ARIS SUMMARY SHEET

District Geologist, Prince George Off Confidential: 89.03.03

ASSESSMENT REPORT 17481 MINING DIVISION: Cariboo

PROPERTY: Ben
LOCATION: LAT 52 35 00 LONG 122 05 00
UTM 10 5826098 562109
NTS 093B09E
CLAIM(S): Ben 1-5
OPERATOR(S): Circle Res.
AUTHOR(S): Kahlert, B.
REPORT YEAR: 1988, 77 Pages
COMMODITIES SEARCHED FOR: Gold
GEOLOGICAL SUMMARY: The claims are underlain by volcanic-sedimentary rocks of the Quesnellia terrane and Cache Creek sedimentary rocks. These rocks are cut by high and low angle faults. Heavy mineral samples contain up to 1575 ppb gold.
WORK DONE: Geochemical
LINE 36.0 km
ROCK 69 sample(s)
SILT 116 sample(s) ;AU,AG,AS,SB,CU,PB,ZN
SOIL 392 sample(s) ;AU,AG,AS,SB,CU,PB,ZN
Map(s) - 2; Scale(s) - 1:5000

BERNARD H. KAHLERT P.Eng.

Consulting Geologist
Mineral Exploration

LOG NO: 0614 RD.
ACTION:

FILE NO:

1195 Sutton Place, West Vancouver, B.C. V7S 2L3 Tel. (604) 925-2743

GEOCHEMICAL REPORT

GEOLOGICAL BRANCH
ASSESSMENT REPORT

Claims

Ben 1-5 Claims
Nos. 8288-8292

17,481

Cariboo Mining Division

FILMED

NTS 93 B/9

Lat. 52° 35' N., Long. 112 05' W.

Owner	Circle Resources Ltd.
Contractor	Aurum Geological Consultants
Consultant	B.H. Kahlert & Associates Ltd.
Author	B.H. Kahlert
Date	June 3, 1988 West Vancouver, B.C.

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TABLE OF CONTENTS

BEN

TABLES

LIST OF FIGURES

APPENDICES

Our File No. BEMA 3024-1
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INTRODUCTION

This report describes a geochemical follow-up survey completed on the Ben 1-5 claims located 15 kilometres east of McLeese Lake near Quesnel, B.C. Work consisted of stream sampling, establishment of an extensive grid from which soil samples were collected, rock chip sampling on a reconnaissance basis and detailed basis on a confined area, heavy mineral stream sediment sampling, geological mapping and petrographic study of a number of altered rock specimen.

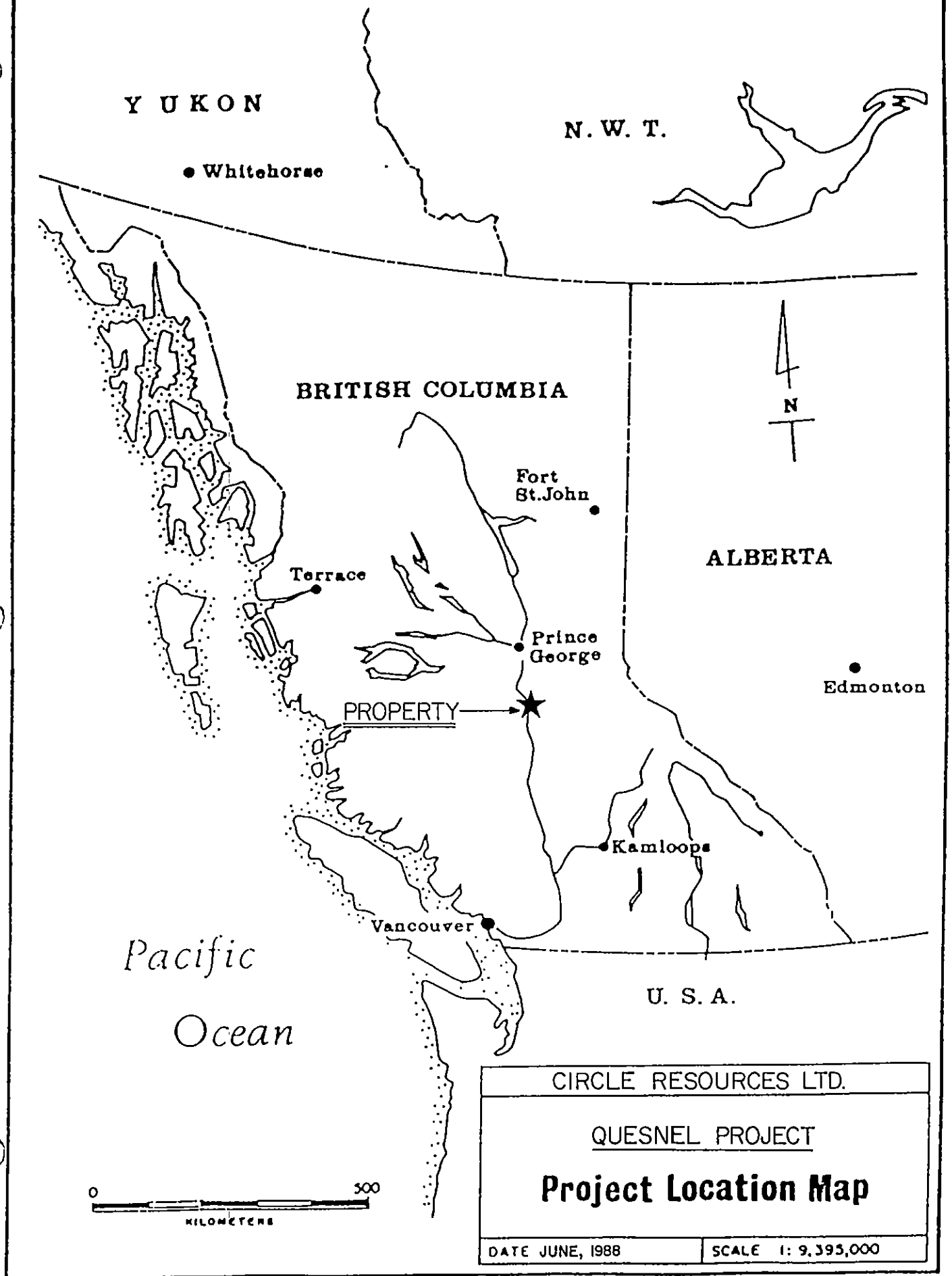
The writer outlined and supervised the work program which was carried out by geologist B. Fraser.

Location and Access

The Ben Property adjoins Ben Lake, 50 kilometers North of Williams Lake, B.C. (see Figure 1, over). The nearest settlement is the village of McLeese Lake 40 kilometers North from Williams Lake on Highway 97. The property is situated about 10 kilometers East of the large Gibraltar porphyry copper mine.

Access from McLeese Lake is East towards Likely along 22 kilometers of gravel highway and then North for 13 kilometers on good gravel road following the Beedy Creek valley. Travel time is roughly 30 minutes from McLeese Lake.

B.H.Kahlert & Associates



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QUESNEL PROJECT

Project Location Map

DATE JUNE, 1988 | SCALE 1: 9,393,000

Figure 1

Claim Description

There is no known exploration history on the property.

The Ben property consists of 5 mineral claims comprising 100 units (25 sq. km.) situated at Latitude 52 degrees 20 minutes, Longitude 121 degrees 49 minutes in the Caribou Mining District of British Columbia (see Figure H.1).

Table H.1 Ben Claim List (N.T.S. 93B/9E)

Claim Name	Record No.	Date of Record	Units
Ben 1	8288	March 5, 1987	20
Ben 2	8289	March 5, 1987	20
Ben 3	8290	March 5, 1987	20
Ben 4	8291	March 5, 1987	20
Ben 5	8292	March 5, 1987	20
Total Units			100

Soil Grids (see Plans H-1, H-2)

The Ben property was staked in response to:

- a 60 ppb Au silt from North Ben Creek.
- a 7,800 ppb Au result from the -40 +60 mesh non-magnetic fraction of a heavy mineral sample from North Ben Creek.

