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GEOLOGICAL REPORT

on the

DELPHINE PROPERTY

(PGD and DEL CLAIMS)

GOLDEN MINING DIVISION

BRITISH COLUMBIA

Latitude: 050° 26'N  
Longitude: 116° 24'W

NTS 82 K/8W

FILMED

18,094

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

Owners:

Peter Dasler  
6074 45A Avenue  
Delta, B.C.

and

Steven Coombes  
1519 Edgewater Lane  
North Vancouver, B.C.

Operator:

Alessandro Holdings Ltd  
41 Rivalta Road  
Weston, Ontario M9M 2M4

Consultant:

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Date:

September 12, 1988

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February 24, 1989

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## **INTRODUCTION**

### **Location and Access**

The Delphine property is located in the Golden Mining Division of British Columbia at 50° 26'N latitude, 116° 24'W longitude on N.T.S. map sheet 82K/8W (Toby Creek). The claims are near the headwaters of Delphine Creek, a tributary of Toby Creek, in the Purcell Mountains (Figure 1).

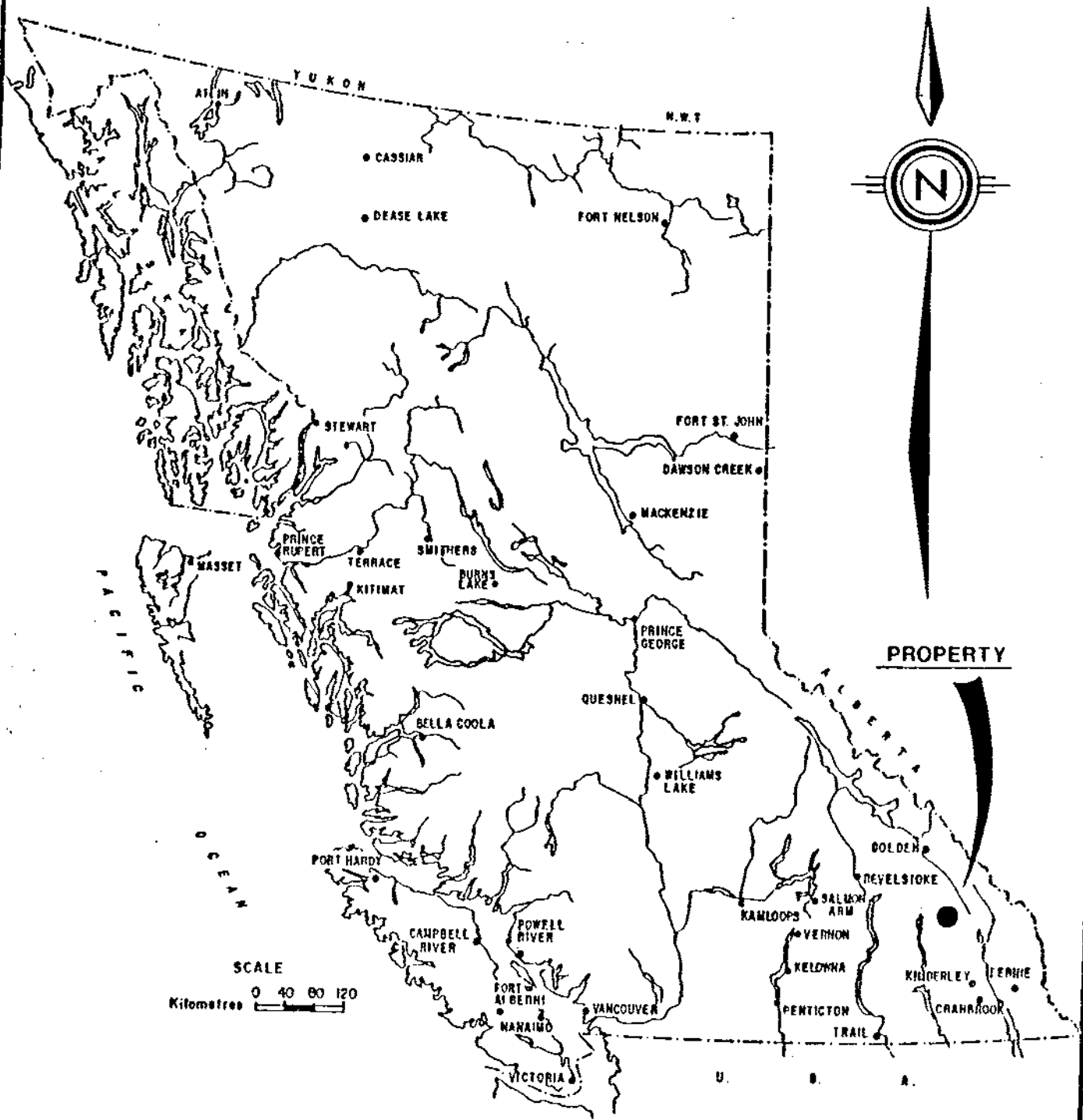
To reach the property, follow Toby Creek Road west from Invermere, B.C., past Panorama Resort, to the north branching Delphine Creek Road just beyond the 17 mile marker (27.7 kilometres). The Toby Creek Road is paved to the resort at 19.2 kilometres and well maintained gravel to the turnoff. Follow Delphine Creek Road for about 6.8 kilometres along the north bank of Delphine Creek. Just past a large clearing, in which the PGD legal corner post is located, a road turns at right angles to the north. Follow this road up the north fork of Delphine Creek for approximately 1.5 kilometres where it switches back sharply to the right and climbs steeply to the old Delphine Mine workings. The Delphine Creek Road is best driven with a four-wheel drive.

### **Physiography and Vegetation**

Elevations on the Delphine property range from 1465 metres (4800 ft), at the PGD legal corner post, to 2745 metres (9000 ft), on the south ridge of Mount Catherine. With the exception of the valley bottoms, the terrain is steep with numerous cliff bands. The old Delphine Mine is at about 1970 metres (6460 ft) elevation on the southwest shoulder of the south ridge of Mount Catherine.

Vegetation consists of dense alder in the creek bottoms, with spruce and some fir on the hillsides. Treeline is at about 2350 metres (7700 ft) with alpine vegetation being rare.

