

830609

GEOLOGICAL REPORT

ON THE

E-D 1 MINERAL CLAIM

Barriere Lakes - Birk Creek Area
Kamloops Mining Division
British Columbia

Latitude 51 22' North
Longitude 121 00' West
NTS 82M/5W; 92P/8E

FOR

FORAN MINING INC.

BY

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August 27, 1990

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APPENDIX I - ANALYTICAL RESULTS

Following Text

SUMMARY

Foran Mining Inc. holds an option on the E-D 1 mineral claim situated at the headwaters of Birk Creek in the Barriere Lakes area of south-central British Columbia.

The E-D 1 mineral claim covers a fault contact between Paleozoic Fennell Formation and Eagle Bay Assemblage sedimentary and volcanic rocks, a geological terrane known to be prospective for both volcanogenic massive sulphides and polymetallic vein deposits.

Geophysical and geochemical surveys of the property indicate a number of coincident anomalous areas. Higher values in soils for copper, lead, zinc and silver are coincident with conductive zones defined by VLF-EM and horizontal loop electromagnetic surveys which underlie the area of the fault contact between Fennell Formation rocks and the Eagle Bay Assemblage. Anomalous gold values obtained from soil sampling appear to be related to structures normal to the northwest structural trend of the area.

Additional exploratory work is warranted and a Phase I program is recommended to include additional detailed soil sampling, an Induced Polarization survey, excavator trenching and overburden and diamond drilling at an estimated cost of \$327,000.00.

PRODUCTION. SAMATSUM. - Production Dates?

Tonnes Milled Ag Ag Au Cu Pb Zn

(Milled) 682 g/t
247,884. 483,000 ; 685,950 Reserves. Total Reserves.
202,950.

- 220,306,687g Ag. 1g/1t Au
371,881 g Au

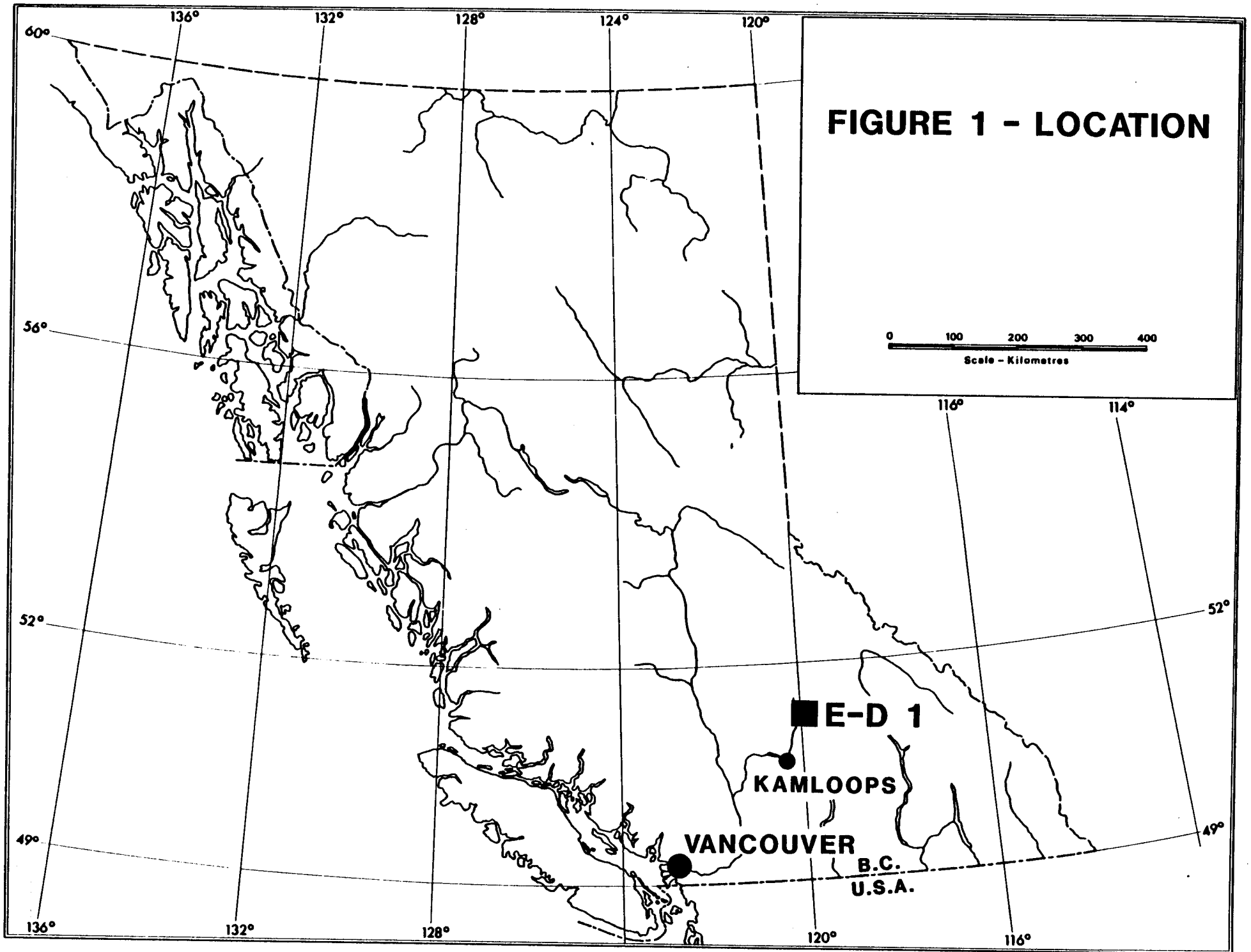
Cu 0.8%
1,924,524 kg.

Zn -
Pb 1.0%
3329991 kg

Zn - 1.7%
5,398,445 kg.

Prod to.

Dec 31 190.



INTRODUCTION

Foran Mining Inc. holds title to the E-D 1 mineral claim situated west of North Barriere Lake in south-central British Columbia.

This report, prepared at the request of Foran Mining Inc., is based principally on results of exploration programs proposed by the writer in 1989 and 1990. A thorough review was also undertaken of published and unpublished reports and maps pertaining to the geological setting of the property and results of exploration work conducted on other properties in the vicinity of the E-D 1 claim.

The writer visited the property on four occasions between July 14 and October 4, 1989 while the 1989 exploration program was in progress.

LOCATION AND ACCESS

The E-D 1 property is situated 80 km north-northeast of Kamloops in south-central British Columbia (Figure 1). The mineral claim is located 10 km northwest of North Barriere Lake at the headwaters of Birk Creek (Figure 2) and straddles the boundary of NTS map-areas 82M/5W and 92P/8E. The geographic centre of the claim is at latitude 51 22' North and longitude 121 00' West.

Access is from Barriere on provincial highway 5 via the

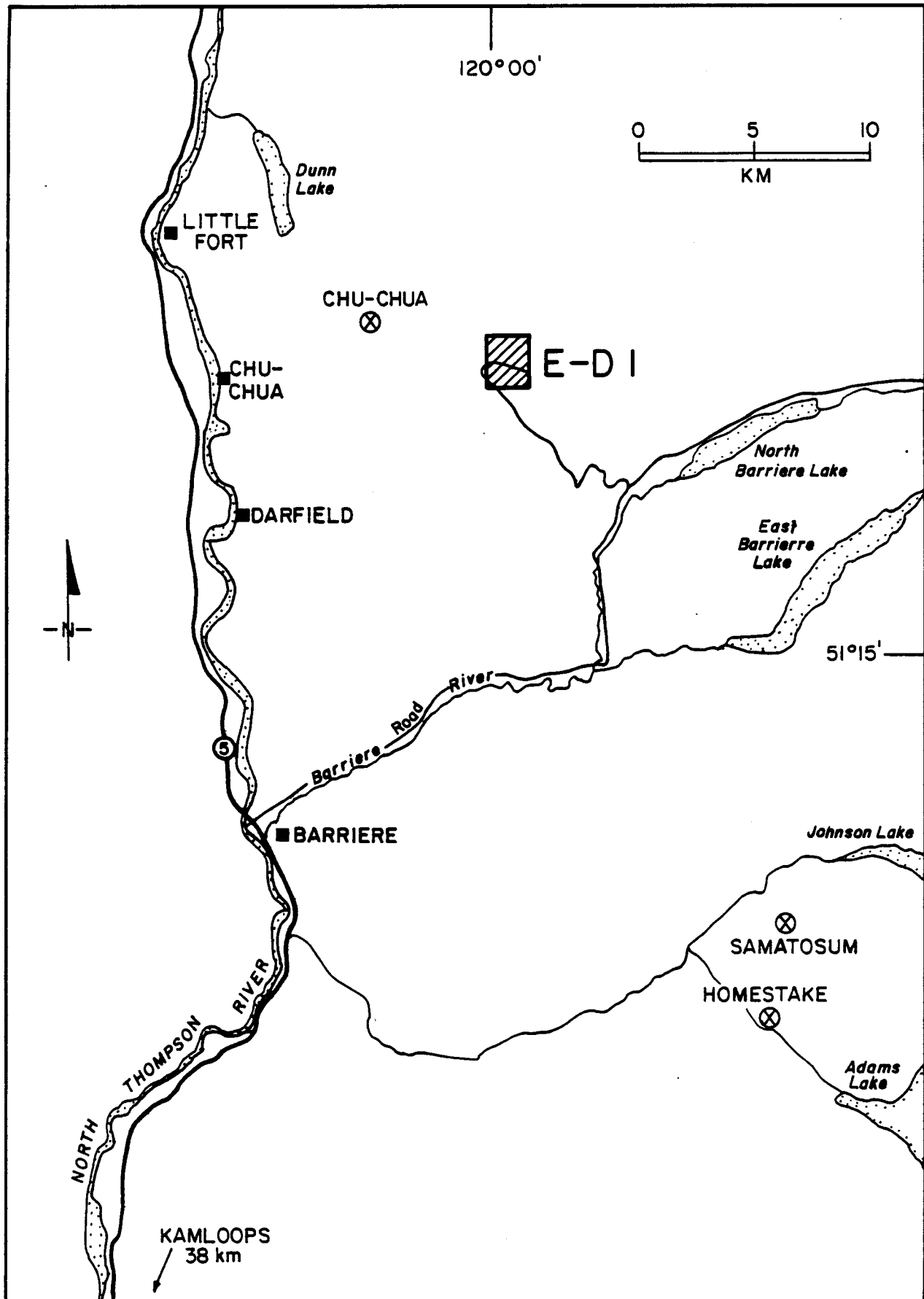


FIGURE 2 - LOCATION - E-D 1 MINERAL CLAIM

paved Barriere Lakes road and secondary logging roads (Figure 2). Road distance from Barriere is 36 km.

