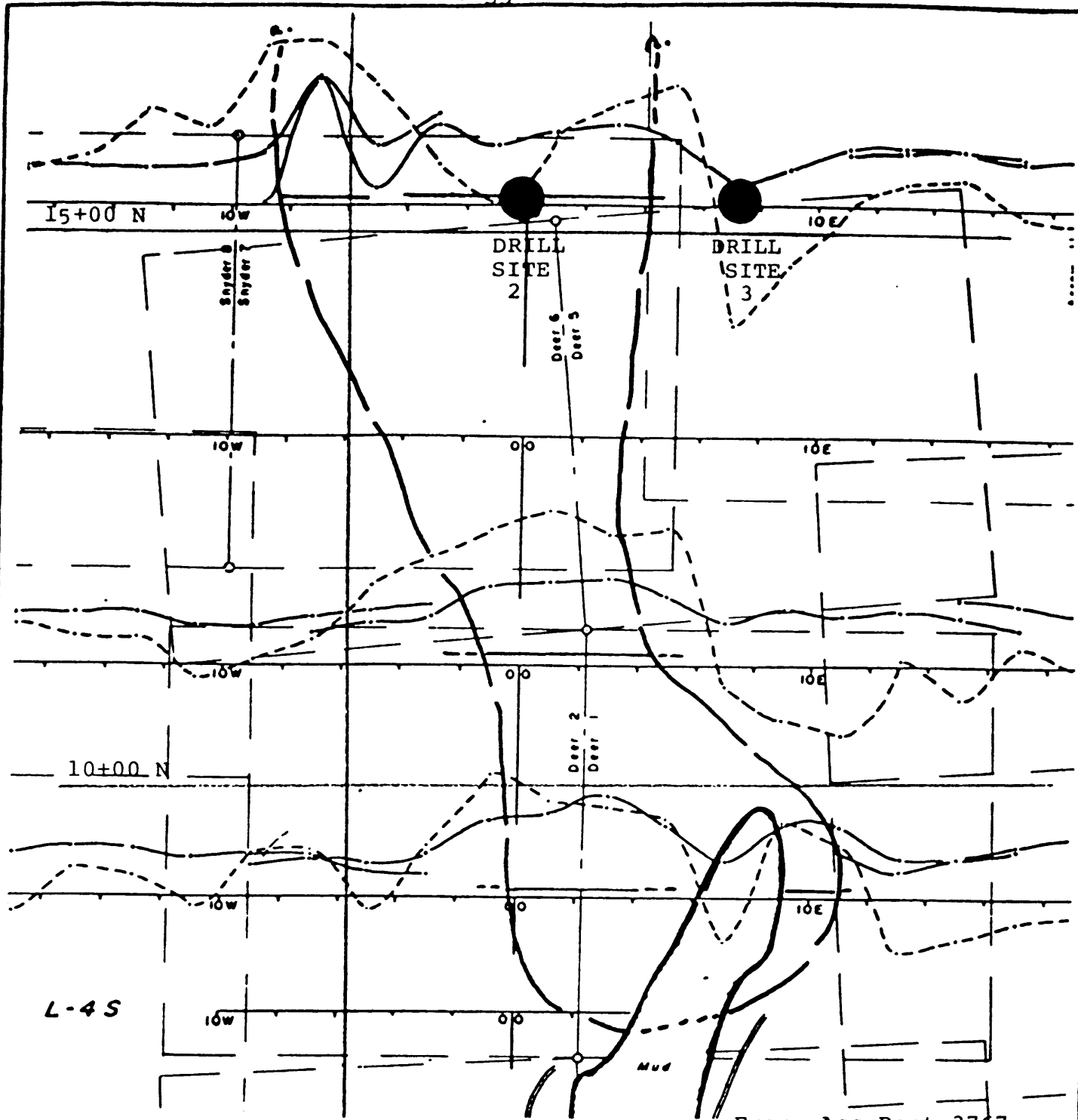
- 0-49 ppm Cu.
- 50-99 ppm Cu.
- ◎ > 100 ppm Cu.

Sample order: ppm Mo, ppm Cu.

Adapted from: A.R. 1608



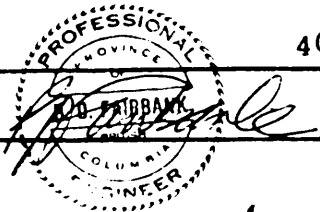
AMANDA RESOURCES LTD.					
SOIL SAMPLING TARGET AREA 2					
Scale: AS SHOWN	Date: Aug. 9, 1987				
FAIRBANK ENGINEERING LTD	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Proj. No.</td> <td style="width: 50%;">Dwg. No.</td> </tr> <tr> <td></td> <td style="text-align: center;">7b</td> </tr> </table>	Proj. No.	Dwg. No.		7b
Proj. No.	Dwg. No.				
	7b				



From: Ass.Rept.3767

- · — Chargeability (m-s)
- - - - Resistivity (ohm-metres)
- - - - Anomalous Zone

0 400 m



AMANDA RESOURCES LTD.	
TARGET AREA 2	
INDUCED POLARIZATION	
Scale: AS SHOWN	Date: Aug. 9, 1987
FAIRBANK ENGINEERING LTD	Proj. No. 7 c