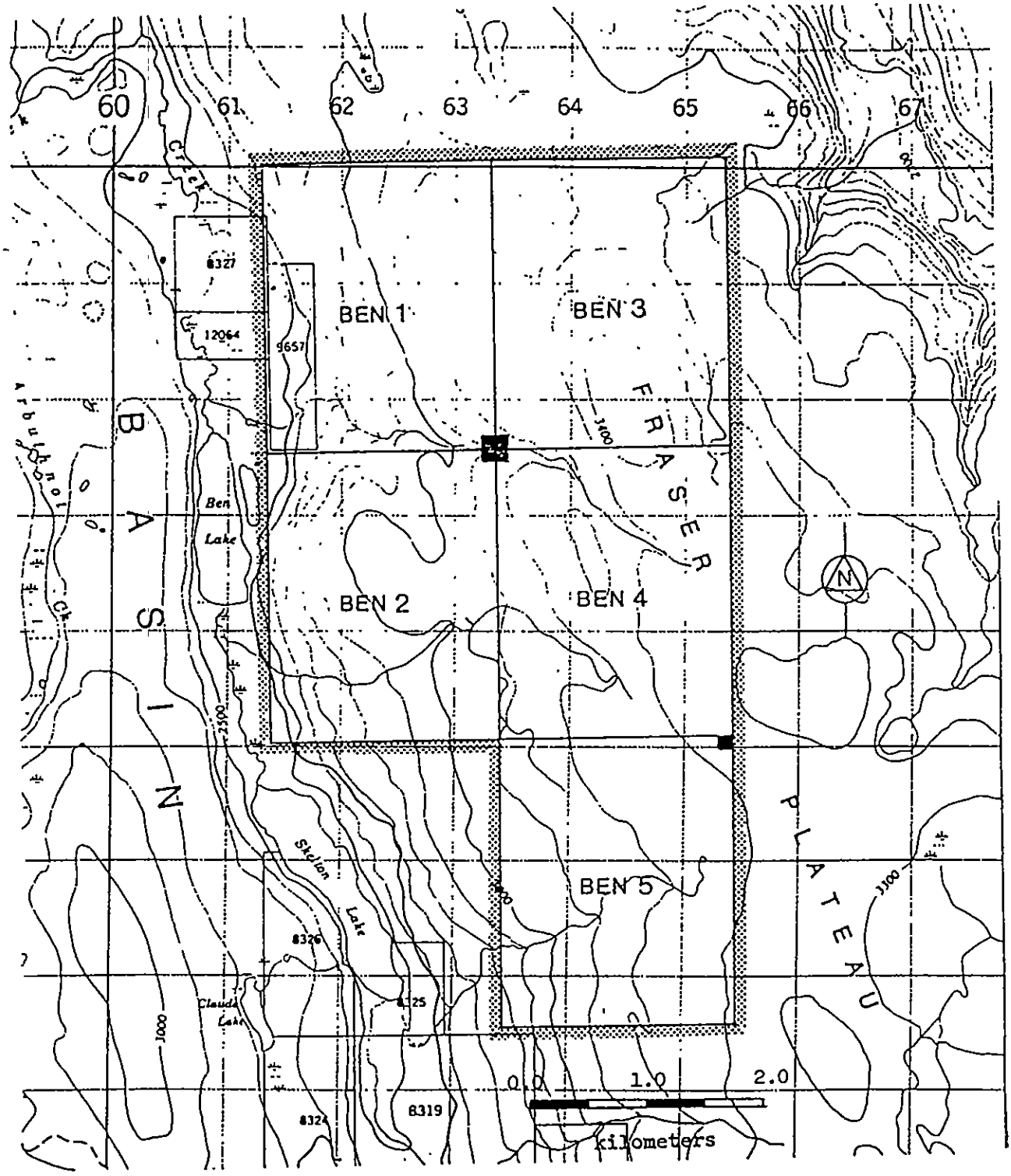


Figure H.1
Ben Property
Location Plan (1:50,000)

- o anomalous Zn (240 to 485 ppm) in stream sediments from North Ben Creek, South Ben Creek and Skelton Creek.

Two soil grids were laid out to test the area drained by these creeks (initial budget was for 300 samples). Soil lines trending due East were laid out at 200 meter spacing and samples were taken at 100 metre intervals. Stream sediment samples were taken at 50 metre intervals from all 3 creeks.

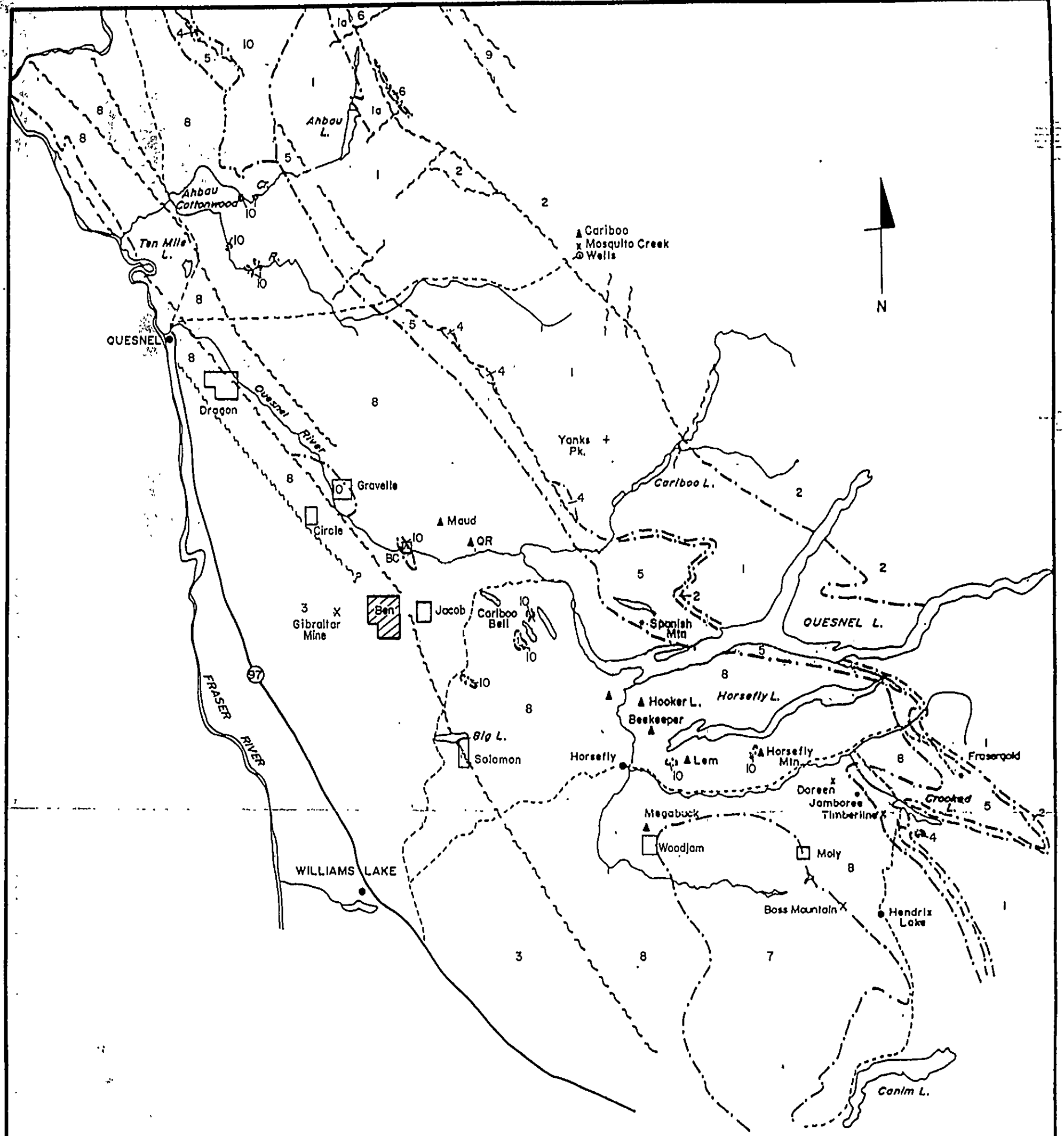
Work included:

- o 36 kilometers of flag line.
- o 376 soil samples on grid. taken with a grubhoe from the 'B' horizon at 15-30cm depth.
- o 16 soil samples off grid.
- o 113 stream sediment samples. Sediment fines were taken from the active channel.

Property Geology

a. Rock Units

Regional geology indicates that the Ben property is underlain by the Cache Creek Group of Pennsylvanian-Permian age (see Figure H.3). On regional scale, the Cache Creek Group includes greenstone, limestone, argillite and minor chert. On the property, rock types include augite porphyry basalt, interbedded



10 LOWER CRETACEOUS
Porphyritic Granite

QUESNEL TERRANE

9 UPPER TRIASSIC and/or LOWER JURASSIC
Takla Group
Greywacke, siltstone, minor conglomerate, argillite, augite porphyry breccia

8 Alkalic basaltic and andesitic volcaniclastics, flows, augite porphyry breccias, limestone, conglomerate, slate and related diorite stocks, sills, and dykes

7 LATE TRIASSIC
Takomkane Batholith; granodiorite, quartz diorite, quartz monzonite

6 UPPER TRIASSIC
Siltite, pelite, limestone, minor bioclastic limestone

5 MIDDLE AND UPPER TRIASSIC
Black Phyllite, slate

4 UPPER PALEOZOIC
Serpentinite, amphibolite

CACHE CREEK TERRANE

3 UPPER PALEOZOIC
Cache Creek Group
Basalt, chert, limestone

SLIDE MOUNTAIN TERRANE

2 UPPER PALEOZOIC
Slide Mountain Group
Basalt, chert

OMINECA CRYSTALLINE BELT

1 HADRYNIAN AND PALEOZOIC
Snowshoe Group
Undifferentiated grit, pelite, marble

1a Grit, quartzite

Fault
Geologic contact

GOLD OCCURRENCES
Au Hydrothermal-Epigenetic
Au Stratabound
X Au Bearing veins
Porphyry Cu/Mo Deposit
Road
CIRCLE Claim group

FIG. H.3

CIRCLE RESOURCES LTD.			
B.H. KAHLERT & ASSOC. LTD.			
QUESNEL PROJECT COMPILATION MAP			
Drawn By	lgc	Scale	1:750,000
Date	SEPT. '87	Project No.	001

black shale and chert, greenstone and, in the Southwest, a minor section of medium grey limestone. Bedding varies from moderately West dipping on Ben 2 claim to moderately South dipping on Ben 5 claim.

Description of rock units indicates that sequences of both Cache Creek and Quesnellia Terranes are present on the property. Extension of regional trends indicates the boundary should pass through the Ben Claims, however no obvious physiographic feature such as a river valley, which follows this fault to the north, has been noted. Due to general lack of outcrop and short time spent on the property to date, geological relationships are poorly understood. With both high and low angle faults known on the property, a complex geological relationship is expected.

b. Structure

Two main structural styles have been identified:

- o a set of NNW trending steeply dipping shears.
- o a gently East dipping thrust fault.

Proximity and trend suggest the NNW shears may be splays of the Pinchi Fault. This is backed up by rock samples enriched in Au, As, Sb, Ni, Cr, and Hg. High Ni (1,810 ppm) and Cr (700 ppm) indicate structures are deep seated. High Hg (1,945 ppb) is a

signature of the Pinchi Fault. A gently East dipping thrust fault is exposed at the Main Zone on North Ben Creek. Cataclastic fabric in quartz-carbonate altered volcanic East and West off the zone implies shearing under high pressure.

c. Alteration

Au mineralization on Ben property is associated with quartz-carbonate breccia haloed by pervasive carbonate-silica alteration.