Several logging roads provide access to most parts of the claim.

MINERAL PROPERTY

The E-D 1 Modified Grid mineral claim, located in the Kamloops Mining Division, consists of 20 mineral claim units.

The claim, located by E.J. Foran and recorded September 16, 1983, was transferred by Bill of Sale in 1989 to 356584 B.C. Ltd. which company negotiated an option agreement with Foran Mining Inc.

Part of the east boundary and the Legal Corner Post was examined by the writer August 3, 1989 and the claim is believed to have been located in accordance with procedures as specified by the Mineral Tenure Act Regulations of the Province of British Columbia. According to Mineral Titles maps, a small portion of the western claim area may overlap a previously located claim.

The position of the E-D 1 mineral claim is shown on Figure 3 and details are as follows:

<u>Claim Name</u>	<u>Record Number</u>	<u>Units</u>	<u>Expiry Date</u>
E-D 1	4742	20	September 16, 1990

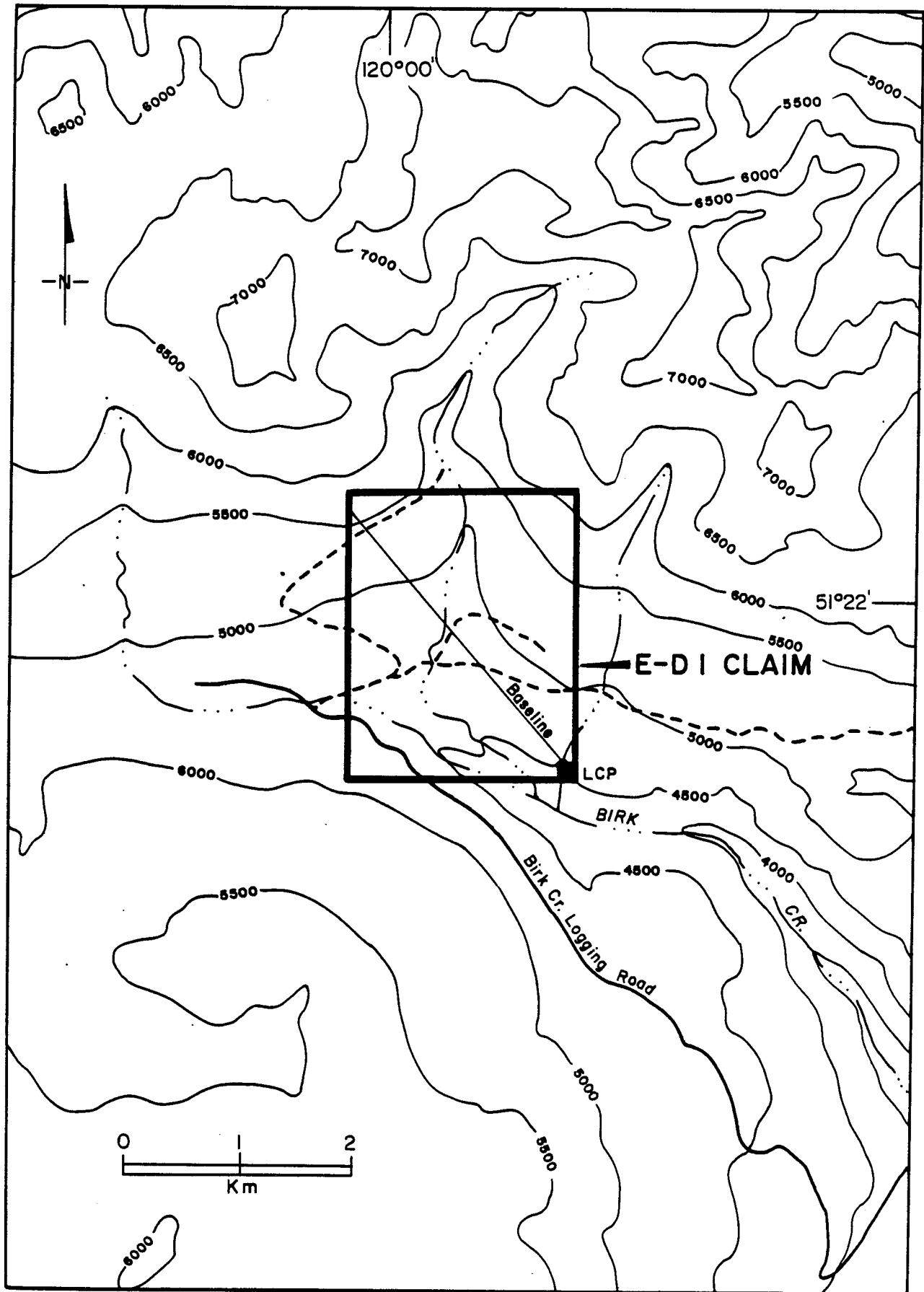


FIGURE 3 - E-D 1 MINERAL CLAIM

PHYSICAL FEATURES

The E-D 1 mineral claim covers an area including the principal south-flowing tributary of Birk Creek near its headwaters (Figure 3). The topography is predominantly moderate with some steep slopes near the north and northeast claim boundaries. Elevations range from 1370 metres (4,500 feet) near the Legal Corner Post to slightly more than 1800 metres (6,000 feet) in the northern part of the claim (Figure 3).

A forest cover of spruce and balsam extends over much of the property with the exception of the area underlain by granitic rocks in the northeast part of the claim and clear cut logged areas in the central claim area.

Overburden cover is locally extensive. Bedrock exposures are restricted to the northeast part of the claim which features near continuous exposure of granitic rocks, and isolated exposures along logging roads in the northwest claim area and in the major drainage in the central part of the claim. Bedrock is also exposed in a few trenches in the southwest claim area.

HISTORY

The earliest documented prospecting in the Birk Creek area dates back to the early 1900's.

The Energite (North Star) silver-lead-zinc prospect, adjoining the present E-D 1 claim on the south, was initially worked by underground drifting on some of the mineralized structures and 36 tonnes were shipped prior to 1972. More recent work has included geochemical and geophysical surveys and 5 diamond drill holes.

Other prospects east of Birk Creek were first explored in the 1920's by way of tunnelling and trenching and by geophysical and geochemical surveys between 1950 and 1970.

The area between Adams Lake and the North Thompson River, including the Barriere Lakes area, has been subjected to considerable exploration activity since the discovery of the Chu Chua massive sulphide deposit in 1978 and the Rea - Samatosum polymetallic deposits in 1983 (Figure 2).

Noranda Exploration Company Limited conducted a major exploration program immediately east of the E-D 1 claim between 1984 and 1987. This work included airborne and surface geophysics, soil geochemistry, mechanical trenching and 14 diamond drill holes. Minnova Inc. has carried out geological, geochemical and geophysical surveys on claims adjoining the E-D 1 property on the west.

Initial work within the area of the present claim reportedly included some investigation for placer gold potential but there are no records of this work. A

reconnaissance soil geochemical and magnetometer survey carried out by Craigmont Mines in 1973 covered the area of the present claim (Vollo,1973).

Since location of the E-D 1 claim in 1983, work done has included some mechanical trenching in the extreme southwest corner of the claim. The 1989 program consisted of establishing 27 km of grid (3.1 km of cut baseline; 24 km of flagged cross-lines, principally at 200 metre spacings with several fill-in lines at 50 and 100 metre spacings), the collection and analyses of 950 soil samples and VLF-EM and magnetometer surveys over 21.3 km of grid.

A horizontal loop electromagnetic survey was conducted over 12 km of grid in the southwestern part of the claim in late june of 1990.

REGIONAL GEOLOGY AND MINERALIZATION

The Adams Lake - Barriere Lakes - North Thompson River area, near the western fault-bounded margin of the Omineca Crystalline Belt (Figure 4), is underlain principally by Paleozoic volcanic and sedimentary rocks. These include Cambrian to Mississippian Eagle Bay Assemblage metasedimentary and metavolcanic rocks and Devonian to Permian Fennell Formation sediments and volcanics. Both are intruded by mid-Cretaceous granitic rocks of the Baldy

batholith and by younger felsic and basic dykes. Erosional remnants of Tertiary volcanic and sedimentary rocks locally overlie older rocks.

The Paleozoic sequences are contained in four structural packages separated by northwest striking, southwesterly directed thrust faults (Schiarizza and Preto, 1987). The upper three fault slices contain rocks of the Eagle Bay Assemblage while the lowest (and westernmost) includes Fennell Formation rocks which were tectonically emplaced over slightly younger units of the upper Eagle Bay Assemblage along a zone of north-striking, easterly directed thrust faults.

The predominantly northwest trending structural and stratigraphic grain of the area is offset by northeast faults, the largest of which extends up Barriere River and through North Barriere Lake (Figure 4).

A variety of mineral deposits and occurrences are hosted in Paleozoic rocks throughout the Adams Lake - Barriere Lakes - North Thompson River area. The most significant of these are volcanogenic massive sulphide deposits including polymetallic precious and base metals deposits in metavolcanic rocks of the Eagle Bay Assemblage and copper-zinc deposits in Fennell Formation volcanic rocks.

Examples of polymetallic massive sulphide deposits include showings east of Birk Creek and the Homestake, Rea

and Samatosum deposits near Adams Lake (Figures 2 and 4).

