840520

GEOLOGICAL REPORT

ON

PAUL AND MIKE CLAIMS

LEWIS CREEK 82G/12E & 82G/13E

FORT STEEL MINING DIVISION

LATITUDE 49° 46' N LONGITUDE 115° 41.5' W

for

DIA MET MINERALS LTD.
KELOWNA, B.C.

E.A. SCHILLER
Sept. 8, 1987

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ABSTRACT

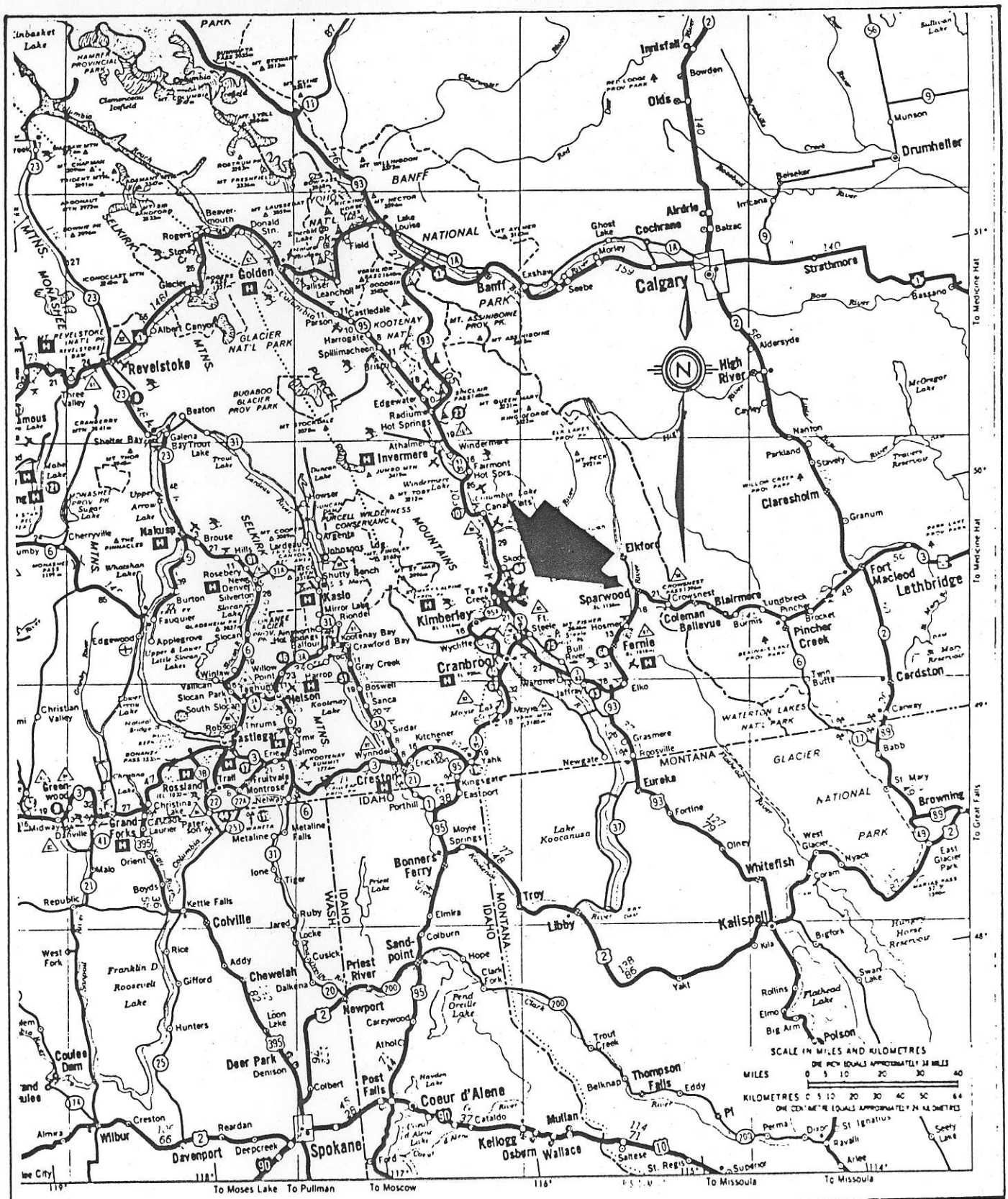
This report describes the geology and mineral potential of the Paul-Mike claims located east of Wasa Lake, in south east British Columbia. Geochemical and geophysical surveys and rotary drilling have delineated an anomalous lead and silver target over a thick section of overburden unconsolidated silts and gravels. The claims cover an area believed to be underlain by bedrock Proterozoic sedimentary rocks of the Aldridge Formation which to the west host the famous Kimberley lead-zinc-silver deposits.

Anomalous lead contents up to 3.66% have been obtained from samples collected from a drill hole at a depth from 600 - 780 feet.

It is recommended that a program estimated to cost $235,000.00 be conducted to determine the origin of the anomalous lead and silver by deepening the sampled hole to bedrock and drilling up to seven additional holes on the claims.

INTRODUCTION

This report reviews the geology and mineral potential of the PAUL - MIKE Claim block located east of Wasa Lake, in southeast British Columbia (Figure 1). The claims were staked to cover lead and zinc soil geochemical and airborne geophysical anomalies over an area believed to be underlain by a lead-zinc deposit of the Sullivan type. In 1987 analyses from heavy mineral concentrates of overburden silts and gravels obtained from a rotary drill hole completed in 1985 gave anomalous values in lead and silver.



DIA MET MINERALS LTD
INDEX MAP
PAUL AND MIKE CLAIMS

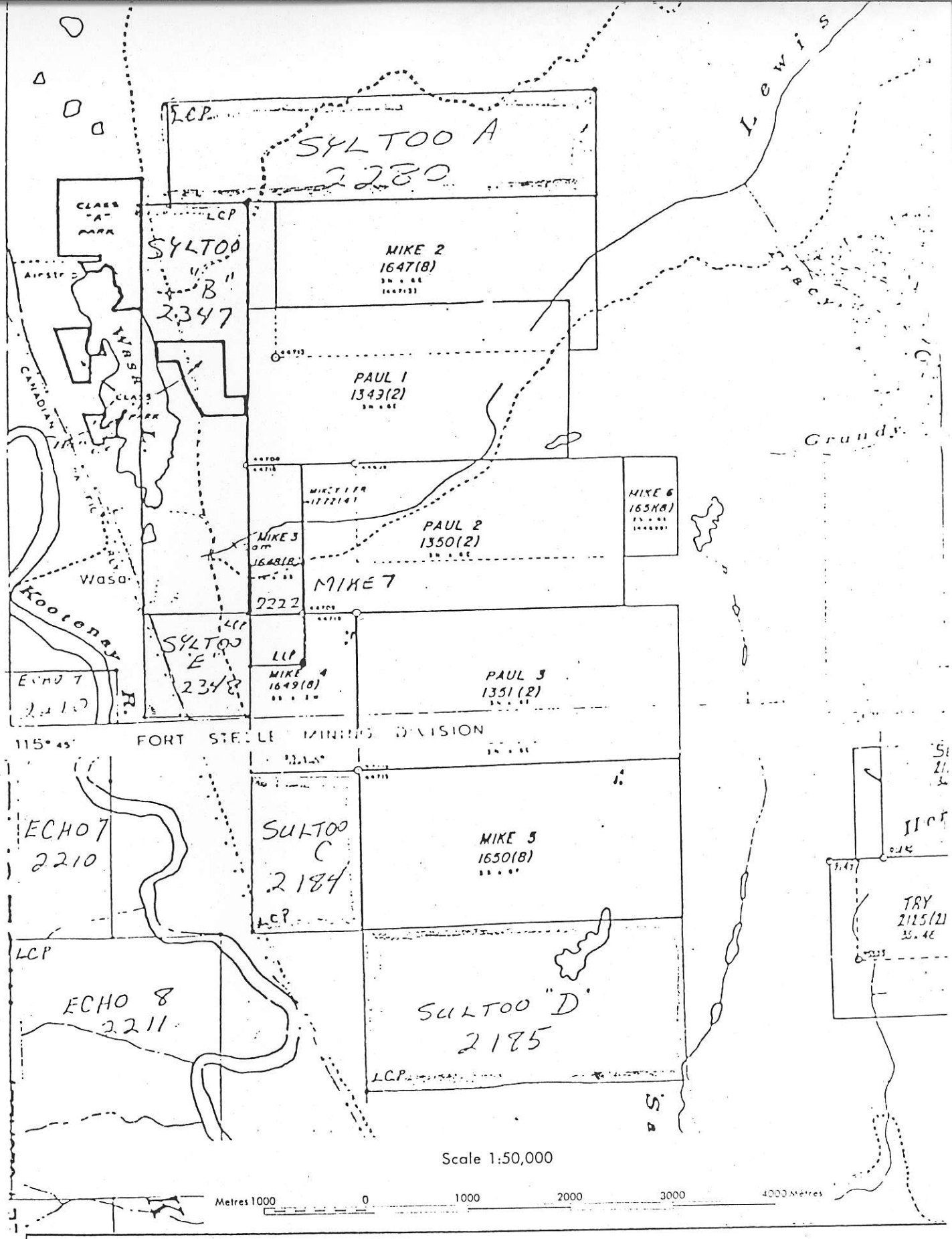
FIGURE 1

82G/12E & 82G/13E	49° 46′N 115° 41.5′W
GOWER, THOMPSON & ASSOCIATES Drawn J.F.B.	K.E. NORTHCOTE AND ASSOCIATES LTD April 30 1983

CLAIM DESCRIPTION

The Paul - Mike group comprise the Paul 1, 2 & 3 and Mike 3, 4, 5 & 6 claims and Mikey 1 fractional claim (Figure 2). The claims are contiguous with considerable overlap. Details of the claims follows:

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE	EXPIRY DATE
Paul 1	18	1349	Feb. 17/81	Feb. 17, 1991
Paul 2	18	1350	Feb. 17/81	Feb. 17, 1991
Paul 3	18	1351	Feb. 17/81	Feb. 17, 1994
Mike 3	3	1648	Aug. 9/82	Aug. 9, 1990
Mike 4	6	1649	Aug. 9/82	Aug. 9, 1992
Mike 5	18	1650	Aug. 9/82	Aug. 9, 1990
Mike 6	12	1651	Aug. 9/82	Aug. 9, 1992
Mikey Fract.	1	1772	April 26/83	April 26, 1995



DIA MET MINERALS LTD

PAUL AND MIKE CLAIMS

FIGURE 2

82G/12E & 82G/13E	49° 46′N 115° 41.5′W

LOCATION AND ACCESS

The claims are located between Wasa and Sowerby Lakes on the east margin of the Rocky Mountain Trench at the foot of the west facing slope of the Hughes Range. Elevations on the property range from 800 to 1100 meters. Wasa Lake is 20 kms. east of Kimberley at latitude 49° 46'N and longitude 115° 41'W (N.T.S. 82G/12 & 13E).

The claims are accessible by a maintained gravel road at a point on paved highway 93/95 between Wasa Lake and Lewis Slough.

PREVIOUS WORK

Prior to the staking of the claims in 1982/83 there was no recorded work on the claims. Based on a geological model in which projections of stratigraphy eastward from Cominco's Sullivan lead-zinc mine, west of Kimberley, the Wasa area was subject to geological, geochemical and geophysical investigation in 1982 - 85. Utilizing information from Hoy (1978) it was postulated by Fipke (unpublished report) that the Proterozoic Middle Aldridge Formation could extend eastward beneath Wasa Lake and be possibly mineralized. The presence of the Kootenay King and Estella lead-zinc mines east of Wasa Lake supported this hypothesis (Figure 3).

In 1982, an airborne electromagnetic survey (DIGHEM) was completed over the area and a resistivity anomaly was detected on the eastern edge of the claims (Figure 4). A weak electromagnetic conductor was mapped in the south east part of the claims. Due to the highly conductive nature of the overburden gravels estimated to be 100 to 110 metres by DVORAK of Dighem (personal comm.) but found to be over 700 feet in the rotary drilling, the interpretation of the geophysical data must be considered inconclusive.

In 1985 Induced Polarization surveys were conducted over the claims and two anomalous areas were delineated that coincided with geochemical anomalies for lead, zinc and copper (Figures 5, 6, & 7). Dia Met Minerals Ltd. optioned the claims to Bearcat Exploration Ltd. of Calgary, Alberta who drilled, in 1985, three rotary holes totalling 546 metres (Appendix).

In 1986, Dia Met prepared heavy mineral concentrates from 10 foot intervals over the interval 600' - 780' from hole No. 3. The concentrates were analyzed for 30 elements and appendixed in this report. Lead and silver were significantly anomalous whereas the zinc content was only moderatly anomalous in two, ten foot intervals. Note worthy is the consistent elevated levels of lead exceeding 10,000 ppm (>1.0%).

