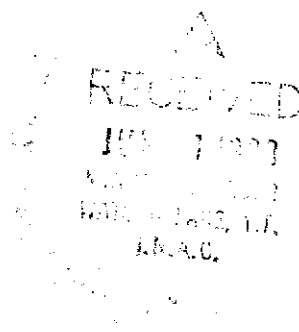


1997
GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL AND
TRENCHING REPORT ON THE CABIN LAKE PROPERTY
(CL 1 - 122 CLAIMS)

Watson Lake Mining District, Yukon Territory

NTS: 105B/4, Lat 60°06'N; Long 131°47'W

093 843
May, 1998 (1997 ASSESSMENT REPORT)



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representation work in the amount
of \$ 51,650.00.

M. Bick
For Regional Manager, Exploration and
Geological Services for Commissioner,
of Yukon Territory.

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May, 1998 (1997 ASSESSMENT REPORT)

by

D. H. Ritcey, B.Sc, B.A., M.Sc.
&
E.A. Balon, P.Geo.

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Date Submitted: May, 1998
Field Period: July 4 - October 2, 1997

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1. SUMMARY AND CONCLUSIONS

The Cabin Lake property, located in the Yukon Territory 190 kilometers southeast of Whitehorse, and 170 kilometers west of Watson Lake, on NTS map sheet 105 B/4, consists of 122 contiguous mineral claims (CL 1 to 122) in the Watson Lake Mining District. The claims were acquired by staking between March and September 1997, and are owned 100 percent by Fairfield Minerals Ltd. Exploration is focused primarily on copper mineralization hosted by deformed and metamorphosed volcanic and sedimentary rocks in the central property area, and on copper-molybdenum occurrences within a pluton on the southern claims.

The CL claims are accessed by helicopter, with temporary bases at Morley River YT (25 km southwest of the property) and Swan Lake BC (30 km southeast). The Alaska Highway passes 20 km south of the claim group, but to date there is no road access. The property covers 21 square kilometers of moderate to steep heavily forested slopes, extending up to subalpine and alpine zones above 1370 meters elevation. Bedrock exposure is fair at higher elevation, and generally poor or sporadic in lower areas where alluvium and glacial till are prevalent.

Known previous mineral exploration work in the area covered by the present claims is limited to reconnaissance programs carried out by Cordilleran Engineering for Regional Resources Ltd. in 1980, and by Fairfield in 1996. Stream sediment sampling and follow-up prospecting undertaken in these programs identified several important areas of copper enrichment, with some significantly anomalous levels of Pb, Zn, Ag, As, Mo and Au. Of particular interest were copper analyses of 8200 and 4000 ppm for silt samples from a small channel draining a prominent "kill zone" in the center of the present property area. In 1996, a reconnaissance soil line returned copper values between 138 and 1114 ppm over a distance of 425 meters, and analyses of rock grab samples from the vicinity of 2 kill zones ranged up to 6987 ppm Cu. samples. The initial CL 1 to 100 claims were staked in April and May of 1997 to cover several multiple-element stream sediment and soil anomalies, and occurrences of Cu and Cu+Mo discovered in 1996.

The Cabin Lake property is primarily underlain by Paleozoic to Triassic metasedimentary and metavolcanic rocks of marine origin. Two distinct Mesozoic intrusive bodies are present: a small diorite/granodiorite stock exposed in the central and northwestern part of the property, and a larger granodiorite/quartz monzonite pluton on the southwestern claims.

Pyrite, chalcopyrite and minor other sulphide minerals are present as disseminations to semi-massive bands in certain schist layers on the central and western claims ("Avalanche Area"). The sulphide minerals appear to be stratabound, and may represent remobilized and metamorphosed stratiform syngenetic (VMS) type mineralization similar to important polymetallic deposits recently discovered within broadly correlative terranes in the Finlayson Lake map area (e.g. Kudz Ze Kayah, Wolverine), about 160 kilometers northeast of Cabin Lake. Potentially important chalcopyrite and molybdenite mineralization is also developed in veinlets hosted by granodiorite on the southern CL claims ("South Area"). Regionally, a rich variety of deposits and prospects is known throughout the Wolf Lake (NTS 105 B) map sheet. The majority of these are intrusion-related, and include a nearby very large tungsten-molybdenum porphyry/skarn system at the Logtung deposit, 12 km southeast of the CL claims.

In June 1997, a 277 line-km airborne electromagnetic and magnetic survey was flown over the complete claim group. Several EM anomalies and conductive trends parallel to stratigraphy and to major fault structures were identified over widespread parts of the property. One weak EM conductor (Anomaly 12) is coincident with a linear magnetic trend in the southern part of the Avalanche Area. High amplitude magnetic trends within granodiorite on the southern one-third of the property were also outlined.

An initial phase of baseline cutting, soil sampling, geological mapping, prospecting and hand trenching was undertaken in July 1997. Sporadic high values of Cu, Mo and Ag in soils were identified in

the South Area, where several mineralized veins were located and sampled. Very encouraging results were returned from the Avalanche Area: most notable were several analyses of rock samples ranging up to 1.21 % Cu, and the delineation of a large copper soil anomaly, with Cu values greater than 150 ppm distributed over an area of approximately 900 x 500 meters.

Positive results from soil and rock sampling led to a second phase of work in August and September that included fill-in soil sampling and intensified prospecting of anomalies, 390 m of excavator trenching, and 7.05 line-kilometers of induced polarization geophysical surveying. The best results from trenching were 0.35 % Cu averaged over 18.4 m of continuous chip samples. The IP survey identified several zones of chargeability and resistivity anomalies, with the strongest chargeability values extending several hundred meters to the east and south of known mineralization exposed at surface in the Avalanche Area. The zones of strongly anomalous IP response remain open to extension at depth, and laterally to the east and south.

Current exploration results from the CL claims indicate good potential for discovery of economic copper (+/- zinc, +/- molybdenum, +/- gold, +/- silver) deposits. Targets include disseminated to massive sulphide mineralization in schistose units of the Avalanche Area and adjacent geophysical anomalies, and also porphyry or stockwork style mineralization with large tonnage potential in the South Area. Continued and intensified exploration of the Cabin Lake property is definitely warranted.

2. RECOMMENDATIONS

Grid soil sampling at 200m x 50m spacings should be extended to the western property boundary from line 3900N to line 2100N (CL 69 - 71, 76, 78, and 80 - 86 claims) to evaluate the potential for Cu + Mo +/-Au +/-Ag stockwork or porphyry mineralization in the South Area. Approximately 200 stations would be sampled in this area, and 3.5 km of additional baselines and tielines may be necessary for grid control where sampling is to extend more than 1 km from the existing 2000E baseline.

Fill-in soil sampling at 100m x 50m spacings should be completed around stations, or clusters of stations, having values above 150 ppm Cu and/or 20 ppm Mo on all parts of the property to define more closely the extent of anomalous areas. Approximately 130 samples are required to complete this work over the existing soil grid.

Pulps from all 1997 soil samples which were not analyzed for molybdenum should be resubmitted for Mo analysis in order to more completely define the nature of the main geochemical anomaly in the Avalanche Area, and to allow a better comparison to the geochemical signature of the South zone.

Detailed prospecting and mapping of veins and alteration zones in the South Area is required to augment the existing information from that part of the property. Rock samples collected from any altered or mineralized zones should be analyzed for gold (AA) plus 30 elements (ICP).

IP surveying should be continued southward on 100-meter spaced lines west of the 2000E baseline, and geophysical lines 4900N and 4700N should be extended eastward to at least 2700E. The results of further mapping and sampling would determine the full extent of geophysical work. At the present time, with partial information only, 5 line-km of additional surveying are proposed.

A further 150 m of excavator trenching is recommended for the "Discovery Showing" locality around 5378N/2023E, north and east of the existing trenches in the Avalanche Area. Additional trenching is also recommended for the area between 5000N and 5100N, extending approximately 150 m upslope from the existing trench CLT97-4 to the westernmost lobe of the >200 ppm Cu soil anomaly. Trenches should be cleaned to bedrock wherever feasible, mapped and chip sampled. Samples should be tested for gold and other elements in the same manner as prospecting samples. Trenching is probably not feasible south of line 4900N because of excessive depth of overburden and difficult terrain.

Diamond drilling is recommended for strong chargeability anomalies to the east and south of the mineralized surface exposures and the 1997 trenches in the Avalanche Area. Drill fences should extend from 4700N to 5300N. Approximately 15 holes at an average depth of 100 m would be a preliminary test for these targets. Further drilling would be contingent upon favorable results from this area and from trenching and geophysical programs.

Respectfully submitted

FAIRFIELD MINERALS LTD.



D.H. Ritcey, B.Sc., B.A., M.Sc.



E.A. Balon, P. Geo.

3. INTRODUCTION

3.1 Location and Physiography (Figures 1 and 2)

The Cabin Lake property is centered 170 kilometers west of Watson Lake in south-central Yukon Territory (Figure 1) at latitude 60°06'N and longitude 131°48'W on NTS map 105B/4. The mineral property consists of 122 contiguous mineral claims (CL 1 to 122) in the Watson Lake Mining District. The CL claims have no road access, and were serviced during the 1997 field season by helicopter, with temporary bases established along the Alaska Highway at Morley River, YT (25 km southwest of the property) and Swan Lake BC, (30 km southeast).

The CL 1 to 122 claims cover 2080 hectares north and east of Hazel Ridge down to the valley of Smart River at the southeastern property limit (Figure 2). Topography throughout the area is generally moderate to steep, with elevations ranging from 1000 to 1700 meters. Copper Creek drains much of the central and southern portion of the property, and flows easterly through a steep-walled valley. The northern and eastern CL claims drain to the north, via Antennae Lake and its outflow, Meadow Creek. Spruce, fir and other less common species form dense forests on lower slopes, but trees are interspersed with grassy subalpine meadows at higher elevations. In well-drained areas, particularly on south-facing slopes, trees commonly attain dimensions to 40 cm trunk diameter and 20 m height. Swamps with willow, dwarf birch, alder and stunted conifers are interspersed throughout the property. Alpine conditions prevail above 1400 m elevation. Bedrock exposure is generally sporadic at higher elevation, and notably poor in topographically lower areas where alluvium and glacial till are prevalent. Annual temperatures range from approximately -40°C to +30°C and precipitation is moderate. The CL claims are underlain by intermittent permafrost, particularly in areas of thick moss and dense forest cover. The area is basically free of snow from June through September.

3.2 Claim Data (Figure 2, Table 1)

The CL 1 to 122 claims were staked by contractors or Fairfield employees between March and September 1997, and are owned 100 percent by Fairfield Minerals Ltd. The current status of all claims is indicated in Table 1 and their locations are shown on Figure 2.

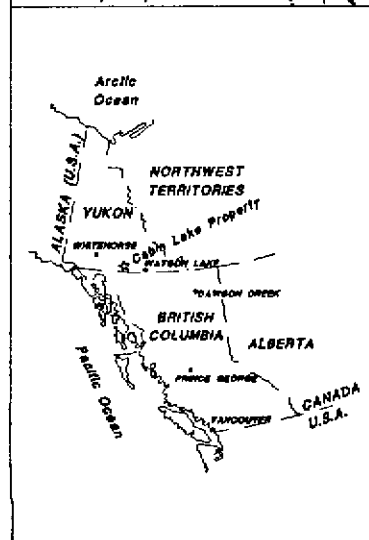
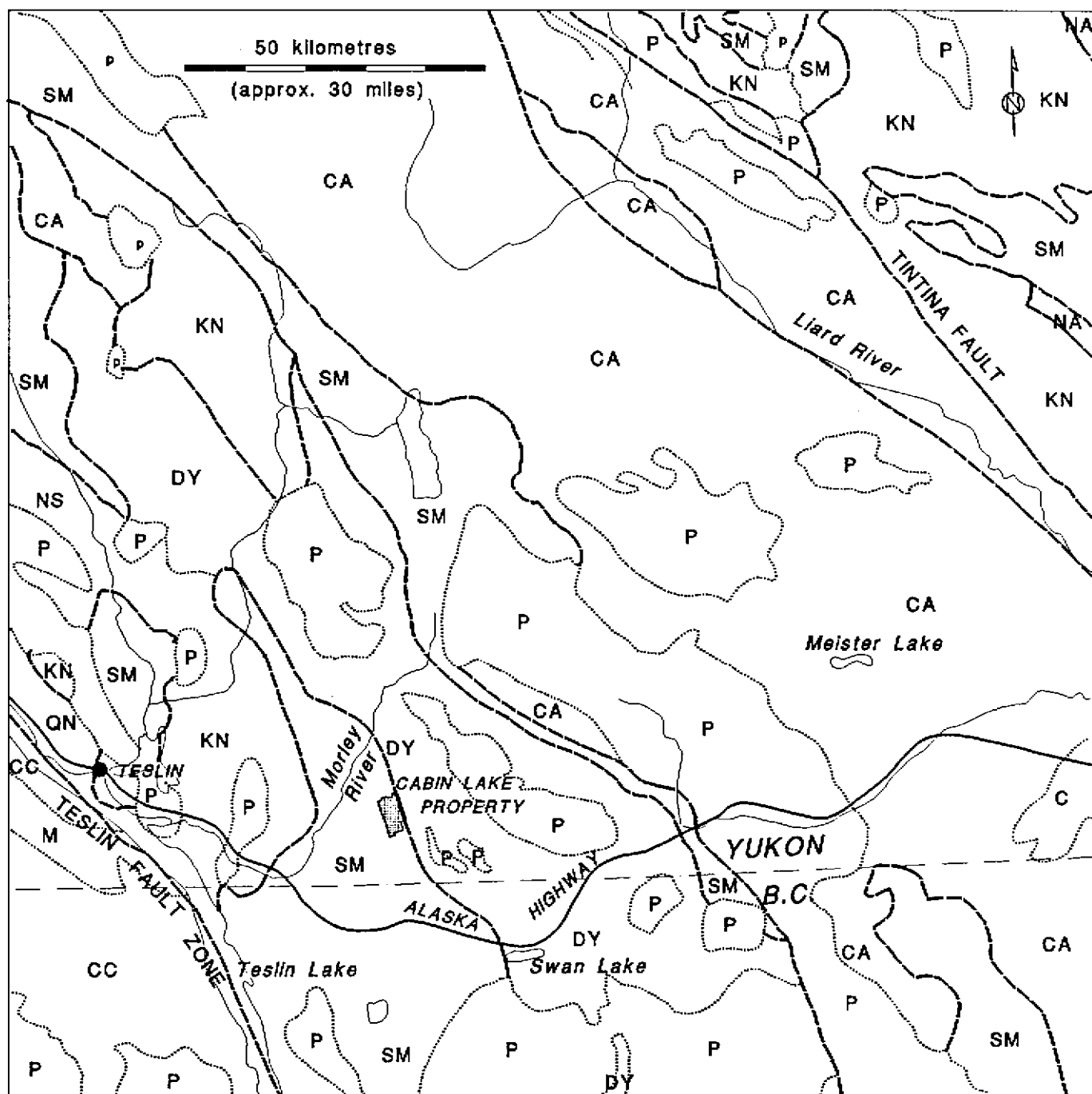
3.3 History

No publicly available documentation exists for any prior mineral exploration in the area covered by the CL claims.

Reconnaissance sampling undertaken in 1980 provided 37 samples of stream sediments from the CL claims area and adjacent drainages, and 1 sample each of rock and soil from limited follow-up work (Rowe, 1980). Several drainage areas with anomalous metal values were identified by the results of this regional program. Anomaly follow-up and prospecting during 1996 in the property area included the collection of 11 rock samples and 21 soil samples for geochemical analysis. Nineteen of these soil samples yielded copper analyses between 152 and 1114 ppm Cu, with some significant levels of Mo, Zn, Ag, As and Au. Consistent anomalous Cu values from the vicinity of at least three "kill zones", and the discovery of mineralized float and subcrop in several areas more than 500 meters apart with analyses up to 6987 ppm (0.7%) Cu, led to initial staking in March, April and May of 1997. Further claims were staked during the field season to extend the property over favorable lithologies and to cover gaps and fractions.

3.4 1997 Exploration Program

The 1997 program comprised 288 person-days of field work: 42 for cutting of baselines, 61 for soil sampling, 61 for geological mapping and prospecting including soil anomaly evaluation, 81 for trenching



- C** Tertiary and Quaternary
Volcanics and Sediments
- M** Mesozoic overlap assemblage
over Cache Creek Terrane
- P** Undivided Intrusive Rocks
mostly Jurassic and Cretaceous
- QN** Quesnelia Terrane
Mesozoic arc volcanics
- CC** Cache Creek Terrane
Mississippian-Triassic arc
- DY** Dorsey Terrane (Carboniferous)
Marine sediments and volcanics
- SM** Slide Mt. Terrane (Devonian-Triassic)
Marine sediments and volcanics
- KN** Nisutlin Subterrane
mostly Paleozoic assemblages
- CA** Cassiar Terrane
displaced continental margin
- NA** North American Craton
continental margin sediments

- Terrane-bounding Structure
or Major Fault
- other Geological Contact

FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B5	
SOUTHEASTERN YUKON TERRITORY	
Regional Geology and Property Location Map Scale 1 : 1,000,000	
Drawn by DHR March, 1998	Figure 1

TABLE 1 Claim Status

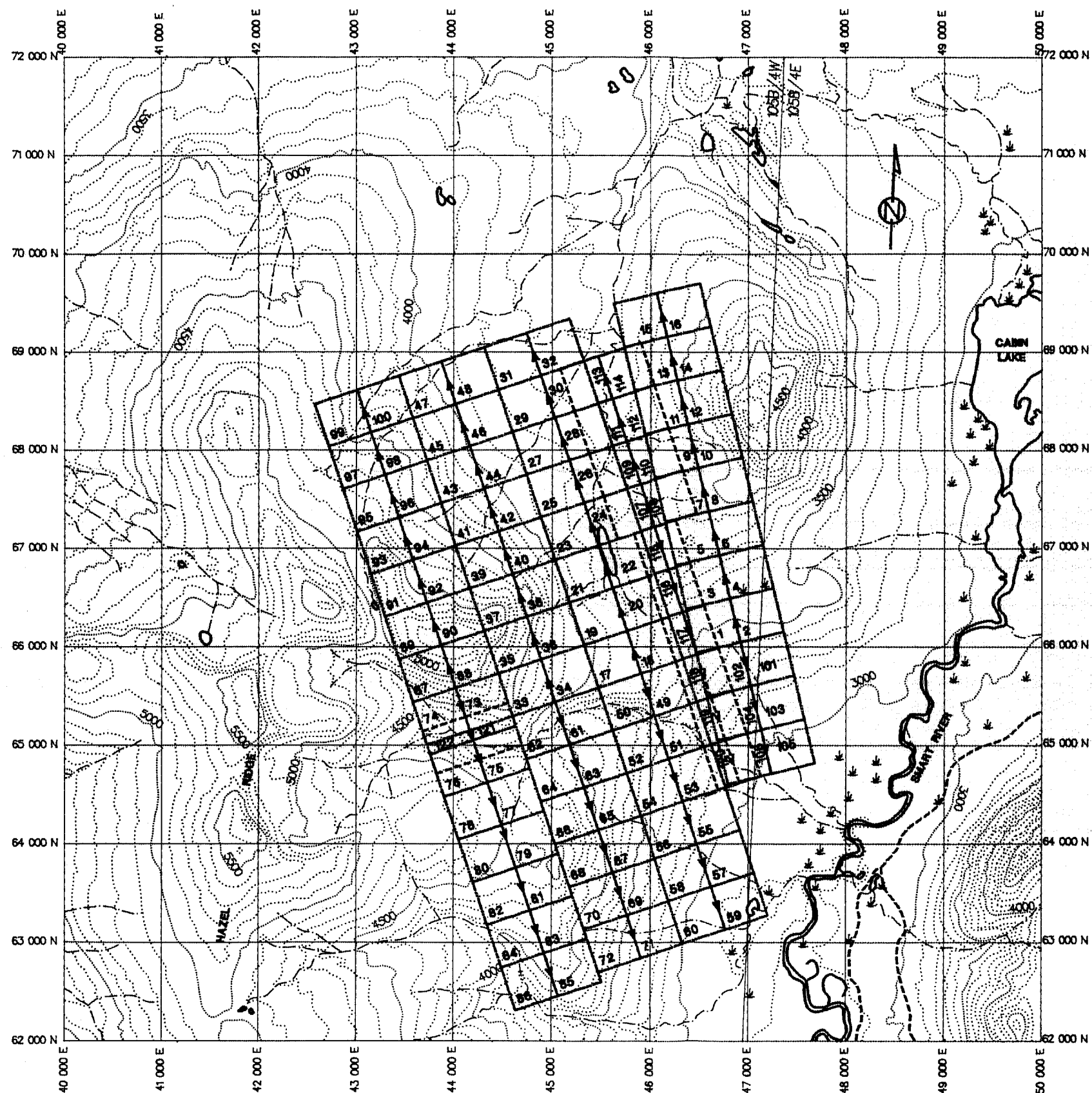
Claim	Record #	Expiry Date	NTS	Mining Division
CL1	YB89142	4/14/03	105B/4	Watson Lake
CL3	YB89144	4/14/03	105B/4	Watson Lake
CL5	YB89146	4/14/03	105B/4	Watson Lake
CL7	YB89148	4/14/03	105B/4	Watson Lake
CL9	YB89150	4/14/03	105B/4	Watson Lake
CL11	YB89152	4/14/03	105B/4	Watson Lake
CL13	YB89154	4/14/03	105B/4	Watson Lake
CL17	YB89158	4/14/03	105B/4	Watson Lake
CL18	YB89159	4/14/03	105B/4	Watson Lake
CL19	YB89160	4/14/03	105B/4	Watson Lake
CL20	YB89161	4/14/03	105B/4	Watson Lake
CL21	YB89162	4/14/03	105B/4	Watson Lake
CL22	YB89163	4/14/03	105B/4	Watson Lake
CL23	YB89164	4/14/03	105B/4	Watson Lake
CL24	YB89189	4/14/03	105B/4	Watson Lake
CL25	YB89165	4/14/03	105B/4	Watson Lake
CL26	YB89166	4/14/03	105B/4	Watson Lake
CL27	YB89167	4/14/03	105B/4	Watson Lake
CL28	YB89168	4/14/03	105B/4	Watson Lake
CL29	YB89169	4/14/03	105B/4	Watson Lake
CL30	YB89170	4/14/03	105B/4	Watson Lake
CL31	YB89171	4/14/03	105B/4	Watson Lake
CL32	YB89172	4/14/03	105B/4	Watson Lake
CL33	YB89173	4/14/03	105B/4	Watson Lake
CL34	YB89174	4/14/03	105B/4	Watson Lake
CL35	YB89175	4/14/03	105B/4	Watson Lake
CL36	YB89176	4/14/03	105B/4	Watson Lake
CL37	YB89177	4/14/03	105B/4	Watson Lake
CL38	YB89178	4/14/03	105B/4	Watson Lake
CL39	YB89179	4/14/03	105B/4	Watson Lake
CL40	YB89180	4/14/03	105B/4	Watson Lake
CL41	YB89181	4/14/03	105B/4	Watson Lake
CL42	YB89182	4/14/03	105B/4	Watson Lake
CL43	YB89183	4/14/03	105B/4	Watson Lake
CL44	YB89184	4/14/03	105B/4	Watson Lake
CL45	YB89185	4/14/03	105B/4	Watson Lake
CL49	YB89216	4/14/03	105B/4	Watson Lake
CL50	YB89217	4/14/03	105B/4	Watson Lake
CL51	YB89218	4/14/03	105B/4	Watson Lake
CL52	YB89219	4/14/03	105B/4	Watson Lake
CL53	YB89220	4/14/03	105B/4	Watson Lake
CL54	YB89221	4/14/03	105B/4	Watson Lake
CL55	YB89222	4/14/03	105B/4	Watson Lake
CL56	YB89223	4/14/03	105B/4	Watson Lake
CL57	YB89224	4/14/03	105B/4	Watson Lake
CL58	YB89225	4/14/03	105B/4	Watson Lake
CL59	YB89226	4/14/03	105B/4	Watson Lake
CL60	YB89227	4/14/03	105B/4	Watson Lake
CL61	YB89228	4/14/03	105B/4	Watson Lake

TABLE 1 (Continued)

Claim	Record #	Expiry Date	NTS	Mining Division
CL62	YB89229	4/14/03	105B/4	Watson Lake
CL63	YB89230	4/14/03	105B/4	Watson Lake
CL64	YB89231	4/14/03	105B/4	Watson Lake
CL65	YB89232	4/14/03	105B/4	Watson Lake
CL66	YB89233	4/14/03	105B/4	Watson Lake
CL67	YB89234	4/14/03	105B/4	Watson Lake
CL68	YB89235	4/14/03	105B/4	Watson Lake
CL69	YB89236	4/14/03	105B/4	Watson Lake
CL70	YB89237	4/14/03	105B/4	Watson Lake
CL71	YB89238	4/14/03	105B/4	Watson Lake
CL72	YB89239	4/14/03	105B/4	Watson Lake
CL73	YB89240	4/14/03	105B/4	Watson Lake
CL74	YB89241	4/14/03	105B/4	Watson Lake
CL75	YB89242	4/14/03	105B/4	Watson Lake
CL76	YB89243	4/14/03	105B/4	Watson Lake
CL77	YB89244	4/14/03	105B/4	Watson Lake
CL78	YB89245	4/14/03	105B/4	Watson Lake
CL79	YB89246	4/14/03	105B/4	Watson Lake
CL80	YB89247	4/14/03	105B/4	Watson Lake
CL81	YB89248	4/14/03	105B/4	Watson Lake
CL82	YB89249	4/14/03	105B/4	Watson Lake
CL83	YB89250	4/14/03	105B/4	Watson Lake
CL84	YB89251	4/14/03	105B/4	Watson Lake
CL85	YB89252	4/14/03	105B/4	Watson Lake
CL86	YB89253	4/14/03	105B/4	Watson Lake
CL87	YB89254	4/14/03	105B/4	Watson Lake
CL88	YB89255	4/14/03	105B/4	Watson Lake
CL89	YB89256	4/14/03	105B/4	Watson Lake
CL90	YB89257	4/14/03	105B/4	Watson Lake
CL91	YB89258	4/14/03	105B/4	Watson Lake
CL92	YB89259	4/14/03	105B/4	Watson Lake
CL93	YB89260	4/14/03	105B/4	Watson Lake
CL94	YB89261	4/14/03	105B/4	Watson Lake
CL95	YB89262	4/14/03	105B/4	Watson Lake
CL96	YB89263	4/14/03	105B/4	Watson Lake
CL97	YB89264	4/14/03	105B/4	Watson Lake
CL98	YB89265	4/14/03	105B/4	Watson Lake
CL99	YB89266	4/14/03	105B/4	Watson Lake
CL100	YB89267	4/14/03	105B/4	Watson Lake
CL101	YB89643	4/14/03	105B/4	Watson Lake
CL102	YB89644	4/14/03	105B/4	Watson Lake
CL103	YB89645	4/14/03	105B/4	Watson Lake
CL104	YB89646	4/14/03	105B/4	Watson Lake
CL105	YB89647	4/14/03	105B/4	Watson Lake
CL106	YB89648	4/14/03	105B/4	Watson Lake
CL107	YB89649	4/14/03	105B/4	Watson Lake
CL108	YB89650	4/14/03	105B/4	Watson Lake
CL109	YB89651	4/14/03	105B/4	Watson Lake
CL110	YB89652	4/14/03	105B/4	Watson Lake

TABLE 1 (Continued)

Claim	Record #	Expiry Date	NTS	Mining Division
CL111	YB89653	4/14/03	105B/4	Watson Lake
CL112	YB89654	4/14/03	105B/4	Watson Lake
CL113	YB89655	4/14/03	105B/4	Watson Lake
CL114	YB89656	4/14/03	105B/4	Watson Lake
CL115	YB89657	4/14/03	105B/4	Watson Lake
CL116	YB89658	4/14/03	105B/4	Watson Lake
CL117	YB89659	4/14/03	105B/4	Watson Lake
CL118	YB89660	4/14/03	105B/4	Watson Lake
CL119	YB89661	4/14/03	105B/4	Watson Lake
CL120	YB89662	4/14/03	105B/4	Watson Lake
CL121	YB89975	4/14/03	105B/4	Watson Lake
CL122	YB89976	4/14/03	105B/4	Watson Lake



LEGEND

-  Claim Location Line and Direction
 Other Claim Boundary
22 Claim Number
 (CL prefix omitted)
 Swamp
 Trail

NOTE: Map grid is UTM Zone 9
prefixes 66xxxxxN and 3xxxxxE omitted

contour interval 100 feet



FAIRFIELD MINERALS LTD.

1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B6

CABIN LAKE PROPERTY

CL 1 - 122 CLAIMS

Waiwan Lake Mining District
NTS 10N3/4, Yukon Territory

CLAIM LOCATION MAP

SCALE 1 : 50,000

Drawn by DHR
April, 1968

Figure 2

related activities including site layout and preparation, 23 for preparation and line cutting for an Induced Polarization geophysical survey, and 20 for mobilization-demobilization and camp construction.

Baselines and tielines totaling 13,375 slope-corrected meters were cut and surveyed by Brunton compass and steel chain to establish grid control over most of the property area (Figure 3). The primary baseline (2000 E) was cut at an azimuth 49.5 degrees west of magnetic north. Subsequent surveying with a hand held Global Positioning System (GPS) instrument demonstrated that the grid baseline has an azimuth of 335 degrees (True) and that the local magnetic declination is 24.5 degrees East.

Grid soil sampling during 1997 amounted to 1217 samples covering 55% of the property at 50 m station spacings on 200 m or 100 m spaced lines. These samples were all analyzed for Cu, Pb, Zn, Ag and one of As or Mo (all by acid leach ICP-emission spectroscopy).

Prospecting contributed a further 20 soil samples which were analyzed for Cu, Pb, Zn, Ag, and As; 15 of these samples were tested for 25 additional elements by ICP, and 19 were analyzed for Au by Atomic Absorption. Eight stream sediment samples were collected on or adjacent to the Cabin Lake property and were analyzed for gold by AA and 30 elements by ICP.

Mapping and prospecting involved the collection of 47 rock samples which were analyzed for gold plus 30 elements. The majority of these samples were taken in the main "Avalanche" Area of the property, where several areas of mineralized bedrock were mapped and sampled, and a series of pits 0.5 to 2.5 meters deep were dug by hand and machine.

Trenching by hand (17 linear meters) and by excavator (390 linear meters) provided extensive exposure of mineralization in bedrock. One hundred and eight (108) rock samples were collected from trenches, mostly by continuous chip sampling, with some grab samples where bedrock was not exposed or where trenches were flooded. All rocks were analyzed for gold plus 30 elements. Eight (8) profile and basal soils were collected systematically from hand trench CLT97-1 and similarly analyzed. Along intervals of excavator trench CLT97-5 where bedrock was not reached, 8 soil samples were taken from the greatest depth achieved. These were analyzed for Cu, Pb, Zn, Ag and Mo by ICP.

An Induced Polarization survey totaling 7050 linear meters was completed in two phases during September 1997. The Avalanche Area and its presumed down-dip extension to the east were covered by this survey. This geophysical work required 6500 meters of line cutting, and an additional 550 meters of survey was run on an existing grid tieline.

4. GEOLOGY

4.1 Regional Geology (Figure 1)

Regional geology of the Cabin Lake area is shown on the southwest part of the Wolf Lake map sheet (GSC Map 10-1960 by J.A. Roddick and I.H. Green, 1960), and also on recent large-scale compilations by Wheeler and McFeely, 1991 (GSC Map 1712A) and Wheeler *et al.*, 1991 (GSC Map 1713A), which are summarized and simplified in Figure 1.

The CL claims are underlain by a mixed package of Devonian and Mississippian metavolcanic and metasedimentary rocks (Unit 7 of Roddick and Greene, 1960), in fault contact with variably metamorphosed sedimentary units to the east (Unit 8 of Roddick and Greene, 1960). These two regional-scale map units form part of the pericratonic Yukon-Tanana Terrane, which records Late Devonian to Early Mississippian continental arc magmatism (e.g. Mortensen, 1992; Nelson, 1997; Mihalynuk *et al.*, 1998). The Yukon-Tanana Terrane is widespread in parts of Alaska, Yukon, and northern British Columbia, and incorporates units of the Slide Mountain, Kootenay (Nisutlin), and Dorsey Terranes, which are present in two separate areas of Figure 1: (I) northeast of the Tintina Fault, and (II) between the continental Cassiar Platform area and the Teslin Fault Zone.

Rocks identified on Figure 1 as part of the Slide Mountain Terrane (Wheeler and McFeely, 1991; Wheeler *et al.*, 1991) are primarily or characteristically of marine volcanic origin. Structurally adjoining terranes, the Nisutlin allochthon (Nisutlin subterrane of Kootenay Terrane) to the west, and the Dorsey Terrane to the east, contain considerable age-equivalent strata but record, at least in part, distinct geologic histories. Although they are characteristically oceanic in origin, both the Dorsey Terrane and the Slide Mountain Terrane may have formed in close proximity to ancestral North America (Monger *et al.*, 1991, and references therein), and the Nisutlin allochthon is included in the pericratonic Kootenay Terrane because of lithological and isotopic similarities (Monger *et al.*, 1991). The three major lithostratigraphic units of the Cabin Lake area (Nisutlin, Slide Mountain, and Dorsey) are therefore likely to be much more closely related than indicated by the sharp divisions on Figure 1. In the Teslin map area (NTS 105C), units shown on Figure 1 as Nisutlin and Slide Mountain terranes were grouped by Mulligan (1963) into a single map unit, the Big Salmon Complex. Recent syntheses (e.g. Mortensen, 1992; Nelson, 1997), consider the Nisutlin Subterrane, Dorsey Terrane, and much of the Slide Mountain Terrane to be part of (or correlative extensions of) the larger, heterogeneous Yukon-Tanana Terrane. Magmatic arc rocks of the Slide Mountain Terrane are correlated with or incorporated into the Yukon-Tanana Terrane (e.g. Mortensen, 1992, and references therein), whereas locally important ophiolitic units of Slide Mountain distinguish it from other Terranes of the region.

Metavolcanic and metasedimentary rocks of the Nisutlin Subterrane host important volcanogenic massive sulphide deposits (e.g. Kudzu Kayah, Wolverine) in the Finlayson Lake area, northeast of the Tintina Fault, about 160 km from Cabin Lake. Also in the Finlayson Lake district, massive sulphide mineralization has recently been discovered at the Ice property, within volcanic-sedimentary sequences of the Slide Mountain Terrane.

A mineral system of major importance in the Cabin Lake vicinity is the Logtung W-Mo porphyry deposit, related to a Cretaceous monzogranite stock 12 kilometers southeast of the CL claims. This large tonnage, low grade deposit (162 MT @ 0.13% WO₃, 0.052% MoS₂) is also spatially associated with Pb-Zn-Ag veins (Noble *et al.*, 1995). At Lang Creek, near Cassiar in northern BC, sulphide deposition in the Slide Mountain Terrane is manifested by Cu-Zn mineralization (volcanogenic ?) in basalt and cherty argillite, whereas the Bar prospect, located 45 km northwest of Cabin Lake is an example of sedimentary-exhalative Zn-Pb-Ag-Ba mineralization associated with chert, argillite, siltstone and chert pebble conglomerate in the Dorsey Terrane (Dawson *et al.*, 1991).

4.2 Property Geology and Mineralization (Figure 3)

Incomplete property-scale mapping has been conducted to date on the CL claims, and geological observations and interpretations remain subject to revision or augmentation as more detailed information becomes available from continuing exploration. The property is primarily underlain by siliceous metasedimentary and metavolcanic schists that have been tentatively divided into several distinct map units (Figure 3). The major stratiform units exposed in the central property area north of Copper Creek are schistose metaquartzite or psammite with micaceous partings (unit 1), overlain by variably deformed greenstone (unit 2, metamorphosed andesitic to dacitic flows and tuff).

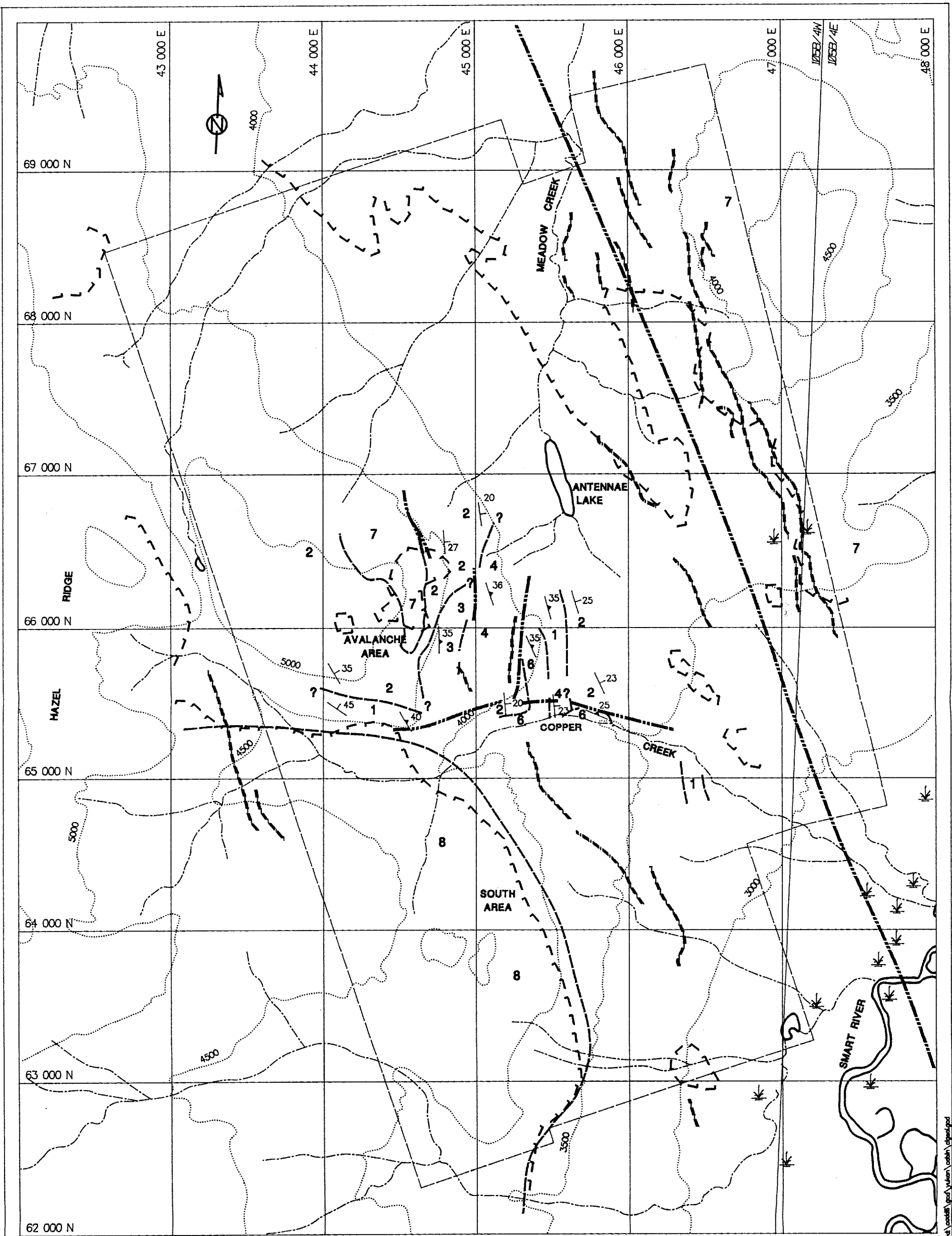
Purple to grey quartz-rich schists (unit 3) are characteristic of the Avalanche Area on the western and central claims. Unit 3, although relatively limited in its presently defined areal extent, is of great importance in that it consistently contains disseminated to semi-massive pyrite and chalcopyrite. Overlying and interlayered white to pale grey quartz-sericite schists of unit 4 are also variably mineralized. At several excavations in the Avalanche Area, intense clay alteration of unit 4 has been observed. The relationship of this alteration to sulphide mineralization is not presently known. No contacts have been observed between units 2 and unit 3, and the stratigraphic relationship between the two is unclear. Except for sulphide content, unit 1 and unit 3 are both fundamentally similar quartz + muscovite (+/- garnet) schists, and the two may be lateral facies equivalents. Since part of the same stratigraphic succession (unit 2 "andesite" over unit 1 "quartzite") of the Avalanche Area is displayed on the central property area north of tieline 4700 N, and because unit 1 has been identified south of Copper Creek (Figure 3), the eastern and central claims remain favorable for the discovery of further mineralization of the same type as exposed in the Avalanche zone(s).

Dark, fine-grained clastic metasediments (unit 5) are present along the eastern edge of the claims group, east of a major fault zone. Sheared and chloritized medium to coarse grained metadiorite (unit 6) is exposed at several localities north of Copper Creek.

Two distinct unfoliated intrusive units have been mapped on the CL claims. Adjacent to the Avalanche Area, and continuing to the northwest, is a body of fine to medium grained grey diorite / granodiorite (unit 7 on Figure 3). This unit was seen to be in intrusive contact with unit 2 greenstone at several localities, and chloritized diorite dykes were mapped in trenches, in contact with schists of unit 3. Rare disseminated pyrite and pyrrhotite were noted in variably altered diorite in some trenches. A medium to coarse grained pluton consisting of grey, magnetite-bearing biotite granodiorite (unit 8) with lesser pink-grey quartz monzonite occupies about 5 km² of the southern CL claims and extends off the property to the west. The eastern limit of this pluton is indicated on Figure 3 largely by its characteristic aeromagnetic signature (> 58000 nT total magnetic field), as this area is generally one of poor bedrock exposure except at higher elevations near the southwestern limits of the property. Here, granodiorite hosted pyrite-, chalcopyrite-, and/or molybdenite-bearing quartz veins and stringers occur in local ankeritic/potassic alteration zones. Grab samples from these veins have yielded weakly anomalous gold and silver values.

Elsewhere on the CL claims, quartz veins are locally common, and appear to be most prevalent near brittle fault zones in the central and northwestern part of the property. Overall sulphide contents and the intensity of alteration associated with these veins are notably low.

Near grid coordinates 66500N/44500E on Figure 3, a branching fault is marked by sharp rocky gullies, with undeformed diorite (unit 7) to the west, and gently dipping, weakly foliated andesite (unit 2) to the east. A north-trending linear zone centered at 66000N/45400E is prominent on aerial photographs and is interpreted as a fault within the sequence of units 1 to 4. Another north-south lineament, near 44500E in the northern part of the Avalanche Area, coincides in part with intense clay alteration of unit 4, and may represent a structural zone or simply the surface expression of a recessive unit.



LEGEND

- Generalized property boundary
- Geological Contact
- Fault, mapped or interpreted
- Bedding strike and dip
- Schistosity strike and dip
- Total magnetic field 58000 nT contour
ticks on high field side
- Airborne EM conductor

map grid is UTM zone 9
prefixes 66xxxxN and 3xxxxxE omitted
countour interval 500 feet

LITHOLOGIES:

- 8 Granodiorite: medium-grained with lesser quartz monzonite
- 7 Diorite: fine-grained undeformed
- 6 Diorite: coarse-grained, sheared and chloritized
- 5 Predominantly Clastic metasediments 'Dorsey Terrane'
- 4 Quartz-Sericite Schist, felsic metavolcanic
- 3 Siliceous schist, sulphide-bearing; probable metasediment
- 2 Greenstone: Metavolcanics and metasediments
- 1 Quartz-Muscovite Schist, 'Quartzite' and psammite

0 1000 m

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CABIN LAKE PROPERTY
CL 1 - 122 CLAIMS
Watson Lake Mining District
NTS 105B/4, Yukon Territory

COMPILATION MAP
AND PROPERTY GEOLOGY
SCALE 1 : 25,000

Drawn by DHR
April, 1998

Figure 3

5. SOIL AND ROCK GEOCHEMISTRY

5.1 Introduction

Geochemical work on the CL claims in 1997 consisted of grid soil sampling over 11 km² (1217 samples), collection of 20 reconnaissance soil samples, stream sediment sampling at 8 sites, and both reconnaissance and detailed rock sampling (47 samples).

5.2 Sampling/Analytical Procedures

Grid soil sample locations were established by compassing and chaining out from the established grid baselines indicated on Figure 4, and were marked with labeled weatherproof tags plus orange and blue flagging. Samples were collected from the "B" soil horizon with hand augurs, mattocks, or picks and placed in Kraft paper bags labeled with the appropriate grid coordinates. Reconnaissance and prospecting sample sites were tied into the grid system where available, or located on base maps or aerial photographs. At grid location 5240N/1940E adjacent to the main "Kill Zone", 4 soil profile samples were collected from deep, rusty silty material at intervals to 80 cm depth. Near lines 5000N and 5200N in the Avalanche Area, a series of 12 pits (labeled A to L) 60 to 100 cm deep were dug, and soil samples were taken from the "B" or "C" horizon, usually at the greatest depth reached. All soils were shipped to Acme Analytical Laboratories Ltd. in Vancouver where they were dried and sieved to provide a -80 mesh fraction. Grid samples were treated by acid digestion followed by ICP spectroscopic determinations for Cu, Pb, Zn and Ag, and one of either As or Mo. The other samples were tested for Cu, Pb, Zn, Ag, and As by ICP, and most were analyzed for Au by atomic absorption (AA) analysis following aqua regia digestion and MIBK extraction from a 10-gram subsample. Certain reconnaissance samples were analyzed for a full 30 element ICP suite (Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, and W).

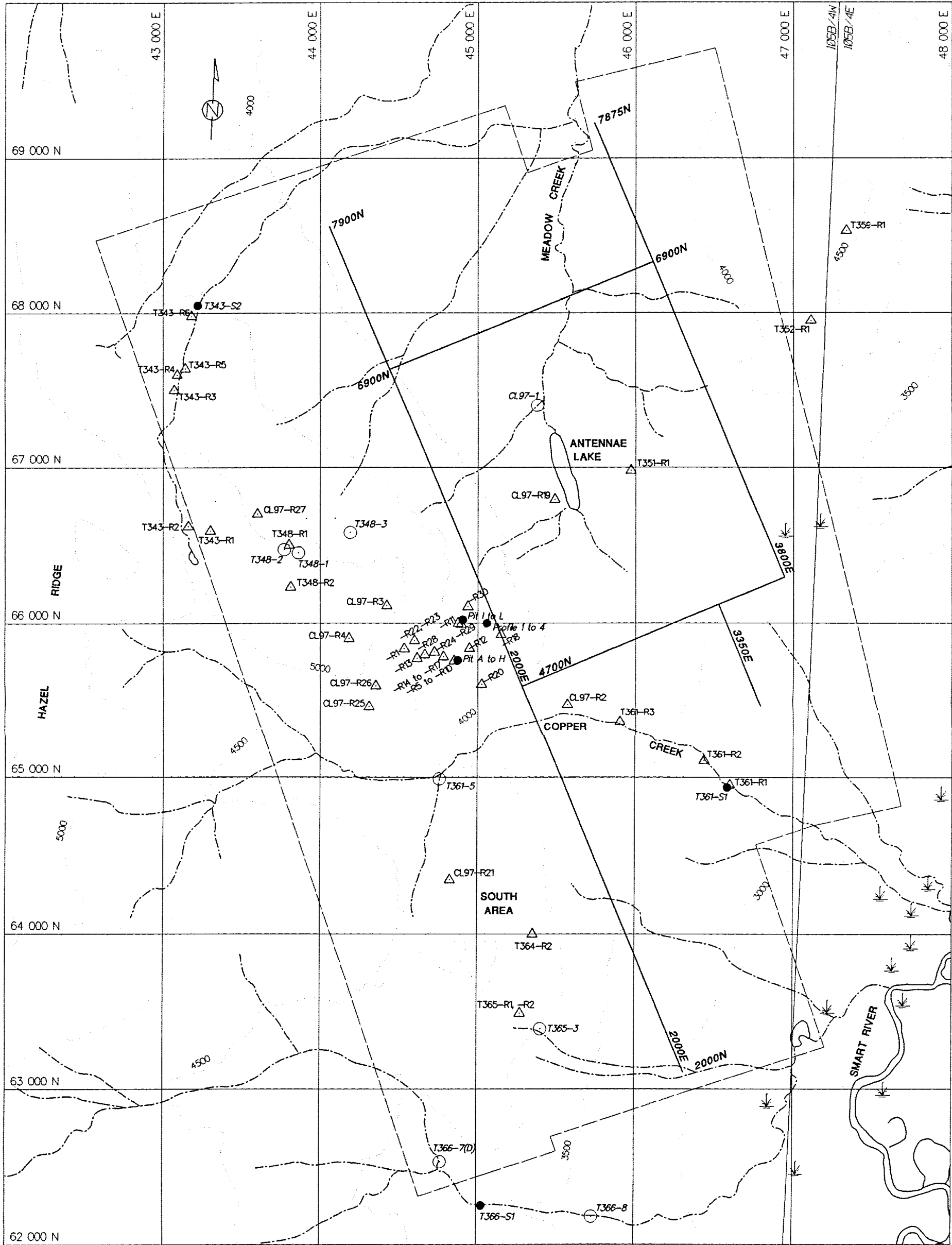
Stream sediments were sampled by hand from active, flowing channels. After drying and sieving, the -80 mesh fraction (also -40 +80 fraction for certain samples) was analyzed for gold using a 20-gram subsample, and for the 30 element ICP suite.

Rock sample sites were marked with numbered pink flagging and, wherever practical, grid-referenced to local soil stations. The rock samples had typical weights of 0.5 to 3 kilograms with chips ranging from 1 to 10 cm in diameter. They were shipped to Acme Analytical Laboratories Ltd. in Vancouver where they were crushed to -10 mesh size, and a 250 g split was pulverized to -100 mesh. All were analyzed for gold by the same method as that used for the soils, using 10 or 20 gram subsamples. Additionally, 30-element ICP determinations were made from 0.5-gram splits. Sample CL97-R23, which contained heavily disseminated to semi-massive sulphide mineralization, was assayed for Cu by ICP and for Au and Ag by fire assay.

5.3 Soil Results (Plates 1 -6)

Certificates of analysis for all 1997 soil samples are contained in Section 11, and the geochemical grid locations relative to property areas and claim boundaries are indicated on Figure 4.

The most important result of grid soil sampling in 1997 was the delineation of a strong copper geochemical anomaly, with values greater than 150 ppm Cu over an area of approximately 900 x 500 m (Plate 1), located in the west-central part of the CL property (Avalanche Area). Sampling south of Copper Creek (South Area) also returned loosely clustered anomalous values of Cu in soils.



LEGEND

- Generalized property boundary
- Grid baselines and tielines
- Reconnaissance Rock Sample Location
prefix CL97 omitted from some samples
- Reconnaissance Stream Sediment Sample Location
- Reconnaissance Soil Sample Location

map grid is UTM zone 9
prefixes 66xxxxxN and 6xxxxxE omitted
countour interval 500 feet



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CABIN LAKE PROPERTY CL 1 - 122 CLAIMS Watson Lake Mining District NTS 105B/4, Yukon Territory	
RECONNAISSANCE SAMPLE LOCATION MAP SCALE 1 : 25,000	
Drawn by DHR April, 1998	Figure 4

There is no consistent correlation between Cu and Pb, Zn, Ag, Mo, or As. Relatively few strongly anomalous values of Pb and Zn are distributed throughout both the Avalanche and South Areas (Plates 2 and 3). Anomalous silver values (≥ 0.9 ppm; Plate 4) are more widely scattered, but there is some degree of coincidence with anomalous copper. Most soil samples from the Avalanche Area were not analyzed for Mo, but in the South Area the majority of Mo values > 20 ppm (Plate 5) do coincide with anomalous Cu geochemistry.

The distribution patterns of arsenic in soils (Plate 6) are not indicators of copper mineralization in the Avalanche Area. The highest As values are from the northeastern portion of the soil grid, and appear to reflect a higher background level in the geologically distinct area along the eastern extremity of the CL claims.

Nineteen soil samples from prospecting pits or reconnaissance sampling throughout the property and 8 samples from a hand trench at the discovery showing in the northeast part of the Avalanche Area were analyzed for gold. Of these 27 samples, 11 (including 9 from the Avalanche Area) returned threshold or anomalous analyses of 20 to 160 ppb Au.

5.4 Prospecting Results

Prospecting was conducted throughout the property, but was focused primarily on the Avalanche Area, where strong Cu mineralization was identified in several bedrock occurrences. Forty-seven rock samples and 8 stream sediments were collected; their locations are shown on Figure 4. Sample locations, brief descriptions and selected analytical results are given in Table 2 and Table 3 for rocks and stream sediments respectively, and complete analyses for all 30 elements tested are included in Section 13.

Numerous samples from the Avalanche Area returned Cu values > 1000 ppm, without significant contents of either Pb or Zn. Sample T348-R1 was collected about 1 km northwest of the Avalanche Area, and returned an analysis of 1496 ppm Cu. Outcrop samples CL97-R23 and -R24 yielded the highest Cu values (8674 ppm and 12,112 ppm, respectively) of any rocks sampled during the 1997 programs, and also contained anomalous concentrations of Ag (4.5 ppm and 4.0 ppm, respectively). Modestly anomalous levels of Au > 100 ppb were recorded for samples CL97-R9, CL97-R14, CL97-R23 and CL97-R24.

Vein samples T365-R2 from the South Area of the property was significantly anomalous in Ag and Mo, whereas sample CL97-R21 from a boulder of epithermal-style vein material contained relatively high levels of As and Sb.

Rock samples T343-R1 and T343-R6, from local quartz-carbonate alteration zones near the northwest property corner, contain notable concentrations of gold (673 and 351 ppb Au, respectively).

TABLE 2

Rock Samples

CL Claims - 1997

Sample Number	Grid Location		Description	Rock Samples						Other anomalous elements
	North	East		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	
CL97-R1	5200	1400	Multiple pieces angular float; yellow, rusty-weathered pyritic quartz-rich schist	18	4	1	0	8	38	
CL97-R2	4480	2220	1 - 6 mm pyritic laminae in sericitized metavolcanic outcrop and talus blocks	65	4	65	0	2	22	454 ppm As, 44 ppm Sb
CL97-R3	5500	1400	Rusty hornfels outcrop with quartz veinlets and disseminated pyrite	222	4	51	0	2	4	
CL97-R4	5400	1100	Selected grabs from brown-weathering greenstone; disseminated pyrite	446	5	15	0	34	8	
CL97-R5	4995	1685	Angular float siliceous schist with abund. pyrite & trace chalcopyrite	806	4	123	0.3	6	40	
CL97-R6	5004	1683	Angular float siliceous schist with pyrite & minor chalcopyrite	3398	0	53	0.9	5	83	
CL97-R7	5012	1669	Angular float siliceous schist with pyrite & minor chalcopyrite	831	5	24	0.4	12	48	
CL97-R8	5015	1661	Pyritic siliceous schist float	907	0	26	0.3	5	39	
CL97-R9	5017	1651	30 cm float blocks; widespread malachite & trace chalcopyrite	1131	0	39	0.5	10	100	

TABLE 2 (CONTINUED)

Sample Number	Grid Location		Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	Other anomalous elements
	North	East								
CL97-R10	5027	1646	Angular float siliceous schist with abund. pyrite & trace chalcopyrite	1479	0	77	0.6	7	43	
CL97-R11	5227	1771	Highly siliceous weakly schistose blocks; 2 - 5% pyrite + chalcopyrite	4100	11	82	1.1	23	66	
CL97-R12	5050	1780	Pyritic siliceous schist outcrop; rare chalcopyrite & possible trace sphalerite	201	11	39	0	0	8	
CL97-R13	5120	1450	Pyritic quartz-sericite schist float; locally >10% pyrite rare chalcopyrite	437	6	38	0.8	5	36	
CL97-R14	5060	1625	Boulders & subcrop blocky siliceous schist; 1 to 5% chalcopyrite	4594	0	101	1.2	3	111	
CL97-R15	5062	1614	grey-purple schist bedrock; 5-10 mm semi-massive pyrite bands +/- chalcopyrite	1821	4	157	0.9	13	62	
CL97-R16	5067	1609	Siliceous purple-grey schist bedrock with variably disseminated pyrite	695	6	69	1	12	65	
CL97-R17	5069	1605	Siliceous purple-grey schist bedrock with variably disseminated pyrite	1532	0	57	1	14	45	
CL97-R18	5053	2000	pale grey siliceous schist float with disseminated pyrite and chalcopyrite	1449	5	57	0.6	14	69	

TABLE 2 (CONTINUED)

Sample Number	Grid Location North East		Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	Other anomalous elements
CL97-R19	5610	2660	Angular boulder dark siliceous schist with several percent pyrite	202	3	45	0	4	1	
CL97-R20	4810	1765	Angular float slabs quartz-rich schist with heavily disseminated pyrite	239	0	35	0.4	1	7	
CL97-R21	3715	1100	Subangular boulder quartz vein-breccia with limonitic cavities; no sulphides	9	7	52	0	1	2	141 ppm As, 45 ppm Sb
CL97-R22	5150	1450	purple to grey schist outcrop; variably disseminated pyrite and chalcopyrite	735	17	66	0.9	71	47	
CL97-R23	5146	1450	grey blocky schist outcrop; fractures heavily lined with pyrite and chalcopyrite	8674	5	81	4.5	32	-	0.15 oz/t Ag, 0.005 oz/t Au, by Fire Assay
CL97-R24	5070	1605	Purple blocky schist outcrop with disseminated pyrite and up to 5% chalcopyrite	12112	10	188	4	90	149	
CL97-R25	4950	1050	Angular metasedimentary talus blocks with iron oxide stain and rare pyrite	97	4	14	0	5	7	
CL97-R26	5060	1140	Talus boulder carbonate-altered diorite with rare pyrite	33	8	32	0	4	1	
CL97-R27	6360	870	Selected chips from 2-10 mm pyritic laminae in hornfelsed andesite talus blocks	237	13	44	0.4	4	31	

TABLE 2 (CONTINUED)

Sample Number	Grid Location North East		Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	Other anomalous elements
CL97-R28	5130	1500	rounded ferricrete cobble in small poison patch	2203	9	44	0	8	3	24.01 % Fe
CL97-R29	5310	1850	Sericitic chips and rusty yellow clay detritus from 2.5 m deep pit	95	9	1	0	10	3	
CL97-R30	5297	1873	Cobble from 3 m depth in trench 5; pyrite & pyrrhotite, rare sphalerite & chalcopyrite	258	9	31	0	1	10	
T343-R1			Selected quartz vein chips from talus fragments up to 11 x 15 x 6 cm thick	40	0	4	0	3	673	
T343-R2			angular boulder quartz-carbonate altered metavolcanic	9	0	34	0	1	5	1676 ppm Ni, 117 ppm As
T343-R3			angular quartz vein block 15 cm thick x 30 cm; limonitic patches to 15 mm	32	0	2	0	2	2	
T343-R4			angular quartz vein float 10 cm thick x 18 x 25 cm; abundant specular hematite	12	0	4	0	1	12	4351 ppm Mn
T343-R5			continuous chips across 15 cm limonitic quartz vein in place in rusty schist	6	0	11	0	1	2	
T343-R6			subangular quartz vein float 7 x 11 x 15 cm	61	288	24	1	53	351	

TABLE 2 (CONTINUED)

Sample Number	Grid Location North East	Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	Other anomalous elements
T348-R1		talus fragments metavolcanic; malachite and chalcopryrite on schistosity planes	1496	0	38	0.7	1	16	
T348-R2		rusty, vuggy quartz vein talus 7 x 10 x 15 cm; Fe-oxides in cavities; no fresh sulphides	22	7	2	0	2	9	
T351-R1		selected bedrock chips over 2 m of green schist with magnetite and banded epidote	102	3	92	0	0	6	
T352-R1		volcanic / tuffaceous talus with disseminated pyrite and pyrrhotite, quartz veinlets	85	0	17	0	6	3	
T359-R1		angular quartz vein talus with limonitic cavities and fractures; 10 cm thick	29	0	5	0	1	2	
T361-R1		Piedmontite schist outcrop; selected grabs over several metres thickness	18	3	25	0	0	20	1394 ppm Ba
T361-R2		Weakly pyritic quartz-sericite schist outcrop; selected chips across 0.5 m	31	16	21	0	18	8	
T361-R3		Glassy quartz vein fragments to several cm; some Fe and Mn oxides	28	0	26	0	0	2	
T364-R2		Angular quartz vein pieces to 3 cm thick; drusy cavities & limonitic fractures, no sulphides	8	35	9	0.4	8	5	67 ppm W

TABLE 2 (CONTINUED)

Sample Number	Grid Location		Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Mo ppm	Au ppb	Other anomalous elements
	North	East								
T365-R1			Quartz vein rubble fragments up to 8 cm thick; sparse blebs molybdenite, also pyrite	77	23	2	0.6	96	30	
T365-R2			grabs from in-situ quartz veins 2 - 8 cm thick; variable pyrite contents	428	3	6	1.7	260	75	

TABLE 3 **Stream Sediments** **CL Claims - 1997**
 (Locations on Figure 4)

Sample Number	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppb
CL97-1	36	0	40	0	7
T361-5	28	4	32	0	7
T348-1	38	12	77	0.4	2
T348-2	321	11	59	1.5	18
T348-3	44	5	35	0.6	1

6. AIRBORNE GEOPHYSICAL SURVEYS

6.1 Introduction

An airborne geophysical survey employing a five frequency electromagnetic system and a high sensitivity cesium vapor magnetometer was carried out over the entire property by Aerodat Inc. in June 1997. This survey constituted the first work done after claim acquisition, and was initiated primarily to rapidly provide geological information over a large area. All parts of the Aerodat report which are relevant to the CL claims are included in this report as Appendix A.