Precipitation in this part of the Purcell Mountains averages about 120 centimetres per year, much of it falling as snow. The roads are usually clear of snow from early to mid May until early November, although snow storms can occur at the higher elevations at any time of the year.



|  |                       |                 |
|--|-----------------------|-----------------|
| ALESSANDRO HOLDINGS LTD                          |                       |                 |
| DELPHINE PROPERTY<br>GOLDEN MINING DIVISION, BC. |                       |                 |
| LOCATION MAP                                     |                       |                 |
| STEVEN COOMBES                                   |                       |                 |
| DATE:<br>FEB., 1988                              | SCALE:<br>1:8,000,000 | FIGURE No.<br>1 |

### Claim Information

The Delphine property consists of two modified grid mineral claims, the PGD and DEL, comprising 30 units. The PGD claim overlies the 616 (L4333), Delphine (L4334), Eureka (L4335), and the M.T. Fraction (L10110) crown granted mineral claims, the first three of which are owned by Mr Joe Alessandro of Weston, Ontario. The PGD claim is owned by Peter Dasler of Delta, B.C. and the DEL claim is owned by Steven Coombes of Vancouver, B.C. Both claims are in the process of being transferred to Mr Alessandro.

Pertinent claim data is detailed below:

| Claim Name | Number of Units | Record Number | Record Date    |
|------------|-----------------|---------------|----------------|
| PGD        | 20              | 1860          | 26 April, 1988 |
| DEL        | 10              | 1868          | 3 June, 1988   |

Both legal corner posts have been located in the field, and are plotted correctly on the accompanying map (Figure 2).

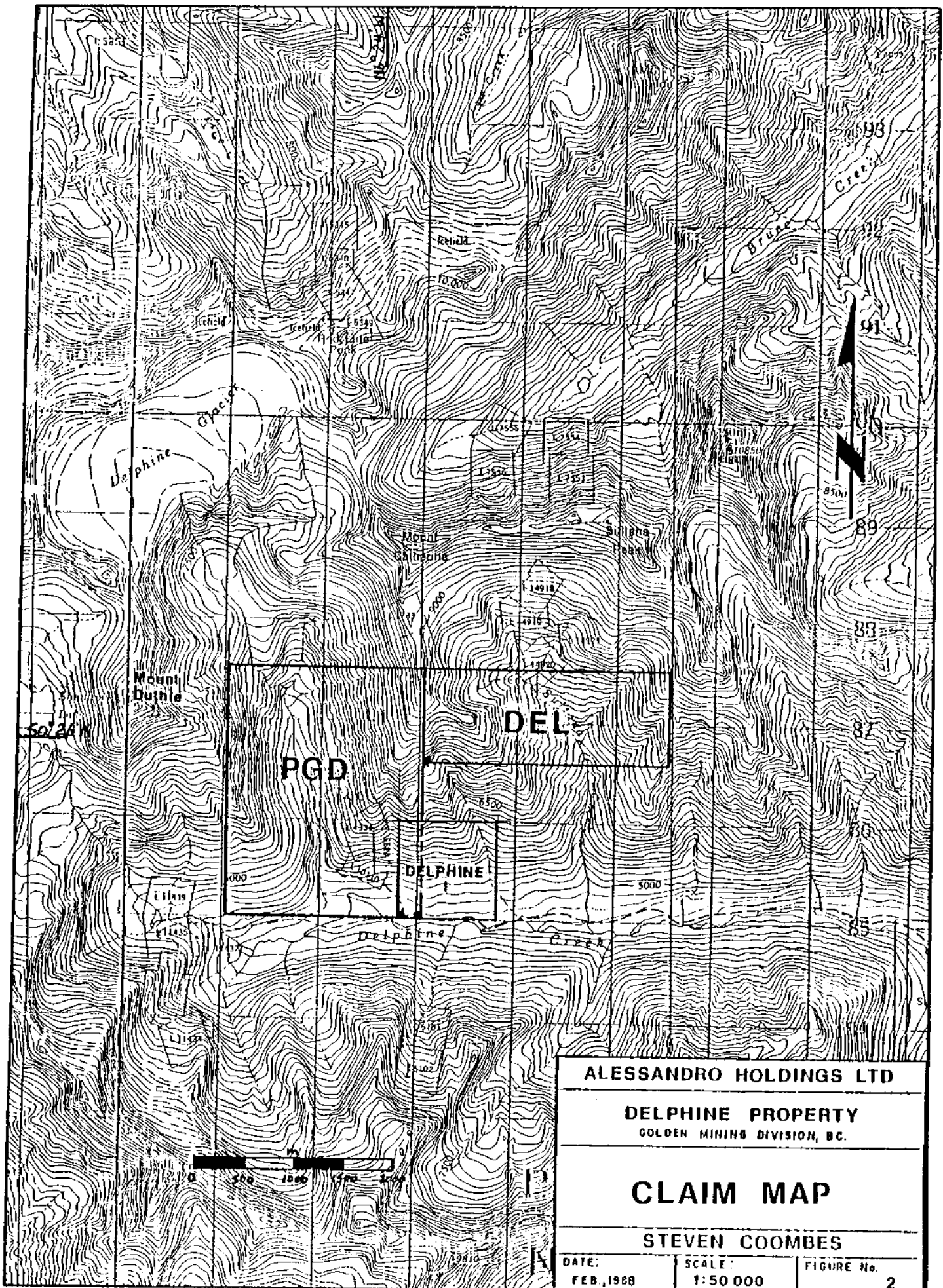
The crown granted mineral claims have been plotted as they are shown on the 1:50,000 topography map for the area (82K/8). From descriptions in old reports of the mine workings, it appears that the crown grants should actually be located some 200 metres to the north or north-northwest. None of the original posts were located in the field.

### History

The vein developed as the Delphine Mine was discovered in 1897 by Baptiste Morigeau, a local prospector. He staked the "Eureka" claim over the vein and sold it later that year for \$500.00. The purchaser left the area and the claim lapsed in July the following year (Hamilton, 1914).

In 1898, the property was restaked by George Starke as the "Delphine" claim, named after his wife. He also staked the "616" and "Eureka" claims to cover the vein along strike. During 1898 and the summer of 1899, Starke, and co-owners R.A. Kimpton and Arthur Harrison, shipped 77 tonnes (85 tons) of ore to the smelter at Trail, B.C. (B.C. Dept. of Mines, 1899). The first 18 tonnes (20 tons) returned 3,100 grams/tonne (90.4 ounces/ton) silver, 62.7% lead, and 2.4% copper (Bruce, 1899).

In October, 1899, the property was bonded to H.C. Hammond, a mining broker in Toronto, Ontario. George Starke used his share of the profits from the mine to build the Delphine Lodge at Wilmer, B.C., a hotel that is still in use today.



ALESSANDRO HOLDINGS LTD

DELPHINE PROPERTY  
GOLDEN MINING DIVISION, B.C.