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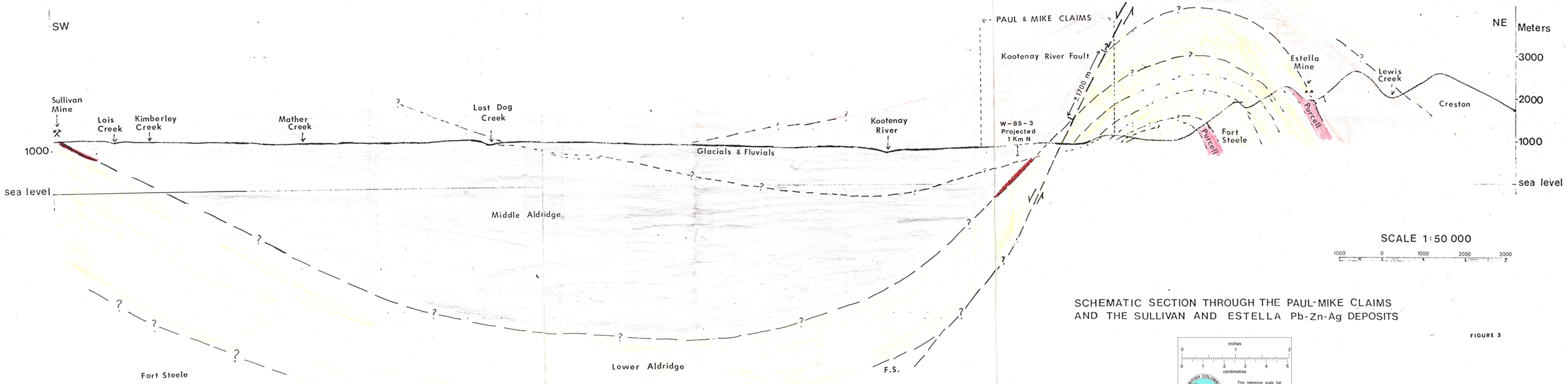
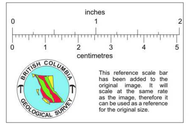


SCHEMATIC SECTION THROUGH THE PAUL-MIKE CLAIMS AND THE SULLIVAN AND ESTELLA Pb-Zn-Ag DEPOSITS

FIGURE 3



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

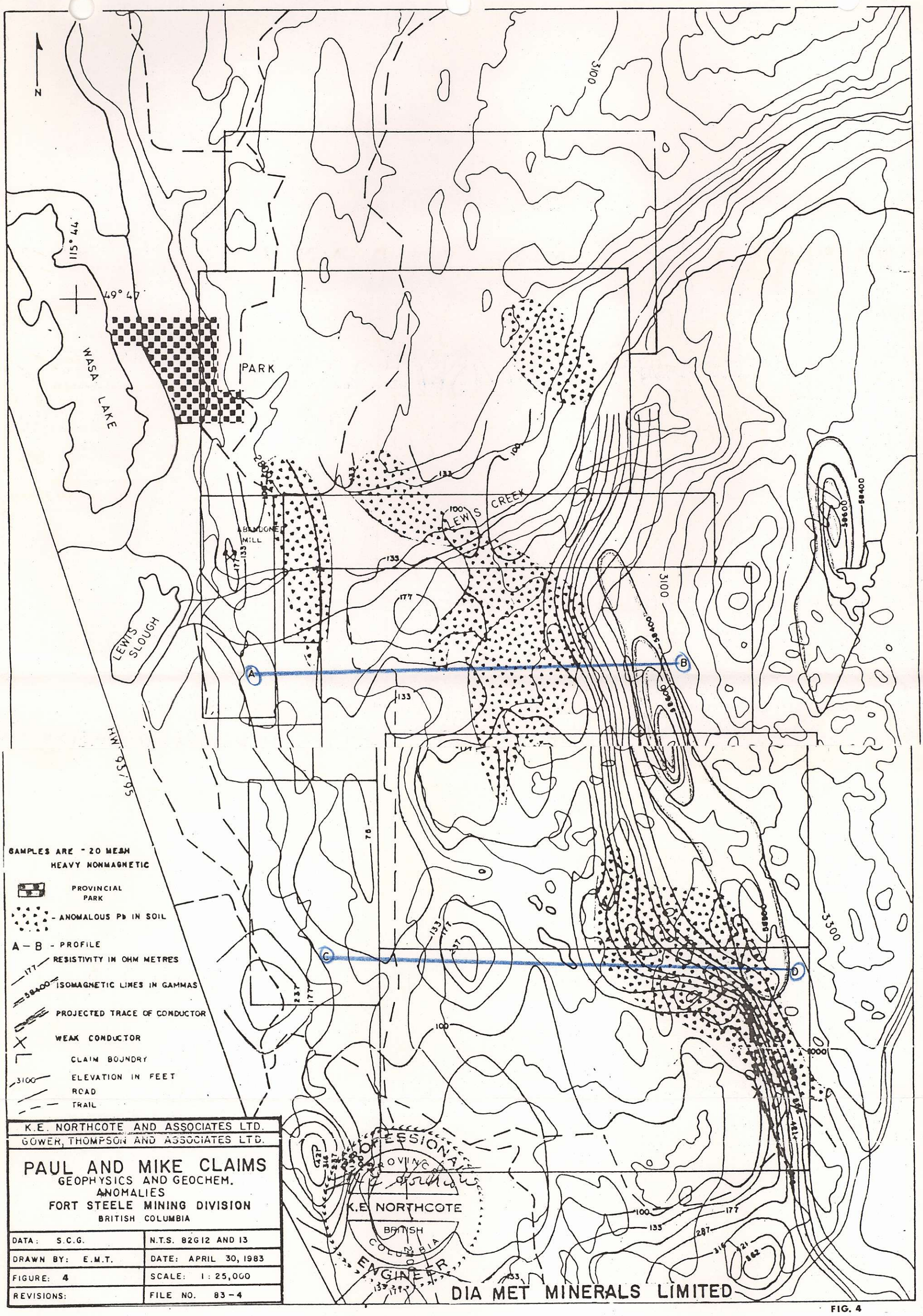
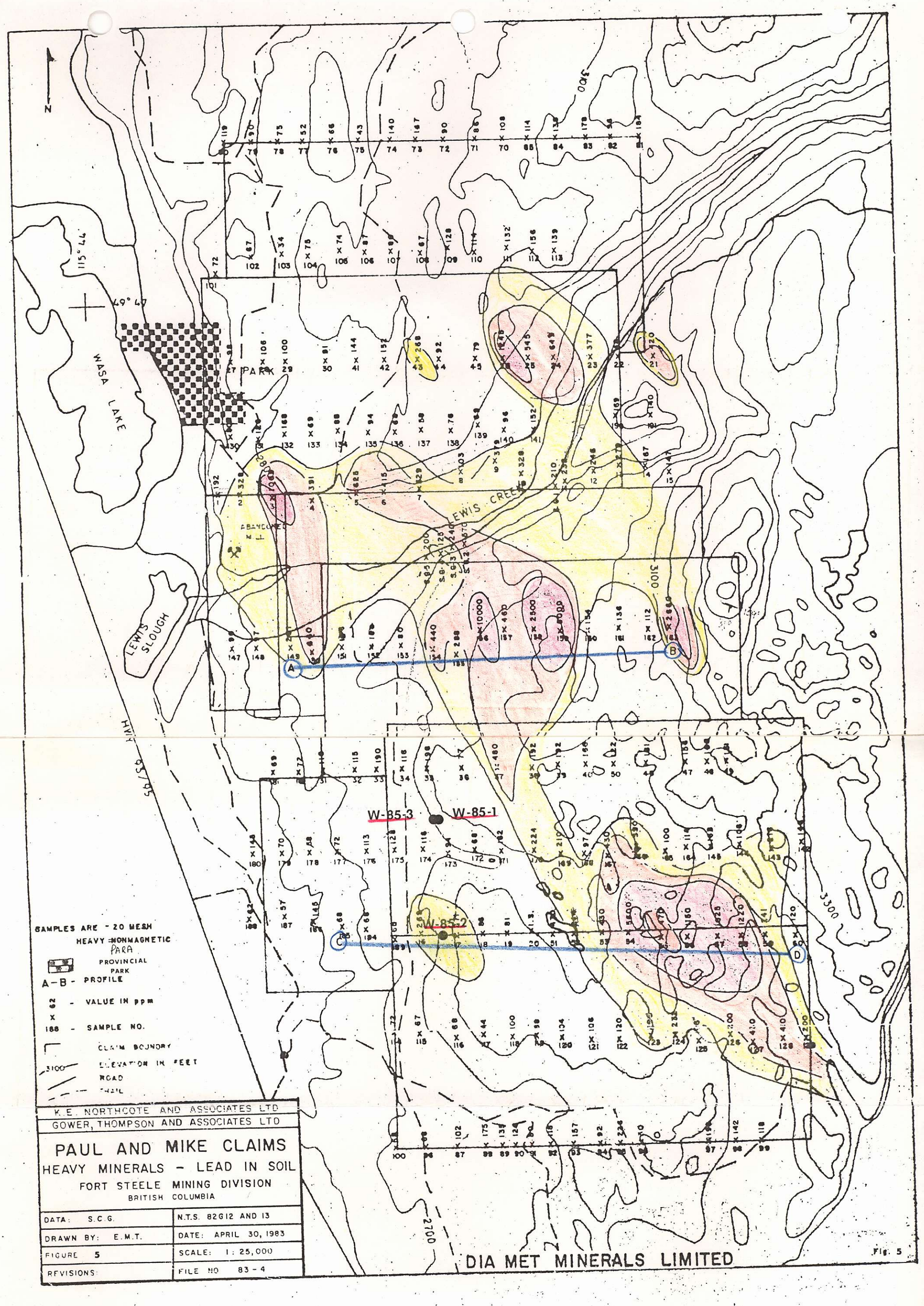
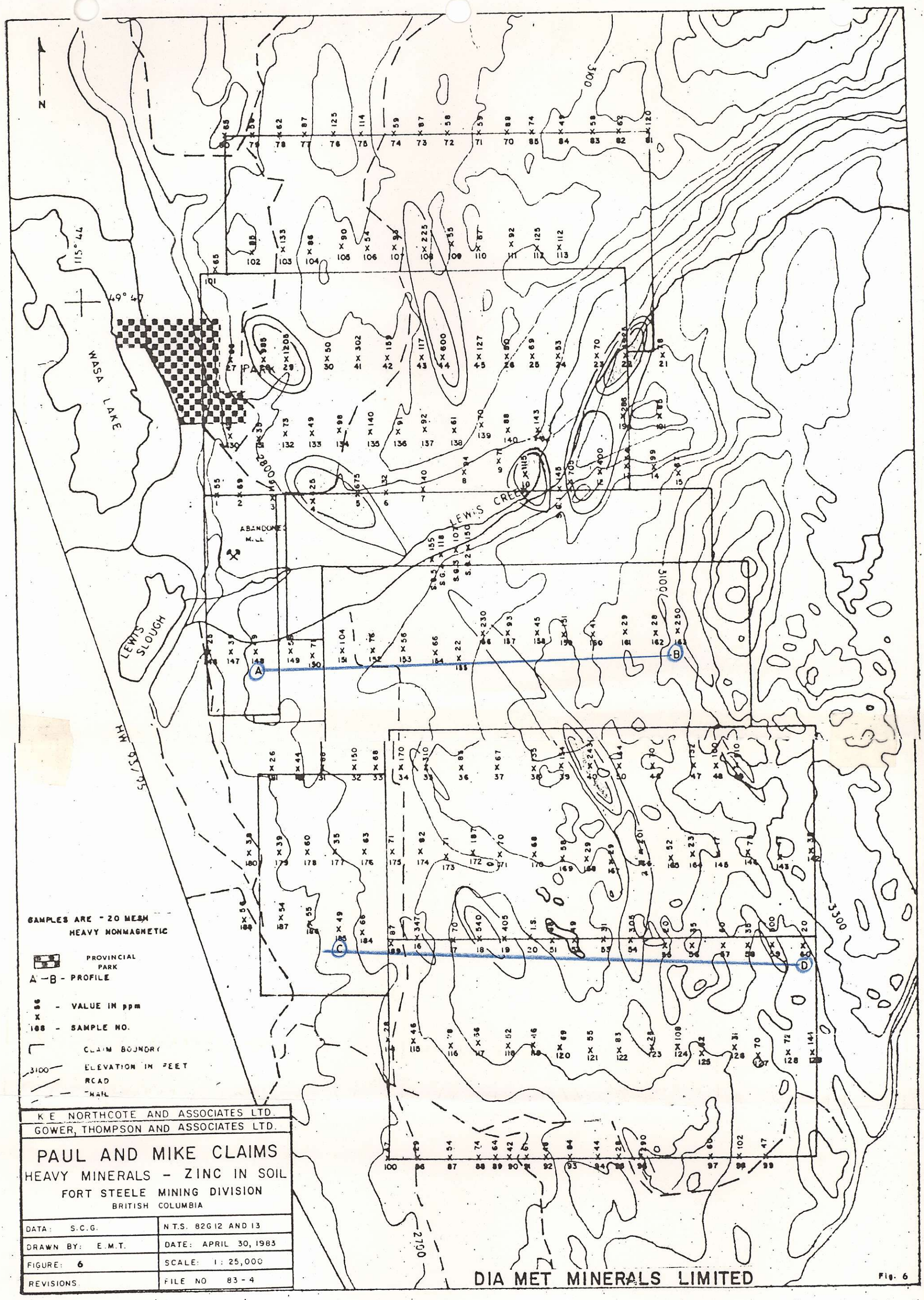
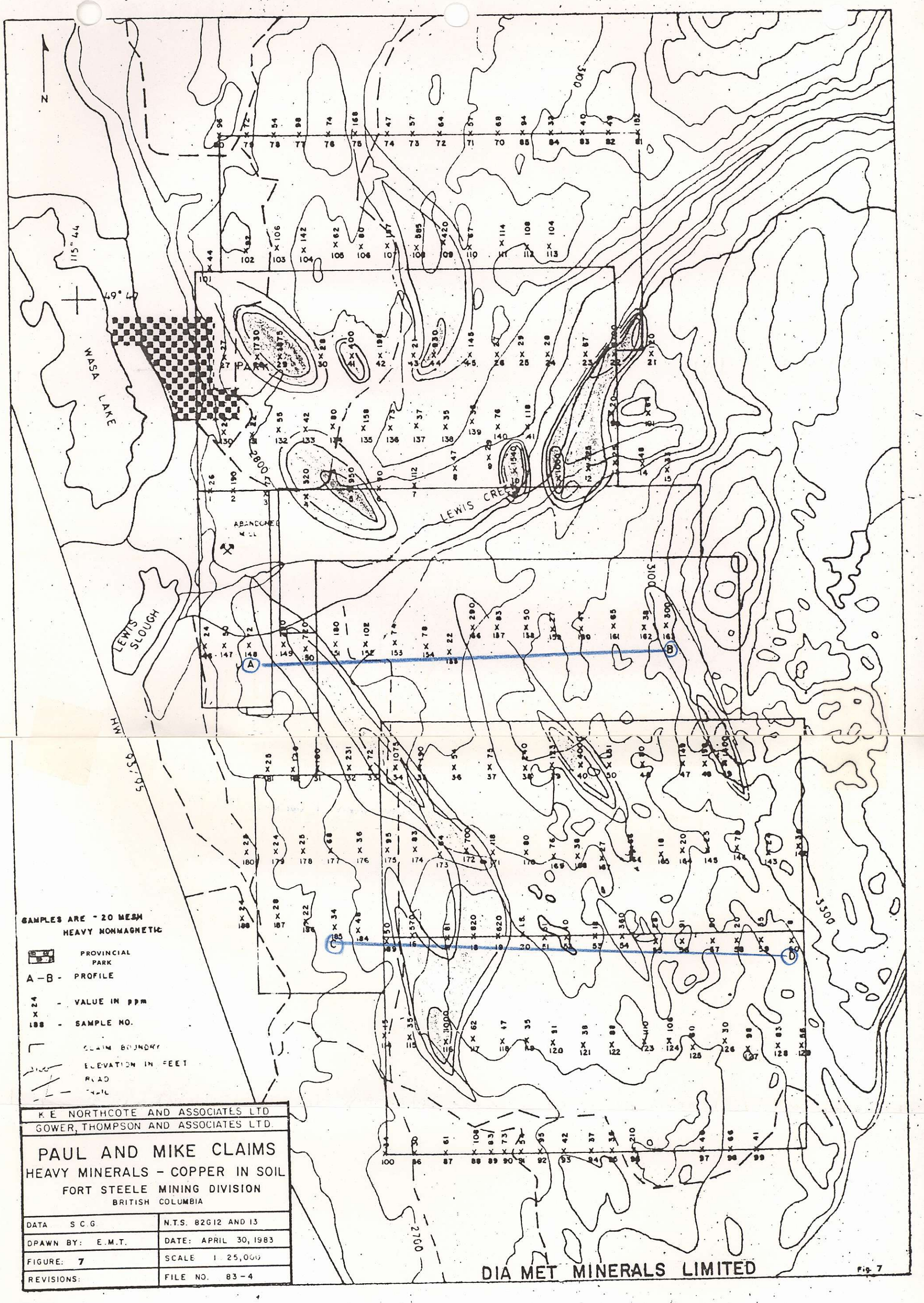