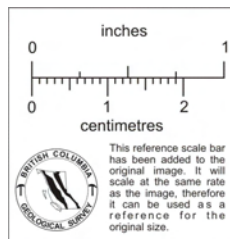
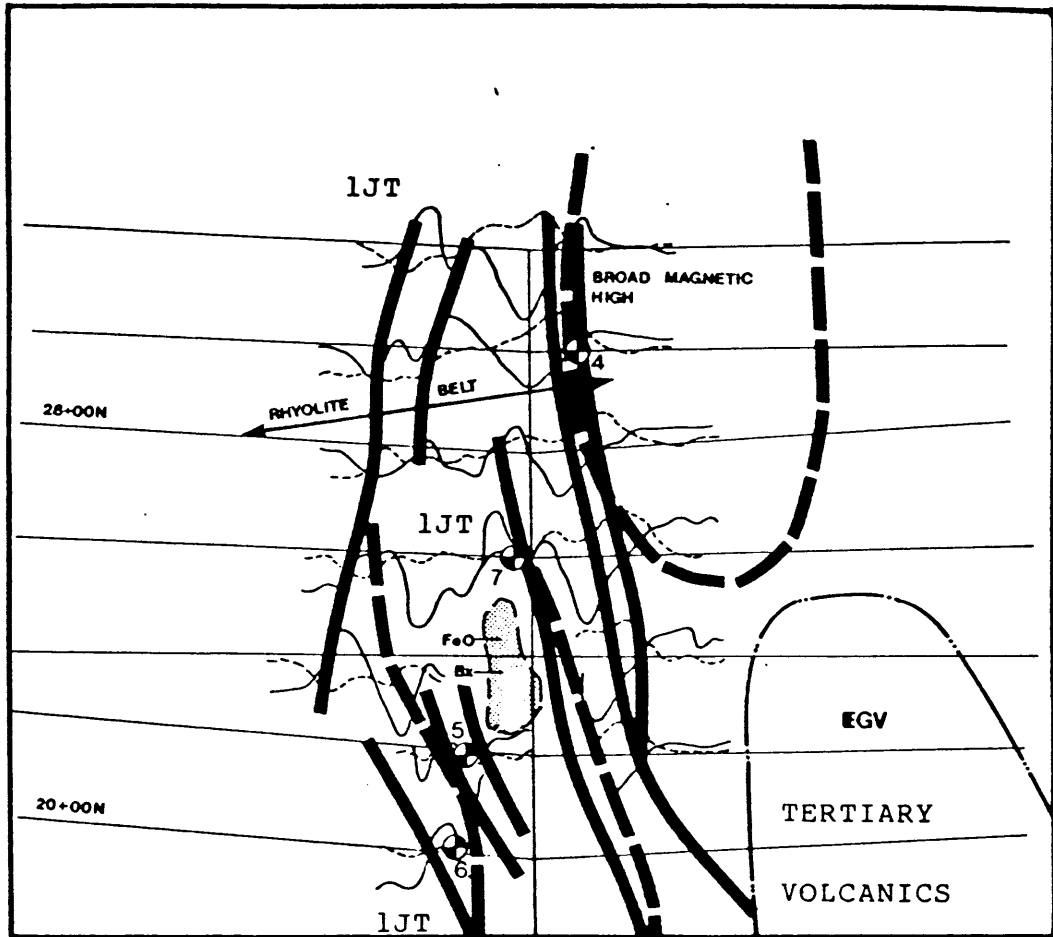
Target Area 3 - NORTH RHYOLITE ZONE

This Area (Figure 8) lies at the far north end of the rhyolite belt as presently known; no bedrock outcrops are present to the north for a considerable distance. Rhyolite breccias exposed in the Target Area 3 are coarse and have only indistinct bedding. Rock fragments of several types, in pieces up to 8 - 10 cm across, occur, in places cemented by quartz. These features suggest the presence of an explosive extrusive center or vent, a geological environment in which stratabound sulphide layers may occur.

Evidence of mineralization consists of strong iron-staining of breccia outcrops, indicating to the former presence of iron sulphides; a 20 kilogram angular float sample that contained 5-10% magnetic pyrrhotite with minor chalcopyrite (Salazar, 1986); and anomalous arsenic in one outcrop sample of "fragmental rhyolite" (116 ppm As against a background of 4 to 6 ppm) (Salazar, 1986).

The area of interest is 1600 metres north along strike from the "Deer" showings and in the same rock types (Figure 8a).

Drill Site #4 lies on a strong VLF-EM conductor (Figure 8b). According to Rockel (1986): "Conductor system "A" shows the highest conductance and in many cases exhibits a strong response amplitude. The system appears to be cut by an interpreted fault zone near line 2400N. At this point the conductor seems to change from a double zone to a single conductor. North of 2400N the east arm of "A" shows the higher conductance similar to the south portion of "A"". Due to its strong conductance conductor system "A" is considered by Rockel (personal



LEGEND

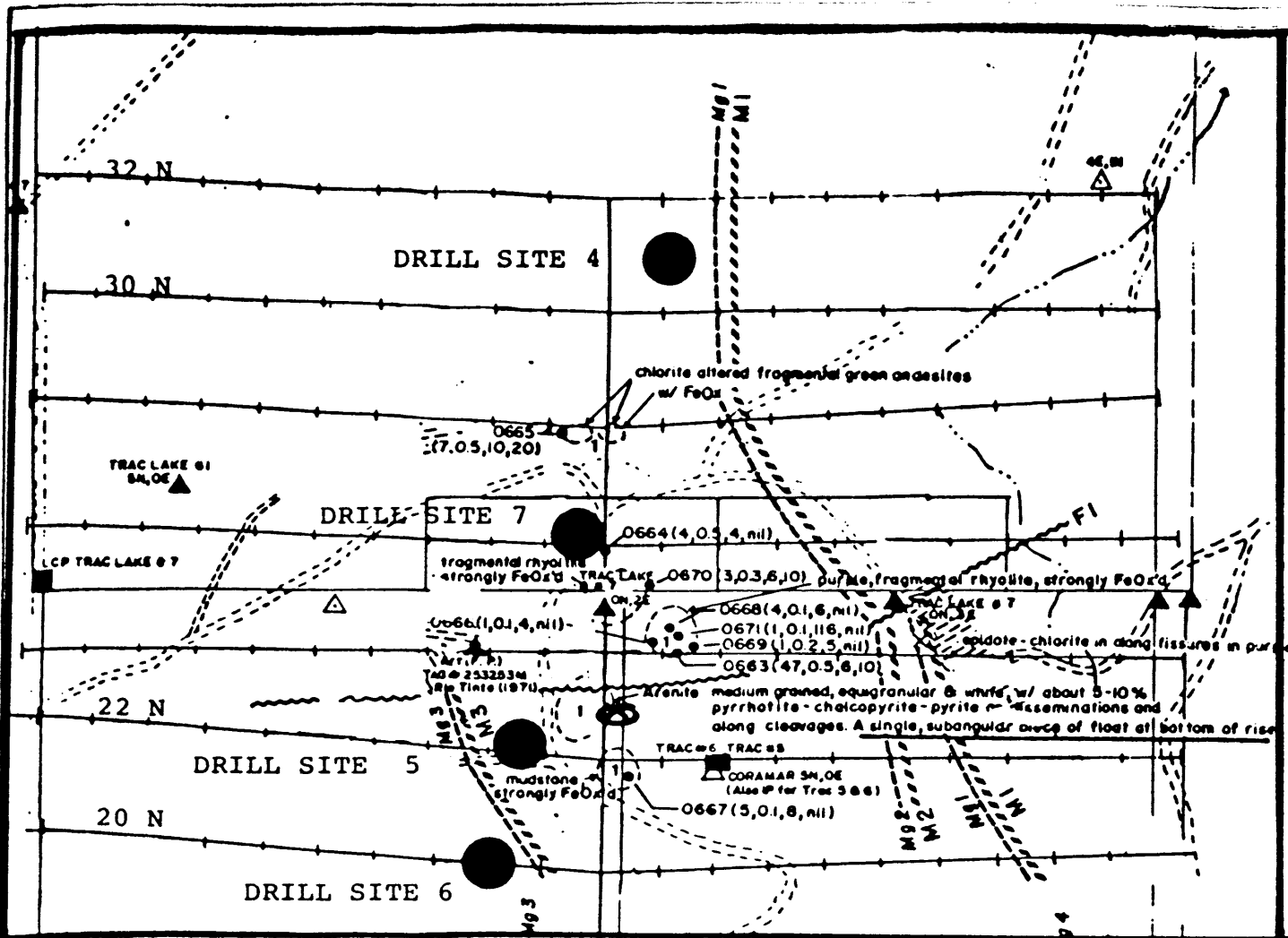
- 1cm = 20% EM CONDUCTOR
- MAGNETIC ANOMALY
- BROAD MAGNETIC HIGH
- Bx RHYOLITE BRECCIA
- PROPOSED DRILL HOLE