# CLAIM MAP

STEVEN COOMBS

DATE:  
FEB., 1928

SCALE:  
1:50 000

FIGURE No.  
2

Control of the mine passed into the hands of R. Randolph Bruce, Hammond's agent in B.C., a mining engineer who was later to become Lieutenant-Governor of B.C. Bruce had examined the property with Starke in September, 1897, and had been trying to acquire it for some time (Bruce, 1897). A thirteen man winter camp was established at the mine and work was actively carried out up to March, 1900. It is unknown how much ore was shipped during this period, but it seems likely that it was in the order of 90 to 140 tonnes. One carload shipped to Trail returned 7,193 grams/tonne (209.8 ounces/ton) silver, 39.2% lead and 5.4% copper (B.C. Dept. of Mines, 1900). The mine was developed on two drift levels at 9 metres (30 feet) and 30 metres (100 feet) below the surface connected by a shaft. There was also a winze put down 12.8 metres (42 feet) from the north drift of the 9 metre level (Bruce, 1899 to 1902).

The rest of 1900 and 1901 saw little work done on the property. A winter sleigh road was completed in 1901 and 72 tonnes of ore that was in bins at the mine was hauled out during the winter of 1901/02. One entry in Bruce's assay book on October 9, 1901, indicates that development work had been continued to the 39 metre (128 ft) level (Bruce, 1899 to 1902).

From 1902 to 1906 the property was operated by leasers, who, according to B.C. Department of Mines Annual Reports of the time, made the following shipments: 1902, 43.5 tonnes, grade not recorded; 1903, 11 to 14 tonnes, 4,629 grams/tonne (135 ounces/ton) silver and 25% lead; 1904, 26.3 tonnes, 4,286 grams/tonne (125 ounces/ton) silver and 30.5% lead; 1905, about 57 tonnes, 2,914 grams/tonne (85 ounces/ton) silver and 30% lead; and 1906, tonnage and grade not recorded.

The 616, Delphine and Eureka claims were given crown grant status on December 8, 1902.

The records show no further work on the Delphine property until 1951, when six x-ray diamond drill holes were put down to test the extensions of the vein that had been previously mined (B.C. Dept. of Mines, 1951).

In 1963 and 1964, Western Beaver Lodge Mines Ltd built a road to just below the old workings, carried out geological mapping, and drove a 107 metre (350 foot) adit 40 metres below the 30 metre level of the old mine at 1900 metres elevation. The adit intersected the shear zone which carries the vein, but found no silver bearing mineralization. One BQ diamond drill hole was drilled up at 40 degrees from a station established 58 metres in from the portal, apparently to test the vein between the bottom of the old workings and the adit level. There is no record of what the hole hit, but the B.C. Department of Mines Annual Report for 1964 states that the hole was 125 feet, or 38.1 metres, long. If this is the case, it would fail to reach the vein that had been developed at the turn of the century. Western Beaver Lodge Mines suspended operations in July of 1964.

In 1987, Mr Joe Alessandro, of Weston, Ontario, acquired the 616, Delphine and Eureka crown grants. At his request, through Peter J. Vamos, Consultants, of Niagara Falls, Ontario, the PGD and DEL mineral claims were staked to cover the surrounding area.

### **Summary of Work**

Following the recommendations of Peter J. Vamos, consulting engineer for Alessandro Holdings Ltd, work commenced on the Delphine property on June 2, 1988. The initial phase consisted of bulldozer work on the portion of the Delphine Creek Road within the claim block, to make it passable by four wheel drive vehicle to near the old mine workings. The second phase, which began on August 16, 1988, consisted of geological mapping and prospecting of both claims, detailed mapping of the old mine workings, and sampling of mineralized veins on various parts of the property and on the B.C. and Tilbury crown grants to the north. The field work was completed on September 7, 1988.

A summary of the work submitted for assessment purposes is as follows:

**Physical Work** - approximately 2.0 kilometres of road clearing using Caterpillar D-7 and John Deere 450 bulldozers on the PGD claim, between June 2 and 11.

**Geological Survey** - Geological mapping of the PGD and DEL claims (750 hectares), at 1:10,000, between August 16 and September 7 (Figure 4). The field maps showing the individual outcrops mapped during this programme are enclosed as Figures 6a and 6b. A compilation map, plotted at 1:12,500, combining the 1988 mapping with previous work by Root (1987), is enclosed as Figure 4.



## PROPERTY GEOLOGY

The mapping and identification of both lithotypes and structures on the Delphine property drew heavily on previous work by Kevin G. Root (1987). The mapping carried out on the property during 1988 was plotted at a scale of 1:10,000 on a blowup of the 1:50,000 topography map of the area (Figures 6a and 6b). Control was established by compass bearings and altimeter. A compilation map combining the 1988 mapping with that of Root is enclosed as Figure 4.

### Lithology

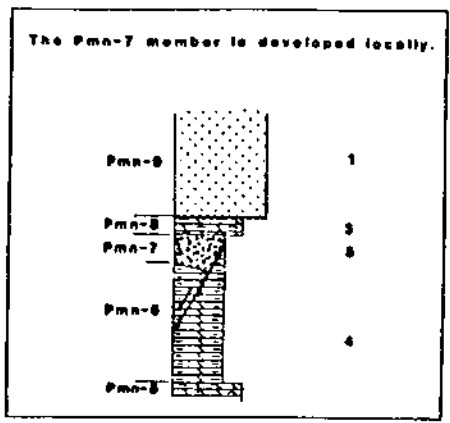
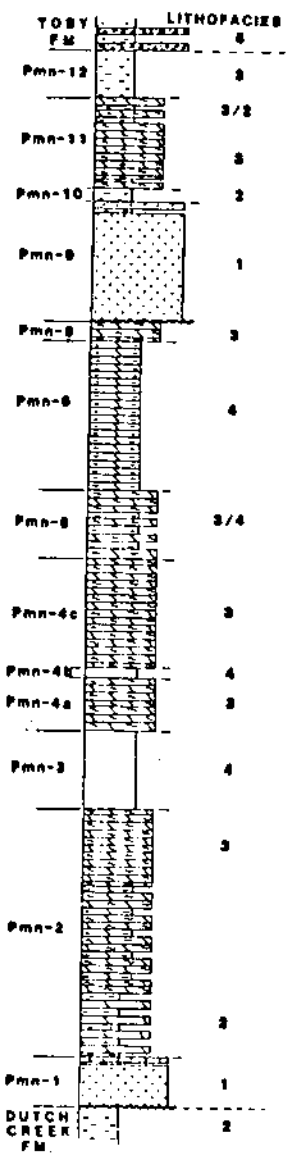
Five different rock units as mapped by Walker (1926) and Reesor (1957 and 1973) are found on the Delphine property. They are, in order of deposition; the Dutch Creek Formation, the Mount Nelson Formation, the Toby Formation, the Horsethief Creek Group, and the Mount Forster Formation. The first four units are of Proterozoic age and the Mount Forster Formation is of Devonian age.