The Homestake and Rea volcanogenic sulphide - barite deposits occur on opposite limbs of an overturned syncline developed in younger units of the Eagle Bay Assemblage (Hoy and Goutier, 1986). The Homestake polymetallic base and precious metal zones are contained in barite lenses in deformed quartz-sericite schists derived from felsic volcanic rocks within a thick succession of mafic volcanic tuffs and flows. The Rea deposit, in slightly younger units of the Eagle Bay Assemblage, consists of two massive sulphide lenses near the top of a felsic tuff and chert sequence which overlies a thicker sequence of mafic volcanic rocks. One of the massive sulphide lenses is capped by massive barite (Hoy and Goutier, 1986).

Both the Homestake and Rea deposits feature extensive silicification, sericitization and pyritization in footwall alteration zones. Metallic minerals within the massive sulphide zones include pyrite, arsenopyrite, sphalerite, galena, chalcopyrite, tetrahedrite and native silver and gold.

The Samatosum deposit, currently being mined under a joint venture including Minnova Inc. and Rea Gold Corporation, is adjacent to the Rea deposit. Reported reserves prior to mine start-up in mid-1989 were 670,800

tonnes grading 834 g/t silver(24.3 oz/ton), 1.6 g/t gold(0.046 oz/ton), 1% copper, 3% zinc and 1% lead. Mineralization, consisting of tetrahedrite, sphalerite, galena and chalcopyrite within a larger body of pyritic material (Pirie,1989), is best developed along a contact between mafic pyroclastic volcanics and clastic sedimentary rocks which include graphitic horizons. Three styles of mineralization include massive sulphide bands with quartz, quartz veinlets with sulphide minerals and finely disseminated tetrahedrite in clastic sedimentary rocks. Sericite alteration is well developed in the mafic volcanics which form the structural hangingwall within the overturned sequence.

The association of most of the tetrahedrite (and most of the economic values) with areas of silicification and quartz veins which cut lower grade massive sulphide mineralization suggests that these better mineralized sections at Samatosum are products of remobilization (Pirie,1989).

Several occurrences east of Birk Creek and north of North Barriere Lake are stratiform lenses of massive to disseminated sulphides hosted by cherty horizons within Eagle Bay Assemblage quartz-sericite schists (Schiarizza and Preto,1987) near the south margin of the Baldy batholith. Mineralization includes pyrite, pyrrhotite, galena,

sphalerite, chalcopyrite and magnetite.

The second style of volcanogenic massive sulphide mineralization in the area is represented by the Chu Chua or CC deposit near the summit of Chu Chua Mountain (Figures 2 and 4). Upper Fennell Formation pillow and massive basalts host two major and several minor stratiform massive sulphide lenses associated with a chert horizon and lenses of magnetite. Massive basalts on the east side of the near vertical closely spaced main sulphide lenses are variably altered to talc, carbonate and chlorite and are interpreted as being part of the footwall (Schiarizza and Preto, 1987).

The massive sulphide lenses consist of pyrite with chalcopyrite and minor sphalerite. The Chu Chua deposit is currently being considered for production by Minnova Inc. and open pit reserves are reported as being 1,049,000 tonnes grading 3% copper, 0.3% zinc, 10 g/t silver (0.29 oz/ton) and 0.58 g/t gold (0.017 oz/ton) (Heberlein and Pirie, 1990).

The Energite and North Star showings, 0.5 - 1 km south of the E-D 1 claim (Figure 5), consist of sulphide-bearing quartz veins developed along the regional fault contact between Fennell Formation rocks and those of the Eagle Bay Assemblage. The quartz veins, ranging in width from a few cm to 1 metre (Schiarizza and Preto, 1987), and striking northerly with moderate easterly dips, contain galena, pyrite

and lesser sphalerite and chalcopyrite. A sorted 4.5 tonnes shipment to Cominco smelter in 1972 contained 39.8 g/t gold(1.154 oz/ton), 708 g/t silver(20.5 oz/ton), 27.4% lead, 13.3% zinc and 0.25% copper (Schiarizza and Preto,1987).

Soil geochemistry and an electromagnetic survey in 1981 indicated an 1800 metre long zone extending northeasterly towards Birk Creek (Pasioka,1981). Five diamond drill holes were completed in 1984 (Pasioka,1984; Cardinal,1984) to test the conductive zone in the vicinity of a short adit south of Birk Creek and 1500 metres southeast of the Legal corner Post of the E-D 1 claim. One hole, which intersected graphitic sediments with disseminated to massive pyrite in quartz stringers at a hole depth of 100 metres, yielded 10.3 g/t (0.30 oz/ton) gold over 0.5 metre (Pasioka,1984). This result was 3 metres above a 1.5 metre interval of pale green quartzite (chert?) which returned an assay of 5.5 g/t (0.16 oz/ton) gold.

The BC-1 claim, adjoining the E-D 1 claim on the east, includes pods of stratiform massive and stringer sulphides with silver lead and zinc values and associated barite (Miller,1989). Work by Noranda Exploration Company Limited in 1984 and 1985 defined coincident EM conductors and magnetic highs in the south-central part of the claim 1 km east of the mutual boundary with the E-D 1 claim. Trenching and

subsequent drilling (Wilson,1986) disclosed the presence of a felsic fragmental volcanic sequence with intercalated graphitic argillite horizons containing disseminated and stringer pyrrhotite, pyrite and sphalerite. A 0.25 metre massive sulphide stringer exposed in a trench contained 33% zinc, 4.3% lead, 29.2 oz/ton silver and 0.011 oz/ton gold.

Soil sampling in the southwestern part of the SC-1 claim, owned by Minnova Inc. and situated 2 km southwest of the E-D 1 claim, defined a coincident copper-zinc-silver anomaly with zinc values of up to 231 ppm and silver in the 1.6 - 2.7 ppm range (Pirie,1988). Where exposed, bedrock in this area consists of graphitic argillaceous sediments, part of the Lower Fennell Formation. Elsewhere on this claim block, drilling intersected a felsic dome with gold values of 4.45 g/t (0.13 oz/ton) over 2.52 metres (Evans,1987).

The Joe claim covers the thrust fault contact between the Lower Fennell formation and the Eagle Bay Assemblage, a geological setting similar to that of the E-D 1 claim 4 km northeast. A quartz vein near the fault contact contains sections of massive galena which yielded up to 2 g/t (0.06 oz/ton) gold (Moraal,1986). Values of 610-920 ppb gold in soils occur near the vein (Ovington and Elliott,1987).

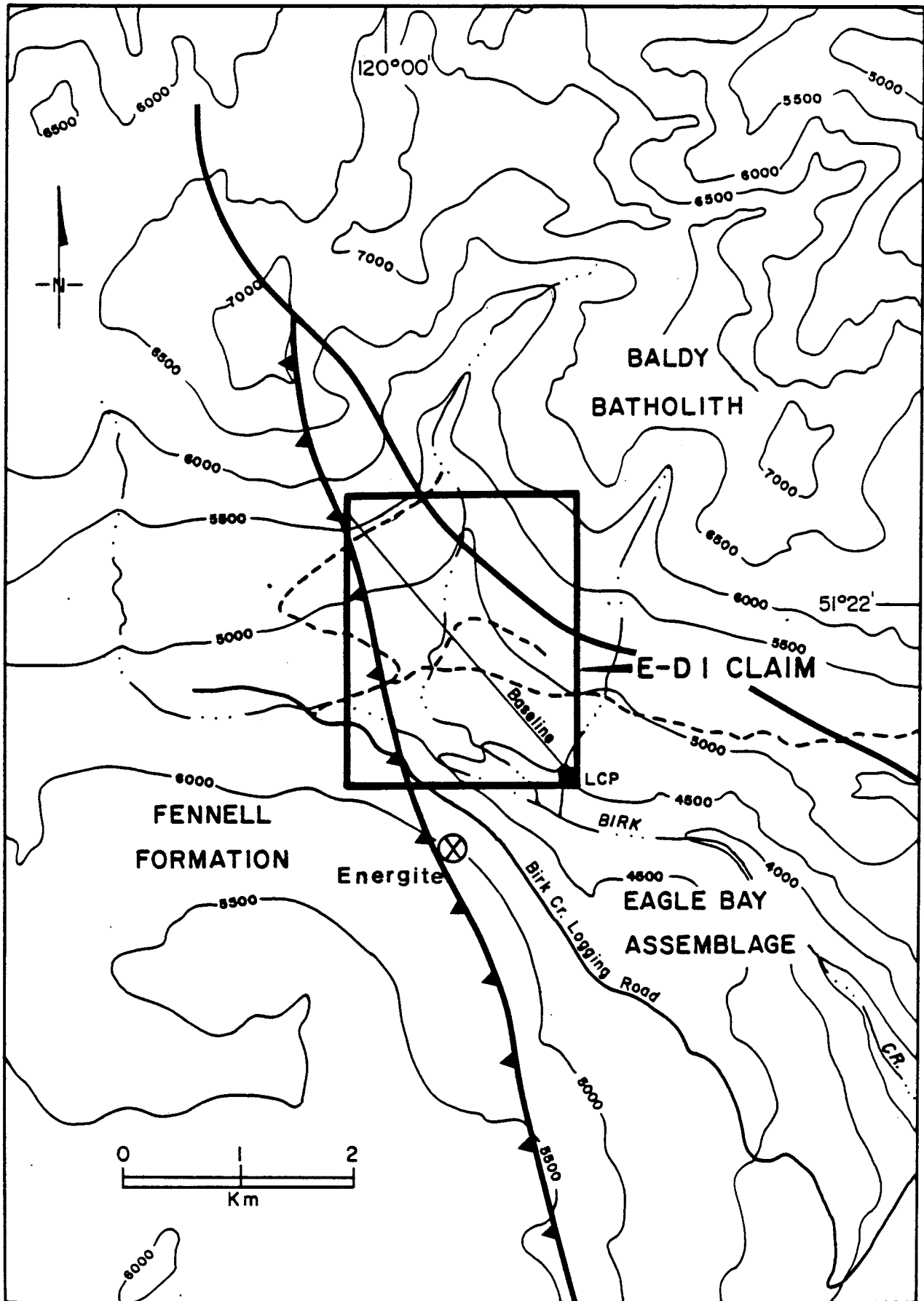
PROPERTY GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

Geology

The E-D 1 claim is underlain by metasediments of the upper part of the Eagle Bay Assemblage which are in fault contact with Fennell Formation sediments in the western claim area. The Eagle Bay Assemblage is intruded by granitic rocks of the Baldy batholith in the northeast part of the claim (Figure 5).

