GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE PEAK CLAIMS
GOLDSTREAM RIVER AREA
REVELSTOKE MINING DIVISION
BRITISH COLUMBIA

LOCATION: Latitude: 51°32'52"N

Longitude: 118°19'48"W

NTS: 82M/9W

OWNER AND OPERATOR OF CLAIMS:

Pacific Cassiar Ltd.

Calgary, Alberta

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Consulting Geologist

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1. INTRODUCTION

I GENERAL STATEMENT

The Downie Creek Property of Pacific Cassiar Ltd., comprised of the PEAK Claims, is located approximately 0.25 kilometres southwest of Downie Peak between Goldstream River and Downie Creek.

Hoy (1979) considers the most important mineral occurrences in the area to be strata bound massive sulphide deposits of copper and zinc, exemplified by the Montgomery, Standard, and Goldstream deposits. The PEAK Claims cover the Montgomery showing. The Goldstream deposit, located 11 kilometres northwest of the Montgomery showing, contains significant quantities of zinc, copper, and silver, and is currently being mined by Noranda Mines Ltd..

This report deals with the results of a programme of geological mapping, geochemical sampling, and prospecting conducted on the PEAK Claims by a two-man crew between August 1 - 9, 1981, inclusive.

II LOCATION AND ACCESS

The property is located in the Selkirk Mountains of British Columbia and has its centre at approximately 118°19'48"W and 51°32'52"N. It is approximately 60 kilometres north of the town of Revelstoke and of the Trans Canada Highway.

The property is situated on the north side of Downie Creek, about 12 kilometres from its present confluence with the Columbia River, and about 4 kilometres from the projected high water level of the Revelstoke Canyon Dam. A paved highway, Highway 23, runs north from Revelstoke along the east bank of the Columbia River (see Figure 1).

For practical purposes the property is at present accessible only by helicopter. Permanently based helicopters are stationed at Revelstoke and at Mica, about 50 kilometres to the north.

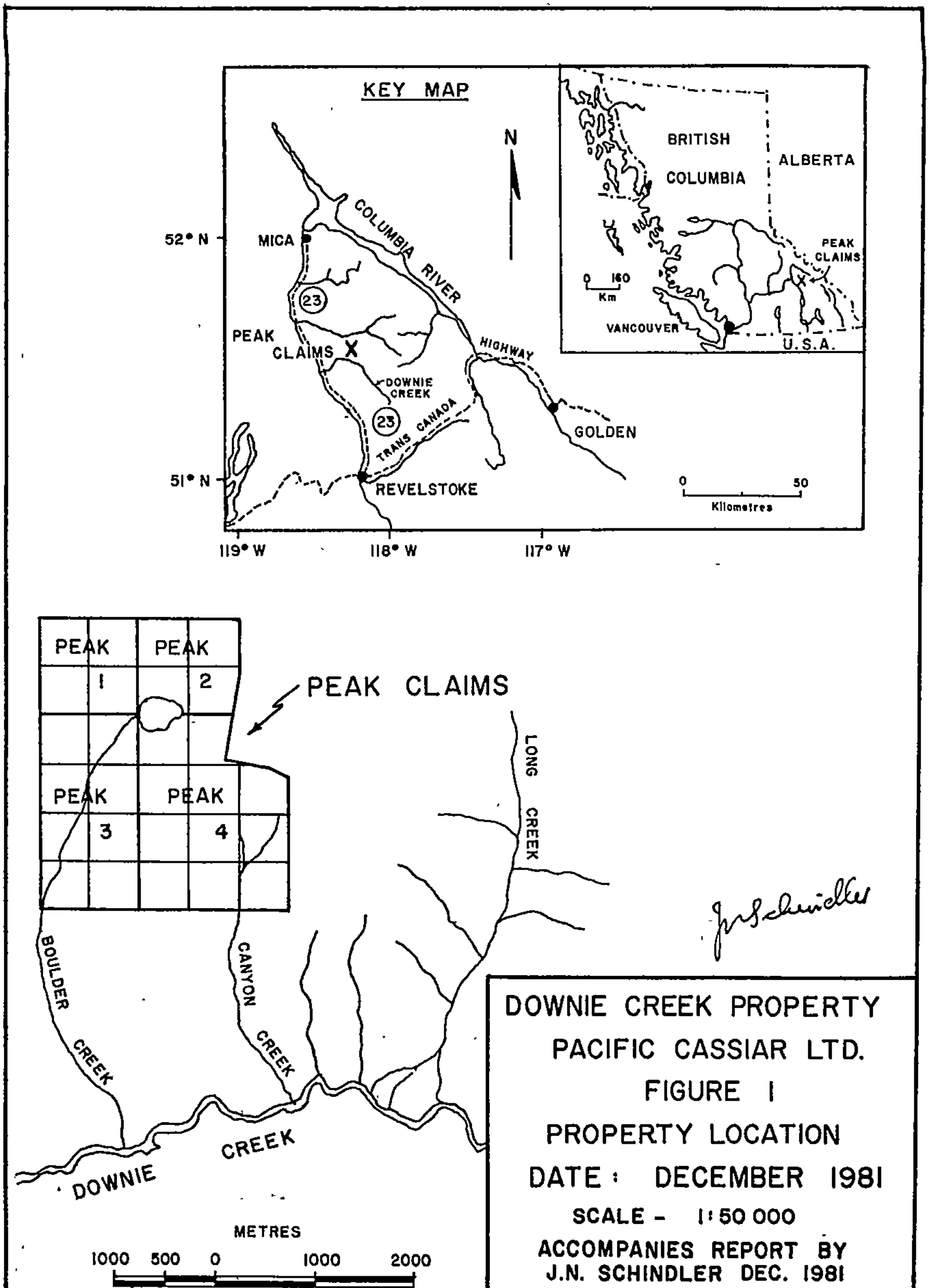
During the current work, a Jet Ranger (206B) operated by Okanagan Helicopters Ltd., and based in Revelstoke, was used. A staging area at the junction of Highway 23 and Downie Creek was used for mobilization and demobilization. Equipment was transported to the staging area by truck from Calgary, via Revelstoke. All supplies were purchased in Revelstoke.

Once on the property, access to the main mineralised zone may be attained from the nearest helicopter landing spot several hundred metres above the zone, or along a trail from Canyon Creek (Figures 4 to 7, inclusive).

III TOPOGRAPHY AND VEGETATION

The property straddles the height of land between Goldstream River and Downie Creek with about 95% of its area facing southerly to the Downie Creek drainage system.

The property is characterized by two south flowing creeks, Boulder Creek and Canyon Creek, which drain a northwest-trending



DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 1
PROPERTY LOCATION
DATE: DECEMBER 1981
SCALE - 1:50 000
ACCOMPANIES REPORT BY
J.N. SCHINDLER DEC. 1981

range of mountains dominated by Downie Peak (elevation 2,958 metres) and which is located just outside the northeast corner of the claims.

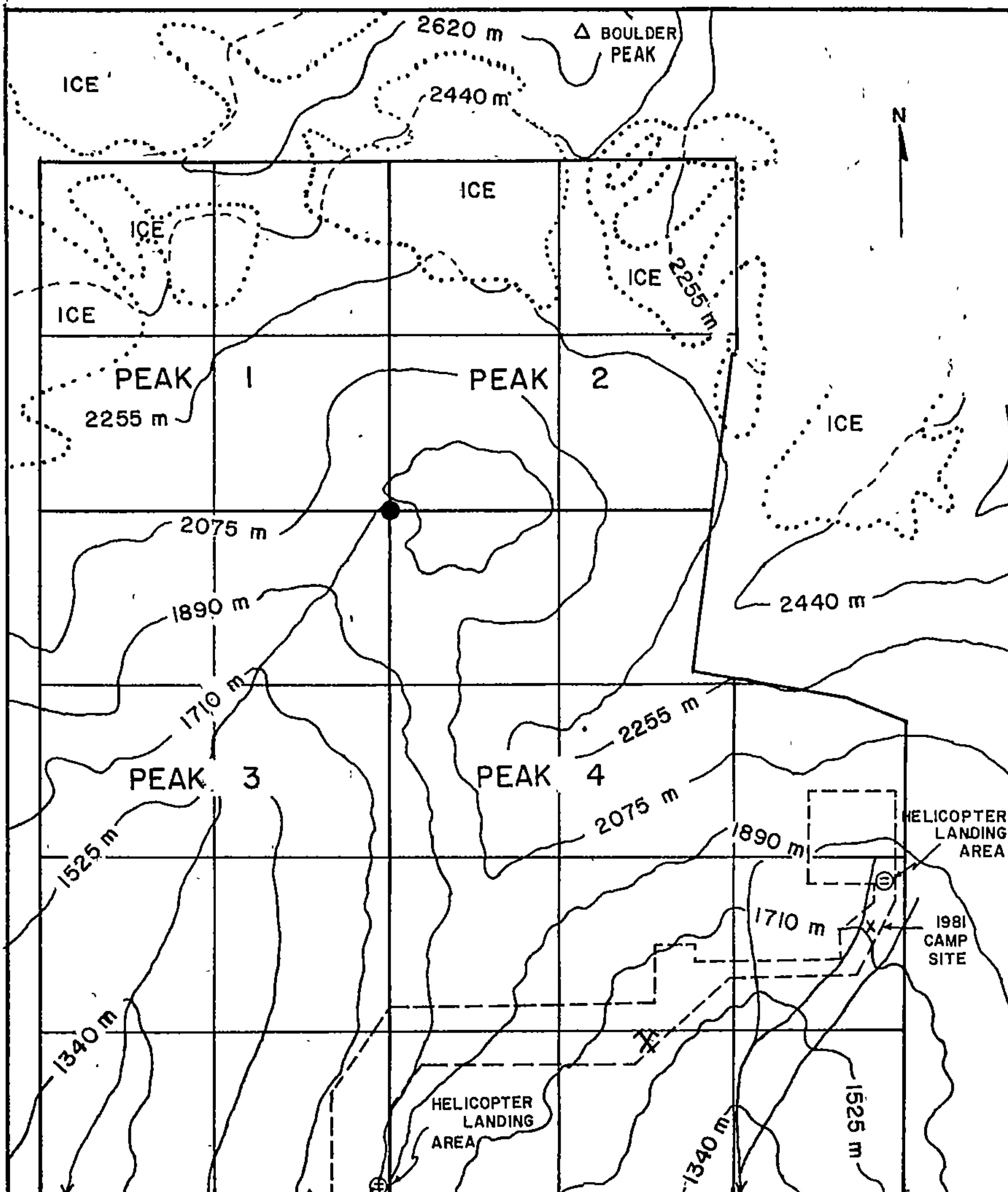
Boulder Creek in the west, and Canyon Creek in the east, are separated by a southerly trending ridge whose crest is generally knife-edged, but which is sufficiently flat towards its southern limits as to provide natural helicopter landing sites. The showings are located on both sides of this ridge.

Elevations on the property range from 1,280 metres on Boulder Creek to 2,620 metres in the northwest corner of the claims. The topography is generally very rugged to precipitous, with the exception of parts of Boulder Creek, where there are moderate gradients. Most of the tributaries of Canyon Creek are steeply incised, as is Canyon Creek itself. Gradients in the Canyon Creek drainage system average 40° to 45° in the area of the showings. Several glaciers are present along the north margin of the property (see Figure 2).

The tree-line follows, approximately, the 1,825 metre contour. Hence, there is a wide range of vegetation on the claims varying from heavy timber along the lower slopes of Boulder Creek, to alpine meadows and barren outcrops on the peaks.

The area of the showings is close to the tree-line and is characterized by open, stunted pine and, locally, cedar intergrown with alders and the occasional large pine.