N
115° 44'
49° 47'
WASA LAKE
PARK
LEWIS CREEK
ABANDONED MILL
LEWIS SLOUGH
3100
3300
A
B
C
D
SAMPLES ARE -20 MESH HEAVY NONMAGNETIC
PROVINCIAL PARK
- ANOMALOUS Pb IN SOIL
A – B - PROFILE
RESISTIVITY IN OHM METRES
ISOMAGNETIC LINES IN GAMMAS
PROJECTED TRACE OF CONDUCTOR
WEAK CONDUCTOR
CLAIM BOUNDRY
ELEVATION IN FEET
ROAD
TRAIL
K.E. NORTHCOTE AND ASSOCIATES LTD.
GOWER, THOMPSON AND ASSOCIATES LTD.
PAUL AND MIKE CLAIMS
GEOPHYSICS AND GEOCHEM. ANOMALIES
FORT STEELE MINING DIVISION
BRITISH COLUMBIA
DATA: S.C.G.
N.T.S. 82G12 AND 13
DRAWN BY: E.M.T.
DATE: APRIL 30, 1983
FIGURE: 4
SCALE: 1 : 25,000
REVISIONS:
FILE NO. 83-4
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
K.E. NORTHCOTE
DIA MET MINERALS LIMITED

FIG. 4


N
115° 44'
49° 47'
WASA LAKE
LEWIS SLOUGH
HWY 93/95
PARK
LEWIS CREEK
ABANDONED TM
3300
3100
2700
W-85-3
W-85-1
W-85-2
A
B
C
D
SAMPLES ARE - 20 MESH
HEAVY NONMAGNETIC
PARA
PROVINCIAL PARK
A-B - PROFILE
62 - VALUE IN ppm
188 - SAMPLE NO.
CLAIM BOUNDRY
3100 ELEVATION IN FEET
ROAD
TRAIL
K.E. NORTHCOTE AND ASSOCIATES LTD
GOWER, THOMPSON AND ASSOCIATES LTD
PAUL AND MIKE CLAIMS
HEAVY MINERALS - LEAD IN SOIL
FORT STEELE MINING DIVISION
BRITISH COLUMBIA
DATA: S.C.G.
N.T.S. 82G12 AND 13
DRAWN BY: E.M.T.
DATE: APRIL 30, 1983
FIGURE 5
SCALE: 1:25,000
REVISIONS:
FILE NO 83-4
DIA MET MINERALS LIMITED
Fig. 5


N
115° 44'
49° 47'
WASA LAKE
LEWIS SLOUGH
ABANDONED MILL
LEWIS CREEK
PARK
3300
3100
2900
2700
A
B
C
D
SAMPLES ARE -20 MESH HEAVY NONMAGNETIC
PROVINCIAL PARK
A—B - PROFILE
56 - VALUE IN ppm
x 188 - SAMPLE NO.
CLAIM BOUNDRY
3100 ELEVATION IN FEET
ROAD
TRAIL
K E NORTHCOTE AND ASSOCIATES LTD.
GOWER, THOMPSON AND ASSOCIATES LTD.
PAUL AND MIKE CLAIMS
HEAVY MINERALS - ZINC IN SOIL
FORT STEELE MINING DIVISION
BRITISH COLUMBIA
DATA: S.C.G.
N.T.S. 82G 12 AND 13
DRAWN BY: E.M.T.
DATE: APRIL 30, 1983
FIGURE: 6
SCALE: 1 : 25,000
REVISIONS
FILE NO 83 - 4
DIA MET MINERALS LIMITED
Fig. 6


N
WASA LAKE
LEWIS SLOUGH
LEWIS CREEK
PARK
ABANDONED MILL
115° 44'
49° 40'
49° 50'
3300
3100
3500
2800
2700
A
B
C
D
SAMPLES ARE -20 MESH HEAVY NONMAGNETIC
PROVINCIAL PARK
A – B - PROFILE
24 - VALUE IN ppm
188 - SAMPLE NO.
CLAIM BOUNDRY
ELEVATION IN FEET
ROAD
TRAIL
K.E. NORTHCOTE AND ASSOCIATES LTD.
GOWER, THOMPSON AND ASSOCIATES LTD.
PAUL AND MIKE CLAIMS
HEAVY MINERALS - COPPER IN SOIL
FORT STEELE MINING DIVISION
BRITISH COLUMBIA
DATA S.C.G.
N.T.S. 82G12 AND 13
DRAWN BY: E.M.T.
DATE: APRIL 30, 1983
FIGURE: 7
SCALE 1:25,000
REVISIONS:
FILE NO. 83-4
DIA MET MINERALS LIMITED
Fig. 7

GEOLOGY*

REGIONAL GEOLOGY

The Paul and Mike claims area is underlain by clastic rocks of the Purcell Supergroup and lie within the Fernie (West Half) map sheet (Leech, 1966) and on the west margin of the Estella-Kootenay King area (Hoy, 1979). It is from these maps, and papers by T. Hoy, 1982: M.E. McMechan, 1981: M.E. McMechan, T.Hoy and R.A. Price, 1980, that the following account of the regional geology is summarized.

The Purcell clastic rocks exhibit marked changes of facies from east to west reflecting different environments of deposition. In general these rocks form a series of sedimentary wedges that thicken and become more argillaceous westwards. To the east, in the Clark Range, most of the Purcell rocks of the Waterton, Altyn Formations are shallow-water shelf, tidal flat flood-plain or deltaic deposits. This thin platform thickens to the west and in the Purcell Mountains becomes more argillaceous having the same stratigraphic position as the thick sucession of dark laminated argillite, siltstone, sandstone, turbidite deposits of the Aldridge Formation. With continued subsidence the basin of turbidite deposition expanded. In the Clarke Range overlying clastic facies of Appekunny and Grinnell Formations thicken westwards correlative with the Creston Formation. Similarly the overlying Kitchener-Siyeh Formation thickens and becomes more argillaceous to the west. Purcell sedimentary rocks, overlying the Purcell Lava on the east, form thin lithologically distinct formations of tidal flat or floodplain deposits while correlative rocks in the Purcell Mountains to the west are thicker, contacts

* The following description (pages 6 - 25) was taken from a report written by Northcote and Gower and Thompson in June, 1983 for Dia Met Minerals Ltd.

are more gradational and dark argillaceous facies are more prominent.

Hoy postulates that syndepositional transverse faults, the Moyie-Dibble Creek and St. Mary-Boulder Creek faults, originating in Purcell time locally modified the depositional pattern of Purcell rocks. These faults cross the Rocky Mountain Trench south of the Kootenay King area and affected deposition of Purcell rocks in this area. Fort Steele coarse fluvial quartzites at the base of the succession may record an initial arching of the crust prior to development of a cross cutting fault controlled structural basin to the south. Thick deposits of turbidite and wacke beds were deposited in the basin in aldridge time while generally more shallow-water sediments accumulated in the Kootenay King area to the north. The Boulder Creek fault, a right lateral reverse fault, is located along the approximate site of the Lower to Middle Aldridge growth fault with its associated dramatic thickness and facies changes. North of the Kootenay King area in the direction of current transport and deepwater environment the quartzite and surrounding strata thin appreciably and become finer grained, suggesting deposition in a small fault bounded structural depression. Overlying the Fort Steele Formations are coarse grained channel deposits in the inner part of a submarine fan consisting of quartzite and locally conglomerate in calcareous siltstone and argillite which were probably a source of turbidite deposits in correlative Middle Aldridge rocks to the north, south and west.

THE GEOLOGY OF THE PAUL AND MIKE CLAIMS AREA

The Paul and Mike claims are largely underlain by unconsolidated material which covers the probable position of the Kootenay River fault which follows much of the eastern side of the Rocky Mountain Trench in the Fernie (West Half) map sheet.

The Fort Steele Formation crops out on the east edge of the claims area and has moderate westerly dip towards the centre of the claims. Here, the Fort Steele Formation represents the upper limb of a recumbent fold whose axial plane strikes north-northwesterly and dips westerly. The Fort Steele Formation begins dipping easterly at about 1050 metres elevation east of Sowerby Lake and from there proceeds upwards in section to 2000 metres elevation where Aldridge Formation overlies Fort Steele conformably in the south part of the map area and along a fault which transects bedding at a low angle from a point east of Sowerby Lake northerly to Lewis Creek. Successively younger members of the Aldridge Formation are exposed eastwards to the Aldridge-Creston contact two kilometers east of Estella mine.

Fort Steele Formation*

The total thickness of the exposed Fort Steele section is greater than 2000 metres with the base not exposed. The formation comprises at least three generally upward fining sequences, or megacycles, several hundred metres thick. The megacycles grade, with some reversals, from coarse massive or cross bedded quartzites at the base to laterally more persistent thinly laminated siltstone and argillites at the top.

Quartzites at the base of the megacycles are medium to coarse grained forming discontinuous beds up to a metre thick which thin and die out laterally. They are commonly structureless or crudely layered and scour the underlying unit producing broad troughs. Up section, within each of the megacycles, quartzites are finer grained, more argillaceous, thinner bedded and more persistent laterally. The relative proportion of the siltstone/argillite component increases at the top of upward fining sequences. Siltstones at the top of the megacycles are thin and horizontally

* as described by Hoy, 1979, 1982

laminated or ripple cross laminated. Individual beds grade up to dark laminated argillite that contains abundant desiccation cracks. Lenticular bedding and silt scours are common. At the top of the Fort Steele Formation the quartzite/siltstone component gradually decreases grading into Aldridge Formation; which boundary is placed above the last occurrences of cross bedded quartzite or observed desiccation cracks in argillite.

Aldridge Formation

Rusty weathering argillite, siltstone and shale of the Aldridge Formation conformably overlie the Fort Steele Formation and is divided into three main divisions. The lowest division, A 1, is dominantly laminated and ripple cross-laminated siltstone, finely laminated dark argillite, quartzite and, near the base, a dolomite member containing intercalated chert. Quartzite beds that contain basal rip-up clasts and occasional northerly trending flute casts are interlayered with a buff-weathering, commonly graded and lenticular-bedded siltstone near the middle of A 1.

The middle division of the Aldridge Formation, A 2, is approximately 500 metres in thickness and consists of interlayered siltstone, quartzite beds separated by dark rusty weathering argillite. The quartzite beds are generally massive, although the top few centmetres may be crudely layered and finer grained than the base. Flute casts on the base of some quartzite beds indicate northward transport.

The upper division, A 3, comprises 500 to 800 metres of finely laminated, dark argillite and siltstone. It is transitional into green quartzite and siltstone at the base of the overlying Creston Formation.

Depositional Environment of Purcell Rocks, Kootenay Range

The following account of depositional environment of Purcell rocks in the Kootenay King-Estella area is taken from Hoy, 1979.

" As in the Clarke Range, the bulk of the Purcell rocks in the Kootenay Range record deposition in a shallow water tidal flat or flood plain environment. However the lithology of the Aldridge Formation indicates that it was deposited in deep water."

"The Fort Steele Formation at the base of the Purcell Supergroup is unique. It consists predominantly of braided fluvial deposits derived from a source area to the south (Hoy, 1978). A marine transgression is apparent in lower Aldridge time, and the alluvial fan deposits of the Fort Steele are overlapped by intertidal and subtidal mud flat deposits, which gave way upward to slightly crenulated and laminated carbonates that are similar to subtidal algal mat deposits. Overlying laminated siltstone and argillite represent continuing transgression. In the Kootenay King area, the lower division of the Aldridge Formation, (Al), thins from approximately 2500 metres thickness in the south to less than 1500 metres only 15 kilometres to the north. In addition, the character of lower division rocks also changes northward. Thick sections of quartz-rich siltstone in the south give way to finer grained and more dolomitic siltstone to the north and finally grade laminated black argillite. As well, thick coarse grained quartzites that contain zones of small angular clasts near their base become thinner and finer grained northward. The thinning and fining of sediments to the north, reinforced by a northerly current transport direction that is indicated by sedimentary structures, suggests that a local fault-bounded basin, with south side up may have developed in lower Aldridge time. The Boulder Creek fault, an eastern extension of the St. Mary Fault which Lis and Price (1976) have shown to be active in Hadrynian time, appears to have been the focus of an Helikian fault that defined the southern limit of the basin. The coarse grained quartzite layers are interpreted to be channel deposits that cut silty levee or back-levee beds in the inner part of a submarine fan. Movements on the fault might have triggered deposition of the channel sand deposits. The Kootenay King, a stratiform Pb-Zn deposit, is in the upper part of the thickest and coarsest of these quartzite sequences. Quartzite interlayered with conglomerate just north of the transverse Lewis Creek-Nicol Creek fault zone... also thins, becomes finer grained and dies out to the north suggesting that this zone also was active in lower Aldridge time and locally controlled sedimentation."

"The middle division of the Aldridge Formation (A2) consists of proximal turbidite deposits, transported in a northerly direction. The first evidence of a marine regression appears near the top of the Aldridge Formation (Hoy, 1978) and green siltstone and shale near the base of the overlying Creston Formation were deposited in a subtidal environment. Overlying purple siltstones that contain numerous mud cracks, rip-up clasts and ripple marks are tidal flat or flood plain deposits similar to those described in the Clark Range. The carbonate rocks of the Kitchener-Siyeh, and the mud-cracked siltstone and shale of the Gateway, Phillips and Rooseville Formations, were also formed on extensive tidal flats or flood plains."

Structure

The structure of the Purcell rocks in the Estella-Kootenay King map area is dominated by a large, open, recumbent anticline. Its axial plane dips to the west and, throughout most of the western part of the map area, bedding in its upper limb dips to the east. It is noted, however, on field work sheets provided by Hoy, that outcrops on the east margin of the Paul and Mike claims have consistent gentle to moderate westerly dips to a point of flexure east of Sowerby Lake. Because of this westward dip of the upper limb of the recumbent fold in this local area it is possible that Aldridge Formation higher on this limb could subcrop in the claims area. If the projection of the Kootenay River fault passes through the claims area it would transect and displace the upper limb of the recumbent fold. Because the direction and magnitude of movement of opposite sides of the Kootenay River Fault are not known it is not possible to predict with certainty what formation underlies the overburden on the west half of the Paul-Mike claims.