Angular float and outcrop indicate carbonate alteration is widespread on the Ben property. Altered rocks weather a distinctive orange, easily visible from a distance. In weakly altered rocks, silica forms wavy hairline cracks. As alteration increases, the size of quartz veining increases until in the extreme case, the rock superficially resembles a dark grey volcanic. On close inspection, the dark colour is seen to be caused by finely disseminated sulfides in a siliceous matrix. Arsenopyrite has been identified with a binocular microscope in samples of silica flooded rock from the Main Zone.

Apple-green mariposite is generally found in carbonate alteration zones as thin layers or spotted throughout the matrix. Mariposite increases with degree of alteration but is generally unrecognizable in hand specimens of silica flooded rock. X-ray diffrac-

tion on mariposite establishes it as nickel-chrome mica. This explains the high nickel content of altered rock and also suggests nickel would be a useful pathfinder element in later soil surveys.

Prospecting

The Main Zone on North Ben Creek was a prospecting discovery. It resulted during follow-up of an anomalous 60 ppb Au silt from 700 metres downstream. The fact that only one soil sample picked up the zone strengthens the argument for prospecting follow-up on anomalous soil geochem elsewhere on the property.

Prospecting traverses have covered all roads and creeks. Carbonate altered rock has been found north of North Ben Creek on a bulldozer trail put in by a local trapper. (See samples #H39089,90.)

Geochemical Results

a. Soils (See Plans H-1, H-2)

Au forms isolated highs from 20-650 ppb Au on both soil grids. Lack of continuity may be simply a result of wide spacing of the samples combined with the extensive soil cover. The lack of soil expression along the Main Zone on line 5000N is surprising but a

high of 650 ppb Au located 200 meters to the South at station 4800N-1800E is a likely soil expression of the Main Zone. A cluster of high values ranging from 15 to 260 ppb Au occurs between lines 3600N and 4200N and stations 2300E and 2800E within a rectangular area of 400 by 500 metres.

Sb, unlike Au, shows good continuity when contoured above a 5 ppm threshold. The largest zones have elongate lobes with widths up to 200 metres trending in a NNW direction for 800 to 1,000 metres. The major Sb zones are centered on North Ben Creek. Continuation to the North is unknown since only one soil line was run beyond the Creek. Sb above 5 ppm is nearly absent from the Southern grid on Skelton Creek. The highest Sb value of 32 ppm is associated with anomalous Au (30 ppb) and As (125 ppm) at station 5200N-3100E.

Arsenic above 21 ppm is sparse over both grids except for a cluster of values associated with a 30 ppb Au kick on the furthest North line, 5200N. Values ranging from 33 ppm to 125 ppm As form an essentially continuous string from stations 2600E to 3400E, a distance of 800 metres on this line. This zone is completely open to the North.

Compared with other properties in the Quesnel Project, zinc is at high levels over both grids. Regionally, the 90% threshold for zinc is at 130 ppm whereas the 90% threshold on Ben property is

200 ppm. In fact, 28% of the soil results are greater than 140 ppm. Zinc contoured over 130 ppm shows NNW trends similar but not necessarily coincident with antimony. A major break in these zones occurs at South Ben Creek with zinc greater than 130 ppm being considerably less prevalent to the South. It is possible this break represents an East trending fault offsetting the Northern zones or alternatively a major change in rock type. Because the zinc zones are very broad, direct correlation between zinc and gold content is not apparent.

Statistical analysis of soil sample results was carried out. This property was one of nine evaluated; a total of 4,234 soil samples were collected from Quesnellia Terrane properties. All samples were analyzed for Au, Ag, Cu, Pb, Zn, As, Sb. Basic statistical analysis of all samples was completed for comparative purposes and determining threshold and anomalous values. Results of all statistical results and distribution curves are shown in Appendix IV.

Separate statistics for Ben Soils are in Appendix V.

Rock Geochemistry

Rock geochem from the Main Zone has shown the quartz-carbonate and quartz-carbonate breccia to be enriched in minerals commonly associated with epithermal Au deposits. Au (to 220 ppm) is

associated with high As (to 573 ppm), Sb (to 249 ppm), Hg (to 1,945 ppb), Ni (to 981 ppm).

Float sample # H39088 of grey chert near station 4800N-1535E ran 22 ppb Au and 50 ppm Sb. This rock sample is central to a NNW trending zone of greater than 5 ppm Sb in soils.

In a road cut off the grid, 200 metres West of station 4400N-1500E, float sample # H39087 of grey-green chert ran 32 ppb Au and 5 ppb Sb.

Near the SE corner of Ben 2 M.C. and roughly 250 metres South of station 3000N-1650E, float sample # H39073 of pyritic chert ran 60 ppm Au and 1,329 ppm Ni.

High Sb has been found elsewhere than the gold occurrences mentioned above. 1,190 metres East of the upstream from the L.C.P. for Ben 1 on North Ben Creek, sample # H39150, in outcrop, of orange weathering carbonate altered volcanic, ran 36 ppm Sb.

Sample # H39156 from South Ben Creek of rusty dark grey shale ran 68 ppm Sb, 267 ppm Ni and 865 ppm Zn.

Sample # H39072 of carbonate altered float from the main road near Skelton Lake (and off the property) ran 29 ppm Sb, 226 ppm As, 1,060 ppm Ni and 14 ppb Au.

Highest silver was reported from sub-outcrop sample # H39089 of black tuff located roughly 350 metres North of station 5200N-2250E. It ran 8.5 ppm Ag, 54 ppm As, 8 ppm Sb and 4 ppb Au. Values up to 3.3 ppm Ag were obtained from pyritic tuffs elsewhere on the property.

Heavy Mineral Samples (See Plans H-1, H-2)

Heavy mineral samples were taken from the base of North Ben Creek, South Ben Creek and Skelton Creek. Strong increase in Au concentration from near background in the -40 mesh non-magnetic fraction to values from 850 to 1,575 ppb Au in the -80 mesh non-magnetic fraction were reported from all 3 creeks. This is strong indication of in place Au in the area drained by these creeks. The results are summarized in Table H.2 (over).

Property Magnetics (See Figure H.2)

Although a general NW trend can be seen in contoured areas to the West and East, regional 1"=1 mile air mag reflects a generally flat picture over the Ben property. A prominent bull's eye of +120 gammas situated 2 kilometers West of Ben Lake may represent an alkalic plug and should be prospected in conjunction with the next phase of property work on Ben.

Table H.2 Heavy Mineral Results for Ben Property

Sample Number	DM-5	DM-6	DM-7
Location	Skelton Creek	N. Ben Creek	S. Ben Creek
-40 Mesh Au (ppb)	5	10	5
-80 Mesh Au (ppb)	1,575	850	1,100
-40 Mesh Ag (ppm)	0.8	1.0	0.9
-80 Mesh Ag (ppm)	0.5	0.6	0.7
-40 Mesh As (ppm)	12	8	5
-80 Mesh As (ppm)	16	9	6
-40 Mesh Ni (ppm)	60	34	34
-80 Mesh Ni (ppm)	55	34	29
-40 HM % (ppm)	7.39	7.91	9.23
-80 HM % (ppm)	7.64	11.36	13.97

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Figure H.2
Ben Property
Aeromagnetic Contour Map (1:62,500)

Ben Main Zone - Au Showing

A gold bearing quartz-carbonate breccia "ledge" is exposed at roughly 925 metres elevation in North Ben Creek. Cataclastic fabric in less altered quartz carbonate exposed East and West of this zone indicates the presence of a gently East dipping thrust fault.

Contoured soil values of greater than or equal to 5 ppm Sb strongly suggest the Main Zone also lies along one of a set of NNW trending high angle faults.

Evidence for major deep seated faulting includes:

- high Ni (1,810 ppm) and Cr (700 ppm) in rock samples from the Main Zone suggesting the presence of ultrabasic rocks.

- catasclatic fabric of altered rock implying shearing under high pressure.

The Main Zone has been the site of repeated movement and mineralizing events. Hand specimens of quartz carbonate from the showing indicate several stages of brecciation and silica flooding. Thin section work by R.V. Campbell & Associates Ltd. reveals earlier formed rhombs of carbonate partially to complete-

ly replaced by later silica. The carbonate has been idenified as magnesite. A detailed petrographic report by R.V. Campbell & Associates Ltd. is attached as Appendix I.

RECOMMENDED PROGRAM

Soil Geochem

1. Sample existing property at 50 metre spacing on lines 200 metres apart extending grid to cover entire property:

   - 2,000 samples.
   - 100 line kilometers of flag line.

2. Detail sampling at 25 metre intervals on lines 50 metres apart over anomalous Au, Sb, As zones:

   - 1,400 samples.
   - 35 kilometers additional flag line.

c. Preparatory Surveys

Establish proper cut base lines and machete cut lines for I.P. surveys:

- o 6 kilometers of power sawed base line.
- o 15 kilometre grid line.

d. Geophysics

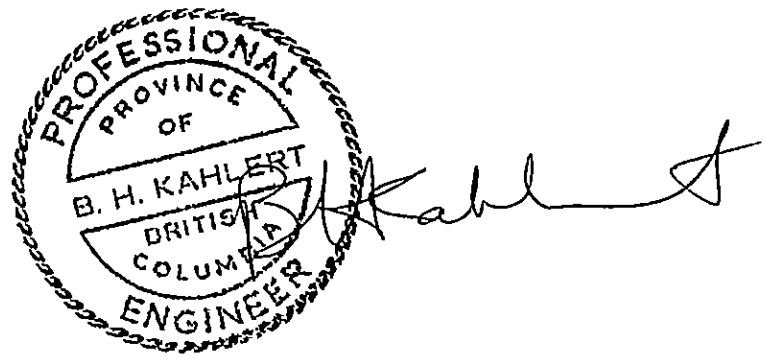
- o 10 kilometre detailed induced polarization and resistivity surveys over geochemically anomalous zones.
- o 15 kilometers magnetic survey over geochemically anomalous zones.

e. Trenching

- o back-hoe trenches along extension of main zone.
- o hand trenching and blasting to better expose and sample Main zone.