With the exception of Boulder Creek, the names assigned



— LEGEND —

ICE — ICE FIELD

ADIT

LEGAL CORNER POST

AREA OF 1981 WORK

500 0 250 500 metres

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J.N. Schindler

DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 2
AREA OF 1981 WORK
DATE DECEMBER 1981
SCALE 1 : 15,000 (approx.)

to creeks on the property are unofficial.

IV CLAIMS

The Downie Creek Property is located in Revelstoke Mining District, and is comprised of four contiguous claims, PEAK 1 to 4 inclusive, totalling 28 units. The claims cover an approximate area of 700 hectares (1730 acres). They are owned by Pacific Cassiar Ltd., Suite 714, 603 - 7th Avenue S.W., Calgary, Alberta, T2P 2T5. The current work was conducted with Pacific Cassiar Ltd. as operator. All expenses in connection with this program have been paid for by Pacific Cassiar Ltd..

Relevant claim data is given in Table I.

TABLE I

SCHEDULE OF PEAK CLAIMS, REVELSTOKE MINING DISTRICT

Claim	Tag Number	Units	Area (hectares)	Recording Number	Recording Date	Expiry Date *
PEAK 1	58281	4	100	914	Apr. 8/80	Apr. 8/82
PEAK 2	58282	4	100	915	Apr. 8/80	Apr. 8/82
PEAK 3	58283	8	200	916	Apr. 8/80	Apr. 8/82
PEAK 4	21463	12	300	329	Mar. 28/77	Mar. 28/82
Totals:		28	700 (1730 acres)			

* Prior to application of 1981 assessment work.

V PREVIOUS WORK

The PEAK Claims cover the old Montgomery property where massive sulphide mineralisation was discovered in 1896. Work has been conducted on the property since that time.

In 1917, the property was optioned by Granby Mining, Smelting, and Power Company Limited who opened up some large surface cuts. There is little evidence of this work today.

In the 1950's, an adit was driven in the area of the main sulphide zone. However, the adit was driven mainly in the footwall below the sulphide horizon, and an attempt to drift back into the massive sulphides was unsuccessful.

Except for a small amount of work conducted in 1976, the property lay dormant until 1977. At this time, the property was acquired by Messrs. J.A. Greig, G.A. Keevil, and A. Rich. On their instruction, a preliminary report evaluating the economic potential of the property was prepared by R.D. Morton. This report was based on a study of the current literature.

The property was acquired by the current owner, Pacific Cassiar Limited, in May, 1977. Three of the claims were subsequently allowed to lapse, but the PEAK 4 claim, which covers the Montgomery Showing, has been maintained in good standing. The PEAK 1 to 3 claims were restaked in April, 1980.

This report covers the first work to be conducted on the property by Pacific Cassiar Limited.

VI SUMMARY OF WORK DONE

A two man crew carried out the following work; geological mapping, sampling, prospecting, and geochemical soil and silt sampling. The work was conducted on the PEAK 3 and PEAK 4 claims, and was concentrated mostly on the PEAK 4 claim.

Geological mapping was conducted at a scale of 1:1250 along creek beds and along the geochemical lines over a total area of approximately 43 hectares.

Sixteen massive sulphide samples and five rock samples were collected and assayed for copper and zinc. The gold and silver content of these samples was determined using geochemical methods. The nickel content of six of the massive sulphide samples was also determined geochemically.

Fifty-three soil and twenty silt samples collected during the geochemical programme were analysed for copper, lead, and zinc. Two silts were also analysed for tungsten.

Prospecting was conducted concurrently with the geological mapping and the geochemical sampling.

One day was spent clearing pre-existing trails.

2. REGIONAL GEOLOGY

I GENERAL GEOLOGY

The regional geology of the area has been described by Gunning (1928) and by Wheeler (1965). Recently, Hoy (1979) has dealt with the geology of the Goldstream area placing particular emphasis on the economic geology.

Lithologically, the area is comprised of meta-sedimentary rocks interlayered with mafic volcanic rocks. The meta-sedimentary rocks are composed of a heterogeneous assemblage of quartzites, schists, phyllites, calcareous schists, and carbonates. The meta-volcanic rocks are made up of tholeiitic flows and mafic tuffs metamorphosed to greenstone and chloritic phyllite. The meta-sedimentary and metavolcanic rocks have been intruded by numerous granite plutons ranging in age from Devonian (?) to Cretaceous.

The table of formations for the area is given below. (Also see Figure 3)

The detailed stratigraphic succession within each of these divisions has not been established. The rocks of Division 1 have tentatively been assigned an age of Upper Proterozoic (Hadyrinian) and the lithologies of Divisions 2 to 5 are considered to be of Lower Paleozoic Age (Hoy 1979).

Three phases of folding have been recognized in the Goldstream area (Hoy 1979). The most prominent folds are northerly trending isoclinal Phase 2 folds which appear to have been developed on a pre-existing Phase 1 nappe structure. Phase 3 folding is of minor importance and is restricted to small scale chevron folds and kink folds.

According to Hoy, the Phase 2 folds are overturned and are characterised by axial plane surfaces which are approximately horizontal in the Keystone area, and which dip steeply east in the northern parts of the area. For example, the Downie antiform whose surface axial trace passes just north of Downie

TABLE II

TABLE OF FORMATIONS: GOLDSTREAM RIVER AREA

[After Hoy (1979) - Abbreviated]

MESOZOIC OR PALAEOZOIC (?)

7 Discordant Granite Porphry

6 Semi-concordant Quartz Monzonite

LOWER PALAEOZOIC - HAMILL GROUP (?); MOHICAN FM (?)

5 "Carbonate-phyllite" Division; includes limestone, dolomite, marble, calcareous phyllite, and micaceous phyllite.

4 "Metavolcanic-phyllite" Division; composed of greenstone, amphibolite, dark calcareous phyllite and carbonate.

3 "Calc-silicate gneiss" Division; predominantly calcareous rocks.

2 Lower "Quartzite-schist" Division; composed largely of pelitic phyllite and quartzite.

LOWER PALAEOZOIC - UPPER PROTEROZOIC (?) HORSETHIEF CREEK GROUP

1 Mainly pelitic and calcareous schists.

Peak. (See cross section in Figure 3).

II ECONOMIC GEOLOGY

The Goldstream River area has a long history of mineral exploration and development dating back to the discovery of placer gold in 1866. Placer and lode gold deposits have been worked sporadically in the area since the turn of the century.

The most important deposits in the area are strata bound massive sulphide copper-zinc deposits with "Besshi -type" affiliations which are localised in metasedimentary and in metavolcanic rocks, for example the Goldstream River, Keystone, Montgomery, and Standard deposits. The latter three deposits were discovered in 1896. Considerable work has been conducted on the Montgomery and the Standard deposits.

The economic potential of the area was greatly increased with the discovery of the Goldstream deposit in 1973. This deposit, located about 11 kilometres northwest of the Montgomery showing, is currently being mined by Noranda Mines Ltd.. Its published reserves are given by Hoy (1979) as 3.175 million tonnes of ore grading 4.49% copper, 3.12% zinc, and 20 grams per tonne of silver. The Goldstream River and the Montgomery deposits are hosted by rocks of the same lithologic unit (Hoy's Metavolcanic Phyllite Division - see Unit 4, Map 3).

3. PROPERTY GEOLOGY

I GENERAL GEOLOGY

Using an altimeter and pacing for control, preliminary geological mapping was carried out on a scale of 1:1250 in the southeast part of the PEAK 3 claim and in the southern parts of the PEAK 4 claim (see Figures 4 and 6). The mapping programme was limited to creek beds and the geochemical lines because of the constraints imposed by topography and vegetation.

Five main litho-structural units have been recognized in the map area. However, the exact stratigraphic relationships between these units has not been established. The main units have been subdivided, where warranted, on the basis of lithology (see Table III). With the possible exception of the Carbonate Unit, the rocks exposed in the south part of the property are considered to be part of Hoy's Metavolcanic Phyllite Division (see Figure 3).

The generalised nature of the litho-structural succession indicated in Table III is emphasized at this point. For example, the massive, white, crystalline, limestone exposed on the ridge between Boulder and Canyon Creeks is included in the Carbonate Unit,,which appears to be considerably up section and which is exposed largely in the Canyon Creek area.

Schists:

Schists of varying composition are exposed mainly along the ridge straddling the PEAK 3 and the PEAK 4 claims,

TABLE III

GENERALIZED LITHO-STRUCTURAL SUCCESSION

SOUTH PART PEAK 3 AND 4 CLAIMS

Q	Quartz monzonite
P	Pegmatite
	CARBONATES
C5	Flaggy limestone
C4	Dolomite
C3	Calc"arenite"
C2	Thinly bedded to massive limestone
C1	White, crystalline, massive, limestone
V	Mafic volcanic rocks
	PHYLLITE
P1	Chlorite phyllite
	GNEISSES
G2	Amphibolitic gneiss
G1	Calc silicate gneiss
	SCHISTS
S5	Quartz amphibole schist
S4	Grey siliceous schist
S3	Calcareous schist
S2	Quartz mica schist
S1	Chlorite schist

along Dry Creek, and in the upper reaches of the Canyon Creek drainage system (see Figures 4 and 6).

S1; Chlorite schist:

Chlorite schist is exposed north of Adit Creek at the 1800 metre level where it is associated with mafic volcanic rocks. Also, a chlorite-muscovite schist occurs in the PEAK 3 claim just north of the helicopter pad. The chlorite schists are considered to be of volcanic origin.

S2; Quartz mica schist:

Fine grained quartz mica schist occurs over a fairly extensive area near the boundary of the PEAK 3 and the PEAK 4 claims. The rock is composed of quartz (80 to 85%) and mica (20 to 15%). The mica is either biotite or muscovite, and the colour of the rock varies from grey to white depending on the biotite content. Minor pyrrhotite is sometimes present.

S3; Calcareous schist:

Narrow bands of calcareous schist consisting of fine grained quartz (60%), calcite (25%), and biotite (15%) occur adjacent to, and in the vicinity of, the white, crystalline, limestone (Unit C1) in the southeast corner of the PEAK 3 claim.

S4; Grey siliceous schist:

Light grey, siliceous schist forms the hanging wall of the massive sulphide bed at the 1,900 metre level on the boundary of the PEAK 3 and 4 claims. The rock is fine grained and is finely laminated. It is comprised of quartz (65%), white feldspar (20%), and a pale greenish ferromagnesian mineral (10%). Fine grained, disseminated pyrrhotite (5%) occurs in discrete, narrow bands, and gives rise to a rusty weathered surface. The rock exhibits a slight tendency towards a porphyritic texture and has the appearance of a tuff.

S5; Quartz amphibole schist:

The quartz amphibole schist is composed of very fine grained quartz and intermediate feldspar (75%), dark grey to black amphibole (25%), and outcrops near the head waters of Dry Creek, and in Adit Creek. Minor disseminated pyrrhotite is frequently present, causing a rusty, weathered surface. Minor (0.1%), disseminated, very fine grained chalcopyrite selectively replacing amphibole was noted in one locality at the head waters of Camp Creek.

A rock chip sample (81-DSR-27) from a rusty outcrop of this unit on Adit Creek returned insignificant results (see Sample Results - Figure 4). Similar results were obtained for a sample from this rock type on Dry Creek (81-DSR-32).

Gneisses

G1; Calc silicate gneiss:

Calc silicate gneiss is exposed widely in Pipe Creek and in Snow Creek. Characteristically, this unit is medium to fine grained and is composed of diopside (30%), actinolite (30%), chloritised biotite (30%), and calcite (10%).

G2; Amphibolitic gneiss:

Amphibolitic marble and calc silicate gneiss occur along Pipe Creek. At the 1,750 metre elevation, this unit is comprised of coarse beds of calcite and amphibolite. It forms the hanging wall of the massive sulphide bed in the Pipe Creek area. Black carbonaceous (?) material is present in close proximity to the massive sulphide horizon.