Dark grey to black phyllites and graphitic siltstones which underlie much of the E-D 1 claim are part of the youngest unit of the Eagle Bay Assemblage, considered to be of Mississippian age. These occupy the west limb of the Slate Creek anticline (Schiarizza and Preto, 1987). Bedrock was observed in only a few localities and one of the best exposures is in the major drainage in the central part of the claim. Here, thinly bedded black shale strikes northeast and dips moderately northwest.

Eagle Bay rocks are in reverse or thrust fault contact with older Fennell Formation sequences in the western part of the claim. These are believed to be part of the lower structural division of the Fennell (Schiarizza and Preto, 1987) and are lithologically similar to Eagle Bay sequence.



**FIGURE 5 - GEOLOGIC SETTING -
E-D 1 MINERAL CLAIM**

The major fault separating the two sequences is well exposed in the vicinity of the Energite showings (Schiarizza and Preto, 1987 - Figure 5). Here, the zone is marked by brecciated rock with fragments of chert and siltstone. Several trenches near the southwest corner of the E-D 1 claim are on or adjacent to this fault zone. Buff to dark grey, rusty phyllites exhibit strong, north-northwest, steeply dipping schistosity and these rocks may be part of the Fennell Formation.

Granitic rocks of the Baldy batholith are well exposed in the northeast part of the E-D 1 claim where they are leucocratic, medium to coarse grained biotite quartz monzonites. Muscovite coats fractures in the quartz monzonite and Eagle Bay phyllites adjacent to the contact have been converted to biotite hornfels.

While most of the Eagle Bay Assemblage phyllites and graphitic siltstones seen in the claim area contain minor pyrite and some iron oxide staining, best evidence of mineralization in the limited exposures available is in trenches in the southwest corner of the claim (Figure 13). Most rocks here display weak to intense iron oxide staining and some 4 mm pyrite cubes were noted. Most trenches expose one or more quartz veins which may be a metre or more wide and are irregular along strike. Several samples were

collected from the trenches including three grab samples of rusty phyllite (TR3-1,TR1-2,TR2-1) and two samples of quartz vein material (TR2-2,TR1-1). Four showed slightly elevated copper, lead and zinc values, but the best result was from TR1-2, rusty, sheared phyllite, which yielded 80 ppb gold, 1.2 ppm silver, 54 ppm lead, 112 ppm zinc and 16 ppm copper (Appendix I).

Geophysics

An airborne electromagnetic and magnetometer survey, carried out on behalf of Noranda Exploration Company Limited in 1985, covered a large area centred on Birk Creek including the E-D 1 claim. These data, compiled by Miller(1989), show a number of northwest trending EM conductors within an area of relatively low magnetic susceptibility in that part of the claim underlain by Eagle Bay Assemblage rocks. Strongest EM conductors are along the western claim boundary in the area believed to be underlain by rocks of the Fennell Formation.

A surface VLF-EM and magnetometer survey, utilising an Integrated Geophysical System (IGS-2) and conducted on behalf of Foran Mining Inc. by Quest Canada Exploration Services Inc. in October of 1989 (Chung,1989), essentially confirmed the results of the airborne survey and provided better definition of some of the conductive zones. The magnetometer survey (Figure 6) showed higher magnetic susceptibilities

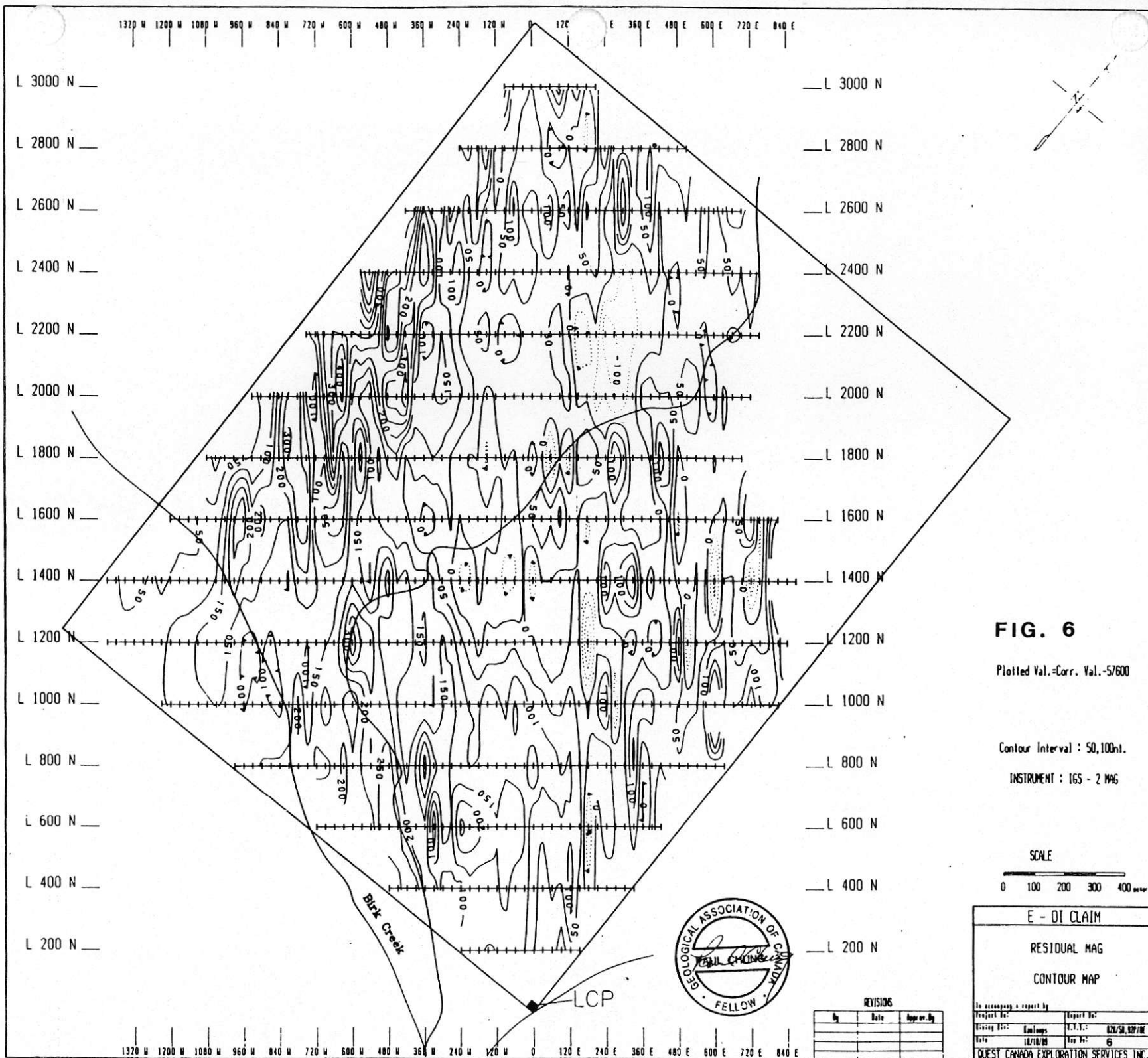


FIG. 6

Plotted Val. = Corr. Val. - 57600

Contour Interval : 50, 100 mt.

INSTRUMENT : IGS - 2 MAG

SCALE

0 100 200 300 400 meters

E - OI CLAIM

RESIDUAL MAG

CONTOUR MAP

In accompany a report by

Project No:	Report No:
Drawing No:	Scale: 1:25,000
Date: 10/10/88	Map No: 6

QUEST CANADA EXPLORATION SERVICES INC.

