suggesting that this may affect structure and mineralization on a larger scale.

Confirmation of this tendency for faulting and later mineralization to follow weaker rock within the Nelson batholith is present at the Comstock mine, 3 km east-southwest of the PBX Grid in Fennell Creek drainage. Cairnes (1934, p. 33) notes that the Comstock lode which strikes 55 to 65 degrees east with dips of 35 to 55 degrees southeast preferentially follows a granite-lamphrophyre contact.

3.2.2 PBX Grid Alteration and Mineralization

The main PBX showing (Figure 5) exposes a 15 m length of a near vertical vein striking 087°, in biotite-plagioclase gneiss on the northern bottom of Pandora Creek. At the level of the small adit, 9 m south across the creek, the vein centre is less than 1 m north from the contact with Nelson porphyritic granite. The vein centre is a highly silicified tan-cream-white repeatedly-brecciated lensoid mass from 10 to 25 cm wide. At least two stages of tan and cream-coloured quartz flooding and brecciation precede brownish fine-medium grained sphalerite deposition in vein openings and possibly replacing reactive fragments. In some instances later thin, 0.5 to 1.5 cm-wide galena veins appear marginal to or cross-cutting the main vein associated with quartz veining. At least one stage of brecciation with white quartz flooding plus tan siderite and calcite post-dates all of the above. Two episodes of white and clear quartz veinlets follow, cutting the vein with little movement. Late white calcite veinlets are present everywhere peripheral to the vein. Broken rock and gouge especially on the north vein margins indicate post-mineral movement. Light green moderately to highly

silicified selvages of altered wall rock and brecciated vein fragments occur irregularly along the vein varying in width from 10 to 20 cm. Some fine disseminated pyrite and arsenopyrite occur in and on the margin of these selvages. Hairline width to 3 mm quartz veining forms an irregular stockwork for at least 5 meters in the northern vein margins. Fine veinlets and small pockets less than 0.5 cm wide of galena associated with tourmalinized quartz veinlets were noted in two instances on northern margins in biotite-feldspar wall rock.

Greene (1986) noted the similarity between the PBX showing and the Comstock Mine 4 km to the southeast, where the best mineralization occurred on a granite-lamphrophyre contact in partly silicified brecciated granite vein one to several feet thick. Explored by 2,800 feet of workings over 400 vertical feet, the ore occurs as streaks and disseminations with galena up to 3 inches thick. In 1904 a shipment of 295 tons averaged 98 oz/t silver and 56% lead. The lowest level carried ore grading up to 360 oz/t silver. Yeager conducted soil sampling, on contour, below the Comstock showings which failed to define extensions (Yeager and Ikona, 1986).

3.2.3 CDO Grid Geology

Along the northern extremes of the property, lower Jurassic Slocan Group marine sediments have been invaded by the Nelson Batholith (Figure 7). Locally these sediments are predominantly laminated to black-grey argillites, with lesser tan to white siltstone and fine grained quartzite, and minor thin laminated limestone. Limy and sandy variations of argillite are common. Black, harder, sharp fracturing argillite with several percent disseminated or thin interlaminated pyrite is

less common, but more readily apparent from it's rusty oxidized outcrop. All these variations may be found interbedded and gradational, and only thicker sequences of quartzite are shown as a separate unit in mapping.

The district fabric of a northwesterly trending megafold in Slocan sediments is best detailed by Hedley (1952). The axis of this so-called Slocan Fold lies roughly along the ridge separating the Slocan and Sandon districts, and the fold is steeply recumbent to the southwest. This picture becomes complicated because according to Robinson (1955) two things happen along the limb of the fold as it extends southeasterly. First, the plunge of the axis becomes steep, and secondly, the fold is "warped" (refolded) to the right through 120° to nearly an east-west orientation.

Robinson speculated that emplacement of the Nelson Batholith promoted this warp and resulted in faulting subparallel to bedding with associated tight folding. These movements caused the shattering, brecciation, small-scale folds and cross-fault voids that hosted quartz veining and mineral deposition.