6.2 Interpretive Results and Anomaly Evaluation

The largest areomagnetic feature on the Cabin Lake property is the relatively high field area underlain by granodiorite in the southwestern quadrant, which is in sharp contrast to an elongate zone of low total magnetic field that extends from the southern boundary of the claim group, along the eastern flank of the pluton, and northward into the Avalanche Area. Dioritic rocks to the northwest of the Avalanche Area may be indicated, at least in part, by a relatively weak magnetic high. The northern part of the large low-magnetic swath may reflect the presence of metamorphosed felsic volcanic rocks (quartz-sericite schist) in the Avalanche Area (and extending to the east), whereas the more intense low extending south of Copper Creek may represent either the further continuation of felsic units or a zone of hydrothermal alteration along the intrusive contact. In the core of this magnetic low, a single high-amplitude EM conductor approximately 300 meters long is centered at grid location 4100N/1900E. The only other high amplitude conductors are a series of discontinuous linear zones that correspond to the fault contact between Dorsey and Slide Mountain terranes near the eastern property boundary. Two anomalies west of this parallel set (Aerodat anomalies 10 and 11) may be stratabound conductors rather than fault structures. A short, weak conductor (Aerodat anomaly 12) at grid location 4850N/1700E in the southern end of the Avalanche Area is notable in that it coincides with a small elongate magnetic high extending approximately from 4700N/1675E to 5000N/1700E, in the southern part of the main Cu soil anomaly.

7. INDUCED POLARIZATION SURVEY

7.1 Introduction

An induced polarization geophysical survey employing a 3 kw transmitter and 6 channel receiver was carried out in two phases, over 7050 meters of cut line, by Amerok Geosciences Ltd. in September 1997. This survey was undertaken primarily to determine the subsurface extent of mineralization discovered in the Avalanche Area. Survey lines were cut and surveyed at 100 meter spacings in the main mineralized zone, and were established at 200 meter spacings to the north, east and south. All parts of the Aerodat report which are relevant to the CL claims are included in this report as Appendix B.

7.2 Interpretative Results and Anomaly Evaluation

As further explained in Appendix B, technical problems were encountered with field equipment along portions of survey lines 4900N, 5000N, 5200N and 5300N. Calculated values of apparent resistivity, and to a lesser degree, of chargeability, may be in error for some of these areas. The interpretations are therefore subject to confirmation by re-surveying.

Significant chargeability anomalies were recorded on all survey lines in the Avalanche Area, from 4700N to 5300N. In general, the higher chargeability zones correspond to elevated values of apparent resistivity, although the anomalies rarely coincide exactly. Irregular zones of chargeability >25 milliseconds are present at depth from approximately 1650E to 1850E on pseudosections. Within these broad anomalous areas, measurements >40 milliseconds were recorded on sections 4700N, 4900N, 5000N and 5300N. The strongest near-surface IP responses on lines 4700N and 4900N correspond roughly to the position of airborne magnetic-EM anomaly number 12. Some very high chargeability values were also obtained in a completely separate area near the eastern end of line 4900N, between 2050E and 2250E.

8. TRENCHING

8.1 Introduction

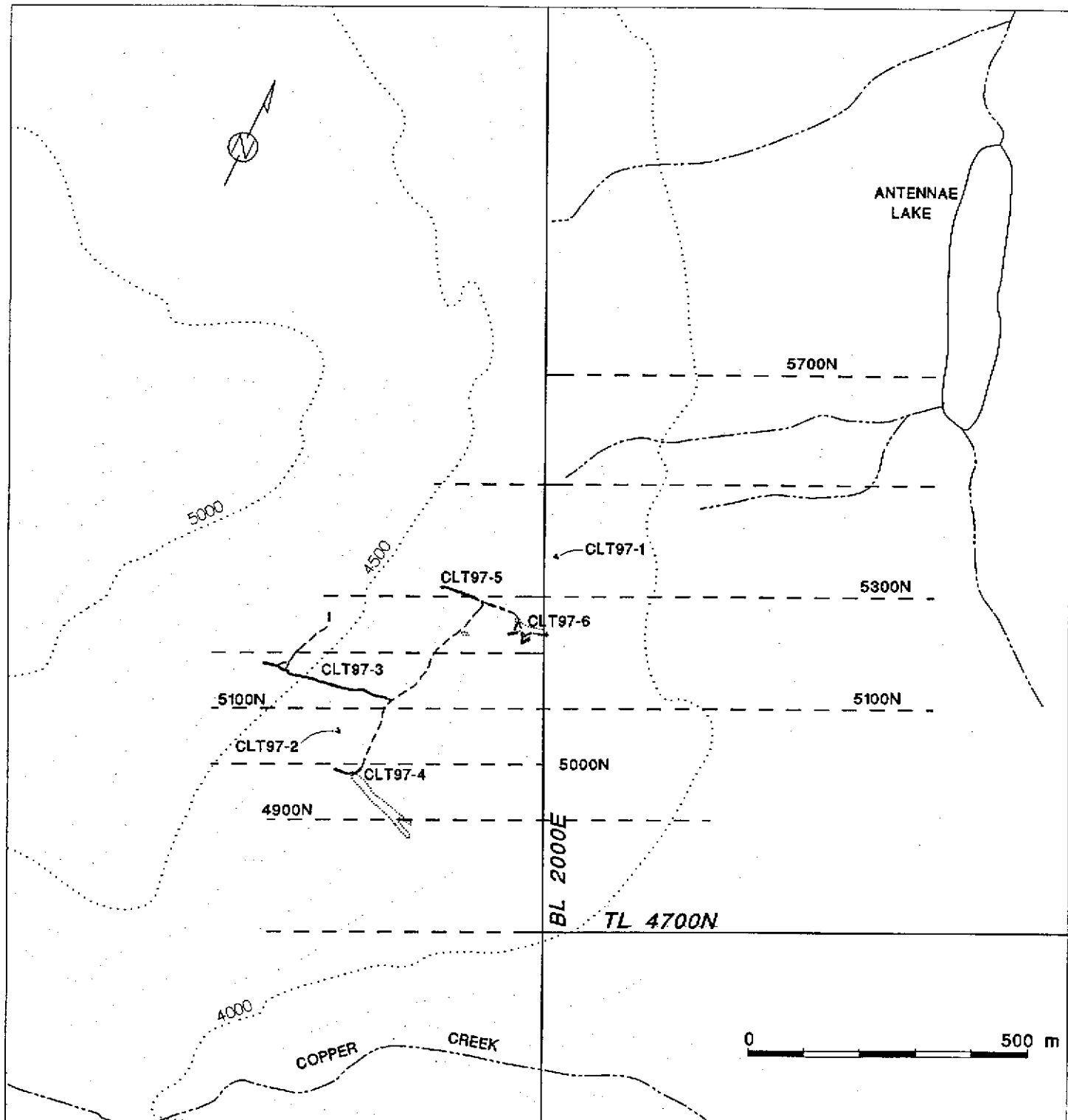
Trenching was undertaken in the Avalanche Area on the CL 33, 35 and 36 claims to test the source of copper soil geochemical anomalies and also the extent of bedrock mineralization located by prospecting. Six trenches totaling 407 meters in length were excavated by hand or machine at mineral showings, near the upslope limit of the Cu soil anomaly, and upslope from the kill zones identified and prospected in 1996. Access to the trenches required construction of 625 m of rough trails. Trench locations are indicated on Figure 5. All six trenches encountered of pyrite and chalcopyrite mineralization which was mapped and systematically sampled.

8.2 Trenching Operations

Two trenches totaling 17 meters in length (CLT97-1 and CLT97-2) were dug by hand at localities of subcropping mineralization located by prospecting. After grid soil sampling was largely complete, four larger trenches totaling 390 meters in length were excavated using a Kubota KH41 track mounted excavator operated by Ampex Mining of Whitehorse, YT. Trench depths varied from 0.6 to 2.5 meters, averaging about 1.5 meters. Trench statistics are summarized in Table 4.

After cleaning with hand shovels and brooms, trenches were surveyed using a Brunton compass and a 50-meter steel chain, and were tied into cut grid lines. Bedrock geology in the trenches was mapped at 1:50 or 1:100 scale (Figures 6 & 7; Plates 1, 2, 3 & 4) and 99 continuous (or semi-continuous in areas of subcrop) chip or panel samples plus 9 grab samples were collected from zones of mineralization and alteration. Rock chip samples were collected by hand with hammers and chisels, and weighed 3 to 11 kilograms. All rock samples were processed as described in Section 5.2, and were analyzed for a 30 element suite by ICP, and for gold by AA from a 20 gram split. Sample locations are included on the trench plan maps (Figures 6 & 7; Plates 1, 2, 3 & 4), and complete analyses are given in Section 13.

In hand trench CLT97 -1, soil profile samples were collected below the normal B-horizon sampling depth and basal samples were taken immediately above the bedrock surface at 2 meter spacings. Over a long portion of excavator trench CLT97-5 where permafrost and excessive overburden depth prevented trenching to bedrock, soil samples were taken at irregular intervals from the deepest level reached. All trench soil samples were processed as described in Section 5.2. Soil samples from CLT97-1 were analyzed for 30 elements by ICP plus Au, while those from CLT97-5 were analyzed only for Cu, Pb, Zn, Ag and Mo.



LEGEND

- Grid baselines and tielines
- Geophysical cut lines
- Trench Outline
- Access Tracks
- 'Kill Zones'

contour interval 100 feet

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CABIN LAKE PROPERTY CENTRAL GRID (AVALANCHE) AREA

Watson Lake Mining District
NTS 105B/4, Yukon Territory

TRENCH AND ACCESS ROUTE LOCATION MAP

SCALE 1 : 10,000

Drawn by DHR

January, 1998

Figure 5

Table 4:**TRENCH SUMMARY**

Trench Number	Excavated length (m)	Width (m)		Average Depth (m)	Estimated Volume (m ³)	Number of Samples
		Top	Bottom			
CLT97-1	8.6	0.7	0.35	0.6	2.7	6 rock chip samples; 4 profile soil, 4 basal soil.
CLT97-2	8.2	0.7	0.35	0.7	3.0	5 rock chip samples.
CLT97-3	212	1.5	0.5	1.5	318	62 rock chip samples; 3 rock grab samples.
CLT97-4	45	1.5	0.5	1.4	63	10 rock chip samples.
CLT97-5	100	1.5	0.5	1.5	150	16 rock chip samples, 8 soil samples.
CLT97-6	33	1.2	0.5	2.0	56	6 rock grab samples.

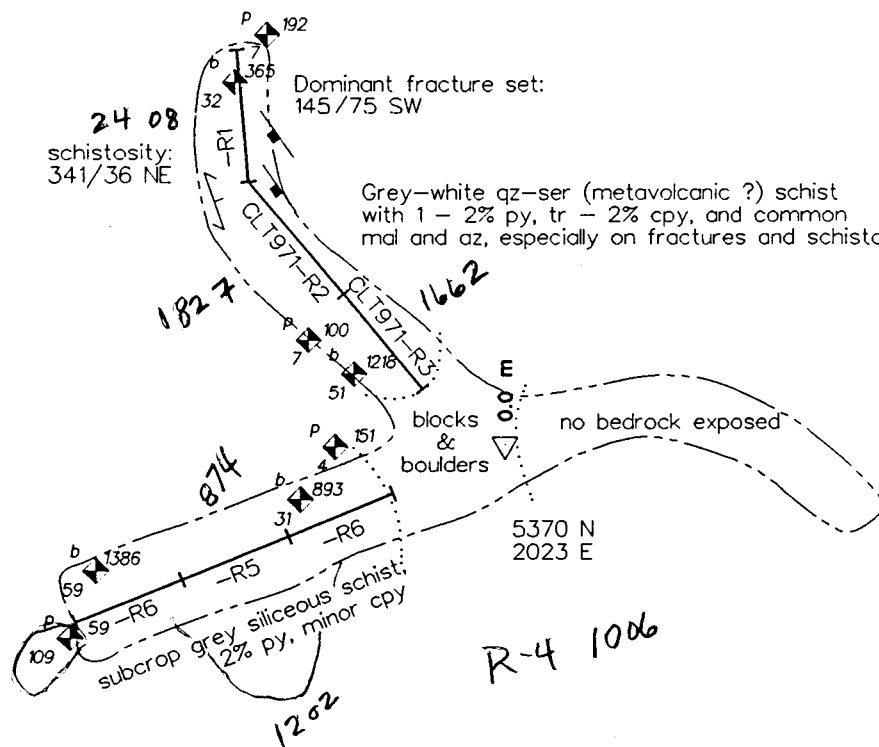
8.3 Trench Results

Quartz-rich schists were the predominant rock types exposed throughout all the trenches. Diorite dykes were common but volumetrically much less important than schists in trenches CLT97-3 and -4, and minor andesitic (or fine-grained intrusive) units were also encountered. Several quartz veins 1 to 14 cm wide, were exposed. Forty-two rock samples returned significant copper results > 1000 ppm (0.1 %), and several sample strings give significant results over lengths of 9.9 to 24.1 meters. Lengths of sample intervals and Cu values of the most significant trench rock samples are included on Plates 7-9. No strongly anomalous Pb or Zn values were returned from any trench rock samples. Several weakly anomalous Au and Ag values were returned, and visual inspection of the data set indicates positive correlations between Cu and Au, and between Cu and Ag.

White to light grey quartz-sericite schist with abundant malachite and azurite is exposed in the northern leg of **Trench CLT97-1** (Figure 6). Pyrite and chalcopyrite are present as disseminations and in wavy discontinuous quartz veinlets subparallel to the foliation. Samples of mineralized quartz-sericite schist returned values up to 2408 ppm Cu. Basal soil samples were all weakly anomalous in gold (32 - 59 ppb Au), whereas only the westernmost profile sample returned a significant value of 109 ppb Au. Bedrock sources for these elevated gold values are not apparent, as Au analyses for trench rock samples are very low.

The southern segment of **Trench CLT97-2** (Figure 7) is underlain by blocky, pyrite- and chalcopyrite-bearing purple to grey siliceous schist. Somewhat lower sulphide contents were noted in the northern part, where more sericitic pale grey to white schist was exposed. Significant copper analyses were returned from both areas of the trench.

Variably mineralized schists were encountered over much of the length of **Trench CLT97-3** (Plate 7), particularly the portion from 0 to 140 m. Diorite dykes or short andesitic intervals were found to



LEGEND

- Trench outline
- Trench survey point
(with coordinates where surveyed)
- Lithological Contact
- Limit of exposure
- Fault, Shear
- Joint orientation (inclined, vertical)
- Schistosity orientation
- Quartz Vein
- Channel (chip) sample
CLT97-1- prefix omitted from some sample numbers
- Trench soil sample location, results (ppm Cu, ppb Au)
(b denotes basal soil,
p indicates profile sample over top 40 cm)

List of Abbreviations:

az	azurite
chl	chlorite
cpy	chalcopyrite
mal	malachite
mo	molybdenite
py	pyrite
qz	quartz
ser	sericite
sph	sphalerite



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CABIN LAKE PROPERTY

Watson Lake MD., Yukon Territory, N.T.S. 105B

TRENCH PLAN

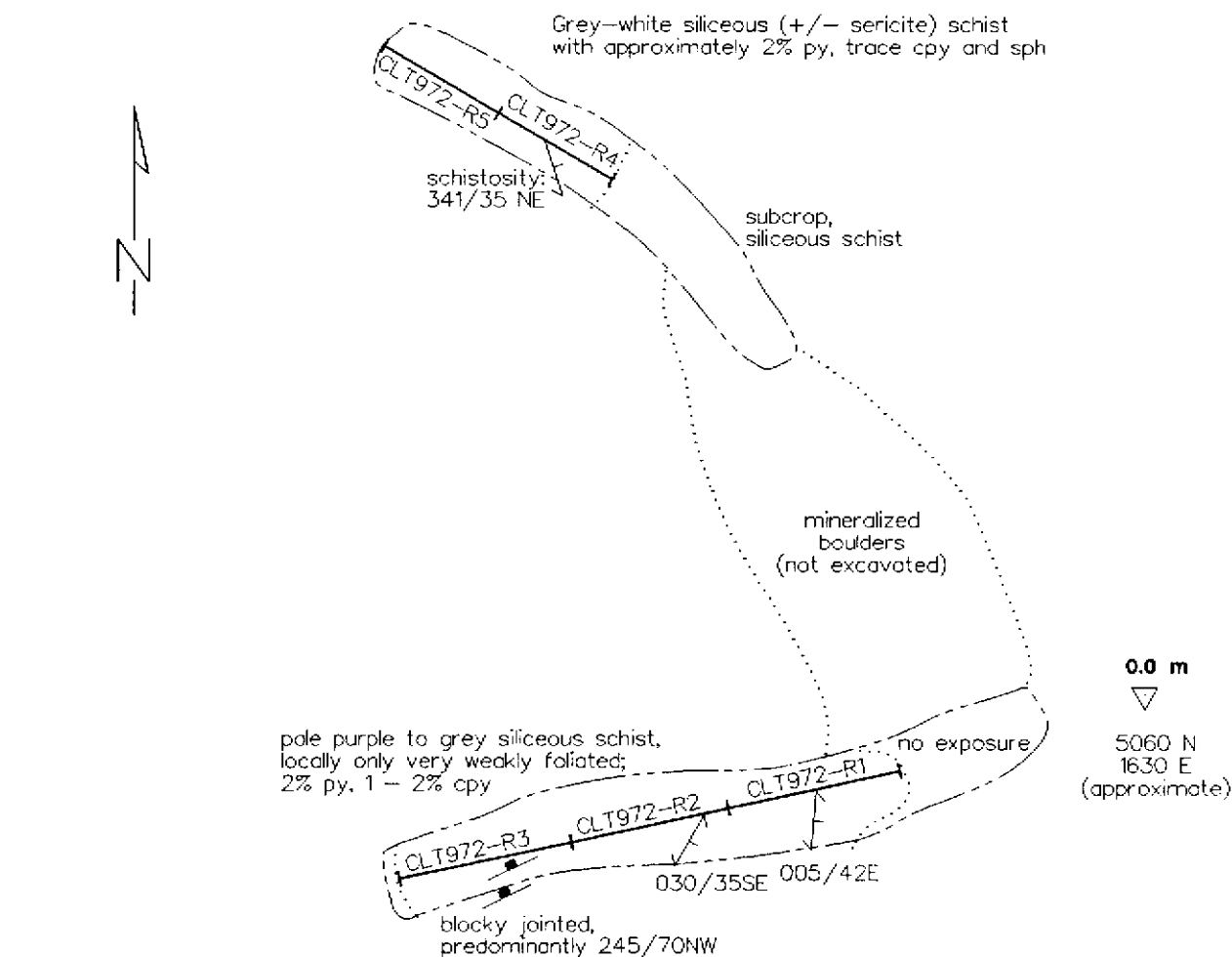
CLT97-1

SCALE 1 : 50

Drawn by DHR

December, 1997

Figure 6



LEGEND

- Trench outline
- Trench survey point (with coordinates where surveyed)
- Lithological Contact
- Limit of exposure
- Fault, Shear
- Joint orientation (inclined, vertical)
- Schistosity orientation
- Quartz Vein
- Channel (chip) sample
- CLT971- prefix omitted from some sample numbers

List of Abbreviations:

az	azurite
chl	chlorite
cpy	chalcopyrite
mal	malachite
mo	molybdenite
py	pyrite
qz	quartz
ser	sericite
sph	sphalerite



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1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B6

CABIN LAKE PROPERTY

Watson Lake MD, Yukon Territory, N.T.S. 105B

TRENCH PLAN

CLT97-2

SCALE 1 : 50

Drawn by DHR

December, 1997

Figure 7

interrupt the schist units. Several poorly exposed intervals between 20 m and 135 m consist of schist subcrop with yellow clay that represents either alteration or surficial weathering. The best analytical results over a significant length were 3481 ppm Cu averaged over 18.4 m, from 99 m to 117.4 m. Deep, wet, or frozen till prevented significant exposure of bedrock from approximately 140 m to 190 m. From 225 m to 250 m, the predominant bedrock lithology is a slightly to moderately pyritic quartz-sericite schist with variable degrees of pervasive white to orange clay alteration.

Bedrock exposure in the western segment of **Trench CLT97-4** (Plate 8) was generally poor. Pyritic siliceous schists yielded an average of 1262 ppm Cu over 9.9 meters. Pyrite-poor quartz-sericitic schists in the northeastern trench segment were interrupted by several intervals of altered diorite.

In the western half of **Trench CLT97-5** (Plate 9), blocky to platy, pale purple to buff-grey weathering siliceous schists were well exposed from 11 m to approximately 61 m. Gradational or indistinct layers with variable sericite and sulphide contents were noted on a scale of centimeters to decimeters in thickness. The best copper analyses from this area gave an average of 2158 ppm Cu over a 24.1 m interval, from 13.8 m to 37.9 m. Permafrost or deep till were encountered in intermittent excavations from 71 m to 143 m. All 8 soil and till samples collected from 1.5 to 3.0 m depth in this portion of the trench were found to contain greater than 100 ppm Cu.

Multiple legs of **Trench CLT97-6** (Plate 10) were excavated in the main kill zone straddling the 2000E baseline. Due to flooding and excessive depth of overburden, samples consisted of material brought up by the excavator from the greatest depths achieved (locally approaching 3 m). Clay-rich sericitic schist, containing considerably more pyrite than that mapped in the easternmost part of trench CLT97-3, was excavated and sampled at three excavated sites. The best analytical result was 1116 ppm Cu from rusty schist chips in the westernmost trench segment.

9. PERSONNEL & CONTRACTORS

Personnel:	Fieldwork Period - 1997	
E.A. Balon, Prospector North Vancouver, BC	4 July - 2 October	23 days prospecting, claim maintenance, supervision, mobilization and demobilization
W. Jakubowski, Geologist Vancouver, BC maintenance,	7 July - 25 September	25 days mapping and prospecting, claim mobilization and demobilization
D. Ritcey, Geologist Vancouver, BC	4 July - 25 September	61 days mapping, prospecting, trenching and supervising contractors
Contractors:	Fieldwork Period - 1997	
Aerodat Inc. Mississauga, ON	30 June	Airborne Geophysical Surveys
Amerok Geosciences Ltd. Whitehorse YT	2 September - 25 September	Induced Polarization Survey
Ampex Mining Whitehorse YT	3 September - 25 September	21 days (122 machine-hours) trench excavation and access track building
Bear Mountain Enterprises Whitehorse, YT including	4 July - 18 September	158 man days line cutting, soil sampling and trenching, mobilization and demobilization
Discovery Helicopters Atlin BC Troy Kirwan, Pilot	4 July - 2 October	Helicopter support, mobilization and demobilization

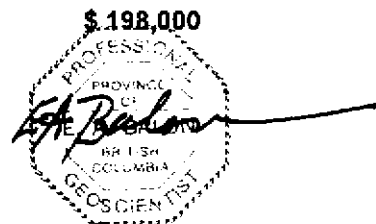
10. **STATEMENT OF COSTS**
(Consolidated for the period July 1, 1997 to January 31, 1998)

CABIN LAKE PROPERTY 1997 PROGRAMS

SALARIES AND BENEFITS (Fairfield personnel: field time and report preparation)	\$ 14,190
EXCAVATOR TRENCHING (Ampex Mining)	10,020
GEOCHEMICAL ANALYSIS, ASSAYS & FREIGHT (Acme Analytical and Greyhound)	11,480
GEOLOGICAL CONSULTING (Petrographic study)	820
GEOPHYSICAL SURVEYS:	
AIRBORNE / EM - MAG. (Aerodat Inc.)	27,910
GROUND / I.P. (Amerok Geosciences Ltd.)	12,700
INTERPRETATION (S.J.V. Consultants Ltd.)	1,310
GRID PREPARATION (LINECUTTING) & SOIL SAMPLING (Includes food & supplies for fly camp, Bear Mtn. & Twin Mtn. Enterprises)	46,050
HELICOPTER SUPPORT (Includes fuel & transportation of fuel)	59,310
FOOD & ACCOMODATION (Base Camp)	9,580
TELECOMMUNICATIONS (Satellite phone rental)	2,040
MISCELLANEOUS SUPPLIES & VEHICLE RENTAL	590
TRAVEL (Airtfares)	2,000
TOTAL EXPENDITURES	\$ 198,000

NOTES:

- All items rounded to nearest \$10.00.
- Only \$54,450.00 of expenditures utilized for assessment credits.



11. REFERENCES

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Wheeler, J.O., and McFeely, P. (compilers):

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12. STATEMENTS OF QUALIFICATIONS

I, David Ritcey, of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at 205-230 West 10th Avenue and employed by Fairfield Minerals Ltd. of 1420 - 700 West Georgia Street, Vancouver, British Columbia.
2. I have received a B.Sc. degree from Dalhousie University, Halifax, N.S. in 1984 and a B.A. degree with First Class Honours in Geology from the same institution in 1989, and an M.Sc. degree in Geology from Memorial University of Newfoundland, St. John's, Nfld. in 1994.
3. I have worked as a professional geologist since 1989 in the Northwest Territories, Alberta, British Columbia, and Yukon Territory.
4. I am the principal author of this report and I supervised part of the field work conducted on the CL 1 - 122 mineral claims during the period July 4 to September 26, 1997

FAIRFIELD MINERALS LTD.



David Ritcey, B.Sc., B.A., M.Sc.

May, 1998
Vancouver, B.C.

I, Edward A. Balon, of North Vancouver, British Columbia hereby certify that:

1. I am a prospector and geological/mining technician residing at 501-250 West First Street, and employed by Fairfield Minerals Ltd. of 1420 - 700 West Georgia Street, Vancouver, British Columbia V7Y 1B6.
2. I have received a Diploma in Mining Engineering Technology (integrated Geology, Mining and Metallurgy) from Northern College - Haileybury School of Mines, Ontario in 1970.
3. I have attended several Continuing Education Courses in Geoscience since 1970, including Exploration Geochemistry at the University of British Columbia, Vancouver, B.C. in 1984/1985.
4. I am a member of the Association of Professional Engineers and Geoscientists of the province of British Columbia, registration number 20265.
5. I have practiced my profession for twenty-eight years in British Columbia, Yukon and Northwest Territories.
6. I am the editor of this report and conducted or supervised part of the field work performed on the CL 1 - 122 mineral claims during the period July 4 to October 2, 1997.

FAIRFIELD MINERALS LTD.


E.A. Balon, P. Geo.

May, 1998
Vancouver, B.C.

13. Analysis & Assay Certificates

AA
11

GEOCHEMICAL ANALYSIS CERTIFICATE

AA
11

Fairfield Minerals Ltd. PROJECT CL File # 97-3609 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: D. Ritcey

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CL97-R1	8	18	4	1	<.3	1	13	20	3.72	38	<8	<2	2	7	.4	<3	<3	4	.01	.004	3	10	.01	3	<.01	<3	.27	.02	.17	3	38
CL97-R2	2	65	4	65	<.3	12	47	488	14.42	454	<8	<2	2	5	<.2	44	3	93	.08	.035	3	20	2.29	<1	.01	<3	2.50	.05	.13	3	22
CL97-R3	2	222	4	51	<.3	9	22	399	4.65	3	<8	<2	<2	167	.6	<3	<3	129	1.75	.120	6	14	.68	51	.17	<3	2.49	.33	.12	4	4
CL97-R4	34	446	5	15	<.3	10	22	206	2.97	32	<8	<2	<2	23	1.1	<3	4	89	.52	.071	5	15	.50	42	.24	<3	.83	.07	.05	2	8
CL97-R5	6	806	4	123	.3	5	44	252	7.64	<2	<8	<2	<2	24	.5	<3	4	59	.63	.036	2	15	1.94	28	.03	<3	2.72	.19	.17	<2	40
CL97-R6	5	3398	<3	53	.9	9	63	270	8.94	3	<8	<2	<2	16	.2	<3	4	64	.32	.030	2	12	2.14	29	.02	<3	2.70	.12	.14	<2	83
CL97-R7	12	831	5	24	.4	7	30	199	5.19	<2	<8	<2	2	27	.6	<3	<3	55	.81	.049	4	13	1.25	31	.01	<3	2.49	.20	.11	2	48
CL97-R8	5	907	<3	26	.3	6	23	280	6.85	6	<8	<2	<2	17	.6	<3	<3	43	.28	.043	2	9	2.02	18	.06	<3	2.30	.08	.16	<2	39
CL97-R9	10	1131	<3	39	.5	7	35	223	6.12	3	<8	<2	2	12	.7	<3	<3	42	.32	.031	4	11	1.37	15	.01	<3	1.77	.07	.16	2	100
CL97-R10	7	1479	<3	77	.6	7	27	321	6.04	<2	<8	<2	<2	27	.4	<3	<3	83	.82	.037	3	15	2.25	28	.04	<3	3.45	.19	.15	<2	43
RE CL97-R10	6	1419	<3	75	.6	11	26	300	5.85	<2	<8	<2	<2	26	.5	<3	<3	79	.78	.035	3	15	2.15	38	.04	3	3.32	.18	.14	<2	45
CLT971-R1	11	2408	8	177	1.2	5	12	547	2.67	2	<8	<2	<2	12	.5	<3	3	55	.37	.025	3	9	2.07	59	.01	5	2.72	.13	.10	<2	34
CLT971-R2	15	1827	6	170	.5	5	13	629	2.78	<2	<8	<2	<2	20	.6	<3	<3	49	.82	.020	2	10	1.82	53	.02	3	2.82	.20	.07	<2	21
CLT971-R3	9	1667	5	129	<.3	4	8	418	1.81	2	<8	<2	<2	18	.4	<3	<3	38	.57	.024	3	10	1.31	51	.01	<3	2.35	.15	.12	2	21
CLT971-R4	23	1006	9	238	1.1	8	15	520	3.53	<2	<8	<2	<2	14	.5	<3	<3	55	.26	.029	3	12	2.51	101	.03	<3	3.01	.10	.07	<2	41
CLT971-R5	15	874	6	226	1.0	7	17	502	3.64	6	<8	<2	<2	10	.5	<3	4	45	.20	.030	3	11	2.38	52	.01	<3	2.87	.09	.09	2	51
CLT971-R6	14	1202	11	268	.8	6	12	519	3.94	14	<8	<2	<2	11	.2	<3	<3	48	.19	.019	3	12	2.63	66	.02	3	2.92	.09	.07	<2	36
STANDARD C3/AU-R	25	69	33	166	5.6	36	13	746	3.53	56	27	<2	17	29	24.3	12	22	80	.59	.087	18	169	.66	149	.10	22	1.91	.04	.15	16	548

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 16 1997 DATE REPORT MAILED: July 23/97 SIGNED BY: C. Long D. TOYE, C. LEDONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL File # 97-3609 Page 2

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: D. Ritcey

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Au* ppb
CL PROFILE-1	3746	10	75	.4	4	2
CL PROFILE-2	1178	6	80	<.3	8	2
CL PROFILE-3	1775	6	145	<.3	3	1
CL PROFILE-4	1735	8	100	<.3	5	1
RE CL PROFILE-4	1737	7	97	<.3	6	4

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO₃-H₂O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 16 1997 DATE REPORT MAILED:

July 23/97

SIGNED BY:.....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

AA
LL

Fairfield Minerals Ltd. PROJECT CL PROPERTY File # 97-3610 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: E.A. Balon

AA
LL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
T343-R1	3	40	<3	4	<.3	4	1	51	.98	2	<8	<2	<2	4	<.2	<3	6	8	.01	.006	1	17	.07	222	<.01	<3	.17	.02	.05	6	673
T343-R2	1	9	<3	34	<.3	1676	76	499	3.47	117	<8	<2	<2	50	.4	3	<3	8	.60	.004	1	273	10.46	172	<.01	13	.04	.03	.01	5	5
T343-R3	2	32	<3	2	<.3	7	1	76	.77	<2	<8	<2	<2	1	.3	<3	<3	2	.13	.002	<1	19	.03	1	<.01	<3	.03	.01	<.01	12	2
T343-R4	1	12	<3	4	<.3	15	5	4351	.25	18	<8	<2	<2	8	.3	6	<3	3	.02	.005	1	17	.03	744	<.01	<3	.04	.01	.02	5	12
T343-R5	1	6	<3	11	<.3	4	1	337	.79	3	<8	<2	<2	2	.2	<3	<3	5	.01	.005	<1	27	.01	46	<.01	<3	.04	.01	.02	7	2
T343-R6	53	61	288	24	1.0	5	<1	58	.46	38	<8	<2	2	5	.4	3	<3	2	.01	.006	7	12	.02	335	<.01	<3	.19	<.01	.10	3	351
T351-R1	<1	102	3	92	<.3	10	21	1264	5.05	<2	<8	<2	<2	85	.2	<3	<3	85	1.02	.089	4	10	1.81	122	.29	<3	2.16	.05	.06	2	6
T352-R1	6	85	<3	17	<.3	17	11	206	2.34	2	<8	<2	<2	32	.3	<3	<3	43	1.15	.046	3	29	.42	53	.14	<3	1.70	.19	.16	4	3
RE T352-R1	6	77	<3	16	<.3	14	11	195	2.18	<2	<8	<2	<2	30	.2	<3	<3	40	1.09	.043	3	25	.40	41	.13	<3	1.61	.18	.15	4	3
T359-R1	1	29	<3	5	<.3	3	1	115	1.04	<2	<8	<2	<2	3	.2	<3	<3	5	.18	.008	1	17	.05	6	.01	3	.20	.01	.02	6	2
T365-R1	96	77	23	2	.6	8	3	104	.93	2	<8	<2	<2	8	<.2	<3	<3	6	.05	.022	2	18	.04	28	<.01	<3	.08	.01	.05	7	30
T365-R2	260	428	3	6	1.7	14	9	122	2.16	<2	<8	<2	2	18	.4	<3	<3	11	.08	.051	2	19	.09	46	<.01	4	.13	.02	.07	27	75

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL P3 TO P5 SED. AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 16 1997 DATE REPORT MAILED: Jul 24/97 SIGNED BY: [Signature] D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

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Fairfield Minerals Ltd. PROJECT CL PROPERTY File # 97-3610 Page 2

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: E.A. Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
T343-S2	1	155	13	91	.4	72	34	2742	7.69	24	<8	<2	2	10	.7	17	<3	87	.22	.076	13	67	.81	415	.01	<3	1.70	<.01	.08	<2	28
T366-S1	7	496	8	69	.5	34	32	1515	8.69	24	<8	<2	3	15	<.2	<3	4	99	.44	.100	19	78	1.19	354	.09	<3	1.73	.01	.21	8	160
RE T366-S1	7	488	17	68	.7	34	32	1498	8.61	26	8	<2	3	15	<.2	<3	<3	98	.44	.102	18	76	1.18	354	.09	3	1.69	.01	.21	8	116

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED(10 GM)(P2 - P5 ONLY)

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL P3 TO P5 SED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 16 1997 DATE REPORT MAILED: *Jul 24/97* SIGNED BY: *[Signature]* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS



SAMPLE#	No ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
T365-3	13	101	5	39	<.3	249	26	353	3.17	<2	10	<2	2	187	.2	<3	<3	81	1.32	.222	14	309	3.69	252	.12	<3	2.20	.01	.59	5	3

Sample type: SED..



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
T366-7(0) -40+80	1	25	5	67	<.3	39	11	557	2.46	6	<8	<2	<2	25	.4	<3	<3	48	.53	.075	9	55	.82	191	.08	<3	1.17	.01	.09	<2	3
T366-8 -40+80	1	27	4	64	<.3	32	11	485	2.64	4	<8	<2	<2	25	.3	<3	<3	55	.47	.062	8	43	.81	173	.09	<3	1.21	.01	.09	<2	3
RE T366-8 -40+80	1	27	6	62	<.3	29	11	474	2.64	6	<8	<2	<2	25	<.2	<3	<3	55	.46	.062	8	44	.80	182	.09	<3	1.21	<.01	.10	<2	4

Sample type: SED.. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
T366-7(D) -80	1	29	7	76	<.3	40	10	584	2.29	4	8	<2	<2	33	.5	<3	<3	50	.67	.100	12	62	.76	251	.08	<3	1.34	.01	.10	2	4
T366-8 -80	<1	24	<3	57	<.3	25	9	418	1.96	4	<8	<2	<2	29	.2	<3	<3	44	.52	.084	10	42	.64	196	.09	<3	1.18	.01	.09	<2	2
RE T366-8 -80	<1	26	6	56	<.3	27	8	407	1.92	4	<8	<2	<2	28	.3	<3	<3	43	.50	.081	10	40	.63	191	.09	<3	1.17	<.01	.09	3	2

Sample type: SED... Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL File # 97-3732 Page 1
 1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: David Ritcey

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L59+00N 20+00E	24	9	31	<.3	3
L59+00N 20+50E	55	10	44	<.3	7
L59+00N 21+00E	113	10	64	<.3	4
L59+00N 21+50E	162	11	75	.3	5
L59+00N 22+00E	103	5	63	<.3	3
L59+00N 22+50E	157	7	81	<.3	3
L59+00N 23+00E	131	7	64	<.3	5
L59+00N 24+00E	67	7	66	<.3	3
L59+00N 25+00E	33	3	38	<.3	2
L59+00N 25+50E	26	<3	37	<.3	4
L59+00N 26+00E	15	7	31	<.3	3
L59+00N 26+50E	40	3	56	<.3	4
L57+00N 20+00E	152	9	60	<.3	7
L57+00N 21+00E	163	15	63	.3	3
L57+00N 21+50E	27	7	37	<.3	4
L57+00N 22+00E	30	8	41	<.3	2
L57+00N 22+50E	47	6	51	<.3	6
L57+00N 23+00E	64	7	56	.5	3
L57+00N 23+50E	45	9	56	<.3	5
L57+00N 24+00E	85	7	67	.3	6
L57+00N 24+50E	46	7	54	<.3	5
L57+00N 25+00E	117	9	99	.9	5
RE L57+00N 25+00E	120	11	100	.9	3
L57+00N 25+50E	50	4	69	<.3	4
L57+00N 26+00E	85	4	89	.4	3
L57+00N 26+50E	91	8	74	.3	5
L55+00N 20+50E	1455	14	263	<.3	4
L55+00N 21+00E	157	6	43	<.3	6
L55+00N 21+50E	127	9	38	<.3	4
L55+00N 22+00E	376	7	61	<.3	7
L55+00N 22+50E	309	7	67	<.3	5
L55+00N 23+00E	315	10	63	.3	4
L55+00N 23+50E	467	10	111	.3	4
L55+00N 24+00E	608	13	75	<.3	8
L55+00N 24+50E	685	13	214	.8	6
STANDARD C3	63	29	150	5.4	53

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI S W AND LIMITED FOR NA K AND AL.
 - SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 21 1997 DATE REPORT MAILED: July 25/97 SIGNED BY: C. Leong, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data: FA



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L55+00N 25+50E	574	4	171	<.3	8
L55+00N 26+00E	43	3	42	<.3	5
L55+00N 26+50E	38	<3	41	<.3	5
L55+00N 27+00E	27	11	53	<.3	6
L55+00N 27+50E	14	5	36	<.3	3
L55+00N 28+00E	40	5	53	<.3	5
L55+00N 28+50E	40	4	57	<.3	8
L55+00N 29+00E	30	<3	42	<.3	8
L55+00N 29+50E	38	4	49	<.3	8
L55+00N 30+00E	71	5	78	<.3	8
L55+00N 30+50E	41	3	53	<.3	<2
L55+00N 31+00E	124	<3	86	<.3	<2
L55+00N 31+50E	39	3	63	<.3	<2
L55+00N 32+00E	55	5	64	<.3	<2
L55+00N 32+50E	71	4	79	<.3	<2
L55+00N 33+50E	25	7	58	<.3	<2
L55+00N 34+00E	41	10	53	<.3	<2
L55+00N 34+50E	48	8	53	<.3	4
L55+00N 35+50E	262	8	85	.6	10
L55+00N 36+00E	30	10	51	<.3	<2
L55+00N 36+50E	74	7	48	<.3	<2
L55+00N 37+00E	23	7	54	<.3	5
L55+00N 37+50E	60	6	66	<.3	13
L55+00N 38+00E	64	4	39	<.3	2
RE L55+00N 38+00E	62	6	40	<.3	2
L55+00N 38+50E	39	<3	51	<.3	7
L53+00N 20+00E	38	9	28	<.3	3
L53+00N 20+50E	129	13	24	.4	2
L53+00N 21+00E	176	9	40	<.3	6
L53+00N 21+50E	207	14	38	<.3	7
L53+00N 22+00E	105	7	26	<.3	5
L53+00N 22+50E	81	4	43	<.3	4
L53+00N 23+00E	32	5	46	<.3	3
L53+00N 23+50E	28	3	60	<.3	<2
L53+00N 24+00E	20	5	51	<.3	<2
STANDARD C3	64	32	153	5.2	52

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L53+00N 24+50E	18	10	54	.3	3
L53+00N 25+00E	51	6	59	<.3	4
L53+00N 25+50E	86	9	111	.5	2
L53+00N 26+00E	31	3	43	<.3	3
L53+00N 26+50E	19	9	36	<.3	5
L53+00N 27+00E	7	8	15	<.3	<2
L53+00N 27+50E	15	5	29	<.3	3
L53+00N 28+50E	61	7	61	.3	8
L53+00N 29+00E	44	4	49	<.3	10
L53+00N 29+50E	19	3	37	<.3	3
L53+00N 30+00E	37	7	53	<.3	2
L53+00N 30+50E	56	5	73	<.3	7
RE L53+00N 30+50E	56	6	72	<.3	7
L53+00N 31+00E	61	6	63	<.3	<2
L53+00N 31+50E	260	8	63	.4	4
L53+00N 32+00E	150	7	55	<.3	<2
L53+00N 32+50E	182	<3	92	1.1	<2
L53+00N 33+50E	18	5	37	<.3	2
L53+00N 34+00E	30	8	49	<.3	<2
L53+00N 34+50E	92	9	65	<.3	<2
L53+00N 35+00E	21	6	40	<.3	<2
L53+00N 35+50E	55	9	45	<.3	<2
L53+00N 36+00E	199	<3	78	.4	3
L53+00N 36+50E	81	<3	68	<.3	3
L53+00N 37+00E	57	8	60	<.3	2
L53+00N 37+50E	15	5	30	<.3	<2
L53+00N 38+00E	33	4	47	<.3	<2
L51+00N 20+00E	123	10	77	<.3	<2
L51+00N 20+50E	135	8	52	<.3	5
L51+00N 21+00E	194	9	48	<.3	3
L51+00N 21+50E	172	10	54	<.3	6
L51+00N 22+50E	301	7	102	.3	2
L51+00N 23+00E	190	4	45	<.3	<2
L51+00N 23+50E	301	6	181	<.3	2
L51+00N 24+00E	198	7	106	<.3	2
STANDARD C3	67	36	159	5.4	51

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L51+00N 24+50E	168	7	77	<.3	3
L51+00N 25+00E	61	10	58	<.3	<2
L51+00N 25+50E	144	5	49	.6	<2
L51+00N 26+00E	90	<3	65	<.3	.5
L51+00N 26+50E	24	3	80	<.3	<2
L51+00N 27+00E	49	4	91	<.3	<2
L51+00N 27+50E	35	6	57	<.3	6
L51+00N 28+00E	38	6	55	<.3	4
L51+00N 28+50E	33	8	45	<.3	10
L51+00N 29+00E	60	7	44	<.3	3
L51+00N 29+50E	60	4	47	<.3	3
L51+00N 30+00E	34	10	47	<.3	5
L51+00N 30+50E	71	5	67	<.3	6
RE L51+00N 30+50E	68	3	64	<.3	5
L51+00N 31+00E	41	5	42	<.3	2
L51+00N 31+50E	102	9	68	.6	91
L51+00N 32+00E	19	13	44	<.3	5
L51+00N 32+50E	36	4	34	<.3	4
L51+00N 33+00E	32	9	36	<.3	3
L51+00N 33+50E	116	9	81	.3	3
L51+00N 34+00E	110	6	87	.4	2
L51+00N 34+50E	29	7	49	<.3	<2
L51+00N 35+00E	140	9	46	.3	3
L51+00N 35+50E	135	10	52	.4	3
L51+00N 36+00E	34	6	44	<.3	<2
L51+00N 36+50E	78	6	51	<.3	5
L51+00N 37+00E	164	7	50	.5	7
L51+00N 37+50E	67	5	43	<.3	2
L51+00N 38+00E	37	7	49	<.3	4
L49+00N 20+00E	166	6	42	<.3	4
L49+00N 20+50E	340	6	44	.7	<2
L49+00N 21+00E	23	7	47	<.3	5
L49+00N 21+50E	19	9	61	<.3	3
L49+00N 22+00E	13	12	55	<.3	2
L49+00N 22+50E	18	19	61	.5	<2
STANDARD C3	67	43	156	5.6	53

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L49+00N 23+00E	24	17	22	.3	<2
L49+00N 23+50E	12	12	31	.3	<2
L49+00N 24+00E	36	5	54	<.3	<2
L49+00N 24+50E	106	3	91	.3	<2
L49+00N 25+00E	20	7	68	<.3	<2
L49+00N 25+50E	14	13	37	<.3	<2
L49+00N 26+00E	44	4	68	<.3	<2
RE L49+00N 26+00E	43	6	66	<.3	<2
L49+00N 26+50E	11	9	40	<.3	<2
L49+00N 27+00E	26	6	48	<.3	<2
L49+00N 27+50E	21	5	33	<.3	5
L49+00N 28+00E	38	9	71	<.3	11
L49+00N 28+50E	54	<3	43	<.3	3
L49+00N 29+00E	37	8	49	<.3	4
L49+00N 29+50E	13	9	25	<.3	3
L49+00N 30+00E	14	4	33	<.3	3
L49+00N 30+50E	17	3	23	<.3	2
L49+00N 31+00E	14	5	28	<.3	<2
L49+00N 31+50E	43	5	45	<.3	<2
L49+00N 32+00E	43	8	58	<.3	5
L49+00N 32+50E	71	5	97	.3	8
L49+00N 33+00E	16	8	38	<.3	4
L49+00N 33+50E	19	7	43	<.3	2
L49+00N 34+00E	49	8	72	.3	3
L49+00N 34+50E	73	9	68	.5	3
L49+00N 35+00E	51	5	70	<.3	2
L49+00N 35+50E	33	6	43	<.3	2
L49+00N 36+00E	15	7	40	.3	3
L49+00N 36+50E	11	6	56	<.3	2
L47+00N 20+00E	37	5	49	<.3	<2
L47+00N 20+50E	8	15	34	<.3	<2
L47+00N 21+00E	19	13	62	<.3	<2
L47+00N 21+50E	24	6	68	<.3	<2
L47+00N 22+00E	15	9	78	<.3	<2
L47+00N 22+50E	19	12	37	<.3	<2
STANDARD C3	63	36	149	5.3	52

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L47+00N 23+00E	74	9	55	<.3	3
L47+00N 23+50E	86	8	51	<.3	5
L47+00N 24+00E	26	10	39	<.3	5
L47+00N 24+50E	90	8	62	<.3	3
L47+00N 25+00E	130	5	100	<.3	<2
L47+00N 25+50E	24	13	57	<.3	2
L47+00N 26+00E	66	9	57	<.3	<2
L47+00N 26+50E	315	9	73	<.4	3
L47+00N 27+00E	54	5	65	<.3	<2
L47+00N 27+50E	49	4	61	<.3	2
L47+00N 28+00E	27	7	58	<.3	<2
L47+00N 28+50E	25	<3	97	<.3	<2
L47+00N 29+00E	71	9	61	<.3	3
L47+00N 29+50E	60	6	37	<.3	3
L47+00N 30+00E	117	4	46	.3	5
L47+00N 31+00E	56	10	60	<.3	7
RE L47+00N 31+00E	53	7	57	<.3	8
L47+00N 31+50E	64	8	63	<.3	5
L47+00N 32+50E	69	6	60	<.3	5
L47+00N 33+00E	78	9	63	<.3	4
L47+00N 33+50E	89	7	83	.6	5
L47+00N 34+00E	41	4	43	<.3	7
STANDARD C3	64	35	149	5.5	51

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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Fairfield Minerals Ltd. PROJECT CL PROPERTY File # 97-3733 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: E.A. Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CL97-R11	23	4100	11	82	1.1	6	17	156	2.42	6	<8	<2	2	22	.7	<3	<3	40	.53	.058	7	10	1.41	92	.01	<3	1.98	.10	.22	<2	66
CL97-R12	<1	201	11	39	<.3	7	15	290	4.19	5	<8	<2	<2	25	.6	<3	<3	61	1.39	.037	2	10	1.59	39	.05	<3	2.88	.17	.13	3	8
CL97-R13	5	437	6	38	.8	6	30	93	6.13	19	<8	<2	2	8	<.2	<3	<3	15	.05	.017	3	8	.57	15	.01	<3	.88	.03	.22	3	36
CL97-R14	3	4594	<3	101	1.2	8	24	229	6.22	6	<8	<2	<2	21	.5	<3	<3	91	.64	.032	2	14	2.05	55	.05	<3	3.20	.13	.22	<2	111
CL97-R15	13	1821	4	157	.9	9	36	243	5.94	5	<8	<2	2	22	.3	<3	3	86	.71	.040	2	14	2.17	39	.06	<3	3.23	.13	.18	<2	62
CL97-R16	12	695	6	69	1.0	3	13	123	2.71	10	<8	<2	4	19	<.2	<3	<3	26	.36	.020	12	8	.77	99	.02	<3	1.45	.09	.17	2	65
CL97-R17	14	1532	<3	57	1.0	12	58	312	8.12	13	<8	<2	<2	13	<.2	<3	<3	100	.37	.046	2	15	2.68	46	.03	<3	3.39	.08	.19	<2	45
CL97-R18	14	1449	5	57	.6	9	30	189	5.89	4	<8	<2	2	37	<.2	<3	<3	77	1.14	.041	1	14	1.55	45	.06	<3	3.20	.21	.17	<2	69
CLT972-R1	8	2438	<3	59	.9	10	33	262	5.54	<2	<8	<2	<2	39	.4	<3	<3	99	1.17	.042	<1	15	2.16	45	.08	<3	3.74	.21	.19	<2	125
CLT972-R2	6	1698	<3	45	.6	9	40	201	6.23	8	<8	<2	<2	21	<.2	3	<3	77	.59	.044	2	13	1.76	51	.05	<3	2.77	.12	.20	<2	66
CLT972-R3	21	1573	<3	50	1.5	7	21	245	6.06	11	<8	<2	<2	8	<.2	<3	3	51	.09	.029	2	12	1.86	64	.01	<3	2.24	.03	.23	<2	80
CLT972-R4	13	712	4	13	.5	3	5	63	1.84	8	<8	<2	<2	12	<.2	<3	<3	18	.09	.016	4	10	.25	60	<.01	<3	.85	.04	.20	2	81
CLT972-R5	9	1089	4	15	.9	4	7	65	1.62	3	<8	<2	<2	9	.2	<3	<3	18	.17	.016	3	9	.30	59	.01	<3	.92	.04	.20	2	71
RE CLT972-R5	9	1087	4	16	.8	4	7	60	1.59	3	<8	<2	<2	9	.2	<3	<3	18	.17	.016	3	8	.29	59	.01	<3	.91	.04	.20	2	75
T361-R1	<1	18	3	25	<.3	14	7	963	.59	10	<8	<2	2	32	<.2	<3	<3	5	.02	.011	7	11	.32	1394	<.01	<3	.33	.01	.07	2	20
T361-R2	18	31	16	21	<.3	12	6	212	1.63	9	<8	<2	10	11	.2	<3	4	7	.39	.032	17	14	.22	93	<.01	<3	.45	.02	.17	3	8
T361-R3	<1	28	<3	26	<.3	3	2	100	1.33	4	<8	<2	6	10	<.2	<3	<3	2	.12	.025	10	8	.03	71	.05	<3	.19	.05	.11	<2	2
T364-R2	8	8	35	9	.4	5	1	53	.58	4	<8	<2	<2	2	<.2	<3	3	3	.01	.008	1	23	.01	9	<.01	<3	.06	.01	.02	67	5
STANDARD C3/AU-R	23	60	33	152	5.2	33	11	707	3.29	55	23	<2	17	29	23.0	15	21	74	.57	.088	16	155	.63	142	.09	19	1.87	.04	.17	16	447

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 21 1997 DATE REPORT MAILED: *Jul 25/97* SIGNED BY: *[Signature]* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL PROPERTY File # 97-3733 Page 2

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: E.A. Balon

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CL97-PIT-A	30	673	12	59	<.3	14	6	177	8.55	87	<8	<2	2	17	<.2	5	<3	62	.10	.072	8	37	.68	61	.08	<3	1.93	.01	.05	<2	68
CL97-PIT-B	4	231	5	37	<.3	21	6	186	3.74	16	<8	<2	4	15	<.2	<3	<3	57	.17	.045	9	41	.53	64	.12	<3	1.49	.01	.06	<2	19
CL97-PIT-C	6	836	7	36	.7	20	7	198	5.10	20	<8	<2	2	13	<.2	<3	<3	69	.15	.067	12	44	.59	59	.10	<3	1.98	.01	.07	<2	11
CL97-PIT-D	18	517	9	39	<.3	13	5	176	8.74	23	<8	<2	3	15	<.2	<3	<3	71	.07	.091	9	41	.78	90	.08	<3	1.85	.02	.08	<2	19
CL97-PIT-E	3	327	6	38	<.3	22	6	189	4.09	17	<8	<2	2	15	<.2	<3	<3	61	.17	.040	10	43	.53	60	.13	<3	1.56	.01	.07	<2	14
CL97-PIT-F	6	445	9	32	<.3	16	5	177	6.27	19	<8	<2	3	13	<.2	<3	<3	58	.12	.063	9	38	.46	68	.10	<3	1.36	.01	.08	<2	20
CL97-PIT-G	21	446	12	31	<.3	11	5	170	8.61	27	<8	<2	3	24	<.2	<3	<3	64	.08	.083	8	33	.67	102	.07	<3	1.89	.02	.08	<2	20
CL97-PIT-H	3	281	4	39	<.3	28	8	208	3.71	17	<8	<2	4	16	<.2	<3	<3	60	.21	.055	10	46	.63	72	.14	<3	1.70	.02	.06	<2	10
CL97-PIT-Ip	20	345	8	21	<.3	11	4	62	6.06	170	<8	<2	4	51	<.2	<3	3	21	.11	.052	14	14	.17	166	.02	<3	.69	.13	.11	<2	3
CL97-PIT-Jb	4	402	15	50	<.3	42	10	189	2.93	12	<8	<2	5	31	.3	<3	<3	52	.36	.056	11	58	.70	164	.13	<3	1.41	.03	.12	<2	3
CL97-PIT-Jp	4	75	87	16	.3	2	1	22	.76	3	<8	<2	<2	7	.2	<3	<3	3	.04	.007	7	3	.03	66	<.01	<3	.14	.03	.08	<2	2
CL97-PIT-Kb	3	534	6	71	<.3	40	12	226	2.86	11	<8	<2	5	30	.3	<3	<3	59	.48	.080	12	56	.86	104	.13	<3	1.10	.02	.07	<2	51
CL97-PIT-L	3	1052	6	93	<.3	45	17	276	2.82	8	<8	<2	6	28	.3	<3	<3	61	.51	.085	13	59	.95	94	.14	<3	1.01	.02	.07	<2	8
RE CL97-PIT-L	3	1077	6	96	<.3	46	19	286	2.89	10	<8	<2	7	29	.2	<3	<3	62	.52	.089	15	61	.98	98	.15	<3	1.03	.02	.07	<2	13
CLT971-Ab	5	365	9	52	<.3	31	10	277	3.45	20	<8	<2	3	15	<.2	<3	<3	56	.22	.056	10	44	.74	99	.10	<3	1.79	.01	.06	<2	32
CLT971-Ap	4	192	9	50	<.3	28	9	277	3.69	20	<8	<2	3	13	<.2	<3	<3	63	.18	.060	7	44	.67	89	.10	<3	2.04	.01	.05	<2	7
CLT971-Bb	18	1218	17	80	<.3	35	13	321	5.14	37	<8	<2	4	15	.4	<3	<3	57	.19	.066	10	46	1.07	100	.09	<3	2.36	.02	.06	<2	51
CLT971-Bp	2	100	8	50	<.3	29	9	351	3.07	16	<8	<2	2	13	<.2	<3	<3	59	.20	.049	9	44	.72	87	.11	<3	2.01	.01	.06	<2	6
CLT971-Cb	9	893	12	73	<.3	38	11	310	3.32	24	<8	<2	3	16	.2	<3	<3	51	.24	.076	11	48	1.00	102	.10	<3	2.26	.01	.06	<2	31
CLT971-Cp	4	151	8	48	<.3	29	9	276	3.72	16	<8	<2	2	13	.2	<3	<3	66	.19	.053	8	50	.72	85	.10	<3	2.42	.01	.05	<2	4
CLT971-Db	15	1386	13	77	.3	37	13	328	3.65	27	<8	<2	3	15	.4	<3	<3	47	.23	.074	9	46	1.05	82	.08	<3	1.97	.01	.06	<2	59
CLT971-Dp	6	207	12	53	<.3	29	9	334	4.74	24	<8	<2	2	13	<.2	<3	<3	74	.13	.060	7	54	.75	80	.10	<3	2.16	.01	.06	<2	109
STANDARD C3/AU-S	26	67	34	165	5.9	35	12	793	3.75	61	15	<2	20	30	24.8	12	26	80	.61	.096	18	167	.69	157	.10	20	2.00	.04	.17	18	53