#### Dutch Creek Formation:

The middle Proterozoic Dutch Creek Formation (Purcell Supergroup) has been divided into three members: the lower Pdc-1 and the upper Pdc-3 member, which comprise mainly argillite, and the middle Pdc-2 member which consists of sandstone, argillite, argillaceous dolomite and dolomite. The lower two members were deposited in relatively shallow water environments, whereas the Pdc-3 member consists of very fine-grained turbidites and hemipelagic sediments that were deposited below storm wave base. Only the upper member, Pdc-3, is present on the Delphine claims. It is exposed at the head of Sultana Creek on the DEL mineral claim.

#### Mount Nelson Formation:

Recent work by Root (1987) indicates that the Mount Nelson Formation unconformably overlies the Dutch Creek Formation. In previous studies this contact was thought to be conformable, and the Mount Nelson Formation was considered to be the uppermost part of the Middle Proterozoic Purcell Supergroup. Now it seems that it is more closely related in age to the overlying Upper Proterozoic Windermere Supergroup.



LEGEND

|  |                       |  |              |
|--|-----------------------|--|--------------|
|  | Dolomite              |  | Siltstone    |
|  | Cryptalgal Dolomite   |  | Sandstone    |
|  | Argillaceous Dolomite |  | Conglomerate |
|  | Argillite             |  | Unconformity |

| LITHOFACIES                                 | INTERPRETATION                                    |
|---|---|
| 1) Sandstone                                | Transgressive Shallow Marine Deposit              |
| 2) Evenly Bedded Argillaceous Strata        | Sublittoral "Outer Dextral" Deposit               |
| 3) Cryptalgal Dolomite                      | Littoral to Supratidal "Middle Carbonate" Deposit |
| 4) Mudcracked Argillaceous and Silty Strata | Littoral to Supratidal "Inner Dextral" Deposit    |
| 5) Conglomeratic Strata                     | Deposited by Debris Flows                         |

Figure 3. Composite stratigraphic section of the Mount Nelson Formation with lithofacies interpretation. From Root (1987).

The Mount Nelson Formation has been divided into nine members within the Delphine claim boundaries. Three stratigraphically higher members have been mapped in nearby regions (Atkinson, 1976), and Pmn-4 has been locally divided into three sub-members (Root, 1987). With the exception of Pmn-7, which is locally developed, all members are laterally persistent and show no significant lithologic variations within the claims. Strata of the Mount Nelson Formation can be grouped into five lithofacies, comprising: 1) sandstone lithofacies, interpreted as transgressive deposits overlying unconformity surfaces; 2) regularly bedded argillaceous lithofacies, interpreted as sub-littoral, "outer detrital belt" deposits; 3) cryptalgal dolomite lithofacies, interpreted as littoral, "middle carbonate belt" strata; 4) mudcracked argillaceous and silty lithofacies, interpreted as "inner detrital belt" deposits; and 5) conglomerate lithofacies, interpreted as debris flow deposits (Figure 3) (Root, 1987).

The Pmn-7 member, a conglomerate, overlies Pmn-6 to the west of the M.T. normal fault. The member is absent from the succession elsewhere in the region, which suggests that the M.T. fault was active during deposition of the Pmn-7 sequence. The Pmn-7 member is gradationally overlain by cryptalgal dolomite of the Pmn-8 member.

Mount Nelson Formation is the host rock for the mineral deposits located to date in the area of the Delphine property. The vein mined as the "Delphine Mine" at the turn of the century is entirely within Pmn-5 strata, comprising alternating horizons of light grey and cream-grey cryptalgal dolomite and orange-brown argillaceous dolomite.

#### Toby Formation:

The Toby formation forms the basal part of the Upper Proterozoic Windermere Supergroup, and is interpreted to be the lower part of the rift-stage deposit of the Cordilleran divergent margin.

The Toby conglomerate consists of clasts of dolomite, quartzite, conglomerate, greenstone, and/or argillite, that have been derived from the Mount Nelson and Toby Formations, within a matrix of dolomite, argillite, sandstone or volcanic greenstone. Conglomerate of the Toby formation was probably deposited as debris flows. Sedimentary structures indicate deposition in relatively shallow water.

### Horsethief Creek Group:

The Horsethief Creek Group forms the upper part of the Windermere Supergroup, and comprises argillite, pebble conglomerate, sandstone, dolomite, and limestone. The lower contact is usually conformable and is often gradational. The presence of turbidites and graded beds of coarse-grained clastic strata, and the lack of wave formed sedimentary structures, indicate that strata of the Horsethief Creek Group have been deposited by mass flow or hemipelagic processes in a deep water environment.

The Horsethief Creek Group has a maximum thickness of 400 metres in the Delphine Creek region where it is overlain by the Middle Devonian Mount Forster Formation.

### Mount Forster Formation:

The Middle Devonian Mount Forster Formation was not recognized in the Delphine Creek area until the early 1980's (Root, 1985). The lower contact of the Mount Forster Formation at Delphine Creek is an angular unconformity. On the south slopes of Mount Duthie, just to the west of the property, the pre-Mount Forster unconformity truncates broad folds developed in Horsethief Creek strata.

The Mount Forster Formation on the Delphine property consists of purple and green argillite, quartzite, dolomitic quartz sandstone and occasional beds of pebble conglomerate. Sandstone horizons are lenticular which indicates that the succession may have been deposited on a tidal flat or in a fluvial setting.

All of the above lithological units display varying degrees of metamorphic overprinting, due to regional deformational events and the intrusion of Cretaceous quartz monzonite plutons to the north and the south (Reesor, 1973). The rocks in the study area are all in the chloritic zone of greenschist metamorphism.

## Structure

At least five periods of deformation are represented by the structures mapped on the Delphine property. The first two, which occurred during the Proterozoic, are recognized through the study of the normal faults on the property and their relationship to the stratigraphic succession. The thrust faults and major folds within the claims were formed by the last three phases of deformation during the Mesozoic.

### Proterozoic structures:

Four major normal faults, the M.T., Starke, Bruce and Summit faults, have been mapped on the property. They appear to have displacements on the order of 300 to 400 metres and are characterized by zones of fracturing, brecciation and shearing up to about 1 metre in width. Subparallel structures are common within 2 or 3 metres of the faults.