On the Hewitt and Van Roi mine properties, Slocan Group argillite bedding-strikes change from north-northeasterly (025° to 045°) to east-north easterly (060° to 075°) as one progresses south to the main CDO showing vicinity. Mixed bedding attitudes are recorded in areas where folds with steep westerly-plunging axes occur on a scale of 25 to 100 m across. These folds are mimicked on a smaller scale within bedding parallel shears and veins. Ore shoots in Hewitt and Van Roi veins tend to rake 70° northwesterly apparently following folding and brecciation related to right lateral displacement along vein faulting.

3.2.4 CDO Grid Alteration and Mineralization

Mineralization is exposed on the west and east extremes of the CDO Grid at the CDO showing and on the Wedge Area respectively (Figures 7a and 7b).

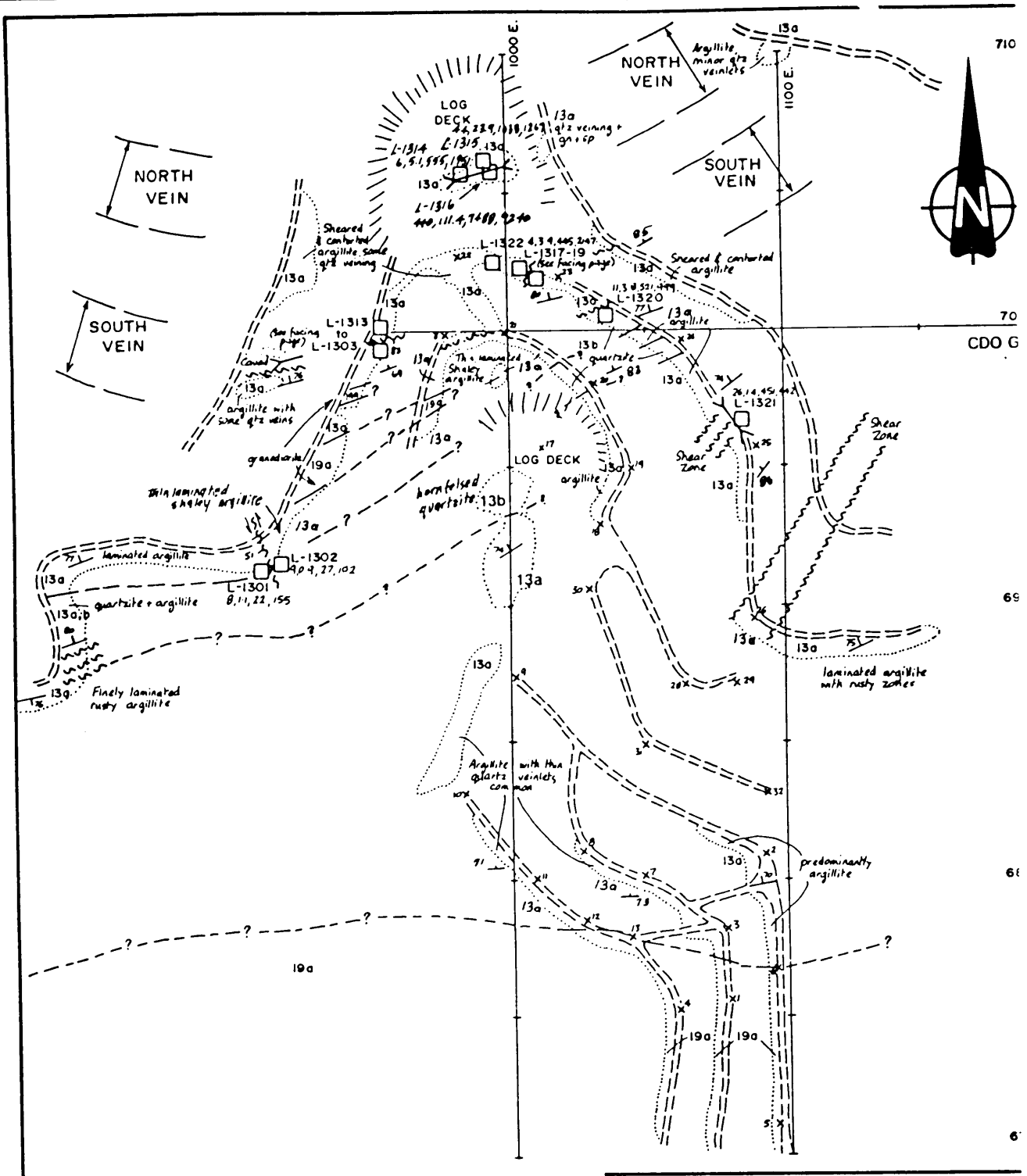
The apexes of the Van Roi Mine North and South Veins are exposed by trenching and roadwork on the main CDO showing and consist of two sheared zones, 5 to 10 m wide, with widely varying content of brecciated quartz lenses and veining with associated pyrite, sphalerite, galena, and lesser tetrahedrite and argentite mineralization. Pyrargyrite has been identified by earlier reports (Sharp, 1977). Fleshy to tan-coloured siderite is associated with at least one stage of quartz veining. Calcite appears in late stage veinlets and as fissure filling. Varying degrees of hornfelsing are noted in all sediments on the CDO Grid, and are related to the proximity of the main Nelson intrusive contact or dykes parallel to veining and bedding.