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
 - SAMPLE TYPE: P1 ROCK P2 SOIL AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 21 1997 DATE REPORT MAILED: *Jul 25/97* SIGNED BY *[Signature]* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

AA
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GEOCHEMICAL ANALYSIS CERTIFICATE

AA
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Fairfield Minerals Ltd. PROJECT CABIN LAKE/CL97-4 File # 97-3796 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: W. Jakubowski

SAMPLE#

Cu ppm Pb ppm Zn ppm Ag ppm As ppm

L65+00N 20+00E
L65+00N 20+50E
L65+00N 21+00E
L65+00N 21+50E
L65+00N 22+00E52 6 68 <.3 <2
53 9 55 <.3 <2
41 7 57 <.3 <2
42 5 53 <.3 <2
58 7 60 <.3 <2L65+00N 22+50E
L65+00N 23+50E
L65+00N 24+00E
L65+00N 25+00E
L65+00N 25+50E41 7 49 <.3 <2
62 8 74 <.3 <2
48 7 51 <.3 <2
44 6 62 <.3 4
28 8 49 <.3 <2L65+00N 26+00E
L65+00N 26+50E
L65+00N 27+00E
L65+00N 27+50E
RE L65+00N 27+50E43 8 61 <.3 2
42 8 65 <.3 6
46 6 61 <.3 4
43 9 73 <.3 12
44 8 77 <.3 13L65+00N 28+00E
L65+00N 29+50E
L65+00N 30+00E
L65+00N 30+50E
L65+00N 31+00E41 8 73 <.3 6
29 8 51 <.3 5
23 8 74 <.3 5
32 8 79 <.3 8
36 8 70 <.3 8L65+00N 31+50E
L65+00N 32+00E
L65+00N 32+50E
L65+00N 33+50E
L65+00N 34+00E21 8 62 <.3 7
22 13 54 <.3 6
15 7 40 <.3 5
25 9 99 <.3 15
18 9 47 <.3 7L65+00N 34+50E
L65+00N 35+00E
L65+00N 35+50E
L65+00N 36+00E
L65+00N 36+50E22 6 44 <.3 7
37 8 71 <.3 50
34 8 61 <.3 20
19 8 43 <.3 9
17 10 72 <.3 10L65+00N 37+50E
L65+00N 38+00E
L63+00N 20+00E
L63+00N 20+50E
L63+00N 21+00E55 9 73 <.3 11
82 5 65 <.3 13
77 8 69 <.3 <2
88 8 58 <.3 3
40 6 55 <.3 <2

STANDARD C3

63 30 159 5.4 51

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

- SAMPLE TYPE: P1 TO P5 SOIL P6 SED.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 24 1997 DATE REPORT MAILED: July 31/97 SIGNED BY: C. L. D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L63+00N 21+50E	54	7	62	<.3	2
L63+00N 22+00E	46	10	67	<.3	<2
L63+00N 22+50E	42	8	51	<.3	2
L63+00N 23+00E	43	5	46	<.3	2
L63+00N 23+50E	70	8	53	<.3	3
L63+00N 24+00E	45	7	59	<.3	<2
L63+00N 24+50E	43	9	67	<.3	<2
L63+00N 25+00E	31	7	44	<.3	4
RE L63+00N 25+00E	31	8	44	<.3	3
L63+00N 25+50E	64	4	52	<.3	4
L63+00N 26+00E	32	6	39	<.3	<2
L63+00N 26+50E	49	6	40	<.3	3
L63+00N 27+00E	31	5	47	<.3	2
L63+00N 27+50E	31	7	52	<.3	2
L58+00N 18+00E	34	9	46	<.3	<2
L58+00N 19+00E	20	9	39	<.3	<2
L57+00N 19+00E	50	9	47	<.3	<2
L57+00N 19+50E	44	6	40	<.3	<2
L56+00N 17+00E	35	7	53	<.3	<2
L56+00N 17+50E	41	7	36	<.3	4
L56+00N 18+00E	77	220	49	.3	<2
L56+00N 18+50E	61	11	40	<.3	<2
L56+00N 19+00E	24	5	22	<.3	<2
L56+00N 19+50E	93	37	42	<.3	2
L55+00N 17+00E	74	15	52	<.3	4
L55+00N 18+00E	67	11	59	<.3	<2
L55+00N 18+50E	72	11	50	<.3	<2
L55+00N 19+00E	35	8	45	<.3	<2
L55+00N 19+50E	23	4	20	<.3	2
L54+00N 15+50E	18	6	36	<.3	<2
L54+00N 17+50E	37	8	53	<.3	<2
L54+00N 18+00E	33	7	55	<.3	3
L54+00N 18+50E	40	9	37	<.3	4
L54+00N 19+00E	163	9	47	<.3	5
L54+00N 19+50E	51	9	45	<.3	<2
STANDARD C3	66	35	164	5.7	53

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L45+00N 20+00E	26	7	46	<.3	2
L45+00N 20+50E	29	7	46	<.3	5
L45+00N 21+00E	29	8	47	<.3	3
L45+00N 21+50E	24	14	44	<.3	8
L45+00N 22+00E	71	96	68	.7	3
L45+00N 22+50E	15	9	44	<.3	3
RE L45+00N 22+50E	14	8	45	<.3	2
L45+00N 23+00E	34	6	46	<.3	6
L45+00N 23+50E	18	9	40	<.3	<2
L45+00N 24+00E	25	11	46	<.3	<2
L45+00N 24+50E	31	7	66	<.3	<2
L45+00N 25+00E	25	8	67	<.3	4
L45+00N 25+50E	43	5	60	<.3	<2
L45+00N 26+00E	36	7	44	.4	<2
L45+00N 26+50E	49	8	61	<.3	<2
L45+00N 27+00E	21	9	57	.3	<2
L45+00N 27+50E	132	11	74	<.3	<2
L45+00N 28+00E	59	6	59	<.3	<2
L45+00N 28+50E	29	3	71	<.3	<2
L45+00N 29+00E	35	7	60	<.3	<2
L45+00N 29+50E	72	7	48	<.3	2
L45+00N 30+00E	11	8	20	<.3	<2
L45+00N 30+50E	28	5	106	<.3	<2
L45+00N 31+00E	42	10	41	<.3	3
L45+00N 31+50E	30	9	35	<.3	2
L45+00N 32+00E	20	7	37	<.3	2
L45+00N 32+50E	12	4	30	<.3	3
L45+00N 33+00E	31	8	52	<.3	5
L47+00N 34+50E	25	4	39	<.3	2
L47+00N 35+00E	99	6	65	<.3	<2
L47+00N 35+50E	80	9	75	.3	3
L47+00N 36+00E	51	7	62	.6	2
L47+00N 36+50E	67	9	134	.3	3
L47+00N 37+00E	51	7	130	<.3	9
L47+00N 37+50E	21	6	46	<.3	3
L47+00N 38+00E	21	7	65	<.3	2
STANDARD C3	65	35	160	5.5	55

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#

Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
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BL 20+00E 68+50N	23	6	40	<.3	3
BL 20+00E 68+00N	158	5	51	<.3	3
BL 20+00E 65+50N	74	4	58	<.3	2
BL 20+00E 64+50N	53	9	68	<.3	2
BL 20+00E 64+00N	62	7	81	<.3	<2
BL 20+00E 63+50N	73	13	75	<.3	<2
BL 20+00E 62+50N	23	7	42	<.3	<2
BL 20+00E 62+00N	74	7	64	<.3	<2
BL 20+00E 61+50N	49	6	39	<.3	2
BL 20+00E 60+50N	228	8	89	<.3	3
BL 20+00E 60+00N	102	9	61	<.3	6
BL 20+00E 59+50N	200	12	73	<.3	2
BL 20+00E 58+00N	83	7	27	<.3	3
BL 20+00E 57+50N	136	9	45	<.3	6
BL 20+00E 56+50N	28	15	33	<.3	<2
RE BL 20+00E 56+50N	28	13	34	<.3	<2
BL 20+00E 54+50N	126	11	78	<.3	<2
BL 20+00E 54+00N	3277	17	254	<.3	<2
BL 20+00E 53+50N	48	6	54	<.3	3
BL 20+00E 52+50N	764	6	129	<.3	<2
BL 20+00E 52+00N	2340	13	195	<.3	2
BL 20+00E 51+50N	245	14	49	<.3	14
BL 20+00E 50+50N	336	5	55	<.3	<2
BL 20+00E 50+00N	436	8	91	<.3	<2
BL 20+00E 48+50N	443	7	51	<.3	3
BL 20+00E 48+00N	422	7	81	.3	2
BL 38+00E 61+00N	16	7	47	<.3	9
BL 38+00E 60+50N	15	8	60	<.3	7
BL 38+00E 60+00N	18	9	53	<.3	11
BL 38+00E 59+50N	17	7	49	<.3	8
BL 38+00E 59+00N	14	8	75	<.3	5
BL 38+00E 58+50N	37	5	66	<.3	9
BL 38+00E 58+00N	27	7	70	<.3	14
STANDARD C3	68	37	164	5.6	53

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
BL 38+00E 57+50N	47	6	63	<.3	10
BL 38+00E 57+00N	42	7	49	<.3	16
BL 38+00E 56+50N	59	6	55	<.3	4
BL 38+00E 56+00N	96	8	75	<.3	6
BL 38+00E 55+50N	28	7	61	<.3	3
BL 38+00E 55+00N	90	7	64	<.3	<2
BL 38+00E 54+50N	140	5	40	<.3	<2
BL 38+00E 54+00N	72	8	41	<.3	<2
BL 38+00E 53+50N	69	7	47	<.3	<2
BL 38+00E 53+00N	67	7	52	<.3	<2
BL 38+00E 52+50N	35	9	52	<.3	<2
BL 38+00E 52+00N	27	7	55	<.3	4
BL 38+00E 51+50N	26	5	45	<.3	4
BL 38+00E 51+00N	47	9	60	.4	<2
BL 38+00E 50+50N	43	9	70	.3	<2
RE BL 38+00E 50+50N	42	11	70	<.3	2
BL 38+00E 50+00N	47	7	68	.3	<2
BL 38+00E 49+00N	28	3	62	<.3	5
BL 38+00E 48+50N	44	8	66	<.3	8
BL 38+00E 48+00N	26	8	51	<.3	3
T361-S1	114	16	26	<.3	20
STANDARD C3	66	36	159	5.7	53

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CL97-1	2	36	<3	40	<.3	17	7	424	1.94	3	<8	<2	<2	27	.2	<3	<3	34	.52	.069	8	27	.54	276	.07	<3	1.16	.01	.06	<2	7
T361-5	1	28	4	32	<.3	34	8	387	1.71	6	<8	<2	2	25	<.2	<3	<3	42	.45	.084	11	56	.62	197	.08	3	.90	.01	.06	2	7
RE T361-5	1	28	3	33	<.3	36	8	379	1.72	7	<8	<2	2	24	<.2	<3	<3	42	.46	.084	12	56	.63	187	.08	<3	.89	.01	.06	<2	4

Sample type: SED... Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)

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GEOCHEMICAL ANALYSIS CERTIFICATE

AA
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Fairfield Minerals Ltd. PROJECT CL PROPERTY File # 97-3898 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: David Ritcey

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L52+00N 13+50E	37	7	55	<.3	<2
L52+00N 15+00E	47	8	52	<.3	6
L52+00N 15+50E	44	8	46	<.3	3
L52+00N 16+00E	163	11	107	<.3	<2
L52+00N 16+50E	32	5	51	<.3	2
L52+00N 17+00E	44	7	40	<.3	<2
L52+00N 17+50E	376	4	71	<.3	3
L52+00N 18+00E	542	7	68	<.3	5
L52+00N 18+50E	352	27	77	<.3	4
L52+00N 19+00E	451	8	69	<.3	8
L52+00N 19+50E	299	8	79	<.3	4
L51+00N 13+00E	29	8	44	<.3	<2
L51+00N 15+50E	305	6	43	<.3	3
L51+00N 17+00E	216	11	58	<.3	3
L51+00N 17+50E	80	8	20	<.3	<2
L51+00N 18+00E	168	4	70	<.3	3
L51+00N 18+50E	130	8	60	<.3	4
L51+00N 19+00E	429	8	33	<.3	2
L51+00N 19+50E	311	8	111	<.3	11
L50+00N 11+50E	277	7	123	<.3	4
L50+00N 12+00E	21	7	68	<.3	<2
L50+00N 12+50E	27	<3	67	<.3	4
L50+00N 13+00E	33	7	52	<.3	4
RE L50+00N 13+00E	32	8	52	<.3	4
L50+00N 14+00E	22	4	50	<.3	10
L50+00N 15+00E	14	5	49	<.3	2
L50+00N 15+50E	443	4	66	<.3	17
L50+00N 16+00E	1811	7	60	<.3	15
L50+00N 16+50E	3287	3	31	.5	4
L50+00N 17+00E	1690	<3	22	2.0	<2
L50+00N 18+00E	280	8	49	<.3	9
L50+00N 18+50E	70	171	30	<.3	<2
L50+00N 19+00E	59	7	46	<.3	2
L49+00N 12+00E	27	8	38	<.3	<2
L49+00N 12+50E	4	8	12	<.3	<2
STANDARD C3	68	30	162	5.9	55

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR HG BA TI B W AND LIMITED FOR NA K AND AL.

- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 28 1997 DATE REPORT MAILED: July 31/97 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L49+00N 13+00E	19	8	44	<.3	3
L49+00N 13+50E	12	5	24	.3	<2
L49+00N 14+00E	15	7	30	<.3	4
RE L49+00N 14+00E	15	6	30	<.3	4
L49+00N 14+50E	28	5	67	<.3	10
L49+00N 15+00E	28	3	48	<.3	4
L49+00N 15+50E	28	7	51	<.3	4
L49+00N 16+00E	28	5	46	<.3	3
L49+00N 16+50E	14	3	20	<.3	<2
L49+00N 17+00E	1431	<3	108	.5	2
L49+00N 17+50E	599	3	37	<.3	2
L49+00N 18+00E	1257	5	21	.8	<2
L49+00N 18+50E	469	5	38	.3	4
L49+00N 19+00E	605	5	39	.7	<2
L49+00N 19+50E	354	3	32	<.3	4
L48+00N 11+00E	49	5	47	<.3	2
L48+00N 11+50E	15	5	31	<.3	3
L48+00N 12+00E	16	5	47	<.3	4
L48+00N 12+50E	36	<3	50	<.3	2
L48+00N 13+50E	19	4	41	<.3	5
L48+00N 14+00E	16	6	37	<.3	3
L48+00N 14+50E	16	5	48	<.3	3
L48+00N 15+00E	15	8	43	<.3	4
L48+00N 15+50E	25	3	49	<.3	3
L48+00N 16+00E	25	<3	44	<.3	<2
L48+00N 16+50E	19	4	49	<.3	3
L48+00N 17+00E	25	6	48	<.3	5
L48+00N 17+50E	921	14	58	.5	<2
L48+00N 18+00E	3609	7	134	.3	4
L48+00N 19+00E	146	4	75	<.3	4
L48+00N 19+50E	90	5	32	<.3	3
L47+00N 12+50E	16	7	38	<.3	3
L47+00N 13+00E	37	10	47	<.3	3
L47+00N 14+50E	45	8	59	<.3	2
L47+00N 15+50E	10	4	26	<.3	<2
STANDARD C3	66	32	152	5.8	55

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm
L47+00N 16+00E	10	5	39	<.3	<2
L47+00N 16+50E	51	8	64	<.3	2
L47+00N 17+00E	24	5	43	<.3	5
L47+00N 17+50E	30	7	51	<.3	3
L47+00N 18+50E	270	10	57	<.3	3
L47+00N 19+00E	31	8	56	<.3	3
L47+00N 19+50E	257	9	74	<.3	3
L46+00N 12+00E	14	7	36	<.3	2
L46+00N 12+50E	19	4	37	<.3	4
L46+00N 13+00E	16	8	34	<.3	<2
L46+00N 13+50E	13	8	36	<.3	<2
L46+00N 14+00E	24	6	42	<.3	2
L46+00N 14+50E	12	6	24	<.3	2
L46+00N 15+00E	112	5	56	<.3	3
L46+00N 15+50E	39	5	74	<.3	3
L46+00N 16+00E	18	9	47	<.3	3
L46+00N 16+50E	54	8	60	<.3	4
L46+00N 17+00E	35	7	60	<.3	3
L46+00N 17+50E	12	6	32	<.3	5
L46+00N 18+00E	64	7	66	<.3	5
L46+00N 18+50E	136	15	108	<.3	5
RE L46+00N 18+50E	137	15	108	<.3	5
L46+00N 19+00E	45	12	83	<.3	5
L46+00N 19+50E	129	6	120	<.3	5
STANDARD C3	68	42	166	6.0	58

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

AA
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GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CABIN LAKE/CL97-6 File # 97-3945 Page 1
 1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: W. Jakubowski

AA
LL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
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L67+00N 38+50E	1	15	10	36	<.3
L65+00N 38+50E	7	28	17	117	.9
L63+00N 28+00E	<1	23	8	46	<.3
L63+00N 29+00E	1	19	10	62	<.3
L63+00N 29+50E	1	25	10	57	<.3
L63+00N 30+00E	<1	15	9	42	<.3
L63+00N 30+50E	1	25	4	39	<.3
L63+00N 31+50E	1	24	8	44	<.3
L63+00N 32+00E	1	37	13	64	<.3
L63+00N 33+00E	2	22	11	55	<.3
L63+00N 33+50E	<1	19	7	43	<.3
L63+00N 34+50E	1	36	12	62	<.3
L63+00N 35+00E	1	28	11	51	<.3
L63+00N 35+50E	2	26	14	102	<.3
RE L63+00N 35+50E	2	26	11	98	<.3
L63+00N 36+00E	1	25	10	53	<.3
L63+00N 36+50E	1	19	10	62	.3
L63+00N 37+50E	1	15	12	46	<.3
L63+00N 38+00E	1	50	10	85	.3
L61+00N 20+00E	3	100	4	19	.3
L61+00N 20+50E	5	105	3	34	.3
L61+00N 21+00E	3	43	7	43	<.3
L61+00N 21+50E	6	99	6	65	<.3
L61+00N 22+00E	6	100	6	57	<.3
L61+00N 22+50E	4	85	7	55	<.3
L61+00N 23+00E	4	153	8	66	.4
L61+00N 23+50E	4	86	6	59	.3
L61+00N 24+00E	5	88	9	63	.3
L61+00N 24+50E	6	85	6	65	.3
L61+00N 25+50E	23	172	9	65	.4
L61+00N 26+50E	1	24	6	33	<.3
L61+00N 27+00E	1	43	6	50	<.3
L61+00N 28+00E	<1	36	5	44	<.3
L61+00N 28+50E	1	27	4	50	<.3
L61+00N 29+00E	1	14	4	44	<.3

STANDARD C3	24	59	32	152	5.2
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ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL
 - SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns

DATE RECEIVED: JUL 30 1997 DATE REPORT MAILED: Aug 5/97 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L61+00N 29+50E	1	23	6	44	.3
L61+00N 30+00E	2	31	6	64	<.3
L61+00N 30+50E	1	23	5	41	<.3
L61+00N 31+00E	2	39	9	97	.6
L61+00N 31+50E	<1	21	<3	53	.4
L61+00N 32+00E	1	35	<3	60	.3
L61+00N 32+50E	1	31	3	48	<.3
L61+00N 33+00E	1	20	7	46	.3
L61+00N 33+50E	1	13	7	52	.5
L61+00N 34+00E	<1	17	6	51	<.3
L61+00N 34+50E	1	18	12	60	.4
L61+00N 35+00E	1	20	8	57	.4
L61+00N 35+50E	1	32	4	72	.3
L61+00N 36+00E	1	20	11	67	.4
L61+00N 36+50E	1	29	4	58	.3
RE L61+00N 36+50E	<1	30	8	59	.4
L61+00N 37+00E	1	30	8	61	<.3
L61+00N 37+50E	2	30	7	58	<.3
L59+00N 28+50E	1	48	6	63	<.3
L59+00N 29+50E	1	36	5	53	<.3
L59+00N 30+50E	1	61	<3	86	<.3
L59+00N 31+00E	1	14	5	41	<.3
L59+00N 31+50E	<1	26	6	49	<.3
L59+00N 32+00E	<1	19	6	39	<.3
L59+00N 33+50E	1	24	4	62	<.3
L59+00N 34+50E	<1	13	5	30	<.3
L59+00N 35+50E	<1	22	3	29	<.3
L59+00N 36+00E	1	26	4	64	<.3
L59+00N 36+50E	1	32	6	79	<.3
L59+00N 37+00E	1	39	4	54	<.3
L57+00N 28+00E	<1	52	7	63	<.3
L57+00N 28+50E	1	34	5	63	.3
L57+00N 29+00E	<1	23	3	38	<.3
L57+00N 29+50E	1	45	4	50	<.3
L57+00N 30+00E	1	44	<3	64	<.3
STANDARD C3	26	66	33	164	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L57+00N 30+50E	1	34	4	53	<.3
L57+00N 31+50E	1	40	7	71	<.3
L57+00N 32+00E	<1	83	5	54	<.3
L57+00N 32+50E	<1	43	6	60	.4
L57+00N 33+00E	<1	25	8	44	<.3
L57+00N 33+50E	1	44	8	75	<.3
L57+00N 34+00E	<1	25	6	52	<.3
L57+00N 35+50E	1	9	8	28	.4
L57+00N 36+00E	1	37	3	59	<.3
L57+00N 36+50E	2	23	11	45	<.3
L53+00N 15+00E	1	39	9	46	<.3
L53+00N 15+50E	1	33	10	45	<.3
L53+00N 16+00E	1	29	7	39	<.3
L53+00N 16+50E	2	33	6	38	<.3
L53+00N 17+00E	1	25	8	31	<.3
L53+00N 17+50E	2	57	9	56	<.3
L53+00N 18+00E	2	41	7	36	<.3
L53+00N 18+50E	4	379	8	46	<.3
L53+00N 19+00E	2	71	10	38	<.3
L53+00N 19+50E	4	232	19	32	.3
RE L53+00N 19+50E	5	239	17	33	.4
L45+00N 12+50E	1	19	5	51	<.3
L45+00N 15+00E	1	14	4	34	<.3
L45+00N 16+00E	1	64	7	55	<.3
L45+00N 16+50E	2	35	11	51	<.3
L45+00N 17+00E	1	24	4	48	<.3
L45+00N 17+50E	2	44	5	53	.3
L45+00N 18+00E	1	40	6	66	<.3
L45+00N 18+50E	1	41	7	68	<.3
L45+00N 19+00E	3	175	18	146	.3
L45+00N 19+50E	1	21	8	52	<.3
L43+00N 20+00E	<1	6	<3	21	<.3
L43+00N 20+50E	1	45	7	44	<.3
L43+00N 21+00E	2	36	<3	54	<.3
L43+00N 21+50E	3	81	9	73	<.3
STANDARD C3	26	65	37	168	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L43+00N 22+00E	<1	16	5	36	<.3
L43+00N 22+50E	1	22	5	50	<.3
L43+00N 23+00E	1	28	10	49	<.3
L43+00N 24+00E	1	43	8	61	<.3
L43+00N 25+50E	2	35	56	71	.3
L43+00N 26+00E	1	26	10	42	<.3
L43+00N 26+50E	1	43	11	101	<.3
L43+00N 27+00E	1	75	3	88	<.3
L43+00N 27+50E	1	157	7	74	<.3
L43+00N 28+00E	1	150	9	72	<.3
L43+00N 28+50E	2	317	8	57	.3
L43+00N 29+00E	1	40	15	67	<.3
RE L43+00N 29+00E	1	40	16	72	<.3
L43+00N 29+50E	2	65	8	66	<.3
L43+00N 30+00E	3	43	10	64	.4
L43+00N 31+00E	1	39	6	38	<.3
L43+00N 31+50E	1	21	6	41	<.3
L43+00N 32+00E	1	20	10	37	<.3
L43+00N 32+50E	1	70	12	57	.6
L43+00N 33+00E	1	31	8	61	<.3
L43+00N 33+50E	<1	17	8	37	<.3
BL 20+00E 55+25N	1	63	20	44	<.3
BL 20+00E 46+50N	1	33	8	74	<.3
BL 20+00E 46+00N	1	21	7	72	<.3
BL 20+00E 45+50N	<1	28	6	46	<.3
BL 20+00E 44+50N	1	40	9	64	<.3
BL 20+00E 44+00N	1	14	4	23	<.3
BL 20+00E 43+50N	1	23	<3	55	<.3
BL 38+00E 69+00N	1	26	4	53	.6
BL 38+00E 68+50N	5	54	12	76	.5
BL 38+00E 67+00N	2	46	9	81	.3
BL 38+00E 66+50N	4	25	14	116	.3
BL 38+00E 66+00N	1	33	10	57	<.3
BL 38+00E 65+50N	1	28	6	56	<.3
BL 38+00E 65+00N	<1	66	6	61	<.3
STANDARD C3	27	65	40	170	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#

Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
-----------	-----------	-----------	-----------	-----------

BL 38+00E 64+50N
BL 38+00E 64+00N
BL 38+00E 63+50N
RE BL 38+00E 63+50N
BL 38+00E 63+00N

1	25	8	76	<.3
1	21	10	62	<.3
1	22	10	64	.3
1	21	9	62	<.3
1	33	6	78	<.3

BL 38+00E 62+50N
BL 38+00E 62+00N
BL 38+00E 61+50N
BL 38+00E 47+50N
TL 69+00N 20+00E

1	35	8	70	<.3
2	38	7	66	<.3
1	32	6	46	<.3
2	27	15	96	<.3
1	13	7	46	<.3

TL 69+00N 20+50E
TL 69+00N 21+00E
TL 69+00N 21+50E
TL 69+00N 22+00E
TL 69+00N 22+50E

<1	18	5	33	<.3
1	24	3	37	<.3
1	35	7	50	<.3
<1	29	6	45	<.3
<1	31	7	48	<.3

TL 69+00N 23+00E
TL 69+00N 23+50E
TL 69+00N 24+00E
TL 69+00N 24+50E
TL 69+00N 25+50E

1	36	6	55	<.3
1	51	4	63	<.3
2	63	6	71	<.3
3	47	7	70	<.3
3	37	9	75	<.3

TL 69+00N 27+00E
TL 69+00N 27+50E
TL 69+00N 28+00E
STANDARD C3

1	22	6	66	<.3
1	19	6	57	<.3
4	32	12	127	<.3
26	65	35	168	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Fairfield Minerals Ltd. PROJECT CABIN LAKE/CL97-7 File # 97-4085 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: W. Jakubowski

SAMPLE#

Mo Cu Pb Zn Ag
ppm ppm ppm ppm ppm

L79+00N 20+50E
L79+00N 21+00E
L79+00N 21+50E
L79+00N 22+00E
L79+00N 22+50E

1 20 6 48 <.3
1 22 8 56 <.3
1 44 9 69 <.3
3 54 11 98 <.3
1 31 9 74 <.3

L79+00N 23+50E
L79+00N 24+00E
L79+00N 24+50E
L79+00N 25+00E
L79+00N 25+50E

2 34 10 89 <.3
2 30 8 83 <.3
1 22 7 73 <.3
1 26 8 90 <.3
1 20 7 72 <.3

L79+00N 26+00E
L79+00N 26+50E
L79+00N 27+00E
L79+00N 27+50E
L79+00N 28+00E

<1 21 11 74 <.3
1 27 6 84 <.3
1 24 10 76 <.3
1 16 4 42 <.3
1 16 6 36 <.3

L79+00N 28+50E
L79+00N 29+00E
L79+00N 29+50E
L79+00N 30+00E
L79+00N 30+50E

<1 21 9 44 <.3
1 17 9 49 <.3
1 23 8 44 <.3
1 34 10 82 <.3
1 31 11 63 <.3

L79+00N 31+00E
L79+00N 32+00E
RE L79+00N 32+00E
L79+00N 32+50E
L79+00N 33+00E

1 35 6 69 <.3
1 28 6 56 <.3
1 29 7 56 <.3
1 28 4 51 <.3
1 31 9 64 <.3

L79+00N 33+50E
L79+00N 34+00E
L79+00N 34+50E
L79+00N 35+00E
L79+00N 35+50E

2 30 7 89 <.3
1 12 4 23 <.3
1 14 8 28 <.3
1 39 4 92 <.3
1 17 6 58 <.3

L79+00N 36+00E
L79+00N 36+50E
L79+00N 37+00E
L79+00N 37+50E
L79+00N 38+00E

<1 15 7 57 <.3
1 16 9 63 <.3
1 20 7 42 <.3
1 14 9 41 <.3
1 26 3 44 .4

STANDARD C3

26 65 32 161 5.4

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL

- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns

DATE RECEIVED: AUG 5 1997 DATE REPORT MAILED: Aug 13/97 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L77+00N 20+50E	<1	44	6	65	<.3
L77+00N 21+00E	1	46	10	79	<.3
L77+00N 21+50E	2	26	6	73	<.3
L77+00N 22+00E	<1	36	6	73	.3
L77+00N 23+00E	1	38	9	80	<.3
L77+00N 23+50E	2	47	9	91	<.3
L77+00N 24+00E	1	39	9	83	<.3
L77+00N 24+50E	2	36	6	70	<.3
L77+00N 25+00E	<1	26	9	63	<.3
L77+00N 25+50E	2	32	9	66	.3
L77+00N 27+00E	1	41	4	68	.3
L77+00N 27+50E	1	35	8	65	<.3
RE L77+00N 27+50E	1	34	7	62	<.3
L77+00N 28+00E	2	45	6	74	.4
L77+00N 28+50E	1	29	6	61	<.3
L77+00N 29+00E	<1	50	8	61	.3
L77+00N 29+50E	2	39	11	70	<.3
L77+00N 30+00E	2	32	10	76	<.3
L77+00N 30+50E	5	42	7	84	<.3
L77+00N 31+00E	2	24	11	74	<.3
L77+00N 31+50E	2	23	11	67	<.3
L77+00N 32+00E	1	19	5	33	<.3
L77+00N 32+50E	<1	16	8	42	<.3
L77+00N 33+00E	<1	18	7	38	<.3
L77+00N 33+50E	1	14	11	130	.6
L77+00N 34+00E	1	12	7	55	<.3
L77+00N 34+50E	1	12	8	56	<.3
L77+00N 35+00E	2	45	4	81	<.3
L77+00N 36+00E	1	33	7	59	<.3
L77+00N 36+50E	1	34	4	51	<.3
L77+00N 37+00E	<1	21	5	43	<.3
L77+00N 37+50E	<1	32	<3	54	<.3
L77+00N 38+00E	1	30	<3	55	<.3
L75+00N 20+50E	1	50	5	66	<.3
L75+00N 21+00E	<1	47	5	66	<.3
STANDARD C3	26	64	33	162	5.4

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L75+00N 21+50E	<1	33	10	55	<.3
L75+00N 22+00E	<1	56	7	52	<.3
L75+00N 22+50E	1	59	5	72	.4
L75+00N 23+00E	1	39	6	68	.5
L75+00N 23+50E	<1	53	9	75	<.3
L75+00N 24+00E	2	38	10	68	.4
L75+00N 24+50E	1	41	9	83	<.3
L75+00N 25+00E	2	34	8	80	.3
L75+00N 25+50E	2	38	8	81	<.3
L75+00N 26+50E	2	56	6	78	<.3
L75+00N 27+00E	<1	29	8	66	.3
L75+00N 27+50E	1	32	9	73	<.3
L75+00N 28+00E	1	25	11	55	<.3
L75+00N 28+50E	1	24	7	50	<.3
RE L75+00N 28+50E	1	27	9	50	<.3
L75+00N 29+00E	2	25	6	48	<.3
L75+00N 29+50E	1	15	6	38	<.3
L75+00N 30+00E	2	16	9	45	<.3
L75+00N 30+50E	1	14	8	36	<.3
L75+00N 31+00E	1	15	9	36	<.3
L75+00N 31+50E	<1	21	8	41	<.3
L75+00N 32+00E	1	13	7	41	<.3
L75+00N 32+50E	1	15	9	46	<.3
L75+00N 33+00E	<1	10	3	24	<.3
L75+00N 33+50E	<1	32	8	56	<.3
L75+00N 34+00E	<1	17	6	39	<.3
L75+00N 35+50E	1	20	8	45	<.3
L75+00N 36+00E	2	34	7	60	<.3
L75+00N 36+50E	1	27	8	57	<.3
L75+00N 37+00E	1	39	9	59	<.3
L75+00N 38+00E	1	49	7	62	<.3
L73+00N 20+50E	2	42	4	75	<.3
L73+00N 21+00E	2	43	8	72	<.3
L73+00N 21+50E	2	59	10	77	.3
L73+00N 22+00E	7	55	10	76	<.3
STANDARD C3	26	68	34	168	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L73+00N 22+50E	2	24	7	54	<.3
L73+00N 23+00E	1	54	10	66	<.3
L73+00N 23+50E	2	49	4	58	<.3
L73+00N 24+00E	2	61	11	64	.3
L73+00N 24+50E	2	78	10	74	.3
RE L73+00N 24+50E	2	82	9	78	<.3
L73+00N 25+00E	8	47	8	79	.4
L73+00N 25+50E	1	33	10	63	<.3
L73+00N 26+00E	1	40	6	63	<.3
L73+00N 27+00E	2	21	7	55	<.3
L73+00N 27+50E	2	20	6	57	<.3
L73+00N 28+00E	2	20	11	61	<.3
L73+00N 28+50E	<1	23	10	62	<.3
L73+00N 29+00E	<1	24	11	65	<.3
L73+00N 29+50E	<1	21	9	51	<.3
L73+00N 30+00E	1	17	8	39	<.3
L73+00N 30+50E	1	18	7	48	<.3
L73+00N 31+00E	<1	13	8	42	<.3
L73+00N 31+50E	<1	16	6	36	.3
L73+00N 32+00E	1	19	9	47	<.3
L73+00N 33+00E	<1	21	11	43	<.3
L73+00N 33+50E	2	47	11	78	.3
L73+00N 34+00E	1	14	8	54	<.3
L73+00N 34+50E	2	6	6	24	<.3
L73+00N 35+00E	<1	12	8	44	<.3
L73+00N 35+50E	3	71	5	74	.9
L73+00N 36+00E	2	48	12	107	.7
L73+00N 36+50E	1	37	10	75	<.3
L73+00N 37+00E	1	30	9	89	.3
L73+00N 37+50E	2	34	7	69	.5
L73+00N 38+00E	<1	34	8	47	<.3
L71+00N 20+50E	<1	53	4	70	.3
L71+00N 21+00E	<1	23	5	42	<.3
L71+00N 21+50E	<1	16	5	36	<.3
L71+00N 22+00E	1	37	7	47	<.3
STANDARD C3	24	65	37	152	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L71+00N 22+50E	4	83	9	68	<.3
L71+00N 23+50E	3	41	7	56	<.3
L71+00N 24+00E	4	59	8	65	.3
L71+00N 24+50E	1	24	8	46	<.3
L71+00N 25+00E	1	23	7	44	<.3
L71+00N 25+50E	1	26	9	48	<.3
L71+00N 26+00E	1	21	9	51	<.3
L71+00N 26+50E	1	30	11	66	<.3
L71+00N 27+00E	1	23	11	55	<.3
L71+00N 27+50E	4	58	16	140	<.3
L71+00N 28+00E	1	19	8	49	<.3
L71+00N 29+00E	1	18	7	54	<.3
L71+00N 29+50E	1	16	13	55	<.3
L71+00N 30+00E	1	26	9	68	<.3
RE L71+00N 30+00E	1	26	9	67	<.3
L71+00N 30+50E	1	16	6	40	<.3
L71+00N 31+00E	1	18	9	52	<.3
L71+00N 31+50E	1	20	9	50	<.3
L71+00N 32+00E	1	33	8	59	<.3
L71+00N 32+50E	1	20	6	56	<.3
L71+00N 33+00E	1	33	8	72	<.3
L71+00N 33+50E	1	25	8	59	<.3
L71+00N 34+00E	1	19	9	44	<.3
L71+00N 34+50E	1	22	6	40	<.3
L71+00N 35+00E	1	27	11	51	.3
L71+00N 35+50E	1	20	7	52	<.3
L71+00N 36+00E	1	23	8	67	<.3
L71+00N 36+50E	1	26	11	66	<.3
L71+00N 37+00E	1	31	7	82	<.3
L71+00N 37+50E	2	36	11	63	<.3
L71+00N 38+00E	2	33	9	80	.3
TL 69+00N 29+50E	1	27	8	95	<.3
TL 69+00N 30+00E	1	23	9	84	<.3
TL 69+00N 30+50E	1	17	9	51	<.3
TL 69+00N 31+00E	1	18	15	45	<.3
STANDARD C3	27	68	36	169	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
TL 69+00N 31+50E	1	10	17	53	<.3
TL 69+00N 32+00E	4	64	9	71	<.3
TL 69+00N 32+50E	7	33	12	83	<.3
TL 69+00N 33+00E	5	34	6	93	<.3
TL 69+00N 33+50E	3	28	7	82	.3
TL 69+00N 34+00E	4	20	11	51	<.3
TL 69+00N 34+50E	6	31	10	60	.3
TL 69+00N 35+00E	2	30	9	78	<.3
TL 69+00N 35+50E	4	35	12	66	<.3
TL 69+00N 36+00E	2	24	9	69	<.3
TL 69+00N 36+50E	4	25	9	45	<.3
TL 69+00N 37+00E	1	27	12	56	<.3
TL 69+00N 37+50E	3	26	9	86	<.3
TL 69+00N 38+00E	<1	20	7	66	.3
L67+00N 20+50E	3	141	5	80	.3
L67+00N 21+00E	8	135	8	96	<.3
L67+00N 22+50E	3	39	6	52	<.3
L67+00N 23+00E	1	33	5	40	<.3
L67+00N 23+50E	3	55	8	56	<.3
RE L67+00N 23+50E	2	57	8	56	<.3
L67+00N 24+50E	1	41	<3	59	<.3
L67+00N 26+00E	<1	12	8	36	<.3
L67+00N 26+50E	1	20	8	40	<.3
L67+00N 27+00E	<1	13	8	31	<.3
L67+00N 27+50E	2	22	9	44	<.3
L67+00N 28+00E	2	29	10	58	<.3
L67+00N 28+50E	2	24	8	57	<.3
L67+00N 29+00E	1	22	6	49	<.3
L67+00N 30+00E	2	20	12	54	<.3
L67+00N 31+50E	1	16	12	52	<.3
L67+00N 32+50E	1	16	7	36	<.3
L67+00N 33+00E	8	41	8	67	<.3
L67+00N 33+50E	2	37	12	64	<.3
L67+00N 34+00E	10	29	10	108	.4
L67+00N 36+00E	2	33	6	76	<.3
STANDARD C3	28	67	37	161	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L67+00N 36+50E	2	36	6	81	.3
L67+00N 37+00E	2	40	6	70	<.3
L67+00N 37+50E	3	32	11	67	<.3
BL 20+00E 79+00N	<1	20	7	51	<.3
BL 20+00E 78+50N	1	38	7	68	<.3
BL 20+00E 78+00N	1	43	8	90	.5
BL 20+00E 77+50N	1	37	5	97	<.3
BL 20+00E 77+00N	1	36	4	58	<.3
BL 20+00E 76+50N	1	44	7	80	.3
BL 20+00E 76+00N	1	30	4	52	<.3
BL 20+00E 75+50N	<1	26	6	53	<.3
BL 20+00E 75+00N	1	54	6	56	<.3
BL 20+00E 74+50N	<1	34	6	84	<.3
RE BL 20+00E 74+50N	<1	32	5	80	<.3
BL 20+00E 73+50N	1	23	5	46	<.3
BL 20+00E 73+00N	5	43	4	73	<.3
BL 20+00E 72+50N	2	34	6	59	<.3
BL 20+00E 72+00N	3	60	10	114	<.3
BL 20+00E 71+50N	4	82	6	66	.3
BL 20+00E 71+00N	4	85	6	72	.5
BL 20+00E 70+50N	4	72	6	74	.4
BL 20+00E 69+50N	1	26	5	51	<.3
BL 38+00E 78+50N	1	25	8	55	<.3
BL 38+00E 78+00N	1	19	8	42	<.3
BL 38+00E 77+50N	1	35	4	68	<.3
BL 38+00E 77+00N	1	61	8	68	<.3
BL 38+00E 76+50N	1	30	7	58	<.3
BL 38+00E 76+00N	1	33	5	62	<.3
BL 38+00E 75+50N	1	27	6	49	<.3
BL 38+00E 75+00N	1	11	8	38	<.3
BL 38+00E 74+50N	2	62	15	60	1.1
BL 38+00E 74+00N	1	27	8	51	<.3
BL 38+00E 73+50N	1	24	8	52	<.3
BL 38+00E 73+00N	1	30	8	71	<.3
BL 38+00E 72+50N	1	28	9	53	.5
STANDARD C3	26	67	34	165	5.9

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
BL 38+00E 72+00N	1	24	7	69	<.3
BL 38+00E 71+50N	1	9	9	45	<.3
BL 38+00E 70+50N	1	28	8	57	<.3
BL 38+00E 70+00N	1	41	9	64	<.3
BL 38+00E 69+50N	1	24	8	54	<.3
RE BL 38+00E 69+50N	1	24	10	54	<.3
STANDARD C3	26	64	34	159	5.4

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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Fairfield Minerals Ltd. PROJECT CABIN LAKE File # 97-4162 Page 1

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: ED BALON

SAMPLE#

Mo Cu Pb Zn Ag
ppm ppm ppm ppm ppm

L49+00N 10+00E	1	21	7	37	<.3
L49+00N 10+50E	1	22	6	34	.4
L49+00N 11+00E	1	15	9	36	.3
L49+00N 11+50E	5	3399	7	94	.4
L48+00N 18+50E	1	19	8	52	<.3
L43+00N 10+00E	1	54	7	28	.5
L43+00N 11+00E	1	13	6	30	<.3
L43+00N 11+50E	<1	15	5	29	.3
L43+00N 12+00E	1	15	7	38	<.3
L43+00N 12+50E	1	14	6	30	.3
L43+00N 13+00E	5	46	7	75	.5
L43+00N 13+50E	1	22	4	43	<.3
L43+00N 14+00E	<1	17	11	24	<.3
L43+00N 14+50E	<1	24	5	35	<.3
RE L43+00N 14+50E	1	24	4	35	<.3
L43+00N 15+50E	1	35	6	47	<.3
L43+00N 16+00E	<1	27	4	42	<.3
L43+00N 16+50E	1	20	<3	39	<.3
L43+00N 17+00E	1	7	9	15	<.3
L43+00N 17+50E	1	24	7	48	.3
L43+00N 18+00E	1	9	8	27	<.3
L43+00N 18+50E	<1	20	8	41	<.3
L43+00N 19+00E	1	13	7	31	<.3
L43+00N 19+50E	1	5	9	10	<.3
L41+00N 10+00E	<1	17	6	32	<.3
L41+00N 10+50E	<1	35	9	57	<.3
L41+00N 11+00E	1	33	8	54	<.3
L41+00N 11+50E	<1	27	4	45	<.3
L41+00N 12+00E	<1	10	6	17	<.3
L41+00N 12+50E	<1	9	5	17	<.3
L41+00N 13+00E	1	24	6	42	.3
L41+00N 13+50E	<1	18	3	43	<.3
L41+00N 14+00E	<1	16	13	30	<.3
L41+00N 14+50E	1	17	8	36	<.3
L41+00N 15+00E	<1	17	5	39	.3
L41+00N 15+50E	1	19	5	38	<.3
STANDARD C3	24	63	34	150	5.6

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL

- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns

DATE RECEIVED: AUG 7 1997 DATE REPORT MAILED: Aug 15/97 SIGNED BY: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
41+00N 16+00E	3	61	14	33	.8
41+00N 16+50E	<1	21	4	34	<.3
41+00N 17+00E	<1	5	5	11	<.3
41+00N 17+50E	3	25	7	31	.3
41+00N 18+00E	2	34	6	49	.3
41+00N 18+50E	1	45	7	59	.3
41+00N 19+00E	9	67	12	105	.6
41+00N 19+50E	1	8	12	19	<.3
41+00N 20+50E	2	35	9	64	.3
41+00N 21+50E	<1	14	10	32	<.3
41+00N 22+00E	<1	29	8	59	<.3
41+00N 22+50E	1	9	11	33	<.3
41+00N 23+00E	<1	17	7	51	<.3
RE 41+00N 23+00E	<1	17	4	52	<.3
41+00N 23+50E	<1	15	6	44	<.3
41+00N 24+00E	<1	26	4	55	<.3
41+00N 24+50E	<1	34	6	51	<.3
41+00N 25+00E	<1	40	5	49	<.3
41+00N 25+50E	<1	30	3	37	<.3
41+00N 26+00E	<1	41	7	45	<.3
41+00N 26+50E	<1	31	5	48	<.3
41+00N 27+00E	1	25	7	40	<.3
41+00N 27+50E	1	23	9	40	<.3
41+00N 28+00E	<1	20	5	27	<.3
41+00N 28+50E	<1	74	5	34	.3
41+00N 29+00E	<1	79	4	33	<.3
41+00N 29+50E	2	47	4	35	<.3
41+00N 30+00E	1	88	8	42	.3
41+00N 30+50E	1	67	8	47	.3
41+00N 31+00E	1	51	5	40	.4
41+00N 31+50E	<1	48	7	45	.4
41+00N 32+00E	1	37	9	56	.3
41+00N 32+50E	<1	31	9	40	<.3
41+00N 33+00E	<1	34	6	58	.4
STANDARD C3	25	60	38	148	5.6

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L41+00N 33+50E	1	33	10	44	.3
L39+00N 12+50E	2	26	9	41	<.3
L39+00N 13+00E	1	28	6	32	<.3
L39+00N 13+50E	2	66	14	97	<.3
L39+00N 14+00E	6	138	15	110	.7
L39+00N 14+50E	5	64	15	46	.4
L39+00N 15+00E	1	55	8	69	<.3
L39+00N 15+50E	2	15	4	21	<.3
L39+00N 16+00E	6	40	6	41	.6
L39+00N 16+50E	7	95	10	59	.3
L39+00N 17+00E	8	42	8	42	.5
L39+00N 17+50E	6	149	11	79	.3
L39+00N 18+50E	9	158	13	66	.8
L39+00N 19+00E	3	61	8	55	.3
L39+00N 19+50E	3	30	8	40	<.3
L39+00N 20+50E	1	20	7	52	<.3
RE L39+00N 20+50E	2	19	8	49	<.3
L39+00N 21+00E	5	107	10	86	.5
L39+00N 21+50E	1	41	6	76	.5
L39+00N 22+00E	3	49	8	43	.4
L39+00N 22+50E	1	41	4	36	.3
L39+00N 23+00E	3	75	13	95	.4
L39+00N 23+50E	1	64	10	64	<.3
L39+00N 24+00E	2	93	12	82	.3
L39+00N 24+50E	1	620	18	79	.6
L39+00N 25+00E	1	107	10	51	.4
L39+00N 25+50E	<1	67	9	40	.3
L39+00N 26+00E	<1	24	8	38	<.3
L39+00N 26+50E	<1	15	6	46	.3
L39+00N 27+00E	<1	17	9	53	<.3
L39+00N 27+50E	1	13	11	33	.3
L39+00N 28+00E	1	50	13	85	.4
L39+00N 28+50E	1	25	3	23	<.3
L39+00N 29+00E	1	33	7	51	<.3
L39+00N 29+50E	1	7	7	46	<.3
STANDARD C3	26	66	35	152	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#

Mo
ppmCu
ppmPb
ppmZn
ppmAg
ppmL39+00N 30+00E
L37+00N 10+00E
L37+00N 10+50E
L37+00N 11+00E
L37+00N 11+50E1 35 8 35 <.3
3 57 6 48 .3
3 47 9 42 .3
3 40 7 40 .3
2 50 5 49 .3L37+00N 12+00E
L37+00N 13+00E
L37+00N 13+50E
L37+00N 14+00E
L37+00N 14+50E7 168 12 59 1.5
4 58 11 76 .4
4 83 7 49 .4
6 157 9 95 <.3
24 54 15 60 .4L37+00N 15+50E
L37+00N 16+00E
L37+00N 16+50E
L37+00N 17+00E
L37+00N 17+50E11 83 6 64 .3
22 211 11 150 .5
16 88 8 118 <.3
2 49 6 73 <.3
1 36 6 44 <.3L37+00N 18+00E
RE L37+00N 18+00E
L37+00N 18+50E
L37+00N 19+00E
L37+00N 19+50E1 19 13 55 <.3
<1 21 13 50 <.3
<1 23 8 52 <.3
2 19 13 61 .6
5 34 11 60 <.3L37+00N 20+50E
L37+00N 21+00E
L37+00N 21+50E
L37+00N 22+00E
L37+00N 22+50E15 128 9 95 .4
13 54 11 65 .3
21 156 12 120 .6
7 125 10 100 .4
5 51 9 60 <.3L37+00N 23+00E
L37+00N 23+50E
L37+00N 24+00E
L37+00N 24+50E
L37+00N 25+00E1 26 3 36 <.3
<1 41 4 50 .3
<1 68 9 68 .3
<1 54 6 52 .3
<1 77 12 55 .3L37+00N 25+50E
L37+00N 26+00E
L37+00N 26+50E
L37+00N 27+00E
L37+00N 27+50E<1 67 10 56 <.3
1 100 9 83 .3
<1 62 8 50 <.3
<1 54 6 50 <.3
<1 47 8 51 <.3

STANDARD C3

24 64 32 143 5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#

Mo
ppm Cu
ppm Pb
ppm Zn
ppm Ag
ppm

L37+00N 28+00E	3	57	11	56	.4
L37+00N 28+50E	2	25	9	39	<.3
L37+00N 29+00E	1	15	11	53	<.3
L37+00N 29+50E	1	12	8	24	.4
L35+00N 10+00E	3	53	14	50	<.3
L35+00N 10+50E	1	45	10	55	.3
L35+00N 11+00E	4	228	11	74	<.3
L35+00N 11+50E	3	46	7	47	<.3
L35+00N 12+00E	4	40	9	45	<.3
L35+00N 12+50E	6	104	8	52	.4
L35+00N 13+00E	19	70	16	107	1.1
L35+00N 14+00E	10	33	8	38	<.3
L35+00N 14+50E	15	15	10	23	<.3
RE L35+00N 14+50E	17	15	10	24	<.3
L35+00N 15+00E	7	41	8	26	.3
L35+00N 15+50E	4	36	6	23	<.3
L35+00N 16+00E	1	43	7	43	<.3
L35+00N 16+50E	4	49	10	34	<.3
L35+00N 17+00E	1	51	25	93	<.3
L35+00N 17+50E	2	21	8	44	<.3
L35+00N 18+00E	1	17	6	35	<.3
L35+00N 18+50E	2	25	12	51	.4
L35+00N 19+00E	1	20	6	33	<.3
L35+00N 19+50E	<1	32	10	45	<.3
L35+00N 20+50E	1	31	7	47	.3
L35+00N 21+00E	3	63	15	71	.3
L35+00N 21+50E	1	16	10	44	.4
L35+00N 22+00E	1	28	8	38	<.3
L35+00N 22+50E	2	30	8	41	<.3
L35+00N 23+50E	5	27	9	36	<.3
L35+00N 24+50E	8	72	16	70	<.3
L35+00N 25+00E	3	17	10	48	<.3
L35+00N 25+50E	1	31	13	57	<.3
L35+00N 26+00E	<1	19	9	39	<.3
L35+00N 26+50E	1	30	11	48	<.3
STANDARD C3	27	64	39	163	6.0

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L35+00N 27+00E	1	30	9	49	.3
L35+00N 27+50E	1	26	9	48	<.3
L35+00N 28+00E	2	28	12	57	<.3
L35+00N 28+50E	<1	36	12	50	<.3
L35+00N 29+00E	1	57	12	58	<.3
L35+00N 29+50E	1	30	8	43	<.3
L35+00N 30+00E	1	13	8	86	<.3
L33+00N 10+00E	6	20	12	38	<.3
L33+00N 10+50E	50	85	21	106	.3
L33+00N 11+00E	307	392	49	135	1.6
L33+00N 11+50E	6	17	8	42	<.3
L33+00N 12+00E	3	19	13	57	<.3
L33+00N 12+50E	15	39	13	46	<.3
L33+00N 13+00E	7	35	9	48	<.3
L33+00N 13+50E	16	160	10	58	<.3
L33+00N 14+00E	4	47	6	86	<.3
L33+00N 15+00E	3	94	5	46	<.3
L33+00N 15+50E	3	95	6	49	<.3
L33+00N 16+00E	2	63	7	27	<.3
L33+00N 16+50E	4	76	6	43	<.3
L33+00N 17+00E	8	85	8	45	<.3
L33+00N 17+50E	14	84	6	57	.3
RE L33+00N 17+50E	14	83	9	56	.3
L33+00N 18+00E	7	53	5	48	<.3
L33+00N 18+50E	5	67	5	42	<.3
L33+00N 19+00E	9	116	7	68	.3
L33+00N 19+50E	6	56	5	36	<.3
L33+00N 20+50E	2	31	7	41	<.3
L33+00N 21+00E	2	42	5	36	<.3
L33+00N 21+50E	<1	50	7	51	<.3
L33+00N 22+00E	1	45	8	51	.3
L33+00N 22+50E	1	49	8	56	<.3
L33+00N 23+00E	2	38	8	49	<.3
L33+00N 23+50E	2	47	10	61	.3
L33+00N 24+00E	1	34	11	59	<.3
STANDARD C3	25	63	35	148	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L33+00N 24+50E	1	32	11	49	.4
L33+00N 25+00E	1	39	8	54	.4
L33+00N 25+50E	4	53	8	51	.4
L33+00N 26+00E	4	30	10	49	<.3
L33+00N 26+50E	7	51	7	55	.4
L33+00N 27+00E	9	39	9	55	.3
L33+00N 27+50E	2	38	10	66	.3
L33+00N 28+00E	3	15	12	63	<.3
L33+00N 28+50E	1	23	7	53	<.3
L33+00N 29+00E	2	20	9	55	<.3
L33+00N 29+50E	1	36	13	62	.3
L33+00N 30+00E	1	29	6	45	<.3
L31+00N 10+00E	3	22	9	51	.3
L31+00N 10+50E	4	10	12	19	.5
L31+00N 11+00E	3	15	7	42	.3
L31+00N 11+50E	2	13	10	29	.5
RE L31+00N 11+50E	2	12	10	27	.4
L31+00N 12+00E	4	24	9	22	<.3
L31+00N 12+50E	7	17	15	33	.3
L31+00N 13+00E	6	17	12	42	.4
L31+00N 13+50E	2	12	6	29	<.3
L31+00N 14+00E	3	23	8	38	<.3
L31+00N 14+50E	2	29	8	55	<.3
L31+00N 15+00E	1	43	5	54	<.3
L31+00N 15+50E	4	40	4	55	<.3
L31+00N 16+00E	5	108	6	55	<.3
L31+00N 16+50E	5	40	9	50	<.3
L31+00N 17+00E	20	110	4	47	.3
L31+00N 17+50E	28	63	6	57	<.3
L31+00N 18+00E	13	32	5	48	<.3
L31+00N 18+50E	15	56	8	47	<.3
L31+00N 19+00E	6	31	7	42	<.3
L31+00N 19+50E	11	46	5	49	<.3
L31+00N 20+50E	14	52	6	55	<.3
L31+00N 21+00E	11	41	8	46	<.3
STANDARD C3	26	67	37	159	5.9

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L31+00N 21+50E	3	38	8	51	<.3
L31+00N 22+00E	8	49	8	48	<.3
L31+00N 22+50E	5	51	5	48	<.3
L31+00N 23+00E	6	42	5	47	<.3
L31+00N 23+50E	3	31	6	51	<.3
L31+00N 24+00E	2	26	8	46	<.3
L31+00N 24+50E	2	47	8	50	<.3
L31+00N 25+00E	2	36	10	43	<.3
L31+00N 26+00E	<1	38	9	57	<.3
L31+00N 26+50E	<1	26	4	47	<.3
RE L31+00N 26+50E	1	24	6	44	<.3
L31+00N 27+00E	3	63	7	66	<.5
L31+00N 27+50E	2	20	6	40	<.3
L31+00N 28+00E	3	46	12	64	<.3
L31+00N 28+50E	5	49	8	60	<.3
L31+00N 29+00E	4	39	7	53	<.3
L31+00N 29+50E	3	26	7	43	<.3
L31+00N 30+00E	1	36	5	62	<.3
L29+00N 10+00E	4	25	9	46	<.3
L29+00N 10+50E	2	20	7	37	<.3
L29+00N 11+00E	2	13	9	38	<.3
L29+00N 11+50E	3	12	13	46	<.3
L29+00N 14+00E	6	23	12	32	<.3
L29+00N 14+50E	3	41	8	46	<.3
L29+00N 15+00E	4	25	3	46	<.3
L29+00N 15+50E	18	44	4	40	<.3
L29+00N 16+00E	27	241	10	63	<.4
L29+00N 16+50E	32	511	7	71	<.7
L29+00N 17+00E	19	324	8	57	<.6
L29+00N 17+50E	8	118	8	42	<.3
L29+00N 18+00E	10	48	7	41	<.3
L29+00N 18+50E	8	49	6	37	<.3
L29+00N 19+00E	15	49	10	50	<.3
L29+00N 19+50E	17	58	8	51	<.3
L29+00N 20+50E	5	32	3	46	<.3
STANDARD C3	26	66	34	156	5.7

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
L29+00N 21+00E	7	51	6	46	.3
L29+00N 21+50E	6	45	8	50	<.3
RE L29+00N 21+50E	7	46	8	49	.3
L29+00N 22+00E	3	34	8	50	.3
L29+00N 22+50E	6	54	9	61	.3
L29+00N 23+00E	3	48	9	65	.3
L29+00N 23+50E	4	32	5	47	<.3
L29+00N 24+00E	4	34	5	46	.4
L29+00N 24+50E	6	36	13	44	<.3
L29+00N 25+00E	3	34	7	53	<.3
L29+00N 25+50E	4	38	8	57	.3
L29+00N 26+00E	1	34	4	43	.3
L29+00N 26+50E	<1	45	7	57	<.3
L29+00N 27+00E	<1	40	7	52	<.3
L29+00N 27+50E	1	37	11	51	<.3
L29+00N 28+00E	1	34	6	43	<.3
L29+00N 28+50E	<1	37	6	52	.3
L29+00N 29+00E	1	39	9	53	.3
L29+00N 29+50E	2	43	9	50	.3
L29+00N 30+00E	1	35	8	50	<.3
BL20+00E 42+50N	4	70	15	105	.6
BL20+00E 42+00N	1	28	4	41	<.3
BL20+00E 41+50N	2	9	12	17	.3
BL20+00E 40+50N	1	16	9	43	<.3
BL20+00E 40+00N	3	24	11	70	.3
BL20+00E 39+50N	8	200	23	106	.7
BL20+00E 39+00N	6	120	14	122	.9
BL20+00E 38+50N	6	57	8	59	<.3
BL20+00E 38+00N	9	121	5	102	1.0
BL20+00E 37+50N	24	131	12	127	.6
BL20+00E 37+00N	10	15	8	48	<.3
BL20+00E 36+50N	6	10	7	41	<.3
BL20+00E 36+00N	5	73	15	122	.6
BL20+00E 35+50N	1	11	8	33	<.3
BL20+00E 35+00N	2	38	8	46	<.3
STANDARD C3	23	63	32	148	5.6

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



SAMPLE#

Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
-----------	-----------	-----------	-----------	-----------

BL20+00E 34+50N	1	24	4	35	<.3
BL20+00E 34+00N	1	55	8	47	<.3
RE BL20+00E 34+00N	2	56	5	47	.3
BL20+00E 33+50N	2	69	7	45	.3
BL20+00E 33+00N	2	46	3	37	<.3
BL20+00E 32+50N	8	67	5	36	.3
BL20+00E 32+00N	8	33	3	34	<.3
BL20+00E 31+50N	4	21	4	30	<.3
BL20+00E 31+00N	16	39	7	41	<.3
BL20+00E 30+50N	6	37	8	40	<.3
BL20+00E 30+00N	9	51	10	53	<.3
BL20+00E 29+50N	13	69	5	56	<.3
BL20+00E 29+00N	11	46	8	44	<.3
STANDARD C3	26	63	35	151	5.5

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Fairfield Minerals Ltd. PROJECT CABIN LAKE/CL97-8 File # 97-4163

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
T348-1	1	38	12	77	.4	34	16	987	3.64	3	<8	<2	3	20	<.2	<3	<3	79	.22	.106	13	53	1.00	335	.10	5	2.72	.01	.10	<2	2
T348-2	1	321	11	59	1.5	21	9	498	2.05	19	<8	<2	2	35	.5	4	<3	43	.53	.115	21	62	.67	344	.05	5	2.29	.01	.14	<2	18
T348-3	2	44	5	35	.6	29	8	701	1.57	11	28	<2	2	64	.4	<3	<3	41	2.18	.196	11	249	.55	301	.03	11	1.18	.02	.08	<2	1
RE T348-3	2	43	5	35	.6	30	8	724	1.60	10	29	<2	3	66	.3	<3	<3	42	2.26	.197	11	261	.56	305	.04	13	1.21	.02	.08	<2	<1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

- SAMPLE TYPE: STREAM SED. AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 7 1997 DATE REPORT MAILED: Aug 15/97 SIGNED BY: C. Leong D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CABIN LAKE/CL97-8 File # 97-4164

1420 - 700 W. Georgia St., Vancouver BC V7Y 1R6 Submitted by: Ed Balon

AA
TLAA
TL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CL97-R19	4	202	3	45	<.3	11	41	389	5.54	<2	<8	<2	<2	24	<.2	<3	<3	119	1.03	.032	<1	16	1.89	44	.10	<3	3.00	.09	.22	2	1
CL97-R20	1	239	<3	35	.4	11	34	310	3.43	<2	<8	<2	<2	8	<.2	<3	<3	61	.31	.022	1	13	1.81	34	.03	<3	1.88	.05	.12	3	7
CL97-R21	1	9	7	52	<.3	14	3	26	.94	141	<8	<2	<2	64	1.2	45	3	12	.03	.026	3	31	.01	703	<.01	3	.12	<.01	.05	4	2
T348-R1	1	1496	<3	38	.7	2	5	266	1.00	6	<8	<2	4	11	.3	<3	<3	5	.53	.009	12	10	.30	234	.02	3	.89	.04	.16	4	16
RE T348-R1	2	1445	3	37	.7	2	5	261	.98	3	<8	<2	4	11	.3	<3	<3	5	.51	.010	11	10	.29	233	.02	3	.87	.04	.15	4	19

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 7 1997 DATE REPORT MAILED: *Aug 21/97* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

AA
LL

Fairfield Minerals Ltd. PROJECT CL/97-9 File # 97-4949

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: D. Ritcey

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au* ppb
CL 5100N 1350E	<1	8	4	15	.4	1
CL 5100N 1400E	1	31	4	21	<.3	1
CL 5100N 1450E	5	6324	4	62	<.3	9
CL 5100N 1500E	8	986	8	28	.6	5
RE CL 5100N 1500E	7	1001	9	29	.7	4
CL 5100N 1600E	4	154	7	31	.3	1
CL 5100N 1650E	6	64	4	37	<.3	1
CL 5000N 1150E	<1	18	8	59	<.3	1
CL 5000N 1350E	2	63	12	150	.3	3
CL 5000N 1450E	5	41	9	49	.4	2
CL 4900N 1150E(D)	<1	18	8	59	<.3	2

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

- SAMPLE TYPE: SOIL AU* - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(10 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 2 1997 DATE REPORT MAILED: *Sep 11/97* SIGNED BY: *J. Wang* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL/97-9 File # 97-4951

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: D. Ritcey

AA
LL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Cu	Ag**	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	%	oz/t	oz/t
CL97-R23	32	8674	5	81	4.5	5	16	148	4.50	13	18	<2	3	8	.7	5	<3	8	.16	.109	6	6	1.00	39	.01	<3	1.16	.04	.15	<2	.908	.15	.005

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
CU BY REGULAR ASSAY ICP.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AG** & AU** BY FIRE ASSAY FROM 1 A.T. SAMPLE.