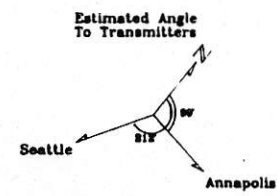
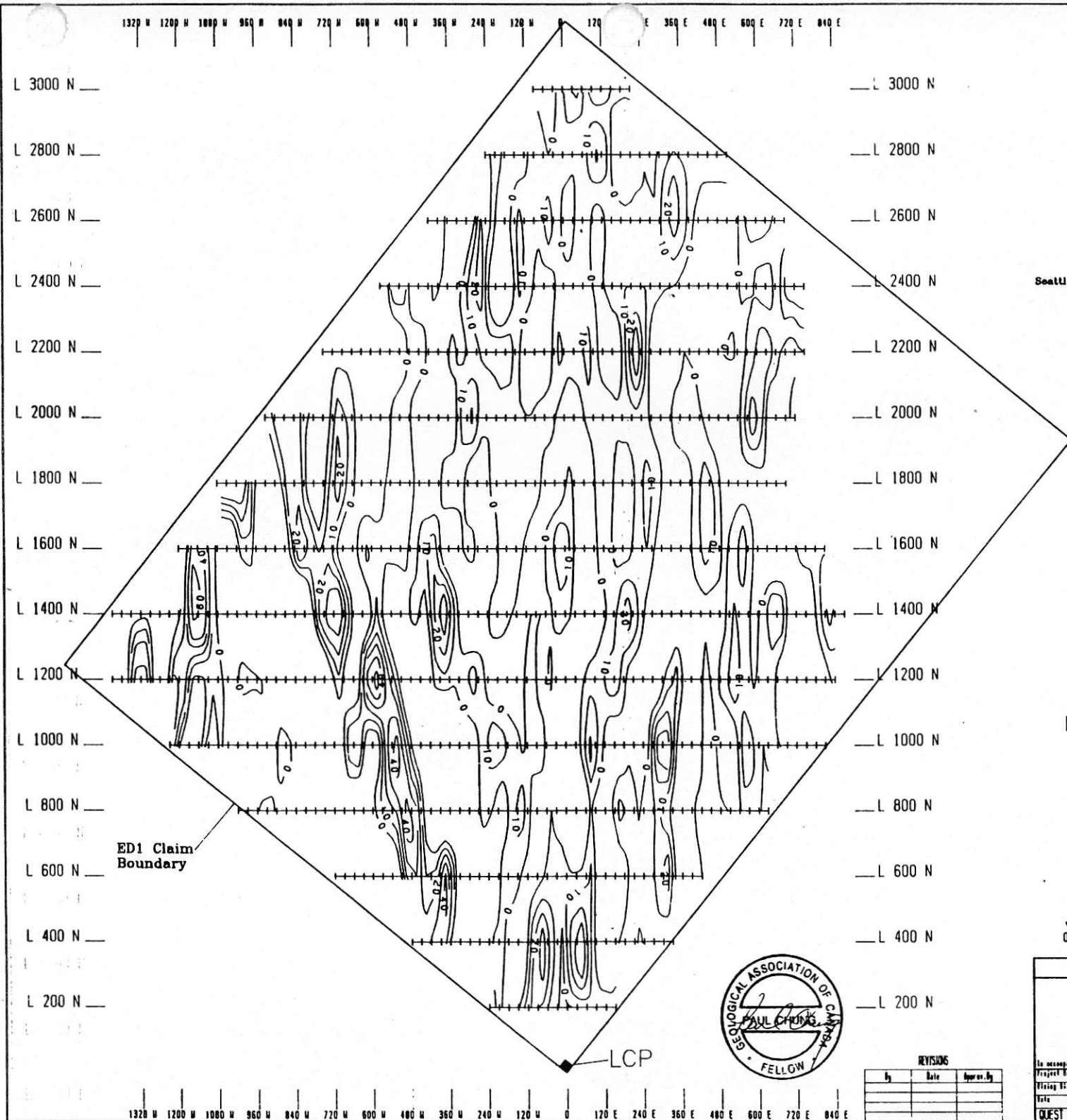
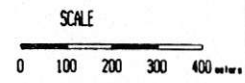


FIG. 7

Contour Interval : 10, 20Z
 INSTRUMENT : 16S - 2 VLF



REVISIONS

By	Date	Approved by

E - DI CLAIM			
ANNAPOLIS VLF - EM			
FRASER FILTERED			
CONTOUR MAP			
In accompany a report by			
Project No:			Report No:
Flaring No:			
Date:	10/10/78		
QUEST CANADA EXPLORATION SERVICES INC.			

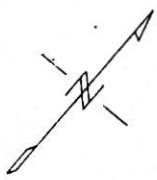
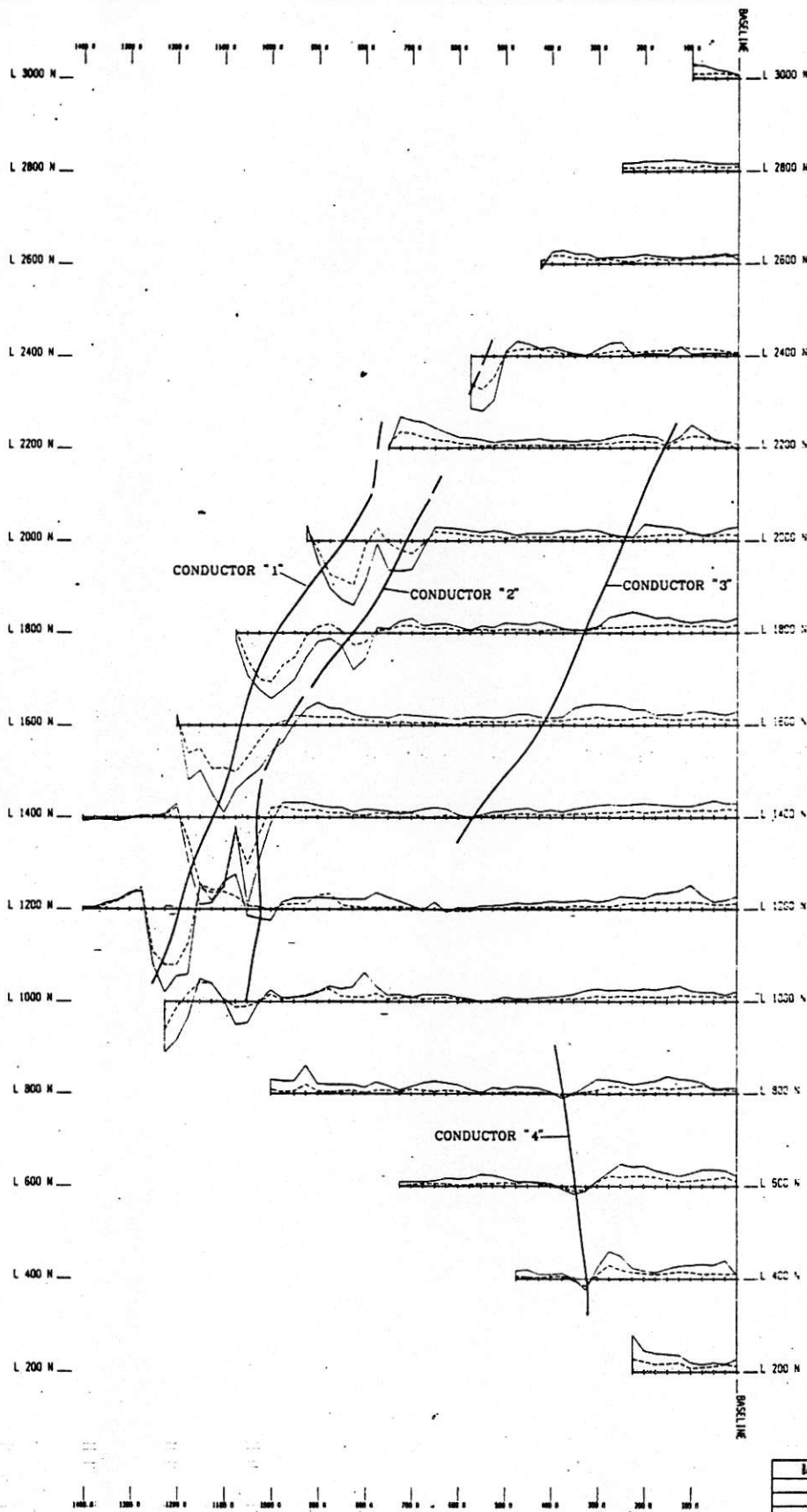
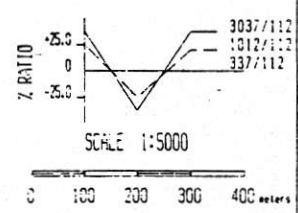


FIGURE 7A

INSTRUMENT : SCINTREX SE-88



REVISIONS

By	Date	Apprv. By

E - DI CLAIM	
GENIE HLEM PROFILE MAP	
In accompany a report by	
Project No:	Report No:
Drawing No: Kauloops	S.T.S.: 02N/SW, 92P/0E
Date: 07/16/50	Map No:
QUEST CANADA EXPLORATION SERVICES INC.	

along the western claim boundary, probably reflecting Fennell Formation rocks in this area.

Northwest trending VLF-EM conductors were best defined by the Annapolis transmitter station (Chung,1989) and are mainly west of the baseline (Figure 7) where they are coincident with magnetic highs. Strongest conductors are in the southwest part of the claim.

A horizontal loop electromagnetic (HLEM) survey was undertaken by Quest Canada Exploration Services Inc. in late June of 1990 to further define the conductors indicated southwest of the baseline by the previous VLF-EM survey.

A total of 12 km of survey was completed along existing 200 metre spaced flagged lines using a Scintrex SE88 Genie instrument. Readings were taken at 25 metre stations along the lines. Coil spacing was maintained at 100 metres and data were recorded for three frequencies (Chung,1990).

Four conductive zones were identified by the HLEM survey (Figure 7A) and these are coincident, in part, and give further definition of, some of the VLF-EM conductors (Figures 7 and 13).

Conductors 3 and 4 are interpreted as indicating poor to moderate conductivity, possibly due to estimated overburden thicknesses of between 35 and 48 metres in these areas of the grid. These two conductors may indicate lithologic or fault

contacts (Chung,1990). Conductor 4 is coincident with an area of slightly higher magnetic intensity (Figure 6).

Northerly trending conductors 1 and 2, parallelling the western claim boundary between lines 1000 and 2400N (Figure 7A) and open in both directions along strike, were observed on all three frequencies recorded, indicating good conductivity at shallow depths (Chung,1990). These two conductors may represent one conductive zone which diverges along strike and are interpreted to represent steeply east-dipping, thin, sheet-like bodies, possibly sulphide lenses.

The northern parts of Conductors 1 and 2, between lines 1800 and 2400N, are coincident with the highest magnetic susceptibilities recorded on the E-D 1 claim (Figure 6).