GEOLOGY

- Geologic contact (approx)
- EGV Tertiary Volcanics
- IJT Acid Volcanics: Telkwa Fm.

(after Rockel 1986; Salazar 1986)

AMANDA RESOURCES LTD			
TARGET AREA 3			
NORTH RHYOLITE ZONE COMPILATION			
Scale	As shown	Date	June 24/87
FAIRBANK ENGINEERING LTD		Proj no 111-86	Dwg no 8



INTERPRETEX RESOURCES LTD. - 1986 DATA

- MI MAGNETIC LINEAMENT
- ~~~~~FI FAULT DEFINED BY VLF-EM AND MAGNETIC SURVEYS

G. SALAZAR S. & ASSOC. LTD. - 1986 DATA

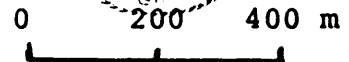
- MgI MAGNETIC LINEAMENT
-FgI FAULT DEFINED BY MAGNETIC SURVEY

● 0669 (8 , 0.5 , 6 , nil)

SAMPLE SITE NO.	Cu (ppm)	Ag (ppm)	As (ppm)	Au (ppb)
0669	8	0.5	6	nil

- OUTCROP WITH KEYED IN DESCRIPTIONS
- SMALL OUTCROP OR SUB-OUTCROP
- ACID FLOW BRECCIA, AGGLOMERATE, MUDSTONE COLOURED
- PORPHYRITIC ANDESITE

Geology by Salazar (1986)



A M A N D A RESOURCES LTD.

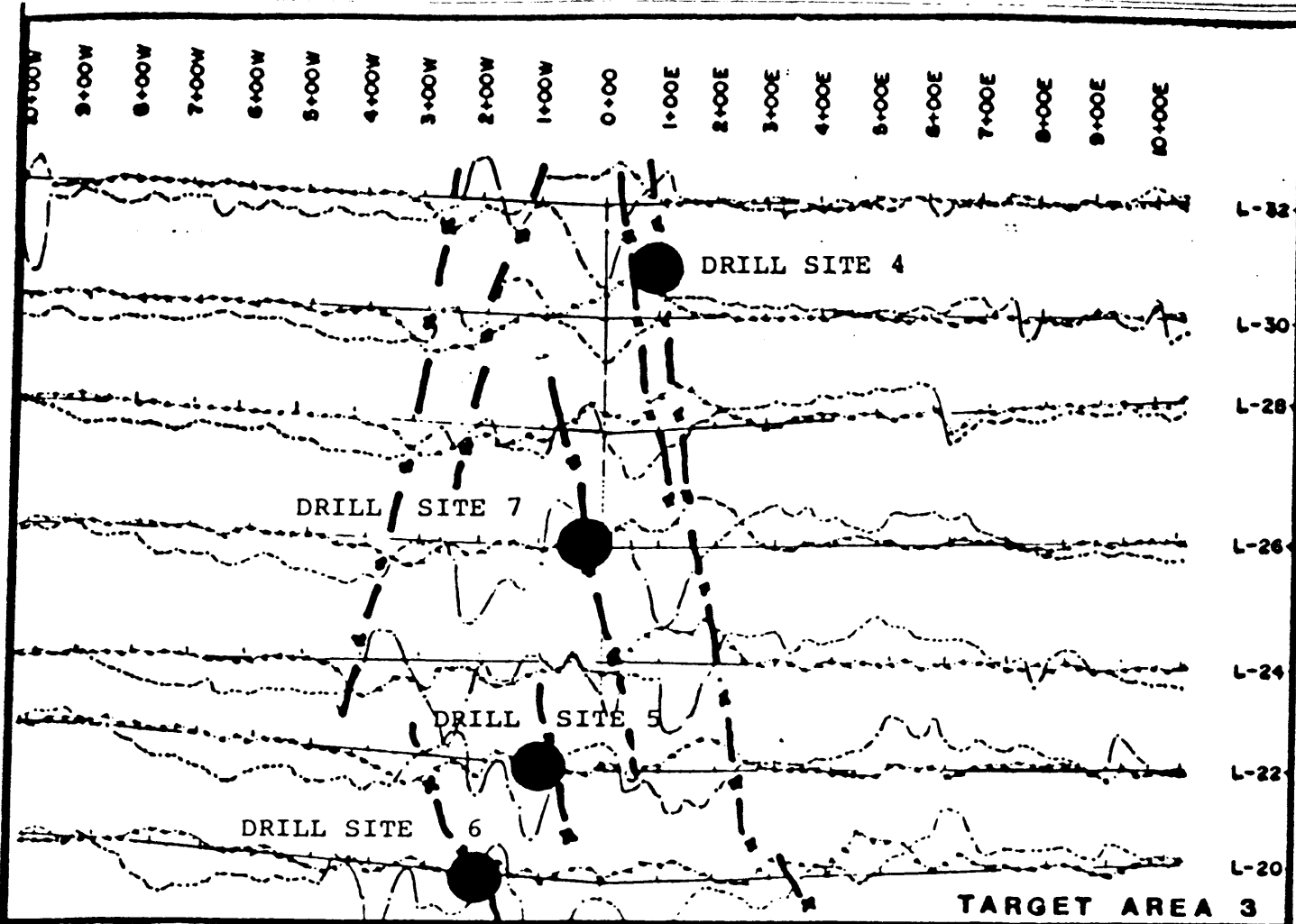
TARGET AREA 3

GEOLOGY

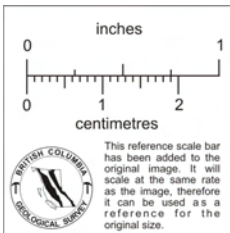
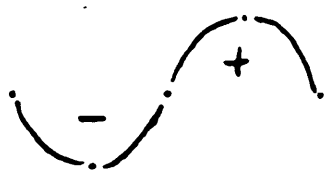
Scale: AS SHOWN Date: Aug. 9, 1987

FAIRBANK
ENGINEERING LTD

Proj. No. Aug. No.
8a



- - - - - INPHASE
 x - x - x - x QUADRATURE



CONDUCTORS



CROSSOVER
 Operator Faced Westerly

TRANSMITTER :
 NLK, SEATTLE 18.6 kHz

Adapted from Salazar/Rockel 1986.

A M A N D A RESOURCES LTD.	
TARGET AREA 3 VLF-EM SURVEY DATA	
Scale: AS SHOWN	Date: Aug. 9, 1987
FAIRBANK ENGINEERING LTD.	Proj. No. _____ Draw. No. 8b

communication) to be a primary candidate for sulphide mineralization. The author strongly recommends that the target be addressed by drilling in view of its favourable position in the stratigraphy for the formation of layered sulphide deposits.

The conductor gives a double response for the northern 1100 metres of its length and a single response for the additional 1400 m that it has been followed to the south. At Drill Site #4 the conductor lies at the west edge of a broad magnetic high, to the south it diverges from any magnetic feature. Coordinates of the drill site are 30+00N, 1+00E and the hole should be at least 75 m deep. Further drilling would depend on results.

Drill Sites 5 and 6 are recommended to test two targets, each being moderately strong short VLF-EM conductors closely paralleled by strong magnetic highs. The conductors are given importance since they lie just west of the area of coarse rhyolite breccias which may be an exhalative sulphide source area. The drillhole location are at 20+00N, 2+00W and 22+00N, 1+80W for holes 5 and 6 respectively. These holes should be 50 - 75 m long.

Drill Site #7 is on a VLF-EM conductor that is the extension of that to be tested by Drill Site #2, 1200 m to the south. At Site #7 the conductor is coincident with a narrow magnetic high for a distance of 1000 m towards the south. Overburden may be sufficiently shallow that the conductor's source could be reached by a back-hoe trench. Trenching should be done in conjunction with a short hole at 26+00N, 0+50W.

. . .