Phyllite

P1; Chlorite phyllite:

Chlorite phyllite tending to chlorite schist occurs in the vicinity of the helicopter pad near the PEAK 3 claim. The chlorite phyllite is considered to be of volcanic origin.

Mafic volcanic rocks

Mafic volcanic rocks of andesitic composition were noted just north of Adit Creek at the 1,800 metre level. Generally, the flows are massive, but some strongly deformed structures reminiscent of pillows were also noted at this locality. A rock sample (81-DSR-30) collected from an iron stained zone resulting from disseminated pyrrhotite in massive andesitic flows, returned insignificant base and precious metal values (see Sample Results - Figure 4). Carbonate rich chloritic phyllite occurs in the general area of the mafic volcanic rocks.

Carbonates

The best exposed and most easily accessible unit is the Carbonate Unit. It was traced, in the Canyon Creek area, from the 1,630 metre to the 1,825 metre elevation, a vertical distance of 190 metres (Figure 5). The northern contact of the Carbonate Unit is in close agreement with that of Hoy's Unit V2, comprised of dolomite and limestone (see Hoy's Figure 2). However, the southern contact is shown by Hoy to be at the 1,735 metre level.

Exposures of the Carbonate Unit also occur on the upper reaches of Adit Creek and on the ridge between Boulder and Canyon Creeks (Figure 4).

C1; White, crystalline, massive limestone:

White, crystalline, massive limestone in a bed about 18 metres thick is exposed on the ridge between Boulder Creek and the Canyon Creek drainage system (Figure 4). The rock is composed totally of medium grained calcite. It weathers with a characteristic white surface which contrasts strongly with that of the adjacent schistose country rocks.

C2; Thinly bedded to massive limestone:

Thinly bedded to massive limestone, characteristic of the C2 Unit, is exposed principally in the Canyon Creek area between the elevations of 1,625 metres and 1,750 metres (see Figure 5). Carbonates of this unit are distinguished from those of the C1 Unit by their bluish grey, weathered and fresh surfaces and by their tendency to be bedded. The bedding is manifest mainly as thin, argillaceous laminations. Rocks assigned to this unit occur at elevations of 1,775 metres on Adit Creek, but their exact extent in this area is not known (see Figure 4).

C3; Calc"arenite":

This subdivision of the Carbonate Unit is exposed near the east boundary of the PEAK 4 claim at an elevation of approximately 1,780 metres and is of limited extent. The rock has a blotchy black weathered surface and characteristically weathers to produce sand sized grains.

C4; Dolomite:

A thin bed of brown-weathering dolomite outcrops near the east boundary of the PEAK 4 claim, close to the 1,800 metre contour. Its maximum vertical extent in this area is between 15 and 20 metres. The dolomite is fine grained and is light grey on fresh surfaces. The contacts between the dolomite and the adjacent units were not observed.

C5; Flaggy limestone:

Flaggy limestone is in contact with quartz mica schist (Unit S2) near the tree line east of Canyon Creek at an elevation of approximately 1,825 metres. The limestone has a bluish weathered surface, and is characterised by its high proportion of narrow argillaceous beds. The multicycle deformational history of the area is well reflected by small scale folds in this unit.

P Pegmatite

A small exposure of pegmatite was noted on the west side of Pipe Creek at an elevation of about 1,640 metres. The rock is composed of coarse grained (3 cm), grey, plagioclose feldspar (95%) and fine grained muscovite (5%). The exact relationship of this rock to the surrounding rock is not known.

Q Quartz monzonite

Leucocratic quartz monzonite is exposed in a narrow dyke near the 1,550 metre contour on Snow Creek and at approximately the same elevation on Adit Creek (Figures 4 and 5). The limits of the intrusive body on Adit Creek have not been defined. On fresh surfaces, the quartz monzonite is white to pale grey in colour, fine to medium grained, and very weakly foliated. It is composed of white feldspar (65%), quartz (33%), biotite (1%), and a fine grained brown mineral (1%). The feldspars have been weakly altered to kaolinite.

II STRUCTURE

In general, the strike of the schistosity and of the foliation in the mapped area has an azimuth of 130° to 160° with dips consistently in the range of 25° to 45° E. The area exhibiting the greatest divergence from the general attitudes is at the head waters of the Canyon Creek drainage system where schistosities striking from 005° to 070°, through to 145° were recorded, and generally steeper dips were noted from 40°E to 70°E.

Two sets of faults were noted. Northwest-trending faults occur in Adit Creek and Pipe Creek at an elevation of approximately 1,680 metres, and northeast-trending faults occur at the 1,750 metre contour in Adit Creek and on the boundary between the PEAK 3 and 4 claims.

III METALLIC MINERALIZATION

The southern parts of the PEAK 3 and 4 claims are characterised by widespread sulphide mineralization (see Figures 4 and 6). Occurrences of disseminated pyrrhotite have been noted across a horizontal distance of 1,200 metres, and through a vertical distance of 300 metres in this area (see Figures 4 and 6). The lateral extent of the massive sulphide bed reported by Gunning (1928) and others was confirmed in the current programme. Stratabound massive sulphide mineralization from 1.0 to 3.5 metres thick was traced intermittently along strike for about 770 metres and through a vertical distance of about 375 metres from the boundary of the PEAK 3 and 4 claims to East Adit Creek. The massive sulphide bed is best exposed in the area between Pipe and East Adit Creeks, a horizontal distance of 275 metres.

Analytical results are given in the table of Sample Results: in Figure 4: and in Appendix II. Detailed sample descriptions are given in Appendix III.

Additional work is required in the area between Pipe Creek and the bluffs southwest of Camp Creek to confirm or to negate the presence of the massive sulphide bed in this area. No work was conducted on the massive sulphide zone in the vicinity of the cliffs at the 1,875 metre level in the PEAK 4 claim.

In the East Adit Creek to Pipe Creek area, and along the boundary between the PEAK 3 and 4 claims, the massive sulphide horizon strikes approximately west northwesterly and dips from 40° to 45° to the north. However, between the adit and Adit Creek, the massive sulphide bed dips to the south, probably as a result of small scale folding, giving rise to the bifurcation shown in Figure 4.

The massive sulphide bed is composed essentially of very fine grained pyrrhotite (approximately 95%), chalcopyrite, and pyrite. Generally, the massive sulphide bed is poorly magnetic to nonmagnetic. In one area, on the boundary between the PEAK 3 and 4 claims, two narrow, strongly magnetic pyrrhotite bands occur within 0.5 metres of the hanging wall.

In the areas sampled, chalcopyrite generally constitutes 0.5%, or less, in hand specimens of the massive sulphide horizon. Locally, chalcopyrite is present in amounts ranging from 2% to 5%, especially along the margins of the massive sulphide bed. A siliceous lens within the massive sulphide bed located near the hanging wall contact was observed to be enriched in chalcopyrite (Sample DSR-1; 1.31% Cu). Fine grained euhedral pyrite constitutes about 5% of the massive sulphide bed at the 1,900 metre contour in the PEAK 3 claim.

No sphalerite or galena was identified macroscopically in the massive sulphide bed but the assay results suggest that sphalerite is probably present in small amounts. Small quantities of an amorphous, soft, black mineral, thought to be manganese oxide, are associated with the massive sulphides in a few localities.

The surface sampling shows the average copper content of the massive sulphide horizon to be in the range of 0.3% to 0.7%. Where chalcopyrite is concentrated along the margins of the massive sulphide bed, grades of 1% to 2% copper are present. For example, samples DSC-2 (2.16% Cu) and DSC-3 (1.36% Cu) are adjacent samples each cut over a one metre interval in the foot wall of the main zone at the adit portal.

The average zinc content of the massive sulphide bed in surface samples is low, approximately 0.5% and the nickel content is of no economic significance. Previous sampling by T.N. McCawley indicates the lead content of the massive sulphide bed to be about 0.04%.

The precious metal content determined by surface sampling is also low. For example, three samples have a silver content between 10 ppm and 16 ppm (Samples DAC-1, DSC-7, DSC-8). The remaining samples are in the range of 2 to 5 ppm silver. The three highest silver values occur in the same area on the boundary between the PEAK 3 and 4 claims. The four highest gold values range from 22 to 74 ppb (see Sample Results Figure 4 and Appendix II).

In general, the analytical results obtained during the current work support the results obtained by McCawley in 1973 (see Figure 4 and Appendix IV). However, in the present case, considerably higher copper assays from the adit area (DSC-2, and DSC-3) are due to the shorter sample interval used (one metre versus three metres by McCawley).

The wall rocks of the massive sulphide bed are comprised mainly of siliceous rocks, generally of intermediate composition, and of calcareous rocks which have been metamorphosed to schists and gneisses. Grey siliceous schist (Unit S4) forms the hanging wall on the PEAK 3 and PEAK 4 boundary, and quartz amphibole schist (Unit S5) forms the hanging wall in the Adit Creek area. In Pipe Creek the wall rocks are comprised of calc· silicate gneisses derived from calcareous rocks.

Mafic volcanic rocks are also closely spatially associated with the massive sulphides, as exemplified by the amphibolite bands in Pipe Creek, the chlorite phyllites, and the massive and pillowed (?) flows on the north side of Adit Creek (see Figure 8). The mineralised zone is overlain by the carbonates.

4. PROSPECTING

During the current prospecting programme a previously unreported exposure of massive sulphides was found on the divide between Adit Creek and East Adit Creek at an elevation of approximately 1,680 metres.

5. GEOCHEMISTRY

I INTRODUCTION

Fifty-three soil, twenty silt, and five rock samples were collected during the current programme. The samples were analysed by Chemex Labs (Alberta) Ltd., Calgary.

Copper, lead, and zinc were determined in both the soil and the silt samples. Two rock samples were analysed for tungsten, and six samples of massive sulphides were analysed for nickel. Also, the gold and the silver content of sixteen massive sulphide and rock samples was determined by geochemical analytical techniques.

II SOIL SURVEY

Initially, a soil survey consisting of about 180 samples was scheduled for completion during the current programme. Samples were to be collected along flagged lines, with a line separation of 30 metres and a sample interval of either 15 or 30 metres.

The aim of the survey was to trace the massive sulphide horizon in areas of poor exposure. However, implementation of the survey was severely hampered by rugged topography and dense vegetation, and consequently this aspect of the program was modified considerably.

Fifty-three soil samples were collected along five separate lines (see Figure 6). Four of the lines were located between areas of known massive sulphide mineralization. One line, "D", was run to test the area along the eastern projection of the massive sulphide horizon. However, cliffs in the area of interest prevented completion of this line.

Each soil sample was collected with the aid of a grubhoe. The sample depth and a description of each sample, together with the analytical results, are given in Table IV. Results are also shown in Figure 6. The analytical techniques employed are given in Appendix I, and the analytical results are given in Appendix II. The frequency distribution of copper, lead, and zinc in soils is given in Figure 9.

The analytical results have been subdivided as follows:

positive	90 $<$ 95 percentile
anomalous	95 $<$ 98 percentile
strongly anomalous	$\geq$ 98 percentile

These classes are illustrated on the appropriate histograms for each population (Figure 9), and are summarized below, together with the relevant sample numbers (see Table V).