Mineralization and alteration on the Wedge area was identical to that on the main CDO showing, with the exception that white quartz veining with prominent chalcopyrite and lesser tetrahedrite mineralization (samples L-1113 and L-1116) was found in dump material on the lower adit.

4.0 PROPERTY GEOCHEMISTRY

4.1 The 1987 Program

The PBX showing occurs just above the intersection of the Maurier Creek road and a short westerly flowing stream, termed Pandora Creek, near the western boundary



FOR LEGEND AND ADDITIONAL SAMPLE RESULTS SEE FACING PAGE.

0 20 40 60 80 100 m.

PBX RESOURCES LTD.

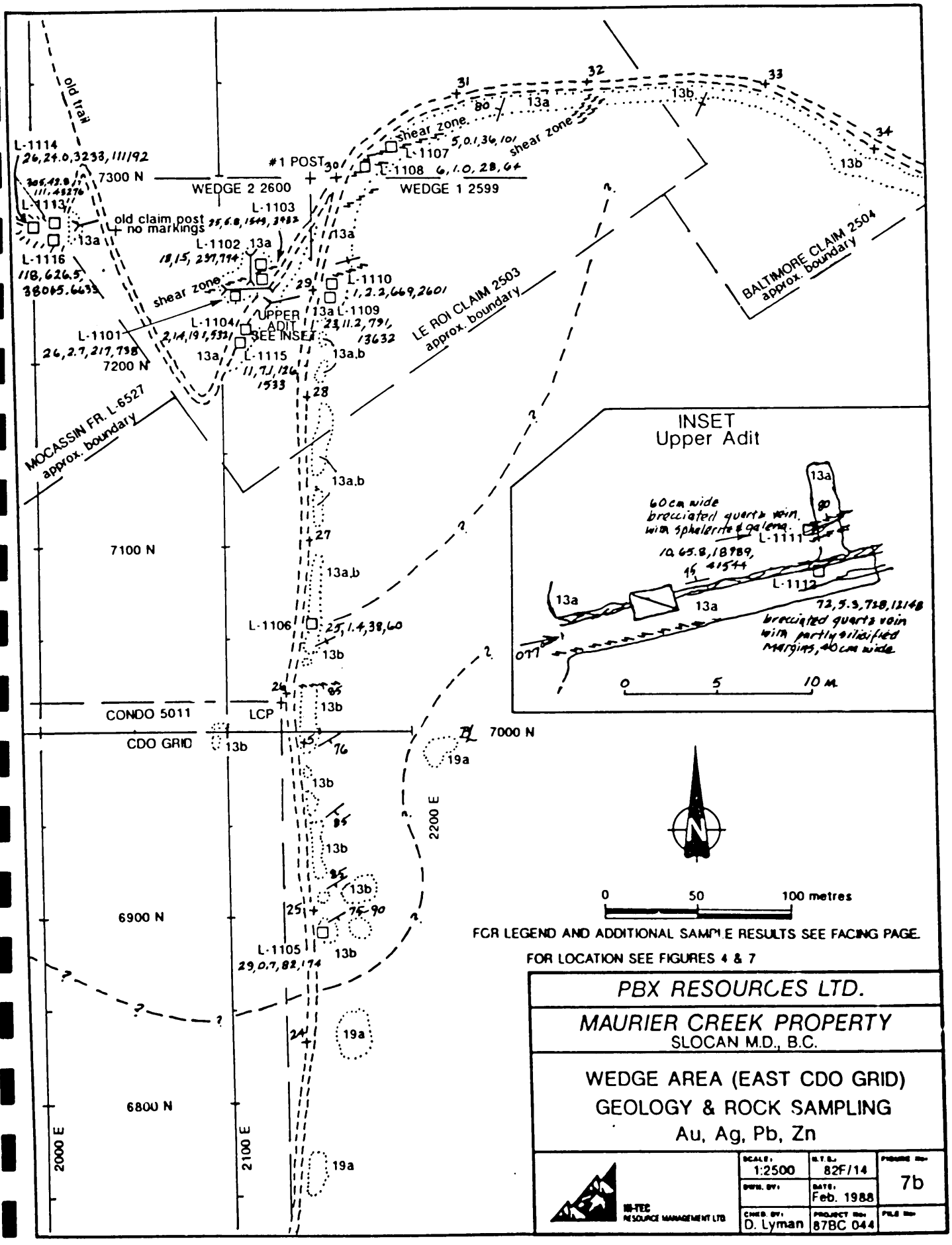
MAURIER CREEK PROPERT

SLOCAN M.D., B.C.

CDO SHOWING GEOLOGY & ROCK SAMPLING

FOR LOCATION SEE FIGURES 4 & 7

HI-TEC RESOURCE MANAGEMENT LTD	SCALE: 1:2000	N.T.S.: 82 F/14
	DWN. BY:	DATE: FEB 1988
	CHKD. BY:	PROJECT No:



FOR LEGEND AND ADDITIONAL SAMPLE RESULTS SEE FACING PAGE.

FOR LOCATION SEE FIGURES 4 & 7

PBX RESOURCES LTD.

MAURIER CREEK PROPERTY

SLOCAN M.D., B.C.

WEDGE AREA (EAST CDO GRID)
GEOLOGY & ROCK SAMPLING
Au, Ag, Pb, Zn

IH-TEC RESOURCE MANAGEMENT LTD	SCALE: 1:2500	N.T.S.: 82F/14	FIGURE No. 7b
	DRWN. BY:	DATE: Feb. 1988	
	CHKD. BY: D. Lyman	PROJECT No.: 87BC 044	FILE No.

of Pandora's Box claim. Because the exposed shearing and veining trended slightly north of east, a north-south array of survey lines would best intersect similar mineralization. The PBX survey grid (Figure 5) was established with a central baseline extending east 1 km from where the Pandora Creek crosses the road. Ten north-south survey lines were then spaced 100 m apart extending 750 m to each side of the baseline. Stations were established each 50 m for geochemical sampling with flagging each 25 m for geophysical measurements. Rock sampling on the PBX Grid was limited to mineralization in and around the PBX showing.

The CDO grid was established primarily for conducting geophysics across east to northeast-trending veining and granite contacts. A 1.2 km baseline was extended due east from the CDO showing on the north ridge of Mt. Twigg, across Maurier Creek to kilometer 1.2 on the lower Maurier Creek road. Twelve short, 300 to 800 m long, north-south survey lines were established every 100 m along the baseline with their northern extremes roughly coinciding with the northern property bounds. Stations were established as on the PBX grid. Rock sampling of mineralized areas was confined to the area around the CDO showing, and the East CDO or Wedge area, located on and below Maurier Creek road on grid lines 2000E and 2100E between stations 7250N and 7350N.