Target Area 4 - SOUTH RHYOLITE ZONE

Area #4 (Figure 9) lies on the rhyolite belt in its southern extension. There is one hill of massive rhyolite approximately 150 metres wide and 250 metres long from north to south, on grid lines 16S and 18S, and at 22S exposures of quartz-monzonite porphyry. The rhyolite may be intrusive, with sulphide layers, veins or pods associated with it (refer to Regional Geology and Mineralization for target deposit types). There are three conductors, two lying respectively east and west of the rhyolite hill and one farther east.

These conductors may represent veins or vein systems radiating from the Star-Klondike porphyry plug.

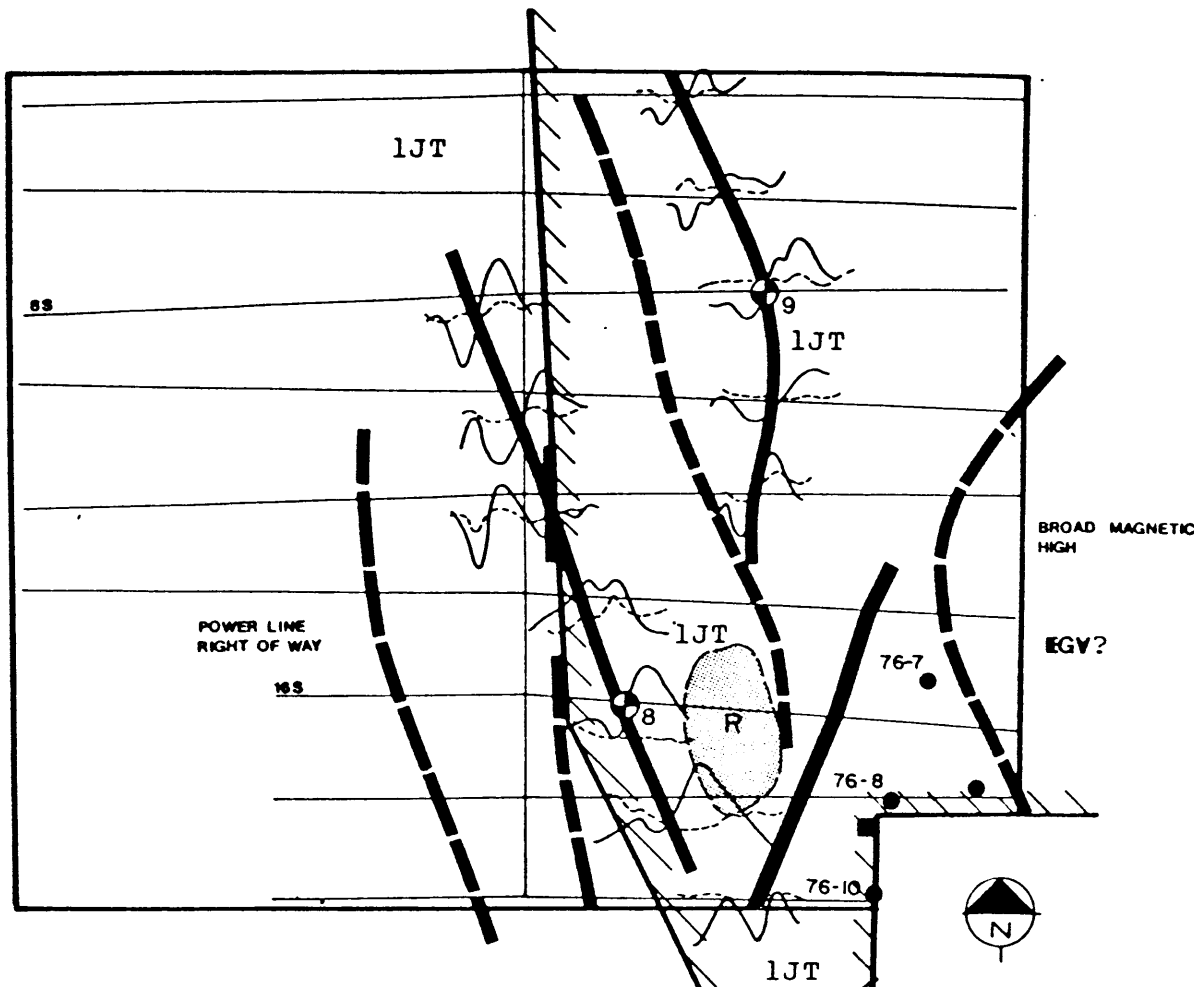
Three drill holes in the vicinity carry traces of copper up to 0.03% and 2-10 ppm Mo. The cuttings were not assayed for any other metals.

Drill Site #8 is at 16+00S, 2+00E, west of the rhyolite hill. The EM conductor is strong and has a length of 1250 metres.

Drill Site #9 lies on a weaker conductor, at 8+00S, 5+00E about 600 metres long.

These geophysical targets are recommended for testing by drilling by the author due to their proximity to the Star-Klondike porphyry plug.

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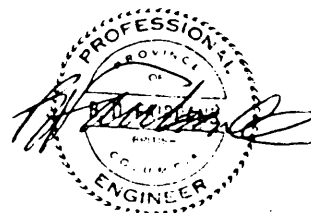
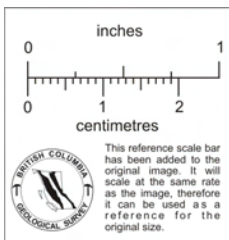


LEGEND

- 1cm = 20% EM CONDUCTOR
- LINEAR MAGNETIC ANOMALY
- BROAD MAGNETIC HIGH
- MASSIVE RHYOLITE
- PROPERTY BOUNDARY
- PROPOSED DRILL HOLE

GEOLOGY

- EGV Tertiary Volcanics
- 1JT Acid Volcanics - Telkwa Fm.
- Quartz Monzonite Porphyry



AMANDA RESOURCES LTD

**TARGET AREA 4
SOUTH RHYOLITE ZONE**

Scale **As shown** Date **June 24/87**

**FAIRBANK
ENGINEERING LTD**

Proj no **111-86** Dwg no **9**

(after Rockel 1986; Salazar 1986)

CONCLUSIONS AND RECOMMENDATIONS

The Trac Lake property covers two distinct geological environments each of which has potential for the occurrence of polymetallic base and precious metal deposits. New geological information and interpretations, and new geophysical data, lead to the conclusion that untested areas within the present claim block contain attractive exploration possibilities. Potential exploration targets are 1) hydrothermal deposits proximal to the Tertiary Star-Klondike porphyry intrusive body and 2) stratabound or volcanogenic deposits as layers or veins and lenses within extrusive and intrusive rhyolite sequences of the Jurassic Hazelton Group volcanics.

Former work on the Star-Klondike porphyry was concentrated on the copper-molybdenum potential inside the porphyry. Present attention is given to the IP anomaly extending northeast away from the intrusive into the surrounding volcanics. Northeast of the Star-Klondike porphyry intrusive a strong Induced Polarization chargeability anomaly was found, which could be caused by a breccia filling or veinlet stockwork of mixed sulphides in the Hazelton volcanics and sediments. Drilling is recommended to test this anomaly.