DATE RECEIVED: SEP 2 1997 DATE REPORT MAILED:

SIGNED BY: *D. Toye* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Fairfield Minerals Ltd. PROJECT CL/97-10 File # 97-5559

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	SAMPLE
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	lb
CLT973-1P	44	467	8	36	.3	4	8	206	2.28	4	<8	<2	4	8	<2	<3	<3	20	.18	.064	8	7	1.03	98	.08	3	1.23	.04	.15	3	22	13
CLT973-2	7	454	9	29	<.3	5	6	231	7.53	7	<8	<2	<2	40	<2	<3	<3	79	.09	.072	6	18	1.34	125	.09	<3	2.20	.15	.35	<2	9	12
CLT973-3	14	506	7	32	<.3	6	6	260	7.24	12	<8	<2	2	28	<2	<3	<3	58	.07	.074	5	26	1.44	135	.08	<3	2.60	.08	.28	4	10	12
CLT973-4	16	288	4	10	<.3	3	12	94	3.93	9	<8	<2	<2	10	<2	<3	<3	12	.04	.029	3	13	.55	50	.01	<3	.93	.04	.18	2	9	14
CLT973-5	12	172	4	13	<.3	3	10	172	5.09	8	<8	<2	<2	10	<2	<3	<3	43	.16	.033	3	10	1.12	50	.04	<3	1.52	.05	.21	4	6	14
CLT973-6	5	204	5	17	<.3	3	10	196	7.02	7	<8	<2	<2	11	<2	<3	<3	51	.05	.046	4	8	1.28	60	.03	<3	1.94	.04	.26	<2	3	13
CLT973-7	4	105	5	5	<.3	3	8	66	5.39	217	<8	<2	<2	12	<2	<3	3	22	.01	.026	2	11	.27	48	<.01	<3	.75	.05	.20	4	1	12
CLT973-8	15	29	6	1	<.3	3	10	14	4.09	17	<8	<2	<2	10	<2	<3	<3	3	.01	.005	4	9	.01	35	<.01	<3	.24	.07	.19	3	3	15
CLT973-9	8	29	5	2	<.3	2	4	27	3.04	4	<8	<2	<2	6	<2	<3	<3	3	<.01	.004	2	11	.01	46	<.01	<3	.28	.04	.22	5	1	14
CLT973-10	30	18	5	<1	<.3	3	7	20	3.92	3	<8	<2	<2	8	<2	<3	<3	2	.01	.005	2	10	.01	34	<.01	<3	.27	.04	.20	3	2	12
CLT973-11	7	47	8	1	.3	2	10	26	4.43	13	<8	<2	<2	9	<2	<3	<3	3	<.01	.006	4	10	.01	21	<.01	<3	.25	.04	.21	5	11	13
CLT973-12	12	36	5	<1	<.3	4	9	21	3.81	13	<8	<2	<2	7	<2	<3	<3	3	<.01	.005	3	12	.01	22	<.01	<3	.26	.04	.23	4	10	15
CLT973-13	102	110	3	20	<.3	6	12	211	3.11	<2	<8	<2	<2	45	<2	<3	<3	55	.99	.049	4	15	1.18	87	.09	3	2.46	.21	.27	3	5	12
CLT973-14	9	174	4	20	<.3	7	13	238	4.52	<2	<8	<2	<2	17	<2	<3	<3	35	.31	.051	4	20	1.02	58	.06	<3	1.62	.05	.33	2	6	13
CLT973-15	9	261	6	21	<.3	3	15	192	6.05	2	<8	<2	<2	20	<2	<3	<3	31	.33	.036	3	10	.84	41	.06	<3	1.79	.05	.32	8	5	12
CLT973-16	10	310	<3	33	<.3	5	15	367	6.39	<2	<8	<2	<2	12	<2	5	<3	60	.20	.036	2	14	1.70	49	.08	<3	2.47	.04	.41	<2	6	13
RE CLT973-16	9	307	<3	33	<.3	6	15	370	6.41	<2	<8	<2	<2	12	<2	<3	<3	61	.21	.035	2	14	1.72	53	.08	<3	2.50	.04	.41	<2	6	-
CLT973-17	10	318	<3	34	<.3	6	16	383	6.65	<2	<8	<2	<2	12	<2	<3	<3	63	.21	.037	2	15	1.79	54	.08	<3	2.58	.04	.43	<2	2	11
CLT973-18	5	101	4	30	<.3	23	11	282	3.28	2	<8	<2	4	35	<2	<3	<3	67	.58	.103	9	58	.96	41	.17	<3	1.32	.07	.15	2	1	10
CLT973-19	9	121	4	29	<.3	32	12	287	3.64	4	<8	<2	2	29	<2	<3	<3	72	.67	.109	6	93	1.08	44	.21	<3	1.38	.08	.17	3	1	11
CLT973-20	2	66	4	23	<.3	22	7	224	2.51	<2	<8	<2	4	34	<2	<3	<3	59	.53	.083	6	68	.86	37	.14	<3	1.12	.07	.09	2	<1	8
CLT973-21	8	190	<3	19	.3	36	16	194	4.98	5	<8	<2	2	21	<2	<3	<3	53	.38	.069	4	82	.99	49	.11	<3	1.48	.06	.23	4	4	12
STANDARD C3/AU-R	24	63	35	143	5.6	36	13	716	3.29	49	24	3	18	28	22.5	14	20	83	.56	.090	19	163	.58	147	.10	20	1.88	.04	.16	20	475	-

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
 - SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)
 Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 22 1997 DATE REPORT MAILED: Oct 1/97 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL/97-11 File # 97-5560 Page 1
1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: Ed Balon

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	SAMPLE	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	%	ppm	ppb	lb
CLT973-22	16	31	4	3	<.3	7	9	54	4.88	7	<8	<2	2	16	<.2	3	<3	9	.08	.020	3	23	.17	22	.01	<3	.44	.04	.28	5	2	15	
CLT973-23	47	35	5	2	<.3	14	10	43	5.36	10	<8	<2	<2	12	<.2	<3	<3	8	.06	.015	3	24	.18	16	<.01	<3	.42	.04	.25	3	3	14	
CLT973-24	15	37	3	<1	<.3	2	1	53	2.80	4	<8	<2	2	10	<.2	3	4	3	<.01	.008	3	8	.02	71	<.01	3	.37	.02	.34	5	1	14	
CLT973-25	18	108	6	3	1.2	3	1	44	5.78	28	<8	<2	2	50	<.2	<3	<3	16	.02	.041	8	11	.10	35	<.01	<3	.77	.28	.47	3	20	13	
CLT973-26	21	317	8	26	.4	3	13	124	3.70	18	<8	<2	2	11	<.2	<3	<3	22	.02	.028	6	10	.65	58	<.01	<3	1.15	.03	.24	5	12	12	
CLT973-27	26	646	4	9	.3	3	15	35	2.17	6	<8	<2	3	8	<.2	<3	3	8	.03	.023	12	10	.17	51	<.01	<3	.51	.02	.20	3	19	15	
CLT973-28	29	347	5	19	.4	10	8	129	2.07	5	<8	<2	4	14	<.2	<3	3	23	.18	.067	14	32	.61	113	.03	<3	.96	.02	.17	5	20	14	
CLT973-29	24	2857	7	24	1.0	4	14	90	2.50	3	<8	<2	4	6	<.2	<3	<3	9	.12	.073	15	8	.66	51	<.01	<3	.92	.01	.17	4	49	11	
CLT973-30	174	2030	5	22	.6	4	10	82	1.95	2	<8	<2	5	6	<.2	<3	4	9	.19	.097	15	10	.66	60	<.01	<3	.93	.02	.20	5	31	13	
CLT973-31	29	2622	5	77	.9	9	9	178	2.15	7	<8	<2	5	17	.5	<3	<3	39	.40	.062	9	13	.93	107	.04	<3	1.57	.05	.21	4	75	12	
CLT973-32	25	5118	5	48	2.8	4	10	122	2.70	7	<8	<2	5	10	.2	<3	3	16	.18	.042	10	9	.70	58	.01	<3	1.25	.03	.21	5	88	11	
CLT973-33	12	2576	3	123	1.5	8	24	270	3.80	<2	16	<2	3	18	.3	8	<3	61	.36	.043	5	14	1.84	56	.03	<3	2.57	.08	.31	3	52	11	
CLT973-34	11	4414	3	101	2.0	8	23	268	3.39	<2	8	<2	2	24	.4	10	<3	60	.49	.038	4	15	1.88	47	.03	<3	2.67	.10	.30	5	102	11	
CLT973-35	7	5400	3	125	1.9	8	26	270	3.37	<2	13	<2	2	23	.6	<3	<3	73	.58	.040	4	13	1.94	86	.05	<3	2.76	.11	.31	2	150	12	
CLT973-36	9	2066	4	63	2.0	5	14	232	3.06	6	<8	<2	2	10	<.2	5	<3	49	.15	.040	5	14	1.83	136	.01	<3	2.32	.02	.22	4	123	11	
CLT973-37	20	1325	7	60	1.3	7	7	171	2.30	6	<8	<2	3	11	<.2	11	<3	30	.16	.062	11	15	1.06	337	<.01	<3	1.60	.02	.18	3	60	10	
CLT973-38	31	8045	5	40	3.3	7	19	129	3.36	21	9	<2	2	9	<.2	7	3	20	.08	.040	7	11	.96	37	<.01	<3	1.40	.01	.27	3	130	12	
CLT973-39	19	2735	5	85	1.7	11	17	275	3.88	77	8	<2	2	18	<.2	18	<3	75	.24	.054	7	28	2.05	108	.03	3	2.48	.04	.27	4	139	13	
CLT973-40	16	2073	8	111	1.8	7	15	305	4.15	21	16	<2	3	12	.2	14	<3	70	.14	.053	7	19	2.01	146	.02	<3	2.54	.02	.21	6	101	11	
CLT973-41	10	3149	3	146	1.0	9	27	331	4.75	5	<8	<2	2	14	.3	8	<3	84	.15	.048	6	17	2.27	60	.03	<3	2.73	.02	.16	2	66	11	
RE CLT973-41	11	3222	3	149	1.3	9	27	338	4.87	3	<8	<2	2	14	.2	4	<3	86	.16	.049	6	17	2.33	60	.03	<3	2.80	.02	.17	2	79	-	
CLT973-42	20	1967	5	81	.4	6	16	232	3.23	7	<8	<2	<2	13	<.2	7	<3	45	.17	.038	5	12	1.42	82	.01	3	2.00	.04	.16	5	45	13	
CLT973-43	29	1919	4	169	.4	10	36	308	5.02	5	<8	<2	<2	16	.4	8	<3	46	.29	.046	4	12	1.91	23	.01	<3	2.43	.06	.22	4	32	16	
CLT973-44	11	1450	3	179	<.3	10	38	342	6.06	3	<8	<2	<2	17	.2	<3	<3	50	.27	.049	3	13	2.15	16	.01	<3	2.60	.06	.21	4	20	14	
CLT973-45	63	1472	6	67	<.3	7	15	146	6.49	12	15	<2	2	34	<.2	8	<3	46	.34	.045	5	12	.61	91	.01	3	1.37	.14	.22	2	33	15	
CLT973-46	48	663	4	52	<.3	4	9	145	6.00	13	10	<2	2	8	<.2	4	<3	28	.10	.036	5	10	1.10	73	<.01	<3	1.37	.02	.15	4	9	16	
CLT973-47	6	179	3	63	<.3	7	23	120	5.70	2	13	<2	2	4	<.2	<3	3	24	.07	.030	3	9	1.06	15	<.01	<3	1.25	.02	.19	3	5	13	
CLT973-48	18	3520	3	49	.9	9	21	101	5.84	2	<8	<2	2	6	.2	<3	<3	15	.09	.030	4	12	.71	15	.01	<3	.96	.01	.18	4	75	9	
CLT973-49	13	1538	<3	7	.4	11	33	53	7.00	3	20	<2	<2	5	<.2	<3	<3	15	.06	.024	4	10	.44	11	<.01	<3	.80	.01	.19	3	16	6	
CLT973-50	121	979	5	16	<.3	5	7	52	7.17	22	<8	<2	2	13	<.2	<3	<3	17	.12	.031	6	10	.42	71	<.01	<3	.72	.02	.16	4	7	5	
CLT973-51	19	442	<3	8	<.3	5	5	72	2.43	4	10	<2	2	13	<.2	<3	<3	15	.06	.020	6	11	.81	119	<.01	<3	1.10	.03	.21	4	24	8	
CLT973-52	8	124	<3	16	<.3	6	18	143	6.15	<2	8	<2	<2	8	<.2	<3	<3	37	.07	.023	3	13	1.59	12	<.01	<3	1.61	.04	.14	5	7	13	
CLT973-53	4	113	3	16	<.3	8	18	155	4.39	<2	<8	<2	<2	12	<.2	<3	<3	37	.24	.027	3	14	1.48	17	.01	<3	1.74	.05	.14	3	5	13	
CLT973-54	20	339	4	53	<.3	23	12	312	2.99	<2	14	<2	2	40	<.2	<3	3	69	.62	.084	7	49	1.35	65	.15	<3	1.79	.05	.16	4	17	16	
CLT973-55	25	261	11	35	.5	14	6	122	2.55	2	8	<2	2	29	<.2	<3	<3	24	.16	.044	10	24	.69	83	.01	<3	1.08	.08	.28	3	24	14	
STANDARD C3/AU-R	26	67	35	147	5.8	37	12	754	3.49	51	17	2	19	30	24.1	15	23	85	.59	.095	20	173	.61	157	.10	20	2.03	.03	.18	20	457	-	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO₃-H₂O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)
Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 22 1997 DATE REPORT MAILED: *Sept 30/97* SIGNED BY: *CL* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA



SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb	SAMPLE lb
CLT973-56	10	555	9	49	.6	9	11	162	2.43	3	<8	<2	<2	15	<.2	<3	<3	30	.24	.022	4	16	.75	59	.03	3	1.23	.02	.17	7	35	18
CLT973-57	16	1085	7	50	.6	10	14	230	2.76	<2	<8	<2	2	42	<.2	<3	<3	43	.72	.054	6	22	.89	75	.10	<3	1.66	.09	.17	3	43	10
CLT973-58	16	1173	17	103	.6	9	27	259	4.07	<2	<8	<2	2	17	<.2	3	<3	49	.33	.034	4	13	1.60	66	.03	<3	2.27	.05	.20	3	46	11
CLT973-59	49	703	12	53	.5	7	17	159	5.29	6	<8	<2	2	19	<.2	3	<3	32	.23	.031	7	13	.88	58	.03	<3	1.61	.07	.20	5	18	9
CLT973-60	66	1219	6	93	.4	9	40	252	4.34	<2	<8	<2	2	14	<.2	<3	3	40	.32	.036	3	13	1.46	43	.02	<3	2.13	.07	.21	4	22	10
CLT973-61	39	282	34	56	<.3	4	6	81	1.71	3	<8	<2	4	15	.2	<3	<3	14	.05	.017	11	11	.53	54	<.01	<3	.81	.08	.13	4	10	15
CLT973-62	17	108	13	13	<.3	3	3	38	1.69	4	<8	<2	3	9	<.2	<3	<3	7	.03	.011	13	10	.17	60	<.01	<3	.46	.05	.13	5	12	14
CLT973-63	15	172	6	30	<.3	5	2	111	3.52	2	12	<2	3	22	<.2	<3	<3	28	.07	.035	7	13	.73	56	.01	<3	1.08	.12	.14	2	10	15
RE CLT973-63	16	183	8	33	.3	5	3	129	3.93	<2	<8	<2	3	24	<.2	<3	<3	32	.08	.039	9	15	.82	62	.01	<3	1.22	.13	.15	3	11	-
CLT973-64	16	74	6	20	<.3	3	1	92	2.84	3	<8	<2	2	27	<.2	<3	<3	21	.06	.026	8	14	.58	84	<.01	<3	.96	.11	.23	6	3	18
CLT973-65	26	125	4	8	<.3	7	3	49	3.14	3	<8	<2	3	24	<.2	<3	<3	28	.09	.045	9	34	.15	92	.01	<3	.63	.11	.15	4	<1	16
STANDARD C3/AU-R	26	63	36	144	5.5	37	11	725	3.37	48	16	2	20	29	23.0	18	22	85	.58	.093	20	173	.60	152	.10	20	1.97	.03	.17	20	474	-

Sample type: ROCK. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL ANALYSIS CERTIFICATE



Fairfield Minerals Ltd. PROJECT CABIN LAKE PROPERTY File # 97-5677

1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: D. Ritcey

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
CLT974-1	11	750	5	40	.5	8	5	201	3.72	3	<8	<2	2	26	<.2	3	<3	53	.23	.029	4	11	1.22	65	.04	<3	2.15	.06	.14	3	24
CLT974-2	24	1201	8	50	.4	5	10	235	4.89	18	<8	<2	2	21	<.2	3	<3	51	.27	.030	5	13	1.11	90	.04	6	2.24	.07	.14	2	40
CLT974-3	16	1005	9	80	.5	9	16	305	5.19	6	<8	<2	2	37	<.2	3	<3	74	.81	.035	4	16	1.39	81	.07	<3	3.04	.22	.16	2	15
CLT974-4	19	1397	5	104	<.3	14	13	364	5.06	10	<8	<2	2	33	.3	<3	5	66	.39	.044	5	21	1.43	113	.06	<3	3.24	.09	.15	<2	42
CLT974-5	15	899	5	70	<.3	16	13	261	3.69	<2	<8	<2	3	17	.4	<3	7	46	.30	.039	7	18	.92	81	.06	<3	2.13	.05	.15	4	16
CLT974-6	21	871	6	79	.3	12	22	385	4.42	<2	<8	<2	2	22	.3	<3	<3	60	.48	.038	5	17	1.25	75	.04	3	2.73	.14	.15	2	23
CLT974-7	37	673	4	44	.3	10	11	200	4.11	2	<8	<2	3	53	<.2	<3	<3	42	.25	.032	5	18	.97	101	.03	<3	2.09	.05	.13	4	34
RE CLT974-7	37	684	5	45	.3	10	11	209	4.15	2	<8	<2	3	53	<.2	<3	3	42	.26	.031	4	19	.98	94	.03	<3	2.12	.06	.13	4	26
CLT974-8	6	284	3	40	<.3	16	7	205	2.12	3	<8	<2	2	35	<.2	<3	<3	71	.89	.064	4	45	1.01	70	.13	4	1.99	.13	.18	2	19
CLT974-9	6	371	3	53	<.3	24	11	392	3.67	2	<8	<2	2	62	<.2	<3	<3	76	.86	.102	6	82	1.40	89	.18	<3	2.22	.11	.20	4	11
CLT974-10	11	526	6	38	<.3	9	9	265	4.32	<2	<8	<2	2	36	.2	4	<3	77	.50	.051	4	25	1.20	87	.13	<3	2.15	.07	.21	3	8
CLT975-1	23	749	8	36	<.3	2	3	135	1.73	10	<8	<2	4	14	<.2	<3	<3	12	.09	.033	7	9	.58	72	<.01	<3	1.09	.07	.12	3	11
CLT975-2	8	2723	8	195	.9	10	14	498	4.25	<2	<8	<2	<2	25	.9	<3	<3	94	.64	.036	3	15	2.72	126	.02	<3	3.77	.20	.15	<2	27
CLT975-3	13	1665	13	117	.8	11	12	491	4.55	12	<8	<2	<2	25	<.2	<3	<3	95	.50	.036	4	15	2.63	154	.02	5	3.66	.17	.15	<2	24
CLT975-4	8	2078	6	154	.6	9	20	532	3.94	<2	<8	<2	<2	32	.8	<3	4	87	.88	.034	2	18	2.61	117	.05	<3	3.87	.24	.16	<2	16
CLT975-5	8	1939	7	108	.7	9	15	449	2.89	<2	<8	<2	<2	28	.7	<3	<3	68	.91	.030	2	13	1.80	100	.04	<3	3.20	.19	.14	<2	24
CLT975-6	8	1464	15	196	.5	6	26	534	4.04	<2	<8	<2	<2	29	1.1	3	<3	83	.77	.031	3	16	2.56	101	.04	3	3.69	.22	.13	<2	15
CLT975-7	11	3293	5	133	1.2	9	24	435	3.56	2	<8	<2	<2	25	1.2	<3	<3	69	.72	.034	4	15	2.02	104	.03	5	3.36	.18	.17	3	33
CLT975-8	13	2077	8	96	.5	7	10	402	3.44	4	<8	<2	3	22	.4	<3	4	71	.48	.036	3	13	2.14	99	.02	<3	3.10	.14	.13	<2	24
CLT975-9	3	83	<3	4	<.3	4	1	54	.50	2	<8	<2	<2	2	<.2	<3	<3	3	.03	.005	1	21	.08	4	<.01	<3	.14	.01	.01	8	5
CLT975-10	18	234	<3	12	.3	3	1	63	.58	4	<8	<2	5	8	<.2	<3	<3	6	.06	.018	8	8	.24	43	<.01	3	.63	.05	.12	2	11
CLT975-11	20	582	5	37	.3	10	2	169	1.13	<2	<8	<2	5	17	.2	3	<3	26	.55	.027	5	15	1.01	60	.02	<3	1.95	.12	.12	3	30
CLT975-12	14	725	7	41	<.3	7	2	194	1.32	2	<8	<2	<2	21	.5	<3	<3	50	.70	.032	3	12	1.38	65	.03	<3	2.48	.15	.11	2	31
CLT975-13	10	543	<3	29	.4	8	3	149	.98	<2	<8	<2	4	22	<.2	<3	<3	24	.63	.028	6	12	.94	54	.02	<3	1.99	.15	.12	4	24
CLT975-14	7	357	6	18	<.3	6	1	106	.62	<2	<8	<2	6	20	.2	<3	<3	10	.56	.022	6	8	.56	53	.01	<3	1.53	.14	.10	2	13
CLT975-15	23	250	3	33	<.3	4	1	112	1.41	9	<8	<2	5	7	<.2	<3	<3	6	.12	.019	7	9	.70	29	<.01	3	1.12	.06	.10	4	7
CLT975-16	9	286	3	18	.3	3	2	79	.70	3	<8	<2	6	14	.3	<3	<3	7	.32	.023	8	10	.43	73	.01	3	1.11	.08	.15	3	8
CLT976-1	7	1116	14	63	.4	5	14	245	2.89	3	<8	<2	2	14	<.2	<3	3	36	.39	.030	3	12	1.38	57	.01	3	2.05	.12	.10	5	18
CLT976-2	3	107	5	4	<.3	3	18	19	7.09	16	<8	<2	2	3	<.2	<3	<3	4	.01	<.001	3	10	.01	6	<.01	<3	.24	.03	.12	4	23
CLT976-3	8	414	3	18	<.3	4	4	68	4.07	4	<8	<2	<2	8	<.2	3	<3	8	.04	.010	3	15	.08	57	<.01	5	.42	.04	.14	8	11
CLT976-4	9	339	7	7	<.3	5	14	46	6.00	13	<8	<2	2	19	<.2	<3	3	5	.02	.006	3	10	.02	<1	.01	<3	.27	.10	.16	5	20
CLT976-5	5	240	4	26	.4	5	2	36	5.02	23	<8	<2	<2	41	<.2	<3	<3	9	.05	.019	4	13	.02	68	.02	<3	.24	.16	.21	3	26
CLT976-6	19	499	17	72	<.3	12	5	172	3.96	4	<8	<2	3	32	.7	<3	<3	31	.17	.042	8	26	.91	150	.03	<3	1.38	.10	.18	3	10
STANDARD C3/AU-R	27	67	39	166	5.5	40	12	751	3.48	51	27	2	20	29	23.1	17	22	88	.58	.090	20	175	.61	146	.10	18	1.90	.04	.17	17	485

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.(20 GM)

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 29 1997 DATE REPORT MAILED: Oct 6/97 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data: FA

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

Fairfield Minerals Ltd. PROJECT CL/97-13 File # 97-5783
1420 - 700 W. Georgia St., Vancouver BC V7Y 1B6 Submitted by: David Ritcey

Page 1

AA
LL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
CL 5600N 2050E	1	43	8	42	<.3
CL 5600N 2100E	2	52	10	57	<.3
CL 5600N 2150E	2	87	10	49	<.3
CL 5600N 2200E	1	25	9	28	<.3
CL 5600N 2250E	1	21	6	36	<.3
RE CL 5600N 2250E	1	21	7	35	<.3
CL 5600N 2300E	1	31	8	53	<.3
CL 5600N 2350E	1	24	7	28	<.3
CL 5600N 2400E	1	29	10	30	<.3
CL 5600N 2450E	1	46	6	58	<.3
CL 5600N 2500E	6	88	8	65	<.3
CL 5600N 2550E	1	56	6	54	<.3
CL 5600N 2600E	1	37	4	47	<.3
CL 5600N 2650E	2	81	5	54	<.3
CL 5400N 2050E	4	67	11	38	<.3
CL 5400N 2100E	9	183	19	34	<.3
CL 5400N 2150E	6	170	25	37	<.3
CL 5400N 2200E	4	98	15	18	<.3
CL 5400N 2250E	3	109	11	46	<.3
CL 5400N 2300E	6	196	21	45	1.9
CL 5400N 2350E	6	297	8	104	<.3
CL 5400N 2400E	1	51	8	57	<.3
CL 5400N 2450E	1	21	7	40	<.3
CL 5400N 2500E	1	26	6	46	<.3
CL 5400N 2550E	<1	20	9	30	<.3
CL 5400N 2600E	1	45	8	25	.7
CL 5400N 2650E	1	10	8	32	<.3
CL 5400N 2700E	1	14	6	36	<.3
CL 5200N 2050E	22	667	13	87	<.3
CL 5200N 2100E	19	1173	14	115	<.3
CL 5200N 2150E	13	1376	18	127	.4
CL 5200N 2250E	2	94	9	49	<.3
CL 5200N 2300E	1	29	6	41	<.3
CL 5200N 2350E	2	43	6	34	<.3
CL 5200N 2400E	1	81	6	58	<.3
STANDARD C3	27	65	36	150	5.4
STANDARD G-1	1	3	4	41	<.3

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL

- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 2 1997 DATE REPORT MAILED: Oct 7/97

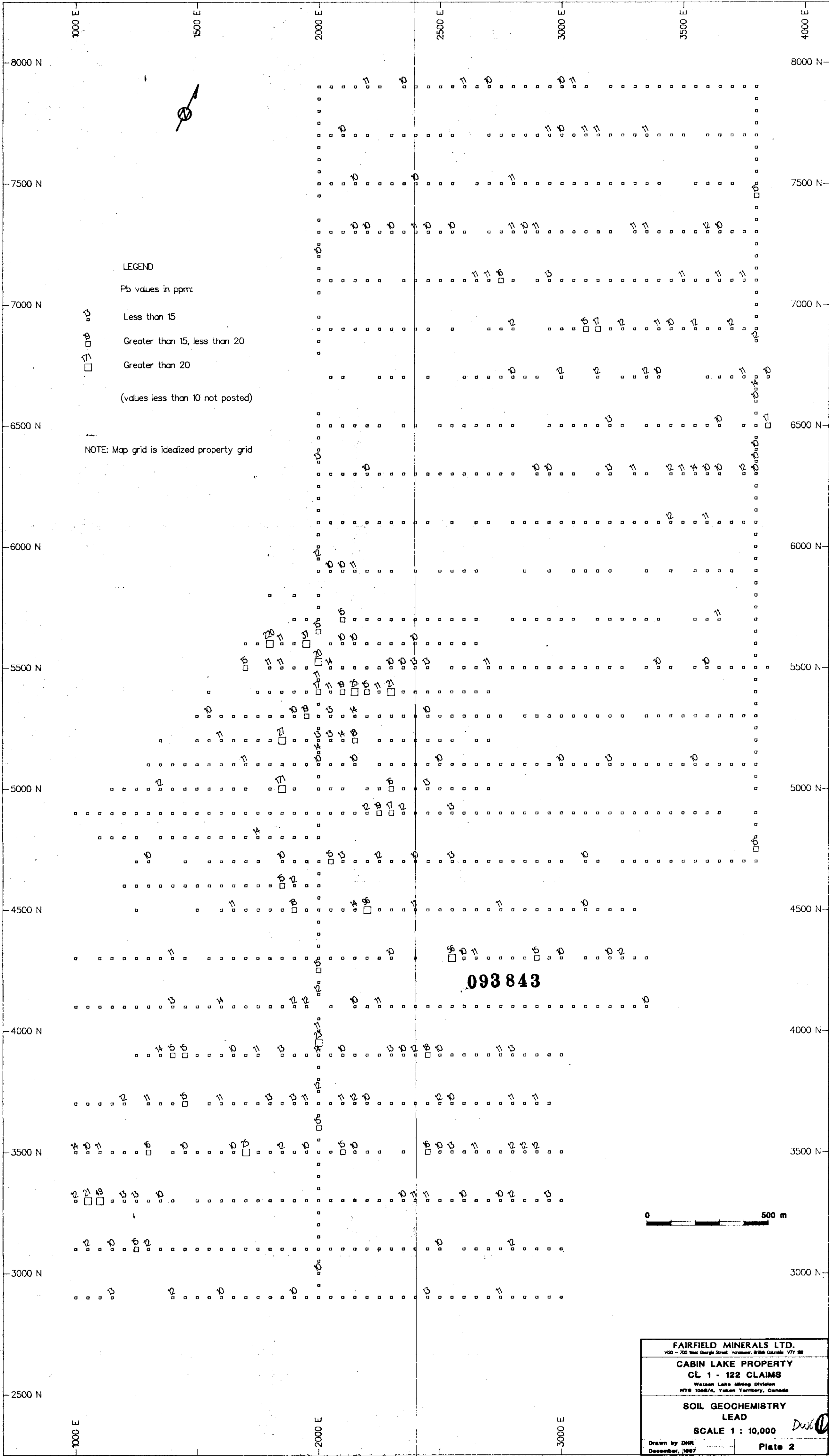
SIGNED BY: [Signature] D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm
CL 5200N 2450E	2	84	4	61	<.3
CL 5200N 2500E	2	126	7	81	<.3
CL 5200N 2550E	1	75	7	68	.3
RE CL 5200N 2550E	1	74	5	67	<.3
CL 5200N 2650E	<1	28	4	47	<.3
CL 5200N 2700E	1	21	5	37	<.3
CL 5000N 2050E	2	103	5	44	<.3
CL 5000N 2100E	3	166	5	49	<.3
CL 5000N 2200E	1	36	6	53	<.3
CL 5000N 2250E	<1	5	7	28	<.3
CL 5000N 2300E	1	21	16	30	<.3
CL 5000N 2350E	1	28	9	61	<.3
CL 5000N 2400E	5	183	6	64	1.0
CL 5000N 2450E	1	8	13	32	<.3
CL 5000N 2500E	<1	10	4	19	<.3
CL 5000N 2550E	1	12	9	39	<.3
CL 5000N 2600E	1	132	3	124	<.3
CL 5000N 2650E	1	189	5	78	<.3
CL 5000N 2700E	<1	9	6	27	<.3
CLT975 BS68	15	1077	11	65	<.3
CLT975 BS77	4	287	7	48	<.3
CLT975 BS86	4	310	4	52	<.3
CLT975 BS95	1	123	5	54	<.3
CLT975 BS101	1	111	6	57	<.3
CLT975 BS109	4	224	4	48	<.3
CLT975 BS126	5	438	7	162	<.3
CLT975 BS142	8	237	9	59	<.3
STANDARD C3	25	62	32	141	4.9
STANDARD G-1	2	3	<3	41	<.3

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



LEGEND

Pb values in ppm:

○

Less than 15

□

Greater than 15, less than 20

◻

Greater than 20

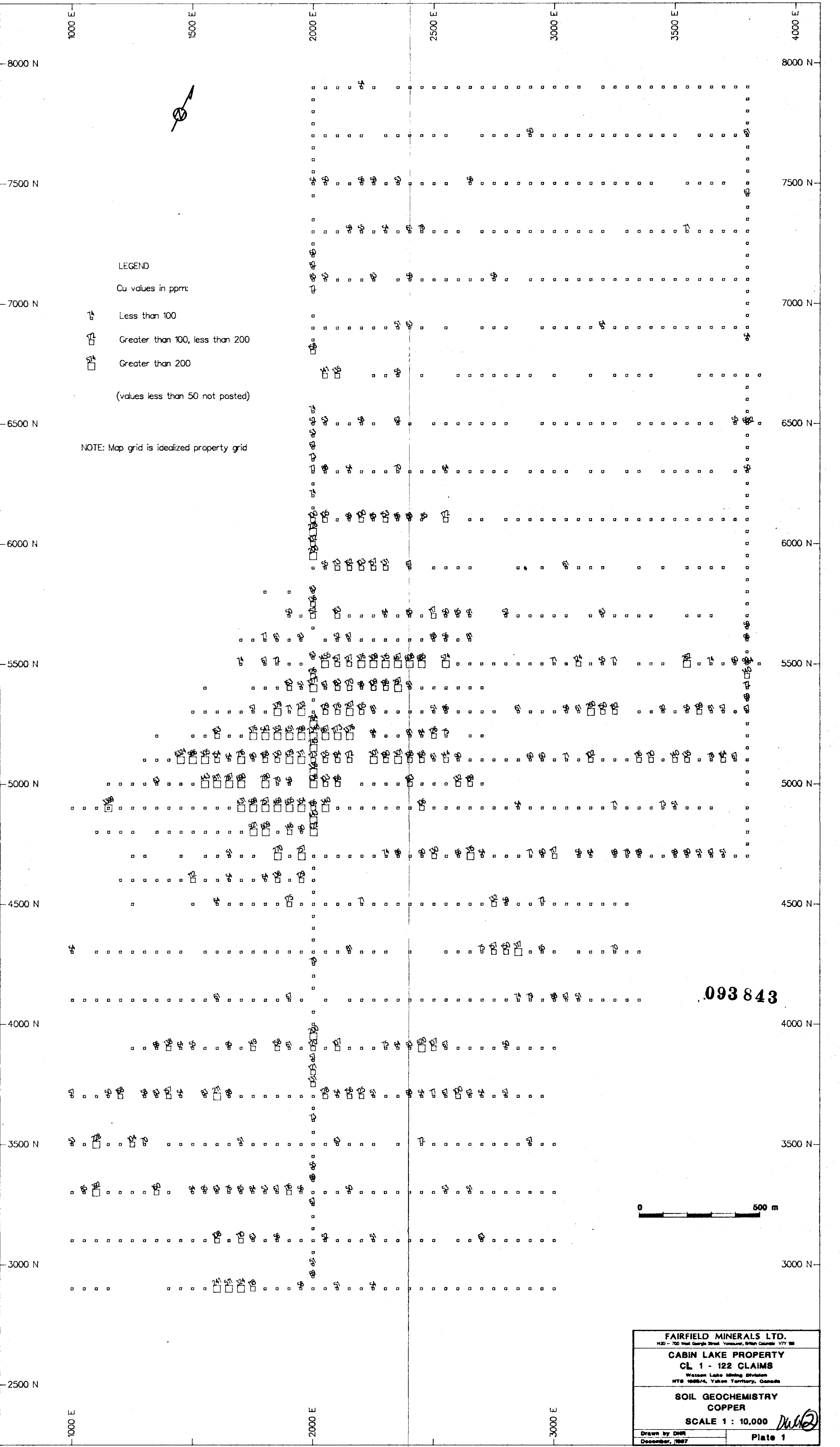
(values less than 10 not posted)

NOTE: Map grid is idealized property grid

093 843

0 500 m

FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 8B8	
CABIN LAKE PROPERTY CL 1 - 122 CLAIMS Watson Lake Mining Division NTS 1088/4, Yukon Territory, Canada	
SOIL GEOCHEMISTRY LEAD SCALE 1 : 10,000	
Drawn by DMR December, 1987	Plate 2



LEGEND

Cu values in ppm:

- Less than 100
- Greater than 100, less than 200
- △ Greater than 200

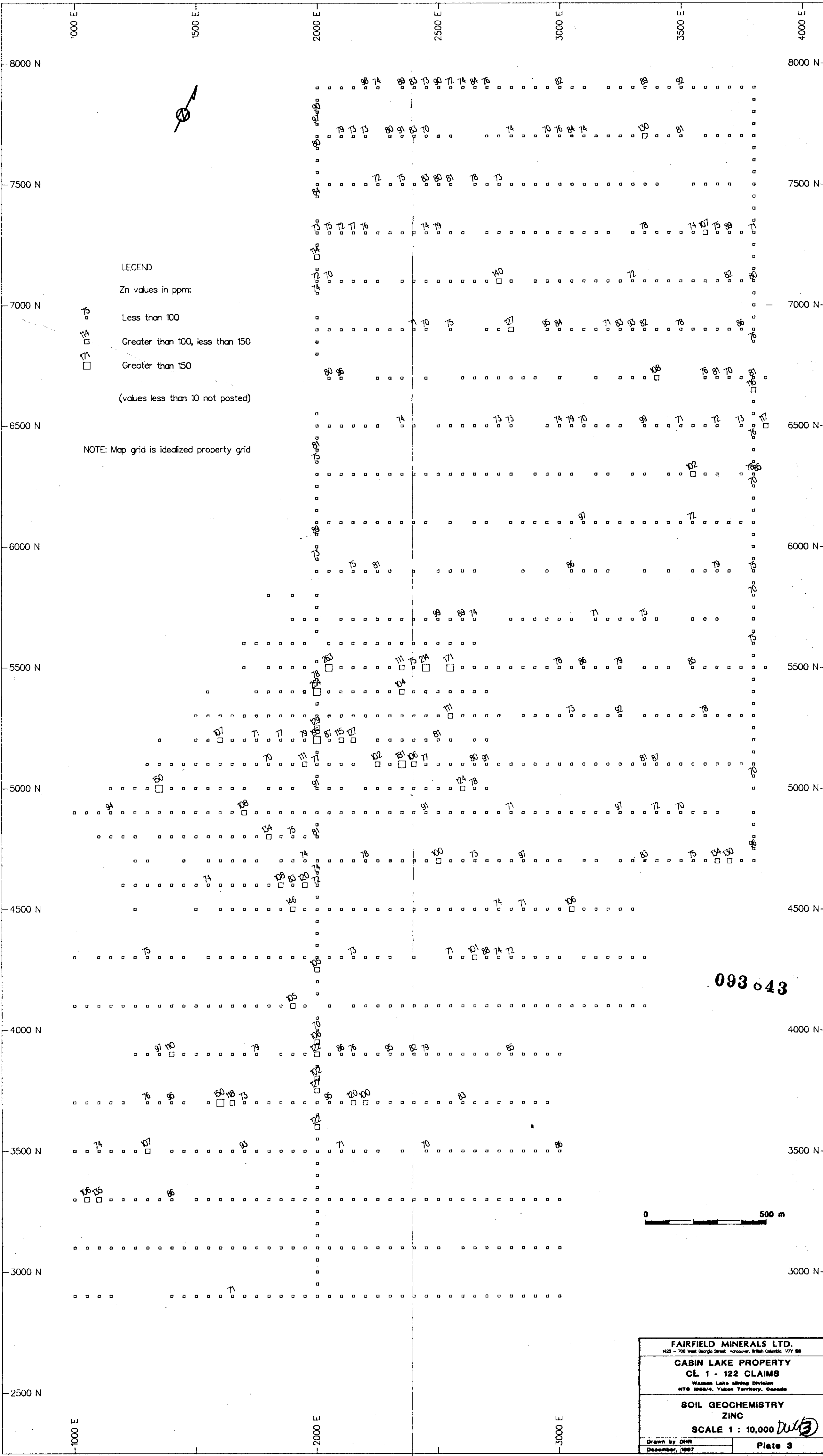
(values less than 50 not posted)

NOTE: Map grid is idealized property grid

093 843

0 500 m

FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street, Vancouver, British Columbia V7Y 1B8	
CABIN LAKE PROPERTY CL 1 - 122 CLAIMS Western Lake Mining Division NTS 100B/4, Yukon Territory, Canada	
SOIL GEOCHEMISTRY COPPER SCALE 1 : 10,000	
Drawn by DMR December, 1987	Plate 1



LEGEND

Zn values in ppm:

□
□
□

Less than 100

Greater than 100, less than 150

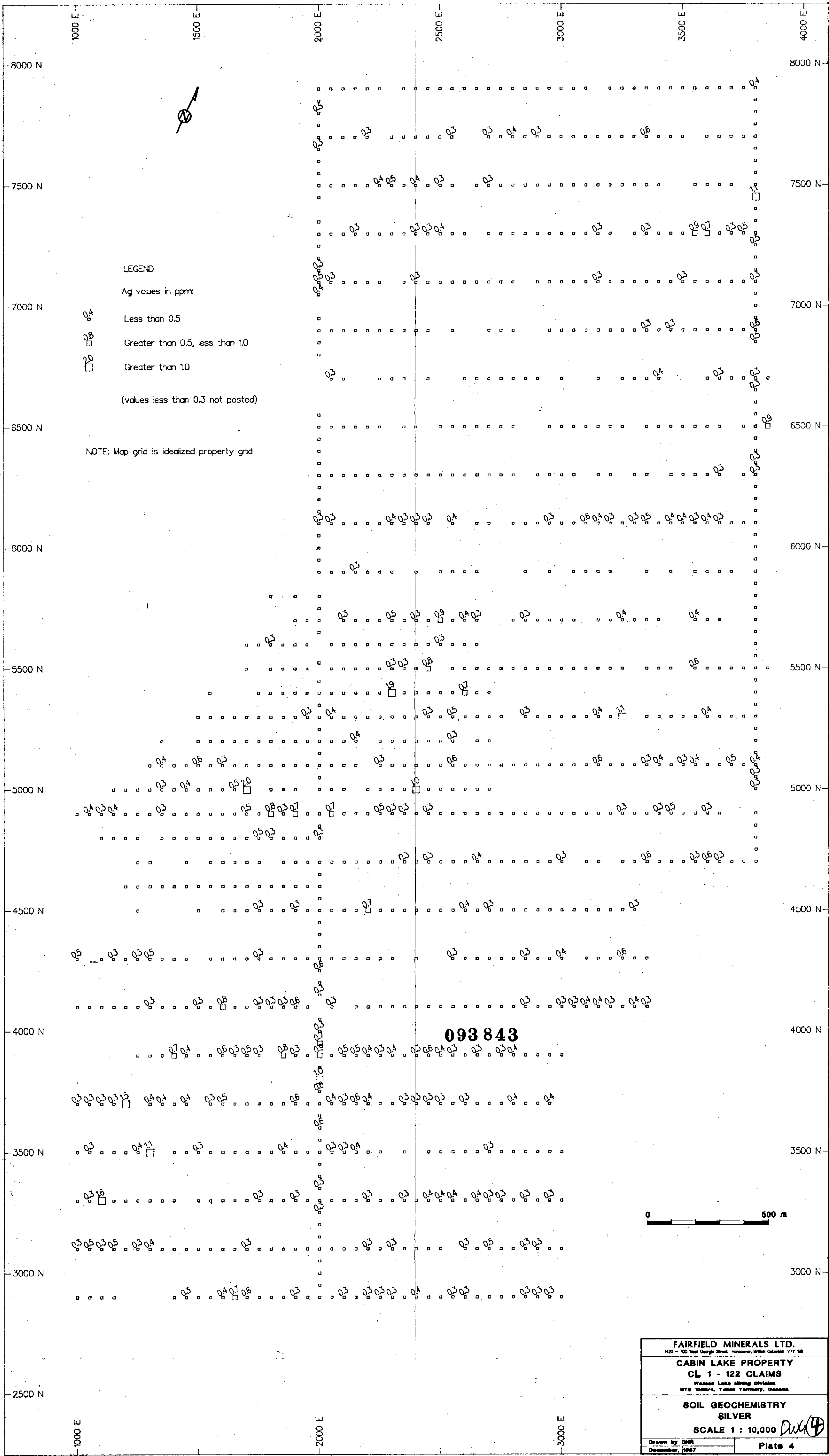
Greater than 150

(values less than 10 not posted)

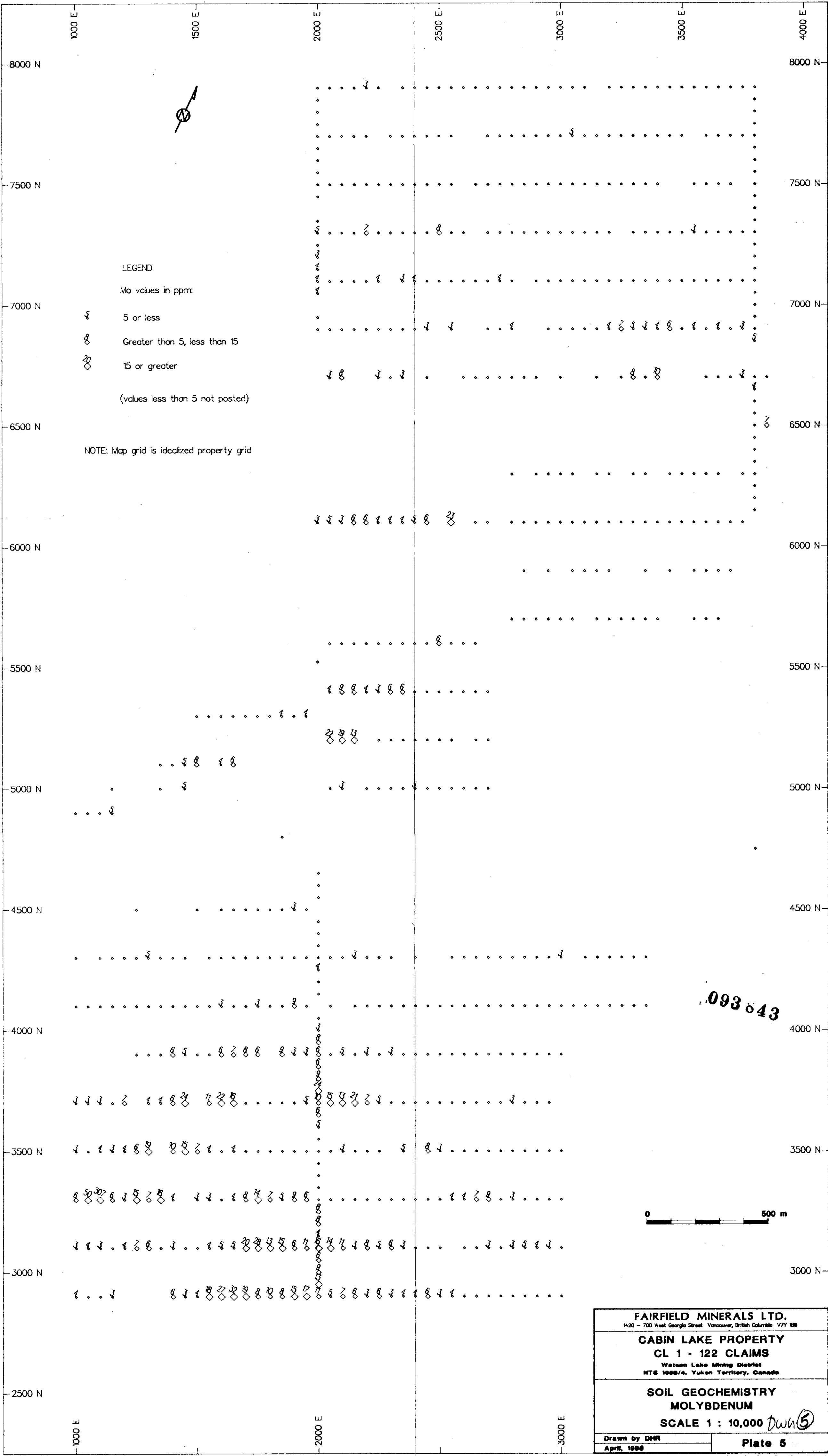
NOTE: Map grid is idealized property grid

0 500 m

FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 8B	
CABIN LAKE PROPERTY CL 1 - 122 CLAIMS Waste Lake Mining Division NTS 1005/4, Yukon Territory, Canada	
SOIL GEOCHEMISTRY ZINC SCALE 1 : 10,000 <i>Dul</i>	
Drawn by DMR December, 1997	Plate 3



FAIRFIELD MINERALS LTD.	
1420 - 700 West Georgia Street, Vancouver, British Columbia V7Y 8B	
CABIN LAKE PROPERTY	
CL 1 - 122 CLAIMS	
Watson Lake Mining Division	
NTS 1068/4, Yukon Territory, Canada	
SOIL GEOCHEMISTRY	
SILVER	
SCALE 1 : 10,000	
Drawn by DMR	December, 1987
Plate 4	



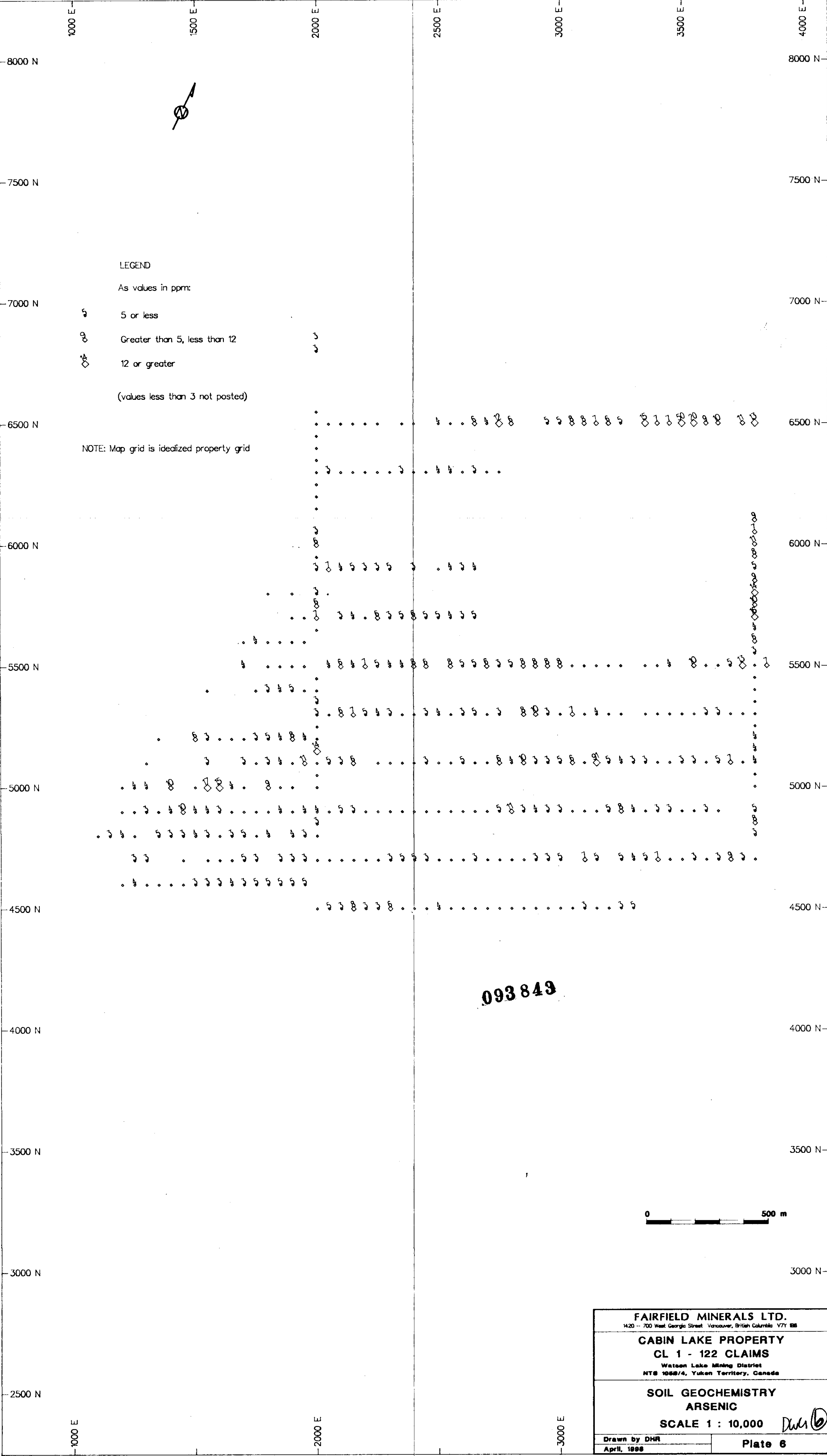
FAIRFIELD MINERALS LTD.
1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B8

CABIN LAKE PROPERTY
CL 1 - 122 CLAIMS
Watson Lake Mining District
NTS 1058/4, Yukon Territory, Canada

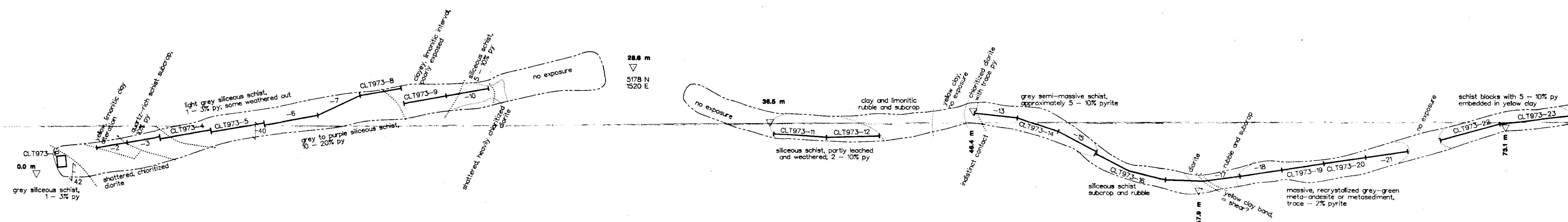
SOIL GEOCHEMISTRY
MOLYBDENUM
SCALE 1 : 10,000 *Drawn 5*

Drawn by DMR
April, 1998

Plate 5



FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B8	
CABIN LAKE PROPERTY CL 1 - 122 CLAIMS Watson Lake Mining District NTS 1068/4, Yukon Territory, Canada	
SOIL GEOCHEMISTRY ARSENIC SCALE 1 : 10,000	
Drawn by DHR April, 1998	Plate 6