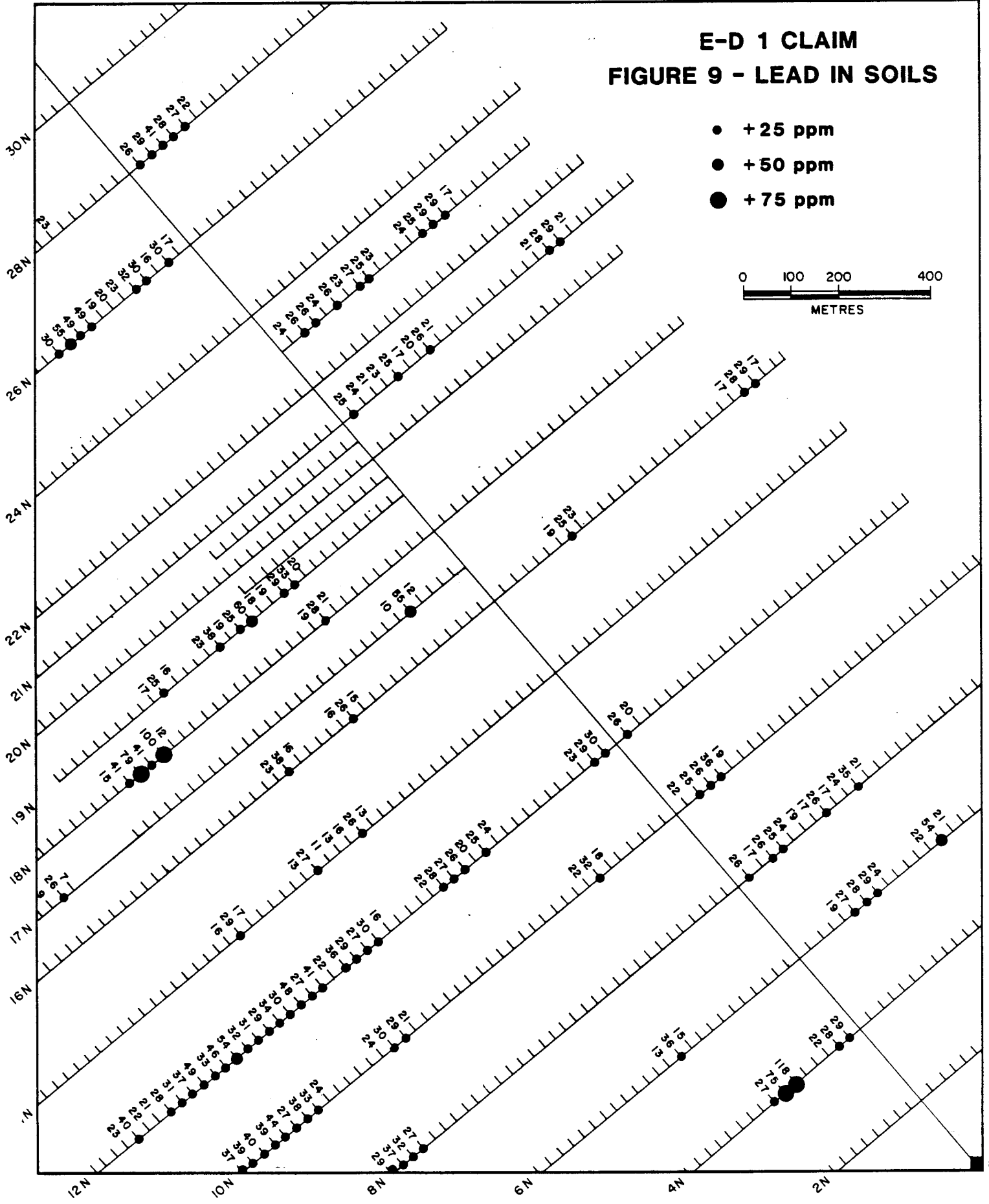
Geochemistry

Soil sampling was undertaken over 27 km of grid established on the E-D 1 claim. A cut baseline originated at the Legal Corner Post in the southeast part of the claim and was extended northwest across the claim. Flagged northeast-southwest cross-lines at 200 metre intervals were extended to the south and west claim boundaries and to the granite contact in the northeast part of the claim.

Soil samples were collected at 30 metre intervals along the flagged lines and subsequent cross-lines at 50 and 100 metre spacings which were established for follow-up sampling.

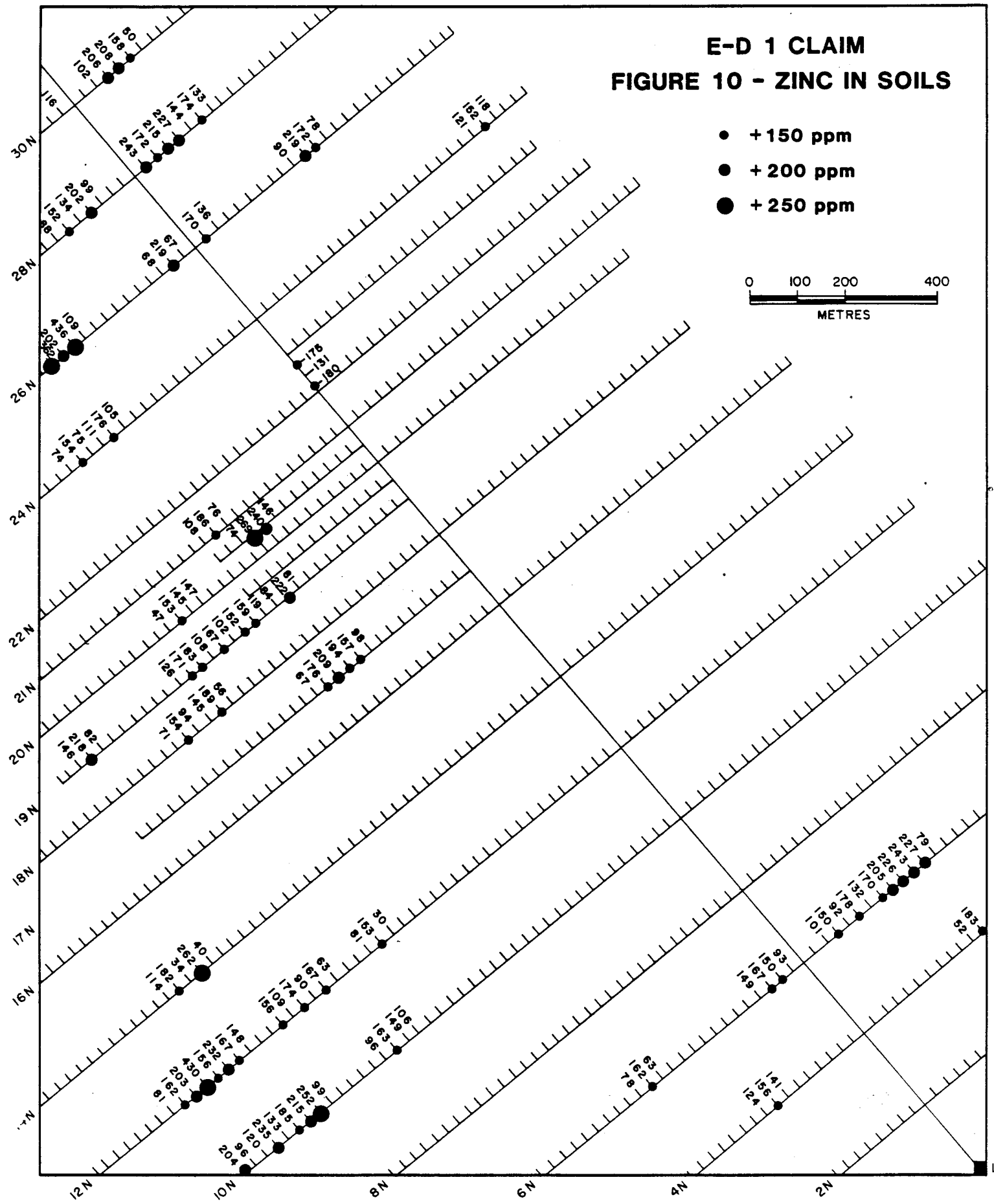
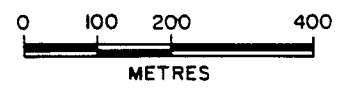
E-D 1 CLAIM
FIGURE 9 - LEAD IN SOILS