In the north-central sector of the property new interpretations of the significance of coarse rhyolite breccias give increased importance to the visible low-grade mineralization of the "Deer" zone pointing to the possibility of finding stratabound or vein deposits in the rhyolite belt. In this sector, four long VLF-EM conductors were found, as well as several shorter, weaker ones, in areas underlain by rhyolitic beds within the Hazelton volcanics. Elsewhere in the district, such rocks host mineralization of gold, silver, lead, zinc and

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copper in varying proportions. While no outcrops of mineralization of economic grade or size have been found, low-grade showings of copper-lead-zinc-silver in the "Deer" zone confirm that the rhyolites constitute a potential ore-bearing formation. The belt is 5200 metres long, open on the north, and conductors ranging in length from 200 to 1850 metres in length were located at various sites. Conductors are commonly coincident with, or closely paralleled by, magnetic anomalies that may be caused by magnetic pyrrhotite accompanied by mixed sulphides of copper, lead and zinc with minor silver. In one target area, an Induced Polarization chargeability anomaly also occurs coincident with the magnetic high and VLF-EM conductor and a weak copper soil anomaly suggests a concentration of copper in underlying rocks. Seven conductors in this rhyolite belt have been selected for testing by drilling. Back-hoe trenching is proposed in conjunction with drilling where the overburden is sufficiently thin. A small amount of vertical-loop E.M. surveys is recommended to determine the direction of dip of certain conductors prior to choosing the exact site, direction and hole inclination. These local surveys can also indicate where the most conductive part of each conductor is located.

The recommended initial drilling program totals 750 metres of drilling. Of the total, two holes should be drilled on the I.P. chargeability anomaly in Target Area 1, near the Star-Klondike porphyry. If encouraging mineralization is found, more holes would be drilled there. The balance of the drilling would be expended on the anomalies in the rhyolite belt, starting with the highest priority targets (Drill Sites 2, 3 and 4). Where encouraging mineralization is found in a first hole, a second hole should be put down to extend the discovery.

A Phase 2 program of delineation drilling is also recommended, contingent upon favorable results having been obtained in Phase 1.

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COST ESTIMATE

Phase 1: Drilling, Trenching, Mapping, Geophysics

1) Drilling Contract:		
- 750 metres, BQ diamond drilling @\$85/m		\$ 62,000
- mob/demob		3,000
2) Back-hoe Trenching:		
- 50 hours @ \$85/hr		4,250
- mob/demob		400
3) Supervision of drilling & trenching, surveying, core splitting:		