PHASE II

Percussion or rotary drilling using short holes to establish Au mineralization in place at targets from Phase I, geological, geophysical and geochemical surveys.



APPENDIX I

PETROLOGICAL REPORT ON ROCK SAMPLE SUITE FROM DRAGON AND BEN CLAIMS

Circle Project
Cariboo Mining Division, B.C.

for

BEMA INTERNATIONAL RESOURCES INC.
Box 9, 900 - 609 West Hastings St.
Vancouver, B.C.
V6B 4W4

by

K.V. Campbell, Ph.D.

February, 1988

Ben Claims

The rock suite from this area is described in Appendix I and includes:

1) silicified mylonite

2) carbonatized (magnesitized) serpentinite (?)

3) andesite, brecciated andesite, silicified andesite

4) quartz-magnesite breccia, brecciated silicified magnesite

5) thin bedded marble

6) hornblende diorite (at margin of area)

The suite includes ample evidence for:

1) extreme deformation with only minor post-kinematic recrystallization,

2) magnesium metasomatism; widespread development of magnesite, both in groundmass and in stringers, and post-kinematic tremolite,

3) widespread silicification.

The following is a first attempt at a flow chart of events:

1) country rocks; diorite, andesite, limestone, siltstone (these could be either Cache Creek Group or part of Quesnel Trough).

2) episode of quartz veining (regional metamorphism or intrusive activity)

3) major regional deformation with accompanying brecciation and mylonitization

4) metasomatism; silicification followed by magnesitization, both affecting groundmass. Later both quartz and magnesite filled fractures, magnesite remaining mobile after quartz.

5) youngest silicification; deposition of chalcedonic quartz and fine crystalline quartz in open spaces.

The association of mylonite, breccia, green chromium mica, magnesite and possibly tremolite and serpentine, all argue for situation along splay of Pinchi Fault Zone or an allied, deep-seated structure.

Fracture filling materials that invaded rocks after deformation include most commonly quartz, quartz + magnesite, magnesite, dolomite, Fe-oxides and less commonly chlorite +/- quartz +/- carbonate, and clinozoisite.

Rock geochemical analyses were performed on samples B-1, B-2, B-3, B-5 and B-10 (Appendix II). An X-ray diffraction study by Cominco Exploration Research Laboratory was done on the same samples (Appendix III). The results of these two studies substantiate the petrography and are summarized in Table 1.

Samples B-2 and B-10 have abundant magnesite. Sample B-1 has lesser magnesite with some dolomite. Samples B-3 and B-5 include significant dolomite. B-5, which is thought from its texture to originally have been a serpentinite, does not have the chemistry of a serpentinite. Either this is due to wholesale introduction of Ca, with removal of Mg and Si, in keeping with its texture, or it originally was silicified magnesite.

Three samples; B-1, B-5 and B-10 have more than 1% Cr_2O_3. These samples were those with visible chromium-green stains, possibly fuchsite or mariposite.

Table 1. X-Ray and Geochemical Summary

Sample No.	Rock Name	Mineralogy	% MgO	% CaO	% SiO_2	MgO/CaO	% CO_3*
B-1	Quartz-magnesite breccia	abundant quartz, lesser magnesite moderate dolomite	23.24	5.36	38.1	4.33	23.58
B-2	Brecciated, partly silicified magnesite	abundant quartz and magnesite	23.27	0.38	47.8	61.24	22.08
B-3	Silicified mylonite	abundant quartz, lesser magnesite and dolomite	12.99	9.39	40.93	1.38	21.19
B-5	Carbonatized serpentinite (?)	abundant quartz and dolomite, lesser magnesite	22.73	12.77	26.37	1.78	27.76
B-10	Silicified magnesite microbreccia	abundant quartz and magnesite, possible minor dolomite	27.14	1.34	36.26	20.25	24.91

Note: Magnesite; $MgOCO_3$: 47.81% MgO

Dolomite; $CaMg(CO_3)_2$: 30.41% MgO, 21.86% CaO, MgO/CaO = 1.39

Calcite; $CaCO_3$: 56.03% CaO

* CO_2 taken as balance of analysis

RECOMMENDATIONS

If there is a major structure crossing the property it should have a geophysical expression. It may be that air photos or Landsat imagery could also be of use. I recommend a groundbased magnetometer and VLF-EM survey on a close spaced grid to test for location of fracture. The one gently dipping outcrop of mylonite observed presents a problem of interpretation. It could:

1) represent a major flat-lying overthrust, in which case a steeply-dipping fault zone would not be evident, or

2) be a block within a wider breccia zone.

In addition to the geophysical surveys, I recommend a geochemical survey with 50 m interval lines and 25 m stations. I suggest 30 element ICP and gold by geochem.

APPENDIX I

Petrographic Descriptions

PETROGRAPHIC DESCRIPTIONS

Ben Claims

B-1 Quartz-Magnesite Breccia

Rusty weathering, pale green, tan and gray, very fine grained, silicified quartz-magnesite microbreccia cut by quartz-magnesite stringers. Matrix of fine to coarse magnesite, dolomite, sericite, quartz, opaques and pale green chromium mica.

B-2 Brecciated, Partly Silicified Magnesite

Rusty weathering, brecciated, pale green, tan and gray, partly silicified magnesite with pale green chromium mica. Magnesitization proceeds out from fractures. Original groundmass was silicified before introduction of carbonate. The texture of coarse, radiating prisms and sheaths of magnesite dominant over very fine grained quartz groundmass suggests magnetization is younger event.

B-3 Silicified Mylonite

Dark gray streaked with white, finely laminated and foliated mylonite. Groundmass of neutral colored, clouded phyllosilicates, fine magnesite and dolomite. Stringers of white quartz and magnesite both parallel and crosscut foliation.

B-4 Silicified Mylonite

Dark gray, finely laminated and foliated mylonite with green chromium stain. Groundmass of magnesite and cryptocrystalline quartz includes possible shreds of fine serpentine (antigorite?) or clinochlore. Similar to B-3.

B-5 Carbonatized Serpentinite (?)

Light gray, chromium strained, silicious, pyritic dolomite with lesser magnesite. Fine fractures filled with banded, cryptocrystalline magnesite. Hairline fractures filled with green chlorite and opaques.

B-6 Brecciated Andesite

Tan and rusty brown brecciated andesite cut by quartz-carbonate stringers. Groundmass is very dark, filled with fine opaques (Fe-oxides) which also fill fine crosscutting network of fractures. At least two stages of stringers. One 3 mm stringer of magnesite and subordinate fine quartz is cut by hairline fracture filled with magnesite.

B-7 Andesite

Dark greenish gray, fine grained andesite, oxidized, chloritized, cut by carbonate stringers. Groundmass of fine grained, brown hornblende, feldspar and chlorite.

B-8 Silicified Andesite

Dark gray, silicified, fine grained andesite, with clots of chlorite. Most unusual is presence of coarse, acicular prisms of colorless tremolite (?) that crosscut rock and are clearly a late development. These could be product of magnesium metasomatism related to nearby intrusive activity or to contact metamorphic effect. Groundmass of plagioclase, pale hornblende and chlorite.

B-9 Siltstone Microbreccia

Rusty weathering, black, brecciated, silicified siltstone with abundant disrupted laminations and stringers of fine grained, white quartz. This assemblage is crosscut by numerous, very thin stringers of chlorite, quartz and carbonate. Clearly, these are open space fillings indicative of near surface environment.

B-10 Silicified Magnesite Microbreccia

Gray, silicified groundmass of finely granular magnesite crosscut by cryptocrystalline quartz stringers and coarse magnesite stringers. Possible minor dolomite is present. Chromium green patches throughout. Latest fine gashes and fractures are filled with cryptocrystalline quartz. Tiny vugs in handspecimen lined with fine quartz crystals.

B-11 Hornblende Diorite (?)

Rusty weathering, fine to medium grained brown hornblende set in pale greenish aphanitic altered feldspar and hornblende matrix.

B-12 Quartz Breccia

Coarse, angular, white vein quartz fragments set in a dark gray, fine grained matrix. Crosscut by by numerous clay(?) and iron oxide filled hairline fractures. Quartz fragments have sutured grain boundaries and undulatory extinction indicative of high strain and lack of post-tectonic recrystallization. Matrix of carbonate, cryptocrystalline quartz, and minor sericite. Carbonate displays coarse crystalline habit dominant over groundmass. Carbonate also localized in patches and in stringers.

39103 Thin Bedded Limestone (Marble)

Gray, fine grained, thinly laminated limestone with very fine grained, light and dark gray siltstone layer. Groundmass of brownish, clouded calcite with partial recrystallization. Along margin of siltstone (siltite) and limestone is lamination of neutral colored amphibole (no discernable cleavage, 1st order birefringence) and minor clinozoisite (?). This is a low-grade metamorphic calc-silicate assemblage. This same lamination is crosscut by fine gashes of antigorite (?) (colorless, isotropic, low positive relief).