- +25 ppm
- +50 ppm
- +75 ppm



E-D 1 CLAIM FIGURE 10 - ZINC IN SOILS

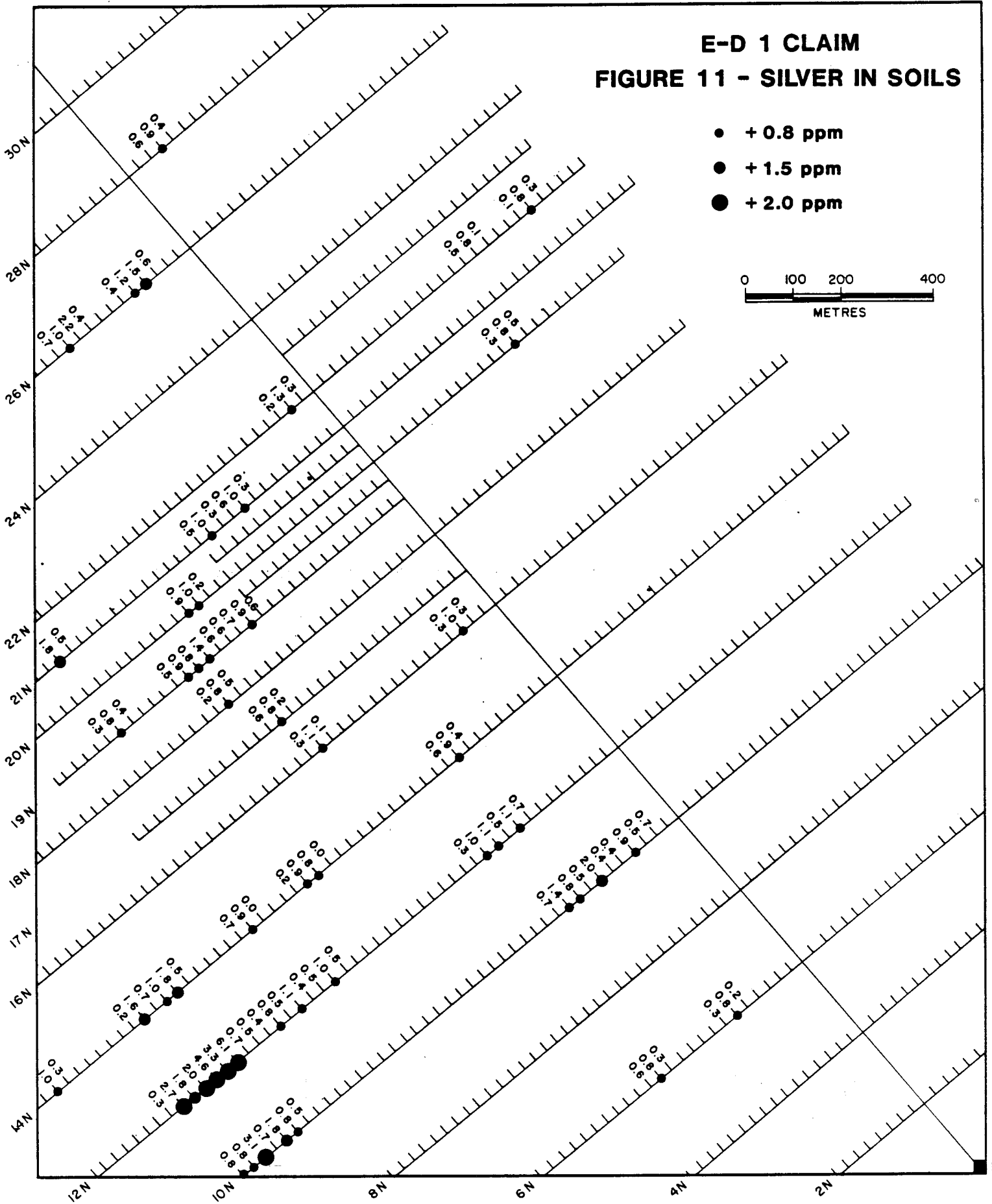
- + 150 ppm
- + 200 ppm
- + 250 ppm



E-D 1 CLAIM

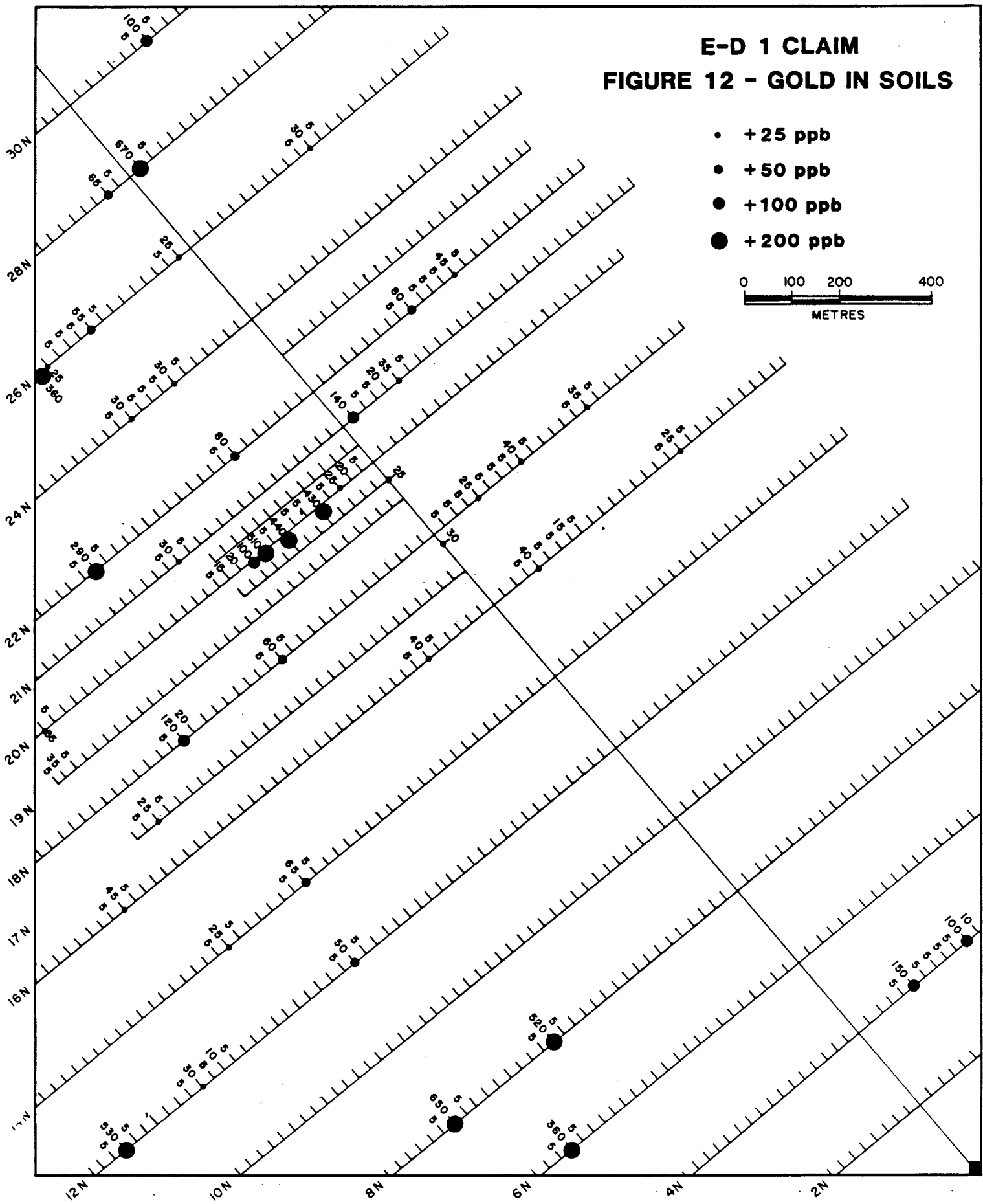
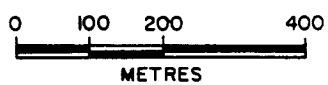
FIGURE 11 - SILVER IN SOILS

- + 0.8 ppm
- + 1.5 ppm
- + 2.0 ppm



E-D 1 CLAIM FIGURE 12 - GOLD IN SOILS

- +25 ppb
- +50 ppb
- +100 ppb
- +200 ppb



Overburden on the property consists of glacial till featuring a variably well developed soil profile. Samples were collected from the 'B' horizon at depths of between 20 and 30 cm.

Some 950 samples were analyzed for gold, silver, copper, lead and zinc by geochemical methods at Kamloops Research and Assay Laboratory Ltd. Results are contained in Appendix I and anomalous values for the 5 elements are shown on Figures 8-12 and described as follows:

Copper

Range: 3-95 ppm
Median: 17 ppm
Mean: 23 ppm
95th %ile: 42 ppm

As noted on Figure 8, contour intervals of 35, 50 and 75 ppm were selected. Higher values (+75 ppm) are west of the baseline, in the southwest part of the claim. Weakly anomalous values (+50 ppm) are widespread in the northern claim area.

Lead

Range: 4 - 100 ppm
Median: 13 ppm
Mean: 18 ppm
95th %ile: 25 ppm

Lead values were found to be fairly uniform throughout the claim area. Values of 50 ppm and above are moderately to strongly anomalous and these are contained in three areas

west of the baseline in the southern claim area (Figure 9).

Zinc

Range: 14 - 436 ppm
Median: 74 ppm
Mean: 93 ppm
95th %ile: 176 ppm

Values in excess of 175 ppm are considered anomalous and are coincident with anomalous copper and lead values in the southwest and northwest parts of the claim (Figure 10). Higher values are also present on line 6N northeast of the baseline.

Silver

Range: 0.0 - 6.1 ppm
Median: 0.17 ppm
Mean: 0.33 ppm
95th %ile: 0.70 ppm

Values of more than 1 ppm are considered definitely anomalous and highest values are along line 12N in the southwest claim area (Figure 11) where they are coincident with anomalous base metal values. Lesser anomalous values are contained in several zones west of the baseline.

Gold

Range: 3 - 670 ppb
Median: 8 ppb
Mean: 18 ppb
95th %ile: 22 ppb

As indicated on Figure 12, contour intervals have been

selected for values of 25, 50, 100 and 200 ppb. Again, anomalous values are principally west of the baseline and some of these trend in a northwesterly direction. However, it is significant that the two areas with the highest values appear to be normal to the northwest structural grain. These areas include one in the central claims area (line 20N) which contains some of the highest values, and another in the northwest part of the claim between lines 26 and 30N.

Within these two areas, distinctly anomalous values are commonly separated by low values (Figure 12) which may simply be an expression of variable depths of overburden..

More detailed sampling was undertaken along intermediate lines northwest and southeast of the higher gold values obtained along line 20N (Figure 12). This sampling yielded no anomalous values due possibly to variable depths of overburden but more probably reflecting a northeast trend for this anomalous zone.

Four areas with isolated high gold values in soils on lines 6N, 8N (two areas) and 28N were further investigated by collecting 8 additional samples at 15 metre intervals around the perimeter of a 30 metre square centred on the original sample site. Anomalous results were confirmed for those sites on lines 6N and 8N (Appendix I).

Pulps of 99 samples within and adjacent to areas with

anomalous gold values were submitted for multielement analysis by inductively coupled argon plasma (ICP) techniques and these data are contained in Appendix II.

The levels of concentration of copper, lead, zinc and silver, originally determined by geochemical analysis, were generally confirmed by the ICP method. Note that the detection limit for gold by ICP is 3 ppm which explains the ND (not detected) signature for this element.

Anomalous gold values between lines 18 and 20N are locally accompanied by elevated arsenic (18-26 ppm) and barium (163-209 ppm). The 360 ppb gold result on line 26N at the western claim boundary (Figure 12) also contains 260 ppm arsenic, and 315 ppm barium. The sample result is also supported by nearby anomalous silver, lead and zinc values.

Elevated arsenic values (21-26 ppm) correspond to higher gold values on line 21N northeast of the baseline and the 530 ppb gold result near the southwest of line 12N (Figure 12) is accompanied by 22 ppm arsenic and 270 ppm barium. Significantly, this site is upslope from the trench area (Figure 13).

Discussion of Geochemical Results

The fluvio-glacial nature of the overburden in the Barriere Lakes - Birk Creek area makes interpretation of geochemical

data difficult. As pointed out by Woodcock (1971), the 'B' horizon is fairly easy to identify but there are great variations in the depth of the glacial till and any interpretation of geochemical values must take this into account. Estimated overburden depths of between 35 and 48 metres were indicated near the baseline by the HLEM survey.