The presence of the Pmn-7 member of the Mount Nelson Formation adjacent to the M.T. normal fault indicates that it was active at the time of deposition. The Starke fault appears to have been active during deposition of the Toby Formation, indicated by thickening of beds, and debris flow deposits on the down dropped side.

The strike of these faults is roughly parallel to the trend of the Mesozoic structures, usually from 145 to 170 degrees. Their dips, corrected for Mesozoic folding, ranged from 60 to 80 degrees to the west or southwest.

The Mine fault is one of several smaller normal faults that are on the property. These have displacements of less than 10 metres and show little or no brecciation or fracturing. Because they are similar in orientation to the major normal faults, it is assumed that they are also Proterozoic structures.

### Mesozoic structures:

The thrust faults and most of the folds on the property were formed during three phases of deformation during the Mesozoic. The Delphine Creek fault is a northeast verging, shallow dipping thrust fault that formed during the first phase. It is typical of thrust faults in that it places older strata over younger strata. The displacement along the Delphine Creek fault is probably greater than 2 kilometres.

Second phase structures consist of folds which are seen to deform the Delphine Creek thrust fault. It appears that most or all of the major folds on the property were formed during this period of deformation. A north to northwesterly striking cleavage has been developed parallel to the axial planes of these folds.

The Redline thrust fault is a third phase structure. It is seen to truncate second phase folds and is spatially related to crenulation cleavages that postdate the second phase axial planar cleavage. The Redline fault cuts through a previously deformed package of rocks so it behaves differently than most thrust faults; it places younger strata over older strata. The presence of east-west striking crenulation cleavage suggests that there was a component of north-south compression during the third phase. Therefore, the Redline fault may have a component of strikeslip movement, either dextral or sinistral. The displacement on the Redline fault is probably in excess of 3 kilometres (Root, 1987).

The Mesozoic deformational events have been correlated with two pulses of orogenic activity in the region. First and second phase structures are probably related to the Late Jurassic to Early Cretaceous first pulse and third phase structures may be related to the mid-Cretaceous second pulse.

### **Mineralization**

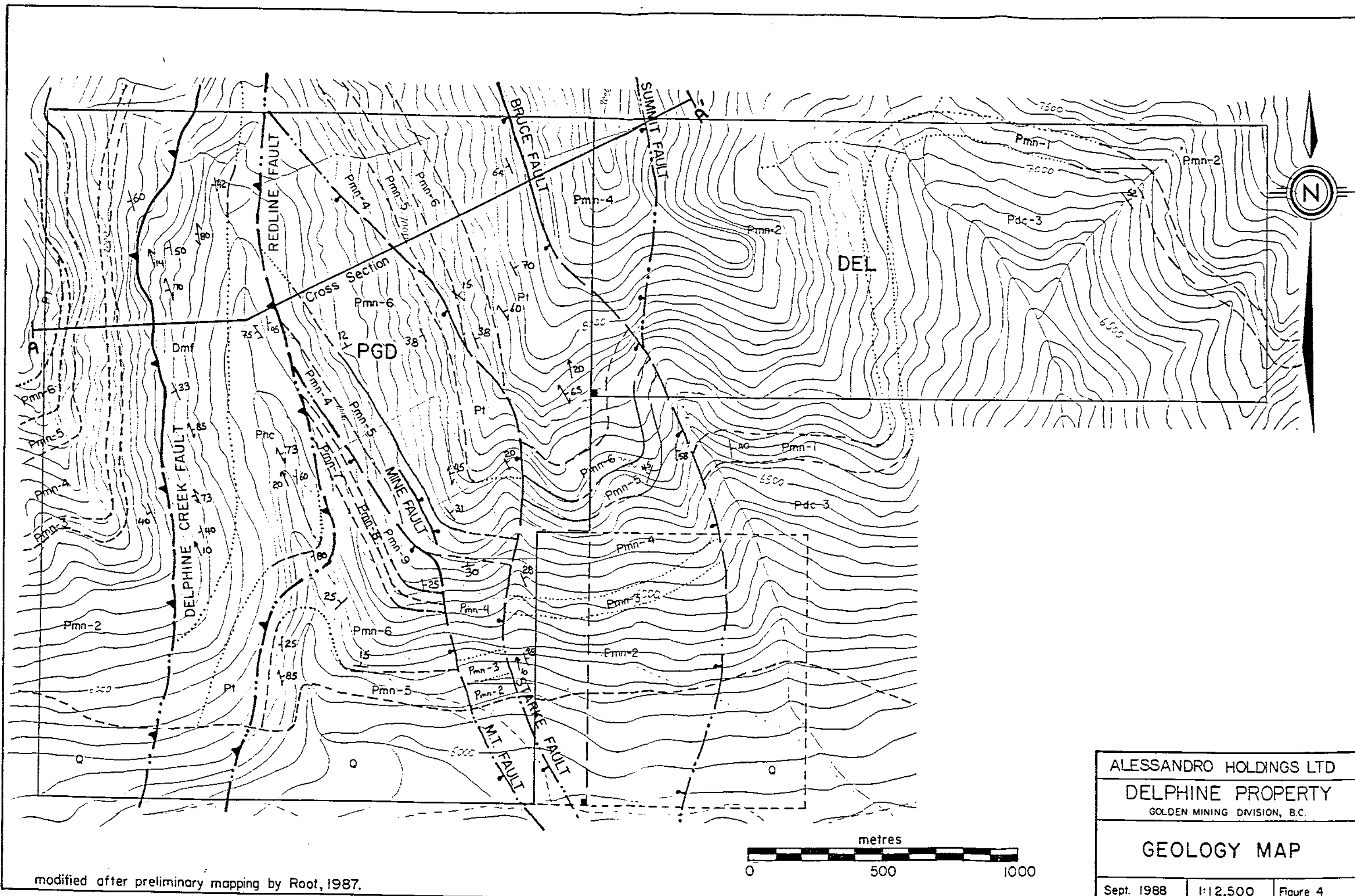
The Delphine Mine was developed on a quartz and carbonate vein, now mined out at surface, which contained galena with lesser tetrahedrite and sphalerite. It was originally described as a "vein of solid galena, varying from 12 to 36 inches (0.30 to 0.91 metres),...exposed in a series of open cuts for a distance of some 150 feet (45.72 metres)" (B.C. Dept. of Mines, 1898). Ore shipped from the mine returned silver values as high as 7,193 grams/tonne (209.8 ounces/ton) (B.C. Dept. of Mines, 1900), apparently associated with the tetrahedrite (Langley, 1933). There is little or no alteration of the wall rocks.