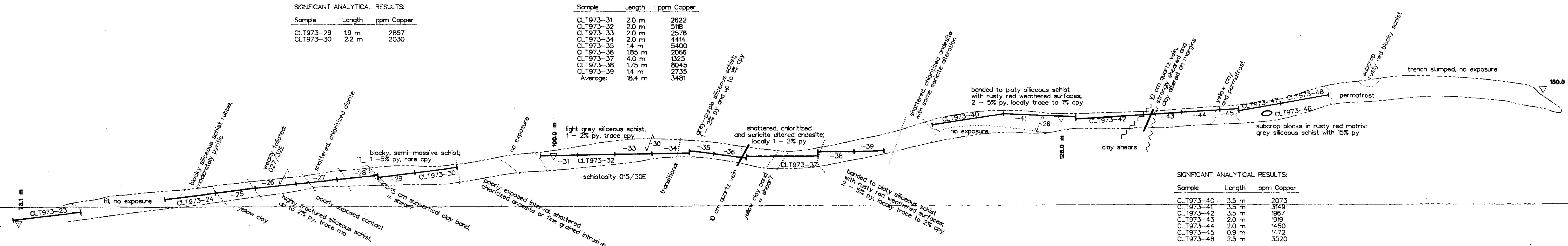


SIGNIFICANT ANALYTICAL RESULTS

Sample	Length	ppm Copper
CLT973-29	19 m	2857
CLT973-30	22 m	2030

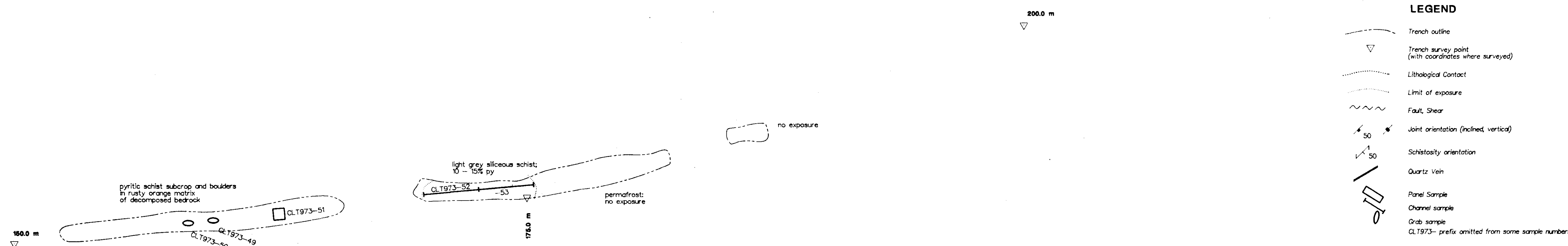
SIGNIFICANT ANALYTICAL RESULTS

Sample	Length	ppm Copper
CLT973-31	20 m	2622
CLT973-32	20 m	518
CLT973-33	20 m	2576
CLT973-34	20 m	444
CLT973-35	14 m	5400
CLT973-36	185 m	2066
CLT973-37	4.0 m	1325
CLT973-38	1.75 m	8945
CLT973-39	14 m	2735
Average	18.4 m	3481



SIGNIFICANT ANALYTICAL RESULTS

Sample	Length	ppm Copper
CLT973-40	1.5 m	2073
CLT973-41	1.5 m	3149
CLT973-42	1.5 m	567
CLT973-43	2.0 m	919
CLT973-44	2.0 m	1430
CLT973-45	0.8 m	1472
CLT973-46	2.5 m	3520

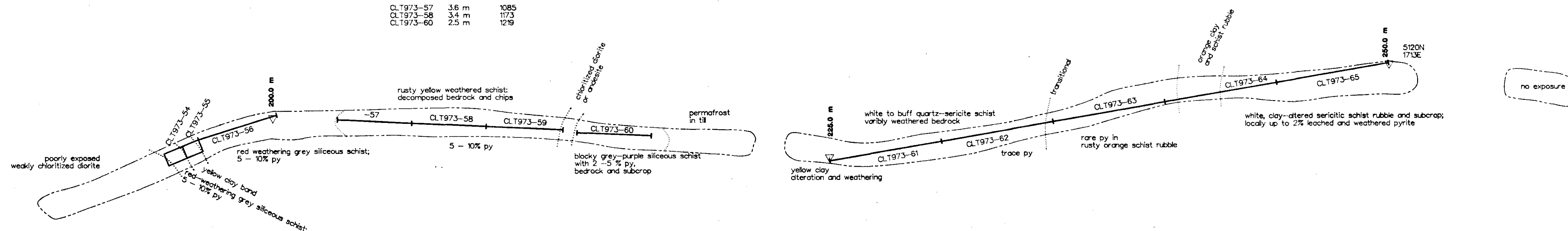


LEGEND

- Trench outline
- Trench survey point (with coordinates where surveyed)
- Lithological Contact
- Limit of exposure
- Fault, Shear
- Joint orientation (inclined vertical)
- Schistosity orientation
- Quartz Vein
- Panel Sample
- Channel Sample
- Grab Sample
- CLT973- prefix omitted from some sample numbers

SIGNIFICANT ANALYTICAL RESULTS

Sample	Length	ppm Copper
CLT973-57	3.6 m	1085
CLT973-58	3.4 m	1173
CLT973-60	2.5 m	1219



List of Abbreviations:

az. azurite
ch. chlorite
cp. chrysotile
md. malachite
mo. magnetite
py. pyrite
qtz. quartz
ser. sericite
sph. sphalerite

2 1 0 METRES

093 843

FAIRFIELD MINERALS LTD.
1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B6

CABIN LAKE PROPERTY
Watson Lake N.D., Yukon Territory, N.T.S. 1059

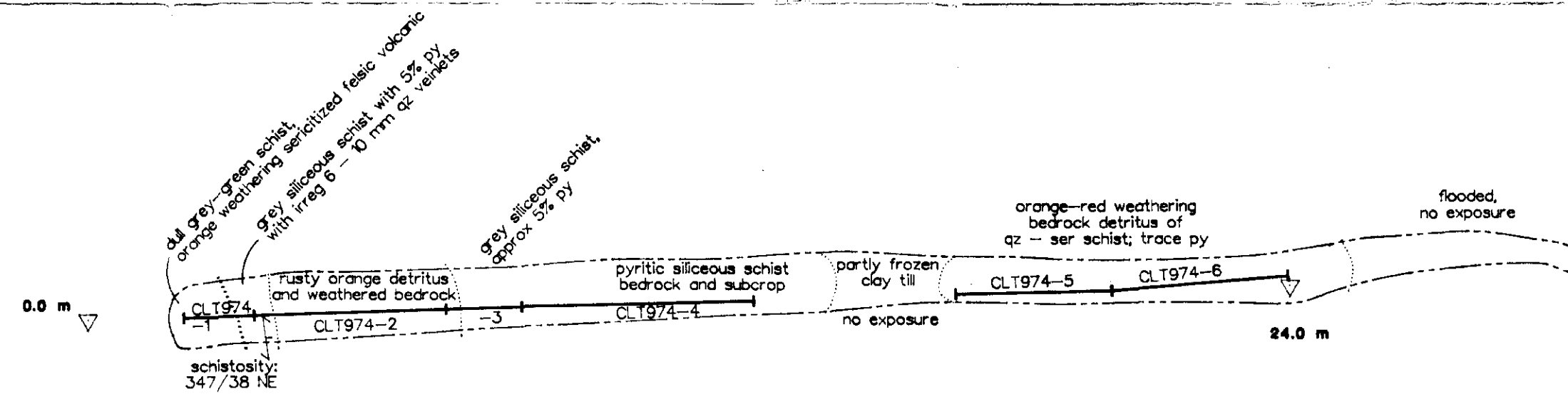
TRENCH PLAN
CLT97-3
SCALE 1 : 100

Drawn by DMR
January, 1998

Plate 7



TRENCH CLT97-4



SIGNIFICANT ANALYTICAL RESULTS:

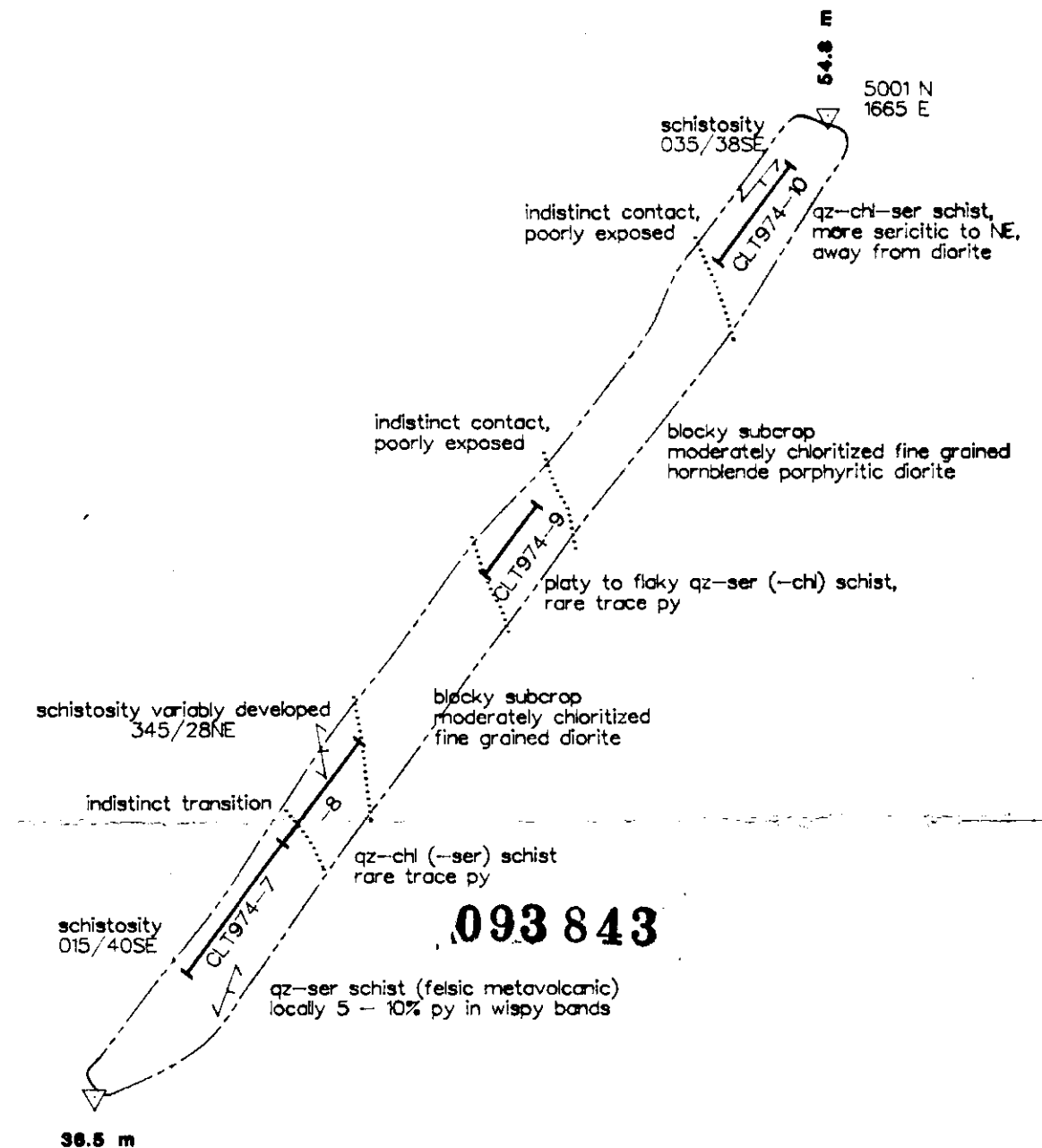
Sample	Length	ppm Copper
CLT974-2	3.8 m	1201
CLT974-3	1.5 m	1005
CLT974-4	4.6 m	1397
Average:	9.9 m	1262

List of Abbreviations:

az	azurite
chl	chlorite
cpy	chalcopyrite
mal	malachite
mo	molybdenite
py	pyrite
qz	quartz
ser	sericite
sph	sphalerite

LEGEND

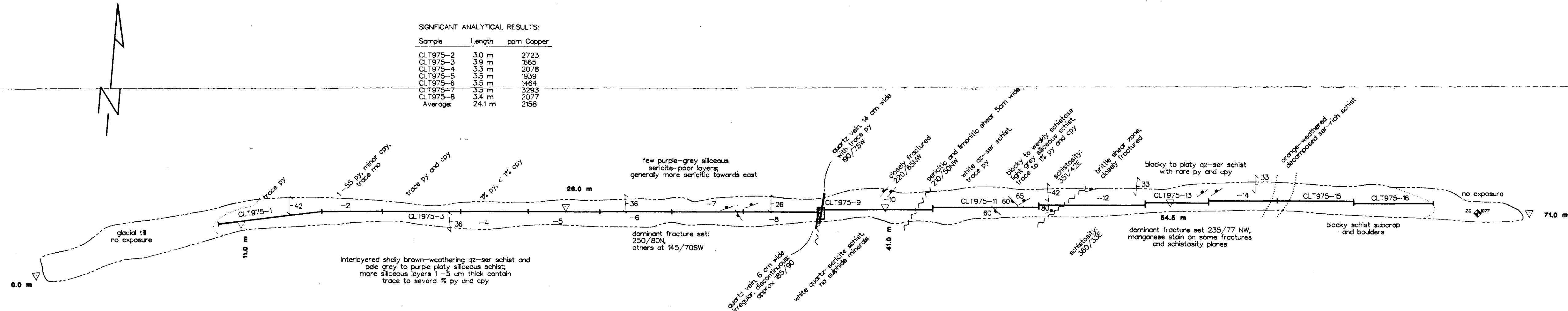
- Trench outline
- Trench survey point (with coordinates where surveyed)
- Lithological Contact
- Limit of exposure
- Fault, Shear
- Joint orientation (inclined, vertical)
- Schistosity orientation
- Quartz Vein
- Panel Sample
- Channel sample
- Grab sample
- CLT974- prefix omitted from some sample numbers



093 843



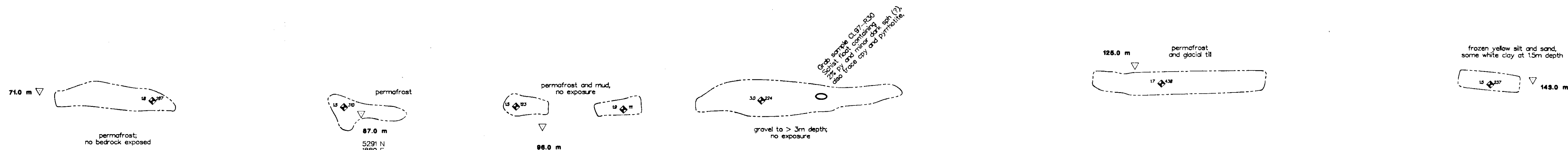
FAIRFIELD MINERALS LTD. 1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B6	
CABIN LAKE PROPERTY Watson Lake M.D., Yukon Territory, N.T.S. 105B	
TRENCH PLAN CLT97-4 SCALE 1 : 100	
Drawn by DHR January, 1998	Plate 8



SIGNIFICANT ANALYTICAL RESULTS:

Sample	Length	ppm Copper
CLT975-2	3.0 m	2723
CLT975-3	3.9 m	1665
CLT975-4	3.3 m	2078
CLT975-5	3.5 m	1939
CLT975-6	3.5 m	1464
CLT975-7	3.5 m	3293
CLT975-8	3.4 m	2077
Average:	24.1 m	2158

- LEGEND**
- Trench outline
 - Trench survey point (with coordinates where surveyed)
 - Lithological Contact
 - Limit of exposure
 - Fault, Shear
 - Joint orientation (inclined, vertical)
 - Schistosity orientation
 - Quartz Vein
 - Panel Sample
 - Channel sample
 - Grab sample
 - CLT975- prefix omitted from some sample numbers
 - Trench soil sample location, depth in metres and copper content in ppm



- List of Abbreviations:
- az azurite
 - chl chlorite
 - cpy chalcopyrite
 - mal malachite
 - mo molybdenite
 - py pyrite
 - qz quartz
 - ser sericite
 - spn sphalerite



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CABIN LAKE PROPERTY
Watson Lake M.D., Yukon Territory, N.T.S. 105B

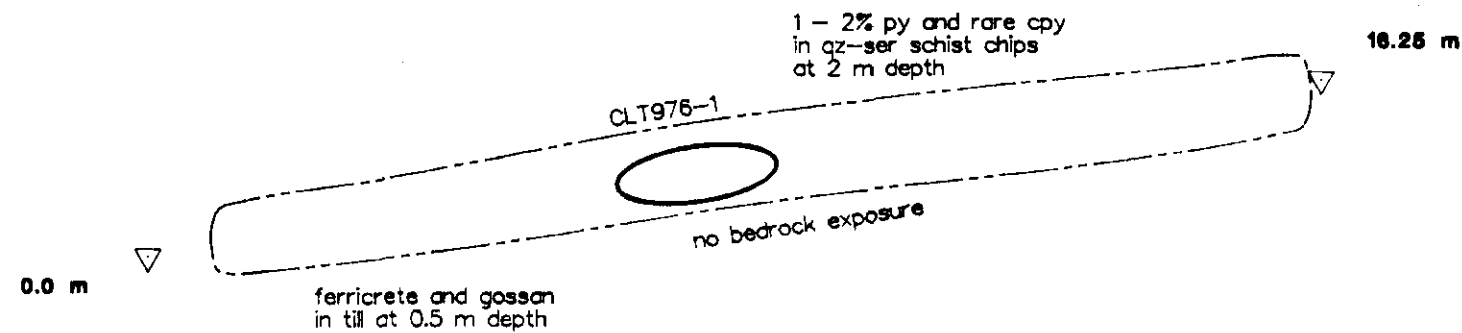
TRENCH PLAN
CLT97-5
SCALE 1 : 100

Drawn by DHR
January, 1988

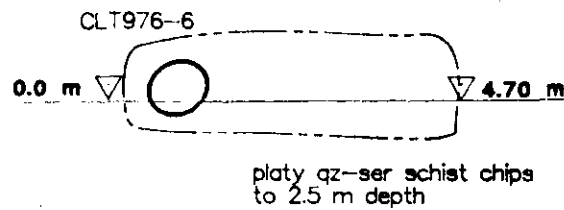
Plate 9

TRENCH CLT97-6

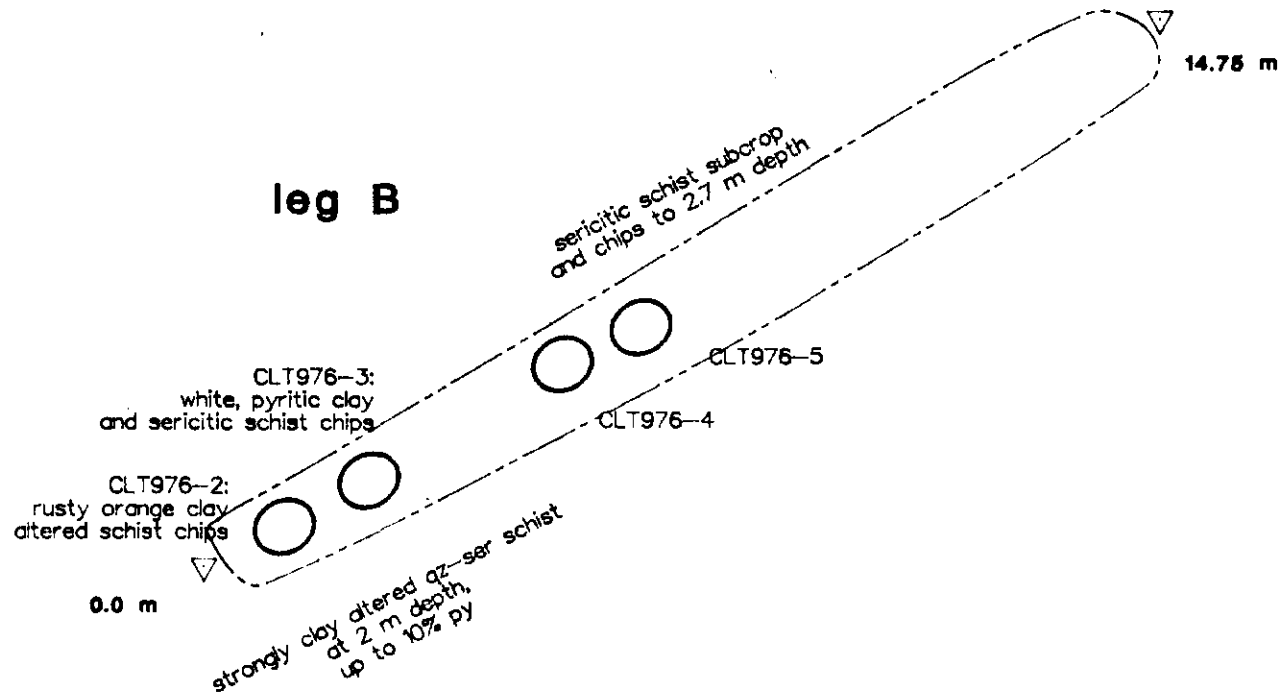
leg A



leg C



leg B



LEGEND

- Trench outline
- Trench survey point (with coordinates where surveyed)
- Lithological Contact
- Limit of exposure
- Fault, Shear
- Joint orientation (inclined, vertical)
- Schistosity orientation
- Quartz Vein
- Panel Sample
- Channel sample
- Grab sample
- CLT976- prefix omitted from some sample numbers

List of Abbreviations:
az azurite
chl chlorite
cpy chalcopyrite
md malachite
mo molybdenite
py pyrite
qz quartz
ser sericite
sph sphalerite

093 843



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1420 - 700 West Georgia Street Vancouver, British Columbia V7Y 1B6

CABIN LAKE PROPERTY

Watson Lake M.D., Yukon Territory, N.T.S. 105B

TRENCH PLAN

CLT97-6

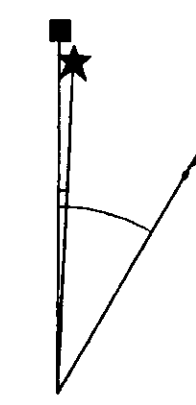
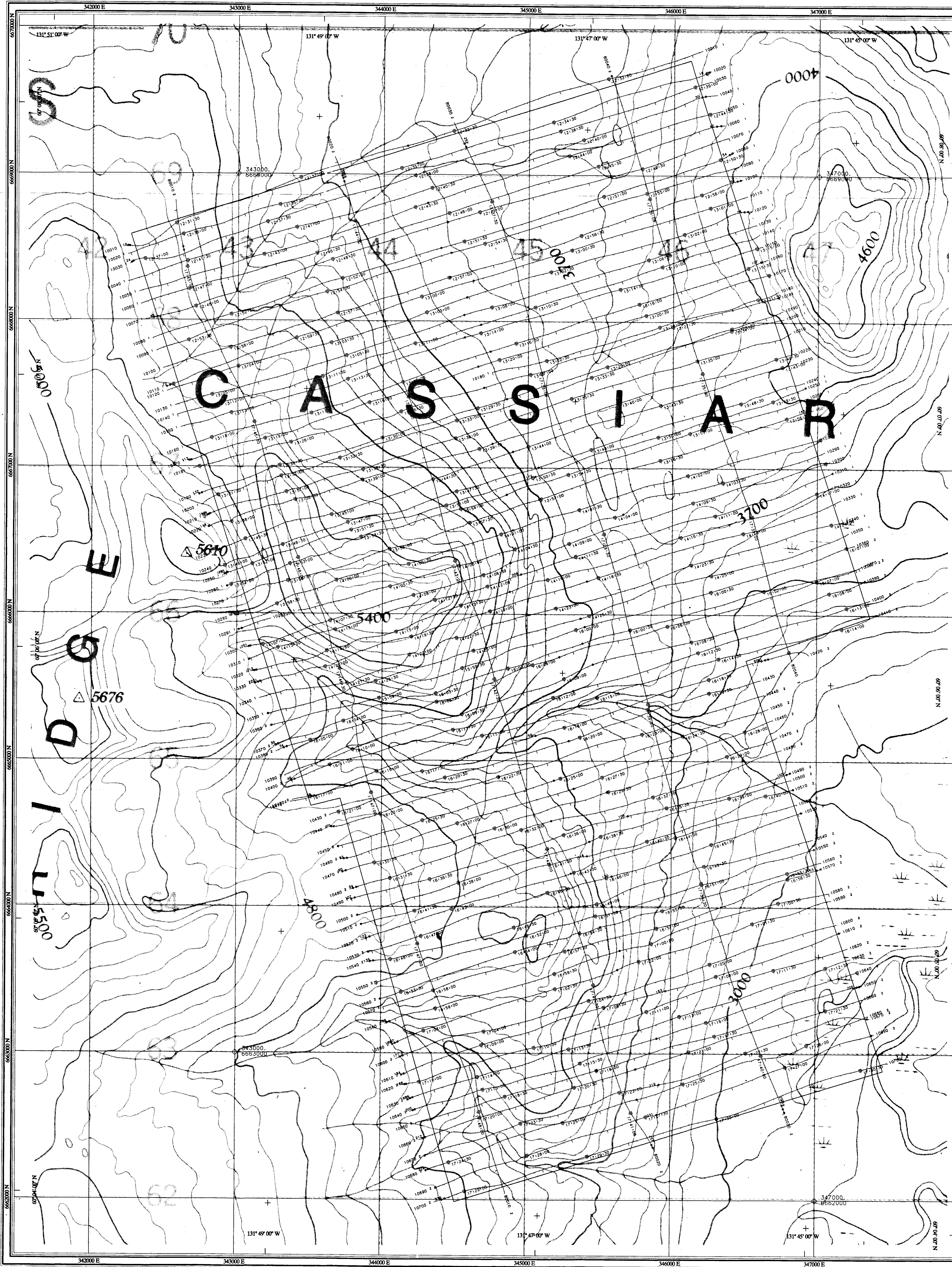
SCALE 1 : 100

Dwh (10)

Drawn by DHR

January, 1998

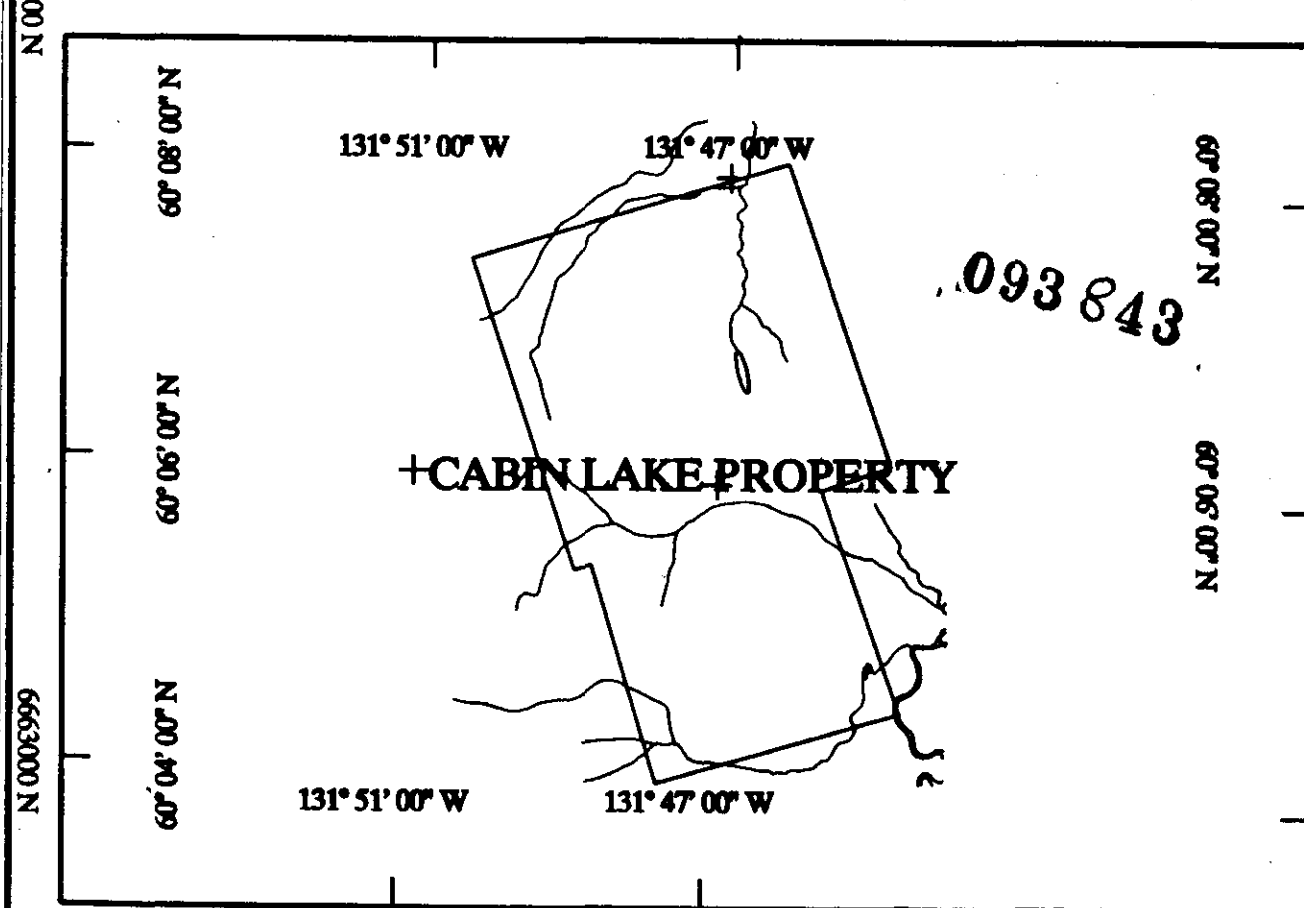
Plate 10



Square: Grid North
Star: True North
Arrow: Magnetic North

Angles presented are approximate mean
deviations for centre of NTS sheet.
Use diagram for reference only.

Grid North - True North : 2.4°
Grid North - Magnetic North : 29.9°
Annual change : -0.22°



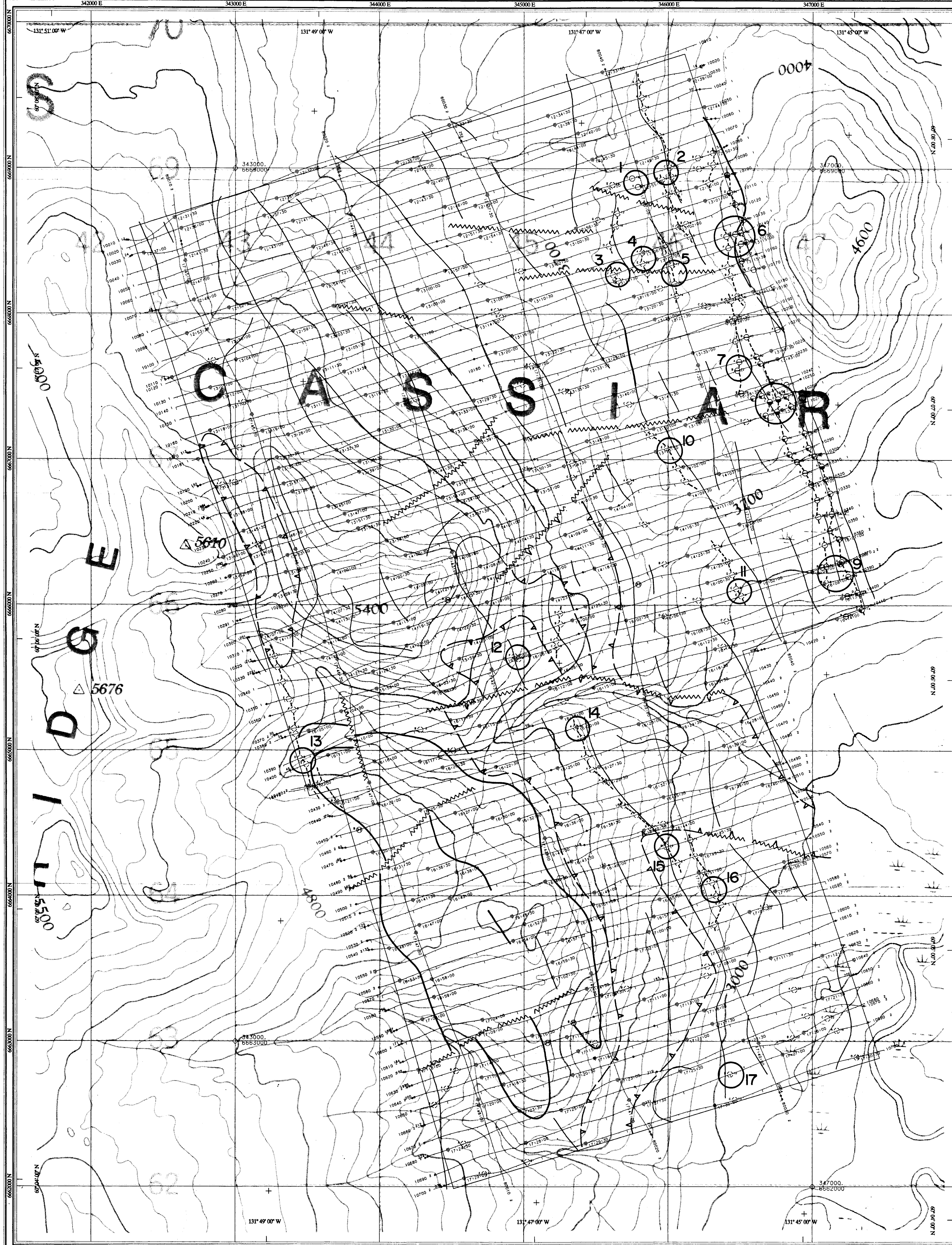
FAIRFIELD MINERALS LTD.

BASE MAP
CABIN LAKE PROPERTY
YUKON TERRITORY

SCALE 1:10 000



Date Flown : JUNE 30, 1997
NTS : 105B/4 <i>Duck</i> (11)
Project : J9761 Map Ref : 1 - 1



Square: Grid North
Star: True North
Arrow: Magnetic North

Angles presented are approximate mean
deviations for centre of NTS sheet.
Use diagram for reference only.

Grid North - True North: 2.4°
Grid North - Magnetic North: 29.9°
Annual change: -0.22°

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local Transformation: DX=-10.0 DY=158.0 DZ=187.0
UTM Projection
Central Meridian: 129°W
Navigation and flight path recovery was conducted
using a Global Positioning System (GPS)
satellite navigation system.

Lines were flown at an azimuth of 70°-250°,
with an average line spacing of 100m.

Average helicopter-terrain clearance of 60m
was monitored by radar and barometric altimeters.

EM ANOMALIES

EM anomalies selected by computer algorithm
and manually confirmed. Selection is based
on the response correlation to theoretical
sources such as a steeply dipping conductor.

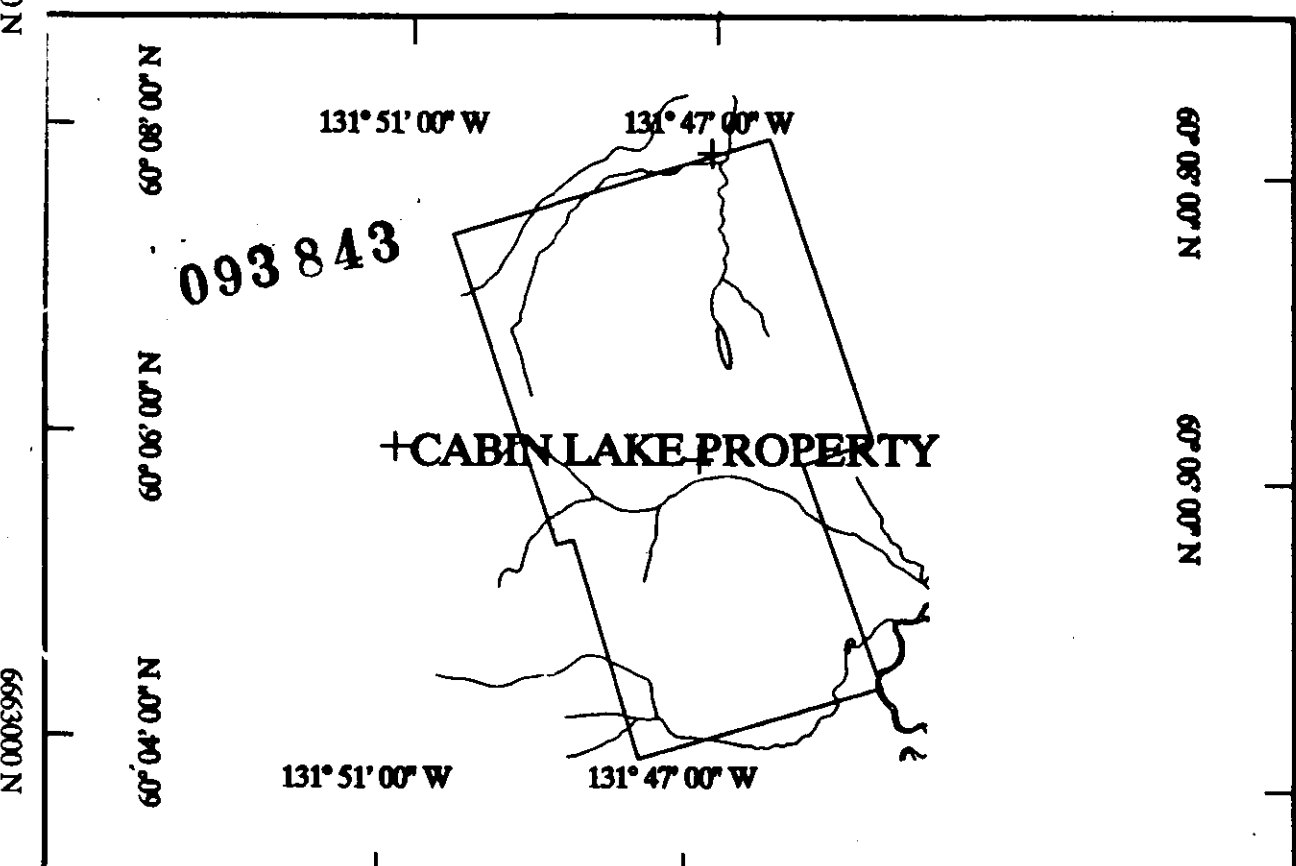
Calculation of conductance is based on the
response of the 4600 Hz coaxial data, and
forms the basis for anomaly classification.

Letter codes are used to identify individual
anomalies on a line, and the inphase amplitude
of the 4600 Hz response is annotated opposite.

- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos
- ⊗ Magnetic

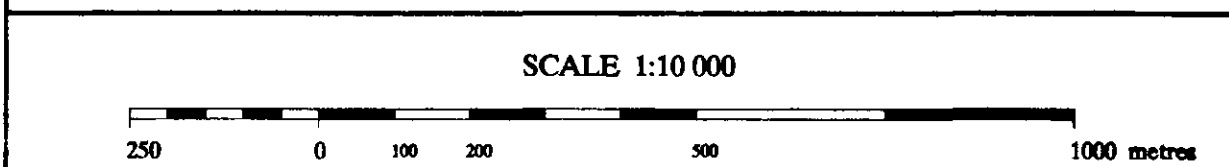
INTERPRETATION

- High amplitude magnetic trend
- Other magnetic trend
- Non-magnetic below background zone
- Conductive trend
- ~ Fault/contact structure interpreted from magnetics
- Anomalous conductive response designated for investigation

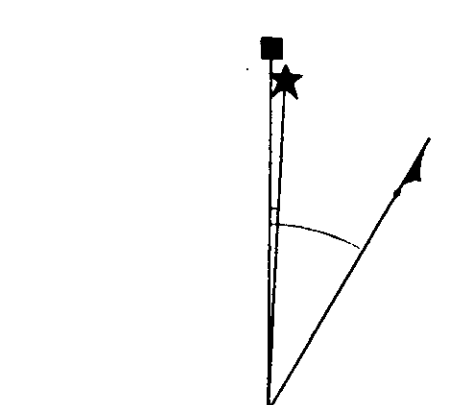
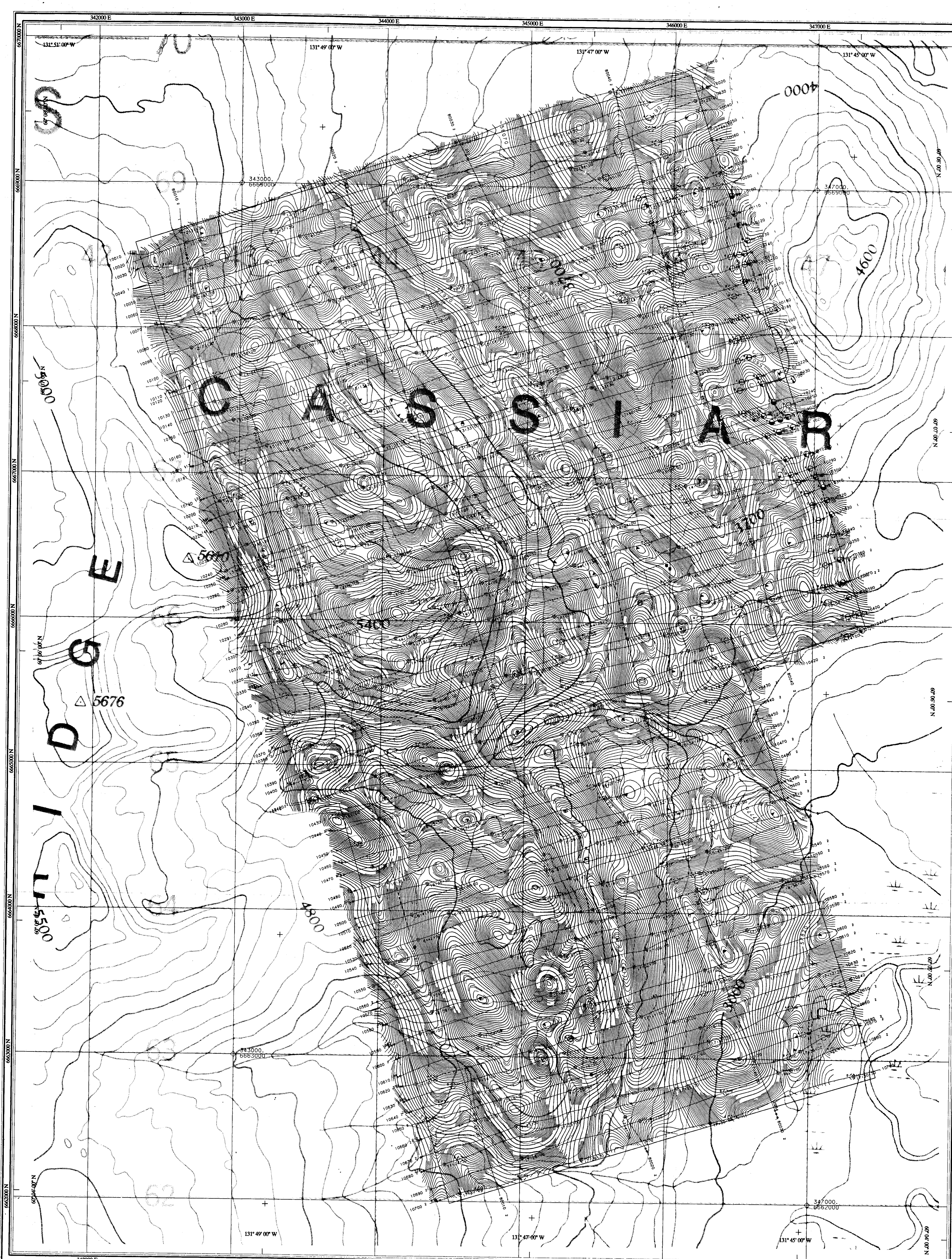


FAIRFIELD MINERALS LTD.

INTERPRETATION
CABIN LAKE PROPERTY
YUKON TERRITORY



Date Flown: JUNE 30, 1997
NTS: 105B/4
Project: J5761
Map Ref: 1 - 2



Square: Grid North
Star: True North
Arrow: Magnetic North

Angles presented are approximate mean
deviations for centre of NTS sheet.
Use diagram for reference only.

Grid North - True North: 2.4°
Grid North - Magnetic North: 29.9°
Annual change: -0.22°

TOTAL FIELD MAGNETICS

Total field magnetic intensity contour data,
measured by a cesium high sensitivity magnetometer
at an average sensor elevation of 45m, and
corrected for diurnal variation.

Map contours are in nanoTeslas,
and are multiples of those listed below:

- 2 nT
- 10 nT
- 50 nT
- 250 nT
- 1000 nT

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local Transformation: DX=-10.0 DY=158.0 DZ=187.0
UTM Projection
Central Meridian: 129°W
Navigation and flight path recovery was conducted
using a Global Positioning System (GPS)
satellite navigation system.

Lines were flown at an azimuth of 70°-250°,
with an average line spacing of 100m.

Average helicopter-terrain clearance of 60m
was monitored by radar and barometric altimeters.

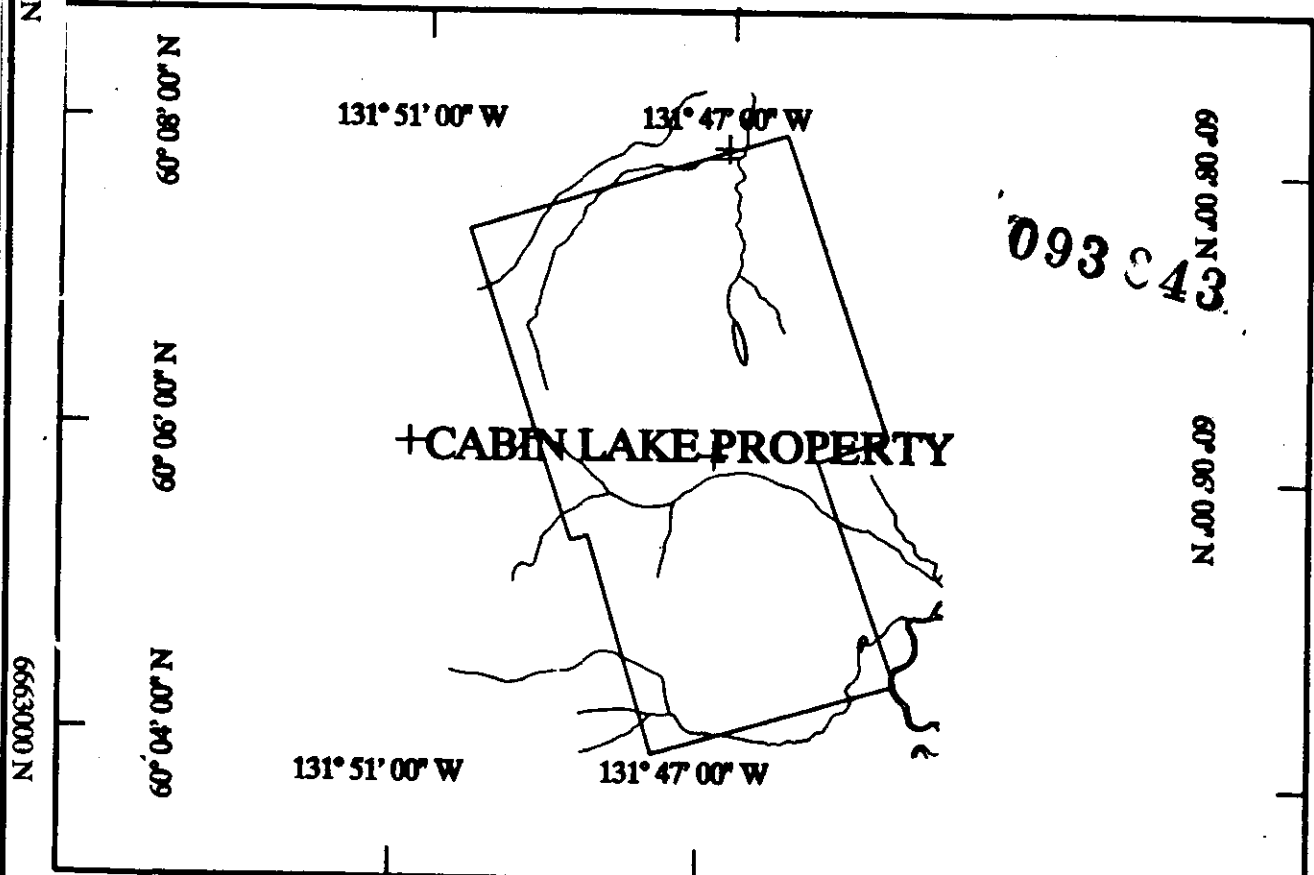
EM ANOMALIES

EM anomalies selected by computer algorithm
and manually confirmed. Selection is based
on the response correlation to theoretical
sources such as a steeply dipping conductor.

Calculation of conductance is based on the
response of the 4600 Hz coaxial data, and
forms the basis for anomaly classification.

Letter codes are used to identify individual
anomalies on a line, and the inphase amplitude
of the 4600 Hz response is annotated opposite.

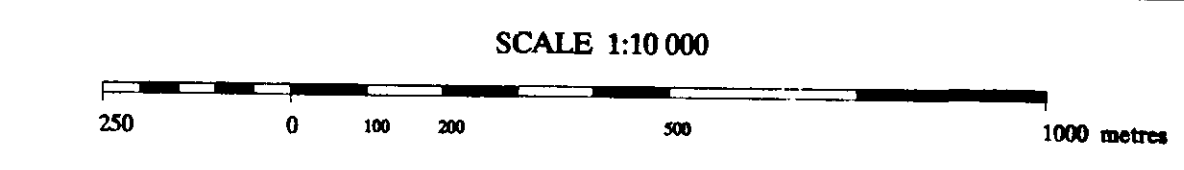
- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos
- Magnetite



FAIRFIELD MINERALS LTD.

TOTAL FIELD MAGNETICS

CABIN LAKE PROPERTY
YUKON TERRITORY



Date Flown: JUNE 30, 1997
NTS: 105B/4
Project: J9761
Map Ref: 1 - 3

APPENDIX A: Aerodat Inc. Report on Electromagnetic and Magnetic Survey

REPORT

**ON A
COMBINED HELICOPTER-BORNE
ELECTROMAGNETIC AND MAGNETIC SURVEY
CABIN LAKE AND CARIBOU CREEK PROPERTIES
YUKON TERRITORY
NTS 105 B/4, 105 C/1, 105 C/8**

FOR

**FAIRFIELD MINERALS LIMITED
SUITE 1420, 700 WEST GEORGIA STREET
P.O. BOX 10071 PACIFIC CENTRE
VANCOUVER, BRITISH COLUMBIA
CANADA V7Y 1B6**

BY

**AERODAT INC.
6300 NORTHWEST DRIVE
MISSISSAUGA, ONTARIO
CANADA L4V 1J7
PHONE: 905-671-2446**

July 31, 1997

**R. W. Woolham, P. Eng.
Consulting Geophysicist**

J9761

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**REPORT ON A
COMBINED HELICOPTER-BORNE
ELECTROMAGNETIC AND MAGNETIC SURVEY
CABIN LAKE AND CARIBOU CREEK PROPERTIES
YUKON TERRITORY**

1. INTRODUCTION

This is a report on an airborne geophysical survey carried out for Fairfield Minerals Ltd. by Aerodat Inc. under a contract dated May 23, 1997. Principal geophysical sensors included a five frequency electromagnetic system and a high sensitivity cesium vapour magnetometer. Ancillary equipment included a colour video tracking camera, Global Positioning System (GPS) navigation instrumentation, a radar altimeter, a power line monitor and a base station magnetometer.

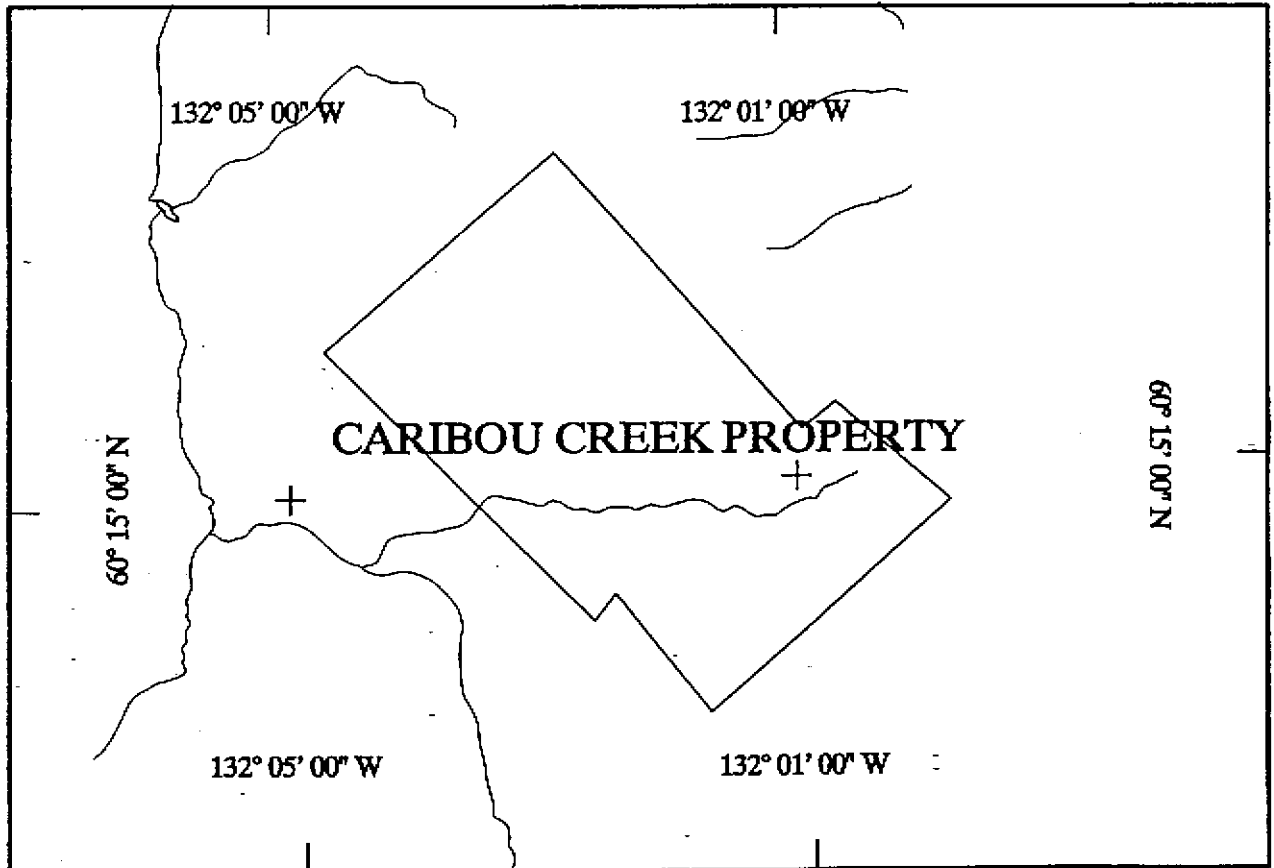
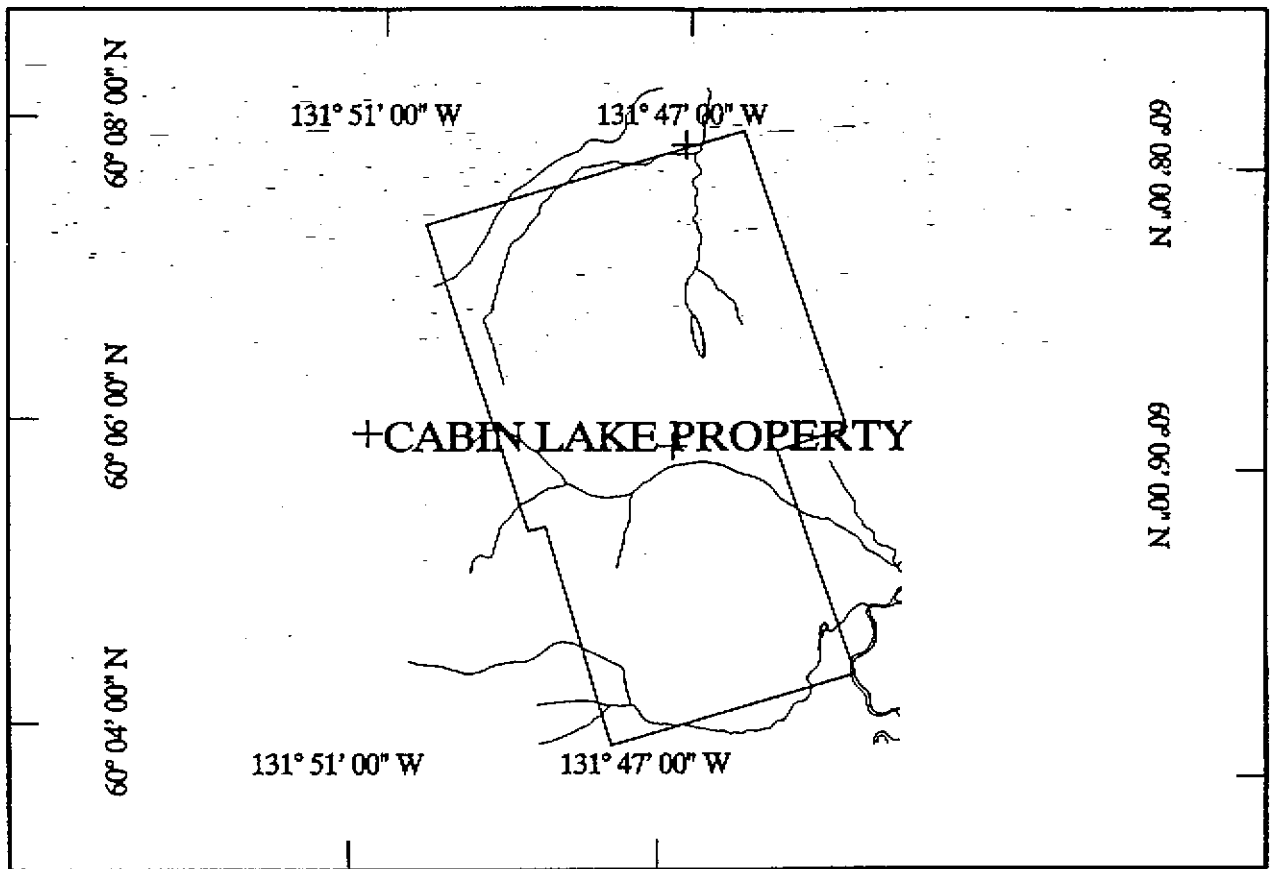
The survey covered two areas, the Cabin Lake property and the Caribou Creek property, totalling about 20.3 and 6.4 square kilometres respectively. The properties are located approximately 170 km east-southeast of Whitehorse. Total survey coverage for the Cabin Lake property is 277 line km including 25 km of tie lines and for the Caribou Creek property 85 km including 8 km of tie lines. The Aerodat Job Number is J9761.

This report describes the survey, the data processing, data presentation and interpretation of the geophysical results. Identified electromagnetic anomalies appear on selected map products as anomaly symbols with interpreted source characteristics. The interpretation map indicates conductive areas of possible interest. It also shows prominent structural features interpreted from the magnetic results. Significant structural, conductive and/or magnetic associations are the basis for the selection of specific geophysical anomalies for further investigation.

2. SURVEY AREA

The survey areas are about 35 km east-northeast of Teslin on the Englishman's Range of Mountains. Topography is shown on the 1:50,000 scale NTS map sheets 105 B/4, C/1 and C/8. Local relief is rugged. Elevations range from 915 m to over 1,650 m above mean sea level on the Cabin Lake property and from 1,100 m to 1,400 m on the Caribou Creek property. The survey area is shown in the attached index map that includes local topography and latitude - longitude coordinates. This index map also appears on all map products. The flight line direction is north 74° east on the Cabin Lake property and north 48° east on the Caribou Creek property. Line spacing is 100 metres.

INDEX MAPS



3. AIRCRAFT AND SURVEY EQUIPMENT

3.1 Aircraft

The survey aircraft was an Aerospatiale AS 315B helicopter (C-FJJW), piloted by D. Rokosh, owned and operated by Turbowest Helicopters Ltd. J. Douglas of Aerodat acted as navigator and equipment operator. Aerodat performed the installation of the geophysical and ancillary equipment. The survey aircraft is flown at a mean terrain clearance of 60 metres and speed of 60 knots.