ECONOMIC GEOLOGY

Mineral deposits in rocks of the Purcell Supergroup are of two major types:

a) the stratiform type represented by Sullivan, North Star, Stemwinder, Vulcan and Kootenay King and

b) vein or fissure filling or replacement type represented by St. Eugene, Society Girl, Aurora and Estella deposits.

STRATIFORM DEPOSITS

Stratified Pb, Zn, Ag (Cu, Au)

Sullivan

The Sullivan mine, at Kimberley, B.C., one of the largest base metal deposits in the world, is a stratiform Pb, Zn, Ag, Cd, Sn, Fe deposit within rocks of the Purcell Supergroup at the Lower-Middle Aldridge boundary. The deposit is considered to be a hydrothermal, synsedimentary deposit that formed in a small submarine basin. The Sullivan mine has produced more than 100 million tonnes of ore and has reserves of approximately an additional 50 million tonnes grading 4.9% Pb, 6.1% Zn and 37 g/tonne Ag.

The ore deposit is zoned laterally and vertically. The western part is massive pyrrhotite with wispy layers of galena overlain by layered pyrrhotite, sphalerite, galena and pyrite intercalated with clastic beds. The eastern part has several distinct conformable layers of generally well-laminated sulphides separated by clastic rock. At the outer limits of the deposit are iron sulphide bands.

The footwall of the massive western section has north trending brecciated conduit zones and is altered to dark chert-like tourmaline-rich rock. Albite-chlorite-pyrite alteration is also restricted to the western part of the orebody. The deposit is zoned with Pb, Zn and Ag values decreasing towards the eastern margin. Tin is concentrated in the western part. Higher absolute metal values and higher Pb/Zn and Ag/Pb ratios overlie breccia zones.

Kootenay King

The Kootenay King mine is located on the north side of the Wildhorse River, 10 miles by road from Fort Steele. This is a small lead-zinc stratiform deposit of less than 100,000 tonnes in Middle Aldridge clastic sedimentary rocks.

Mineralization occurs near the hinge of a large anticlinal fold that is thrust eastward onto younger Paleozoic strata. It consits of a layer of finely laminated sphalerite, galena and pyrite intercalcated with dolomitic to argillaceous siltstone in Kootenay King quartzite. Near its base the quartzite contains coarse angular lithic clasts interpreted as a channel sandstone deposit similar to both overlying and underlying siltstone.

Over a two year period, 1952 and 1953, the mine produced 14,610 tonnes of ore yielding 0.715 kg of Au, 0.90 tonnes of Ag, 710 tonnes of Pb and 881 tonnes of Zn.

Possible Controls for Stratiform Mineralization

A number of stratiform lead-zinc deposits are preferentially located in the vicinity of synsedimentary transverse fault zones coincident with the St. Mary-Boulder Creek and Moyie-Dibble Creek

transverse faults south of Kimberley and the Hall Lake fault to the north. These deposits are related to areas of tourmalinization and intraformational conglomerates and breccias which are associated with synsedimentary faults. This suggests a genetio link between mineral deposits, small basins and related fault systems. Local thickening of host succession suggests further that third-order basins cross cutting a regional north-east trending second order rift structure may have been an important local control. (Hoy, 1982)

Stratiform Copper Potential

There are numerous widespread occurrences of stratiform copper in Purcell rocks in Southeastern B.C. These occurrences are in fluvial or shallow water deposits most notably in the Grinnell-Creston Formations and to a lesser extent in the Kitchener-Siyeh, Gateway, Phillips, Kintla and Rooseville Formations in the Clarke Range and on the east side of the Rocky Mountain Trench. There is evidence of some enrichment or remobilization and redeposition of copper in association with Purcell sills and dykes. There has not, however, been any stratiform copper occurrences found to date with production potential in southeastern B.C.

Similar deposits with production capability are located in Grinnell-Creston equivalent rocks in Glacier Park Montana and a notable deposit reported to be producing at a rate of 2.72 million tonnes per year with reserves greater than 55 million tonnes 0.74% Cu and 48 grams Ag per tonne in Rivette quartzite at Troy, Montana, (Hoy, personal comm.).

In the Estella-Kootenay King area there are a number of stratiform copper occurrences in Fort Steele and Aldridge

quartzite, none of which have indicated significant reserve potential. See Table I.

Fissure Zone and Vein Deposits

There are a number of Pb, Zn, Ag fissure zone replacement and vein deposits within rocks of the Purcell Supergroup. These include the St. Eugene-Society Girl and Aurora deposits on the east and west sides respectively of Moyie Lake 25 km southwest of Cranbrook. The estella mine is also included in this group and is located 5 km east of the Paul and Mike claims.

St. Eugene-Society Girl

The St. Eugene mine is in Upper Aldridge Formation and occurs between two main fissure zones striking east west and dipping 70°S. The ore forms replacement deposits in quartzite and is restricted to the fractured area between 2 main fissures. The veins are narrow with mineralization consisting of galena, sphalerite, magnetite and minor chalcopyrite. This mine has produced a total of 1,475,266 tonnes of ore yielding 78.8 kg gold; 182,690 kg Ag; 113,035 tonnes Pb and 14,483 tonnes Zn. This mine ceased operations in 1929.

The Society Girl is at the Upper Aldridge-Creston Formation contact and is in a narrow vein cutting thin bedded argillaceous quartzites. The vein is oxidized containing cerrusite, pyromorphite, galena and sphalerite with little or no gangue. The Society Girl produced 2,984 tonnes of ore yielding 432 kg Ag, 580 tonnes of lead and 24 tonnes zinc. The Society Girl mine ceased operations in 1952.

Estella Mine

The Estella mine is located in the headwaters of Tracy Creek about 8 kilometres in a straight line from Wasa or 26 kilometres by road. The mill was located at Wasa and the ore was hauled by truck to the mill. This possible source of contaminants should be borne in mind when interpreting geochemical results in the area adjacent to the haulage road.

The mineralized rocks at the Estella mine are northwest striking, southwest dipping argillites and quartzite of the Aldridge Formation. Small intrusive bodies are also present; a syenite exposed near the portal and a sill-like diorite which also contains mineralization.

The lode is a zone of fracturing and light shearing and is semi-bedded in the sedimentary rocks and penetrates the diorite. The ore is a replacement by sphalerite, galena and pyrite, accompanied by more or less silica. Vein quartz is not abundant except in diagonal veins which in general contain little if any sulphides.

Intermittent production from 1951 to 1967 from the Estella mine totalled 109,518 tonnes and yielded 2.05 kg Au, 6.3 tonnes Ag, 5,181 tonnes Pb, 9,834 tonnes Zn and 1.2 tonnes Cu.

Table I summarizes the mineral properties in the general area of the Paul and Mike claims.

TABLE I

BC MINFILE NO.	NAME	COMMODITIES	FORMATION	TYPE OF DEPOSIT	PRODUCTION
82GNW008	Estella Mine	Zn,Pb,Ag, Au,Cd,Cu	Aldridge & Intrusive	Shear Vein Replacement	Yes
82GNW009	Kootenay King	Ag,Pb,Zn Cd,Au,Cu	Aldridge	Stratiform	Yes
82GNW016	Kootenay Selkirk	Cu,Pb,Ag	Aldridge Purcell Sill	Purcell Sill Fractures, Replacement	-
82GNW017	Try Again	Cu	Fort Steele	Fault Replacement	-

82GNW035	Golden Fleece	Cu	Fort Steele	Vein	-
82GNW045	Emily Tiger	Au,Ag,Pb	Fort Steele	Vein	-
82GNW046	Wanda B	Au,Ag,Pb	Ft.Steele Aldridge ?	Vein	-
82GNW059	Lazy 19	Cu	Ft.Steele	Vein Strata-bound	-
82GNW061	Lazy 32	Cu	Ft.Steele Intrusive	Vein Fault	-
82GNW062	Cher	Cu	Ft.Steele	Strata-bound	-

Of the above properties the Estella and the Kootenay King are the most significant.

MINERAL POTENTIAL OF PAUL AND MIKE CLAIMS

Stratiform Deposits

For comparative purposes, diagram Figure 8 summarizes Purcell Supergroup stratigraphy, environment of deposition and indicates the position of significant deposits within the sequence. This diagram indicates that the environment of the PAUL and MIKE claims-Estella-Kootenay King area with its fluvial to fanglomerate sediments differs from the deep basinal and turbidite environment of the North Star and Sullivan deposits. Clastic hosted stratiform Pb, Zn deposits have, so far, been found in Lower and Middle Aldridge sediments. The Vulcan and Sullivan deposits occur at the Lower-Middle Aldridge boundary. North Star and Stemwinder deposits just south of Sullivan are in Lower Aldridge siltstone. The Kootenay King mine, east of the PAUL-MIKE claims, is in Middle Aldridge siltstone.

DIAGRAMMATIC SECTION

PURCELL SUPERGROUP

FIGURE 8

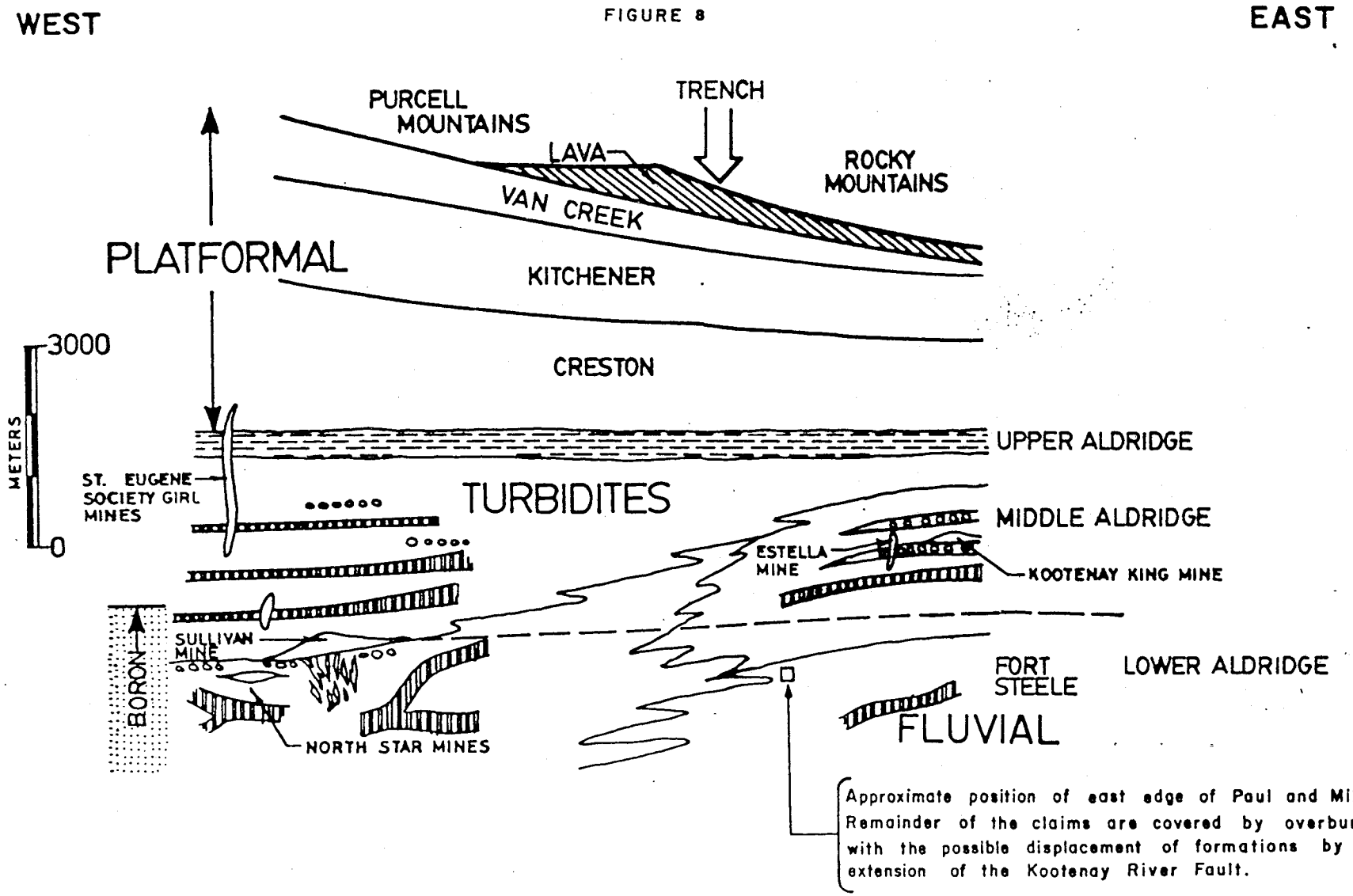


FIG. 8

From T. Hoy, 1978 & unpublished data

The Paul and Mike claims are in a favourable position relative to the Lewis Creek and Boulder-Dibble Creek synsedimentary transverse faults which appear to be related to stratiform Pb, Zn, Ag deposits. The presence of the Kootenay King stratiform deposit supports the contention that additional stratiform Pb, Zn, Ag deposits of unknown size may be found in similar environments in this area. There is uncertainty regarding presence, sense of movement and age of earliest displacement on the Kootenay River Fault. Suggestions of what formations may underlie the overburden on the west side of the Paul and Mike claims and their environment of deposition are speculative. It is possible that formations younger than Fort Steele underlie the overburden there and that these rocks may be favourable hosts for stratiform Pb, Zn, Ag stratiform deposits of unknown size.

Replacement Deposits

Deep seated structures other than synsedimentary, structure and environment of deposition have produced significant Pb, Zn, Ag (Au) replacement deposits in rocks of the Purcell Supergroup. For example, fissure-vein replacement deposits of Moyie Lake area, and in particular the St. Eugene mine which produced 1,475,266 tonnes of ore, were dependent upon deep seated fracture systems to provide permeability for metal-bearing hydrothermal solutions and for localization of mineralization.

The Paul and Mike claims are crossed by the synsedimentary Lewis Creek Fault and probably by the extension of the Kootenay River Fault, of uncertain age span, along the east margin of the Rocky Mountain Trench. The junction of these two, deep, major fault systems and subsidiary fractures provides optimum potential for circulation of metal charged hydrothermal solutions and deposition of fissure-vein replacement deposits. The Estella mine

is in this structural environment and proves potential for hydrothermal fissure-vein replacement deposits in this area.

GEOPHYSICAL SURVEYS

DIGHEM SURVEY

Dighem resistivity, electromagnetic and magnetic surveys were flown over the Paul and Mike claims area.