The vein was stoped to the surface from the 9 metre level for a length of approximately 60 metres with an average width of about 1 metre. The stope is now mostly collapsed with numerous large boulders wedged in it making it extremely dangerous to examine the lower levels, so it is unknown how much ore was extracted from below the 9 metre level. There is very little mineralized vein material now available for examination at the mine site, however, one sample collected in June, 1988 from the dump returned a silver value of 1577 grams/tonne (46 ounces/ton).

The Delphine vein, and the vein mined on the M.T. Fraction to the south, formed within dilatant zones along the Proterozoic Mine normal fault. The dip of the Mine fault changes from the east to the west where it is intersected in the Western Beaver Lodge Mines adit, with the mineralized vein being in the east dipping section. This dip change, along with the overall trend of the normal faults on the property, suggests that the Mine fault is predominantly west dipping with occasional rolls to the east.

The rolls in the fault are probably due to the Mesozoic second phase deformation that formed most of the major folds on the property. The folding, possibly accompanied by minor movement of the fault (related to third phase deformation?), tore open dilatant zones where extensional forces were applied to the fault, ie. where the dip of the fault changed to the east.

Four mineralized veins were examined during the 1988 exploration programme, three on the Delphine property and one at the B.C./Tilbury mine to the north. All are on similar east dipping dilatant structures.



modified after preliminary mapping by Root, 1987.

|                              |          |          |
|------------------------------|----------|----------|
| ALESSANDRO HOLDINGS LTD      |          |          |
| DELPHINE PROPERTY            |          |          |
| GOLDEN MINING DIVISION, B.C. |          |          |
| <b>GEOLOGY MAP</b>           |          |          |
| Sept. 1988                   | 1:12,500 | Figure 4 |



LEGEND  
(Figure 4)

DEVONIAN

**Dmf** Mount Forster Formation: argillite, quartz sandstone, quartzite and pebble conglomerate.

UPPER PROTEROZOIC

-Windermere Supergroup

**Phc** Horsethief Creek Group: argillite, pebble conglomerate, sandstone, dolomite and limestone.

**Pt** Toby Formation: pebble, cobble and boulder conglomerate and sedimentary breccia.

MIDDLE PROTEROZOIC

-Purcell Supergroup

Mount Nelson Formation:

**Pmn-9** white and grey quartzite; minor dolomitic sandstone and argillite.

**Pmn-8** orange and yellow-orange cryptalgal dolomite.

**Pmn-7** pebble, cobble and boulder conglomerate and sedimentary breccia.

**Pmn-6** purple and pale brown argillaceous and silty dolomite; minor purple siltstone and argillite.

**Pmn-5** alternating horizons of light grey cryptalgal dolomite and orange-brown argillaceous dolomite.

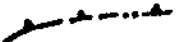
**Pmn-4** brown and orange cryptalgalaminated and domal stromatolite dolomite with purple and green siltstone interbeds.

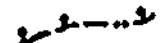
**Pmn-3** purple and green siltstone, argillite and sandstone; light brown silty dolomite.

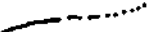
**Pmn-2** cream and cream-grey dolomite and light green, grey and brown argillaceous dolomite.


**Pmn-1** white quartzite; minor dolomitic sandstone, argillite and argillaceous dolomite.


**Pdc-3** Dutch Creek Formation: grey, black and green argillite and siltstone-argillite couplets.


 Thrust fault (teeth in direction of dip); defined, approximate, assumed.

 Normal fault (solid circle indicates downthrow side); defined, approximate, assumed.

 Geological boundary; defined, approximate, assumed.

 Bedding.

 Cleavage.

 Lination.