TABLE IV

SOIL SAMPLES - DESCRIPTIONS AND RESULTS

Sample No.	Results (ppm) Cu	Pb	Zn	Sample Depth (cm)	Soil Horizon	Remarks
81-DDS-10	41	8	37	13	B	Brown loam.
11	19	43	52	13	B	Bright orange loam. Limestone between #11 and #12.
12	17	14	40	13	B	Pale orange-brown loam. Crest of hill.
13	7	13	11	13	B	Orange-brown loam. Small saddle.
14	14	19	132	8	B	Bright orange-brown loam. Slight slope.
15	46	16	110	8	B	Orange-brown loam. Slight slope.
16	304	29	143	8	C	Pale orange. Rusty area. No A horizon.
17	72	17	152	13	B	Brown loam. Near crest of hill.
18	54	18	105	13	B	" " . North facing slope.
19	54	12	101	13	B	" " . Old camp site. Flat.
20	10	11	13	13	B	Orange-brown loam.
21	11	10	12	13	B	" " " .
22	19	14	39	13	B	" " " .
23	12	9	14	13	B	Pale orange-brown loam.
24	6	7	9	13	B	Orange-brown loam. Scattered conifers.
25	15	10	41	13	B	" " rocky loam. Well treed. Conifers.
36	78	21	122	9	B	Orange-brown loam. Steep. No leached horizon.
37	59	8	58	9	B	Orange-brown loam.
38	40	9	61	9	B	" " " with organics. No leached horizon.
81-DDS-39	57	4	51	9	B	Orange-brown loam. Minor leached horizon.

Sample No.	Results (ppm) Cu	Pb	Zn	Sample Depth (cm)	Soil Horizon	Remarks
81-DDS-40	41	7	47	9	B	Brown loam. Cliffs between #40 and #41.
41	1030	285	220	9	B	Orange-brown loam. Minor chalcopyrite in rusty gneiss.
43	154	42	101	9	B	Dark loam. Steep. Ferns. Small leached horizon.
44	63	14	83	9	B	Dark loam. Steep.
45	139	33	280	13	B	" " . West bank of Dry Creek.
49	35	18	82	13	B	Dry Creek. Soil with organics in dry creek bed.
50	27	19	135	13	B	Brown loam in dry creek bed (Dry Creek).
51	43	20	156	13	B	Dry Creek. Brown loam in dry creek bed.
52	43	15	101	10	?	Dark brown organic loam. Very steep. No profile.
53	79	64	375	10	?	Dark brown organic loam. Very steep. No profile.
54	66	8	39	10	?	Dark brown organic loam. Very steep. No profile.
55	18	17	26	13	B	Orange-brown loam.
56	27	14	23	13	B	" " " . Moderately steep.
57	54	10	48	13	B	Brown loam. No leached horizon.
58	85	16	93	13	B?	No leached horizon.
59	298	42	119	13	B	Orange-brown loam. Outcrop. Rusty gneiss.
60	44	17	64	13	C?	Brown loam. No profile. Steep. Thick alders.
61	79	14	62	13	C?	As in #60, but with rock fragments.
62	44	12	55	10	B	Orange-brown loam.
81-DDS-63	19	9	62	10	B or C?	Dark brown loam with rock fragments.

SOIL SAMPLES...Continued

Sample No.	Results (ppm) Cu	Pb	Zn	Sample Depth (cm)	Soil Horizon	Remarks
81-DDS-64	68	25	109	10	B?	As in #63. No leached horizon. Alders and ferns.
70	66	18	116	13	B	Orange-brown loam. Treed slope.
71	48	21	51	13	B	" " . " . Narrow organic layer.
72	64	13	54	9	C?	Orange-brown. From behind fallen tree.
73	38	17	44	13	B	Brown loam. Alders and ferns.
74	47	22	57	13	B?	Dark brown loam. Steep.
75	199	26	156	13	B	Orange-brown beneath organic layer. Steep.
76	850	64	234	13	B	Orange-brown. Massive sulphides between #75 and #76.
80	28	34	49	13	B	Dark brown loam.
81	54	21	34	10	B?	Dark brownish organic loam. Steep.
82	40	18	39	10	B?	" " " " . Very steep. Ferns.
83	58	22	60	10	B	Orange-brown loam. Open area. Slide?
81-DDS-84	49	32	75	10	B	Pale brown. Sandy. Very steep.

FIGURE 9

DISTRIBUTION OF COPPER, LEAD & ZINC IN SOILS

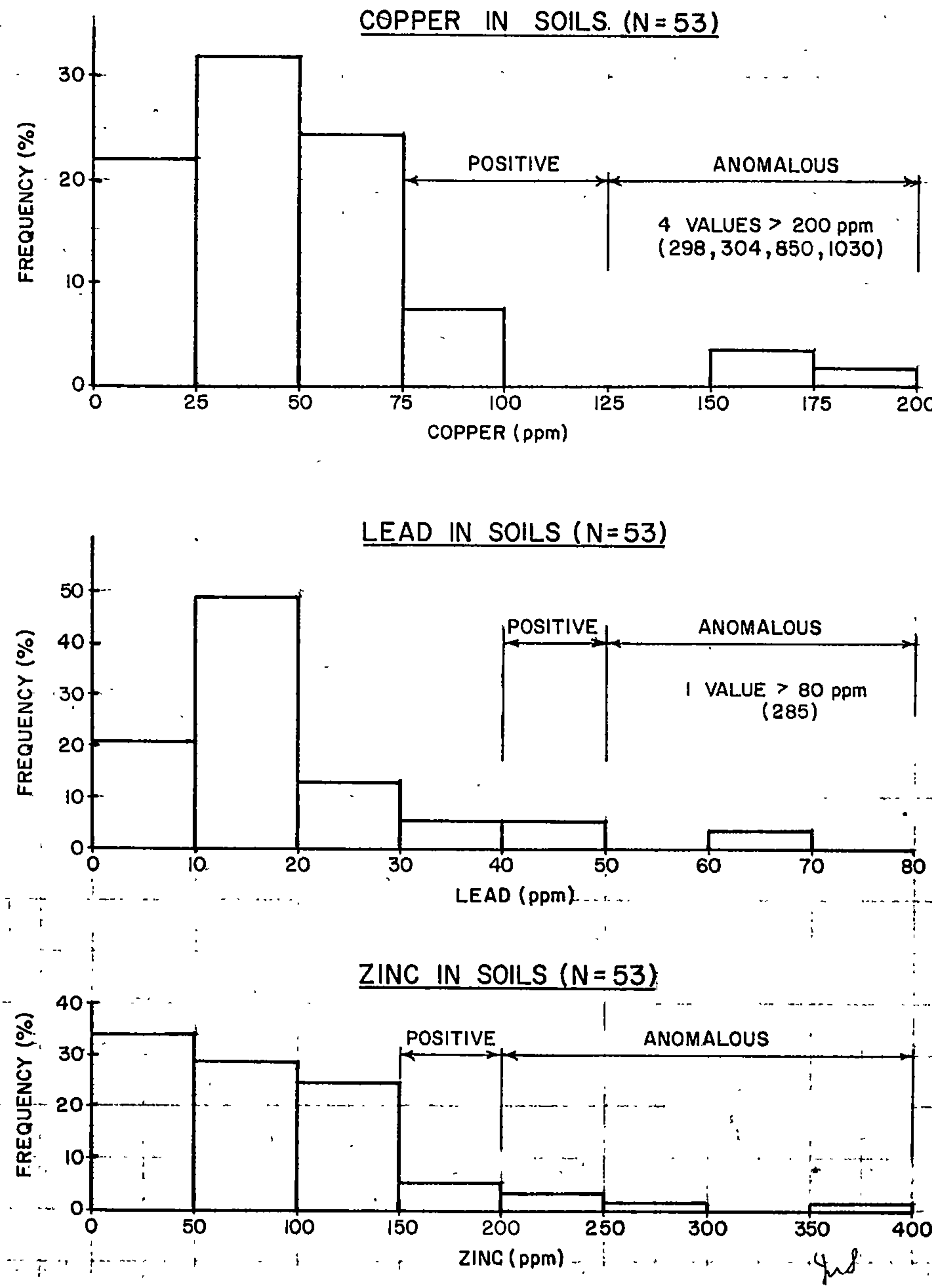

TABLE V

SIGNIFICANT METAL VALUES IN SOILS

Metal	Value (ppm)		Category	Sample Number
Copper	75	125	Positive	81-DDS-36, S-53, S-58, S-61
	125	200	Anomalous	S-43, S-45, S-75
		200	Strongly anomalous	S-16, S-41, S-59, S-76
Lead	40	50	Positive	S-11, S-43, S-59
	50	80	Anomalous	S-53, S-76
		80	Strongly anomalous	S-41
Zinc	150	200	Positive	S-17, S-51, S-75
	200	400	Anomalous	S-41, S-45, S-53, 81-DDS-76
		400	Strongly anomalous	None

Soils with anomalous base metal values occur in the area of the intersection of sample lines A, B, and C with the projection of the massive sulphide horizon. The anomalous soils are manifest by values of 199 to 1,030 ppm copper, approximately 225 ppm zinc, and a single value of 285 ppm lead. The massive sulphide bed is characterized by anomalous or strongly anomalous base metal values in two immediately adjacent soil samples on each of lines A and C (see Figure 6).

Soil sampling is therefore considered to be an effective tool in the delineation of massive sulphides on the property in spite of the difficulties encountered in implementing the current survey. Of the three base metals analysed in soils, copper and zinc are the best indicators of the massive sulphide horizon.

Additional soils with anomalous base metal values are summarized in Table VI.

III STREAM SILT SURVEY

The purpose of the silt survey was to determine whether additional sulphide bodies, which are intersected by the drainage system, are present in an area known to contain significant concentrations of sulphide mineralization.

Twenty silt samples were collected from the Canyon Creek drainage system. The bulk of the samples are from creeks which intersect the massive sulphide horizon (see Figures 6 and 7). All of the creeks are characterised by steep, and

TABLE VI

ANOMALOUS BASE METAL VALUES

Sample Number	Value (ppm)	Location	Remarks
S-16	304 Cu	Ridge between Canyon and Boulder Creeks.	Quartz mica schist. Minor, disseminated pyrrhotite (?)
S-45	139 Cu 280 Zn	West side of Canyon Creek	60 metres downslope from massive sulphide bed. Organic contamination?
S-53	375 Zn	East side of Dry Creek. Line B	High zinc probably due to the organic content of the sample.

V-shaped valleys except in the upper reaches of Canyon Creek.

The analytical methods and results are given in Appendices I and II. A summary of the results and relevant sample data is given in Table VII. The frequency distribution of copper, lead, and zinc in stream sediments is given in Figure 10. Due to the small sample population, the histograms in Figure 10 have been used for the graphical determination of anomalous values of copper, lead, and zinc in stream sediments.

With one exception, sample L-87, all anomalous silts appear to be associated with the massive sulphide horizon. The anomalous zinc content of L-35 (see Table VII) is ascribed to its high organic content. Values of 348 ppm copper, 59 ppm lead, and 325 ppm zinc occur in a limonitic sample (L-78) taken from Adit Creek about 52 metres downstream from the adit in the main showing. However, six metres downstream from L-78, a silt sample (L-77) containing no limonite has a background base metal content of 30 ppm copper, 22 ppm lead, and 58 ppm zinc. Silts with strongly anomalous base metal values were also obtained downstream from exposures of the massive sulphide on Pipe Creek (samples DSL-65 and DSL-66).

Anomalous and strongly anomalous copper and zinc values occur in two adjacent silt samples (L-46 and L-47) on the lower reaches of Camp Creek near its confluence with Dry Creek (see Figure 6 and Table VIII). The area is of interest because it is downslope from, and in close proximity to, the projection of the massive sulphide bed. Also, several anomalous soils are associated with the anomalous silts in this area.