Resistivity Survey

There is a major north-northwesterly trending break in resistivity from approximately 133 - 177 ohm metres to greater than 1000. This break in resistivity swings northeasterly in the vicinity of Lewis Creek (Figure 4). The high resistivity values occur along the eastern edge of the survey block just to the west of outcrops of Fort Steele and Aldridge exposure to the east. The western half of the claim block is characterized by low resistivity (conductive) values 75 to 150 ohm metres.

Magnetic Survey

A magnetic anomaly trends north-northwesterly roughly following the boundary between the highly resistive and conductive zones at the eastern side of the Paul and Mike claims. A second smaller northerly trending magnetic anomaly lies on the west side of the Sowerby Lake east of the claim block (Figure 4).

Electromagnetic Survey

A weakly conductive electromagnetic anomaly trends north-northwesterly in a resistivity trough in the southeast corner of the claim block (Figure 4).

Results

The marked break in resistivity corresponds to the projection of the Kootenay River fault through the Paul and Mike claims. A change in trend of the break in resistivity in the vicinity of Lewis Creek may be a result of the Lewis Creek fault.

Geophysical interpretive information supplied by C.Fipke of Dia Met Minerals Ltd. attributed to Z. Dvorak of Dighem, Falconbridge and Superior Oil geophysicists is as follows:

> "The only magnetic fracture of possible significance is an elongated enhanced magnetic anomaly of north-north west direction in the northeastern part of the survey block. It roughly follows the boundary between the highly resistive and highly conductive zones mentioned above." (C.Fipke personal communication)

It should be noted that the presence of Purcell sills and dykes, which are more magnetic than surrounding sediments, may result in magnetic anomalies. It is to be expected that detailed ground magnetic surveys would detect more of these sills and dykes as well as anomalies resulting from mineralization.

> The conductive material underlying the main part of the valley under Kootenay River is attributed to conductive river sediments. The highly resistive material east of the Paul-Mike claims is attributed to bedrock. In the claims area, " the rest of the conductive material away from the river valley occurs definitely at depth. It is speculated that the resistive and conductive zones reflect different rock formations....." (C.Fipke personal communication)

"Dr. Z.Dvorak, Dighem Ltd. geophysicist, calculated the maximum depth to the highly conductive rock formation adjacent to the enhanced magnetic anomaly to be 100 to 110 metres" (C.Fipke, personal communication)

Fipke suggest that the weakly conductive electromagnetic anomaly trending north-northwesterly in a resistivity trough in the southeast corner of the claim block is compatable with Sullivan type stratiform mineralization because galena and sphalerite are poor electromagnetic conductors (C.Fipke, personal communication)

The possible effects of high concentration of pyrite and pyrrhotite on electromagnetic conductivity at Sullivan were not discussed.

The northern extention of the conductor at the southeast corner of the claim block approximately coincides with anomalous lead geochemistry and the south end of an elongated northwest trending magnetic high feature (Figure 4). These near coincident anomalies may represent sulphide mineralization at a depth from near surface down to Dvorak's calculated maximum depth of 100 to 110 metres.

GEOCHEMICAL SURVEYS

HEAVY MEDIA SURVEYS

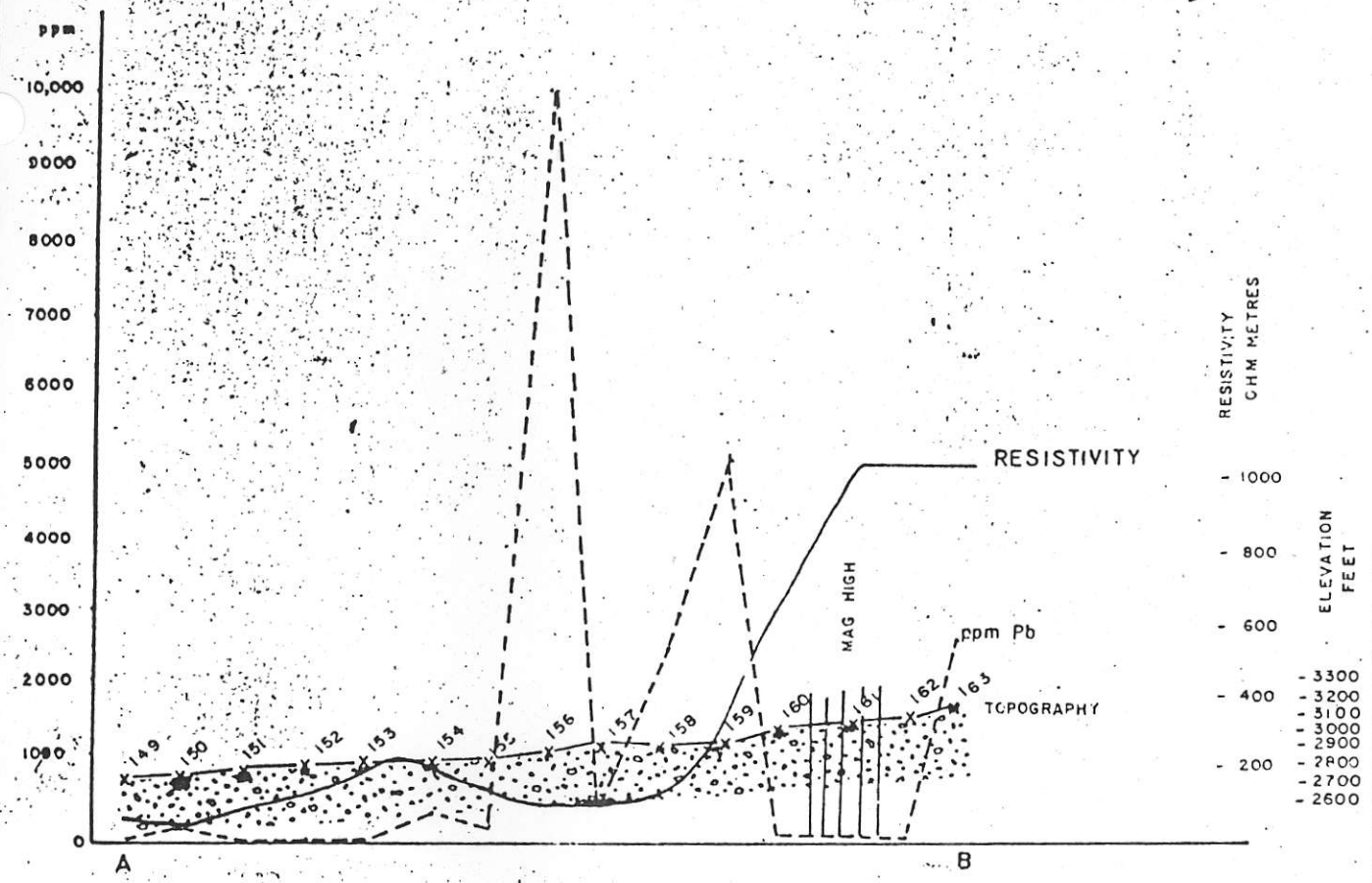
Significant anomalous concentrations of copper, zinc and lead occur in heavy media soil samples taken from glacial drift within Paul and Mike claims (Figure 2). Methodology for collection and concentration of samples is outlined in Appendix A. Concentrates of appropriate size, specific gravity and magnetic susceptability to give optimum analytical results were analyzed for Cu, Zn, Ag, Cd, As and some for Mo, Mn and Co.

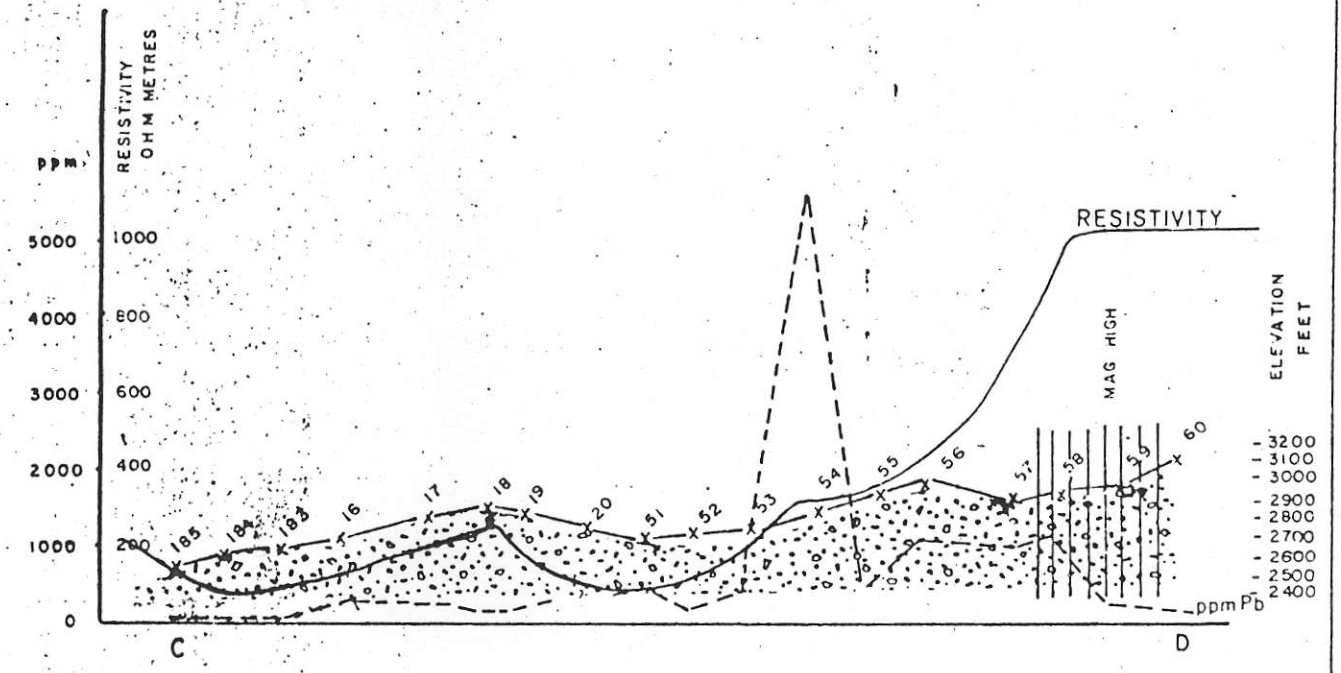
Gower and Northcote collected five samples as a procedural check near the Lewis Creek road. Care was taken to prevent any possible heavy mineral contamination resulting from spillage from trucks hauling ore from Estella mine to the mill at Wasa. Heavy media concentrates were made of these samples at C.F. . Mineral Research Ltd., Kelowna, B.C. in the same manner as outlined in Appendix A and were shipped to Bondar Clegg, North Vancouver, for Cu, Pb, Zn, Au and Ba analyses.

Results

Lead values in the -20HP fraction range from 30 to more than 10,000 ppm with disrupted northwesterly trending highs roughly paralleling resistivity and magnetic trends (Figures 4 and 5). Two profiles were prepared relating lead values to topography, resistivity and magnetics (Figure 9).

Zinc values in the -20HN fraction range from 17 to 4925 ppm with higher values tending to occue as isolated or clusters of two or three samples. The strongest zinc occurs in the vicinity





K E NORTHCOTE & ASSOCIATES LTD		
GOWER THOMPSON & ASSOCIATES LTD		
PAUL & MIKE CLAIMS GEOCHEMICAL, GEOPHYSICAL & TOPOGRAPHICAL PROFILES LEAD IN SOIL		
prepared by	Scale	date
S. C. G.	1:25000	MARCH, 83

Fig. 9
X - SAMPLE NUMBER

FIGURE 9

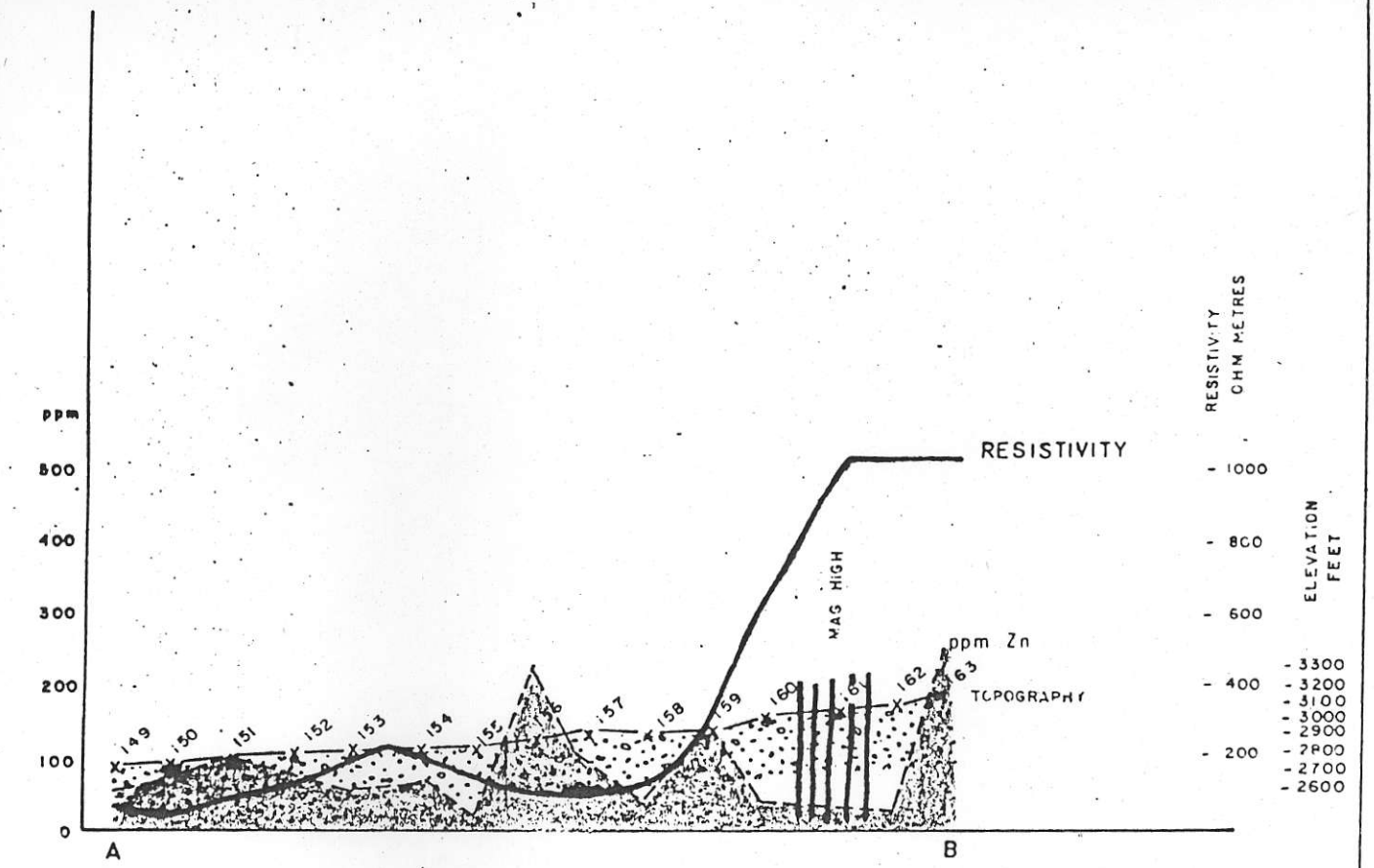
of the Lewis Creek road near outcrops of Fort Steele formation. Because these samples were collected from depths of one to two feet and at some distance from the road, contamination by spillage from ore trucks seems unlikely. Sample SG-1 collected by Gower and Northcote, gives values of 145 ppm Zn which separates two areas of anomalous Zn (Figure 6). Two profiles were prepared relating zinc values to topography, resistivity and magnetics (Figure 10).