- 1 geologist, 30 days @ \$280/day		8,400
- 1 helper, 30 days @ \$130/day		3,900
4) Assaying: 100 samples @ \$25/sample		2,500
5) Property Mapping:		
- 1 geologist, 20 days @ \$280/day		5,600
- 1 helper, 20 days @ \$130/day		2,600
6) Support costs for crew of 4 persons:		
- room & board, 100 man-days @ \$50/m/d		5,000
- vehicle use - 30 days		1,000
- fuel		300
- 2 air fares Vancouver - Smithers		500
- consumables & equipment rental		1,000
- communications & freight		400
7) Geophysics:		
- vertical loop E.M. 10 line-km @ \$300 and support costs		3,500
8) Engineering, reporting, drafting		<u>5,000</u>
	Sub-Total	\$109,350
9) Contingencies @ 10%		<u>10,650</u>
	Total Phase 1	\$120,000

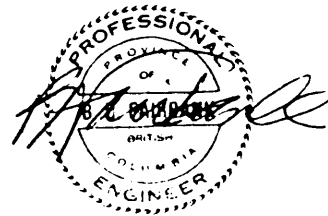
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Phase 2: Delineation Drilling

1) Drilling Contract:	
- 1500 metres @ \$85/metre	\$ 127,500
- mob/demob	3,000
2) Engineering:	
- 10 days @ \$370/day	3,700
3) Drilling supervision, geology:	
- geologist, 55 days @ \$280/day	15,400
- assistant, 55 days @ \$160/day	8,800
4) Assays:	
- 400 samples @ \$25/sample	10,000
5) Support Costs:	
- room & board, 110 man-days @ \$50/m/d	5,500
- truck, 55 days @ \$50/day	2,750
- fuel	400
- airfares	1,200
- consumable supplies	400
- rentals	350
- communications and freight	1,000
- drafting and reporting	9,000
6) Contingency @ 15%	<u>28,000</u>
	Total Phase 2 \$ 217,000
	Total Phases 1 & 2 <u>\$ 337,000</u>

Respectfully submitted

FAIRBANK ENGINEERING LTD.



Brian D. Fairbank, P.Eng.

June 6, 1987
(Revised August 9, 1987)
(Revised August 31, 1987)

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MIN-EN Laboratories Ltd.

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

ANALYTICAL REPORT

Project **Trac Lake** Date of report **Oct 23, 1986.**
File No. **6-1049** Date samples received **Oct 20, 1986.**
Samples submitted by:
Company: **Fairbank Engrg.**
Report on: Geochem samples
.....
..... **8** Assay samples

Copies sent to:

1. **Fairbank Engrg., Vancouver, B.C.**
2.
3.

Samples: Sieved to mesh Ground to mesh **-100**

Prepared samples stored discarded
rejects stored discarded

Methods of analysis: **Cu, Zn, Ag-acid digestion-chemical analysis. Au-fire.**

Remarks:

SPECIALISTS IN MINERAL ENVIRONMENTS

Certificate of ASSAY

Company: FAIRBANK ENGINEERING
Project: TRAC LAKE
Attention: B. FAIRBANK

File: 6-1049
Date: OCT 23/86
Type: ROCK ASSAY

We hereby certify the following results for samples submitted.

Sample Number	CU %	ZN %	AG G/TONNE	AG OZ/TON	AU G/TONNE	AU OZ/TON	
20755	4.560	3.10	27.9	0.81	0.02	0.001	Deer Zone
20756	0.211	2.03	3.3	0.10	0.01	0.001	
20757	0.439	7.82	10.1	0.29	0.01	0.001	
20758	0.063	0.23	2.2	0.06	0.01	0.001	
20759	0.638	1.19	2.0	0.06	0.02	0.001	
20760	0.190		2.7	0.08	0.05	0.001	Star Klondike
20761	0.070		2.1	0.06	0.21	0.006	
20766	0.124		2.2	0.06	0.36	0.011	

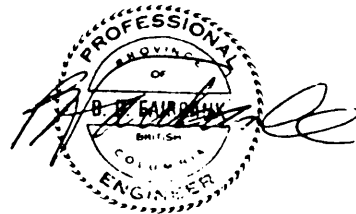
Certified by

MIN-EN LABORATORIES LTD.

CERTIFICATE OF AUTHOR