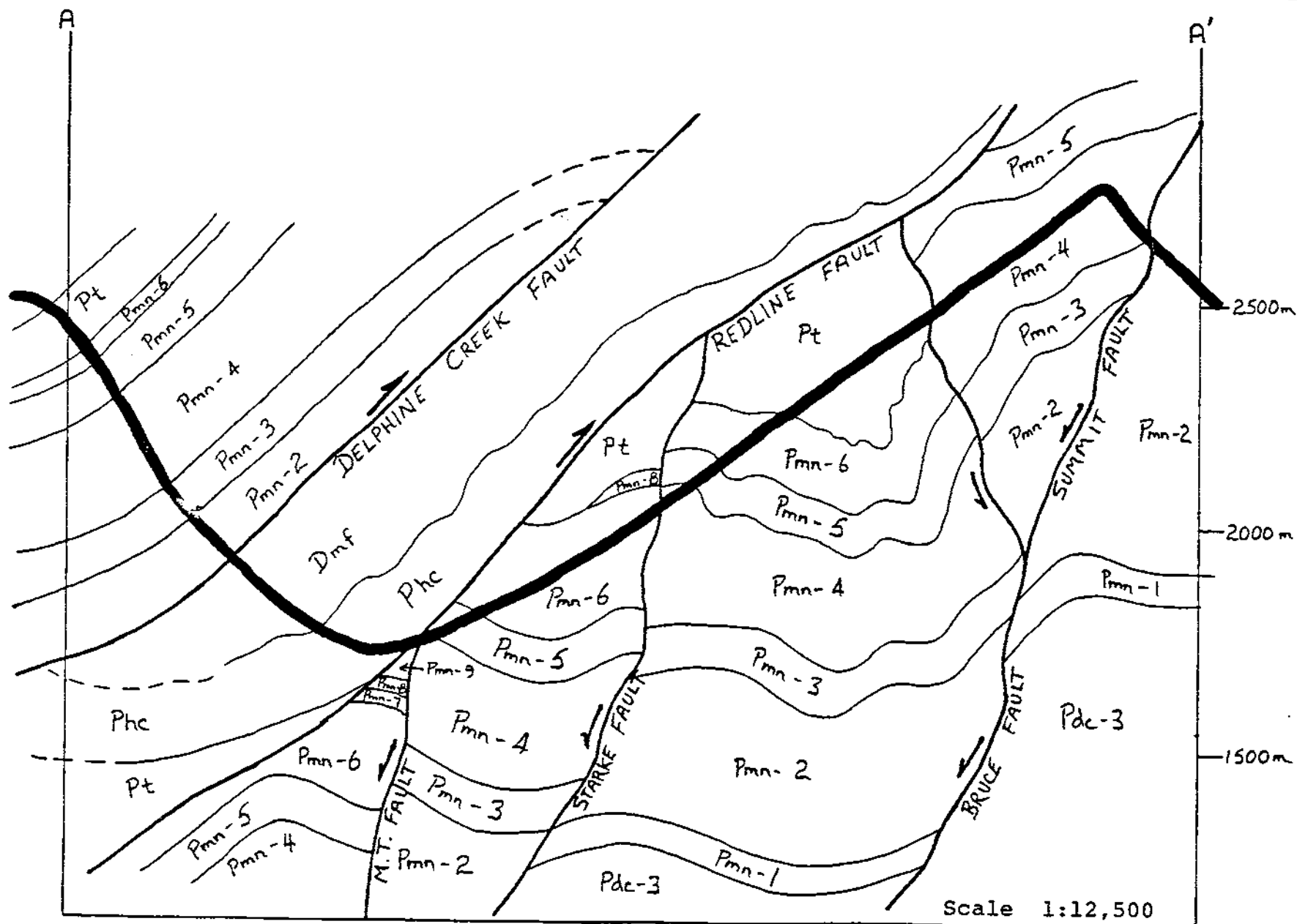
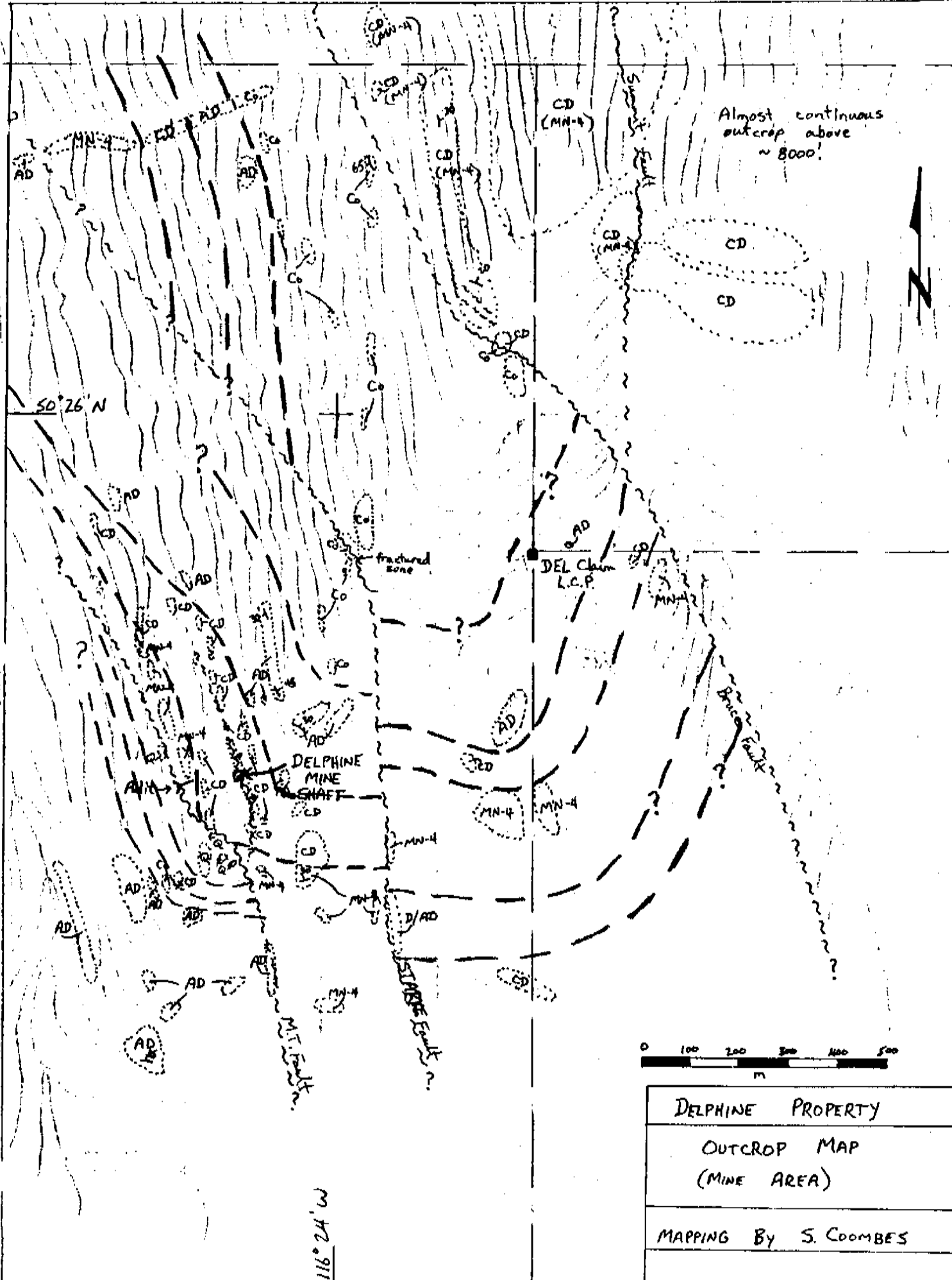
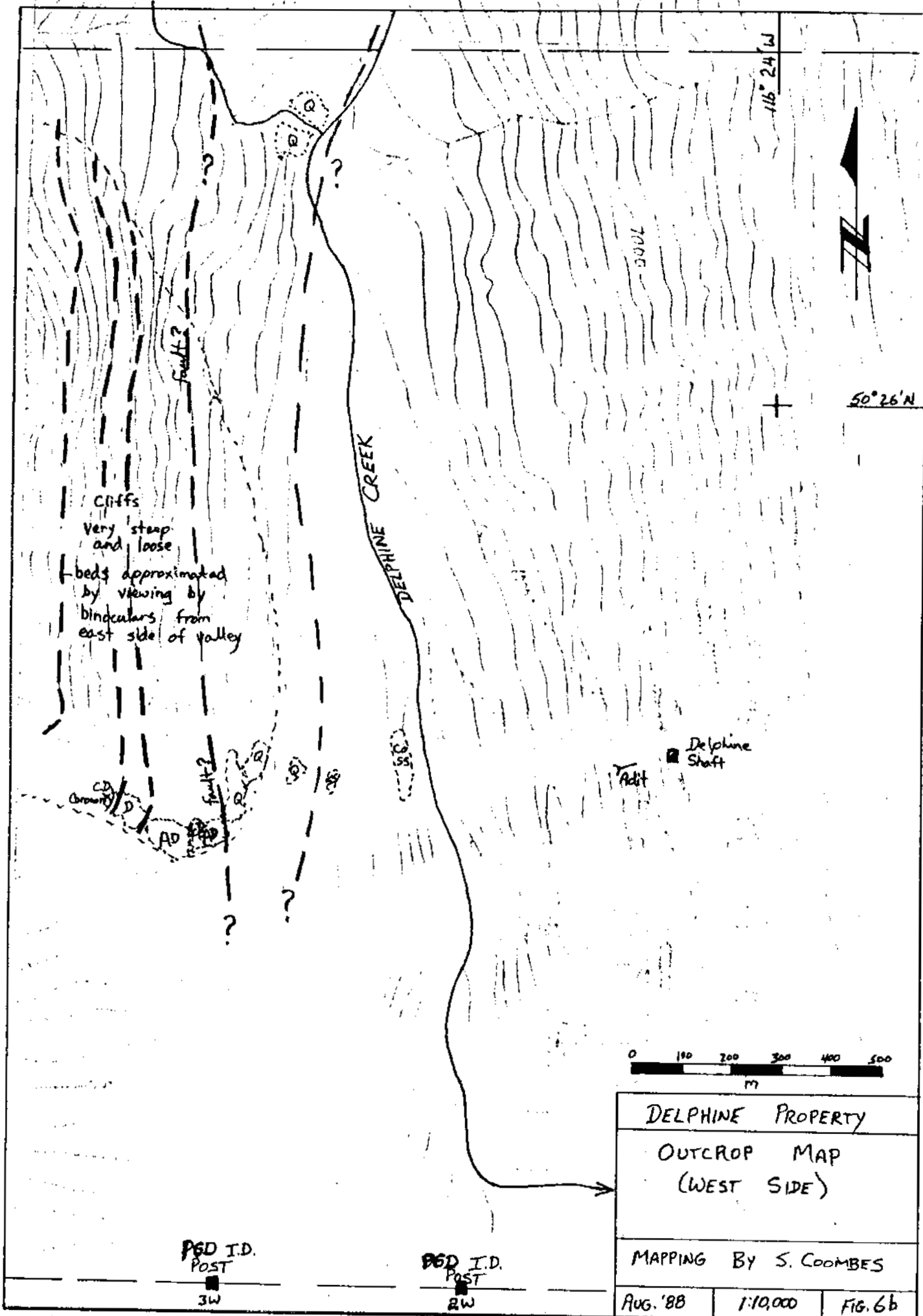