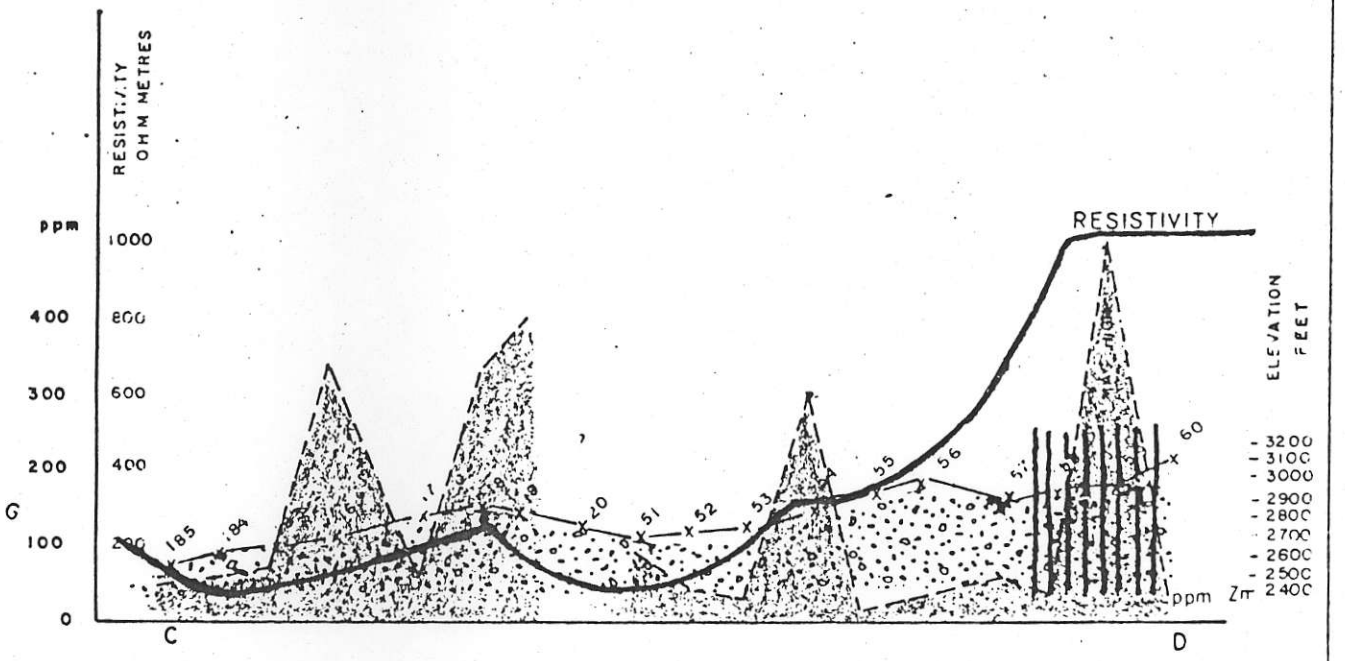
Copper values in the -20HN fraction range from 8 to 8700 ppm occurring as isolated single or double sample highs showing some tendency for northwesterly elongate trends. Two profiles were prepared relating copper values to topography, resistivity and magnetics (Figure 11).

Values for other elements have not been plotted. The samples collected by Gower and Northcote were analyzed for gold and barium at Fipke's request. The background for gold in heavy media samples from this general area is 20 to 50 ppb. Values ranging from 445 to 5855 ppb, with insufficient sample for analysis of S.G.3, indicates anomalous gold concentrations. Barium values are low, ranging from 0.06 to 0.3 percent. High barium values could interfere with values obtained for lead in heavy media samples. (Fipke, personal communication).

Significance of Metal Values in Heavy Media Soil Samples

Discussion between C. Fipke and Northcote centres around significance of metal values in heavy media surface soil samples from areas of overburden of unknown depth and stratigraphy. Fipke suggests that anomalous metal values of heavy media

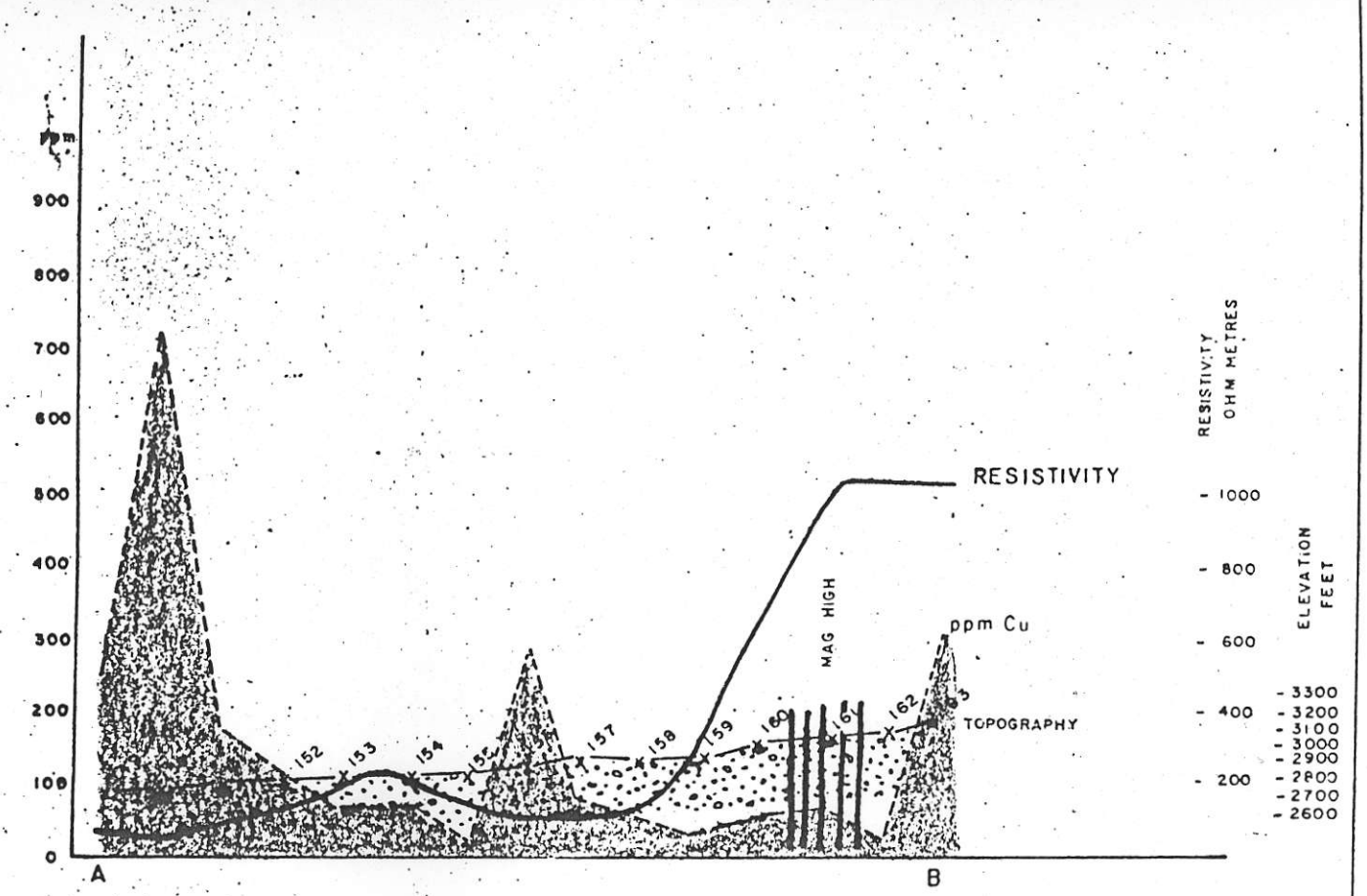


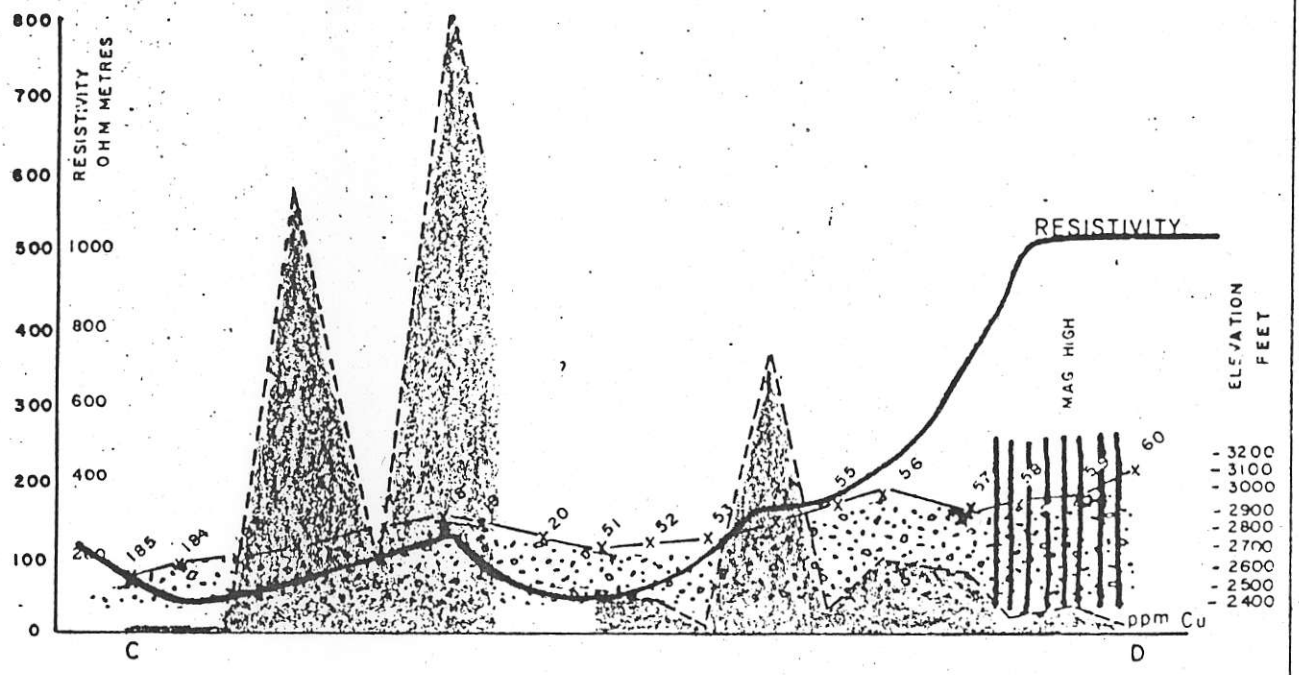


K E NORTHCOTE & ASSOCIATES LTD		
GOWER THOMPSON & ASSOCIATES LTD		
PAUL & MIKE CLAIMS GEOCHEMICAL, GEOPHYSICAL & TOPOGRAPHICAL PROFILES ZINC IN SOIL		
Prepared by	Scale	Date
S. C. G.	1:25000	MARCH, 83

Fig. 10
y - SAMPLE NUMBER

FIGURE 10





K. E. NORTHCOTE & ASSOCIATES LTD		
GOWER THOMPSON & ASSOCIATES LTD		
PAUL & MIKE CLAIMS GEOCHEMICAL, GEOPHYSICAL & TOPOGRAPHICAL PROFILES COPPER IN SOIL		
Prepared by	Scale	date
S. C. G.	1:25000	MARCH, 83

Fig. 11
X - SAMPLE NUMBER

FIGURE 11

samples on the Paul and Mike claims could well be reflecting sulphide mineralization from directly beneath. In particular he cites the coincident geophysical and geochemical anomalies in the southeast part of the claim block. Northcote agrees that this is a first priority target area but the suggestion that heavy media metal values from surface soils is reflecting bedrock mineralization might be more acceptable if depth of overburden and its stratigraphy were known. It is difficult to perceive a situation whereby bedrock mineralization can be reflected in surface soil samples through an intervening maximum of 100 metres of interbedded glacial materials including possible intervening protective tills above a basal till overlying and protecting bedrock. Even in basal tills the usual exploration procedure is to follow the metals tail in a up-ice direction. This discussion merely points out the necessity of determining thickness of overburden and its nature prior to final interpretation of metal values from existing surveys and prior to conducting fill-in surveys in present indicated anomalies.

DISCUSSION OF DRILL HOLE GEOCHEMICAL RESULTS

Appendixed are geochemical results from heavy metal concentrates obtained from samples collected from Bearcat Hole 3 for the intervals 600 - 780 feet* and assayed in 10 foot intervals. The Bondar Clegg samples were obtained from the non magnetic fraction whereas the Barringer samples were obtained from the para-magnetic fraction. Thirteen out of seventeen of the magnetic fraction equalled or exceeded 10,000 ppm (>1.0%) and when assayed gave values ranging from 0.43 to 3.66% lead. The paramagentic fraction ranged from 250 to 29,165 ppm (0.025 to 2.91% lead). Silver values ranged from less than 0.2 ppm to 21 ppm in the non-magnetic fraction to less than 0.2 ppm to 145 ppm in the para-magnetic fraction. Zinc values were relatively low. Microscopic examination of the heavy metal concentrates showed that the high lead content was due to a peculiar pellet shaped lead particulates. Studies are continuing to ascertain the origin of what appears to be an organically derived lead rich mineral.

It can be concluded however that anomalous lead and silver are present over a substantial interval in a drill hole. The coincidence of a geophysical anomaly with the geochemical anomaly is noteworthy and warrants further study.

* This hole did not reach bedrock. It was cased and can be re-entered and deepened.

PROPOSED EXPLORATION PROGRAM

The results to date indicate that an anomalous source of lead, silver and zinc are present on the claims beneath unconsolidated overburden materials. Based on analyses of concentrates from surface soils and unconsolidated materials from a rotary drill hole, combined with geophysical data there exists a possibility that a Sullivan type ore body lies beneath the claims. Assuming limited transportation of the unconsolidated materials covers the claims, the coincident geophysical and geochemical anomalies could define an exploration target worthy of further drilling.