COMPANY: BEMA INDUSTRIES
PROJECT NO: CIRCLE 87-24
ATTENTION: B.KEHLERT

MIN-EN LABS ICP REPORT
705 WEST 15TH ST.. NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:F26). PAGE 1 OF 1
FILE NO: 8-030/P1
* TYPE ROCK GEOCHEM * DATE: JAN 26, 1988

(%)	B-1	B-2	B-3	B-5	B-10
AL2O3	1.13	.41	5.33	1.80	.63
BA	.018	.009	.042	.016	.006
BE	.001	.001	.001	.001	.001
CAO	5.36	.38	9.39	12.77	1.34
CO	.005	.005	.005	.005	.005
CR2O3	.54	.26	.19	.56	.70
CU	.010	.005	.005	.032	.005
FE2O3	7.31	5.27	8.27	7.04	8.37
K2O	.15	.04	.76	.32	.05
MGO	23.24	23.27	12.99	22.73	27.14
MNO2	.15	.07	.23	.18	.12
MO	.005	.005	.005	.005	.005
NA2O	.04	.01	.04	.03	.01
NB	.01	.01	.01	.01	.01
NI	.077	.085	.037	.057	.181
P2O5	.11	.13	.13	.12	.16
PB	.011	.010	.009	.005	.005
RB	.07	.01	.01	.01	.02
SIO2	38.10	47.80	40.93	26.37	36.26
SN	.005	.008	.005	.005	.005
SR	.02	.01	.02	.06	.01
TIO2	.04	.01	.38	.09	.02
V	.005	.005	.005	.005	.005
W	.005	.005	.005	.005	.005
ZN	.005	.005	.005	.005	.006
ZR	.005	.005	.005	.005	.005

APPENDIX III

X-Ray Diffraction Study

APPENDIX II

Cominco Ltd./Exploration Research Laboratory/1486 East Pender Street
Vancouver, B.C./Canada V5L 1V8/Tel. (604) [illegible]/Telex 04-507730

Exploration
Research Laboratory

K.V. Campbell and Associates
#8 - 84 Lonsdale
North Vancouver, B.C.
V7M 2E6

15 January 1988

Dear Sir:

Five samples were submitted for x-ray diffraction study with particlar reference to carbonate types. Each sample was milled, mounted and then x-rayed between 20 and 40^{+} $^{o}2\theta$. The interpretation of the x-ray diffractograms are presented herein:

Sample B1 contains abundant quartz lesser magnesite and moderate but significant dolomite.

Sample B2 contains abundant quartz and magnesite.

Sample B3 contains abundant quartz and lesser amounts of magnesite and dolomite.

Sample B5 contains abundant quartz and dolomite with lesser magnesite.

Sample B10 consists of quartz plus magnesite. Possible minor dolomite is present.

I am enclosing the x-ray traces for your records.

Yours truly.

J.A. McLeod.
Supervisor, E.R.L.

JAM/skw
Encl.

PROPERTY : (H.) BEN

FILES : 7-1798. : GRID SOILS
: PROSPECT SOILS ("DML")
: SILTS ("DMS").
7-1752 HEAVY MINERALS.

COMPANY: BEMA INDUSTRIES
PROJECT NO: 87 24 H
ATTENTION: B.KAHLERT/B.FRASER

MIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ABBREVIATED) PAGE 1 OF 1
FILE NO: 7-1752
* TYPE HEAVY MINERAL * DATE:NOV 3, 1987

(PPM)	HM SMP-D M5 40M	HM SMP-D M6 40M	HM SMP-D M7 40M	HM SMP-D M5 80M	HM SMP-D M6 80M	HM SMP-D M7 80M
AG	.8	1.0	.9	.5	.6	.7
AL	16990	16550	21610	7190	7220	10320
AS	12	8	5	16	9	6
B	19	21	23	7	9	11
BA	5001	1468	714	1210	434	240
BE	1.4	1.7	1.4	1.3	1.4	1.2
BI	2	5	3	1	5	5
CA	14650	14430	19930	6270	8850	11020
CD	3.7	2.5	1.4	2.6	1.8	1.3
CO	12	10	10	10	8	8
CU	58	23	29	60	21	25
FE	42200	53850	41790	38340	41520	35620
K	260	270	220	220	170	150
LI	4	6	5	3	5	4
MG	15920	9540	11220	10250	8430	8190
MN	805	944	663	551	384	321
MO	1	2	1	4	1	1
NA	150	140	150	80	60	60
NI	60	34	34	55	34	29
P	310	440	360	470	860	610
PB	25	20	17	30	25	15
SB	1	3	3	3	5	2
SR	50	43	36	34	30	28
TH	1	1	1	1	1	1
U	12	6	8	2	4	5
V	76.5	116.9	107.2	53.9	101.4	93.0
ZN	92	70	56	109	68	51
GA	8	2	7	6	5	3
SN	2	1	1	1	1	1
W	2	1	2	1	1	1
CR	220	159	161	97	57	65
AU-PPB	5	10	5	1575	850	1100
HM%	7.39	7.91	9.23	7.64	11.36	13.07

Rec'd on 5/8-9

PROJECT NO: 87 24 H — 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 — FILE NO: 7-1798S/P13+14

ATTENTION: B.KAHLERT — (604)980-5814 OR (604)988-4524 — * TYPE SOIL GEOCHEM * — DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
500N 2000E	.3	7	10	10	1	76	5
500N 2100E	.3	9	8	7	2	70	5
500N 2200E	.7	11	14	12	3	102	5
500N 2300E	.8	12	13	12	3	112	5
500N 2400E	.8	4	19	9	3	79	10
500N 2500E	.8	10	16	8	3	98	5
500N 2600E	1.0	1	17	14	1	122	5
500N 2700E	.9	1	16	9	3	130	5
500N 2800E	.8	13	13	12	1	148	5
500N 2900E	.9	2	19	9	1	86	10
500N 3000E	.8	11	11	11	3	105	10
500N 3100E	.7	2	23	15	1	82	5
500N 3200E	.8	3	15	12	1	126	5
500N 3300E 40M	.9	18	35	11	3	119	5
500N 3500E	1.2	9	49	15	3	91	15
500N 3600E	.8	18	50	10	2	93	5
500N 3700E	1.0	8	37	9	5	88	5
500N 3800E	.9	9	53	20	5	85	5
500N 3900E	1.5	24	98	18	1	110	5
500N 4000E	.9	4	20	12	1	72	5
700N 2000E	.9	1	25	16	1	151	10
700N 2100E	.8	1	35	15	1	140	5
700N 2200E	.5	14	65	16	1	106	5
700N 2300E	.7	7	36	11	1	66	5
700N 2400E	.7	2	15	12	3	107	25
700N 2500E	.7	4	12	8	1	120	15
700N 2600E	.8	16	20	8	4	147	5
700N 2700E	1.0	3	30	15	5	139	5
700N 2800E	.9	1	19	10	1	91	5
700N 2900E	1.2	2	25	16	1	83	5
700N 3000E	.3	6	17	6	2	66	5
700N 3100E	.3	7	16	7	1	76	10
700N 3200E	.5	16	18	7	3	88	5
700N 3300E	.2	12	20	9	3	57	5
700N 3400E	.7	8	18	11	1	74	5
700N 3500E	.5	16	25	8	1	74	5
700N 3600E	.5	13	18	12	2	117	5
700N 3700E	.4	2	24	11	1	68	10
700N 3800E	.7	22	43	10	4	107	5
700N 3900E	.8	8	42	16	1	73	5
900N 2000E	.6	1	29	9	1	86	5
900N 2100E	.6	16	22	12	3	202	5
900N 2200E	.6	12	17	6	3	87	10
900N 2300E	.5	1	17	6	3	89	10
900N 2400E	.4	1	17	6	1	62	5
900N 2500E	.6	11	19	3	3	225	10
900N 2600E	.5	14	31	11	4	94	5
900N 2700E	.5	15	24	11	1	179	5
900N 2800E	1.0	20	37	9	1	132	5
900N 2900E 40M	.9	3	49	8	2	84	5
900N 3000E	.6	1	27	13	1	84	5
900N 3100E	1.1	2	22	7	4	151	10
900N 3200E	.7	7	25	11	2	61	5
900N 3300E	.8	9	17	7	4	175	5
900N 3400E	1.0	2	21	11	1	122	5
900N 3500E	.9	1	19	8	1	198	5
900N 3600E	1.1	2	26	15	1	87	5
900N 3700E	.9	16	21	2	1	101	5
900N 3800E	1.3	4	80	13	2	117	5
900N 3900E	1.0	2	47	14	1	105	10

Rec Nov 6/87

PROJECT NO: 87 24 H — 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 — FILE NO: 7-1798S/P15+16

ATTENTION: B.KAHLERT — (604)980-5814 OR (604)988-4524 — * TYPE SOIL GEOCHEM * — DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
900N 4000E	1.3	26	178 ←	17	6	148	5
1100N 2000E	.4	7	18	8	3	178	5
1100N 2100E	.5	3	14	6	1	80	5
1100N 2200E	2.1	14	310 ←	18	1	179	5
1100N 2300E	.6	1	20	5	3	95	5
1100N 2400E	.6	15	15	4	3	155	5
1100N 2500E	.4	8	41	11	4	104	5
1100N 2600E	.4	13	21	5	1	84	5
1100N 2700E	.7	14	19	12	3	73	20 ✗
1100N 2800E	.4	15	33	9	2	85	10
1100N 2900E	.8	1	17	6	1	110	5
1100N 3000E	1.1	2	103 —	13	3	115	10
1100N 3100E	.9	22 —	24	10	1	111	10
1100N 3200E	.9	1	18	11	1	150	5
1100N 3300E	.9	1	28	7	3	86	45 /
1100N 3400E	.5	12	19	3	3	183	20 ✗
1100N 3500E	.3	12	18	8	1	94	10
1100N 3600E	1.0	1	19	8	4	117	5
1100N 3700E 20M	.7	19	73	14	2	33	5
1100N 3800E 40M	1.0	7	47	17	1	111	10
1100N 3900E	.7	10	27	10	4	120	5
1100N 4000E	.5	1	17	7	3	103	5
1300N 2000E	.6	25 ✓	29	11	5	140	5
1300N 2100E	1.0	1	20	10	1	145	5
1300N 2200E	1.1	20 ✓	16	4	1	211	5
1300N 2300E	.7	4	19	8	2	118	10
1300N 2400E	.6	1	19	2	1	120	5
1300N 2500E	.9	2	15	7	1	106	5
1300N 2600E 40M	.9	10	43	12	1	90	5
1300N 2700E	.4	6	26	9	1	108	5
1300N 2800E	.4	7	15	10	2	53	5
1300N 2900E	.4	4	19	7	2	50	5
1300N 3000E	.5	1	14	9	1	116	5
1300N 3100E	.6	8	28	15	2	753	5
1300N 3200E	.8	2	22	12	1	192	5
1300N 3300E	.7	2	19	8	1	53	5
1300N 3400E	.4	7	22	8	3	121	5
1300N 3500E	.7	4	16	10	1	80	10
1300N 3600E	.7	6	21	7	1	113	5
1300N 3700E 20M	.7	13	18	8	1	94	5
1300N 3800E 20M	.5	13	41	8	2	16	5
1300N 3900E 20M	1.1	17	117 ←	11	1	23	5
1300N 4000E	1.3	1	82	14	1	135	10
1500N 2000E	.9	5	18	7	1	132	5
1500N 2100E	.9	2	16	10	2	65	5
1500N 2200E	.5	4	17	7	2	50	5
1500N 2300E	.4	1	13	3	1	62	5
1500N 2400E	.7	10	28	13	2	66	10
1500N 2500E	X 1.7	42	232 ←	17	1	137	5
1500N 2600E	1.1	3	23	6	2	79	5
1500N 2700E	.8	7	14	5	1	80	5
1500N 2800E	1.0	2	17	9	1	78	5
1500N 2900E	.8	4	16	9	1	73	5
1500N 3000E	.8	4	24	11	3	247	10
1500N 3100E	1.0	5	18	10	2	251	5
1500N 3200E	.7	8	15	9	2	120	5
1500N 3300E	.8	9	14	8	2	48	5
1500N 3400E	.5	10	17	8	3	100	5
1500N 3500E	.8	3	30	11	4	231	5
1500N 3600E	.8	11	29	15	3	117	5