FIGURE 10

DISTRIBUTION OF COPPER, LEAD & ZINC IN STREAM SILTS

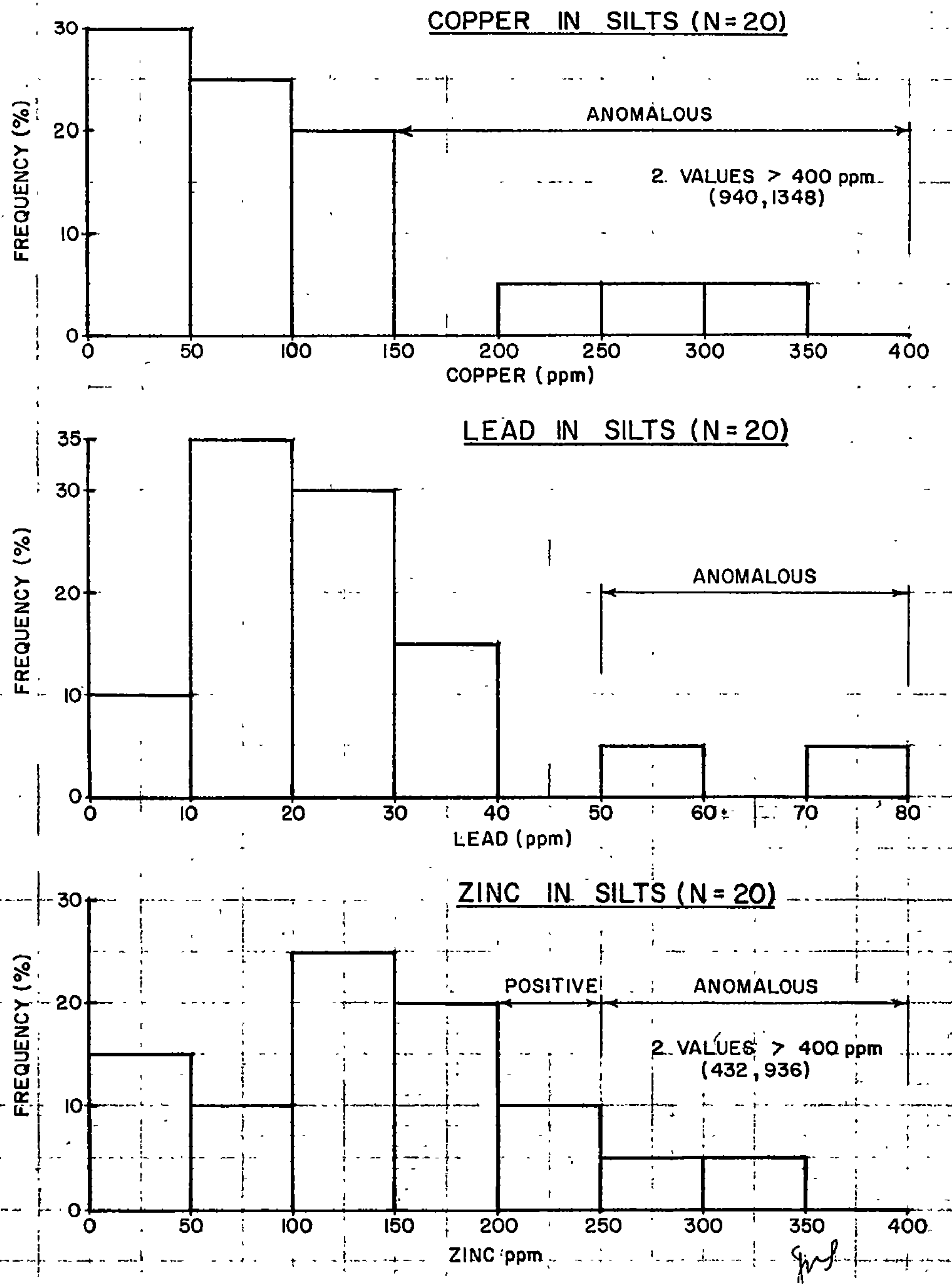

TABLE VII

STREAM SILTS - DESCRIPTIONS AND RESULTS

Sample No.	Results (ppm) Cu	Pb	Zn	Location	Remarks
81-DSL-26	109	22	128	Adit Cr.	Bedrock: Minor disseminated pyrrhotite in siliceous, carbonaceous phyllite.
28	110	19	116	" "	Coarse sand. Bedrock: Siliceous, carbonaceous phyllite.
29	141	30	144	" "	Near contact between limestone and phyllite.
31	22	18	52	E. Adit Cr.	Bedrock: Amphibolite and calc-silicate gneiss.
32	71	21	163	Dry Cr.	Black organic silt (?) in dry creek bed.
33	60	14	152	" "	Sandy, with organics. Upstream from fallen tree
34	92	24	203	" "	Sandy gravel. Rusty phyllite in float.
35	129	18	272	" "	Sandy with organics. Weakly limonitic phyllite float.
46	346	31	432	Camp Cr.	Silt (?). Just above confluence with Dry Cr..
47	940	18	936	" "	Silt mixed with organics. Creek dry.
48	51	17	199	" "	" " " " . " " . Slightly rusty float.
65	248	35	203	Pipe Cr.	Silt. Below massive sulphide bed.
66	282	28	122	" "	Silt. Just below massive sulphide bed. Copper stain in fault.
67	55	32	106	Pipe Cr.	Silt. Bedrock: Calc-silicate gneiss.
77	30	22	58	E. Adit Cr.	Just below massive sulphide bed.
78	1348	59	325	Adit Cr.	Below adit on massive sulphide bed. Rusty bottom.
79	28	6	39	Snow Cr.	Calc-silicate float. Minor disseminated pyrrhotite.
85	23	8	37	" "	" " " . " " " .
86	12	13	39	Canyon Cr. tributary	Dry sandy silt.
81-DSL-87	26	94	169	Canyon Cr.	Active silt east bank. Above tree line.

The anomalous lead content of sample L-87 (see Table VIII) is probably a manifestation of the K-J showing, a lead vein located on the northeast margin of the property (Figure 3).

The results of two samples analysed for tungsten were negative.

TABLE VIII

SIGNIFICANT METAL VALUES IN STREAM SILTS

Metal	Value (ppm)		Category	Sample Number
Copper	150	400	Anomalous	81-DSL-46, L-65, L-66
		400	Strongly anomalous	L-47, L-78
Lead	50	80	Anomalous	L-78
		80	Strongly anomalous	L-87
Zinc	200	250	Positive	L-34, L-65
	250	400	Anomalous	L-35, L-78
		400	Strongly anomalous	L-46, 81-DSL-47

6. SUMMARY AND CONCLUSIONS

SUMMARY

(1) The Downie Creek Property includes the former Montgomery Showing which is one of several stratabound massive sulphide copper-zinc deposits in the Goldstream River area, including the Goldstream River deposit which is currently being mined.

(2) The stratabound sulphide deposits of the area define a northwest trending belt of mineralization, and are hosted by metasedimentary and metavolcanic rocks of late Proterozoic or Early Palaezoic Age.

(3) Two major periods of folding have been recognized in the region. Northerly-trending, tight, isoclinal folds predominate (e.g. the "Downie" antiform), and are thought to have been developed on pre-existing nappe structures (Hoy, 1979).

(4) The Goldstream River and the Montgomery deposits are 11 km apart, appear to be located on opposite limbs of the "Downie" antiform, and are hosted by the same lithologic unit.

(5) The massive sulphides exposed in the PEAK 3 and 4 claims are classified as "Besshi-type" deposits based on their stratabound nature and intimate association with submarine mafic and intermediate volcanism in a geosynclinal environment.

(6) Other stratabound massive sulphides in the area have similar characteristics and have also been classified by Hoy (1979) as "Besshi-type" deposits (e.g. the Goldstream River deposit).

(7) During the current programme, stratabound massive sulphides were traced intermittently along strike for 770 metres and through a vertical distance of 375 metres. Although the deposits are lensoid in the East Adit Creek area, this suggests that the massive sulphide deposits may have a considerable down dip dimension.

(8) The characteristics of the massive sulphide bed on the PEAK claims are:

(a) Width: 1 to 3.5 metres

(b) Attitude: Strike; west northwesterly
Dip; 40° to 45° N. In the vicinity of the adit, dips are southerly to easterly, probably a result of folding.

(c) Composition: essentially massive, fine grained pyrrhotite with minor chalcopyrite. Chalcopyrite is often concentrated in fractures, and siliceous lenses near the margins. The presence of sphalerite is suggested by low zinc assays.

(d) Grades: Limited surface sampling indicated the following:

Average grade of 0.3% to 0.7% copper and 0.5% zinc. Where chalcopyrite is concentrated along the margins of the massive sulphide bed, grades are in the order of 1% to 2% copper. The best grade obtained was 1.76% copper over a two metre interval at the adit portal.

The precious metal content is low; 10 to 16 ppm silver maximum, and 22 to 74 ppb gold maximum.

The nickel content is of no economic significance.

(9) Generally, the grades of copper, zinc, silver, and gold obtained in this programme are in agreement with the results of previous work.

(10) Prospecting revealed one previously unreported exposure of massive sulphides in close proximity to the adit.

(11) The results of a limited geochemical survey indicate:

(a) The copper and zinc content of soils may be used effectively to trace the massive sulphide bed in areas of poor exposure.

(b) The presence of the massive sulphide bed is reflected by the base metal content of the stream silts.

(c) Stream silts collected upstream from the massive sulphide horizon are negative, with the exception of one sample with a highly anomalous lead content. This is probably a reflection of the K-J lead vein deposit.

(12) Limitations imposed by topography and vegetation were encountered in the implementation of the current programme, and will be a factor in future work on the property.

CONCLUSIONS

Although surface sampling indicates the average tenor of the massive sulphide bed exposed on the PEAK claims to be low (0.3% to 0.7% copper), the property is considered to have considerable exploration potential for the following reasons:

(1) The down dip extension of the massive sulphide bed has not been adequately tested, if in fact it has been tested at all. At the Besshi Mine, Japan, the massive sulphide bed which constitutes the ore has been traced down dip in excess of 2,000 metres (Kanehira and Tatsumi, 1970).

(2) Mineralogical zoning may be expected down dip in the massive sulphide bed on the PEAK claims, as exemplified by the mineralogical variation with depth at the Besshi Mine (Kanehira and Tatsumi, op cit).

(3) Based on the Besshi model, it is reasonable to assume that chalcopyrite-rich sulphides are associated with the massive pyrrhotite-chalcopyrite bed on the PEAK claims

(4) The characteristic of massive sulphide deposits to cluster around volcanic vents suggests that additional deposits may occur closely associated with the massive sulphide bed or along strike from it.

(5) Stratabound sulphides on the PEAK claims have been deformed and metamorphosed. Therefore, thickening of the sulphide bed is to be expected along the nose of folds and these may also be the locus of ore shoots as a result of local remobilization.

Additional work is warranted on the property but local access will be a significant factor in any future work.

7. RECOMMENDATIONS

(1) Additional claims should be staked on the west and south sides of the property. Priority would be given to acquisition of a 12 unit block on the west side of the property to cover the strike extension of Hoy's Metavolcanic Phyllite Unit to the contact of the quartz monzonite in the O'Reilly Creek area.

(2) All previous data on the property, including assessment, and private reports should be reviewed, compiled and evaluated.

(3) Conditional on the results of (2), a programme of geological mapping, trenching,and sampling, soil geochemistry, and a ground magnetometer survey is recommended between East Adit Creek and the PEAK 3 and 4 claim boundary.

The purpose of this work would be to obtain additional information on the distribution, grades, and mode of occurrence of the massive sulphide horizon, and to assist in the evaluation of the immediately adjacent stratigraphic section.

(4) To conduct this work, the adit campsite should be rehabilitated and a helicopter pad constructed nearby. Improved access is required on the property. Existing trails should be cleared and lines cut between the creeks.

(5) Reconnaissance geological traversing should be conducted to determine the nature of the rocks south and west of the

property between O'Reilly and Boulder Creeks.

(6) Serious consideration should be given to a helicopter-borne EM Survey over the southern parts of the property, and conditional on the results of reconnaissance mapping, west to O'Reilly Creek and southwest to the lower reaches of Boulder Creek.