4.2 Sampling and Analytical Procedures

On the PBX grid, a total of 275 soil samples were collected using mattocks or soil augers and placed in Kraft paper sample bags. Soil augers were used exclusively on and below the 1400E line in an effort to penetrate overburden in the valley bottoms. Depth of overburden where it could be measured varied greatly

ficant silver values may be associated with tetrahedrite-tennantite locally in addition to galena.

Two zones of coincident low value Ag-Ag-Cd-Cu-Zn soil anomalies were defined on the PBX Grid. The larger zone is additionally coincident with a VLF-EM conductor.

From inspection of rock sample results on both CDO and PBX showings, it appears an association exists between silver, cadmium, and antimony values, in addition to the district-wide correlation of silver, lead and zinc. Locally silver appears to follow zinc values more closely than lead.

4.4 PBX Grid Geochemistry

Over 300 soil and stream sediment samples were collected on the grid. The most striking feature to emerge from the plotted soil values is an area of zinc equal or greater than 100 ppm (Figure 6e). This area extends from the 1600E line southeasterly on the right bank of Pandora Creek more than 700 m to the 1000E line. Within the area, 9 of 40 samples exceed 200ppm zinc, and the highest value on the grid of 737 ppm zinc was noted. Coincident with the zinc $\geq$100 ppm zones, on and west of the 1400E line are areas of As $\geq$20 ppm, Ag $\geq$1.1 ppm, and Cd $\geq$2.5 ppm and Cu $\geq$16 ppm (Figures 6a to 6e). Less well defined areas of Au $\geq$10 ppb (Figure 6) only roughly fit the zinc zone. These values appear low to define an anomaly; however, a strong, coincident VLF-EM conductor recorded on two stations supports such an assertion (Figures 9, 9a). The validity of this anomalous zone becomes indisputable when viewing multiple overlays of geochemical and VLF-EM results. For all metals listed above (Ag, As, Au, Cd, Cu, Zn) as well as available VLF-EM Fraser-Filtered results a general configuration

emerges of an east-west area of lower values at 5050 N with parallel elongate high value areas on either side.

A smaller and weaker area of Zn ≥100 ppm, As ≥20 ppm, Ag ≥1.0 ppm and Cd ≥2.5 ppm, lies on lines 1800E and 1700E between 5100N and 5500N. This area does not have an associated anomalous VLF-EM conductor, however VLF-EM coverage is not complete.

Rock sampling on the PBX Grid was concentrated on the PBX showing, 25 m above Maurier Creek road in Pandora Creek (Figure 5). Nine samples, L-1201 through L-1209, were collected from trenching in and near the creek, a short east-southeast-trending adit, and a small vein 40 m further up the creek. Two channel samples, L-1203 and L-1208, taken from the 10-25 cm wide brecciated and silicified vein outcropping in the creek bed and north bank returned up to 31.2 ppm Ag, 46 ppm As, 216.2 ppm Cd, 761 ppm Pb and 33,909 ppm Zn. These lower grade values from representative samples are not inconsistent with Greene's (1986) galena-rich high grade sampling (285 oz/t Ag, 29.4% Pb, 2.68% Zn).

4.5 CDO Grid Geochemistry

Soil and stream sampling were not budgeted for the CDO grid area, because of anticipated contamination from old mining operations. During work on the grid, as finally established, it became apparent that contamination would not greatly effect soil and stream sampling. However, because of time, budget and manpower restrictions, the decision not to conduct such sampling remained.

Rock sampling was conducted in two areas of the CDO grid: the main CDO showing and the East CDO grid or Wedge area.