3.2 Electromagnetic System

The Helicopter ElectroMagnetic system (HEM) is an Aerodat multi-frequency configuration. Two vertical coaxial coil pairs operate at frequency ranges of 900 Hz and 4,500 Hz and two or three horizontal coplanar coil pairs at frequency ranges of 900, 4,500 Hz and 33 kHz. The actual frequencies used depend on the particular bird configuration. At the present time Aerodat has ten bird systems. This survey utilized the Harrier bird with frequencies of 913 Hz and 4,427 Hz for the coaxial coil pairs and 858 Hz, 4,830 Hz and 32,550 Hz for the coplanar coil pairs. The transmitter-receiver separation is 6.4 metres. Inphase and quadrature signals are measured simultaneously for the five frequencies with a time constant of 0.1 seconds. The HEM bird is towed 30 metres below the helicopter.

3.3 Magnetometer

A Scintrex H8 cesium, optically pumped magnetometer sensor, measures the earth's magnetic field. The sensitivity of this instrument is 0.001 nanoTesla at a sampling rate of 0.2 second. The sensor is towed in a bird 15 metres below the helicopter 45 metres above the ground.

3.4 Ancillary Systems

Base Station Magnetometer

A Gem Systems, Inc. GSM19 magnetometer, or similar unit, is set up at the base of operations to record diurnal variations of the earth's magnetic field. Synchronization of the clock of the base station with that of the airborne system is checked each day to insure diurnal corrections will be accurate. Recording resolution is 1 nT with an update rate of four seconds. Magnetic field variation data are plotted on a 3" wide gridded paper chart analog recorder. Each division of the grid (0.25") is equivalent to one minute (chart speed) or five nT (vertical sensitivity). The date, time and current total field magnetic value are automatically recorded every 10 minutes. The data is also saved to digital tape.

Radar Altimeter

A King KRA-10 radar altimeter records terrain clearance. The output from the instrument is a linear function of altitude. The radar altimeter is pre-calibrated by the manufacturer and is checked after installation using an internal calibration procedure.

Tracking Camera

A Panasonic colour video camera records the flight path on VHS video tape. The camera operates in continuous mode. The video tape also shows the flight number, 24 hour clock time (to .01 second), and manual fiducial number.

Global Positioning System (GPS)

Global Positioning Systems utilize at present 25 active satellites orbiting the earth. The orbital period for each satellite is approximately 12 hours with an altitude of approximately 12,600 miles (~ 20,000 km). Each satellite contains a very accurate cesium clock which is synchronized to a common clock by the ground control stations (operated by the U.S. Air Force).

The satellites radiate individually coded radio signals which are received by the user's GPS receiver. Along with timing information, each satellite transmits ephemeris (astronomical almanac or table) information which enables the receiver to compute the satellite's precise spatial position. The receiver decodes the timing signals from the satellites in view (4 or more for a three dimensional fix) and, knowing their respective locations from the ephemeris information, computes a latitude, longitude, and altitude for the user. This position fix process is continuous and can be updated once per second.

Differential GPS is employed to eliminate the problem of selective availability where the US Defence Department corrupts the satellite's timing signal. Differential GPS utilizes a GPS reference receiver which must be established within a few hundred miles from the survey aircraft. The GPS System computes differential corrections as a post-processing operation to achieve accuracies in the 2 to 5 metre range.

A Magnavox 9212 (12 channel) GPS receiver is used in the aircraft. Nortech differential GPS processing software is used to compute the differentially corrected GPS positions on a daily flight basis. The navigational unit in the aircraft supplies continuous information to the pilot and allows multiple way point entry.

The Picodas PNAV 2001 survey navigation system is utilized on the aircraft to provide a left/right indicator for the pilot. The single point GPS positions are logged onto the PICODAS or RMS digital acquisition systems along with the magnetometer data. The single point GPS accuracy is much better than 25 metres. The GPS positions are converted to NAD27 format for inclusion in the technical report and in the digital archive data.

Analog Recorder

An RMS dot matrix recorder displays the data during the survey. Record contents are as follows:

LABEL	PARAMETER	CHART SCALE
MAGF	Total Field Magnetics, Fine	2.5 nT/mm
MAGC	Total Field Magnetics, Coarse	25 nT/mm
L9XI	900 Hz, Coaxial, Inphase	2.5 ppm/mm
L9XQ	900 Hz, Coaxial, Quadrature	2.5 ppm/mm
M4XI	4,500 Hz, Coaxial, Inphase	2.5 ppm/mm
M4XQ	4,500 Hz, Coaxial, Quadrature	2.5 ppm/mm
L8PI	900 Hz, Coplanar, Inphase	10 ppm/mm
L8PQ	900 Hz, Coplanar, Quadrature	10 ppm/mm
M4PI	4,500 Hz, Coplanar, Inphase	10 ppm/mm
M4PQ	4,500 Hz, Coplanar, Quadrature	10 ppm/mm
H3PI	33,000 Hz, Coplanar, Inphase	20 ppm/mm
H3PQ	33,000 Hz, Coplanar, Quadrature	20 ppm/mm
BALT	Barometer	50 ft/mm
RALT	Radar Altimeter	10 ft/mm
PWRL	50/60 Hz Power Line Monitor	-

Data is recorded with positive - up, negative - down. The analog zero of the radar altimeter is 5 cm from the top of the analog record. A helicopter terrain clearance of 60 m should therefore be seen some 3 cm from the top of the analog record.

Chart speed is 2 mm/second. The 24-hour clock time is printed every 20 seconds. The total magnetic field value is printed every 30 seconds. The ranges from the radar navigation system are printed every minute.

Vertical lines crossing the record are manual fiducial markers activated by the operator. The start of any survey line is identified by two closely spaced manual fiducials. The end of any survey line is identified by three closely spaced manual fiducials. Manual fiducials are numbered in order. Every tenth manual fiducial is indicated by its number, printed at the bottom of the record.

Calibration sequences are located at the start and end of each flight and at intermediate times where needed.

Digital Recorder

A DGR-33 data system records the digital survey data on magnetic media. Contents and update rates are as follows:

DATA TYPE	RECORDING INTERVAL	RECORDING RESOLUTION
Magnetometer	0.1 second	0.001 nT
HEM, (8 or 10 Channels)	0.1 second	
HEM, coaxial- 900 Hz/4,500 Hz		0.03 ppm
HEM, coplanar- 900 Hz/4,500 Hz		0.06 ppm
HEM, coplanar- 33,000 Hz		0.125 ppm
Position (2 Channels)	0.2 second	0.1 m
Altimeter	0.2 second	0.05 m
Power Line Monitor	0.2 second	
Manual Fiducial		
Clock Time		

4. SURVEY LOGISTICS AND CALIBRATION

4.1 Survey

The survey was completed on June 30, 1997. Principal personnel are listed in Appendix I. A total of three survey flights was required to complete the project. Aircraft ground speed is maintained at approximately 60 knots (30 metres per second) and mean terrain clearance of 60 metres consistent with the safety of the aircraft and crew.

4.2 Navigation

A global positioning system (GPS) consisting of a Magnavox MX 9212, or similar system, operated in differential mode guides aircraft navigation and flight line control. Field processing of the differential GPS data in the field utilizes a PC using software supplied by the manufacturer. One system is installed in the survey helicopter. This involves mounting the receiver antenna on the casing ("bird") containing the magnetometer sensor. A second system acts as the base station.

The published NTS maps provide the Universal Transverse Mercator (UTM) coordinates of the survey area corners. These coordinates program the navigation system. A test flight confirms if area coverage is correct. Thereafter the navigation system guides the pilot along the survey traverse lines marked on the topographic map. The operator also enters manual fiducials over prominent topographic features. Survey lines showing excessive deviation are re-flown.

The operator calibrates the geophysical systems at the start, middle (if required) and end of every survey flight. During calibration the aircraft is flown away from ground effects to record electromagnetic zero levels.

4.3 Calibration and Data Verification

The operator calibrates the geophysical systems including the barometric altimeter at the start, middle (if required) and end of every survey flight. Immediately after takeoff and before landing the altimeter values are compared with the 30 m separation between the helicopter and EM sensor. The geophysical systems are calibrated and monitored as follows:

Electromagnetics

The system is nulled and phased according to Aerodat's standard procedures. Any discrepancies from previous surveys require an external Q coil calibration. The External Calibration Procedure is done at the start of every survey and every week thereafter until the survey has been completed. There are four parts to the External Calibration Procedure. After system has warmed up, they are:

- 1.) Null each frequency
- 2.) Phase each frequency
- 3.) Set the gain for each frequency
- 4.) Note the response of the internal Cal-coil

The phasing is done with a ferrite bar. The gain calibration is done using a calibration coil which is mounted at a pre-set location off the end of the bird.

The phasing and calibration is checked with the internal Q coil. The internal Q coil is activated prior to and at the end of each flight with the system flying out of ground effect (250 m or higher) to assure correct EM calibration. Analog trace locations are corrected for all channels when the system is out of ground effect. If excessive drift is present on the EM system the preceding procedures are repeated as required.

Magnetics

The airborne magnetic data is monitored in the aircraft by means of a 4th difference of the data which is calculated and presented on the airborne analog recorder. Should the 4th difference exceed the allowable specification, the portion of the flight line thereby affected is reflight.

The fourth difference is defined as:

$$FD_j = X_{j+2} - 4X_{j+1} + 6X_j - 4X_{j-1} + X_{j-2}$$

where X_j is the j^{th} total field sample. The fourth difference in this form has units of nT. High frequency noise should be such that the fourth differences divided by 16 are generally less than ± 0.1 nT. The fourth difference is displayed on analog at scales of 0.20 nT/cm.

Altimeters

The radar altimeter test is carried out before and after the survey and if any of the altitude equipment is changed. The radar altimeter reading is determined when flying at barometric altitudes of 60, 120, 180 and 240 meters above the base airstrip. Also, the barometric altimeter is calibrated pre-flight and post-flight using the radar altimeter to determine the drift and this drift is applied to the data in the subsequent data processing.

Video Flight Path Verification

The record from the video camera is monitored continuously in flight. The video tape is reviewed immediately after each flight to ensure that the quality is acceptable. Selective flight path verification is performed as necessary.

Lag Tests

Before survey production commences and when any major survey equipment modification or replacement occurs, a lag test is performed to determine the time difference between the magnetometer reading, the electronic navigation reading and the operation of the positioning equipment. These tests are flown at the survey flight altitude in two (2) directions across a distinct magnetic anomaly and a recognizable feature whose exact location is known.

5. DATA PROCESSING AND PRESENTATION

5.1 Base Map

The base map is taken from a photographic enlargement of the NTS topographic maps. A UTM reference grid (grid lines usually every kilometre) and the survey area boundaries are added. After registration of the flight path to the topographic base map, some topographic detail and the survey boundary are added digitally. This digital image forms the base for the colour and shadow maps.

In order to check positioning and provide more detailed topography a digital terrain model (DTM) is generated by calculating the difference between the barometric and radar altimeter readings along the flight path. This pseudo elevation map can be plotted as a topographic map and geophysical features of interest can be checked for possible topographic expressions. Levelling errors are sometimes present in steep topographic gradients due to the forward pointing radar altimeter and helicopter orientation.

5.2 Flight Path Map

Global Positioning System

The GPS receiver takes in coded data from satellites in view and there after calculates the range to each satellite. The coded data must therefore include the instantaneous position of the satellite relative to some agreed earth-fixed coordinate system.

A further calculation using ranges to several satellites gives the position of the receiver in that coordinate system (eg. UTM, lat/long.). The elevation of the receiver is given with respect to a model ellipsoidal earth.

Normally the receiver must see four satellites for a full positional determination (three space coordinates and time). If the elevation is known in advance, only three satellites are needed. These are termed 3D and 2D solutions.

The position of the receiver is updated every tenth of a second. The accuracy of any one position determination is described by the Circular Error Probability (CEP). Ninety-five percent of all position determinations will fall within a circle of a certain radius. If the horizontal position accuracy is 25 m CEP, for example, 95% of all trials will fall within a circle of 25 m radius centred on the mean. The system may be degraded for civilian use and the autonomous accuracy is then 100 m CEP. This situation is called selective availability (SA). Much of this error (due principally to satellite position/time errors and atmospheric delays) can be removed using two GPS receivers operating simultaneously. One receiver acting as the base station, is at a known position. The second remote receiver is in the unknown position. Differential corrections determined for the base station may then be applied to the remote station. Differential positions are accurate to five m CEP (for a one second sample). Averaging will reduce this error further.

Flight Path

The flight path is drawn using linear interpolation between x,y positions from the navigation system. These positions are updated every second (or about 3.0 mm at a scale of 1:10,000). Occasional dropouts occur when the optimum number of satellites are not available for the GPS to make accurate positional determinations. Interpolation is used to cover short flight path gaps. The navigator's flight path and/or the flight path recovered from the video tape may be stitched in to cover larger gaps. Such gaps may be recognized by the distinct straight line character of the flight path.

The manual fiducials are shown as a small circle and labelled by fiducial number. The 24-hour clock time is shown as a small square, plotted every 30 seconds. Small tick marks are plotted every two seconds. Larger tick marks are plotted every 10 seconds. The line and flight numbers are given at the start and end of each survey line.

The aircraft position is expressed in geographic latitude and longitude coordinates, using the **North American Datum NAD27** based on the Clarke 1866 ellipsoid. Any particular survey area located on the globe has a specific reference ellipsoid or projection zone. A further refinement for a better fit to the earth's surface at the survey location is applied by adding or subtracting slight x, y and/or z datum shifts (a few metres to hundreds of metres) to the origin of the ellipsoid. The geographic coordinates are converted to fit this ellipsoid before calculating the UTM coordinates. The UTM coordinates are expressed as UTM eastings (x) and UTM northings (y).

The flight path map is merged with the base map by matching UTM coordinates from the base maps and the flight path record. The match is confirmed by checking the position of prominent topographic features as recorded by manual fiducial marks or as seen on the flight path video record.

5.3 Electromagnetic Survey Data

The electromagnetic data are recorded digitally at a sample rate of 10 per second with a time constant of 0.1 seconds. A two stage digital filtering process rejects major sferic events and reduces system noise. Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events. This is referred to as a "surgical mute" in signal processing terms. The signal to noise ratio is further enhanced by the application of a low pass digital filter. This filter has zero phase shift that prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 0.25 seconds. This low effective time constant gives minimal profile distortion.

Following the filtering process, a base level correction is made using electromagnetic zero levels determined during high altitude calibration sequences. The correction applied is a linear function of time that ensures the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. The filtered and levelled data are the basis for the determination of apparent resistivity (see following section). The inphase and quadrature responses along the flight line are presented in profile form offset along the flight lines. Differentiation of the various profiles is achieved using two colours (coaxial and coplanar) and two line weights (inphase and quadrature). For interpretation purposes the coaxial and coplanar data sets for a similar frequency range are presented together on one map (900 Hz and/or 4,500 Hz)

5.4 Total Field Magnetics

The aeromagnetic data is corrected for diurnal variations by adjustment with the recorded base station magnetic values. No corrections for regional variations are applied. The corrected profile data are interpolated on to a regular grid using an Akima spline technique. The grid provided the basis for threading the presented contours. The minimum contour interval is 2 nT with a grid cell size of 25 m. Magnetic high areas are assigned warm colours (orange/red) while magnetic low areas show as cool colours (blue).

5.5 Calculated Vertical Magnetic Gradient

The vertical magnetic gradient is calculated from the gridded total field magnetic data. The calculation is based on a 17 x 17 point convolution in the space domain or FFT processing which involves using a two dimensional Fourier Transform, applying a vertical derivative operator and transforming the filtered data back into the space domain. The results are contoured using a minimum contour interval of 0.02 nT/m. Grid cell sizes are the same as those used in processing the total field data. The high and low amplitude responses are give the same colour representation as the total field contours.

5.6 Colour Relief or Shadow Map of Total Field Magnetics

A useful manipulation of the magnetic data is the production of a colour shadow map. It is an aid in the interpretation and presentation of the magnetic information. The shadow map displays two independent variables simultaneously on the same map. The two variables are the amplitude and the gradient of the quantity measured over the mapping region. At every point or grid cell on the map the hue represents the amplitude of the magnetic value and the lightness/darkness of the hue is varied according to the slope or gradient of the data at the cell location. The gradient is translated into a reflectance parameter with respect to a chosen illumination direction. Subtle magnetic structures having a specific trend are enhanced or attenuated depending on the position and angle to the horizon of the light source relative to the trend. If the light source is orthogonal to the trend there will be maximum shadow relief. Regional discontinuities representing fault structures are easily recognized with shadow enhancement.

5.7 Apparent Resistivity

The apparent resistivity is calculated by assuming a 200 metre thick conductive layer over resistive bedrock. The computer determines the resistivity that would be consistent with the sensor elevation and recorded inphase and quadrature response amplitudes at the selected frequency. The apparent resistivity profile data is re-interpolated onto a regular grid at a 25 metres true scale interval using an Akima spline technique and contoured using logarithmically arranged contour intervals. The minimum contour interval depends on the selected frequency and is in units of log(ohm.m) in logarithmic intervals of 0.1, 0.5, 2.0, 5.0 etc. The colour presentation assigns warmer colours (reds) to low resistivity or very conductive responses and cooler colours (blues) to high resistivity or poor conductivity responses.

The highest measurable resistivity is approximately equal to the transmitter frequency. The lower limit on apparent resistivity is rarely reached.

6. DELIVERABLES

The report on the results of the survey is presented in two copies. The report includes folded white print copies of all black line maps. Two copies of the colour and shadow maps are in accompanying map tube(s).

The black line maps show topography, UTM grid coordinates and the survey boundary. The survey data are presented in sets of numbered maps in the following format:

I **BLACK LINE MAPS: (Scale 1:10,000)**

Map No.	Description
1.	BASE MAP; screened topographic base map plus survey area boundary, and UTM grid.
2.	COMPILATION / INTERPRETATION MAP; with base map, flight path map and HEM anomaly symbols with interpretation .
3.	TOTAL FIELD MAGNETIC CONTOURS; with base map, HEM anomaly symbols and flight lines.
4.	VERTICAL MAGNETIC GRADIENT CONTOURS; with base map, HEM anomaly symbols and flight lines.
5A.	APPARENT RESISTIVITY CONTOURS; apparent resistivity calculated for the coplanar 900 Hz data, with base map, HEM anomaly symbols and flight lines.

- 5B. APPARENT RESISTIVITY CONTOURS; apparent resistivity calculated for the coplanar 4,500 Hz data, with base map, HEM anomaly symbols and flight lines.

II COLOUR MAPS: (Scale 1:10,000)

1. TOTAL FIELD MAGNETICS; with superimposed contours, flight lines, topographic features and HEM anomaly symbols.
2. VERTICAL MAGNETIC GRADIENT; with superimposed contours, flight lines, topographic features and HEM anomaly symbols.
- 3A. HEM OFFSET PROFILES; coplanar 900 Hz and coaxial 900 Hz data with flight lines, topographic features and HEM anomaly symbols.
- 3B. HEM OFFSET PROFILES; coplanar 4,500 Hz and coaxial 4,500 Hz data with flight lines, topographic features and HEM anomaly symbols.
- 3C. HEM OFFSET PROFILES; coplanar 33,000 Hz data with flight lines, topographic features and HEM anomaly symbols.
- 4A. APPARENT RESISTIVITY; calculated for the coplanar 900 Hz data with superimposed contours, flight lines, topographic features and HEM anomaly symbols.
- 4B. APPARENT RESISTIVITY; calculated for the coplanar 4,500 Hz data with superimposed contours, flight lines, topographic features and HEM anomaly symbols.

III SHADOW DERIVATIVE: (Scale 1:10,000)

1. TOTAL FIELD MAGNETICS SHADOW MAP; with suitable sun angle

The processed digital data, including both the profile and the gridded data, is on CD ROM'S (ISO 9660). Profile data is written as columnar ASCII records and the gridded data as standard Geosoft PC grids. A full description of the format is included with the package. All gridded data can be displayed on IBM compatible microcomputers using the Aerodat AXIS (Aerodat Extended Imaging System) or RTI (Real Time Imaging) software package. The complete data package includes all analog records, base station magnetometer records, flight path video tape and original map cronaflexes.

7. INTERPRETATION

7.1 Area Geology

The properties cover the mid-Palaeozoic volcanic-plutonic rocks of the Yukon-Tanana Terrane comprising, in part, mafic and felsic metavolcanics, carbonaceous metasediments, quartzite grits and orthogneiss intruded by felsic and mafic stocks. Cominco Ltd.'s ABM deposit at its Kudz Ze Kayah project in the Finlayson Lake area is within the same geological environment.

This massive sulphide, Kuroko-style, base metal deposit is hosted by Devonian to Mississippian age interlayered metavolcanic and metasedimentary rocks of the Yukon-Tanana Terrane. The deposit hosts a reserve, minable by open-pit methods, of 11.3 million tonnes grading 5.9% zinc, 1.5% lead and 0.9% copper. The Wolverine and Lynx deposits discovered by Westmin Resources are similar orebodies located about 20 km east of the ABM deposit. A geological resource estimate for these deposits total 5.3 million tonnes grading 13.0% zinc, 1.5% lead and 1.4% copper plus values in gold and silver (The Northern Miner, June 23, 1997).

7.2 Magnetic Interpretation

The total field magnetic responses reflect major changes in the magnetite content of the underlying rock units. The amplitude of the magnetic responses relative to the regional background help to assist in identifying specific magnetic and nonmagnetic units related to, for example, mafic flows or tuffs, mafic to ultramafic intrusives, felsic intrusives, felsic volcanics and/or sediments etc. Obviously, several geological sources can produce the same magnetic response. These ambiguities can be reduced considerably if basic geological information on the area is available to the geophysical interpreter.

In addition to amplitude variations, magnetic patterns related to the geometry of the particular rock unit also help in determining the probable source of the magnetic response. For instance, long narrow magnetic linears usually reflect mafic tuff/flow horizons or mafic intrusive dyke structures while semi-circular features with complex magnetic amplitudes may be produced by local plug-like intrusive sources such as pegmatites, carbonatites or kimberlites.

The calculated vertical magnetic gradient assists considerably in mapping weaker magnetic linears that are partially masked by nearby higher amplitude magnetic features. The broad zones of higher magnetic amplitude, however, are severely attenuated in the vertical magnetic gradient results. These higher amplitude zones reflect rock units having magnetic susceptibility signatures. For this reason both the total and gradient magnetic data sets must be evaluated.

Theoretically the magnetic gradient zero contour line marks the contacts or limits of large magnetic sources. This applies to wide sources, greater than 50 metres, having simple slab geometries and shallow depth.(See discussion in Appendix II) Thus the gradient map also aids in the more accurate delineation of contacts between differing magnetic rock units.

The cross cutting structures, shown on the interpretation map as faults, are based on interruptions and discontinuities in the magnetic trends. Generally, sharp folding of magnetic units will produce a magnetic pattern indistinguishable from a fault break. Thus, if anomaly displacements are small such fault structures, where they mark an anomaly interruption, may actually represent a deformation node rather than faulting.

7.3 Magnetic Survey Results and Conclusions

To facilitate the following discussion of the magnetic results it is suggested the interpretation map be compared with the total field and vertical gradient magnetic colour contour maps either as overlays or side by side.

On the interpretation maps the relatively higher amplitude magnetic horizons and trends are indicated with thick lines while lower amplitude more subtle linears are shown with thinner lines. These linears and trends probably reflect mafic intrusive and extrusive rocks related to mafic volcanic units, sills or dyke structures. Below background non-magnetic zones are outlined with thick dashed lines and depression symbols. Such zones usually map felsic or sedimentary rocks. Local smaller negative zones can also indicate possible alteration effects, felsic intrusives or diatremes. North-northeast to east-west striking fault structures are positioned on the interpretation maps to explain some of the discontinuities and displacements in the magnetic trends. A discussion of the results for each survey block follows:

Cabin Lake Property

The magnetic background is interpreted to be approximately 57,825 nanoTesla (nT). Amplitudes range from about 375 nT below background to 4,925 nT above background. The highest amplitude responses, greater than 500 nT above background, are concentrated in the southwest portion of the area in a complex of sinuous and folded anomaly trends. The complex is elongated in a north-northwest direction which roughly parallels most of the other lower amplitude magnetic linear horizons. This southwest magnetic complex has the characteristics of possible mafic to ultramafic intrusive source rocks because of its geometry and high magnetic amplitudes. Iron formation also has similar amplitude responses and could also be a constituent.

Immediately east of the main magnetic complex there is a below background non-magnetic zone probably marking felsic or sedimentary rocks. The north half of the property is marked by lower amplitude, 100 to 500 nT above background, responses with the higher amplitude anomalies concentrated along the east boundary of the property. Intermediate to mafic volcanic flow or tuff units may be the source of these responses. The higher amplitude portion along the east boundary contains most of the conductive responses to be described in a following section.

Caribou Creek Property

7.4 Electromagnetic Anomaly Selection/Interpretation

Vertical to Near Vertical Tabular Conductive Sources

Usually two sets of stacked colour coded profile maps of one coaxial and one coplanar inphase and quadrature responses are used to select conductive anomalies of interest. These HEM intercepts are automatically plotted on the various map products listed previously. Selection of HEM anomaly intercepts is based on conductivity as indicated by the inphase to quadrature ratios of the 900 Hz and/or 4,500 Hz coaxial data, anomaly shape, and anomaly profile characteristics relative to coaxial and corresponding coplanar responses. The peak of the coaxial responses is picked for digitizing as that defines the position of any near vertical to dipping tabular source.

These response shapes are illustrated in Appendix II, in the figure entitled "HEM Response Profile Shapes". Profile A illustrates the coaxial and coplanar signature of a vertical source while profiles B and C show the effect of dip on the coplanar and coaxial profiles. For a gently dipping source the small up-dip tail of the coplanar profiles B and C is not present and there is just a shift of the coplanar peak down dip from the coaxial peak.

Flat Lying Conductive Sources

Flat lying responses are characterized by identically shaped coaxial and coplanar response profiles. Profile I, Appendix II, illustrates a flat source response. Variations in the conductivity and thickness of flat lying sources produces peaks and valleys in the profile data. Ordinarily the anomaly peaks from flat lying sources are not selected for plotting as HEM intercepts. Their locations have little meaning if the source is flat lying.

Nevertheless, if the sources are gently dipping the peaks sometimes have line to line continuity and may show the "grain" of the underlying geology. A much better presentation of conductive flat lying sources is achieved by the resistivity calculations and map plots. Comparison of the resistivity data with geological information can then ascertain if the source of the responses are of possible geological interest.

It is difficult to differentiate between responses associated with the edge effects of flat lying conductors and actual poor conductivity bedrock conductors on the edge of or overlain by flat lying conductors. Extensive flat lying to gently dipping conductors often have an "edge effect" anomaly which is a coaxial peak on the flank of the coplanar responses similar to one side of profile E, G or H, Appendix II. Often only one edge can be seen if the source is dipping. Such edge effect anomalies are often seen marking the perimeter of lakes or swamps containing conductive material.

Poor conductivity bedrock conductors having low dips will also exhibit responses that may be interpreted as surficial overburden conductors. In such cases, where the source of the conductive response appears to be ambiguous, the coaxial peak of the anomaly is still selected for plotting. In some situations the conductive response has line to line continuity and some magnetic association thus providing possible evidence that the response is related to an actual bedrock source.

Flat lying limited width ribbon type conductive responses with some strike length are sometimes also present. These responses are characterized by a "M" shaped coaxial anomaly with a single peaked coplanar anomaly centred in the trough between the two coaxial peaks. This is illustrated in Appendix II in the same figure as previously mentioned (see profile shape E or G). The actual geometry of the source of these ribbon type responses is difficult to determine. They could represent a synclinal structure such as would be produced by combining dipping profiles C and B.

Negative Inphase Responses

In some areas the inphase profile component exhibits a negative anomaly response usually over obvious magnetic areas. This is produced by local concentrations of magnetite and usually occurs when the sensor is flying close to the ground surface. If only magnetite is present there will be no quadrature response associated with the negative inphase response. If conductive material is present, however, such as graphite or sulphides, a positive quadrature response will be evident with the negative inphase response. In this case the anomaly is selected for plotting and evaluation and designated as a magnetic/conductive response.

Depth and Conductivity Calculation

The calculation of the depth to the conductive source and its conductivity is based on the 4,500 Hz coaxial data assuming a thin vertical sheet model. The amplitude of the inphase and quadrature responses are used for the calculations which are automatically determined by computer. These data are listed in Appendix III and the depth and conductivity values are shown with each plotted anomaly. Further detailed discussion and illustration of the determination of these values is contained in Appendix II. Note the depth calculation for those conductors having a gently dipping to flat lying profile signature will not be accurate although the conductivity value will have some relative meaning.

The selected HEM intercepts are automatically categorized according to their conductivity and amplitude. The calculation of the conductivity of low amplitude anomalies can be very inaccurate. Therefore, anomalies having amplitudes below a certain level and/or low conductivity value are given a zero rating with the category increasing for increasing conductivity values that are statistically reliable.

7.5 Electromagnetic Survey Results and Conclusions

Conductive flat lying to gently dipping material is contributing to the electromagnetic responses in various degrees throughout the survey block. There is a definite correlation between low resistivity and topographically low areas along drainage gulleys and on the flanks of hills. This usually reflects the effects of conductive overburden containing clay minerals. The highest elevations produce high resistivity responses.

Conductive intercepts with some evident line to line continuity are joined together with short dashed line segments. Some of these have poor conductivity signatures with a dominate quadrature response and little inphase response. In some locations there is a definite inphase component especially where the amplitude of the quadrature response is quite high. This still indicates relatively poor conductivity. In certain instances, however, the quadrature peak is superimposed on an elevated quadrature background. Without the high background effect the amplitude of the quadrature response is often similar or less than the inphase amplitude. This implies a much better conductivity than that calculated by the normal conductivity calculation which does not take into account high background levels. These types of anomalies as well as other definitive inphase/quadrature responses are circled on the interpretation maps and numbered for investigation. The results for each property are discussed following:

Cabin Lake Property

There several conductive formational type horizons on this property. As mentioned previously, most are concentrated in a zone of parallel, north-northwest striking, trends along the northeast boundary of the area. The best conductivity and highest amplitude responses form a dual horizon closest to the east survey boundary and recommended for testing at locations 6 to 9. Profile characteristics indicate near vertical to gently dipping

conductive units. Shorter anomalies occur just to the west of the main conductive zone and are recommended for investigation at locations 1 to 5, 10 and 11. Anomalies 2, 5 and portions of 6 and 8 are coincident with magnetic linears. Locations 7, 9, and 10 have a spatial association with longer magnetic horizons.

Medium to poor conductivity horizons are present along the central west boundary and south central parts of the property and are recommended for testing at locations 13 to 16.

The short conductor number 12, in the centre of the property, has poor conductivity but was selected because of the exact coincidence with a local low amplitude magnetic anomaly. Anomaly 17 at the extreme south end of the area has probably better conductivity than indicated because the quadrature response is superimposed on a high background level and this is the main reason it was selected for investigation.

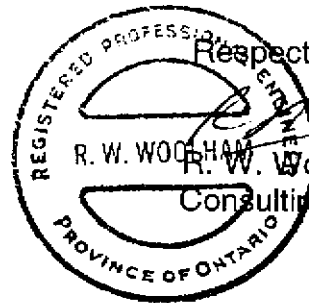
Caribou Creek Property

8. RECOMMENDATIONS

Selection of geophysical anomalies for further investigation is based on the structural and magnetic associations of the designated conductors as well as their relative conductivity. Prior to any ground follow-up, the following priority categories should be reviewed with respect to the geological target model being sought and known geology and mineralization in the area.

The conductors are prioritized as first or second priority investigation targets based on their relative conductivity. On the Cabin Lake Property, first priority targets are 1, 4, 5 and 6 to 9 and the remaining designated investigation areas, 2, 3, 10 to 17 are considered second priority objectives.

The magnetic and conductive anomalies recommended for investigation represent a first phase exploration program. Additional work will be contingent on the results of this program. More detailed geological information used in conjunction with geophysics may help to direct further exploration efforts.



Respectfully submitted,

[Signature]
R. W. Woolham, P.Eng.
Consulting Geophysicist

for

AERODAT INC.

July 31, 1997

J9761

APPENDIX I
PERSONNEL

FIELD

Flown	June 30, 1997
Pilot(s)	D. Rokosh
Operator(s)	J. Douglas

OFFICE

Processing	Will Ica George McDonald
Report	R. W. Woolham

APPENDIX II

GENERAL INTERPRETIVE CONSIDERATIONS

GENERAL INTERPRETIVE CONSIDERATIONS

Electromagnetic

The Aerodat electromagnetic system utilized two different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at widely separated frequencies. The horizontal coplanar coil configuration is similarly operated at different frequencies where at least one pair is approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its electrical conductivity, magnetic susceptibility and its size and shape; the "geometrical" property of the response is largely a function of the conductor's shape and orientation with respect to the measuring transmitter and receiver.

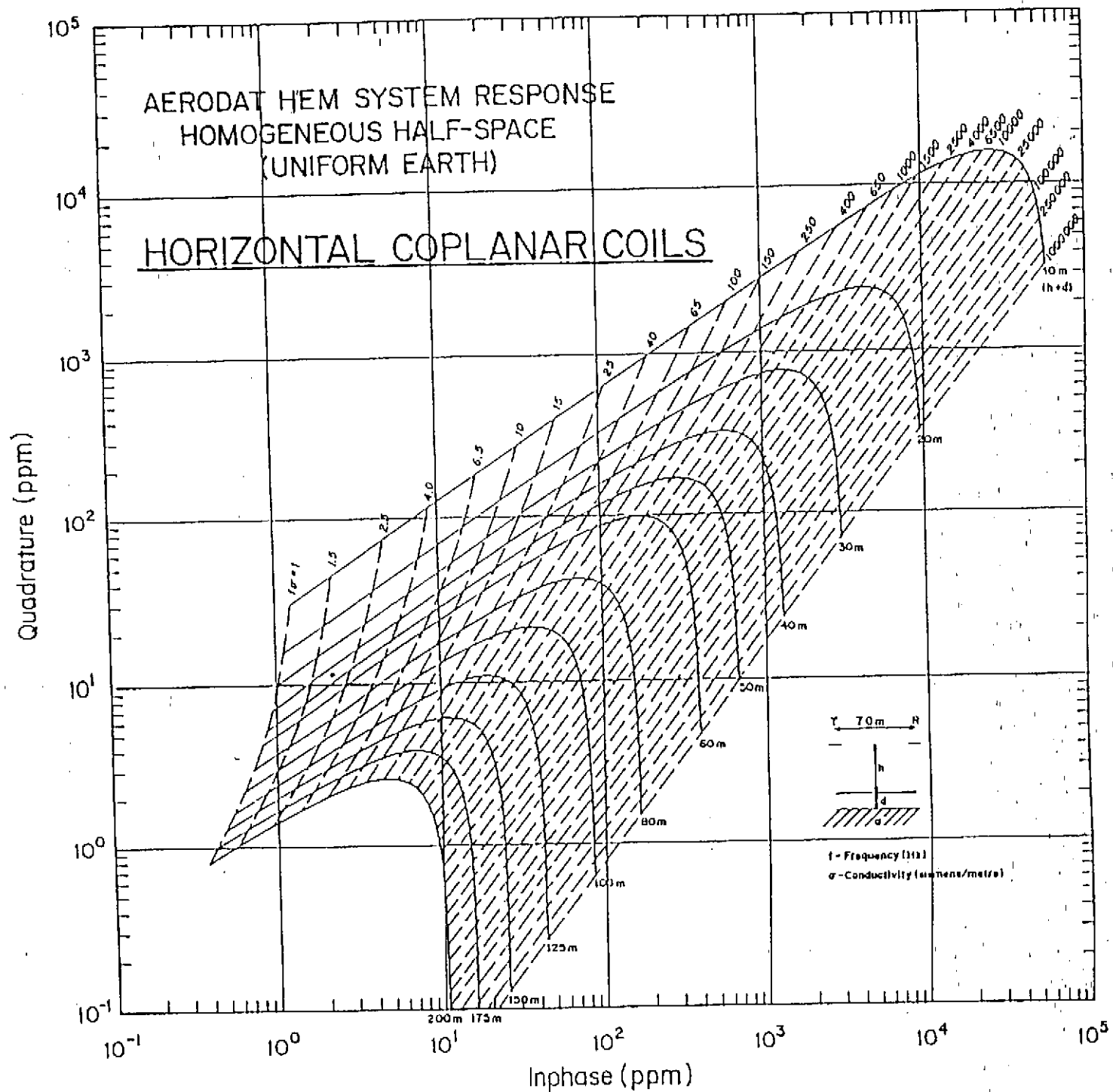
Electrical Considerations

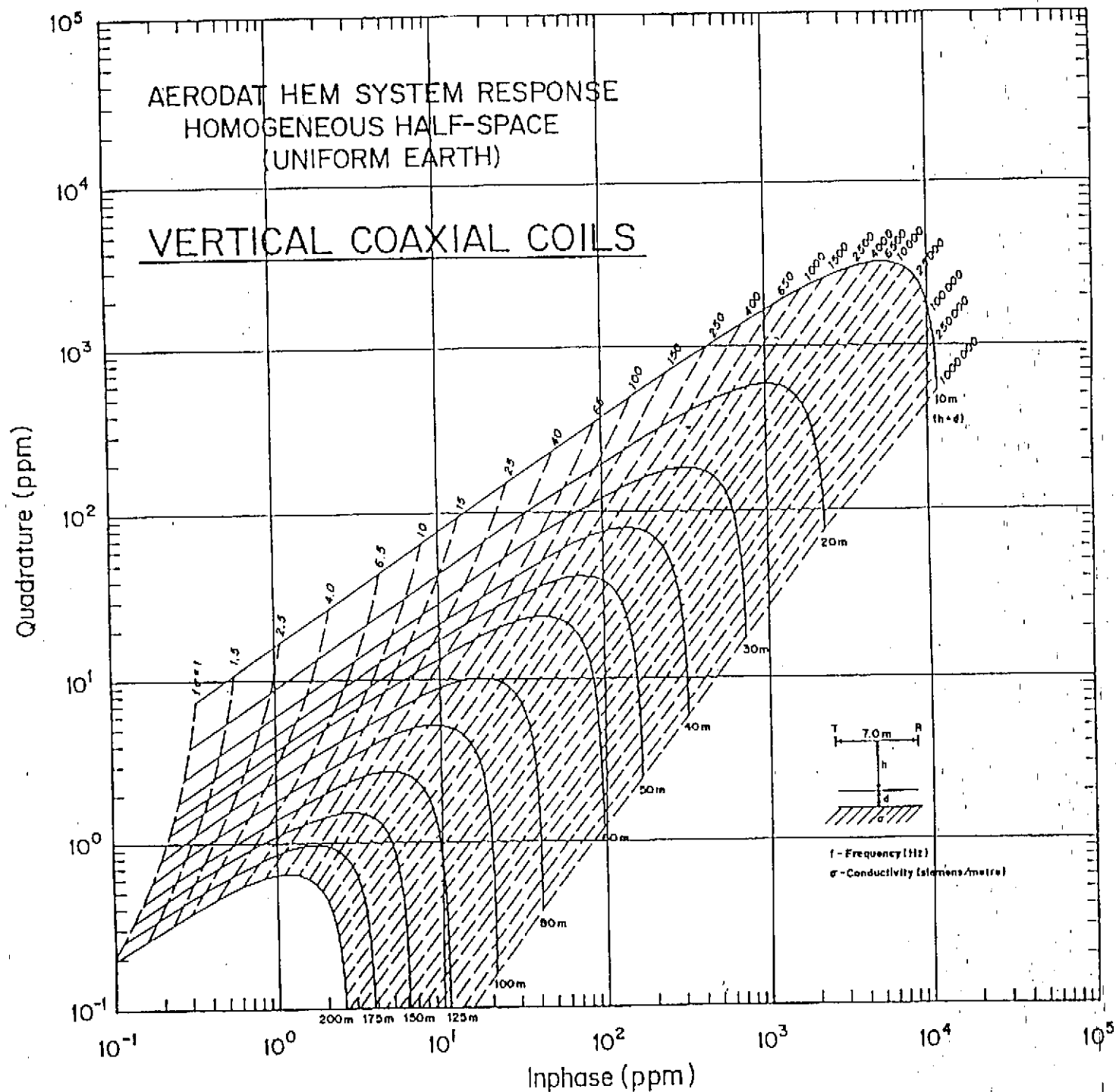
For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large inphase to quadrature ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a non-magnetic vertical half-plane and half space models on the accompanying phasor diagrams. Other physical models will show the same trend but different quantitative relationships.

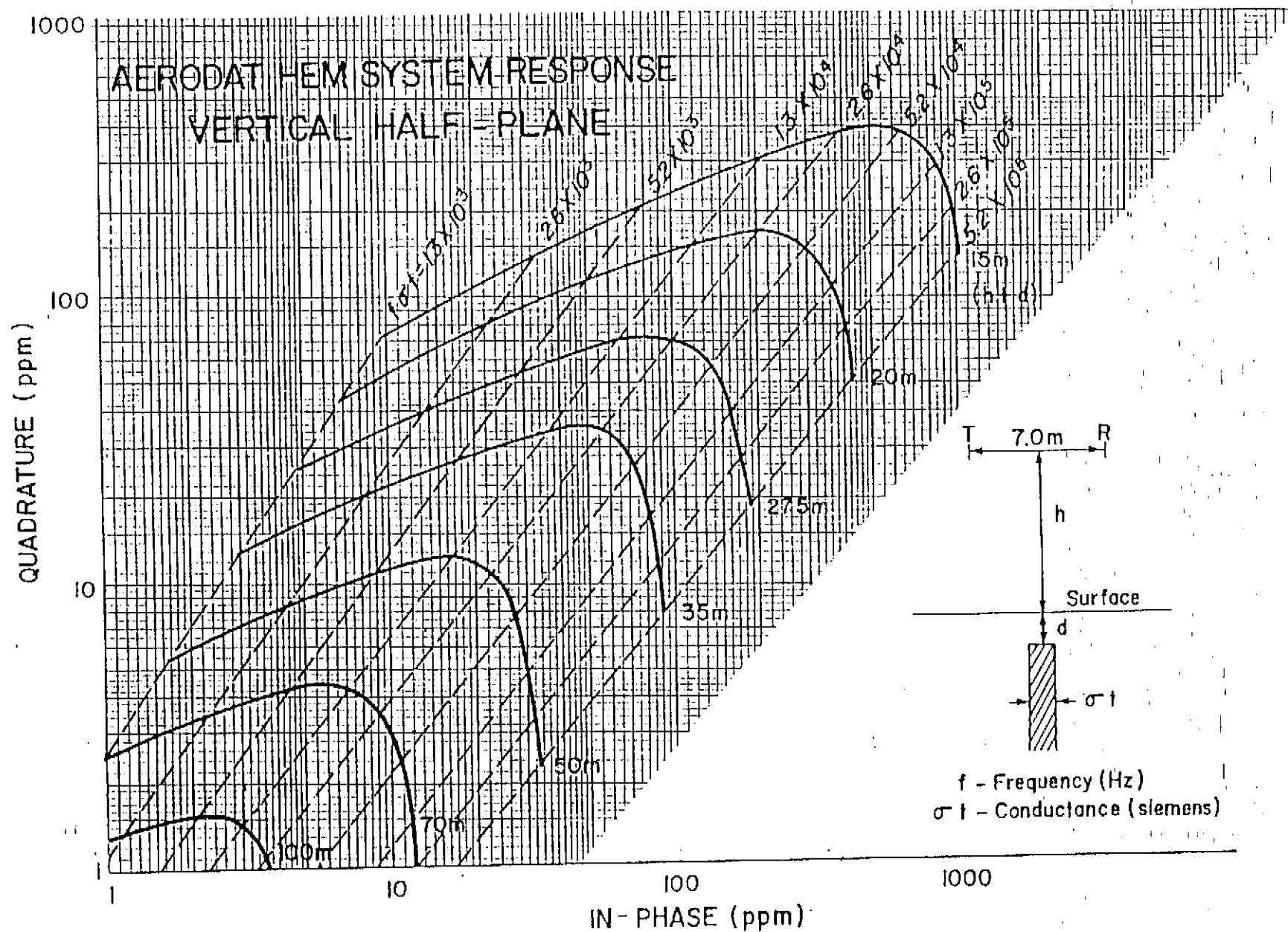
The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in parts per million (ppm) of the primary field as measured at the response peak over the conductor. To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in anomaly listings included in the survey report and the conductance and inphase amplitude are presented in symbolized form on the map presentation.

The conductance estimate is most reliable when anomaly amplitudes are large and background resistivities are high. Where the anomaly is of low amplitude and background resistivities are low, the conductance estimates are much less reliable. In such situations, the conductance estimate is often quite low regardless of the true nature of the conductor. This is due to the elevated background response levels in the quadrature channel. In an extreme case, the conductance estimate should be discounted and should not prejudice target selection.

HORIZONTAL COPLANAR COILS







The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, may be strongly magnetic. Its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than is the depth estimate, but both should be considered as relative rather than absolute guides to the anomaly's properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab-like bodies is the product of electrical conductivity and thickness.

The higher ranges of conductance, greater than 2-4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater, are generally limited to massive sulphides or graphites.

Sulphide minerals, with the exception of such ore minerals as sphalerite, cinnabar and stibnite, are good conductors. Sulphides may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously underrate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant concentrations in association with minor conductive sulphides, and the electromagnetic response will only relate to the minor associated mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive, it would not be expected to exist in sufficient quantity to create a recognizable anomaly. Minor accessory sulphide mineralization may however provide a useful indirect indication.

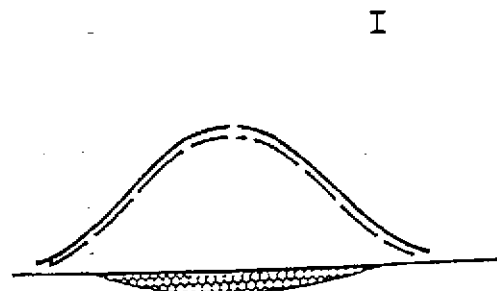
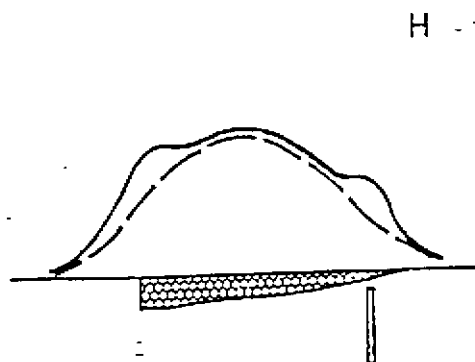
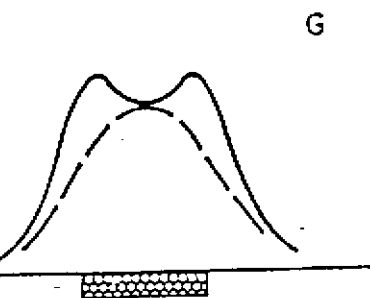
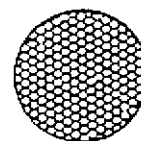
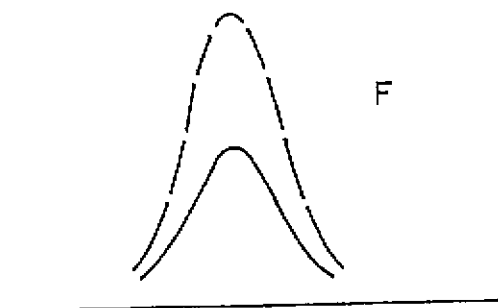
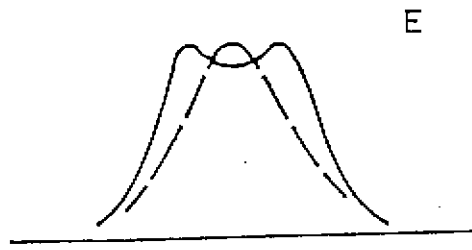
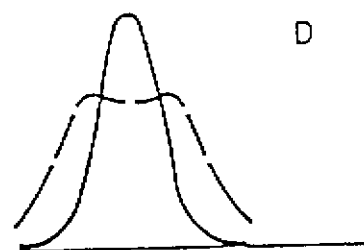
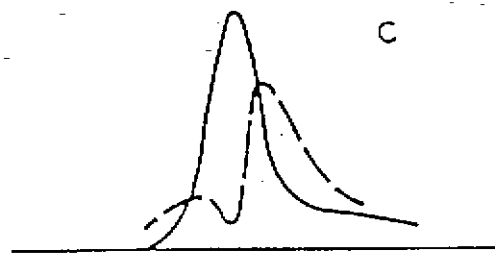
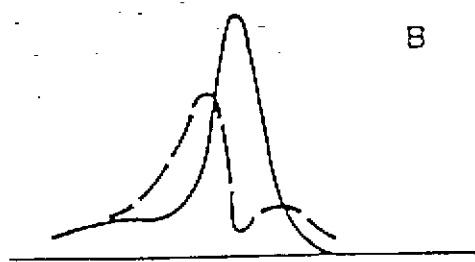
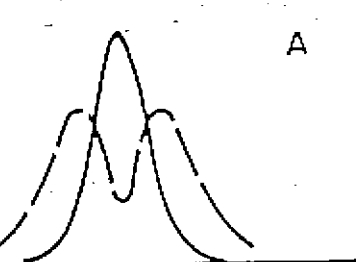
In summary, the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization. A moderate to low conductance value does not rule out the possibility of significant economic mineralization.

Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The change in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver. The accompanying figure shows a selection of HEM response profile shapes from nine idealized targets. Response profiles are labelled A through I. These labels are used in the discussion which follows.

HEM RESPONSE PROFILE SHAPE AS AN INDICATOR OF CONDUCTOR GEOMETRY

————— COAXIAL vertical scale 1 ppm/unit
 - - - - - COPLANAR vertical scale 4 ppm/unit



In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand, the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes (Profile A). As the dip of the conductor decrease from vertical, the coaxial anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side (Profiles B and C).

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible (Profile D). As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as a horizontal thin sheet or overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar:coaxial) of about 4:1* (Profiles E and G).

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8* times greater than that of the coaxial pair (Profile F).

In summary, a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor. A pronounced null indicates a relatively thin conductor. The dip of such a conductor can be inferred from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ratio between the coplanar to coaxial response amplitudes as high as 8*.

Overburden anomalies often produce broad poorly defined anomaly profiles (Profile I). In most cases, the response of the coplanar coils closely follows that of the coaxial coils with a relative amplitude ration of 4*.

Occasionally, if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak (Profile H).

* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

The interpretation of contoured aeromagnetic data is a subject on its own involving an array of methods and attitudes. The interpretation of source characteristics for example from total field results is often based on some numerical modelling scheme. The vertical gradient data is more legible in some aspects however and useful inferences about source characteristics can often be read off the contoured VG map.

The zero contour lines in contoured VG data are often sited as a good approximation to the outline of the top of the magnetic source. This only applies to wide (relative to depth of burial) near vertical sources at high magnetic latitudes. It will give an incorrect interpretation in most other cases.

Theoretical profiles of total field and vertical gradient anomalies from tabular sources at a variety of magnetic inclinations are shown in the attached figure. Sources are 10, 50 and 200 m wide. The source-sensor separation is 50 m. The thin line is the total field profile. The thick line is the vertical gradient profile.

The following comments about source geometry apply to contoured vertical gradient data for magnetic inclinations of 70 to 80°.

Outline

Where the VG anomaly has a single sharp peak, the source may be a thin near-vertical tabular source. It may be represented as a magnetic axis or as a tabular source of measurable width - the choice is one of geological preference.

Where the VG anomaly has a broad, flat or inclined top, the source may be a thick tabular source. It may be represented as a thick body where the width is taken from the zero contour lines if the body dips to magnetic north. If the source appears to be dipping to the south (i.e. the VG anomaly is asymmetric), the zero contours are less reliable indicators of outline. The southern most zero contour line should be ignored and the outline taken from the northern zero contour line and the extent of the anomaly peak width.

Dip

A symmetrical vertical gradient response is produced by a body dipping to magnetic north. An asymmetrical response is produced by a body which is vertical or dipping to the south. For southern dips, the southern most zero contour line may be several hundred meters south of the source.

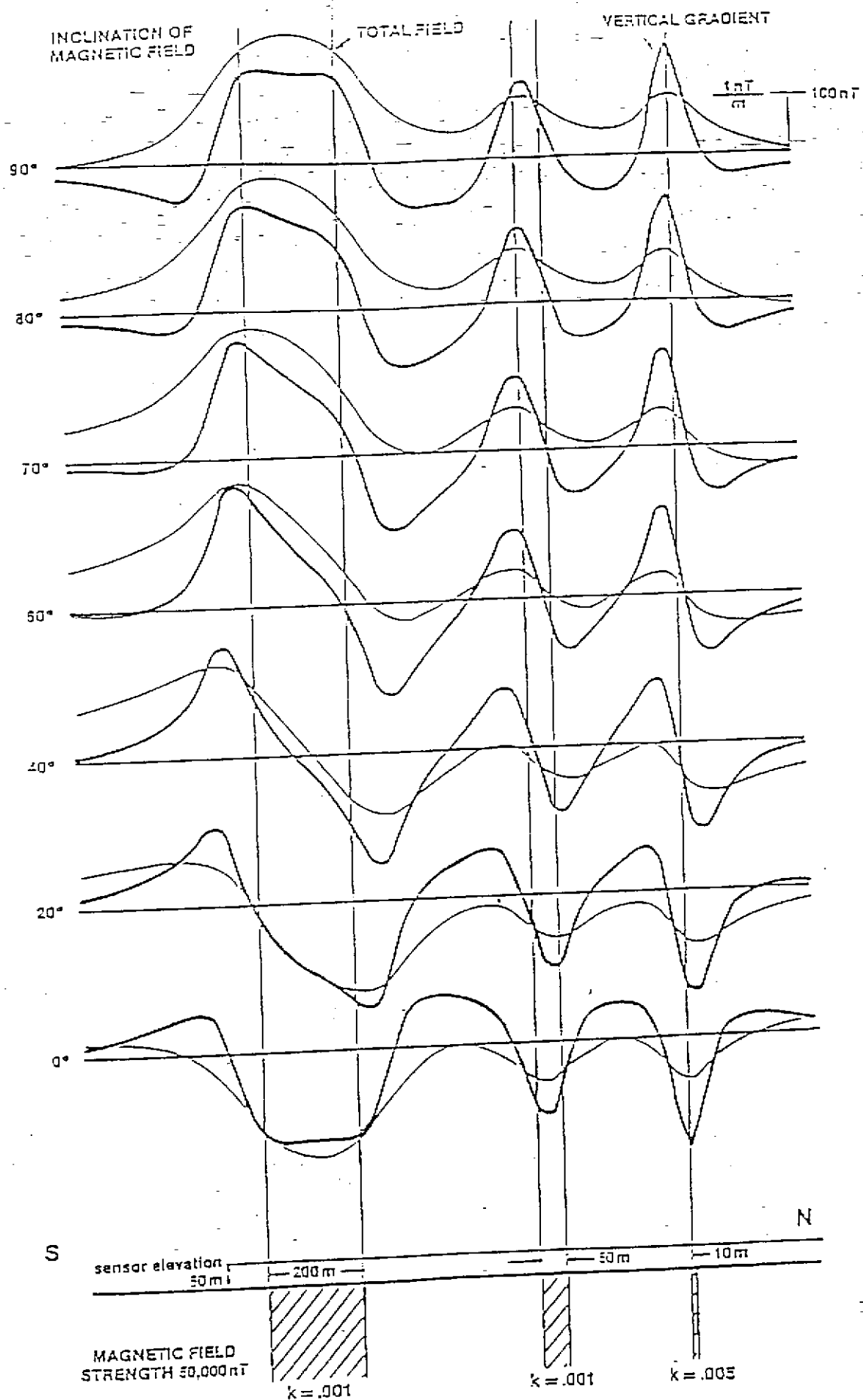
Depth of Burial

The source-sensor separation is about equal to half of the distance between the zero contour lines for thin near-vertical sources. The estimated depth of burial for such sources is this separation minus 50 m. If a variety of VG anomaly widths are seen in an area, use the narrowest width seen to estimate local depths.

VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is locally horizontal and normal to a line pointing at the transmitter.

The Herz Totem uses three coils in the X, Y, Z configuration to measure the total field and vertical quadrature component from two VLF stations. These stations are designated Line and Ortho. The line station is ideally in a direction from the survey area at right angles to the flight line direction. Conductors normal to the flight line direction point at the line station and are therefore optimally coupled to VLF magnetic fields and in the best situation to gather secondary VLF currents. The ortho station is ideally 90 degrees in azimuth from the line station.



The relatively high frequency of VLF (15-25) kHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measurable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground to depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically, it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field anomaly is an indicator of the existence and position of a conductor. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

Conversely a negative total field anomaly is often seen over local resistivity highs. This is because the VLF field produces electrical currents which flow towards (or away from) the transmitter. These currents are gathered into a conductor and are taken from resistive bodies. The VLF system sees the currents gathered into the conductor as a total field high. It sees the relative absence of secondary currents in the resistor as a total field low.

As noted, VLF anomaly trends show a strong bias towards the VLF transmitter. Structure which is normal to this direction may have no associated VLF anomaly but may be seen as a break or interruption in VLF anomalies. If these structures are of particular interest, maps of the ortho station data may be worthwhile.

Conductive overburden will obscure VLF responses from bedrock sources and may produce low amplitude, broad anomalies which reflect variations in the resistivity of thickness of the overburden.

Extreme topographic relief will produce VLF anomalies which may bear no relationship to variations in electrical conductivity. Deep gullies which are too narrow to have been surveyed at a uniform sensor height often show up as VLF total field lows. Sharp ridges show up as total field highs.

The vertical quadrature component over steeply dipping sheet-like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The vertical quadrature component is rarely presented. Experience has shown the total field to be more sensitive to bedrock conductors and less affected by variations in conductive overburden.

Apparent Resistivity/Conductivity Maps

Overburden and different types of bedrock may be modelled as a large area horizontal conductor of fixed thickness. A phasor diagram may be constructed, in the same fashion as for the vertical sheet, to convert the measured HEM in-phase and quadrature response to a depth and conductivity value for a horizontal layer. Traditionally if the thickness is large, an infinite half-space, the associated conductivity value is referred to as "apparent conductivity". We have generalized the use of the word "apparent" to include any model where the thickness of the layer is a fixed as opposed to a variable parameter.

The units of apparent resistivity are ohm-m and those of apparent conductivity are the inverse mhos/m or siemen/m. If the chosen model layer thickness is close to the true thickness of the conductor then the apparent conductivity will closely conform to the true value; however, if the thickness is inappropriate the apparent value may be considerably different from the true value.

The benefit of the apparent conductivity mapping is that it provides a simple robust method of converting the HEM in-phase and quadrature response to apparent change in ground conductivity.

A phasor diagram for several apparent resistivity models is presented. The general forms for the various thicknesses is very similar and also closely resembles the diagram for the vertical sheet. The diagrams also show the curves for apparent depth. As with the conductivity value the depth value is meaningful if the model thickness closely resembles the true conductive layer thickness. If the HEM response from a thin conducting layer is applied to a thick layer model the apparent conductivity and depth will be less than the true conductivity and depth.