8. REFERENCES

Gunning, H.C., 1928, Geology and Mineral Deposits of Big Bend Map-Area, British Columbia, GSC, Preliminary Report, pp. 136A - 193A.

Hoy, T., 1979, Geology of the Goldstream Area, B.C. Ministry Energy, Mines, and Petroleum Resources, Bulletin 71.

Kanehira, K. and Tatsumi, T., 1970, Bedded Cupriferous Iron Sulphide Deposits in Japan, a review in: Volcanism and Ore Genesis, T. Tatsumi, editor, University of Tokyo Press, pp. 51 - 76.

Morton, R.D., 1977, Preliminary Report on the Geology and Economic Potential of the Peak Claims, Private Report.

Wheeler, J.O., 1965, Geology of the Big Bend Map-Area, British Columbia, GSC, Paper 64-32.

9. DETAILED EXPENDITURES*

(a)	SALARIES:		$6,480.00
	James Adair	$1,980.00	
	11 days at $180/day		
	July 30* to Aug. 10* inclusive		
	J. N. Schindler	3,600.00	
	12 days at $300/day		
	July 29* to Aug. 10* inclusive		
	4 days at $225/day	900.00	
	Dec. 1 - 4 inclusive		
(b)	FOOD:		452.40
	July 30 - Aug. 10 inclusive		
	24 man days at $18.85/man day		
	ACCOMMODATION:		578.44
	Motel for two nights at $39.22/night	78.44	
	Two man camp rental (one month min.)	500.00	
(c)	TRANSPORTATION:		3,837.49
	Helicopter (206B), Okanagan Helicopters		
	7.1 hours at $430/hour	3,053.00	
	Fuel and oil	257.40	
	Total helicopter:	3,310.40	
	Truck rental		
	11 days at $38.59/day	424.45	
	Gas	102.64	
	Total truck:	527.09	
(d)	INSTRUMENT RENTAL: none		
(e)	SURVEY COSTS: See separate Table		
(f)	ANALYSES:		662.60
	See Chemex Invoice #1744 (See Appendix V)		
(g)	REPORT:		799.12
	Drafting: 44.25 hours at $12/hour	531.00	
	Typing: 50 pages at $2/page	100.00	
	Reproduction: Maps and Report	168.18	
(h)	MATERIALS:		152.25
	SHIPPING:		50.13
	TELEPHONE:		131.61
	TOTAL DIRECT COSTS:		$13,312.28

* DETAILED EXPENDITURES CALCULATIONS

(a) SALARIES:

Salaries have been calculated only for that portion of travelling time within British Columbia.

(c) TRANSPORTATION:

Truck rental has been pro-rated to allow only for the time spent in British Columbia. Gasoline costs are based on distances travelled in British Columbia only.

(e) COSTS OF SURVEYS (See Table IX)

With the exception of August 2 and August 4, three or four types of work were conducted each day, usually concurrently. For example, geochemical soil or silt samples were collected while geological mapping and prospecting were carried out.

Therefore, it is not possible to calculate the costs of the various surveys on a per day basis.

However, total costs for the different surveys have been calculated by proportioning the time spent on each survey each day.

The cost of $480/day is constant for each of the surveys listed and is the sum of the daily wage rates for J. Adair and J. Schindler.

NOTE: One day, August 4, was spent clearing pre-existing trails. This day is claimed for assessment work as the work was essential to completion of the programme.

(f) ANALYSES:

The preparation and analytical costs of four samples collected outside the property have been excluded from the assessment costs.

All work conducted during the current programme was performed by: J.N. Schindler

22 Lake Christina Close S.E.

Calgary, Alberta

T2J 2R9

and by: James Adair

4811, 32 Avenue N.W.

Calgary, Alberta

TABLE IX

DETAILED EXPENDITURES CONT'D - (e) FIELD WORK CONDUCTED

Date	Mob/ Demob. (Days)	Misc. (Days)	Claim	Geology Rock Chips	Geology (Days)	Soils No.	Soils (Days)	Silts No.	Silts (Days)	Assay Samples No.	Assay Samples (Days)	Prospect. (Days)
July												
30	0.5											
31	0.5	Camp-0.5	PEAK 4									
Aug.												
1		Camp-1.0	PEAK 4									
2			PEAK 4							7	1.0	
3			PEAK 3		0.12	9	0.17			2	0.09	0.13
			PEAK 4		0.13	3	0.08			4	0.16	0.12
4		Trails-1.0										
5			PEAK 4	2	0.5			4	0.25			0.25
6			PEAK 4	1	0.05	12	0.5	7	0.2			0.25
7			PEAK 3		0.13							
			PEAK 4		0.25	11	0.21	3	0.06	3	0.1	0.25
8			PEAK 4		0.3	12	0.35	5	0.1			0.25
9	0.5		PEAK 4		0.47			1	0.03			
10	0.5											
TOTALS:	2.0	2.5		3	1.95	49	1.31	20	0.64	16	1.35	1.25
TOTAL SURVEY COST AT $480/DAY:					$936.00		$628.80		$307.20		$648.00	$600.00

10. CERTIFICATION

I, John Norman Schindler, of the City of Calgary, in the Province of Alberta, do hereby declare that:

(1) I am registered as a Professional Geologist in the Province of Alberta.

(2) I am a practising Consulting Geologist, and my office is located at 22 Lake Christina Close S.E., Calgary, Alberta, T2J 2R9.

(3) I hold the following degrees: B.Sc. in Geology, McGill University, Montreal, Quebec; M.Sc. in Geology, University of London, England; Ph.D. in Geology, McMaster University, Hamilton, Ontario.

(4) I have practised my profession since graduation in 1960, and have held permanent positions with the following companies:

The Iron Ore Company of Canada Ltd.
Amax Exploration Inc.
Western Mines Ltd. (now Westmin Resources Ltd.)
Union Oil Company of Canada Ltd.

(5) I have no financial interest in Pacific Cassiar Ltd.

CERTIFICATION: cont'd

(6) This report is based on field work conducted by me, and on a thorough review of the references cited.

Signed: J. N. Schindler

December 31, 1981.

APPENDIX I

ANALYTICAL TECHNIQUES

The following are the analytical techniques used by Chemex Labs (Alberta) Ltd., Calgary, for the samples collected during the current programme.

I GEOCHEMICAL

A. Copper, Lead, and Zinc in Soils:

The samples are dried and sieved to minus 80 mesh. One gram of the minus 80 mesh fraction is digested with two mls concentrated $HClO_4$ for 2.5 hours. On completion of the digestion, the sample is made up to 25 mls with deionized water and analysed by atomic absorption for copper, lead, and zinc.

B. Copper, Lead, and Zinc in Silts:

The minus 80 mesh fraction was analysed. The analytical procedure used is identical to that used for soil samples.

C. Nickel in Massive Sulphides:

The minus 80 mesh fraction was analysed. The analytical procedure used is identical to that used for soil samples.

D. Tungsten in Rocks:

The sample is pulverized. One gram of sample is fused with potassium persulphate, cooled, and digested in concentrated nitric acid. The solution is bulked to volume with deionized water. Five milliliters of this solution are analysed colourimetrically and compared with standards prepared in the same manner.

II ASSAYING (COPPER AND ZINC)

The sample is pulverized. Two grams of the pulverized sample are contacted with several drops of concentrated HNO_3. Twenty five milliliters of concentrated $HClO_4$ are added and the sample is digested to fuming perchloric for 2.5 hours. The sample is filtered into a 250 ml flask. The filter is flushed into the 250 ml flask with deionized water, and the volume made up to 250 mls. Five milliliters of this solution are analysed by atomic absorption.

GOLD IN MASSIVE SULPHIDES

Gold was determined by a combination of fire assay and atomic absorption. 29.166 grams of pulverized sample are weighed into a crucible. Flux is added and the mixture fused at 2000°F for 0.5 hours with a known quantity of lead which scavenges gold and silver.

After fusing, the sample is poured into a mold and cooled to room temperature.

The lead button thus formed is removed from the mold, placed in a cupel, and cupelled at 1800°F for approximately 45 minutes.

The resultant gold-silver bead is dissolved in aqua-regia, made to a volume of ten milliliters with aqua-regia, and the gold content determined by atomic absorption.

SILVER IN MASSIVE SULPHIDES

After pulverization, the silver content of the massive sulphide samples was determined by atomic absorption. The procedure used is identical with that used for copper, lead, and zinc in soils.

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541
EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

APPENDIX II

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SCHINDLER EXPLORATION CONSULTANTS LTD.

ROCK, SOIL AND SILT ANALYSES

SOILS ANALYSES

PAGE 1

DATE SEPTEMBER 15, 1981

PROJECT NO. 0999 1 4832

LOCATION	CU PPM	PB PPM	ZN PPM
81-DDS 10	41	8	37
81-DDS 11	19	43	52
81-DDS 12	17	14	40
81-DDS 13	7	13	11
81-DDS 14	44	19	132
81-DDS 15	46	16	110
81-DDS 16	304	29	143
81-DDS 17	72	17	152
81-DDS 18	54	18	105
81-DDS 19	54	12	101
81-DDS 20	10	11	13
81-DDS 21	11	10	12
81-DDS 22	19	14	39
81-DDS 23	12	9	14
81-DDS 24	6	7	9
81-DDS 25	15	10	41
81-DDS 36	78	21	122
81-DDS 37	59	8	58
81-DDS 38	40	9	61
81-DDS 39	57	4	51
81-DDS 40	41	7	47
81-DDS 41	1030	285	220
81-DDS 43	154	42	101
81-DDS 44	63	14	83
81-DDS 45	139	33	280
81-DDS 49	35	18	82
81-DDS 50	27	19	135
81-DDS 51	43	20	156
81-DDS 52	43	15	101
81-DDS 53	79	64	375
81-DDS 54	66	8	39
81-DDS 55	18	17	26
81-DDS 56	27	14	23
81-DDS 57	54	10	48
81-DDS 58	85	16	93
81-DDS 59	298	42	119
81-DDS 60	44	17	64
81-DDS 61	79	14	62
81-DDS 62	44	12	55
81-DDS 63	19	9	62

Certified by ....

CHEMEX

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TELEPHONE (403) 276-9627 TELEX 038-25541

EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

APPENDIX II

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SCHINDLER EXPLORATION CONSULTANTS LTD.
ROCK, SOIL AND SILT ANALYSES
SOIL ANALYSES

DATE SEPTEMBER 15, 1981

PROJECT NO. 0999 1 4832

PAGE 1A

LOCATION	CU PPM	PB PPM	ZN PPM
81-DDS 64	68	25	109
81-DDS 70	66	18	116
81-DDS 71	48	21	51
81-DDS 72	64	13	54
81-DDS 73	38	17	44
81-DDS 74	47	22	57
81-DDS 75	199	26	156
81-DDS 76	850	64	234
81-DDS 80	28	34	49
81-DDS 81	54	21	34
81-DDS 82	40	18	39
81-DDS 83	58	22	60
81-DDS 84	49	32	75

CTA MEMBER CANADIAN TESTING ASSOCIATION

Certified by ....

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541

EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

APPENDIX II

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SCHINDLER EXPLORATION CONSULTANTS — DATE SEPTEMBER 15, 1981

SILTS PAGE 1 — PROJECT NO. 0999 1 4832

LOCATION	CU PPM	PB PPM	ZN PPM	W PPM
81-DSL 26	109	22	128	
81-DSL 28	110	19	116	
81-DSL 29	141	30	144	
81-DSL 31	22	18	52	
81-DSL 32	71	21	163	
81-DSL 33	60	14	152	
81-DSL 34	92	24	203	
81-DSL 35	129	18	272	
81-DSL 46	346	31	432	
81-DSL 47	940	18	936	
81-DSL 48	51	17	199	
81-DSL 65	248	35	203	
81-DSL 66	282	28	122	
81-DSL 67	55	32	106	
81-DSL 77	30	22	58	
81-DSL 78	1348	59	325	
81-DSL 79	28	6	39	
81-DSL 85	23	8	37	
81-DSL 86	12	13	39	<2
81-DSL 87	26	94	169	
#9-8				<2

Certified by ....