I, Brian D. Fairbank, hereby certify that:

1. My residence address is 320 East Windsor Road, North Vancouver, B.C. V7N 1K1.
2. I am a consulting geologist and principal in the firm of Fairbank Engineering Ltd. with offices at #1201 - 675 W. Hastings Street, Vancouver, B.C. V6B 1N2.
3. I hold a B.A.Sc. in Geological Engineering from the University of British Columbia. I have been practicing my profession since 1973, and I am a member of the Association of Professional Engineers (Geological) of the Province of British Columbia.
4. I am a Fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.
5. I have examined the Trac Lake Property and reviewed the records of Amanda Resources Ltd. personally.
6. I hold no direct or indirect beneficial interest in the above property nor in the securities of Amanda Resources Ltd.
7. I consent to the use by Amanda Resources Ltd. of this report in a Prospectus or Statement of Material Facts or such other documents as may be required by the Vancouver Stock Exchange, the Superintendent of Brokers, Insurance and Real Estate of B.C.; or similar regulatory authorities in the Province of British Columbia.



Brian D. Fairbank, P.Eng.

June 6, 1987
(Revised August 9, 1987)
(Revised August 31, 1987)

APPENDIX

IR

INTERPRETEX RESOURCES LTD.

BOX 48239 BENTALL P.O.
VANCOUVER, B.C. V7X 1A1
(604) 270-9392

file name: AMA0887

August 6, 1987

The B.C. Securities Commission
1200 - 865 Hornby Street
Vancouver, B.C.
V6Z 2H4

Dear Sir(s):

Re: AMANDA RESOURCES LTD.
Geophysical Interpretations

At the request of Amanda Resources Ltd., I have reviewed results from the 1967 Induced Polarization Survey of the "Star Klondike Zone" as well as an interpretation of 1986 magnetic and VLF EM surveys over the western sector of the "Trac Lake" property.

Percent frequency effect (PFE) readings on lines 8E, 12E and 20E indicate a zone of chargeable material extending east-northeast from the east end of a zone described as the Star-Klondike porphyry into an area reported to be underlain by volcanic and possibly sedimentary rocks correlated with the Jurassic Telkwa Formation, part of the Hazelton Group. Pseudosection plots of these lines show a background PFE of less than about 3.0 with a PFE anomaly on line 12E greater than 5 times background. Comparison of PFE data from line 12E with dipole-dipole theoretical pseudosection contours, suggests that the chargeable material may be in the form of a shallow flat lying body which is thicker to the north. The 1967 survey was carried out using an electrode separation of 400 feet (122 meters) with "n" values of 1 to 4. Thus the maximum depth of penetration can be considered to be of the order of 800 ft. (244 meters). When testing the PFE anomaly on line 12E at approximately 14N by drilling, one should encounter suspected sulphide mineralization in bedrock directly below overburden or within about 50 meters (150 ft.). A satisfactory representation of the mineralogy within this chargeable zone should be obtained within a vertical depth of about 150 meters (500 ft.).