PROJECT NO: 87 24 H — 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 — FILE NO: 7-1798S/P17+18

ATTENTION: B.KAHLERT — (604)980-5814 OR (604)988-4524 — * TYPE SOIL GEOCHEM * — DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
1500N 3700E 20M	.3	9	14	13	1	28	5
1500N 3800E 20M	.3	19	15	16	1	42	5
1500N 3900E 20M	.3	9	36	14	1	21	5
1500N 4000E	1.1	7	17	13	4	232	5
3000N 1500E	.5	14	21	10	3	136	5
3000N 1600E	.7	6	34	18	2	74	5
3000N 1700E	.5	6	37	17	2	96	10
3000N 1800E	1.0	13	17	11	1	90	5
3000N 1900E	.6	1	18	10	3	92	5
3000N 2000E	1.0	7	26	10	1	106	5
3000N 2100E	.8	9	23	13	3	96	5
3000N 2200E	1.1	8	15	14	2	120	5
3000N 2300E	1.1	3	14	13	1	103	5
3000N 2400E	.9	10	25	14	4	111	5
3000N 2500E	1.0	8	17	17	1	121	5
3000N 2600E	.6	1	19	7	1	120	5
3000N 2700E	.8	18	16	15	1	260	10
3000N 2800E	.7	1	24	15	2	305	5
3000N 2900E	.7	6	17	10	2	188	5
3000N 3000E	.6	13	22	13	3	163	5
3000N 3100E 40M	1.7	17	55	33	4	142	5
3000N 3200E	.9	4	21	16	3	138	5
3000N 3300E	.9	11	23	19	3	135	5
3000N 3400E	.6	6	15	12	1	102	5
3000N 3500E	.7	5	21	12	2	129	5
3200N 1500E	.9	9	27	13	2	78	10
3200N 1600E	1.0	16	58	21	4	111	5
3200N 1700E	.8	3	22	15	2	113	5
3200N 1800E	.8	13	40	19	3	86	5
3200N 1900E	.9	13	27	14	4	107	5
3200N 2000E	.6	1	17	12	3	122	10
3200N 2100E	.7	4	38	13	4	94	5
3200N 2200E	.6	6	15	14	2	85	5
3200N 2300E	1.5	19	107	19	1	101	5
3200N 2400E	.6	3	16	10	2	94	5
3200N 2500E	.6	1	8	8	2	53	5
3200N 2600E	.6	4	19	14	2	93	5
3200N 2700E	.5	8	16	13	4	164	10
3200N 2800E	.6	13	10	10	3	165	5
3200N 2900E	.7	2	22	14	3	165	5
3200N 3000E	2.1	38	241	18	8	232	5
3200N 3100E	.5	5	23	11	5	143	5
3200N 3200E 20M	.9	17	90	14	3	12	5
3200N 3300E	.7	5	20	14	4	104	5
3200N 3400E	.8	6	20	17	4	138	10
3200N 3500E	1.1	1	35	16	2	130	5
3400N 1500E	.7	6	16	12	3	71	5
3400N 1600E	.7	3	16	11	1	87	15
3400N 1700E	.8	4	31	13	4	189	5
3400N 1800E	.5	12	16	8	2	116	5
3400N 1900E	.7	9	13	12	3	74	5
3400N 2000E	.8	8	24	12	3	132	10
3400N 2100E	.7	5	22	14	3	84	5
3400N 2200E	.5	6	12	9	3	119	5
3400N 2300E	.7	2	37	17	3	115	5
3400N 2400E	.9	5	28	13	4	136	5
3400N 2500E	.7	3	30	12	3	85	5
3400N 2600E	.7	5	18	10	4	163	5
3400N 2700E	.9	4	12	8	3	121	5
3400N 2800E	.9	13	9	14	5	81	5

Missing 16-29 N

PROJECT NO: 87 24 H — 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 — FILE NO: 7-1798S/P19+20

ATTENTION: B.KAHLERT — (604)980-5814 OR (604)988-4524 — * TYPE SOIL GEOCHEM * — DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
3400N 2900E	.4	11	33	20	3	147	5
3400N 3000E	.3	3	21	14	3	150	5
3400N 3100E	.8	20	127	11	4	119	5
3400N 3200E	.9	7	46	16	2	147	5
3400N 3300E	.6	11	16	11	2	79	5
3400N 3400E	.7	2	19	12	4	135	5
3400N 3500E	.9	7	21	13	3	91	5
3600N 1500E	.5	3	15	10	2	65	10
3600N 1600E 20M	1.1	15	109	15	2	11	5
3600N 1700E	.6	13	16	11	2	95	5
3600N 1800E	.8	1	56	18	6	237	5
3600N 1900E	.7	5	28	14	7	291	300
3600N 2000E	.4	5	25	13	7	227	10
3600N 2100E	1.0	10	64	20	10	247	5
3600N 2200E 40M	1.1	8	30	21	3	136	5
3600N 2300E	.8	6	21	13	2	132	10
3600N 2400E	.6	2	21	11	4	165	5
3600N 2500E	.6	5	15	10	3	123	5
3600N 2600E	.9	9	27	14	4	156	15
3600N 2700E	1.3	7	50	22	5	173	20
3600N 2800E	.6	6	12	14	3	108	5
3600N 2900E	.6	12	28	11	6	103	5
3600N 3000E	.6	9	18	14	3	83	5
3600N 3100E	.4	6	18	11	2	72	10
3600N 3200E	1.9	4	137	18	5	319	5
3600N 3300E	.7	5	16	11	4	91	5
3600N 3400E	.7	9	18	10	4	76	5
3600N 3500E	.9	18	35	15	7	125	5
3800N 1500E	.6	3	10	12	3	72	5
3800N 1600E	.5	7	15	12	5	114	5
3800N 1700E	.7	7	20	7	2	130	10
3800N 1800E	.5	1	17	11	2	243	5
3800N 1900E	.8	8	14	7	1	35	5
3800N 2000E	.3	3	22	10	4	285	5
3800N 2100E	.5	3	13	6	2	105	5
3800N 2200E	.5	11	20	6	4	105	10
3800N 2300E	.5	6	19	6	4	131	15
3800N 2400E	.8	8	31	8	4	144	25
3800N 2500E	.6	5	14	6	4	145	10
3800N 2600E 40M	.7	21	18	11	1	19	5
3800N 2700E	.5	5	15	7	4	186	5
3800N 2800E	.5	5	10	8	2	54	20
3800N 2900E	.6	8	16	9	4	105	5
3800N 3000E	.6	14	23	10	5	125	5
3800N 3100E	.9	12	22	13	4	170	10
3800N 3200E	.9	12	17	10	5	109	5
3800N 3300E	.9	12	10	7	3	103	5
3800N 3400E	1.0	17	25	10	4	115	5
3800N 3500E	.8	13	20	7	5	104	5
4000N 1500E	.6	8	19	7	2	158	5
4000N 1600E	.6	9	13	7	4	138	5
4000N 1700E	.6	11	19	6	5	120	5
4000N 1800E 20M	.7	20	78	12	4	59	5
4000N 1900E	.4	10	32	9	9	263	10
4000N 2000E	.5	7	16	7	3	115	5
4000N 2100E	.6	14	16	6	5	85	5
4000N 2200E	.6	10	12	3	4	86	5
4000N 2300E	.7	8	11	4	4	146	5
4000N 2400E	.7	8	22	8	5	188	5
4000N 2500E	.4	11	10	4	3	149	5