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9627 TELEX 038-25541

EDMONTON 8112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

APPENDIX II

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SCHINDLER EXPLORATION CONSULTANTS LTD. DATE SEPTEMBER 15, 1981

ROCK ANALYSIS PAGE 1 A PROJECT NO. 0999 1 4832

LOCATION	CU %	ZN %	NI PPM	AG PPM	AU PPB
81-DAC 1	0.975	0.742		11.8	38
81-DAC 2	0.220	0.207		5.1	20
81-DSC 2	2.160	0.211	75	4.2	16
81-DSC 3	1.360	0.271	96	2.2	12
81-DSC 4	0.705	0.150		2.6	22
81-DSC 5	0.724	0.119		2.8	74
81-DSC 7	1.605	0.561	54	16.3	10
81-DSC 8	0.313	2.60		9.9	48
81-DSC 9	0.026	0.025	22	<0.1	6
81-DSC 68	0.731	0.350	136	5.9	12
81-DSC 69	0.668	0.138	41	5.3	<5
-DSR 1	1.310	0.478		8.0	12
-DSR 6	0.623	0.066		4.0	14
81-DSR 27	0.010	<0.01		<0.1	<5
81-DSR 30	0.040	<0.01		0.7	<5
81-DSR 32	0.013	<0.01		<0.1	<5

Certified by ....

CHEMEX

CALGARY 2021 - 41 AVE. N.E. CALGARY, CANADA T2E 6P2
TELEPHONE (403) 276-9827 TELEX 038-25541

EDMONTON 6112 DAVIES ROAD, EDMONTON, CANADA T6E 4M9
TELEPHONE (403) 465-9877 TELEX 037-41596

APPENDIX II

CERTIFICATE OF ANALYSIS

• MINERAL • GAS • WATER • OIL • SOILS • VEGETATION • ENVIRONMENTAL ANALYSIS

SCHINDLER EXPLORATION CONSULTANTS LTD.

DATE SEPTEMBER 15, 1981

ROCK ANALYSIS PAGE 1B

PROJECT NO.

LOCATION	AG PPM
81-DAC 1	12.4
81-DSC 7	13.7
81-DSC 8	13.9
81-DSR 1	7.6

Certified by .... [signature] ....

APPENDIX III

DESCRIPTION OF 1981 ASSAY SAMPLES

SAMPLE #	DESCRIPTION
DAC-1	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite. Three mm pyrite.
DAC-2	Massive sulphide bed. Estimate 3% chalcopyrite. Pyrrhotite with minor pyrite and pyrolusite (?).
DSC-2	Massive sulphide bed. Footwall. Pyrrhotite with minor chalcopyrite.
DSC-3	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite.
DSC-4	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite
DSC-5	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite
DSC-7	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite.
DSC-8	Narrow massive sulphide bed, 0.2 metres wide. Pyrrhotite.
DSC-9	Rock chip. Foot wall of massive sulphide bed.
DSC-68	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite.
DSC-69	Massive sulphide bed. Pyrrhotite. Minor chalcopyrite
DSR-1	Massive sulphide bed near adit. Chalcopyrite bearing siliceous lens near hanging wall.

1981 ASSAY SAMPLES...Continued

SAMPLE #	DESCRIPTION
DSR-6	Massive sulphide bed. Foot wall 4.8 metres from adit portal.
DSR-27	Rock chip. Quartz amphibole schist.
DSR-30	Rock chip. Rusty weathering mafic volcanic, with minor disseminated pyrrhotite.
DSR-32	Rock chip. Quartz amphibole schist.

APPENDIX IV

1973 ASSAY RESULTS

(Based on property examination by T.N. McCAWLEY, August, 1973)

Site	Description	Sample Width (ft.)	Sample Number	Assay Results Cu %	Lead %	Zinc %	Ag oz./ton	Au oz./ton
Adit	N. wall. 0 to 7 ft. W. of portal.	7.0	10913	0.18	0.03	0.12	0.24	< 0.003
Cut #3	Massive pyrrhotite. Little Chalcopyrite. Lens exposed along its strike 28 to 53' north of adit.	25.0	10911	0.46	0.02	0.12	0.17	< 0.003
Cut #3	Same. 0 to 28' N. of adit	28.0	10912	0.73	0.03	0.17	0.21	< 0.003
Cut #4	Massive pyrrhotite, chalcopyrite on north side cut.	10.0	10910	1.00	0.05	0.18	0.31	< 0.003
Cut #5	---	11.5	-----	0.60	----	----	----	-----
Cut #6	Massive pyrrhotite. Schist pyrrhotite and chalcopyrite.	9.0	10908	0.38	0.85	0.17	0.25	< 0.003
Cut #7	Rusty schist.............. 15' above massive sulphide lens.	18.0	10909	----	----	----	0.13	< 0.003

CHEMEX LABS (ALBERTA) LTD.

INVOICE

Send cheque to: 63.
Suite 100 - 2021 - 41 Ave. N.E.
Calgary, Alberta, Canada T2E 6P2
TELEPHONE: (403) 276-9627

APPENDIX V

1744

ATTN: JOHN GREIG DATE SEPT. 15 1981 KC

PACIFIC CASSIAR LTD.
714, 603 7 AVE. S.W.
CALGARY, ALBERTA
T2P 2T5

CHEMEX NUMBER	CUSTOMER NO.	DEPT. NO.	PROJECT NO.
	[illegible]	1	[illegible]

PURCHASE ORDER NUMBER

CLIENT REFERENCE INFO: ROCK, SOIL AND SILT ANALYSES

QTY.	DESCRIPTION	PRICE PER UNIT	PRODUCT CODE	TOTAL
17	ROCK SAMPLES PREPARED FOR ANALYSIS	$ 3.00	1 2 310	$ 51.00
73-4	SOIL AND SILT SAMPLES PREPARED	.65	1 2 310	44.85 ~~47.45~~
16	ROCK SAMPLES ASSAYED FOR CU AND ZN	12.00	1 2 320	192.00
16	ROCK SAMPLES ANALYZED FOR AG	1.75	1 2 330	28.00
6	ROCK SAMPLES ANALYZED FOR NI	1.75	1 2 330	10.50
16	ROCK SAMPLES ANALYZED FOR AU BY FA/AA GEOCHEM METHOD	5.00	1 2 330	80.00
4	SAMPLES ASSAYED FOR SILVER	6.00	1 2 320	24.00
53-4	SOIL SAMPLES ANALYZED FOR CU, PB, ZN	3.25	1 2 330	~~159.25~~ 172.25
20	SILT SAMPLES ANALYZED FOR CU, PB, ZN	3.25	1 2 330	65.00
2	SAMPLES ANALYZED FOR W	4.00	1 2 330	8.00
				$678.20

claimed $662.60 for assessment work JMS

TERMS — NET CASH — Payment is due upon receipt of this invoice.
Interest charged on overdue accounts at 2% per month (24% per annum) after 30th day from invoice date.

Form # 0001 R3/81 SNPY

STATEMENT COPY


PEAK 4
EAST BOUNDARY OF PROPERTY
Quartz Muscovite Schist
S2
Graphitic Schist
S2 (C)
IRON STAINED ZONE
Rusty S2
Minor Disseminated Pyrrhotite
Rusty S2
Minor Pyrrhotite
C5
C2
C4
Brown - Weathering Dolomite
C3
HELICOPTER LANDING AREA
CANYON CREEK
CAMP
SNOW CREEK
Rusty Quartz Hornblende Schist
Minor Pyrrhotite
S5
Rusty S2
(Minor Pyrrhotite)
Old trench cutting Disseminated Pyrrhotite
TRAIL
Old trench cutting Disseminated Pyrrhotite
Quartz Monzonite Dyke
VERY STEEP
EAST ADIT CREEK
ADIT CREEK
23° 28'
N
10,180
— LEGEND —
Q QUARTZ MONZONITE
CARBONATES
C5 FLAGGY LIMESTONE
C4 DOLOMITE
C3 CALC ARENITE
C2 THINLY BEDDED TO MASSIVE LIMESTONE
C1 WHITE CRYSTALLINE LIMESTONE (MASSIVE)
V MAFIC VOLCANIC ROCKS; MASSIVE OR PILLOWED
PHYLLITE
P1 CHLORITE PHYLLITE
GNEISSES
G2 AMPHIBOLITIC MARBLE
G1 CALC SILICATE GNEISS
SCHISTS
S5 QUARTZ AMPHIBOLE SCHIST
S4 GREY SILICEOUS SCHIST
S3 CALCAREOUS SCHIST
S2 QUARTZ MICA SCHIST
S1 CHLORITE SCHIST
(C) CARBONACEOUS
CONTACT ; ASSUMED , INFERRED
FAULT ; ATTITUDE KNOWN , UNKNOWN
SCHISTOSITY ; ATTITUDE KNOWN , UNKNOWN
LIMIT OF MAPPING , OUTCROP
BEDDING ATTITUDE
MASSIVE SULPHIDE BED
DISSEMINATE SULPHIDES
ADIT
CONTOURS BASED ON 1957 DOLMAGE & MASON COMPASS AND TAPE SURVEY
CONTOURS INTERPRETTED FROM 1:50 000 TOPOGRAPHIC MAP
CONTOUR INTERVAL: 25 METRES
DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 5
GEOLOGY, EAST END PEAK 4 CLAIM
82 M / 9W
DATE: DECEMBER 1981
SCALE - 1 : 1250
ACCOMPANIES REPORT BY
J.N. SCHINDLER DEC. 1981
0 12.5 25 50 75 metres


A
DOWNIE PEAK
B
3000 m
2500 m
2000 m
1500 m
118° 30'
118° 25'
118° 20'
118° 15'
118° 10'
118° 08'
51° 38'
51° 35'
51° 30'
51° 25'
51° 20'
GOLDSTREAM
RIVER
PEAK CLAIMS
DOWNIE PEAK
SELKIRK
DOWNIE
CREEK
MOUNTAINS
HIGHWAY
COLUMBIA
RIVER
23
N
10,180
— LEGEND —
MESOZOIC OR PALAEOZOIC (?)
7 DISCORDANT GRANITE PORPHYRY
6 SEMI CONCORDANT QUARTZ MONZONITE
LOWER PALAEOZOIC - HAMILL GROUP(?); MOHICAN FORMATION(?)
5 CARBONATE - PHYLLITE DIVISION: LIMESTONE, DOLOMITE, MARBLE, CALCAREOUS OR MICACEOUS PHYLLITE
4 METAVOLCANIC - PHYLLITE DIVISION: GREENSTONE, AMPHIBOLITE, CHLORITE PHYLLITE, DARK CALCAREOUS PHYLLITE, CARBONATE
3 CALC - SILICATE GNEISS DIVISION: METAMORPHOSED CALCAREOUS ROCKS
2 LOWER QUARTZITE SCHIST DIVISION: LARGELY PELITIC PHYLLITE AND QUARTZITE
LOWER PALAEOZOIC - UPPER PROTEROZOIC(?)
HORSETHIEF CREEK GROUP
1 PELITIC AND CALCAREOUS SCHISTS
FAULT
GEOLOGICAL CONTACT; DEFINED, APPROXIMATE, ASSUMED
ANTIFORM AXIAL SURFACE TRACE
SYNFORM AXIAL SURFACE TRACE
LIMITS OF MAPPING / OUTCROP
SULPHIDE MINERALIZATION:
K: KEYSTONE
G: GOLDSTREAM
M: MONTGOMERY
S: STANDARD
J: K.J. DEPOSIT
DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 3
GEOLOGY: GOLDSTREAM RIVER AREA
NTS 82M/8E, 82M/9E
(AFTER HOY, 1979 - MODIFIED)
DATE: DECEMBER 1981
SCALE - 1 : 50 000
ACCOMPANIES REPORT BY
J.N. SCHINDLER DEC. 1981
0 1 2 3 4 5
kilometres