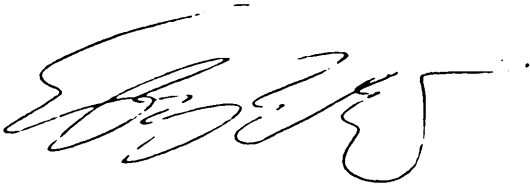
The choice of induced polarization methods for a given survey often depends on the user's preference and, at times, particular problems or restrictions within a survey area. Both time and frequency domain IP methods measure the same phenomenon although, according to Telford, et al in "Applied Geophysics", converting from one to the other accurately is difficult. Although imprecise, use of the term "chargeability high" can still be considered acceptable when referring to a PFE anomaly since a measure of the ability of rock to be "charged up" (chargeability) is gained by measuring the "percent frequency effect" using different transmitted frequencies.

...2

Interpretation of VLF EM anomalies located in 1986 was presented in a report written by myself and subsequently incorporated into an assessment report submitted by G. Salazar & Associates. This report indicates that a VLF EM conductor system, labelled "A", showed strong response amplitude and the highest conductance within the area surveyed. This feature was therefore considered the best candidate for the occurrence of sulphide mineralization. Since favourable geology in the vicinity, such as coarse fragmental breccias with signs of pyritization, and strike correlation with the Deer Zone are reported to support the interpretation of sulphides in this conductor, conductor "A" should not be rejected as a target for subsurface exploration by drilling. In the "Fairbank Report" this conductor has been suggested as a site for drill hole number 4 and should be recommended in order to determine the extent and type of sulphide mineralization present.

An area defined as "Target Area 2" contains VLF EM anomalies paralleled by magnetic highs, and are apparently related to chargeable material and a copper soil anomaly. This area includes the "Deer Zone" pit and trenches which are reported to contain visible copper-lead-zinc-silver-flourite mineralization in a highly altered (potash-feldspar type) mixture of rhyolite breccias, tuffs and minor andesite interbeds. VLF EM anomalies within this zone which are supported by these geochemical and geological attributes should be also considered as important subsurface targets.

Yours truly

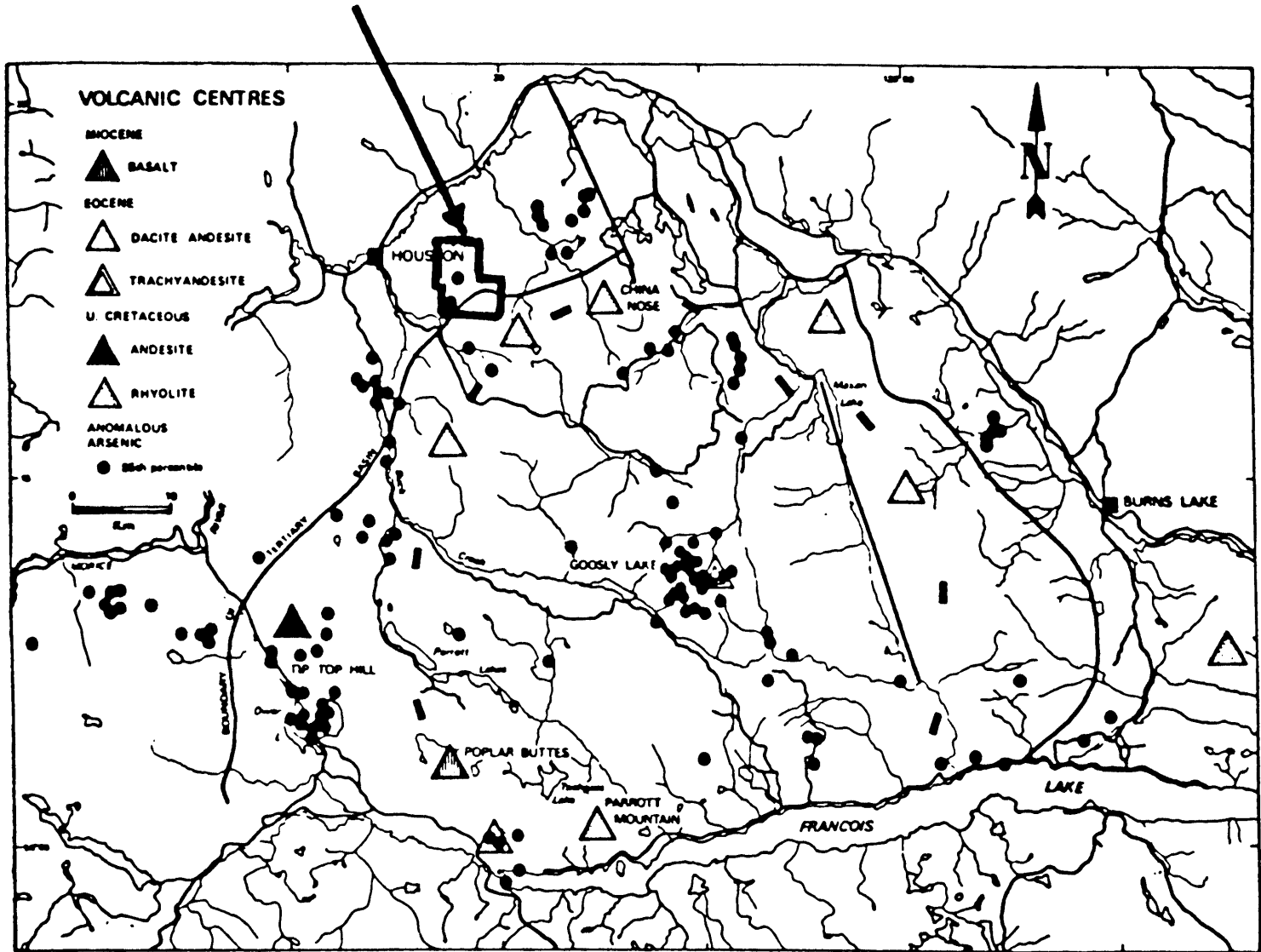


Edwin R. Rockel, B.Sc., P.Geoph., P.Eng.(Sask.)
Consulting Geophysicist
Interpretex Resources Ltd.

cc: Amanda Resources Ltd.

TRAC LAKE PROPERTY

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**ELEMENTS OF THE BUCK CREEK CALDERA
SHOWING VOLCANIC CENTRES AND ANOMALOUS ARSENIC LOCATIONS**

Figure 60. Elements of the Buck Creek caldera showing volcanic centres and anomalous arsenic localities.

B.C.M.M. Paper 1985-1 : B.N. Church.

(F)

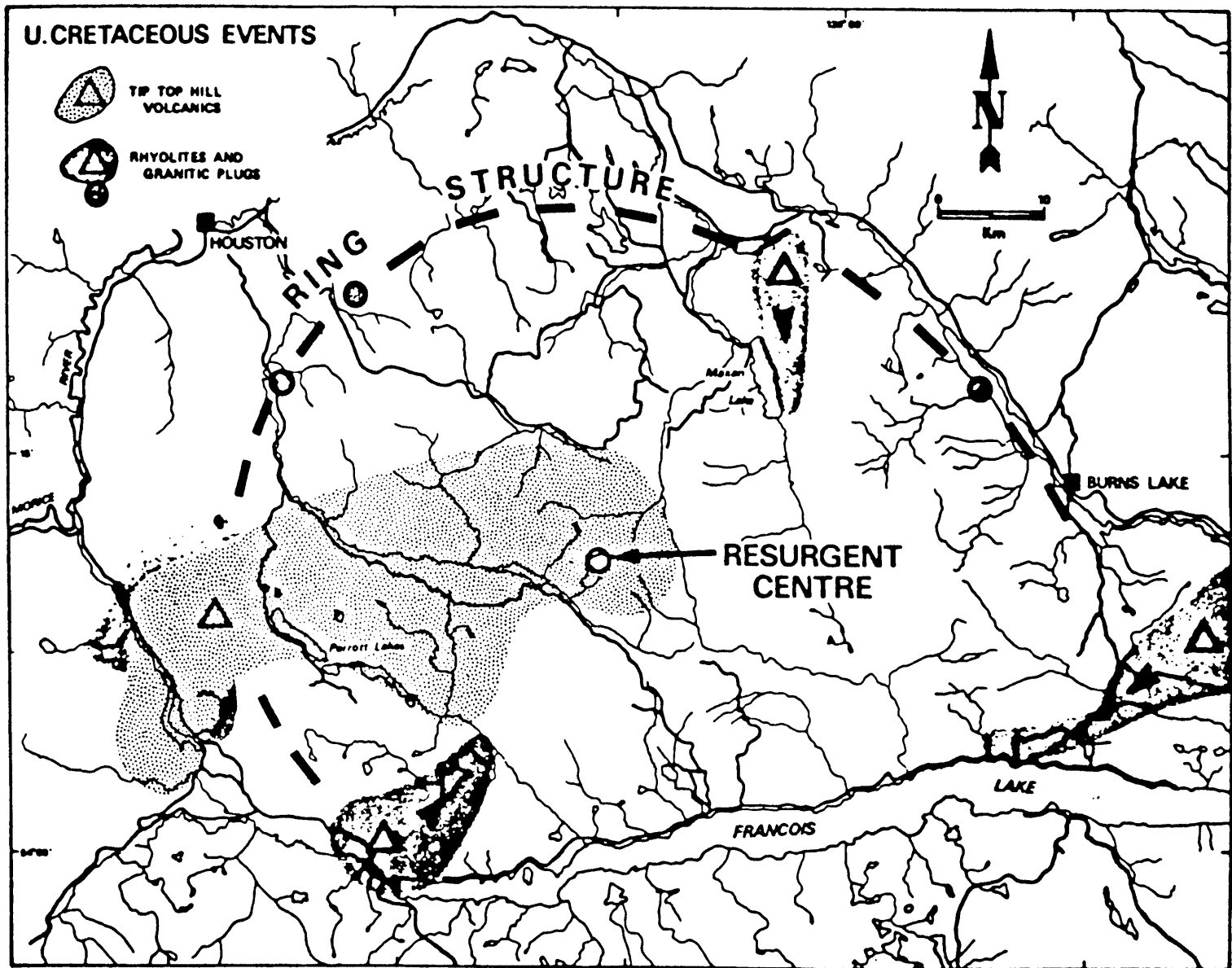


Figure 59a. Volcanogenesis of the Buck Creek basin, Upper Cretaceous events.