It is recommended that 8 holes be drilled to examine the bedrock lithology in an attempt to explain the anomalies lead, zinc and silver contents.

ESTIMATED COST OF PROGRAM

Drilling	
- completion of Hole 3	
- rotary to bedrock - 200 ft. x 25.00/ft.	$ 5,000.00
- diamond drilling - 200 ft. x 30.00/ft.	6,000.00
- seven rotary holes	150,000.00
Sample preparation and analyses of heavy mineral concentrates	
- 20, 20 foot interval samples/hole estimate 200 x 100.00/sample	20,000.00
Geological Supervision	
- 30 days @ 400.00/day	12,000.00
Technical Support	
- 40 days @ 200.00/day	8,000.00
Accommodation and support	
- 70 man days @ 200.00/day	14,000.00
	$215,000.00
Contingency	20,000.00
TOTAL	$235,000.00

APPENDIX

A. Summary of data of drilling of three rotary holes by Bearcat Exploration Ltd. in October - November, 1985

B. Analyses of samples for 10 foot intervals from Hole No. 3 drilled by Bearcat Exploration

C. Bondar Clegg geochemical lab report describes the results of Bearcat Hole No. 3 for the interval 600 - 780 feet.

D. Barringer Magenta geochemical report describes the results of Bearcat Hole No. 3 for the interval 600 - 780 feet (duplicatees of the Bondar Clegg samples)

4.0 DRILLING

On October 28, 1985 a Barber Air Rotary Truck-mounted drill was mobilized to the Paul and Mike claim group. Drilling commenced the same day and terminated on November 22nd. Three holes reaching a total depth of 546 m. were drilled in view of testing the depth of the overburden and to define the mineral potential in areas based on anomalous I.P. and geochemical responses. Map 1 provides a map of the property and drill site locations, while Figure 3 portrays the cross-section summaries of each hole.

Drilling was conducted under contract by Owen's Drilling Ltd., 1940 - 6th Street North, Cranbrook, British Columbia, V1C 3M9.

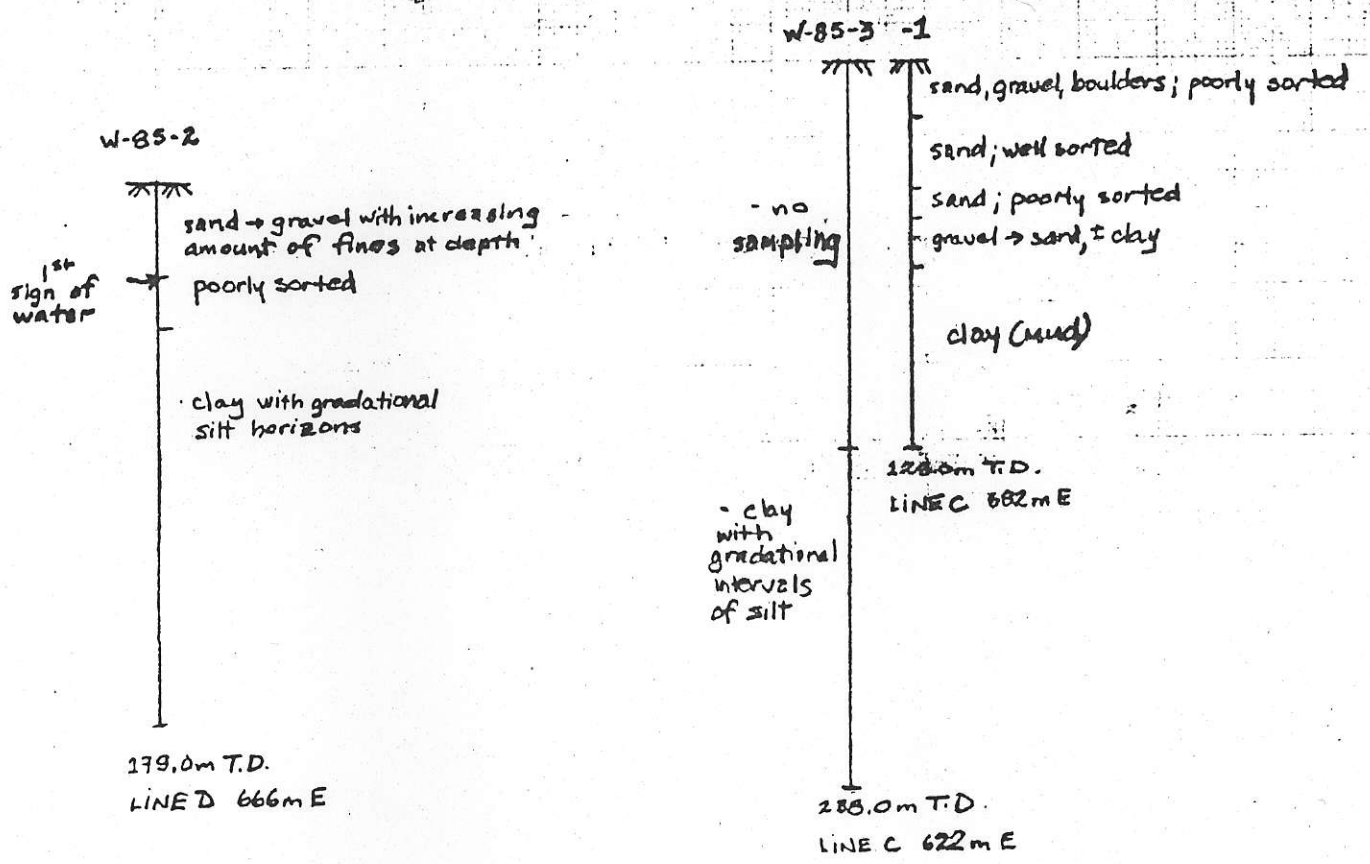
Targets:

The first hole, W-85-1, on line C, 682 m. E reached a total depth of 128 m., (420 ft.) using 15 cm. (6-inch) casing. The hole was not completed to bedrock due to drilling problems caused by expanding clay and water.

Drill hole W-85-2, on line D, 666 m. E, reached a total depth of 179 m. (588 ft.). Sixty-one meters, (200 ft.) of 20 cm. (8-inch) casing was followed by 116 m., (380 ft.) of 15 cm. (6-inch) casing when the drill encountered problems similar to W-85-1.

The drill returned to the first site for a second attempt to attain bedrock. Seventy-nine meters, (260 ft.) of 20 cm. (8-inch) casing was followed by 140 m., (460 ft.) of 15 cm. (6-inch) casing, ending with an additional 18 m. (60 ft.) of open hole. Once again, at a total depth

APPENDIX "B"



WASA - Drill hole summary
1:2500

NOTE: Drill hole locations plotted on Figure 5.

of 238 m. (780 ft.), the overburden prevented any further continuation of hole W-85-3.

Overburden samples for each hole were collected at 1.5 m. (5 ft.) and 3.0 m. (10 ft.) intervals. These samples are stored with Dia Met Minerals Ltd. in Kelowna, B.C.

A sample of the overburden clay from W-85-2 was sent to the University of Calgary for X-ray diffraction to determine the exact mineralogy present.

Results:

The clay analyzed is composed of the following constituents:

26% kaolinite
20% illite
20% calcite
17% quartz
11% dolomite
4% feldspar
2% chlorite

Due to the varying proportions of minerals the clay does not appear to be of any economic significance.

APPENDIX "C"

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 127-1026 (COMPLETE)

REFERENCE INFO:

CLIENT: DIA MET MINERALS LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: CF MINERALS
DATE PRINTED: 16-APR-87

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	17	5 PPB	NOT APPLICABLE	IND. NEUTRON ACTIV.
2	Sb	Antimony	17	0.2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
3	As	Arsenic	17	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
4	Ba	Barium	17	100 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
5	Cd	Cadmium	17	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
6	Cs	Cesium	17	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
7	Cr	Chromium	17	50 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
8	Co	Cobalt	17	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
9	Eu	Europium	17	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
10	Hf	Hafnium	17	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
11	Ir	Iridium	17	100 PPB	NOT APPLICABLE	IND. NEUTRON ACTIV.
12	Fe	Iron	17	0.5 PCT	NOT APPLICABLE	IND. NEUTRON ACTIV.
13	La	Lanthanum	17	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
14	Mo	Molybdenum	17	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
15	Ni	Nickel	17	50 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
16	Rb	Rubidium	17	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
17	Sc	Scandium	17	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
18	Se	Selenium	17	10 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
19	Ag	Silver	17	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
20	Ta	Tantalum	17	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
21	Tb	Terbium	17	1 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
22	Th	Thorium	17	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
23	W	Tungsten	17	2 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
24	U	Uranium	17	0.5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
25	Yb	Ytterbium	17	5 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
26	Zn	Zinc	17	200 PPM	NOT APPLICABLE	IND. NEUTRON ACTIV.
27	Cu	Copper	17	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
28	Pb	Lead	17	2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
29	Zn	Zinc	17	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
30	Ag	Silver	17	0.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption

HEAVY NON-MAGNETIC

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 127-1026 (COMPLETE)

REFERENCE INFO:

CLIENT: DIA MET MINERALS LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: CF MINERALS
DATE PRINTED: 16-APR-87

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
C CONCENTRATE (PAN/HM)	17	1 -80	17	PULVERIZING	17
				BATCH SURCHARGE	17

NOTES: @ indicates SMALL SAMPLE WEIGHT

REMARKS: PLEASE CONTACT US IF ASSAYS ARE NEEDED ON OVERLIMITS.

REPORT COPIES TO: DIAMET MINERALS

INVOICE TO: DIAMET MINERALS

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BONDAR-CLEGG

Geochemical Lab Report

REPORT: 127-1026

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Sb PPM	As PPM	Ba PPM	Cd PPM	Cs PPM	Cr PPM	Co PPM	Eu PPM	Hf PPM	Ir PPB
C1 OB 20-600'-610		<140	17.0	180	19000	<190	<21	<770	<50	<42	430	<1300
C1 OB 21-610'-620		540	10.0	42	3200	<42	<4	<100	<20	<10	100	<200
C1 OB 22-620'-630		64	6.5	134	7900	<39	<4	140	93	15	336	<240
C1 OB 23-630'-640		<11	2.2	31	2800	<10	2	71	31	5	72	<100
C1 OB 24-640'-650		52	7.1	51	2600	<51	<4	<100	<20	<9	80	<200
C1 OB 25-650'-660		<25	1.1	<5	790	<50	<5	<250	<50	<10	17	<500
C1 OB 26-660'-670		<25	14.0	21	2100	<50	<5	<250	<50	<10	28	<500
C1 OB 27-670'-680		<57	18.0	<22	<500	<100	<5	<250	<50	<10	49	<500
C1 OB 28-680'-690		59	2.9	18	7400	<27	<2	<100	<20	<4	30	<200
C1 OB 29-690'-700		30	2.2	13	7900	<20	6	<100	<20	<4	20	<200
C1 OB 30-700'-710		1200	1.4	16	2400	<10	<1	<50	16	<2	20	<100
C1 OB 32-720'-730		12	1.6	14	1100	<10	3	93	<10	<2	12	<100
C1 OB 33-730'-740		22	1.0	8	870	<10	4	53	13	<2	8	<100
C1 OB 34-740'-750		<5	1.3	14	1000	<10	5	97	<10	4	9	<100
C1 OB 35-750'-760		240	23.0	120	25000	<260	<22	<500	<100	<72	370	<1000
C1 OB 36-760'-770		1170	5.8	67	11000	<42	4	160	56	<9	200	<200
C1 OB 37-770'-780		<25	3.8	53	>30000	<300	<5	<250	<50	<10	140	<500

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 127-1026

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	La PPM	Mo PPM	Ni PPM	Rb PPM	Sc PPM	Se PPM	Ag PPM	Ta PPM	Tb PPM	Th PPM
C1 OB 20-600'-610		15.0	720	<51	<480	<250	33.0	<220	<120	45	21	170.0
C1 OB 21-610'-620		3.2	210	8	<130	<62	16.0	<20	27	7	5	53.0
C1 OB 22-620'-630		11.0	720	<11	<110	<57	37.0	<42	48	31	13	147.0
C1 OB 23-630'-640		3.7	190	<2	<50	41	13.0	<10	<5	6	4	38.0
C1 OB 24-640'-650		7.2	210	<11	<130	<74	13.0	<20	53	8	5	45.0
C1 OB 25-650'-660		<2.5	30	<10	<100	<50	6.0	<50	26	<5	<5	7.0
C1 OB 26-660'-670		<2.5	53	<10	<100	<50	4.7	<50	47	<5	<5	15.0
C1 OB 27-670'-680		<2.5	88	<25	<100	<110	6.3	<50	170	<5	<5	23.0
C1 OB 28-680'-690		2.9	75	<4	<50	<20	7.6	<20	26	<2	3	23.0
C1 OB 29-690'-700		2.5	55	<4	<50	<20	9.2	<20	<10	<2	<2	17.0
C1 OB 30-700'-710		2.5	79	<4	<50	43	7.2	<10	<5	<1	2	18.0
C1 OB 32-720'-730		3.4	57	<2	<50	70	8.3	<10	<5	<1	<1	15.0
C1 OB 33-730'-740		2.7	45	<2	<50	43	7.6	<10	7	<1	<1	13.0
C1 OB 34-740'-750		2.7	48	<2	<50	64	8.1	<10	<5	<1	<1	14.0
C1 OB 35-750'-760		11.0	600	<74	<480	<310	20.0	<240	280	33	28	130.0
C1 OB 36-760'-770		4.9	380	<11	150	<61	16.0	<20	22	16	8	86.0
C1 OB 37-770'-780		<2.5	200	<10	<100	<50	11.0	<50	33	10	<5	49.0

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130 Pemberton Ave.
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BONDAR-CLEGG

Geochemical Lab Report

REPORT: 127-1026

PROJECT: NONE GIVEN

SAMPLE NUMBER	ELEMENT UNITS	W PPM	U PPM	Yb PPM	Zn PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM
C1 OB 20-600'-610		180	72.0	<25	<1000	259	>10000	1210	10.0
C1 OB 21-610'-620		24	18.0	<10	1200	322	>10000	985	9.2
C1 OB 22-620'-630		39	46.0	43	<410	132	>10000	203	2.1
C1 OB 23-630'-640		<5	12.0	9	<200	44	4000	79	<0.2
C1 OB 24-640'-650		14	21.0	11	<980	274	>10000	1005	20.0
C1 OB 25-650'-660		<10	<2.5	<25	<1000	28	1815	135	<0.2
C1 OB 26-660'-670		<10	36.0	<25	3500	131	>10000	5600	6.5
C1 OB 27-670'-680		73	55.0	<25	4000	171	>10000	3530	21.0
C1 OB 28-680'-690		27	11.0	<10	<400	84	>10000	500	13.0
C1 OB 29-690'-700		<4	8.5	<10	<400	83	>10000	353	0.7
C1 OB 30-700'-710		13	5.2	6	<200	54	7400	92	0.4
C1 OB 32-720'-730		4	5.5	<5	520	76	>10000	465	0.2
C1 OB 33-730'-740		<2	3.6	<5	<200	41	3400	73	<0.2
C1 OB 34-740'-750		5	4.4	<5	<200	43	10000	127	<0.2
C1 OB 35-750'-760		140	75.0	<50	<2000	260	>10000	2250	<2.00
C1 OB 36-760'-770		15	30.0	12	<400	143	>10000	560	0.8
C1 OB 37-770'-780		89	28.0	<25	<1000	351	>10000	298	0.3

APPENDIX "D"

BARRINGER MAGENTA
Laboratories (Alberta) Ltd.