SAMPLE RESULTS

NUMBER	INTERVAL (METRES)	TYPE*	Cu%	Zn %	Ni(ppm)	Ag(ppm)	Au(ppb)	DESCRIPTION
81-DAC-1	0.7	C.C.	0.975	0.742		11.8	38	MASSIVE SULPHIDE
81-DAC-2	1.2	C.C.	0.220	0.207		5.1	20	" "
81-DSC-2	1.0	C.C.	2.160	0.211	75	4.2	16	" "
81-DSC-3	1.0	C.C.	1.360	0.271	96	2.2	12	" "
81-DSC-4	1.0	C.C.	0.705	0.150		2.6	22	" "
81-DSC-5	0.5	C.C.	0.724	0.119		2.8	74	" "
81-DSC-7		C.C.	1.605	0.561	54	16.3	10	" "
81-DSC-8	3.0	C.C.	0.313	2.60		9.9	48	" "
81-DSC-9	9.0	R.C.	0.026	0.025	22	<0.1	6	ROCK CHIP
81-DSC-68	1.2	R.C.	0.731	0.350	136	5.9	12	MASSIVE SULPHIDE
81-DSC-69	3.0	C.C.	0.668	0.138	41	5.3	<5	" "
81-DSR-1		GRAB	1.310	0.478		8.0	12	" "
81-DSR-6		GRAB	0.623	0.066		4.0	14	" "
81-DSR-27	6.1x3.0	R.C.	0.010	<0.01		<0.1	<5	ROCK CHIP
81-DSR-30		GRAB	0.040	<0.01		0.7	<5	" "
81-DSR-32		GRAB	0.013	<0.01		<0.1	<5	" "

* C.C. - CONTINUOUS CHIP
R.C. - RANDOM CHIP

— LEGEND —

- Q QUARTZ MONZONITE
- P PEGMATITE

CARBONATES
- C5 FLAGGY LIMESTONE
- C4 DOLOMITE
- C3 CALC ARENITE
- C2 THINLY BEDDED TO MASSIVE LIMESTONE
- C1 WHITE CRYSTALLINE LIMESTONE (MASSIVE)

- V MAFIC VOLCANIC ROCKS; MASSIVE OR PILLOWED

PHYLLITE
- P1 CHLORITE PHYLLITE

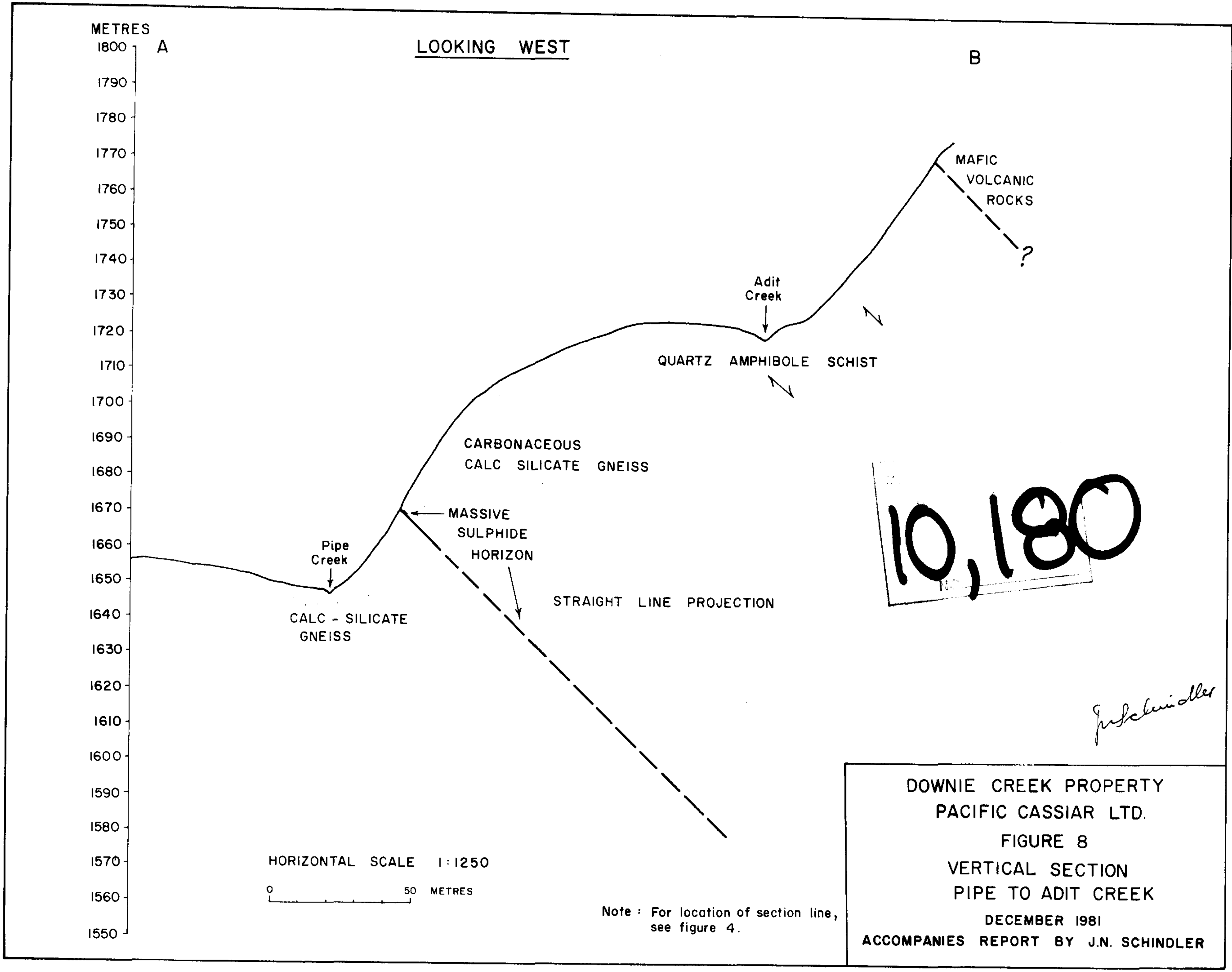
GNEISSES
- G2 AMPHIBOLITIC GNEISS
- G1 CALC SILICATE GNEISS

SCHISTS
- S5 QUARTZ AMPHIBOLE SCHIST
- S4 GREY SILICEOUS SCHIST
- S3 CALCAREOUS SCHIST
- S2 QUARTZ MICA SCHIST
- S1 CHLORITE SCHIST

- Cu COPPER
- CL CHLORITE
- (C) CARBONACEOUS
- CUT #4 SAMPLE CUT AUGUST 1973
- CONTACT ; ASSUMED , INFERRED
- 80° FAULT ; ATTITUDE KNOWN , UNKNOWN
- 40° FOLIATION
- 40° SCHISTOSITY ; ATTITUDE KNOWN , UNKNOWN
- LIMIT OF MAPPING , OUTCROP
- 40° BEDDING ATTITUDE
- MASSIVE SULPHIDE BED
- D D DISSEMINATE SULPHIDES
- A B SECTION LINE
- TRAIL
- Y ADIT
- CONTOURS BASED ON 1957 DOLMAGE & MASON COMPASS AND TAPE SURVEY
- CONTOURS INTERPRETTED FROM 1 : 50 000 TOPOGRAPHIC MAP
- CONTOUR INTERVAL : 25 METRES

DOWNIE CREEK PROPERTY
(82 M/9)
PACIFIC CASSIAR LTD.
FIGURE 4
GEOLOGY, SW PART PEAK 4 CLAIM
SCALE - 1 : 1250
DATE : DECEMBER 1981
ACCOMPANIES REPORT BY J.N. SCHINDLER, DEC. 1981

0 12.5 25 50 75 metres



DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 8
VERTICAL SECTION
PIPE TO ADIT CREEK
DECEMBER 1981
ACCOMPANIES REPORT BY J.N. SCHINDLER


T.N.
M.N.
23° 28'
N
CLIFFS
VERY STEEP
EAST ADIT CREEK
ADIT CREEK
PIPE CREEK
DRY CREEK
CAMP CREEK
BLUFFS
PEAK 4
PEAK 3
PEAK 3 PEAK 4
LINE "A"
LINE "B"
LINE "C"
LINE "D"
HELICOPTER LANDING AREA
INDEX MAP
FIGURES 5 AND 7
FIGURES 4 AND 6
ADIT
— LEGEND —
SOIL SAMPLES
X SAMPLE SITE
ABBREVIATED SAMPLE NO.: S 52 X
(FULL SAMPLE NO. 81 - DDS - 52)
PPM
COPPER , LEAD , ZINC
52 , 43 , 101
SILT SAMPLES
⊗ SAMPLE SITE
ABBREVIATED SAMPLE NO.: L 47 ⊗
(FULL SAMPLE NO. 81 - DSL - 47)
PPM
COPPER , LEAD , ZINC
940 , 18 , 936
SAMPLE LINE
ANOMALOUS
STRONGLY ANOMALOUS
MASSIVE SULPHIDE BED
ADIT
TRAIL
CONTOURS BASED ON 1957 DOLMAGE AND MASON COMPASS AND TAPE SURVEY
CONTOURS INTERPRETTED FROM 1 : 50 000 TOPOGRAPHIC MAP
CONTOUR INTERVAL : 25 METRES
10,180
DOWNIE CREEK PROPERTY
(82 M/9)
PACIFIC CASSIAR LTD.
FIGURE 6
GEOCHEMISTRY, SW PART PEAK 4 CLAIM
SCALE - 1 : 1250
DATE : DECEMBER 1981
ACCOMPANIES REPORT BY J.N. SCHINDLER, DEC. 1981
0 12.5 25 50 75 metres


PEAK 4
EAST BOUNDARY OF PROPERTY
L 87 ⊗ 26,94,169
CANYON CREEK
HELICOPTER LANDING AREA
CAMP
PEAK 4
PEAK 4
SNOW CREEK
L 86 ⊗ 12,13,39
L 79 ⊗ 28,6,39
L 85 ⊗ 23,8,37
TRAIL
VERY STEEP
EAST ADIT CREEK
ADIT CREEK
1975
1950
1925
1900
1875
1850
1825
1800
1775
1750
1725
1700
1675
1650
1625
1600
1575
23° 28'
N
10,180
— LEGEND —
SILT SAMPLES
⊗ SAMPLE SITE
ABBREVIATED SAMPLE NO.:
L 79 ⊗
(FULL SAMPLE NO. 81 - DSL - 47)
PPM
COPPER , LEAD , ZINC
940 , 18 , 936
ANOMALOUS
STRONGLY ANOMALOUS
MASSIVE SULPHIDE BED
DISSEMINATE SULPHIDES
Y ADIT
CONTOURS BASED ON 1957 DOLMAGE AND MASON COMPASS AND TAPE SURVEY
CONTOURS INTERPRETTED FROM 1 : 50 000 TOPOGRAPHIC MAP
CONTOUR INTERVAL : 25 METRES
DOWNIE CREEK PROPERTY
PACIFIC CASSIAR LTD.
FIGURE 7
GEOCHEMISTRY, EAST END PEAK 4 CLAIM
82 M / 9W
DATE: DECEMBER 1981
SCALE - 1 : 1250
ACCOMPANIES REPORT BY
J.N. SCHINDLER DEC. 1981
0 12.5 25 50 75 metres