COMPANY: SEMA INDUSTRIES
PROJECT NO: 87 24 H
ATTENTION: B.KAHLERT

MIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1
FILE NO: 7-1798/P21+22
* TYPE SOIL GEOCHEM * DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
4000N 2600E	.4	1	16	9	2	153	5
4000N 2700E	.4	6	34	13	4	125	15
4000N 2800E	.3	7	8	6	1	145	5
4000N 2900E	.3	2	21	9	3	145	5
4000N 3000E	.5	8	10	10	2	118	5
4000N 3100E	1.3	4	89	15	4	358	10
4000N 3200E	.6	8	16	14	3	112	5
4000N 3300E	.6	10	11	12	3	72	5
4000N 3400E	.6	9	15	14	3	90	5
4000N 3500E	.7	9	17	12	2	112	5
4200N 1500E	.3	3	42	10	6	195	10
4200N 1600E	.6	7	12	11	2	148	5
4200N 1700E	.5	4	15	9	3	228	5
4200N 1800E	.6	4	11	8	3	231	5
4200N 1900E	.4	5	13	12	3	93	5
4200N 2000E	.8	6	21	11	3	120	5
4200N 2100E	.7	10	12	13	3	107	5
4200N 2200E	.8	1	17	12	3	137	5
4200N 2300E	.5	5	14	10	3	163	5
4200N 2400E	.6	10	17	15	5	138	260
4200N 2500E	.7	15	29	13	4	111	5
4200N 2600E	.6	11	23	14	3	164	5
4200N 2700E	.7	11	14	10	4	110	5
4200N 2800E	.7	10	20	13	5	119	10
4200N 2900E	.9	3	30	13	4	253	5
4200N 3000E 40M	.6	20	19	15	2	46	5
4200N 3100E	.3	7	62	23	3	210	5
4200N 3200E	.7	12	15	9	6	187	5
4200N 3300E	.6	7	17	10	3	184	5
4200N 3400E	.8	13	20	14	4	126	5
4200N 3500E	.7	14	22	11	6	104	5
4400N 1500E	.5	3	12	9	2	146	10
4400N 1600E	.7	7	13	11	5	213	5
4400N 1700E	.8	14	32	12	6	135	5
4400N 1800E	.7	8	13	11	3	72	5
4400N 1900E	.8	7	12	13	4	113	5
4400N 2000E	.7	8	16	6	3	93	10
4400N 2100E	.9	9	10	12	3	127	5
4400N 2200E	.9	15	33	10	5	118	5
4400N 2300E	.7	18	32	14	6	118	5
4400N 2400E	.8	11	24	15	5	176	5
4400N 2500E	.8	10	17	10	4	133	5
4400N 2600E	.7	4	21	12	2	123	10
4400N 2700E	1.1	9	34	12	8	142	5
4400N 2800E	1.1	14	47	17	5	238	5
4400N 2900E	1.0	2	18	13	4	273	5
4400N 3000E	1.2	16	28	19	6	141	5
4400N 3100E	.7	12	11	8	3	103	10
4400N 3200E 40M	1.3	17	45	19	7	195	5
4400N 3300E	1.1	19	49	20	7	115	5
4400N 3400E	.9	10	18	11	3	89	5
4400N 3500E	1.0	15	30	19	5	111	5
4600N 1500E	1.0	8	21	10	4	165	5
4600N 1600E	.7	13	54	17	7	171	10
4600N 1700E	.9	7	22	9	4	129	5
4600N 1800E	.6	5	14	11	4	98	5
4600N 1900E	.5	6	14	9	3	126	5
4600N 2000E	.4	11	13	13	3	74	5
4600N 2100E	.7	11	34	16	4	139	5
4600N 2200E	.7	13	23	11	5	134	5

COMPANY: BEMA INDUSTRIES | MIN-EN LABS ICP REPORT | (ACT:F31) PAGE 1 OF 1

PROJECT NO: 87 24 H | 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE NO: 7-1798/P23+24

ATTENTION: B.KAHLERT | (604)980-5814 OR (604)988-4524 | * TYPE SOIL GEOCHEM * | DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB	
4600N 2300E	.5	9	26	13	4	144	10	
4600N 2400E	.4	5	19	11	3	138	5	
4600N 2500E	.7	4	20	12	2	124	5	
4600N 2600E	.7	5	40	11	2	275	10	
4600N 2700E	.3	4	22	8	3	142	5	
4600N 2800E	.8	11	62	11	6	164	5	
4600N 2900E	.3	2	12	10	3	91	5	
4600N 3000E	.6	8	19	12	3	155	5	
4600N 3100E	.6	8	27	13	4	118	5	
4600N 3200E	1.1	14	41	16	6	136	10	
4600N 3300E	.8	9	29	13	5	97	5	
4600N 3400E	.9	12	19	12	3	80	5	
4600N 3500E 40M	1.2	18	29	19	5	85	5	
4800N 1500E	.4	14	44	13	11	185	5	
4800N 1600E	.6	11	46	15	6	124	10	
4800N 1700E	.5	14	16	9	3	95	5	
4800N 1800E	.6	9	13	10	3	99	650	X
4800N 1900E	.6	9	7	10	4	92	5	
4800N 2000E	.6	10	12	10	4	124	10	
4800N 2100E	.6	13	23	15	5	170	5	
4800N 2200E	.5	8	21	11	6	101	10	
4800N 2300E	.6	10	26	13	6	202	5	
4800N 2400E	.6	6	17	11	4	121	5	
4800N 2500E	.7	8	22	10	5	133	5	
4800N 2600E	.9	16	22	12	5	138	10	
4800N 2700E	1.1	17	49	13	6	133	5	
4800N 2800E	.9	6	23	12	5	115	5	
4800N 2900E	1.1	15	22	13	5	106	5	
4800N 3000E	.9	11	17	12	4	97	5	
4800N 3100E	1.0	12	19	12	4	114	10	
4800N 3200E	.7	12	29	16	4	110	5	
4800N 3300E	.5	10	18	14	2	71	5	
4800N 3400E	.7	8	14	11	2	87	10	
4800N 3500E	1.0	11	26	16	4	118	5	
5000N 1500E	.6	10	15	15	7	245	5	
5000N 1600E	.5	8	23	13	5	118	5	
5000N 1700E	.6	14	45	11	7	134	5	
5000N 1800E	.5	10	18	13	5	110	10	
5000N 1900E	.3	12	17	13	6	225	5	
5000N 2000E	.5	12	20	15	5	160	5	
5000N 2100E	.8	11	25	12	6	197	5	
5000N 2200E	.7	20	18	12	6	84	10	
5000N 2300E	.5	8	20	12	4	221	10	
5000N 2400E	.5	12	13	13	3	82	5	
5000N 2500E	.6	19	26	15	6	66	5	
5000N 2600E	.3	14	15	12	9	334	5	
5000N 2700E	.3	14	10	12	4	123	10	
5000N 2800E	.9	19	32	15	5	170	5	
5000N 2900E	.7	15	17	12	5	134	10	
5000N 3000E	1.1	12	34	17	5	105	10	
5000N 3100E	.8	12	20	10	4	92	5	
5000N 3200E	1.0	18	34	11	5	123	5	
5000N 3300E	1.0	12	13	17	3	87	5	
5000N 3400E	1.1	17	25	14	4	97	5	
5000N 3500E	1.3	17	19	17	4	96	5	
5200N 1500E	.7	9	10	11	4	221	5	
5200N 1600E	.7	8	10	12	5	241	15	
5200N 1700E	.7	12	15	11	4	102	5	
5200N 1800E	.7	13	9	10	4	94	5	
5200N 1900E	.6	13	11	10	4	142	5	

COMPANY: BEMA INDUSTRIES
PROJECT NO: 87 24 H
ATTENTION: B.KAHLERT

MIN-EN LABS ICP REPORT
705 WEST 15TH ST.. NORTH VANCOUVER. B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1
FILE NO: 7-1798/P25+26
* TYPE SOIL GEOCHEM * DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
5200N 2000E	.5	11	37	19	6	127	5
5200N 2100E	.7	10	20	10	4	131	5
5200N 2200E	1.1	2	25	13	4	161	10
5200N 2300E	.6	4	10	10	3	123	5
5200N 2400E	.7	8	10	9	2	59	10
5200N 2500E	.9	11	21	11	4	203	5
5200N 2600E	1.5	16	115	25	5	342	5
5200N 2700E	1.3	39	26	19	4	152	5
5200N 2800E	.9	76	29	19	5	115	5
5200N 2900E	.8	16	15	10	6	81	10
5200N 3000E	.8	50	22	13	10	87	5
5200N 3100E	1.1	125	42	19	32	154	30 X
5200N 3200E	1.2	41	24	14	8	81	5
5200N 3300E	1.0	16	26	17	5	96	5
5200N 3400E	.7	33	31	14	16	173	10
5200N 3500E	1.0	11	17	15	4	81	10
DML 01	1.0	10	19	12	5	130	5
DML 02	.9	11	30	13	5	90	5
DML 03	.7	9	15	7	3	112	5
DML 04	.8	9	25	17	7	188	5
DML 05	.7	7	14	11	5	196	10
DML 06	.7	13	18	7	4	115	15
DML 07	.8	13	19	13	8	114	5
DML 08	1.1	29	75	24	14	175	5
DML 09	1.0	21	47	17	10	141	10
DML 10	.9	14	13	11	5	98	5
DML 11	.8	12	16	7	5	116	5
DML 12	.9	9	16	10	5	167	10
DML 13	.7	8	16	14	5	115	5
DML 14	.8	13	19	10	7	112	5
DML 15	.3	7	11	7	1	87	5
DML 16	.7	2	26	12	2	72	5
DMS 086 40M	.9	29	41	18	13	182	10
DMS 087 20M	.8	37	34	23	17	157	10
DMS 088 20M	.8	47	39	25	20	193	5
DMS 089 40M	.8	33	42	21	16	197	5
DMS 090 20M	1.0	46	45	25	18	206	10
DMS 091 20M	.7	21	29	24	11	192	5
DMS 092 20M	.5	19	23	17	8	181	5
DMS 093 20M	.8	19	26	19	7	190	10
DMS 094 40M	.9	18	30	20	6	194	5
DMS 095	.9	16	42	19	8	226	5
DMS 096 40M	.9	17	36	23	7	235	5
DMS 097 40M	1.0	29	40	22	7	241	5
DMS 098 40M	.7	16	29	20	7	202	10
DMS 099 40M	.7	14	39	20	7	234	5
DMS 100 40M	1.0	14	41	24	8	246	5
DMS 101 40M	1.0	20	43	21	8	251	10
DMS 102 40M	1.3	26	44	32	10	262	5
DMS 103 40M	1.1	19	42	24	9	276	10
DMS 104 40M	.8	19	47	18	9	322	5
DMS 105 40M	1.3	21	51	30	11	364	5
DMS 106 40M	1.0	24	57	27	13	367	5
DMS 107 40M	.9	23	59	25	11	366	10
DMS 108 20M	1.1	24	53	26	12	363	5
DMS 109 40M	1.2	22	58	32	12	396	5
DMS 110 40M	1.2	24	47	27	11	298	5
DMS 111 20M	1.5	24	54	36	12	314	5
DMS 112 40M	1.4	14	31	30	4	130	10
DMS 113 40M	1.1	13	45	17	4	129	5