The main CDO showing (Figure 7a) exposes the apex of the North and South Van Roi veins. Three rock channel samples were taken on the North vein and associated rusty shearing (L-1314 to L-1316, see Figure 6), and values were obtained up to 440 ppb Au, 111.4 ppm Ag, 384 ppm Cu, 7,488 ppm Pb, 41 ppm Sb, and 9,240 ppm Zn. Fourteen rock channel samples in total (L-1303 to L-1313, L-1317 to L1319) were taken on three different locations of the South vein with values up to 430 ppb Au, 529.7 ppm Ag, 418.1 ppm Cd, 804 ppm Cu, 64,743 ppm Pb, 462 ppm Sb, and 39,086 ppm Zn. Five additional rock samples were taken on small shears and quartz veins between the main veins and in the South vein footwall with no significant results. These North and South vein sample values are of lower grade than the more selective sampling by Greene (1986, p.9-11), but consistent with historic Van Roi grades of 6 to 9 oz/t Ag, with 5 to 9% combined Pb-Zn. In fact, because these sample values do come from the Van Roi veins, the grades and metal relationships displayed may be used to gauge other occurrences against the Van Roi.

The East CDO grid or Wedge area (Figure 7b), at approximately kilometer 1.0 on the Maurier Creek road near the mouth of Maurier Creek, has mineralized, sheared argillite exposed along the main road and in two short adits below the road. Trenching and road work totalling over 2000 cubic meters by Peter Leontowicz, using his front-end loader, exposed parallel mineralized quartz veining and breccia in sheared argillite near the upper adit. A total of thirteen channel and rock chip samples were taken in and around the upper adit (L-1101 to L-1112, L-1115) with values up to 29 ppb Au, 65.8 ppm Ag, 259.9 ppm Cd, 371 ppm Cu, 18,989 ppm Pb, 74 ppm Sb and 41,544 ppm Zn.

5.2 PBX Grid VLF-EM and Magnetometer Survey Results

The magnetic survey results, corrected for diurnal variations, have been contoured to accentuate the magnetic highs and their flanks (Figure 8). Readings ranged over 600 gammas, from 56,300 to 56,900 gammas, on the PBX grid.

By far the most striking aspect of the contoured PBX grid magnetometer data is the abrupt change in the magnetic nature of the lithology north and south of the baseline. To the north of the baseline, the contours are fairly flat with a few small highs and lows. To the south of the baseline, the nature of the contours changes dramatically. With few exceptions, the magnetic highs occur on or near line 15+00E between stations 49+00N and 45+50N. This magnetic zone extends from 16+00E westerly for 500 m, to line 11+00E where it disappears off the edge of the grid.

The PBX grid Fraser Filtered data for the Cutler (Figure 9) and Jim Creek (Figure 9a) stations shows three distinct conductive zones.

The strongest lies just south of the baseline. This zone (referred to as Zone A) extends from line 15+00E striking east/west 500 m to line 10+00E where it disappears off the edge of the grid. By looking at the line profiles (Figures 10, 10a), several properties of this zone can be deduced. Comparing the in-phase and quadrature profiles shows a strong non-uniform conductor at depth, surrounded by non-conductive material. This zone also seems to delineate a boundary between conductive and non-conductive host rock and/or overburden. South of this zone the host rock/overburden is conductive and north of this zone it is non-conductive. Thus a

strong relationship between the magnetic and VLF responses can be established.

To the north of this boundary conductive zone, there is a narrower conductive zone (termed Zone B) that parallels Zone A. Zone B also extends from line 15+00E striking east/west 500 m to line 10+00E, and extends westerly off the edge of the grid. As in the previous zone, Zone B is a strong non-uniform conductor at depth displaying peak values on line 15+00E. The presence of a smaller conductor just south of Zone B on line 15+00E may be responsible for disguising and distorting the nature of the larger conductive zone nearby.

The other main area of interest (Zone C) lies to the south of Zone A and it therefore lies in conductive ground. This zone is more spread out and less well defined than the above two zones. However, because the host rock and/or overburden of this region is conductive, the nature of the conductor(s) is far harder to determine. From both the line profiles and the filtered data, it can be assumed that more than one conductor is actually present. Once more, the filtered EM values for Zone C peak on line 15+00E.

On line 16+00E, a small but strong conductor is evident. This response is probably caused by the presence of a swamp in the area.