APPENDIX III
ANOMALY LISTINGS

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD	
				INPHASE	QUAD.	CTP MHOS	DEPTH MTRS	HEIGHT MTRS	
1	10020	A	0	4.9	13.4	0.1	6	31	345792.4 6669585.5
1	10030	A	0	6.1	16.4	0.2	0	37	345816.7 6669487.0
1	10040	A	0	5.5	14.6	0.1	3	34	345831.8 6669412.0
1	10050	A	0	5.6	14.2	0.2	0	39	345875.8 6669314.5
1	10060	A	0	4.4	11.1	0.1	1	41	345934.2 6669224.5
1	10070	A	0	6.7	15.7	0.2	0	42	345986.6 6669119.0
1	10080	A	0	9.8	23.1	0.3	0	39	346307.8 6669107.5
1	10080	B	0	4.3	23.8	0.0	0	27	346204.7 6669072.0
1	10080	C	0	6.4	15.2	0.2	1	37	346009.1 6669006.5
1	10080	D	1	19.0	15.6	1.6	0	57	345750.4 6668932.5
1	10080	E	0	15.7	19.4	0.9	0	46	345613.4 6668887.0
1	10090	A	1	23.9	18.5	1.9	0	50	345790.2 6668873.5
1	10090	B	0	8.8	19.9	0.3	0	37	345957.5 6668923.0
1	10090	C	0	8.4	18.1	0.3	4	32	346021.5 6668942.5
1	10090	D	0	3.3	12.3	0.0	0	38	346211.6 6668998.0
1	10090	E	0	8.0	17.3	0.3	0	38	346310.2 6669026.5
1	10100	A	4	119.5	41.7	9.1	0	31	346406.6 6668957.0
1	10100	B	0	6.4	12.6	0.3	0	44	346275.9 6668905.5
1	10100	C	0	6.2	11.8	0.3	0	46	346057.2 6668836.0
1	10100	D	0	4.3	10.3	0.2	0	48	345996.9 6668818.0
1	10100	E	0	12.3	15.0	0.8	0	49	345843.5 6668757.5
1	10100	F	0	12.2	21.6	0.5	0	41	345648.9 6668691.0
1	10100	G	0	14.9	22.7	0.6	0	40	345512.6 6668644.0
1	10110	A	0	3.8	24.6	0.0	0	27	342847.2 6667676.5
1	10110	B	0	16.4	25.5	0.6	0	39	345638.1 6668600.5
1	10110	C	0	7.6	18.9	0.2	0	40	346039.2 6668713.5
1	10110	D	3	63.8	30.0	5.1	0	35	346425.4 6668834.0
1	10120	A	3	98.6	41.5	6.7	0	34	346462.3 6668753.5
1	10120	B	0	8.6	29.7	0.1	0	33	346123.5 6668618.5
1	10120	C	0	4.3	22.0	0.0	0	30	346068.1 6668597.0
1	10120	D	0	14.8	17.0	0.9	0	43	345588.7 6668465.0
1	10120	E	0	6.3	40.6	0.0	0	21	344978.3 6668294.5
1	10120	F	0	5.8	24.4	0.1	0	30	344696.3 6668201.5
1	10130	A	0	26.2	36.8	0.9	2	30	345820.0 6668422.5

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD		
				INPHASE	QUAD.	CTP	DEPTH			
						MHOS	MTRS	HEIGHT		
								MTRS		
1	10130	B	0	7.6	24.4	0.1	0	31	345979.9	6668476.0
1	10130	C	0	5.2	21.5	0.1	0	28	346147.9	6668531.5
1	10130	D	3	95.4	43.5	6.0	0	30	346519.9	6668649.5
1	10140	A	3	239.0	155.7	5.0	0	22	346498.8	6668558.5
1	10140	B	2	116.8	91.8	3.2	3	21	346461.9	6668550.5
1	10140	C	1	80.9	86.1	1.9	5	20	346400.8	6668534.5
1	10140	D	0	15.7	49.3	0.2	0	25	345993.2	6668400.5
1	10140	E	0	27.5	40.9	0.8	3	26	345821.5	6668346.0
1	10140	F	0	11.1	21.9	0.4	0	37	345618.2	6668269.5
1	10140	G	0	5.9	19.0	0.1	0	37	344808.6	6668020.5
1	10150	A	0	2.6	15.7	0.0	0	35	343058.4	6667389.0
1	10150	B	0	6.9	29.8	0.1	0	29	344842.6	6667976.0
1	10150	C	0	6.6	13.0	0.3	0	52	345653.7	6668227.5
1	10150	D	0	12.3	24.1	0.4	0	36	345853.7	6668278.5
1	10150	E	0	12.0	22.7	0.4	0	37	346027.4	6668335.0
1	10150	F	1	42.4	37.7	1.9	4	29	346415.3	6668455.5
1	10150	G	2	58.5	36.1	3.5	4	29	346500.8	6668483.0
1	10150	H	3	52.8	28.7	4.0	2	34	346538.8	6668494.5
1	10160	A	2	65.5	49.7	2.8	0	36	346505.9	6668365.0
1	10160	B	0	29.5	65.0	0.5	0	26	346407.4	6668323.5
1	10160	C	0	24.6	57.2	0.4	1	22	346045.7	6668207.5
1	10160	D	0	11.3	34.8	0.2	2	24	345944.8	6668175.5
1	10170	A	0	14.2	26.4	0.5	1	32	346055.3	6668123.0
1	10170	B	0	4.4	9.7	0.2	0	51	346429.6	6668262.5
1	10170	C	1	15.7	13.0	1.5	0	49	346588.6	6668306.5
1	10180	A	0	8.1	19.1	0.2	0	35	346476.0	6668124.0
1	10180	B	0	10.6	31.6	0.2	0	28	346403.5	6668093.0
1	10180	C	0	20.1	58.2	0.3	4	18	346245.5	6668059.5
1	10181	A	0	2.1	15.1	0.0	0	36	343027.6	6667079.0
1	10181	B	0	6.3	29.5	0.0	0	34	345053.1	6667645.5
1	10181	C	0	9.9	18.7	0.4	0	42	346273.1	6668052.5
1	10181	D	0	6.3	14.5	0.2	0	40	346434.3	6668092.0
1	10181	E	0	6.0	14.4	0.2	0	38	346499.2	6668110.0
1	10190	A	1	34.7	40.1	1.3	1	30	346458.9	6667973.0
1	10190	B	0	3.5	29.1	0.0	0	23	344990.1	6667516.5
1	10200	A	0	1.0	10.8	0.0	0	35	342909.0	6666822.0
1	10200	B	0	1.3	16.0	0.0	0	30	342997.2	6666840.5

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD		
				INPHASE	QUAD.	CTP MHOS	DEPTH MTRS			
1	10200	C	1	17.0	18.3	1.1	0	45	346441.3	6667953.5
1	10210	A	1	15.3	13.9	1.3	0	51	346754.0	6667894.5
1	10210	B	2	39.6	30.3	2.3	3	33	346540.1	6667842.5
1	10210	C	1	33.0	38.7	1.2	0	31	346463.3	6667814.5
1	10210	D	0	5.6	41.0	0.0	0	25	345281.0	6667470.0
1	10220	A	2	43.1	26.0	3.3	6	31	346490.2	6667672.0
1	10220	B	3	81.8	31.9	7.0	0	32	346609.2	6667708.5
1	10230	A	3	112.0	45.0	7.4	0	31	346636.7	6667661.0
1	10230	B	2	71.5	49.6	3.2	5	25	346476.9	6667612.0
1	10230	C	0	2.3	20.9	0.0	0	31	345730.3	6667378.0
1	10240	A	0	0.3	10.1	0.0	0	35	343155.0	6666413.0
1	10240	B	2	28.2	16.8	2.9	8	35	346506.7	6667455.5
1	10240	C	4	50.7	16.0	8.0	0	47	346714.2	6667537.5
1	10250	A	1	41.0	36.8	1.9	8	25	346817.7	6667516.5
1	10250	B	3	144.3	61.9	7.3	0	32	346645.9	6667439.5
1	10250	C	3	137.9	65.9	6.3	1	24	346587.0	6667421.5
1	10250	D	0	1.4	22.6	0.0	0	23	345851.1	6667202.0
1	10260	A	0	2.0	22.1	0.0	0	28	345334.2	6666974.5
1	10260	B	0	3.3	20.6	0.0	0	27	345884.7	6667162.0
1	10260	C	4	110.5	40.0	8.4	0	33	346702.0	6667398.0
1	10260	D	4	132.6	42.5	10.4	0	30	346759.8	6667416.0
1	10260	E	3	78.7	41.2	4.7	2	29	346815.0	6667436.5
1	10270	A	3	83.0	30.8	7.5	0	38	346849.2	6667367.0
1	10270	B	4	146.6	56.3	8.5	0	33	346752.1	6667331.0
1	10270	C	3	106.0	61.2	4.6	0	27	346673.3	6667304.0
1	10270	D	0	6.0	38.4	0.0	0	20	346539.1	6667261.5
1	10270	E	0	0.2	13.6	0.0	0	23	345990.1	6667076.0
1	10270	F	0	4.3	21.4	0.0	0	39	345523.2	6666947.0
1	10270	G	0	2.1	20.8	0.0	0	31	345336.4	6666874.0
1	10280	A	0	8.5	30.1	0.1	0	29	345729.9	6666848.0
1	10280	B	0	2.4	8.9	0.0	8	31	346068.4	6666939.5
1	10280	C	3	44.0	19.0	5.1	3	37	346805.7	6667144.5
1	10280	D	3	99.1	37.2	7.8	0	31	346944.1	6667183.0
1	10290	A	3	86.5	34.7	6.9	0	32	346971.5	6667082.5
1	10290	B	3	67.6	39.2	4.0	2	30	346839.3	6667036.5
1	10290	C	0	1.3	11.8	0.0	1	26	346125.4	6666846.5

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J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD	
				INPHASE	QUAD.	CTP DEPTH	HEIGHT	CTP DEPTH	HEIGHT
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1	10300	A	2	37.6	21.1	3.4	11	29	346890.8 6666986.5
1	10300	B	3	85.9	30.9	7.9	0	33	347013.8 6667024.5
1	10310	A	4	65.4	21.2	8.4	2	34	347064.4 6666954.5
1	10310	B	2	24.1	13.8	2.9	0	51	346947.6 6666909.0
1	10310	C	0	4.9	17.7	0.1	2	29	345838.3 6666554.0
1	10320	A	0	1.0	14.3	0.0	0	36	343275.9 6665645.0
1	10320	B FEO	0	-18.2	6.4	0.0	0	17	344475.3 6666033.5
1	10320	C	2	40.5	31.2	2.3	11	24	346991.2 6666831.0
1	10320	D	3	122.0	49.4	7.5	3	24	347089.4 6666865.0
1	10330	A	3	102.2	41.0	7.2	0	29	347124.6 6666768.5
1	10330	B	2	57.4	34.5	3.6	2	32	347033.2 6666724.5
1	10330	C	0	0.3	9.8	0.0	0	35	343293.8 6665568.5
1	10340	A	0	0.5	9.0	0.0	0	40	343330.6 6665470.0
1	10340	B	0	1.5	12.3	0.0	0	35	345975.0 6666279.5
1	10340	C	0	2.8	10.7	0.0	2	35	346339.6 6666396.5
1	10340	D	1	35.3	39.6	1.3	3	29	347040.7 6666608.5
1	10340	E	2	79.0	57.5	3.1	0	29	347133.8 6666628.0
1	10350	A	2	107.1	79.8	3.3	4	21	347119.9 6666513.0
1	10350	B	0	3.0	13.9	0.0	1	30	346411.8 6666299.5
1	10350	C FEO	0	-8.2	34.6	0.0	0	14	345794.0 6666142.0
1	10350	D	0	0.6	12.0	0.0	0	30	345251.8 6665942.5
1	10350	E	0	1.3	8.7	0.0	0	39	343372.7 6665349.5
2	10360	A	0	2.5	8.7	0.0	0	43	343403.8 6665276.5
2	10360	B	0	-0.8	18.7	0.0	0	23	345254.0 6665867.0
2	10360	C	0	1.4	9.8	0.0	0	32	345667.4 6665985.0
2	10360	D	0	4.7	23.2	0.0	0	29	346443.4 6666209.5
2	10360	E	1	38.9	39.0	1.6	3	29	347085.1 6666414.5
2	10360	F	3	104.4	54.9	5.1	0	29	347184.6 6666455.0
2	10370	A	3	79.9	33.9	6.3	4	28	347191.6 6666285.5
2	10370	B	2	33.3	26.7	2.1	8	30	347069.2 6666261.5
2	10370	C	0	5.4	26.9	0.0	0	28	346470.8 6666110.5
2	10370	D	0	1.5	17.5	0.0	0	29	346210.5 6666032.5
2	10370	E	0	0.6	8.2	0.0	0	39	345223.8 6665753.5
2	10370	F	0	0.8	9.8	0.0	0	35	344934.9 6665646.0
2	10370	G	0	3.0	17.1	0.0	0	37	343408.8 6665150.0
2	10380	A	0	4.3	26.8	0.0	0	30	343419.1 6665110.0

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD	
				INPHASE	QUAD.	CTP DEPTH	DEPTH	HEIGHT	
-----	-----	-----	-----	-----	-----	MHOS	MTRS	MTRS	
2	10380	B	0	0.0	15.5	0.0	0	26	344960.8 6665628.5
2	10380	C	0	-0.4	17.0	0.0	0	27	345227.3 6665710.5
2	10380	D	0	-3.6	12.6	0.0	0	21	345974.3 6665922.0
2	10380	E	0	4.3	21.1	0.0	0	38	346505.6 6666062.5
2	10380	F	2	29.7	21.4	2.3	6	34	347095.6 6666267.0
2	10380	G	3	65.3	28.6	5.6	0	36	347204.3 6666298.0
2	10390	A	3	108.5	51.1	6.0	1	27	347249.3 6666197.5
2	10390	B	0	8.3	16.5	0.3	15	24	347095.7 6666152.5
2	10390	C	0	1.1	18.6	0.0	0	33	346403.2 6665889.5
2	10390	D	0	5.4	18.7	0.1	0	44	343449.9 6664943.0
2	10400	A	0	8.0	52.8	0.0	0	21	343491.8 6664903.5
2	10400	B	0	-2.1	15.7	0.0	0	30	344282.5 6665142.0
2	10400	C	2	50.9	37.3	2.7	6	28	347243.2 6666063.5
2	10400	D	3	119.3	72.5	4.4	2	24	347314.2 6666087.0
2	10410	A	3	114.3	54.7	6.0	0	29	347342.4 6665970.0
2	10410	B	2	69.2	47.9	3.2	0	31	347233.2 6665925.5
2	10410	C	0	-0.7	8.7	0.0	0	26	346382.4 6665715.0
2	10410	D	0	3.8	14.9	0.0	0	34	345274.3 6665337.5
2	10410	E	0	4.5	16.2	0.1	0	43	343606.2 6664773.5
2	10410	F	0	4.6	18.4	0.0	0	40	343519.4 6664743.5
2	10420	A	0	5.2	27.8	0.0	0	32	343553.5 6664758.0
2	10420	B	0	-3.8	17.1	0.0	0	35	344511.3 6664999.5
2	10430	A	0	10.3	21.3	0.3	8	26	345359.5 6665158.5
2	10430	B	0	-2.7	31.6	0.0	0	36	343704.0 6664644.0
2	10440	A	0	6.0	11.3	0.3	4	41	345409.5 6665086.5
2	10450	A	0	4.1	12.0	0.1	3	35	345433.9 6664951.0
2	10450	B FEO	0	-21.5	26.9	0.0	0	27	343858.9 6664453.5
2	10460	A	0	2.6	7.3	0.1	0	47	345471.3 6664866.5
2	10470	A	0	2.1	10.0	0.0	5	30	345558.7 6664787.5
2	10490	A	0	3.0	11.6	0.0	7	29	345689.4 6664621.5
2	10500	A	0	4.2	8.0	0.2	7	43	345779.0 6664557.5
2	10510	A	0	8.7	16.8	0.3	7	31	345965.7 6664494.5
2	10510	B	0	7.1	15.9	0.2	6	31	345878.3 6664470.0

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD		
-----	----	-----	-----	INPHASE	QUAD.	CTP MHOS	DEPTH MTRS	HEIGHT MTRS		
2	10530	A	1	15.2	17.2	1.0	9	34	346152.5	6664384.0
2	10530	B	0	12.0	20.5	0.5	2	35	345987.2	6664335.0
2	10540	A	0	5.8	16.4	0.1	3	32	346063.9	6664228.0
2	10540	B	0	11.2	15.2	0.6	13	30	346187.7	6664272.0
2	10550	A	0	7.5	12.7	0.4	4	39	346250.3	6664164.5
2	10560	A	0	7.5	12.4	0.4	10	35	346303.3	6664091.5
2	10570	A	0	8.5	15.9	0.3	0	40	346332.0	6663999.0
2	10580	A	0	5.6	9.2	0.3	4	46	346366.9	6663938.0
2	10590	A	0	13.6	33.6	0.3	0	32	346674.9	6663924.0
2	10590	B	0	1.3	12.2	0.0	0	38	346318.4	6663802.0
2	10610	A	0	3.9	17.1	0.0	0	32	346270.1	6663514.5
2	10610	B	0	-0.1	7.6	0.0	0	42	345711.4	6663361.5
2	10620	A	0	4.9	33.1	0.0	0	26	344387.7	6662849.0
2	10620	B FEO	0	-16.3	14.5	0.0	0	30	345343.7	6663127.5
2	10620	C	0	2.4	11.1	0.0	0	38	346265.1	6663451.5
2	10630	A FEO	0	-10.2	6.8	0.0	0	44	345164.0	6662990.5
2	10630	B	0	1.2	22.1	0.0	0	39	344529.2	6662797.0
2	10640	A	0	6.6	33.2	0.0	0	33	344466.2	6662674.5
2	10640	B	0	-7.4	15.7	0.0	0	30	345494.5	6662986.5
2	10650	A	0	22.7	49.3	0.4	0	36	346872.7	6663355.5
2	10650	B	0	4.2	28.2	0.0	0	31	344381.2	6662562.0
2	10670	A	0	22.5	59.7	0.3	0	30	346962.3	6663175.5
2	10680	A	0	11.0	40.6	0.1	0	27	344583.6	6662294.5
2	10680	B	0	21.7	66.8	0.3	0	27	346863.0	6663022.0
2	10680	C	0	21.6	51.4	0.4	0	31	347103.0	6663158.0
2	10690	A	0	15.6	32.8	0.4	0	33	347167.8	6663073.0
2	10690	B	0	9.8	29.5	0.2	0	36	346428.4	6662772.5
2	10700	A	0	10.7	27.4	0.2	0	35	344727.0	6662086.0
2	10700	B	0	2.3	18.1	0.0	0	35	345023.9	6662171.5

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J9761(CABIN LAKE PROPERTY) ANOMALY LISTING

FLIGHT	LINE	ANOMALY	CATEGORY	AMPLITUDE (PPM)		CONDUCTOR		BIRD	
				INPHASE	QUAD.	CTP	DEPTH	HEIGHT	
-----	-----	-----	-----	-----	-----	MHOS	MTRS	MTRS	
2	10700	C	0	13.0	44.6	0.2	0	31	346461.5 6662595.5
2	10700	D	0	17.1	35.6	0.4	0	34	347306.0 6662891.0

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

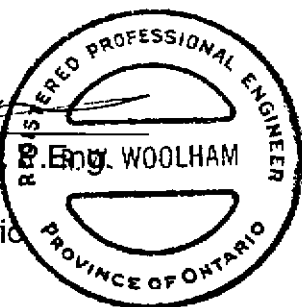
APPENDIX IV

CERTIFICATE OF QUALIFICATION

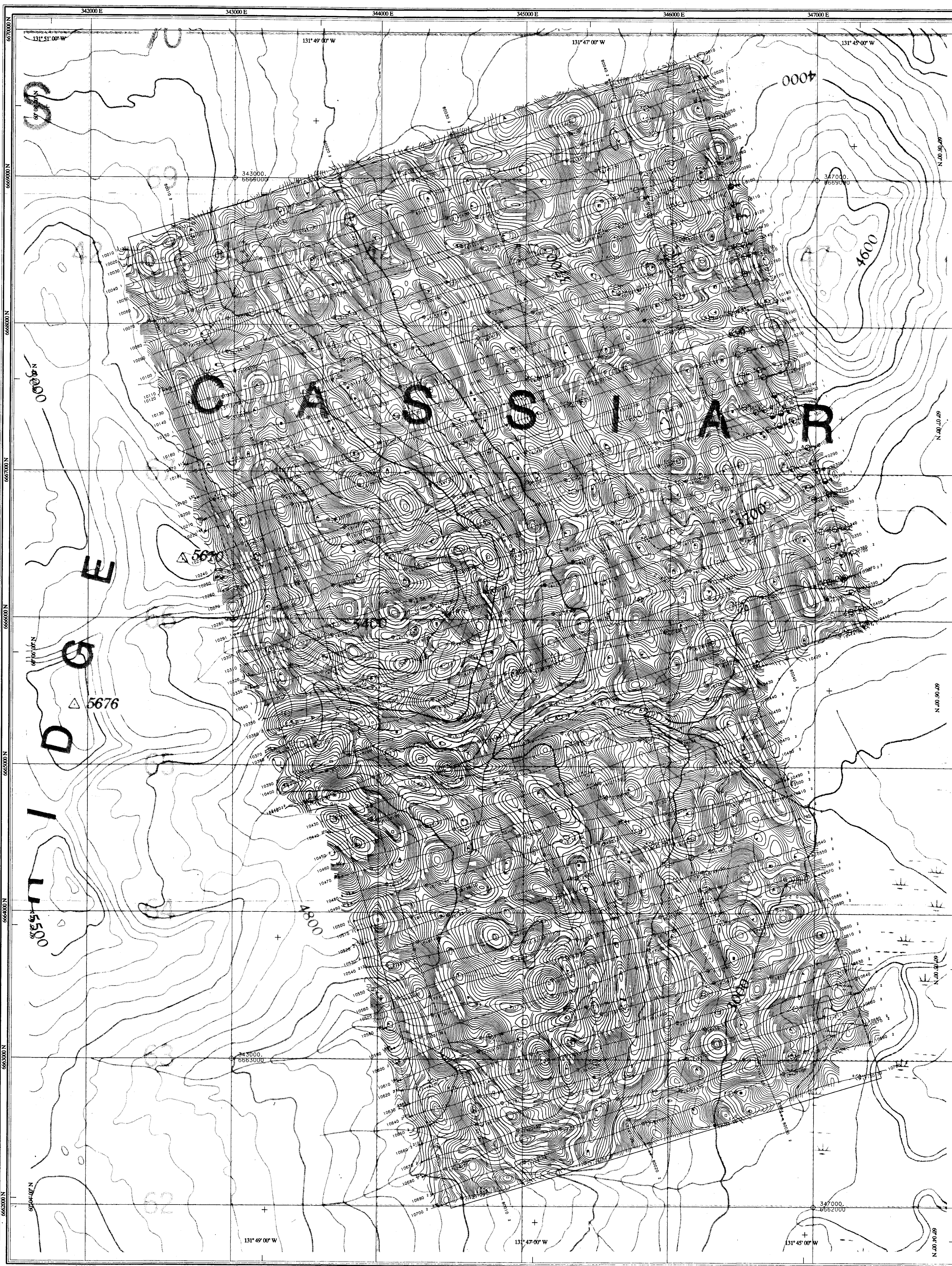
I, Roderick W. Woolham of the town of Pickering, Province of Ontario, do hereby certify that:-

1. I am a geophysicist and reside at 1463 Fieldlight Blvd., Pickering, Ontario, L1V 2S3
2. I graduated from the University of Toronto in 1961 with a degree of Bachelor of Applied Science, Engineering Physics, Geophysics Option. I have been practising my profession since graduation.
3. I am a member in good standing of the following organizations: Professional Engineers Ontario (Mining Branch); Society of Exploration Geophysicists; South African Geophysical Association; Prospectors and Developers Association of Canada.
4. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Fairfield Minerals Ltd. or any affiliate.
5. The statements contained in this report and the conclusions reached are based upon evaluation and review of maps and information supplied by Aerodat.
6. I consent to the use of this report in submissions for assessment credits or similar regulatory requirements.


R. W. Woolham, P. Eng. WOOLHAM
Pickering, Ontario
J9761



July 31, 1997



Square: Grid North
Star: True North
Arrow: Magnetic North

Angles presented are approximate mean deviations for centre of NTS sheet.
Use diagram for reference only.

Grid North - True North : 2.4°
Grid North - Magnetic North : 29.9°
Annual change : -0.22°

VERTICAL GRADIENT

Vertical magnetic gradient contour data, calculated from the gridded total field magnetics data by a 17x17 convolution filter.

Map contours are in nanoTeslas/metre, and are multiples of those listed below:

- 0.02 nT/m
- 0.10 nT/m
- 0.50 nT/m
- 2.00 nT/m
- 10.0 nT/m

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local Transformation: DX=-10.0 DY=158.0 DZ=-187.0
UTM Projection
Central Meridian: 129°W
Navigation and flight path recovery was conducted using a Global Positioning System (GPS) satellite navigation system.

Lines were flown at an azimuth of 70 - 250°, with an average line spacing of 100m.

Average helicopter-terrain clearance of 60m was monitored by radar and barometric altimeters.

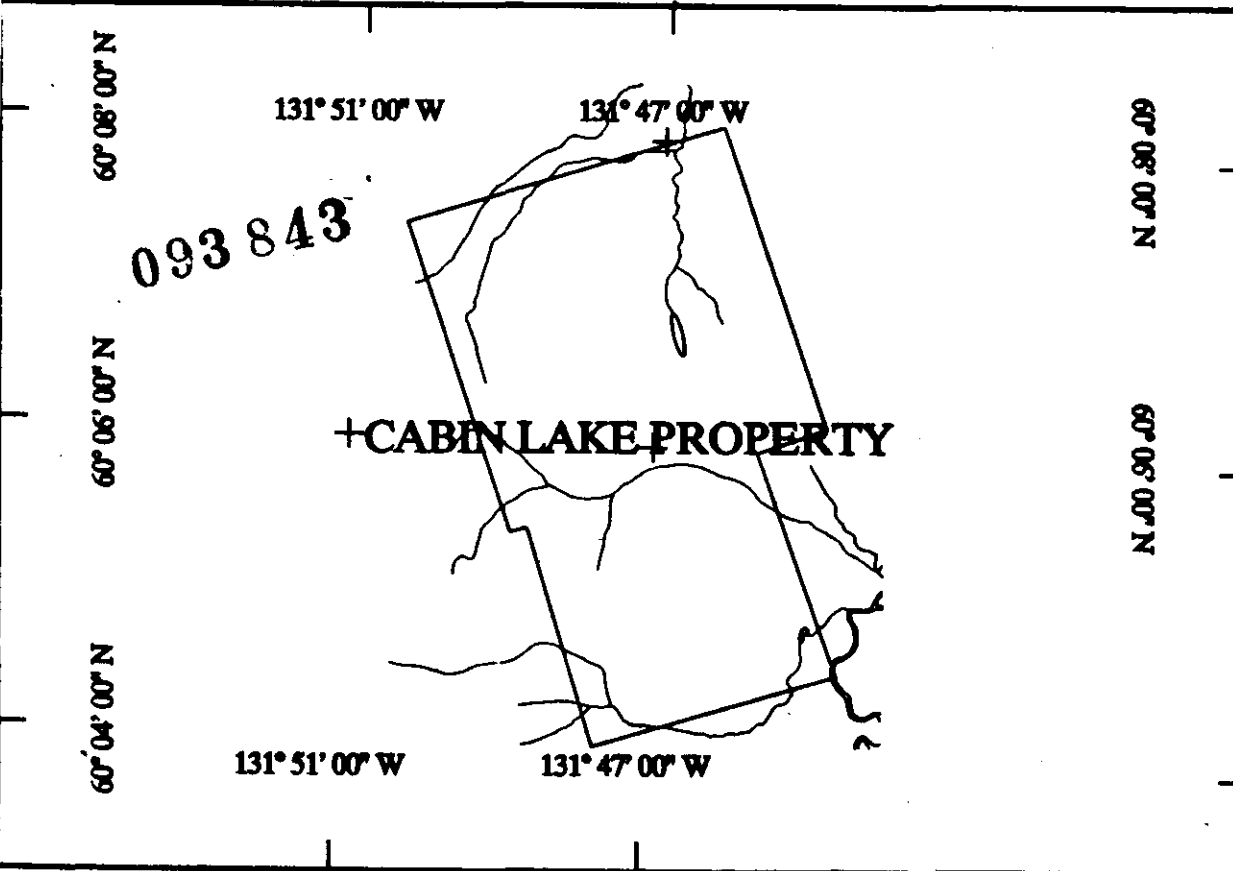
EM ANOMALIES

EM anomalies selected by computer algorithm and manually confirmed. Selection is based on the response correlation to theoretical sources such as a steeply dipping conductor.

Calculation of conductance is based on the response of the 4600 Hz coaxial data, and forms the basis for anomaly classification.

Letter codes are used to identify individual anomalies on a line, and the inphase amplitude of the 4600 Hz response is annotated opposite.

- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos
- Magnetite



FAIRFIELD MINERALS LTD.

VERTICAL MAGNETIC GRADIENT

CABIN LAKE PROPERTY

YUKON TERRITORY

SCALE 1:10 000

250 0 100 200 300 1000 metres

aerodat

AERODAT INC.

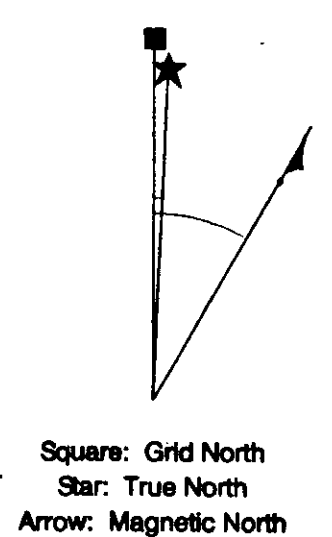
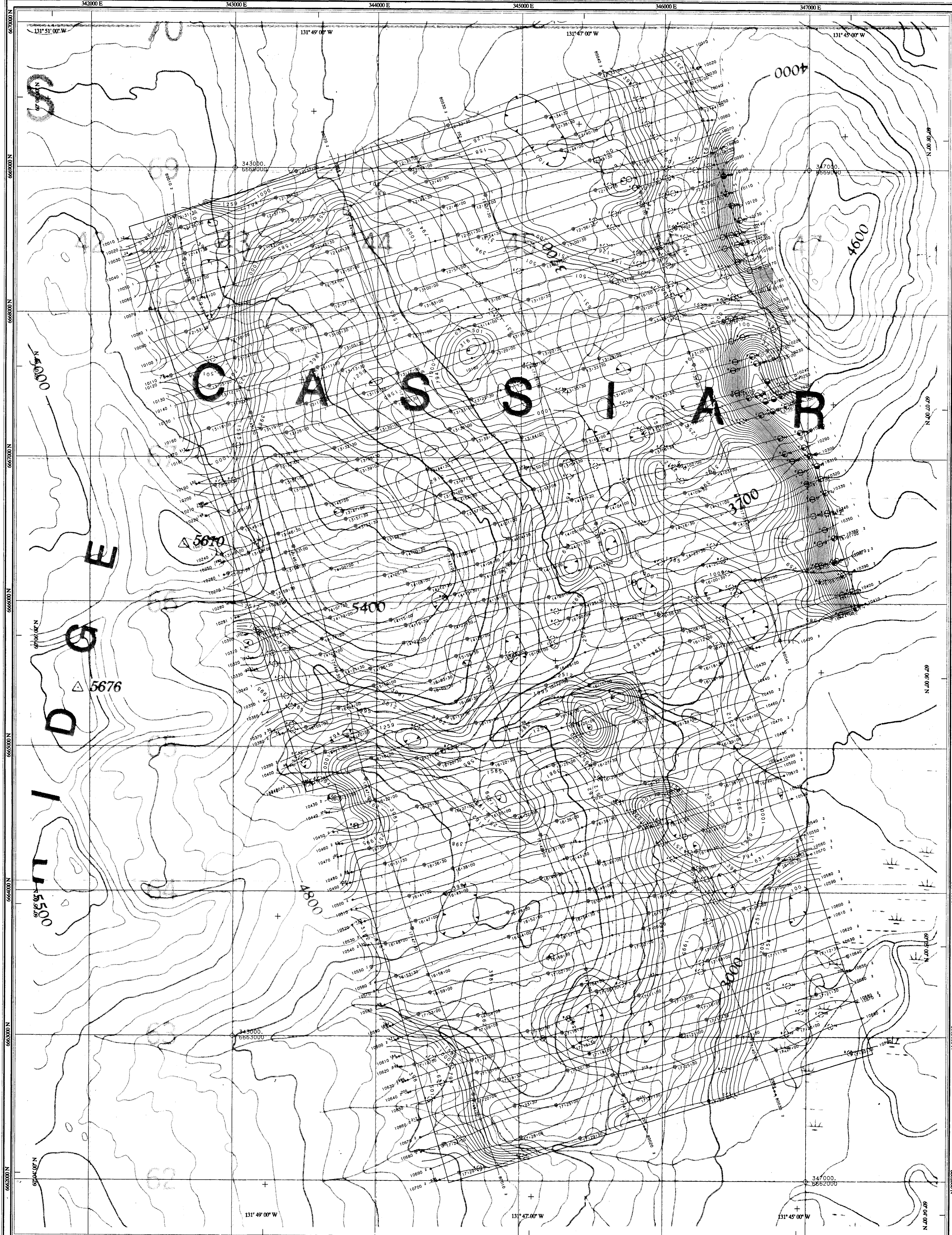
Date Flown : JUNE 30, 1997

NTS : 105B/4

Project : J9761

Map Ref : 1 - 4

DIAND - YUKON REGION, LIBRARY



Square: Grid North
Star: True North
Arrow: Magnetic North

Angles presented are approximate mean
deviations for centre of NTS sheet.
Use diagram for reference only.

Grid North - True North: 2.4°
Grid North - Magnetic North: 29.9°
Annual change: -0.22°

APPARENT RESISTIVITY

Apparent resistivity calculated from the
measured 4175 Hz coplanar EM response,
assuming a resistive half-space (200m)
model. Average sensor elevation was 30m.

Map contours are in ohm-m, at logarithmic
intervals, in multiples of those listed below:

- 0.1 log(ohm-m)
- 0.5 log(ohm-m)
- 2.0 log(ohm-m)

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local Transformation: DX=-10.0 DY=158.0 DZ=187.0
UTM Projection
Central Meridian: 128°W
Navigation and flight path recovery was conducted
using a Global Positioning System (GPS)
satellite navigation system.

Lines were flown at an azimuth of 70 - 250°
with an average line spacing of 100m.

Average helicopter-terrain clearance of 60m
was monitored by radar and barometric altimeters.

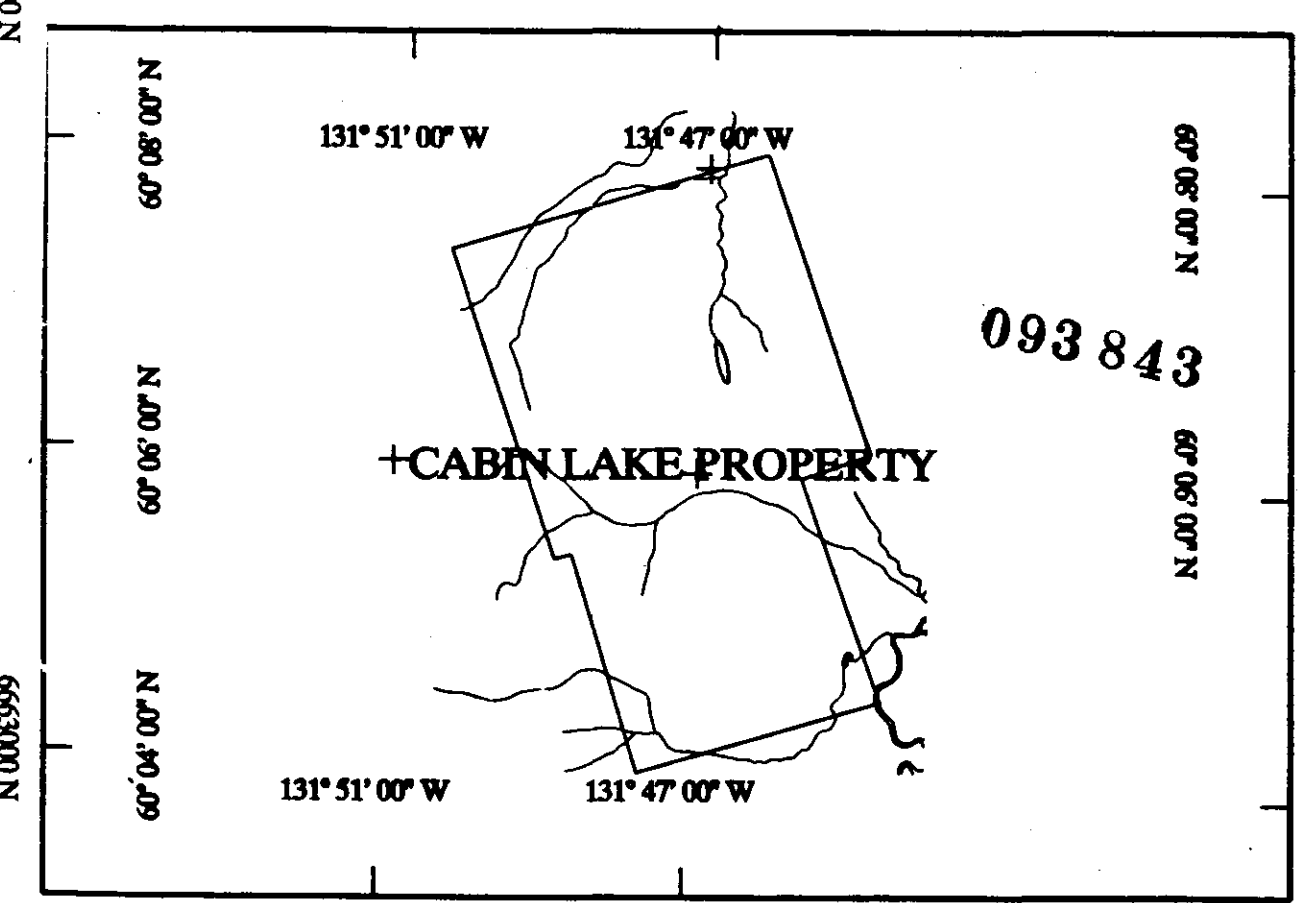
EM ANOMALIES

EM anomalies selected by computer algorithm
and manually confirmed. Selection is based
on the response correlation to theoretical
sources such as a steeply dipping conductor.

Calculation of conductance is based on the
response of the 4600 Hz coaxial data, and
forms the basis for anomaly classification.

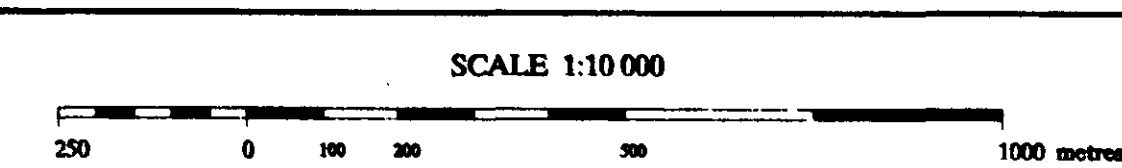
Letter codes are used to identify individual
anomalies on a line, and the inphase amplitude
of the 4600 Hz response is annotated opposite.

- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos
- Magnetic

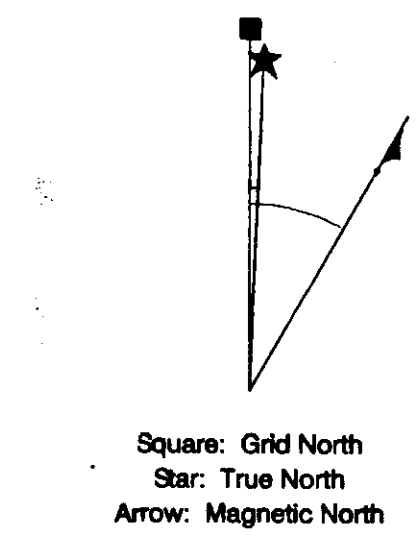
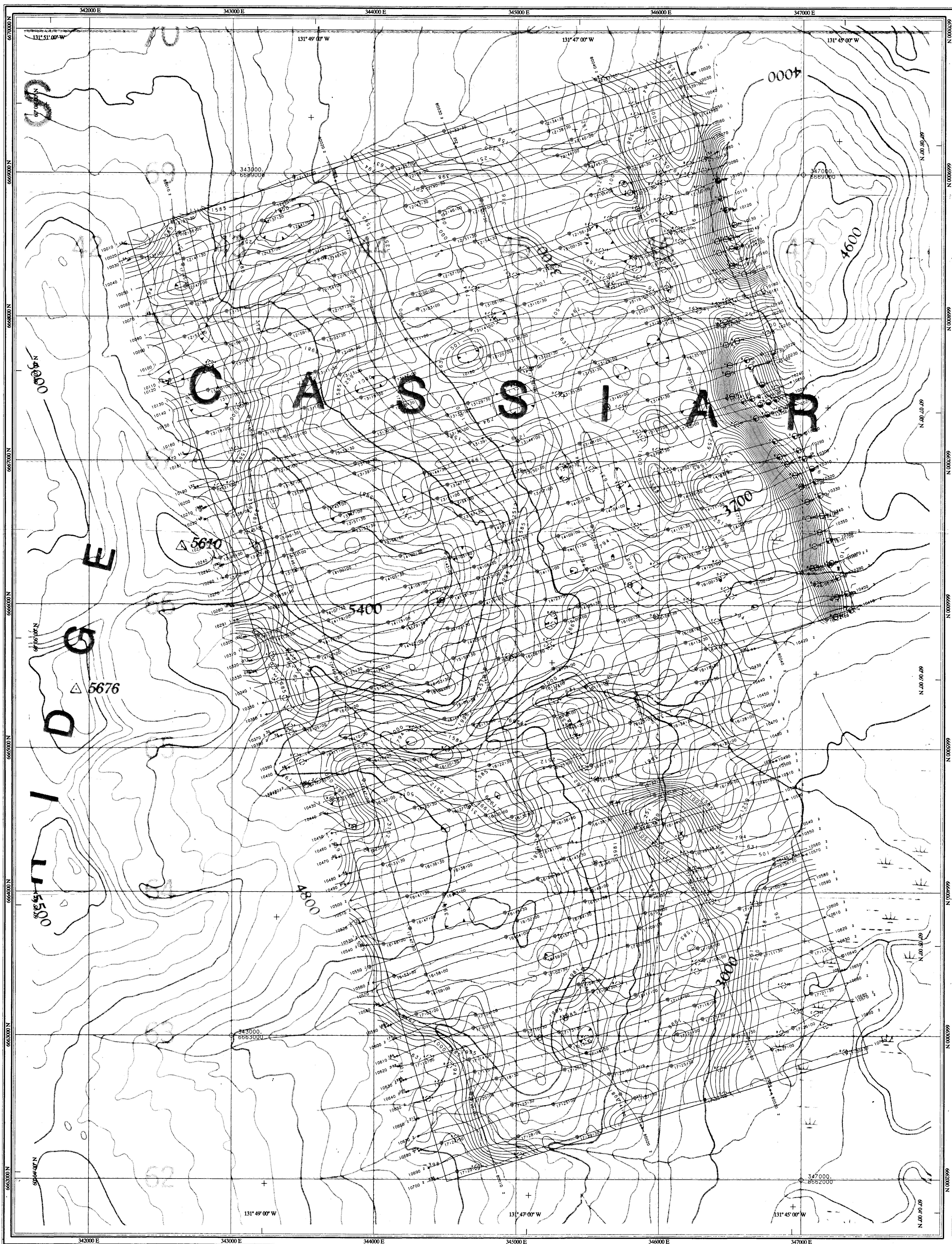


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APPARENT RESISTIVITY
4175 Hz COPLANAR
CABIN LAKE PROPERTY
YUKON TERRITORY



Date Flown: JUNE 30, 1997
NTS: 105B/4
Project: J9761 Map Ref: 1 - 5A



Square: Grid North
Star: True North
Arrow: Magnetic North
Angles presented are approximate mean
deviations for centre of NTS sheet.
Use diagram for reference only.
Grid North - True North : 2.4°
Grid North - Magnetic North : 29.9°
Annual change : -0.22°

APPARENT RESISTIVITY

Apparent resistivity calculated from the
measured 4600 Hz coaxial EM response,
assuming a resistive half-space (200m)
model. Average sensor elevation was 30m.

Map contours are in ohm-m, at logarithmic
intervals, in multiples of those listed below:

- 0.1 log(ohm-m)
- 0.5 log(ohm-m)
- 2.0 log(ohm-m)

FLIGHT PATH

North American Datum 1927
Clarke 1866 Ellipsoid
Local Transformation: DX=-10.0 DY=158.0 DZ=187.0
UTM Projection
Central Meridian: 129°W
Navigation and flight path recovery was conducted
using a Global Positioning System (GPS)
satellite navigation system.

Lines were flown at an azimuth of 70 - 250°,
with an average line spacing of 100m.

Average helicopter-terrain clearance of 60m
was monitored by radar and barometric altimeters.

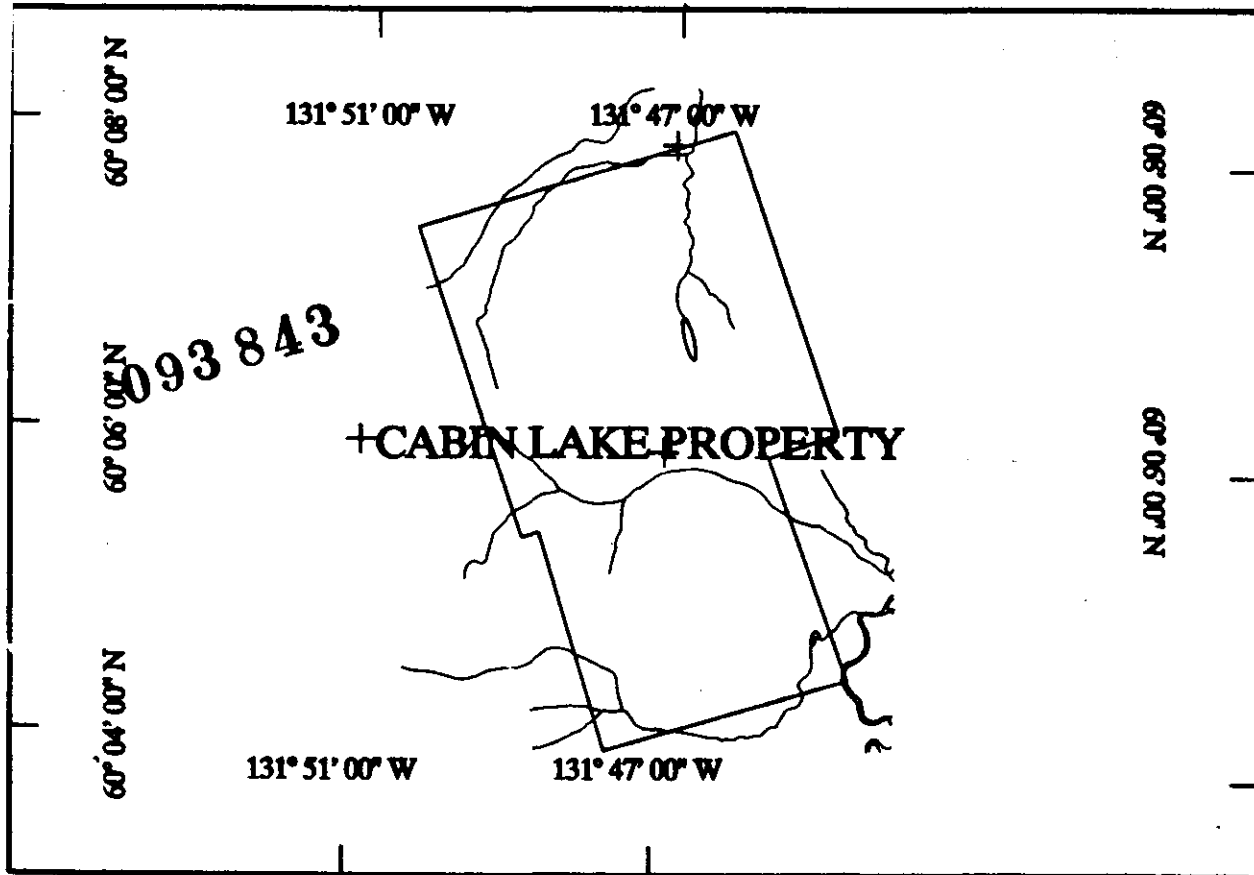
EM ANOMALIES

EM anomalies selected by computer algorithm
and manually confirmed. Selection is based
on the response correlation to theoretical
sources such as a steeply dipping conductor.

Calculation of conductance is based on the
response of the 4600 Hz coaxial data, and
forms the basis for anomaly classification.

Letter codes are used to identify individual
anomalies on a line, and the inphase amplitude
of the 4600 Hz response is annotated opposite.

- 0 - 1 mhos
- 1 - 2 mhos
- 2 - 4 mhos
- 4 - 8 mhos
- 8 - 16 mhos
- 16 - 32 mhos
- > 32 mhos
- Magnetic

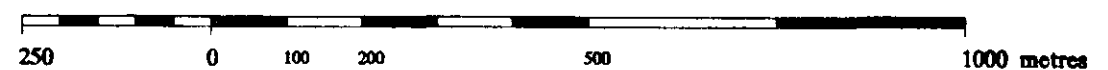


FAIRFIELD MINERALS LTD.

APPARENT RESISTIVITY
4600 Hz COAXIAL

CABIN LAKE PROPERTY
YUKON TERRITORY

SCALE 1:10 000



Date Flown : JUNE 30, 1997

NTS : 105B/4

Project : J9761

Map Ref : 1-58

DIAMOND REGION LIBRARY

APPENDIX B: Amerok Geosciences Ltd. Report on Induced Polarization Survey

FAIRFIELD MINERALS LTD.

**INDUCED POLARIZATION SURVEY ON
THE CABIN LAKE AND CARIBOU CREEK
PROPERTIES, SMART RIVER AREA,
YUKON TERRITORY**

M.A. Power M.Sc. P. Geoph.

Location: 60° 05' N 131° 45' W
NTS: 105 B 4/5, C 8
Mining District: Watson Lake, YT
Date: November 3, 1997

SUMMARY

Induced polarization and resistivity surveys were conducted on the Cabin Lake and Caribou Creek properties held by Fairfield Minerals Ltd. to investigate copper-lead-zinc mineralization in metamorphic rocks. A total of 7.1 line-km was surveyed on the Cabin Lake grid and 3.0 line-km was surveyed on the Caribou Creek grid. The surveys were conducted in the time domain with a dipole-dipole array, reading from $n=1$ to 6. The resistivity data and, to a lesser extent, the chargeability data is contaminated with systematic low voltages traced to a short and consequent ground fault in a wire reel. Despite this problem, the data is interpretable. On the Cabin Lake grid, the surveys detected a zone of anomalously high chargeability and resistivity coincident with the up-slope limit of a large copper soil geochemistry anomaly. The geophysical anomalies extend from Line 4700N to 5300N. Mineralization in this area consists of disseminated mineralization in metavolcanic and metasedimentary schist and the anomalies are consistent with this mineralization. On the Caribou Creek grid, the geophysical surveys detected two narrow chargeability anomalies on one of three survey lines centred on a copper soil geochemistry anomaly.

1.0 INTRODUCTION

This report describes induced polarization (IP) and resistivity surveys conducted on the Cabin Lake and Caribou Creek mineral properties held by Fairfield Minerals Ltd. in the southern Yukon Territory. The surveys were conducted to investigate multi-element soil geochemical anomalies and Cu-Pb-Zn mineralization encountered in bedrock.

2.0 LOCATION AND ACCESS

The Cabin Lake and Caribou Creek mineral properties are located in the Watson Lake mining district of the southern Yukon Territory, centred at approximately 60° 05' N 131° 45' W. The properties are located near the Smart River, north of the Alaska Highway and east of Teslin. The properties are accessible by helicopter with the nearest staging point being the Smart River pulloff on the Alaska Highway.

3.0 GRID

Survey grids were cut on both properties and the lines surveyed on these grids are shown in Figures 2 and 3. Survey lines were cut and straight-chained (not slope corrected) with stations placed at 25 m intervals. Stations were marked with half-length, tagged survey lathe.

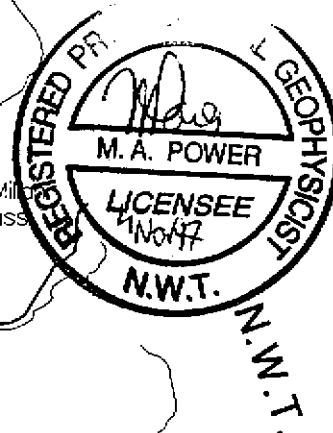
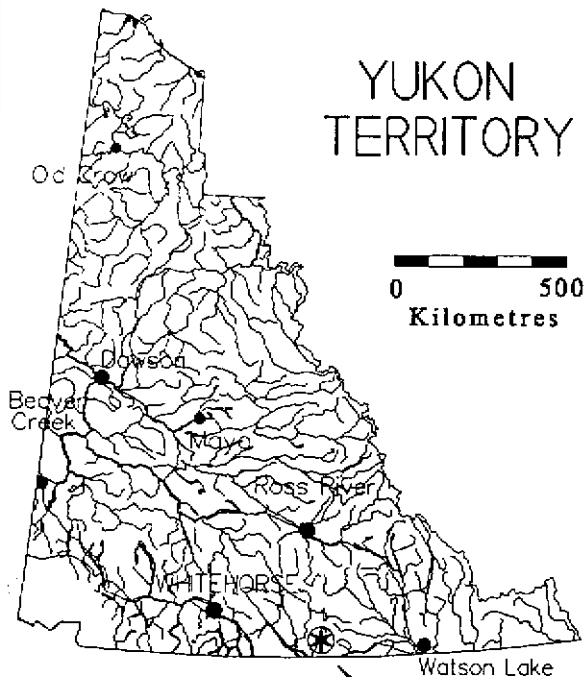
4.0 PERSONNEL AND EQUIPMENT

The surveys were conducted by an IP crew consisting of Carmen Lee (crew chief), Dan Hall, Chris Gooliaff and Debra Smith. For an initial test survey, Mike Power acted as crew chief. During mobilization and demobilization, the crew was assisted by Jeff Boyce and Gill McDougall who drove an additional truck required to transport some of the equipment. The crew were equipped with the following instruments and equipment:

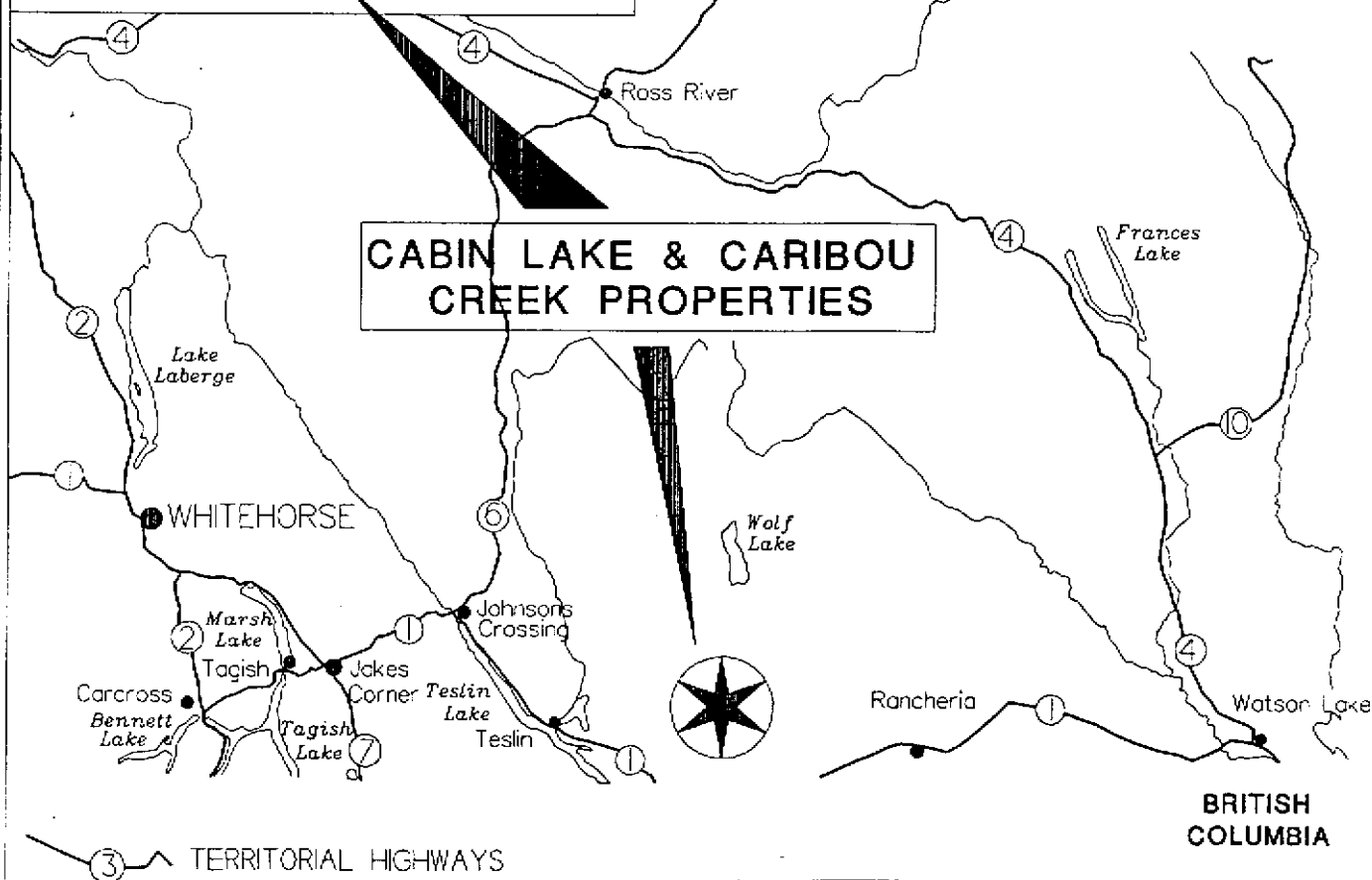
<u>Transmitter:</u>	Phoenix IPT-1 mated with 2.5 KW motor generator. Maximum output voltage: 1500 V / maximum output power approximately 2.2 KW.
<u>Receiver:</u>	IRIS IP-6 digital 6-channel IP time domain receiver
<u>Data processing:</u>	P-100 laptop and Fujitsu wide carriage colour printer. Data processing with Geopak IPSECT software and proprietary

YUKON TERRITORY

0 500
Kilometres



CABIN LAKE & CARIBOU CREEK PROPERTIES



0 50
Kilometres

FAIRFIELD MINERALS LTD.

LOCATION AND ACCESS

AMEROK GEOSCIENCES LTD.