Notwithstanding these inherent problems, there are numerous case histories which attest to the usefulness of soil geochemistry in the Adams Lake - Barriere Lakes - Clearwater area. The original Rea Gold deposit has a strongly anomalous gold-arsenic soil geochemical signature while the Samatosum deposit, 600 metres northeast, features erratic high lead, zinc and silver values (Pirie, 1989).

At the Chu Chua deposit, soil geochemistry has proven to be of little use although sampling below the deposit has yielded values of up to 275 ppm copper, 880 ppm zinc and 120 ppm lead (Pirie, 1986).

A review of results from soil geochemical surveys conducted in the area between East Barriere Lake and Birk Creek (see References section) indicates anomalous for various elements as follows: copper, 30-118 ppm; lead, 20-100 ppm; zinc, 70-218 ppm; silver, 0.9-1.2 ppm; and gold 15-40 ppb.

Anomalous copper, lead, zinc, and silver values in

soils collected from the E-D 1 claim correspond well with the regional ranges of values. Anomalous values for these elements on the E-D 1 claim are apparently best developed in the area of the Lower Fennell - Eagle Bay Assemblage contact in the western claim area.

The locally high gold values determined by the E-D 1 survey are somewhat unique. Similar high gold values are reported in only a few other localities in the area, most notably the Joe claim, 4 km south, and referred to earlier (Ovington and Elliott, 1987). Some erratic high gold values in soils were obtained from the Twin claims between Adams Lake and the Rea Gold property (Pirie, 1985).

CONCLUSIONS

The E-D 1 mineral claim is underlain by Paleozoic rocks known to host nearby polymetallic vein and volcanogenic massive sulphide deposits. The two principal Paleozoic sequences of the area are separated by a regional fault zone which extends through the western part of the claim. This zone of shearing, which hosts vein type mineralization 1 km south of the E-D 1 property, is poorly exposed in several trenches in the southwest part of the claim.

A VLF-EM survey indicated a number of northwest to north

trending conductive zones. A subsequent horizontal loop EM survey further defined and prioritized four conductive zones southwest of the baseline. Two of these conductive zones are interpreted as indicating lithologic boundaries and/or faults. One of these, in the central part of the claim, is partly coincident with with areas of anomalous gold and silver values in soils.

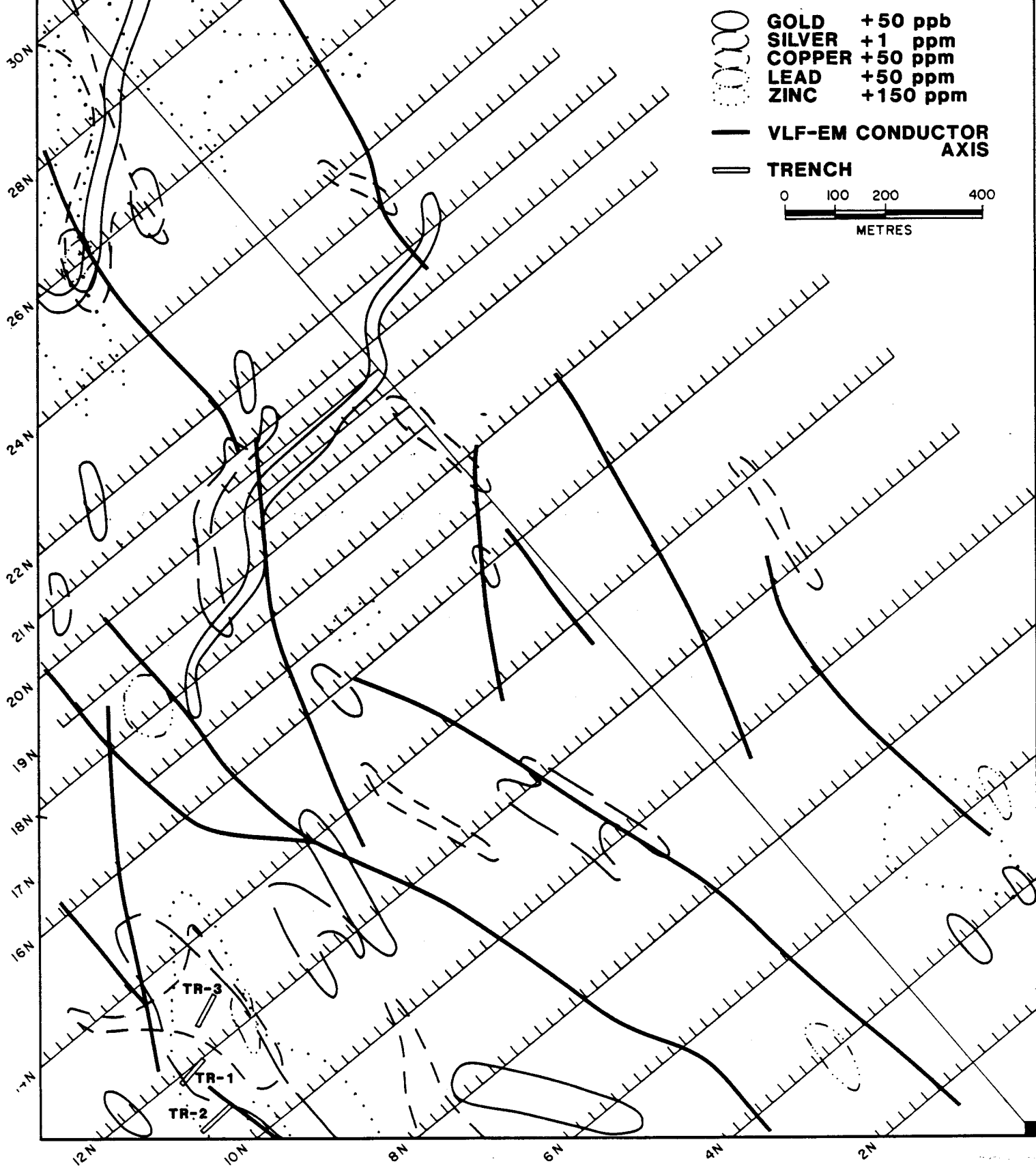
The two strongest conductors parallel the western claim boundary and are coincident with higher magnetic susceptibilities and with anomalous base metal and silver values in soils.

Geochemical soil sampling has identified a number of areas with anomalous gold, silver, copper, lead and zinc values. Coincident and /or contiguous areas with anomalous base metal and silver values in the southwest and northwest parts of the claim correlate well with stronger VLF-EM conductors (Figure 13). These anomalous areas are best developed within and west of the fault contact between the two principal Paleozoic sequences.

Areas with anomalous gold values are either adjacent to the multi-element anomalous areas or normal to them (Figure 13). This possibly reflects transverse bedrock structures or is simply a feature of element dispersion in overburden.

Results obtained from surveys to date indicate the

E-D 1 CLAIM
FIGURE 13 - COMPILATION MAP



potential for two styles of mineralization on the E-D 1 claim including stratiform polymetallic sulphides in the southwestern part of the property and transgressive vein type gold-silver mineralization in the central claim area. Results are considered to be extremely encouraging and additional exploration work is warranted.

RECOMMENDATIONS

Additional surface work is recommended as part of a Phase I program on the E-D 1 claim. An Induced Polarization survey will assist in detecting possible sulphide mineralization within the conductive zones delineated by the HLEM survey and will also give a better estimate of possible overburden thicknesses. A properly cut grid, with cross-lines at 100 metre spacings, will be required prior to the IP survey.

Detailed soil sampling should be undertaken within and adjacent to the area with the highest gold values in the central part of the claim along lines which are normal to the apparent northeast trend of this zone.

Excavator trenching and reverse circulation overburden drilling are recommended to further evaluate the zones of anomalous soil geochemistry prior to a program of diamond drilling.

A Phase II program, consisting of additional diamond drilling, would be predicated on the receipt of positive results from the Phase I exploration program.

COST ESTIMATE

Phase I

Grid Construction	\$5,000.00
Geophysics - Induced Polarization Survey- 12 km @ \$1200/km	\$14,400.00
Detailed Soil Sampling - sample collection and analyses	\$5,000.00
Excavator Trenching - 40 hours @ \$250/hour	\$10,000.00
Overburden Drilling-1000 metres @ \$50/metre	\$50,000.00
Diamond Drilling - 1500 metres @ \$100/metre	\$150,000.00
Sample Analyses	\$25,000.00
Supervision, reports, etc.	\$25,000.00
Contingencies	<u>\$42,600.00</u>
Total	\$327,000.00

N.C. Carter, Ph.D. P.Eng.

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CERTIFICATE

I, NICHOLAS C. CARTER, of 1410 Wende Road, Victoria, British Columbia, do hereby certify that:

1. I am a Consulting Geologist, registered with the Association of Professional Engineers of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S.(1962) and the University of British Columbia with Ph.D.(1974).
3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
4. The foregoing report on the E-D 1 Mineral Claim is based on several visits to the property in 1989, on results of geochemical and geophysical programs carried out on the property in 1989 and 1990 and on a review of published and unpublished reports pertaining to the geological setting and geochemical signatures of the Barriere Lakes - Birk Creek area.
5. I hold no interest, directly or indirectly, in the E-D 1 mineral claim, 356584 B.C. Ltd. or in Foran Mining Inc.
6. Permission is hereby granted to Foran Mining Inc. to use the foregoing report in support of a Prospectus to be filed with the British Columbia Securities Commission.

N.C. Carter, Ph.D. P.Eng.

Victoria, B.C.
August 27, 1990

N.C. CARTER, Ph.D., P.Eng.
CONSULTING GEOLOGIST

APPENDIX I

N.C. CARTER, Ph.D., PEng.
CONSULTING GEOLOGIST

APPENDIX II

N.C. CARTER, Ph.D., P.Eng.
CONSULTING GEOLOGIST