In conclusion, an east/west striking zone of high magnetics extends from line 16+00E in the 500 m immediately south of the baseline, west to the grid boundary. Also noted are three zones of VLF-EM anomalies, some of which are coincident with the high magnetics.

5.3 CDO Grid Magnetic Survey

Corrected total field magnetic readings ranged over 550 gammas, from 56,550 to 57,117 gammas on the CDO grid. Two striking magnetic features are present in the western part of the CDO grid (Figure 11). The first is a sharp 180-gamma low at 1000E, 7050N elongated easterly and occurring directly over the Van Roi North Vein apex. A five to seven meter wide pyritic shear zone with thin mineralized quartz veins and lenses is the local surface expression. The South Vein apex 50 m south on line 1000E displays a flat response. More quartz veining and larger quartz lenses with broken rock in shears are present here as opposed to clayey gouge found in the North Vein.

A 400-gamma high elongated on a 060° trend occurs on lines 1200E and 1300E between 6700N and 6800N. The area is well within Nelson granite and is largely covered. A steep five meter wide shear zone with no surface mineralization and sparse quartz veining parallels the southeastern margin of the magnetic high, but is centered 100 m to the south. A small pyrrhotitic argillite inlier or mineralized portion of a shear within the granite are indicated.

No distinct magnetic signature change is present across known areas of argillite-granite contact. The eastern portion of the grid does not display trends that would help distinguish mineralization alteration or rock type.

The VLF-EM portion of the geophysical survey on the CDO grid was judged unacceptable because of equipment difficulties that were not diagnosed during work on the property.

6.0 DISCUSSION AND CONCLUSIONS

Deep soil sampling using augers is tedious work, but was proven a valuable tool to 'see' through overburden on the PBX grid. Geochemistry in conjunction with the VLF-EM survey have outlined an area roughly 300 m wide and over 400 m long within which two easterly trending parallel target zones are present. Limited exposures and an elongate zone of low level soil zinc suggest the easterly-trending zones may intersect a southwesterly-trending zone of shearing with weaker mineralization. A smaller, weaker area of anomalous geochemistry currently unsupported by VLF-EM highs is present on lines 1700E and 1800E north of the baseline.

On the PBX grid, arsenic and cadmium analyses in soil sampling have helped define precious and base metal anomalies, and may be of value as pathfinders and indicators of metal zoning.

Rock sample correlations of the above elements with precious and base metals on both grids suggest arsenic, cadmium and possibly antimony in soil analysis would be helpful in defining mineralization on the CDO grid.

Geology and rock sampling on the apex of the Van Roi North and South Veins (CDO showing) over known mineralization with reserves in place, provided control for other sampling in the area. This information has helped gauge similar mineralization at the Wedge area in the eastern part of the CDO grid. Wide zones of shearing and quartz vein-related mineralization are present on the Wedge area, and they display geochemical signatures similar to the main CDO showing. Completion of the VLF-EM survey over the CDO grid plus geochemical sampling

would help define mineralization and structure over the largely covered area between the CDO and Wedge showings.

The bulk of the property, which totals roughly 27 sq km, remains unexplored and deserves reconnaissance work especially west of the PBX grid, toward the Comstock property, and south of the PBX grid where breccia and quartz veining similar to the Willa property may be present along an east-west trend.

7.0 RECOMMENDATIONS

The next phase of exploration on the PBX property should include the following elements:

PBX Grid Area

1. Evaluation of the geochemical and VLF-EM defined anomalous zone in the vicinity of the PBX show using a backhoe trenching in conjunction with D-7 cat road work.
2. Completion of VLF-EM coverage on the grid.
3. Addition of a 900E survey line with sampling and geophysics.
4. Additional mapping and prospecting.

CDO Grid Area

1. Evaluation of the Wedge zone with trenching.
2. Completion of VLF-EM coverage of the grid.
3. Addition of survey lines to cover east and north of the Wedge show.
4. Soil sampling of extended CDO grid.
5. Additional mapping and prospecting.