4200B - 10 STREET N E
CALGARY, ALBERTA
T2E 6K3
PHONE: (403) 250-1901

23-MAY-87
PAGE: 1 OF 1
COPY: 1 OF 2

AUTHORITY: C. TIPKE

DIA MET MINERALS LTD.
1675 POWICK RD.
KELOWNA, B.C. V1X 4L1

WORK ORDER: 40690-87

AAA FINAL REPORT AAA

GEOCHEMICAL LABORATORY REPORT

SAMPLE TYPE: HVY MINERAL SEP

SAMPLE NUMBER	PB PPM	MO PPM	AG PPM
OB 20:600-610	3500.0	<5.0	145.0
OB 21:610-620	2730.0	<5.0	30.0
OB 22:620-630	1800.0	<5.0	2.1
OB 23:630-640	880.0	<5.0	<0.2
OB 24:640-650	5500.0	<5.0	24.0
OB 25:650-660	250.0	<5.0	3.0
OB 26:660-670	14655.0	<5.0	<0.2
OB 27:670-680	29165.0	<5.0	<0.2
OB 28:680-690	3160.0	<5.0	<0.2
OB 29:690-700	7500.0	<5.0	<0.2
OB 30:700-710	3125.0	<5.0	2.1
OB 32:720-730	2475.0	5.0	3.3
OB 33:730-740	1580.0	10.0	0.8
OB 34:740-750	5110.0	<5.0	3.6
OB 35:750-760	10500.0	<5.0	<0.2
OB 36:760-770	2800.0	<5.0	27.0
OB 37:770-780	3090.0	<5.0	13.8

SIGNED: .....
C. Douglas Read,
LABORATORY MANAGER

Para-magnetic

FOOTNOTES:
P=QUESTIONABLE PRECISION; A=INTERFERENCE; TR=TRACE; ND=NOT DETECTED;
IS=INSUFFICIENT SAMPLE; NA=NOT ANALYZED; MS=MISSING SAMPLE

REFERENCES

Hoy, Trygve; 1979, Geology of the Estella-Kootenay King Area Hughes Range Southeastern British Columbia. MEMPR Preliminary Map 36

Hoy, Trygve; 1982, Stratigraphic and Structural Setting of Stratabound Lead-Zinc Deposits in Southeastern B.C. CIM Bulletin, V 75, No 840 (April, 1982)

Leech, G.B; 1958, Fernie Map-Area, West Half, British Columbia GSC Paper 58-10

Hoy, Trygve; 1982, The Purcell Supergroup in Southeastern British Columbia: Sedimentation, Tectonics and Stratiform Lead-Zinc Deposits Geological Association of Canada, Special Paper 25.

Hoy, Trygve; 1983, Geology in the Vicinity of the Sullivan Deposit Kimberly, British Columbia MEMPR Geological Fieldwork, 1982, Paper 1983-1 p 9 to 17.

McMechan, Margaret E.; 1981, The Middle Proterozoic Purcell Supergroup in the Southwestern Rocky and Southeastern Purcell Mountains, British Columbia and the Initiation of the Cordilleran Miogeosyncline, Southern Canada and Adjacent United States. Bull Can Petroleum Geology, Vol. 29, No. 4 p 583 - 621

McMechan, Margaret E; Hoy, T. and Price, R.A.; 1980, Van Creek and Nicol Creek Formations (New): A Revision of the Stratigraphic Nomenclature of the Middle Proterozoic Purcell Supergroup, Southeastern British Columbia. Bull Can Petroleum Geology, Vol. 28, No. 4, p 542-558.

McMechan, Margaret E; 1979, Geology of the Mount Fisher-Sand Creek Area Southeastern British Columbia, MEMPR Preliminary Map No. 34

Hoy, Trygve; Daikow, L; 1982, Geology of the Moyie Lake Area, MEMPR Preliminary Map No. 49.

Northcote, K.E. and Assocates Ltd. and Gower, Thompson & Associates Report on Paul and Mike Claims, Lewis Creek 82G/12E and 82G/13E Fort Steele Mining Division, June, 1983

E.A. SCHILLER & ASSOCIATES LTD.

CONSULTING GEOLOGISTS

E.A. SCHILLER, Ph.D., P.Geol.

8 Varview Place N.W.
Calgary, Alberta T3A 0G5
Telephone (403) 286-8241

CERTIFICATE

I, EDWARD A. SCHILLER, do hereby certify:

1. THAT I am a consulting geologist with offices at 8 Varview Place, Calgary, Alberta.

2. THAT I graduated in geology from the University of Utah in 1963 with a Doctor of Philosophy Degree.

3. THAT I am a registered professional geologist in the Association of Professional Engineers, Geologist and Geophysicists of Alberta.

4. THAT I have practiced my profession for 25 years.

5. THAT I have no interest direct nor indirect in the mineral claims herein reported nor do I hold securities in any form, direct nor indirect in Dia Met Minerals Ltd.

6. THAT this report dated May, 1987, is based on a one day visit to the Paul and Mike claims and a review of published and unpublished reports of the claims and general area.

7. THAT I consented the use of this report by Dia Met Minerals Ltd. in a Prospectue or Statement of Material Facts.

DATED at Calgary, Alberta this 8th day of September, 1987.

E.A. Schiller

DIA MET MINERALS LTD.
1675 POWICK ROAD
KELOWNA, BRITISH COLUMBIA
CANADA V1X 4L1

TEL. (604) 860-2228

October 30, 1987

Chevron Canada Resources Ltd.
1900 - 1055 W. Hastings St.
VANCOUVER,B.C.
V6E 2E9

Attn: Mr. Earl Dodson
Manager
Minerals Staff

Dear Mr. Dodson:

I have been requested by Mr. Fipke to forward to you the following material:

1. Form of Technical Summary, Work Program and Budget.
2. The above forms for the properties:
   - Tina-Cathy Claims
   - Paul-Mike Claims
   - Albert River Tungsten
   - Pickle Lake Claims
3. Engineering Report on the Paul-Mike Claims
4. News Release dated May, 1987.

Yours truly,

DIA MET MINERALS LTD.

B A Barteaux

B. A. Barteaux

bab:encl.

DIA MET MINERALS LTD.
1675 POWICK ROAD
KELOWNA, BRITISH COLUMBIA
CANADA V1X 4L1

TEL. (604) 860-2228

NEWS RELEASE

Exceptional strongly anomalous lead and silver as well as weakly anomalous gold and zinc have been detected in heavy mineral concentrates of glacial drill samples from Dia Met Minerals Paul-Mike claims. Analytical results of heavy non-magnetic as well as oxide (para-magnetic) concentrates are as follows:

DEPTH (Ft.) Hole W-85-3	NON-MAGNETIC RESULTS by BONDAR CLEGG			PARA-MAG. RESULTS BY BARRINGER RESEARCH	
	LEAD ppm by A.A. or assay*	SILVER ppm by Neut. Act.	GOLD ppb by Neut. Act.	LEAD ppm by A.A.	SILVER ppm by A.A.
600 - 610'	>10,000	<120	< 140	3500.0	145.0
610 - 620'	36,600*	27	540	2730.0	30.0
620 - 630'	29,800*	48	64	1800.0	2.1
630 - 640'	4,300*	< 5	< 11	880.0	< 0.2
640 - 650'	6,700*	53	52	5500.0	24.0
650 - 660'	1815	26	< 25	250.0	3.0
660 - 670'	>10,000	47	< 25	14655.0	< 0.2
670 - 680'	>10,000	170	< 57	29165.0	< 0.2
680 - 690'	28,000*	26	59	3160.0	< 0.2
690 - 700'	28,000*	< 10	30	7500.0	< 0.2
700 - 710'	7,000*	< 5	1200	3125.0	2.1
720 - 730'	26,900*	< 5	12	2475.0	3.3
730 - 740'	3,300*	7	22	1580.0	0.8
740 - 750'	9,600*	< 5	5	5110.0	3.6
750 - 760'	>10,000	280	240	10500.0	< 0.2
760 - 770'	>10,000	22	1170	2800.0	27.0
770 - 780'	>10,000	33	< 25	3090.0	13.8
E.O.H.780'					

The claims, 100% owned by Dia Met, are located near Wasa, B.C. between the Sullivan lead zinc silver mine and the past producing silver lead zinc gold Estella and Kootenay King mines. Geological interpretation indicates that the claims are underlain by the mineralized Aldridge formation which hosts the Sullivan, Estella and Kootenay King mines.

As a result of the encouraging drill results an additional 58 claims have been staked in the vicinity of the original 96 unit Paul Mike block.

An engineering report recommends an additional 6400' of rotary and diamond drilling on the claims.

Discussions are being held with potential joint venture participants in order to complete the proposed program in 1987.

DATED at Kelowna, British Columbia this day of May, 1987.

ON BEHALF OF THE BOARD
OF DIRECTORS

James E. Eccott

JAMES E. ECCOTT, DIRECTOR

The Vancouver Stock Exchange has neither approved nor disapproved the information contained in this News Release.

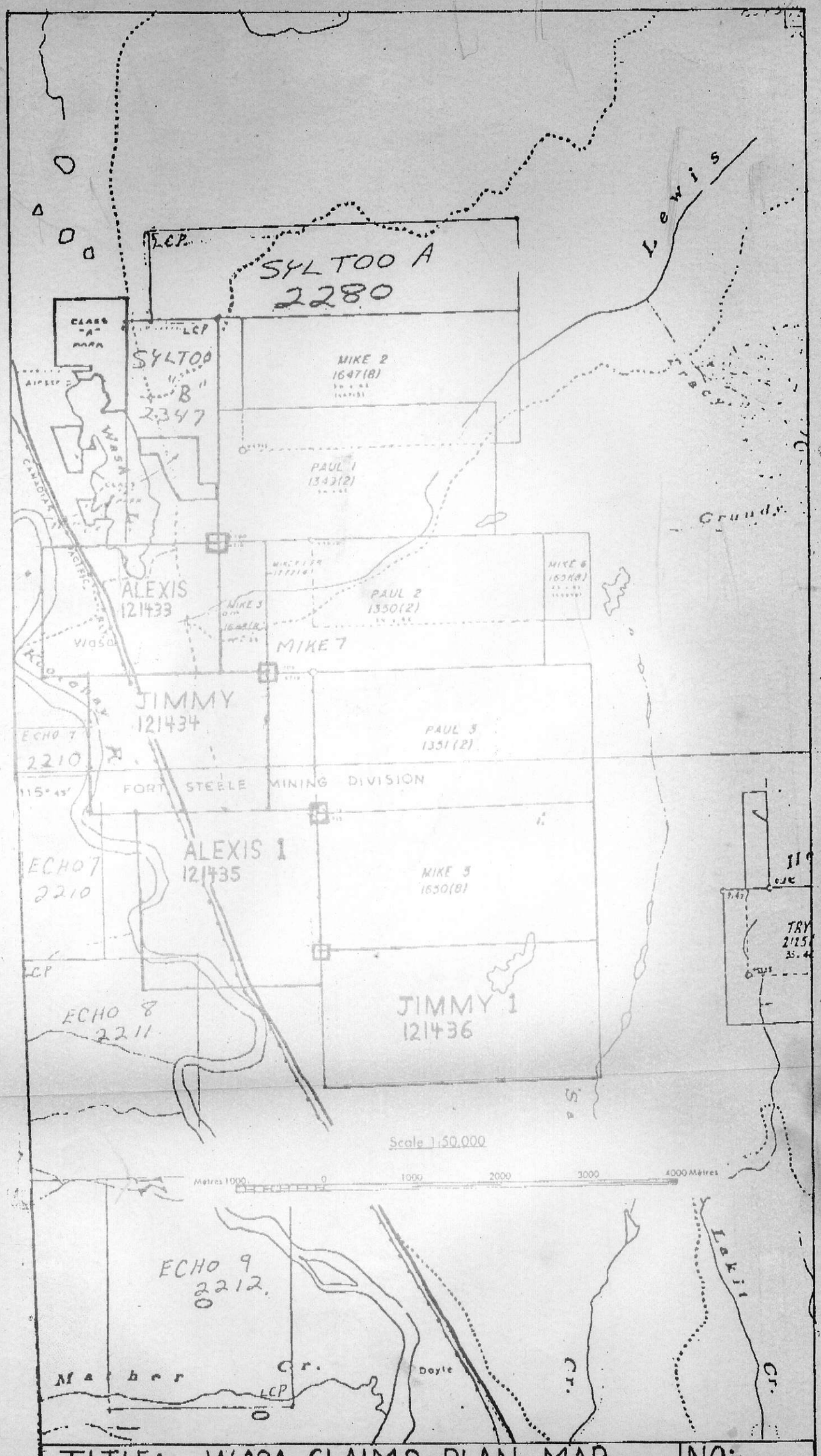
RECEIVED

NOV 1/87

Minerals Staff

CHEVRON CANADA RESOURCES LIMITED
VANCOUVER OFFICE

CLAIM NAME	UNITS	RECORD NUMBER	EXPIRY DATE
Paul 1	18	1349	February 17, 1991
Paul 2	18	1350	February 17, 1992
Paul 3	18	1351	February 17, 1994
Mike 3	3	1648	August 9, 1990
Mike 4	6	1649	August 9, 1992
Mike 5	18	1650	August 9, 1990
Mike 6	12	1651	August 9, 1992
Mikey #1 Fr.	1	1772	April 26, 1995
Mike 7	2	2222	August 22, 1990
Alexis	12	2922	June 10, 1989
Jimmy	12	2923	June 10, 1989
Alexis I	16	2924	June 10, 1989
Jimmy I	18	2925	June 10, 1989



TITLE:- WASA CLAIMS PLAN MAP NO:-