Figure 5. Geological cross section of the Delphine Property, after Root (1987).



|                            |          |         |
|----------------------------|----------|---------|
| DELPHINE PROPERTY          |          |         |
| OUTCROP MAP<br>(MINE AREA) |          |         |
| MAPPING BY S. COOMBES      |          |         |
| Aug '88                    | 1:10,000 | FIG. 6a |

PGD Claim  
L.C.P.



LEGEND  
FIG. 6a and 6b

Q

quartzite, white to grey ; dolomitic quartzite

SS

sandstone, minor conglomerate

Co

conglomerate, minor dolomitic interbeds

D

dolomite, light brown

CD

cryptalgal dolomite, light grey

AD

argillaceous dolomite, light brown

CD  
(MN-4)

cryptalgal dolomite, brown to orange (Root's unit Pmn-4)

~~~~~

assumed fault

○

out crop

$\frac{1}{30}$

bedding

$\frac{1}{40}$

cleavage

---

contact (assumed)

## CONCLUSIONS

The 1988 exploration programme on the Delphine property was focused on locating "Delphine Mine type" silver bearing veins. The programme was designed to determine controls for the known mineralization through geological mapping of the property, and to apply this information towards predicting where additional mineralization may be located.

The presence of quartz monzonite plutons to both the north and south of the property indicates that there was a regional heating event that has been dated to the Cretaceous, or just after the Mesozoic deformation. This event mobilized hydrothermal solutions throughout much of the area which were forced out, along fractures, through the surrounding rocks. When the solutions encountered dilatant zones, such as in the Mine fault, the pressure in the system dropped, and the minerals that were carried in solution were deposited. In many cases, these solutions were carrying significant amounts of silver.

The silver bearing veins examined are all filling dilatant zones on east dipping "rolls" of small scale, predominantly west dipping normal faults which are within 100 metres of major, subparallel normal faults. This indicates that the structural environment is very important for their deposition.

The veins are all hosted by cryptalgal dolomites of either the Pmn-4 or Pmn-5 members of the Mount Nelson Formation. The lithotype is not thought to be of primary importance, other than a requirement that it be able to sustain a dilatant zone, ie. the soft argillites are not likely to host significant veins.

The lack of wall rock alteration suggests that the veins are mesothermal and therefore have a potential vertical range of several hundred metres.

It is likely that additional ore "shoots" are present filling dilatant zones within minor faults on the property. Additional work will be required to determine if there is a pattern to the rolls, which will aid in the location of additional ore bodies.

**COST STATEMENT**

The following expenditures were made on the Delphine property between June 2 and September 12, 1988.

**Wages:**

|                                       |            |                   |
|---------------------------------------|------------|-------------------|
| S. Coombes; 4.2 days @ \$225.00 ..... | \$945.00   |                   |
| S. Coombes; 20 days @ \$200.00 .....  | \$4,000.00 |                   |
| <b>Total Wages</b> .....              |            | <b>\$4,945.00</b> |

**Expenses:**

|                                        |            |                       |
|----------------------------------------|------------|-----------------------|
| Transportation and fuel .....          | \$229.60   |                       |
| Food and accommodation .....           | \$147.51   |                       |
| Supplies and consumables .....         | \$148.69   |                       |
| Drafting and photocopies .....         | \$41.49    |                       |
| Reports and maps .....                 | \$57.06    |                       |
| Telephone .....                        | \$57.36    |                       |
| Bulldozer hire .....                   | \$2,505.00 |                       |
| Truck rental, 19 days @ \$65.00 .....  | \$1,235.00 |                       |
| Computer rental, word processing ..... | \$100.00   |                       |
| Field equipment rental .....           | \$50.00    |                       |
| <b>Total Expenses</b> .....            |            | <b>\$4,571.71</b>     |
| <br><b>TOTAL EXPENDITURES</b> .....    |            | <br><b>\$9,516.71</b> |

**CERTIFICATE OF QUALIFICATIONS**

I, Steven F. Coombes, do hereby certify that:

1. I am a consulting geologist with offices at 1519 Edgewater Lane, North Vancouver, British Columbia.
2. I am a graduate at the University of British Columbia with a degree of B.Sc., Geology.
3. I have practiced my profession continuously since 1983.
4. This report is based on previous reports on the area and field work carried out on the property between August and September, 1988.
5. I hold no interest in Alessandro Holdings Ltd or in any of the companies with contiguous property to the Delphine claims. I am currently owner of the DEL claim, but am in the process of transferring title to Mr. Alessandro.



Steven F. Coombes, B.Sc.  
February 24, 1989.



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