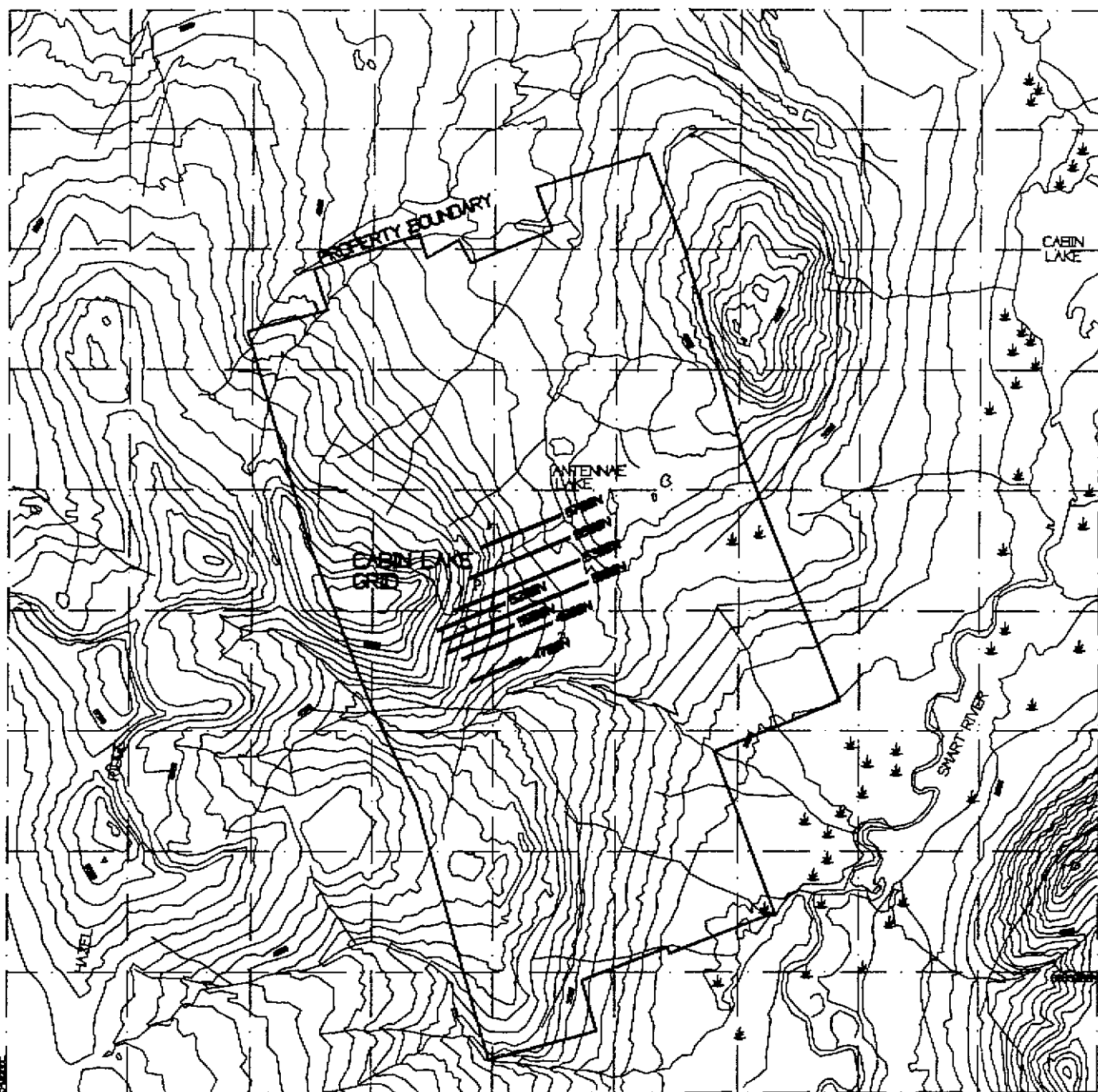
CABIN LAKE AND CARIBOU CREEK PROPERTIES

MINING DISTRICT: WATSON LAKE

NTS: 105 B/5 SCALE: 1:250,000

DRAWN BY: C.L.

DATE: 06 OCT 97 FIGURE: 1



FAIRFIELD MINERALS LTD.

CABIN LAKE GRID
IP SURVEY

AMEROK GEOSCIENCES LTD.

CABIN LAKE PROPERTY

MINING DISTRICT: WATSON LAKE

NTS: 105 B/4 SCALE: 1:50000

OPERATOR: CL/CG/DS/DH

DATE: 08OCT97

FIGURE: 2

data conversion software.

Other equipment: 6-conductor 25 m IP cables, stainless steel electrodes, 4 km wire, winders, VHF radios, 2WD truck and 4-man camp.

The crew spent a total of 9 days on the properties. The survey log is attached as Appendix B.

5.0 SURVEY SPECIFICATIONS

The IP surveys were conducted according to the following specifications:

<u>Array:</u>	Dipole-dipole
<u>Dipole spacing:</u>	25 m
<u>Separations read:</u>	n=1 to 6
<u>Signal:</u>	0.125 Hz / 50% duty cycle / reversing polarity
<u>Receiver synch:</u>	synchronization using n=1 dipole signal in most cases.
<u>Signal sampling:</u>	10 windows, semilogarithmic sampling over 2 s.
<u>Measurements:</u>	Vp - primary voltage prior to shutoff M _n - nth time slice chargeability (n=1 to 10) Mt - total chargeability Ro - apparent resistivity Sp - self potential Rs - electrode resistance
<u>Noise threshold:</u>	Standard deviation in Mt kept to ≤ 5 ms where possible. In the event that this was not possible, readings were repeated several times to ensure repeatability.
<u>Stacking:</u>	minimum 15 times

6.0 DATA

Copies of the dump files and Geosoft format .dat files were delivered to Fairfield Minerals Ltd. with an earlier field report. Data in this report is displayed in

conventional pseudosection format on the plots attached to this report in Appendix C. The resistivities and chargeabilities in the pseudosections are apparent values and not true depictions of subsurface chargeability or resistivity. The apparent resistivities are calculated from the applied current and the primary voltage (ie. the voltage immediately prior to signal termination) using equations incorporating the geometry of the array.

The location of picked chargeability and resistivity anomaly source bodies are shown as thick lines above the anomaly locations on the pseudosections. These thick lines indicate the horizontal projection of the source body apex (ie. the top of the source body).

A pronounced striping is apparent in the resistivity pseudosections and, to a much lesser extent, some of the chargeability pseudosections. This consists of alternately high and low resistivities recorded on adjacent slashes across the pseudosection. The dip direction of the striping corresponds to the direction in which the receiving array was set up relative to the transmitting dipoles. Receiving arrays west of the current dipoles produced west dipping slashes and vice versa. Unfortunately, the crew chief did not recognize this as a signal problem and it was not corrected in the field.

This problem was traced to a short in a current reel which grounded the wire to the georeel and winder. To maximize survey efficiency, the georeels were placed near the transmitter and the current wire spun off down the survey lines to the current electrodes. The short partially grounded the current wire at the transmitter site. When the lead electrode was connected to the transmitter through this wire, the V_p at the receiver dropped, lowering the apparent resistivity. Since the electrodes were moved down the line alternatively, this created alternating bands of high and low resistivity in the pseudosections. The chargeability results were far less affected by this problem because chargeability is normalized against the V_p . The striping effect varied along the line depending upon the resistance at the current electrodes and the resistance of the ground at the transmitter. The worst striping occurred where the transmitter was located in conductive ground and the current electrodes in resistive ground. The effect of this striping cannot be removed from the data and it inhibits full interpretation of the resistivity data in some cases. Data which was seriously affected was deleted before plotting. This accounts for the missing data points in the pseudosections.

7.0 INTERPRETATION PROCEDURES

The data was interpreted using a procedure sketched schematically in Figure 4. The numbers in the flow chart refer to information sheets in the company interpretation manual. Key features of the responses mentioned in these sheets are summarized below and are drawn from summaries and investigations by Telford *et. al.* (1990),

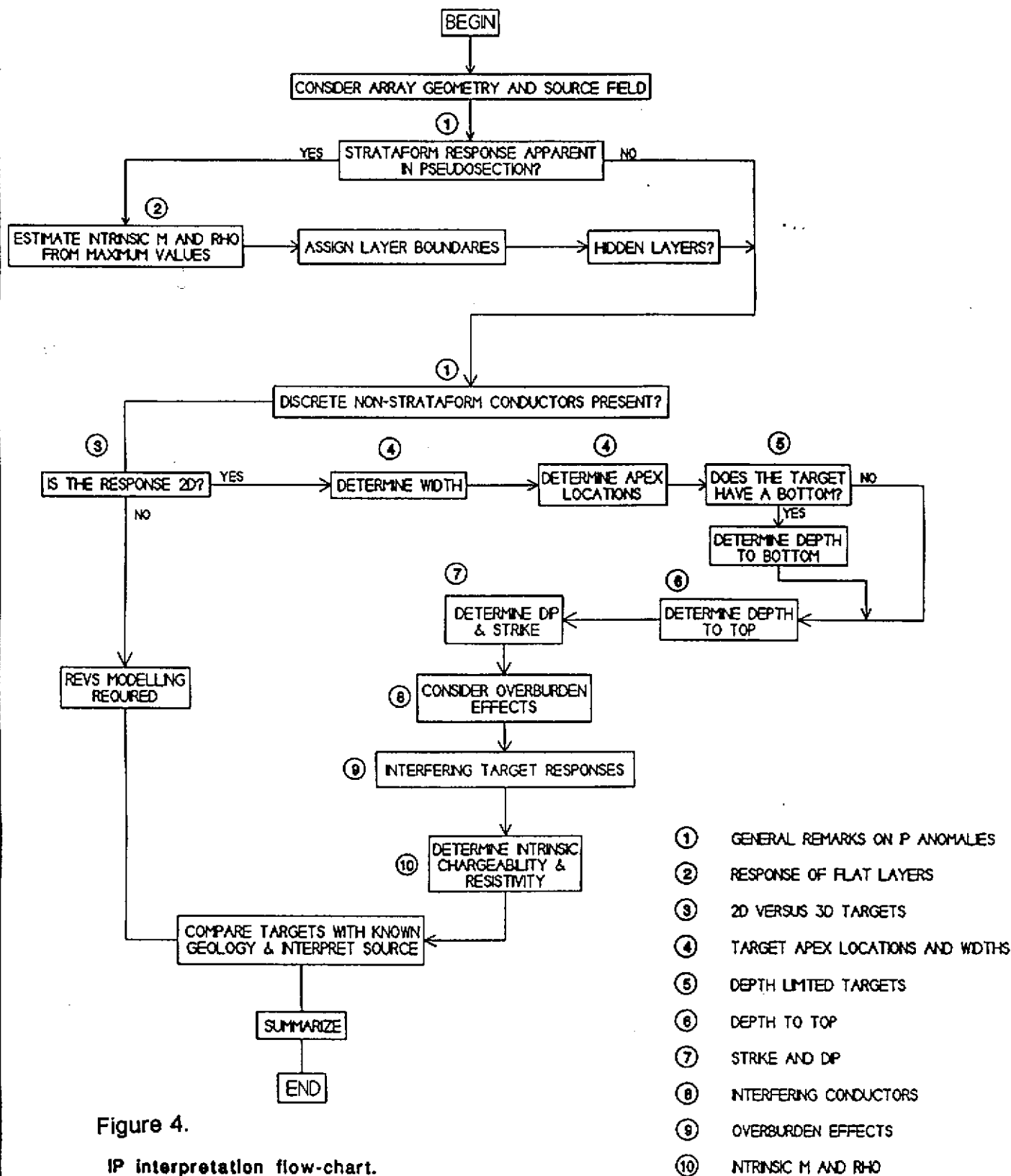


Figure 4.

IP interpretation flow-chart.

Sumner (1985), Hanneson (1990), Hohmann (1990), and Coggon (1973).

The source field for the surveys was a grounded current dipole with a spacing of 25 m near a reading array of 25 m dipoles. The receiving dipoles were separated from the current dipole by a variable spacing of 1 to 6 times the 25 m dipole spacing. The source field from a grounded current dipole is symmetric about the midpoint of the pair and drops off dramatically with distance. There are no effects in the pseudosections which are primarily due to the source field aside from the striping mentioned above.

7.1 Overburden responses

Overburden responses in a dipole-dipole survey show up as a flat-lying layer in the pseudosection. The depth to the boundary between layers of different resistivity or chargeability can be estimated as 1.5 to 2.0 times separation at which the gradient between the two layers is the greatest. This inevitably leads to an overestimation if the dipole spacing is large relative to the thickness of the layer. In some cases, the overburden response is not visible as a separate resistivity anomaly but is apparent as a flat lying layer of lower chargeability - usually only down to $n=1$. This is attributed to oxidation or leaching of chargeable minerals or graphite from bedrock near the surface or to the absence of chargeable minerals in overburden.

7.2 Two dimensional versus three dimensional responses

Responses were interpreted as two dimensional (ie. extending along strike to some extent) unless otherwise stated. If a target is in fact three dimensional and is interpreted as being two dimensional, the contrast between the host and target properties will be underestimated.

7.3 Apex location and width

Targets which are less than one half a dipole spacing (ie. 12.5 m) will produce single slash responses. The apparent dip of the single slash response *does not* indicate the dip of the feature but merely indicates which electrode was closer to the source. A thin target may also produce a symmetric two-slash response if it is centred at an electrode site. The width of the source body was considered to be definitely less than 12.5 m if a single slash anomaly was encountered and to be at least 25 m if a symmetric response were encountered. It is difficult to discriminate between a 12.5 and 25 m wide target response if the response is symmetric and the author has chosen to err on the wide side. If the response at the shortest separation is wider than one dipole, this is an indication that the source body is also wider than one dipole. The width of the response at the shortest separation was used to determine the width of the source body in most case; in certain circumstances, however, the response was compared with model responses to determine the source width. The

solid lines in the pseudosections and on the anomaly maps show the horizontal location of the top of the source bodies and the apparent width of the target.

7.4 Depth to top

The depth to the top of a source body is generally indicated by the shortest separation at which the response is visible. Thus a target at a depth of 25 m would be expected to produce some response at $n=1$ but a target with a top at 50 m would generally not be visible at $n=1$.

7.5 Dip direction

The dip direction and dip of a source body are difficult to estimate with dipole-dipole data. Dip must be estimated using both the resistivity and chargeability data because the dip direction will be different depending upon whether the chargeable target is more or less resistive than the host. If the target is more resistive than the host, the dip in the chargeability pseudosection will be in the same direction as the target. If the target is less resistive than the host, the apparent dip will be opposite the true dip. At a dipping contact, the steepest gradient in a resistivity section dips in the opposite direction to the true dip of the contact. Estimates of dip direction are difficult or impossible to make where targets of alternating resistivity are adjacent to each other.

7.6 Target resistivity and chargeability

Estimates of true or intrinsic target chargeability and resistivity can be made once the interpreter has some idea of the target dimensions. In general, for a given resistivity and chargeability contrast, the target response will decrease as the target dimensions decrease. In addition, the amplitude of the chargeability contrast will be affected by the resistivity contrast. Targets which are very resistive or very conductive will show much lower apparent chargeabilities relative to true chargeability.

A three dimensional target (eg. a sphere) will produce an anomaly with a maximum apparent chargeability which is at best 30% of the true chargeability response. If the target is two dimensional, the maximum apparent chargeability is 50% of the true chargeability unless the target is thin in which case the maximum apparent chargeability will be up to 40% of the true intrinsic chargeability.

Estimates of the true chargeability and, to a lesser extent, resistivity can be used to estimate the probable source of an anomaly. Chargeabilities are largely determined by the bulk concentration of chargeable minerals such as sulphides or graphite. It is difficult to discriminate between the two although spectral IP analysis shows a lot of promise in this direction. Targets containing 2 to 8% sulphides show chargeabilities of 50 to 100 ms and this threshold was used by the author to determine which of the

targets may merit further investigation.

8.0 RESULTS

Descriptions of the data, anomalies and interpreted source parameters for each line follow, grouped by grid.

8.1 Cabin Lake Grid

Line 4700N

The topography on Line 4700N has an average slope of approximately 20% and no resistivity anomalies are attributed to topographic features. Striping is visible in the resistivity section but it is not significant in the chargeability pseudosection. There is no overburden response apparent in either pseudosection and there are no mapped contacts or faults along Line 4700N.

A significant anomaly is centred at 1800E. A deep resistivity high with apex between 1800E and 1850E occurs at an apparent depth of approximately 75 m. Dip direction cannot be read with any confidence because of the amplitude of the striping. A larger chargeability anomaly from 1737.5E to 1875E is coincident with the resistivity high. The higher chargeability values on the west flank of the anomaly and the resistive nature of the target suggest that the source body is a resistive body dipping to grid west. This estimate may be in error if the source body consists of two thin (<12.5 m) segments and if the western segment is more chargeable. If this estimate is correct, this target appears to be discordant with respect to the mapped stratigraphy and may not be a stratabound target of interest. The chargeability anomaly suggest that the source body has an apparent depth to top of 0-25 m and this is noticeably shallower than the interpreted depth to the top of the resistivity feature. The target has an estimated intrinsic resistivity of 3000 to 4000 ohm-m and a chargeability of approximately 90 ms; chargeabilities of this magnitude are associated with targets containing up to 8% sulphides or graphite. The resistivity signature is similar to values measured in hand specimens of disseminated mineralization examined by the author.

A second resistivity high to the north at 2000 to 2100E is bounded by a resistivity low immediately to the west. There is no associated chargeability anomaly of significance and this target is of no immediate interest.

Line 4900N

An inferred fault intersects Line 4900N at 2200E. The topography generally slopes to

grid east but there is a small rise centred at 2100E. This did not produce an associated resistivity anomaly. Some suspect values were deleted from the data set; most of these were at large separations. Dip estimates made with this data set may be unreliable because of the missing data points. There is no overburden response apparent in either pseudosection.

There are three resistivity anomalies and two chargeability anomalies in the pseudosections. A resistivity low from 1675E to 1700E occurs in a larger chargeability high from 1650E to 1712.5E. The resistivity low appears to occur at a shallow depth (0-25 m) and may dip to the east. The chargeability anomaly shows a similar depth to top and dip direction. The estimated resistivity and chargeability of this target is 100 ohm-m and 50-70 ms. A target containing 2 to 8% sulphides and/or graphite would be expected to produce this type of anomaly. The low apparent resistivity of the target does not match the high resistivity observed in hand specimens.

A resistivity high occurs from 1750E to 1875E and appears to be a resistive bedrock feature with no associated chargeability anomaly of interest.

A resistivity low from 2025E to 2100E is associated with a weak chargeability high covering the interval from 1975 to 2038E. Both anomalies are poorly defined because of several deleted measurements. The target appears to have an apparent resistivity of 50 to 100 ohm-m and a chargeability of 20 ms. This target does not appear to be of economic interest on account of the low chargeability.

The inferred fault may account for a partially defined change in the apparent resistivity at 2200E near the end of the survey line. Dips cannot be read from this portion of the anomaly.

Line 5000N

The topography along Line 5000N generally slopes to grid east at 20 to 30% and there are no resistivity anomalies attributed to topography. Striping is apparent in the resistivity pseudosection and in the chargeability pseudosection in the interval from 1425 to 1550E. Some suspect values were deleted from the data set and dip estimates made with this data set may be unreliable because of the missing data points. There is no overburden response apparent in either pseudosection but a subtle overburden response would be obscured by striping in the resistivity pseudosection.

There are two targets of interest. A narrow resistivity low (1625E-1650E) occurs within a coincident, slightly wider chargeability high (1613E-1663E). Depth to top appears to be 0-25 m in both cases. The chargeability source may bottom out at approximately 100 m. The intrinsic target resistivity appears to be less than 200

ohm-m and the target chargeability is inferred to be 60-70 ms. This is in the range expected of a target containing 2 to 8% sulphides or graphite. The target is interpreted to have a width of approximately 13 m, more or less.

The second anomaly consists of a deep resistivity high (1700E-1750E) with a coincident and wider chargeability high (1700E-1788E). The apparent depth to top of the resistivity target could be as much as 100 m but this estimate is hindered by some deleted data points. The chargeability source appears to be much shallower and is interpreted to have a depth to top of 0-25 m and a possible bottom at 100 m.

Line 5100N

The topography along Line 5100N generally slopes to grid east at 20 to 30% from 1450E to 1900E and flattens to approximately 10% thereafter. There are no resistivity anomalies attributed to topography on this line. The data quality is good along this line with no striping effects or deleted data points. A weak flat-lying surficial or overburden anomaly appears in the chargeability data from 1600E to 1875E but is not apparent in the resistivity data, possibly because of the high resistivity of bedrock. This anomaly is manifested as a zone of flat-lying chargeabilities in the range of 15 ms in contrast with higher values beneath. The anomaly is interpreted to be a layer of frozen ground. Alternatively, it may be a layer of bedrock within which chargeable minerals have been removed by oxidation.

The most significant feature on this line is a wide zone of chargeability extending from 1600E to 1900E. This is indicated by solid and dashed red lines in this interval. Chargeabilities in this area average approximately 22 ms at $n \geq 2$. The chargeability anomaly occurs in rocks of relatively high apparent resistivity (2000 - 3000 ohm-m). Rock samples from this area contained 5 to 10% sulphides in silicified schist and this signature generally conforms to that expected from these rocks. Three narrow zones of higher chargeability occur within the larger overall anomaly. A thin chargeability high (1600E-1613E) is associated with a resistivity low (1625E-1650E). Dips cannot be read accurately for this anomaly on account of its narrow width and the depth to the top of the source body appears to be 25 to 50 m.

A second chargeability anomaly is centred in the interval 1738E-1763E and is associated with a resistivity low (1750E-1775E). The chargeability and resistivity responses are asymmetric and the source bodies appear to be thin. The resistivity source appears to have a depth to top of 0-25 m while the depth to the top of the chargeable source body appears to be 50-75 m. The third chargeability anomaly consists of a thin, shallow (0-25 m) source in the interval 1888E-1900E. Dip cannot be read from this response because the target is quite thin.

The chargeability anomaly in the interval 2475E-2500E appears to originate from an

east dipping source body at least 25 m wide with an intrinsic chargeability of around 20 ms. The source appears to be shallow (0-25 m) and is of no immediate economic interest on account of its low chargeability.

There is no response from the fault inferred to occur at approximately 2300E along Line 5100N although an east dipping contact-type resistivity anomaly occurs at 2350E separating rocks with resistivities of 400-500 ohm-m on the west from rocks of 1000-2000 ohm-m on the east.

Line 5200N

The topography along Line 5200N slopes to the east with local inflections of up to 20% at 1825E and 1625E. These do not appear to have produced noticeable resistivity anomalies which could be attributed to topography. The resistivity data shows striping but this is not significant in the chargeability pseudosection. There are no anomalies which appear to be caused directly by overburden.

A large, high amplitude chargeability anomaly in the interval 1575E-1775E is the most significant feature on this line. This anomaly is coincident with an obscured resistivity high in the interval 1613E-1725E. The resistivity response is obscured by striping but appears to be a resistivity high at separations greater than $n=3$. This would suggest that the source of the resistivity anomaly may be at a depth in the order of 75 to 100 m. The associated chargeability anomaly source body appears to overlie the resistive source body and dips to grid E at a shallow angle. The response in the area of 1775E is complex and may indicate a second chargeability source to the east. The intrinsic chargeability of the source body is estimated at greater than 60 ms which suggests that the source contains at least 2-8% chargeable sulphides or graphite.

A weaker chargeability anomaly occurs to the west in the interval 1450E-1500E. This chargeability high has no associated resistivity anomaly. The source body for this anomaly appears to dip to grid E at a shallow angle although the full response is truncated at the end of the line.

Line 5300N

The topography along Line 5300N dips to the east at 15-30% with inflection points at 1925E and 2275E. The resistivity low at 1925E may be partially attributed to topography, particularly at $n=1$ and $n=2$. There is some striping in the resistivity data but it is significant only in the interval 1625E-1775E. There are no resistivity anomalies which can be attributed to overburden but chargeabilities appear to be suppressed at $n=1$ across the pseudosection suggesting that oxidation or leaching of chargeable minerals may have occurred to a depth of as much as 25 m along this line.

Chargeability values are 15 ms versus a background of 3-5 ms in the interval 1675E - 2250E suggesting that this area is underlain by a relatively chargeable rock unit. The one slash chargeability low with top at 1963E could be caused by a thin zone such as a fault in which chargeable minerals have been oxidized or from which they have been leached. The position of this chargeability low relative to an adjacent chargeability high at $n > 3$ might also suggest that it is an off-target response which occurs on the flanks of many chargeability anomalies. The absence of a similar negative response on the west flank of the adjacent chargeability high argues against this. This anomaly is also coincident with a mapped fault which lends some credence to the first interpretation.

The most significant anomaly on this line is the chargeability high in the interval 1713E - 1813E. This occurs in an area of relatively high apparent resistivity relative to the rest of the line. The apparent depth to top is in the order of 25-50 m, reflecting the overburden effect described above. The intrinsic chargeability of the source body appears to be 50-70 ms and this might be caused by rocks containing 2-8% massive sulphides.

A less well-defined chargeability high at 1913E-1938E is defined by elevated chargeabilities predominantly at $n > 3$. This anomaly is roughly coincident with a shallow resistivity low in the interval 1925E-1950E.

Line 5500N

The topography along Line 5500N slopes to the east at over 60% at the west end flattening to around 10% on the east end of the line. A significant inflection point occurs at 2000E and may have suppressed the resistivity at the $n=1$ plot point centred at 2012.5E. There is some striping in the resistivity pseudosection in the interval 1825E-2075E but the rest of the line is unaffected. The chargeability pseudosection is unaffected by striping. Near surface resistivities ($n=1$) are 300-400 ohm-m and increase at larger separations; this is attributed to a thin conductive overburden layer.

The only significant chargeability anomaly on the line is in the interval 2250E-2275E. The source of this anomaly appears to occur at a depth of around 50 m and the estimated intrinsic target chargeability is 30 to 50 ms. This is below the range expected for rocks containing 2-8% disseminated sulphides or graphite. There is no resistivity anomaly associated with this chargeability anomaly.

A series of resistivity highs are located on the west end of the line and the eastern end of this zone is coincident with a mapped fault at 2000E. There is a second contact between rocks with chargeabilities of 8-10 ms on the west and rocks with chargeabilities of 2-4 ms east of the contact at 2375E.

Line 5700N

The topography along Line 5700N slopes to the east at 10 to 30%. An inflection point at 2125E has no associated resistivity anomaly. The resistivity pseudosection is contaminated by striping and several slashes in the chargeability pseudosection also show striping. Near surface resistivities ($n=1$) are lower than resistivities recorded at larger separations; this could be attributed to a thin conductive overburden layer.

There are no significant chargeability anomalies recorded on this line. A poorly defined contact between chargeable, resistive rocks on the west and more conductive, less chargeable rocks on the east occurs at 2350E. The dip of this contact cannot be read from the pseudosection but the high gradient in the resistivity section, allowing for striping, suggests a dip to the east.

Discussion

Figure 4 is an anomaly map displaying the location of IP and resistivity anomalies together with mapped geology on the Cabin Lake grid. The IP/resistivity survey delineated a number of resistivity anomalies in the area bounded by 1400E, 4700N and 2000E, 5300N. A larger copper geochemistry anomaly occurs in this area and extends downslope and to the north towards Antennae Lake. Copper soil geochemical values are contoured in grey shade in Figure 4 with contours enclosing values in excess of 100 and 200 ppm shown. Samples in excess of 200 ppm are confined primarily to the area west of the base line 2000E and to the interval 2200-2400E on Line 5500E. The primary source of the soil geochemical anomaly appears to be in the area bounded by 1550E, 4900N and 1850E, 5300N. This is coincident with a zone of high chargeability defined by the green line in Figure 4. This strike of this zone and the dips of source bodies within it generally conform to that of the local stratigraphy; consequently it appears that this is a stratabound horizon. The boundary between areas of contrasting high and low chargeability extending from Line 5770N 2350E to Line 2500E 5100N is interpreted to be a contact or fault of uncertain geometry. A second fault indicated in the figure was mapped on lines 5300N and 5500N and also has a weak geophysical signature.

8.2 Caribou Creek Grid

8.0 CONCLUSIONS

The results of these surveys lead to the following conclusions:

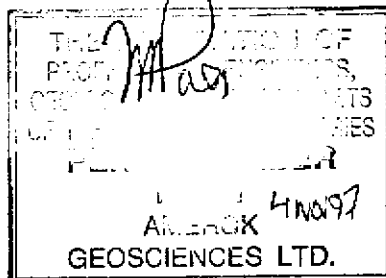
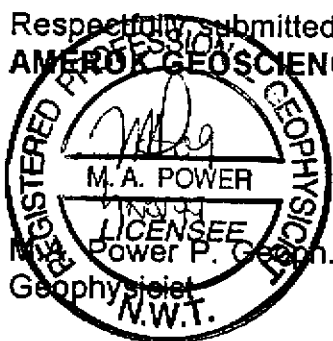
- a. The IP and resistivity survey on the Cabin Lake grid delineated a series of chargeability and resistivity highs at the upslope limit of a large copper soil geochemical anomaly. The geophysical signature is consistent with the general character of mineralization observed in hand specimens. The zone of anomalous chargeability defined by the green line in Figure 5 constitutes a target of interest.
- b. The IP and resistivity survey on the Caribou Creek grid

9.0 RECOMMENDATIONS

If geological data and trenching results support the above conclusions, it is recommended that:

- a. The zone of high chargeability identified on the Cabin Lake grid be drill tested on Line 5000N or Line 5100N.
- b. The geophysical anomalies detected on the Caribou Creek grid

Respectfully submitted,
AMEROK GEOSCIENCES LTD.



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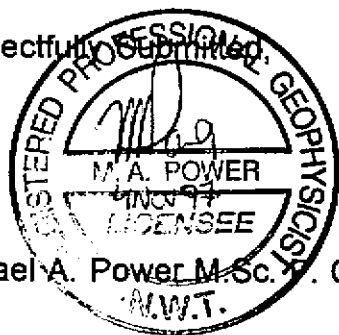
APPENDIX A. CERTIFICATE

I, Michael Allan Power, M.Sc. P.Geo., P.Geoph., with business and residence addresses in Whitehorse, Yukon Territory do hereby certify that:

1. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (registration number 21131) and a professional geophysicist registered by the Northwest Territories Association of Professional Engineers, Geologists and Geophysicists (licensee L942).
2. I am a graduate of the University of Alberta with a B.Sc. (Honours) degree in Geology obtained in 1986 and a M.Sc. in Geophysics obtained in 1988.
3. I have been actively involved in mineral exploration in the Northern Cordillera since 1988.
4. I have no interest, direct or indirect, nor do I hope to receive any interest, direct or indirect, in Fairfield Minerals Ltd. or any of its properties.

Dated this 3rd day of November, 1997 in Whitehorse, Yukon.

Respectfully Submitted,



Michael A. Power M.Sc. P. Geoph.

APPENDIX B. SURVEY LOG

Tue 02SEP97 Test survey on Line 5100N, Cabin Lake grid.

Sun 21SEP97 Drove to Smart River and slung in camp to Cabin Lake Property;
camp installed by 8 pm.

Mon 22SEP97 Surveyed L4900N and L5000N.
Wx: Sunny and overcast

Production: L4900N: 2300E - 1500E
L5000N: 2000E - 1400E
Total: 1.4 line-km

Tues 23SEP97 Surveyed L5200N and L5300N.
Wx: Overcast, light showers in the afternoon

Production: L5200N: 2000E - 1400E
L5300N: 2700E - 1600E
Total: 1.7 line-km

Wed 24SEP97 Surveyed L5500N and 5700N. Overall good day.
Minimal noise in the data.
Wx: Overcast and periodic light showers

Production : L 5500N: 2700E - 1800E
L 5700N: 2700E - 2000E
Total: 1.6 line-km

Thurs 25SEP97 Surveyed L4700N. Finished surveying on the Cabin Lake Grid.
Wx: Overcast and light showers

Production: L4700N: 2550-1500E
Total: 1.05 line-km

Fri 26SEP97 Surveyed L3000N on the Cariboo Creek Property.
Wx: Partly cloudy

Production: L3000N: 900-1900E
L3200N: 1400-1900E

Total: 1.5 line-km

Sat 27SEP97 Surveyed L3200N and L3400N. Some telluric noise in the late morning. Finished surveying on the Cariboo Creek Property.
Wx: Overcast and cooler today

Production: L3200N: 1425-900E
L3400N: 1900-900E
Total: 1.5 line-km

Sun 28SEP97 Demobe from camp to the Morley River Lodge. Arrived in Whitehorse at around 4pm.

Personnel:

Mike Power
Site 6 Comp 11
Whitehorse, Y.T.

Dan Hall
11 Canyon Crescent
Whitehorse Y.T.

Debra Smith
#12 Takhinni Hot Springs Road
Whitehorse Y.T.

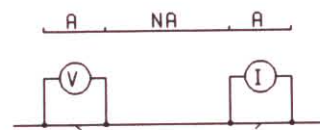
Carmen Lee
#12 Takhinni Hot Springs Road
Whitehorse, Y.T.

Chris Gooliaff
11 Tay Road
Whitehorse Y.T.

LINE : 4700 N

INDUCED POLARIZATION SURVEY

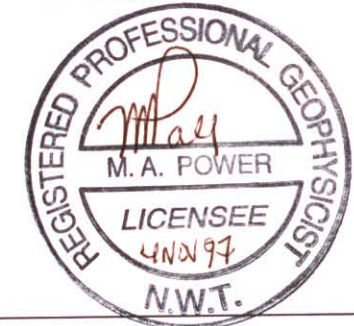
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



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CABIN LAKE PROJECT

NTS 105 B

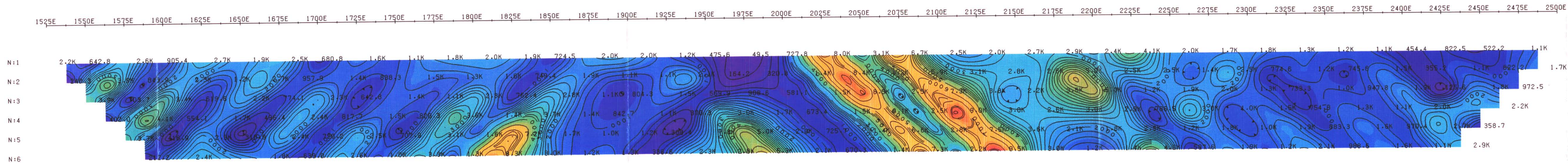
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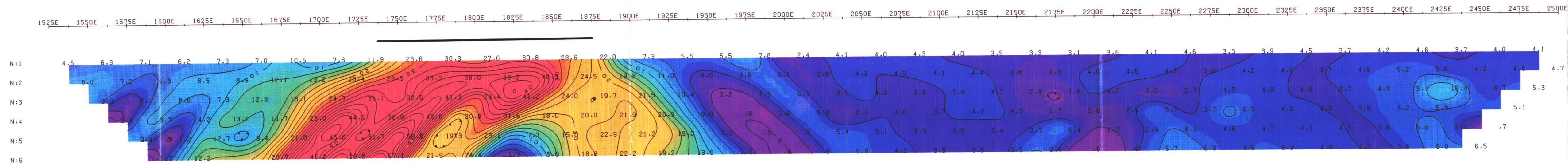
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AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)



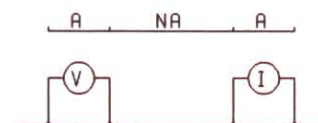
093843

DW6K17

LINE : 4900 N

INDUCED POLARIZATION SURVEY

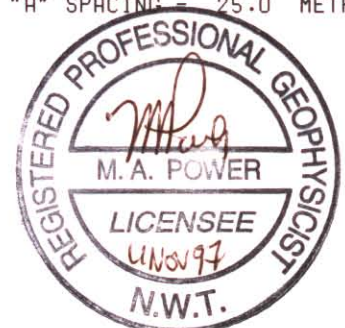
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

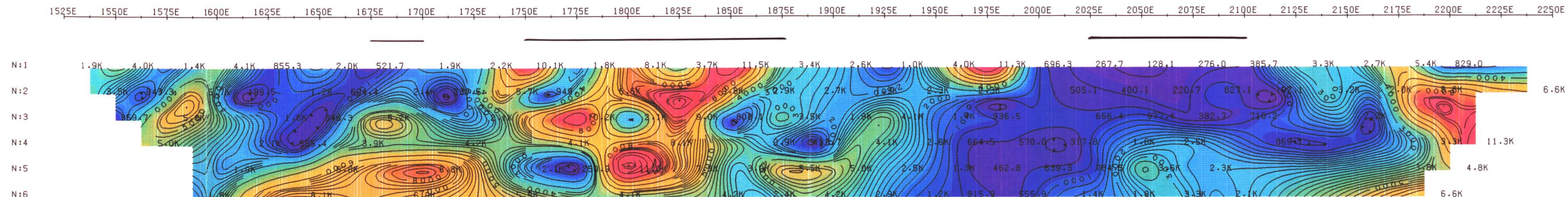
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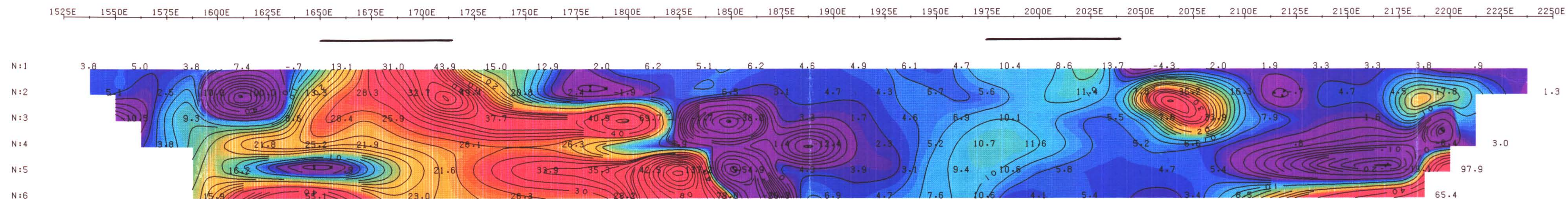
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AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)

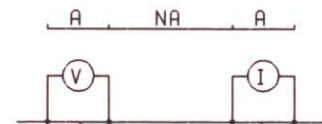


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LINE : 5000 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

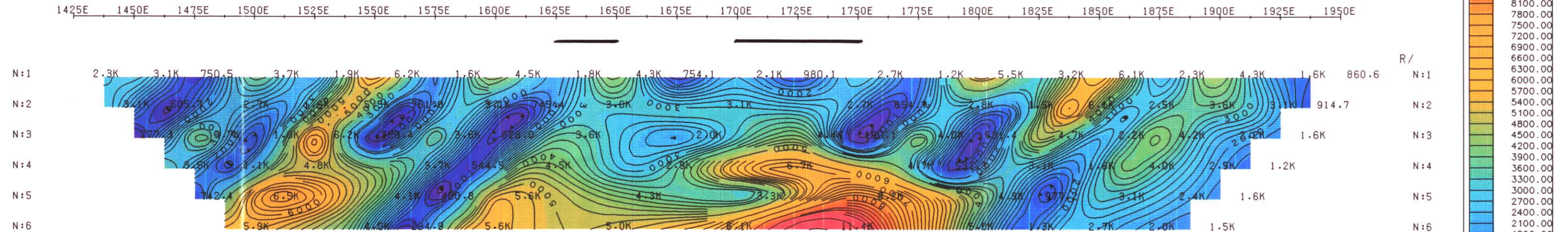
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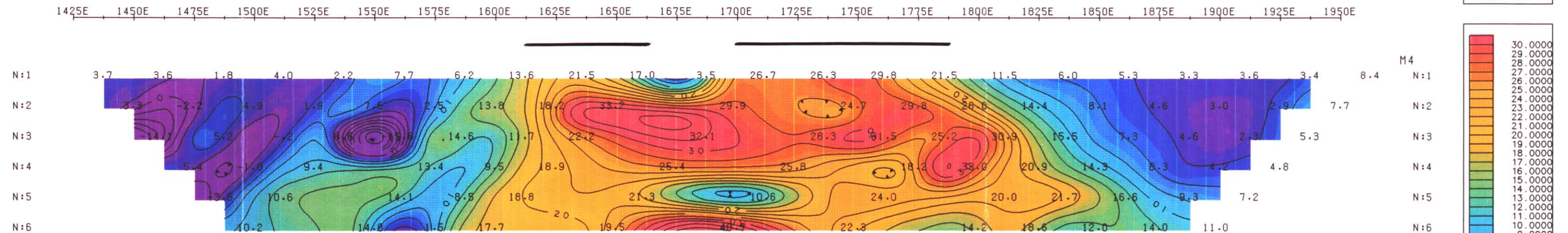
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AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)

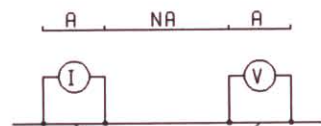


093843 DWH(19)

LINE : 5100 N

INDUCED POLARIZATION SURVEY

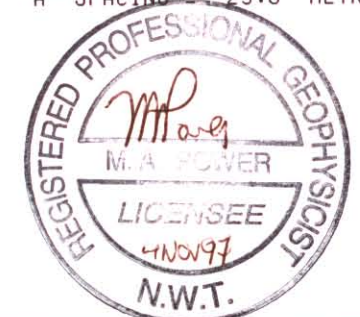
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

DATE : 03SEP97

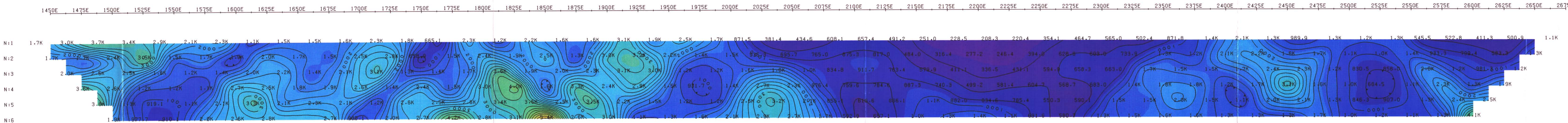
REF : 97-30

SCALE = 1 : 1500

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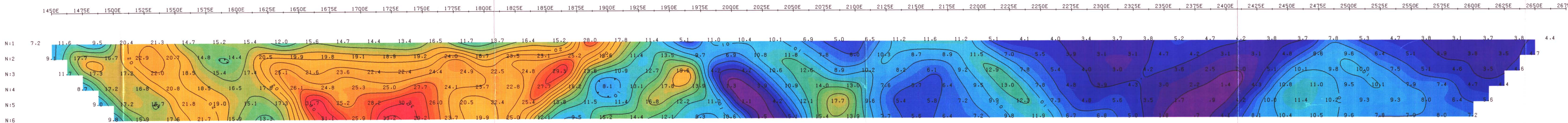
Resistivity

(ohm-m)



Chargeability

(msec)

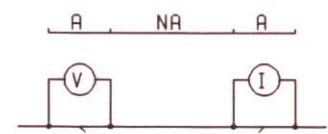


093843 Dwh20

LINE : 5200 N

INDUCED POLARIZATION
SURVEY

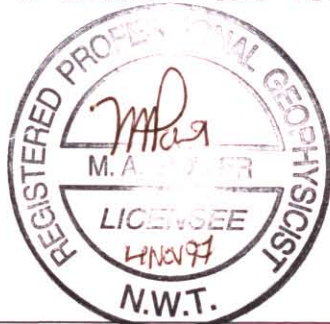
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

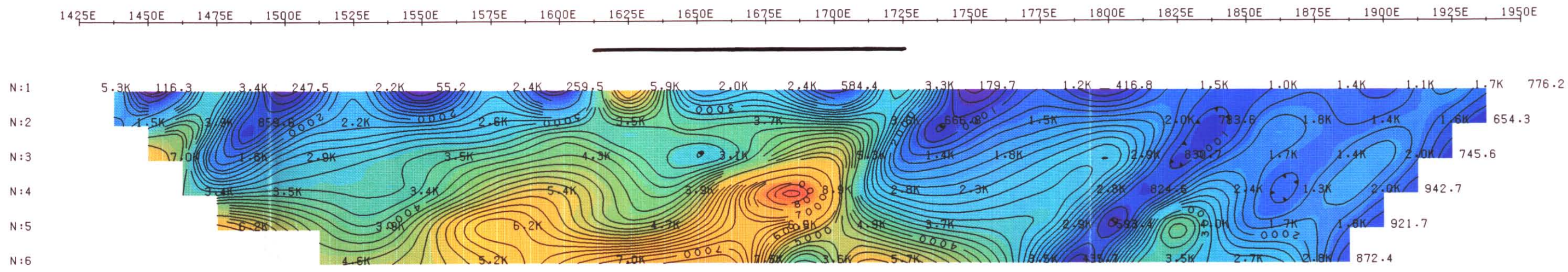
DATE : 29SEPT97

REF : 97-30

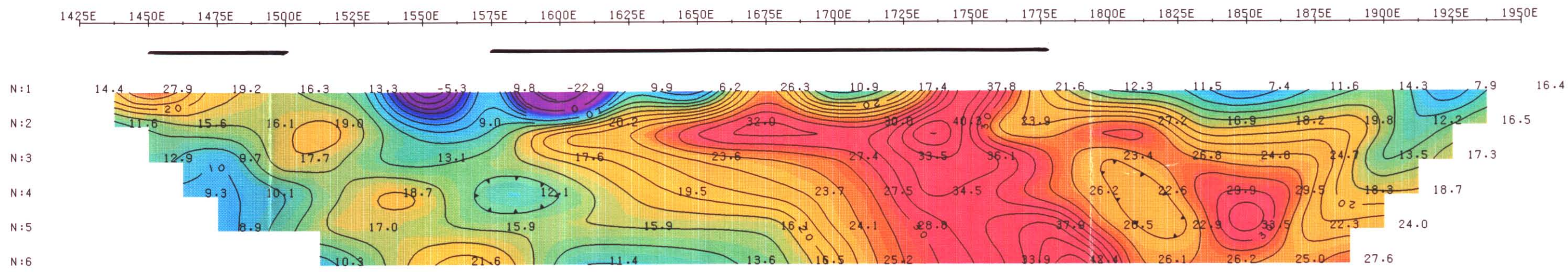
SCALE = 1: 1500

AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)

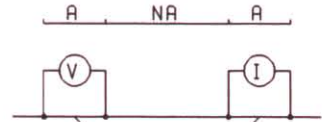


756 21

LINE : 5300 N

INDUCED POLARIZATION
SURVEY

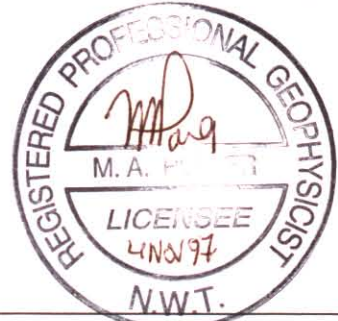
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

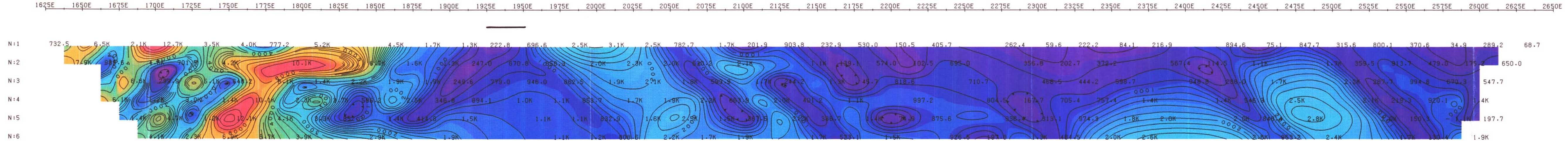
DATE : 29SEPT97

REF : 97-30

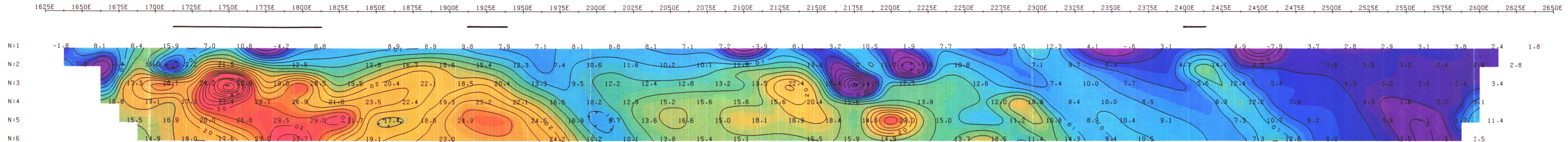
SCALE = 1: 1500

AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)



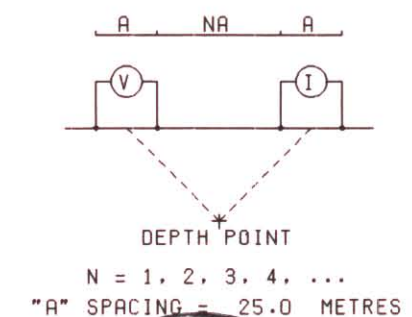
093843

DWA 22

LINE : 5500 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

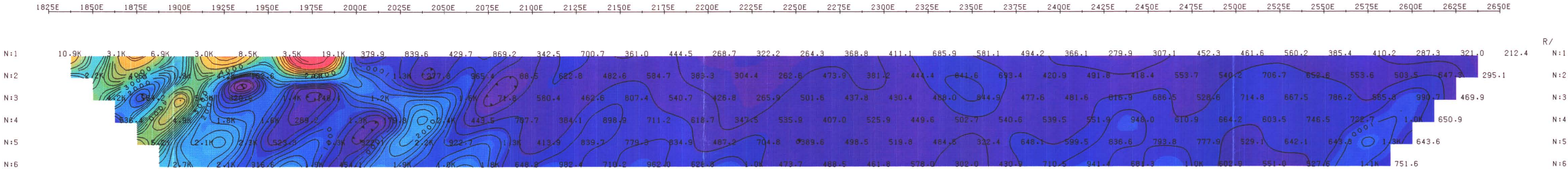
NTS 105 B

DATE : 29SEPT97 REF : 97-30

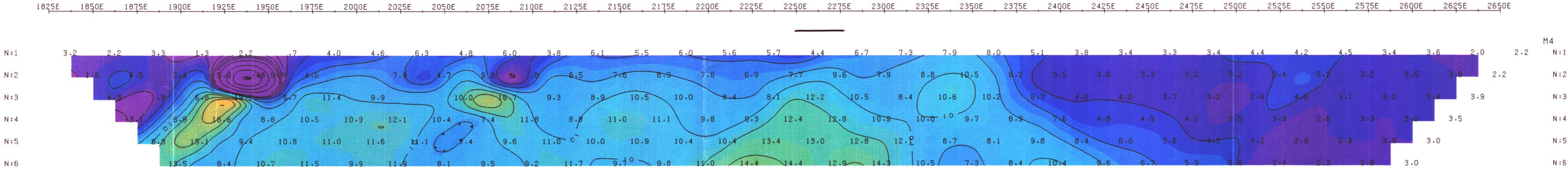
SCALE = 1: 1500

AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)



CHARGEABILITY
(msec)

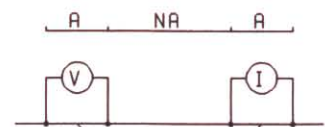


093843 DW 23

LINE : 5700 N

INDUCED POLARIZATION SURVEY

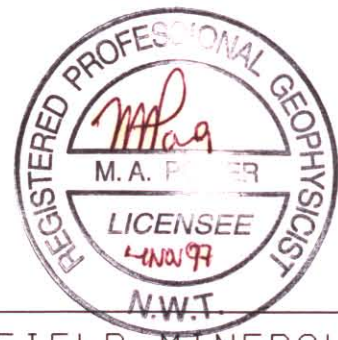
DIPOLE-DIPOLE ARRAY



DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES



FAIRFIELD MINERALS LTD.

CABIN LAKE PROJECT

NTS 105 B

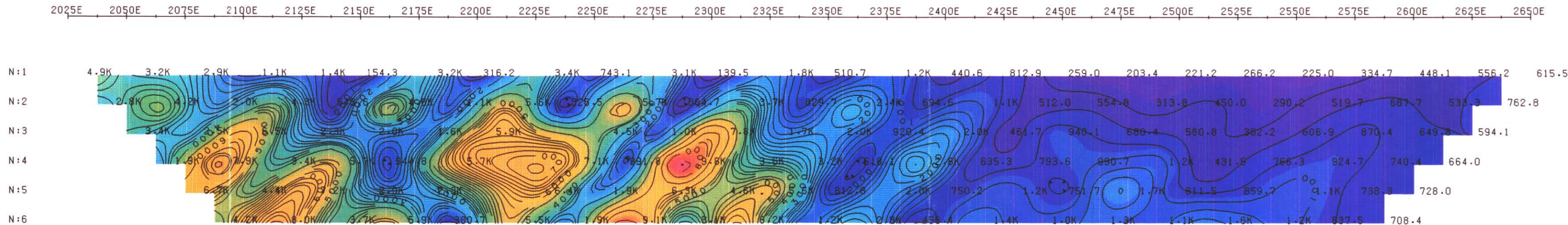
DATE : 29SEPT97

REF : 97-30

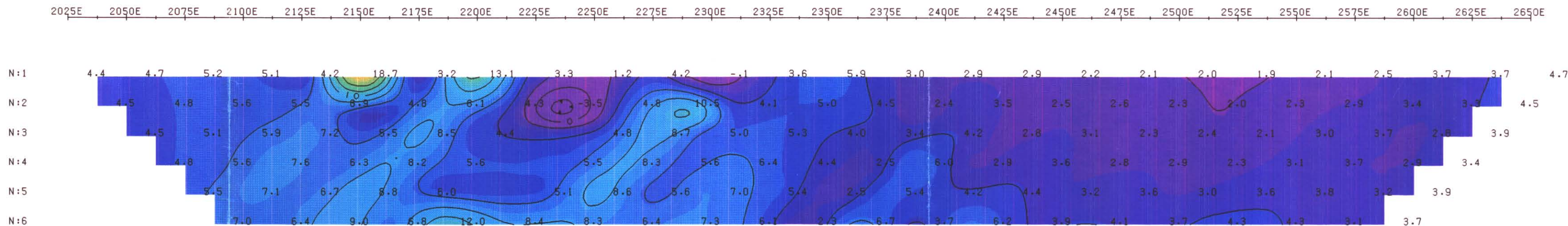
SCALE = 1: 1500

AMEROK GEOSCIENCES LTD.

RESISTIVITY
(ohm-m)

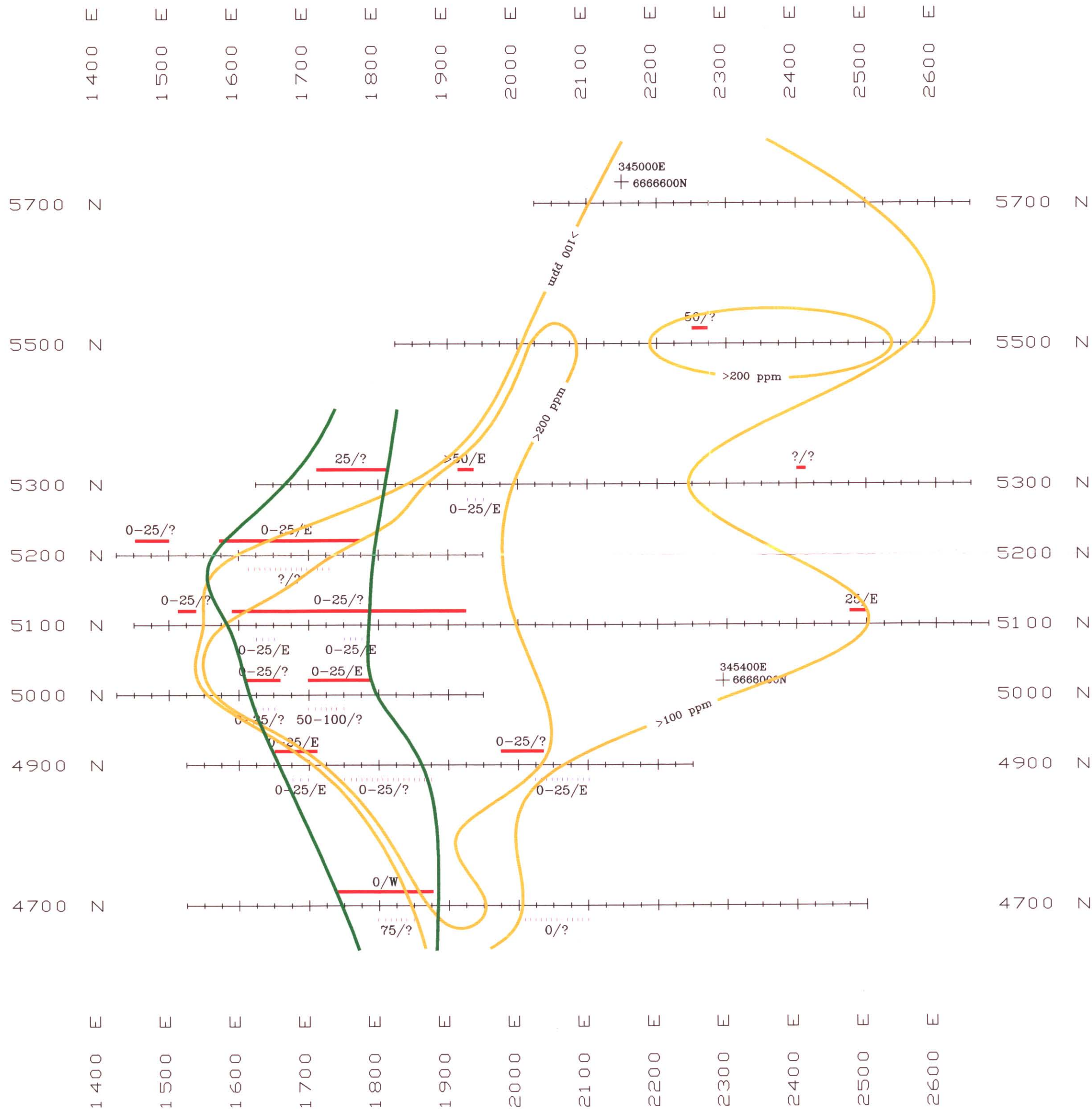


CHARGEABILITY
(msec)

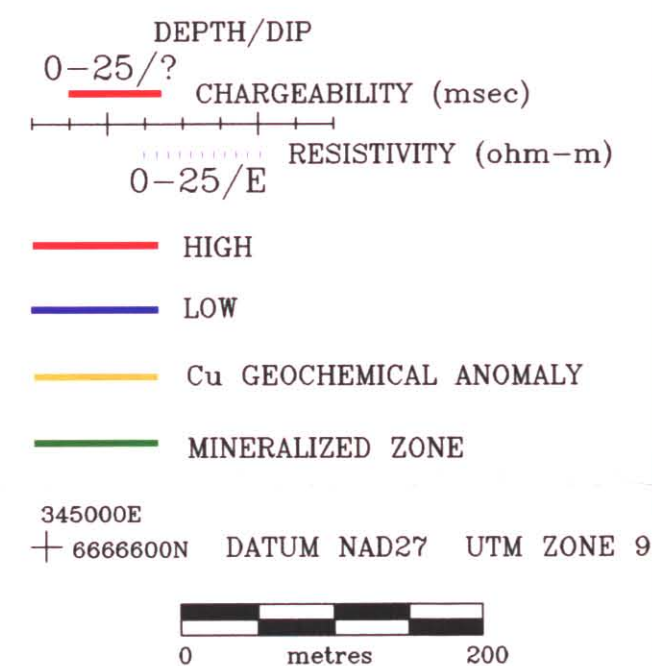


093843

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LEGEND



SCALE: 1:5000
FAIRFIELD MINERALS LTD.
CABIN LAKE PROPERTY
NTS: 105 B/4

CABIN LAKE GRID ANOMALY MAP

FIGURE 5

093843 Data 25
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