COMPANY: BEMA INDUSTRIES | MIN-EN LABS ICP REPORT | (ACT:F31) PAGE 1 OF 1

PROJECT NO: 87 24 H | 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2 | FILE NO: 7-1798/P27+28

ATTENTION: B.KAHLERT | (604)980-5814 OR (604)988-4524 | * TYPE SOIL GEOCHEM * | DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
DMS 114 40M	.5	1	29	20	1	105	5
DMS 115 40M	.4	4	28	19	1	101	5
DMS 116 40M	.4	1	42	16	1	114	10
DMS 117 40M	.9	3	35	22	2	117	10
DMS 118 40M	.7	8	28	16	1	100	5
DMS 119 40M	1.3	15	31	27	3	95	5
DMS 120	.6	8	39	15	2	99	5
DMS 121 20M	.6	15	15	15	2	68	5
DMS 122 20M	1.1	11	47	19	3	86	10
DMS 123 40M	.9	12	35	22	4	121	5
DMS 124 40M	.8	14	41	18	6	166	5
DMS 125 40M	.8	19	40	22	7	181	5
DMS 126 40M	.6	9	41	17	5	165	5
DMS 127 40M	.6	6	56	13	5	169	5
DMS 128 40M	1.2	16	76	23	8	224	5
DMS 129 40M	1.0	8	58	25	6	209	5
DMS 130 40M	.8	11	58	18	5	219	340 X
DMS 131 40M	.8	7	50	21	8	227	10
DMS 132 40M	1.1	10	53	23	7	238	5
DMS 133 20M	.8	16	38	22	8	205	5
DMS 134 40M	.9	17	37	21	6	185	5
DMS 135 40M	.9	14	36	19	5	173	10
DMS 136 20M	.7	11	32	21	4	158	5
DMS 137 40M	.9	10	37	20	5	188	5
DMS 138 20M	.9	13	24	16	4	115	10
DMS 139 40M	.9	10	30	19	4	137	5
DMS 140 40M	1.0	13	35	20	4	151	5
DMS 141 40M	.9	13	33	17	4	140	5
DMS 142 40M	.9	15	38	23	5	163	10
DMS 143 40M	1.0	15	35	23	5	145	5
DMS 144	1.0	6	13	24	1	70	5
DMS 145 40M	.8	9	22	22	3	110	10
DMS 146 40M	1.0	7	34	21	4	146	5
DMS 147 40M	.8	6	26	14	2	103	5
DMS 148 40M	.4	9	58	24	3	119	5
DMS 149 40M	.5	13	51	18	2	107	5
DMS 150 40M	.5	10	56	22	2	118	5
DMS 151 20M	.6	19	49	19	3	104	10
DMS 152 40M	.7	12	65	25	3	131	5
DMS 153 40M	.7	15	56	28	2	120	10
DMS 154 40M	.6	13	57	23	2	121	5
DMS 155 40M	.6	15	51	22	3	105	10
DMS 156 40M	.6	10	51	22	3	106	5
DMS 157 40M	.7	8	54	26	3	120	5
DMS 158 20M	.6	15	44	21	3	94	5
DMS 159 40M	.5	18	45	22	2	102	5
DMS 160 20M	.8	20	62	27	1	135	5
DMS 161 40M	.8	18	57	27	3	160	10
DMS 162 40M	1.0	25	74	28	3	167	10
DMS 163 40M	1.0	19	54	25	4	173	5
DMS 164 40M	.9	18	49	25	3	190	5
DMS 165 40M	1.0	21	44	26	5	181	5
DMS 166 40M	.8	12	37	27	3	182	10
DMS 167 40M	.9	11	37	22	4	192	5
DMS 168 40M	.9	20	47	21	4	203	5
DMS 169 40M	.9	13	33	25	4	182	5
DMS 170 40M	.8	17	29	23	5	199	5
DMS 171 40M	.8	13	32	21	4	205	5
DMS 172 40M	.9	14	34	18	5	205	5
DMS 173 40M	1.0	9	38	20	4	213	5

COMPANY: BEMA INDUSTRIES
PROJECT NO: 87 24 H
ATTENTION: B.KAHLERT

MIN-EN LABS ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

(ACT:F31) PAGE 1 OF 1
FILE NO: 7-1798/P29
* TYPE SOIL GEOCHEM * DATE:NOV 11, 1987

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB
DMS 174 40M	.6	11	37	19	2	204	10
DMS 175 40M	.6	11	33	20	3	235	5
DMS 176 40M	.6	1	34	16	3	259	5
DMS 177 40M	.7	7	37	21	5	320	10
DMS 178 40M	.6	8	35	21	3	280	5
DMS 179 40M	.7	8	36	23	4	327	5
DMS 180 40M	.6	10	35	20	4	304	5
DMS 181 40M	.9	7	37	20	5	316	10
DMS 182 40M	.8	11	37	25	5	289	5
DMS 183 40M	.9	12	35	19	5	309	5
DMS 184 40M	.9	12	39	19	6	326	5
DMS 185 40M	.8	13	34	21	5	247	10
DMS 186 40M	1.0	11	26	22	3	151	5
DMS 187 40M	1.5	11	25	31	2	87	5
DMS 188 40M	1.0	11	22	18	2	76	5
DMS 189 40M	1.1	21	38	22	8	142	10
DMS 190 40M	1.1	25	29	24	11	125	5
DMS 191 40M	1.1	22	33	20	9	126	5
DMS 192 40M	1.0	23	36	22	10	129	5
DMS 193 40M	1.2	24	32	18	9	123	5
DMS 194	1.0	23	39	18	8	136	5
DMS 195 40M	.9	19	27	23	7	104	5
DMS 196 40M	.8	15	29	20	7	112	10
DMS 197 40M	.9	22	26	19	7	94	5
DMS 198 40M	1.1	21	27	23	7	101	5

ONE 980-5814

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

GOLD GEOCHEMICAL ANALYSIS BY MIN-EN LABORATORIES LTD.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pretreated with HNO_3 and $HClO_4$ mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 0.005 ppm (5ppb).

PHONE: (604) 980-5814 or 988-4524

TELEX: 04-352620

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

September 7, 1984.

ANALYTICAL PROCEDURE REPORT FOR ASSESSMENT WORK - FOR WHOLE ROCK ANALYSIS

Samples are processed by Min-En Laboratories Ltd, at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HN03 and HC104 HF mixture.

For those elements which do not yield complete dissolution, a Lithium tetraborate dissolution or potassium hydroxide dissolution is applied.

After cooling samples are diluted to standard volume. The solutions are analysed by computer operated Jarrell Ash 9000 ICP. Inductively coupled Plasma Analyser. Reports are formated by routing computer dotline print out.

BEN PROPERTY ROCK DESCRIPTIONS

Sample	Type (float) (subocp.) (outcrop)	Location	Description
01	o	Ben Main Zone	
02	o	Ben Main Zone	
03	o	Ben Main Zone	
04	o	Ben Main Zone	
05	o	Ben Main Zone	
06	o	Ben Main Zone	
07	o	Ben Main Zone	
08	o	Ben Main Zone	
09	o	Ben Main Zone	
09A	o	Ben Main Zone	
10	o	Ben Main Zone	
11	o	Ben Main Zone	
11A	o	Ben Main Zone	
12	o	Ben Main Zone	
13	o	Ben Main Zone	
13A	o	Ben Main Zone	
14	o	Ben Main Zone	
14A	o	Ben Main Zone	
14B	o	Ben Main Zone	
H39 070	f	900 m SW along rd from NW corner of BEN 2	Str carb, ep, mariposite alteration
H39 071	o	250m E from rd junc on BEN 2	Dk gn tuff, 1% py
H39 072	f	700 m N of L8325 on main rd	Str carb, ep, mariposite alteration
H39 073	f	On rd at the SE section of BEN 2	Pyritic chert
H39 074	o	605 m up South Ben Creek from main rd	Lt gn tuff, bk fracs, dissem py
H39 075	o	1100 m.....	Crystal tuff, 1% py
H39 076	o	129 m down North Ben Creek from secondary rd	Gnstone, ep, trace py
H39 077	o	240 m	Gnstone, minor cpy
H39 078	o	Same as H39 071	Lt gn chert, 2% py
H39 079	o	10 m E of H39078 on rd	Or. bn. weath. pyritic ankerite
H39 080	o	10 m E of H39078 on rd	Or. bn. weath. pyritic ankerite
H39 081	o	2 m E of H39080	Gy gn cherty tuff, qtz-carb vns, 2% dissem py
H39 082	f	1850 m N of main rd on 2ry rd to LCP - BEN 1	Basaltic? bx., 1% py
H39 083	s	815 m N along rd from SW corner of BEN 2	Limestone, calcite vns.
H39 084	f	1555 m.....	Pyritic chert
H39 085	o	1860 m.....	Pyritic cherty tuff, trace cpy
H39 086	o	1922 m.....	Layered tuff, dissem py, overlying bk argillite
H39 087	f	2900 m.....	Gy gn cherty tuff

APPENDIX III

BEN PROPERTY ROCK DESCRIPTIONS

Sample	Type (float) (subocp.) (outcrop)	Location	Description
H39 088	f	4800N-1535E	Gy cherty tuff, mariposite, trace grey mineral?
H39 089	s	250 m E on cat trail from BEN 1,3 claim line	Bk tuff with gn frags, py fracs
H39 090	s	1000 m W on trail from BEN 1,3 claim line	Carb-mariposite alteration, trace py
H39 091	o	BEN main zone	Gy qtz bx, mariposite, fine gd sulfides
H39 092	o	56 m. SE on cat trail from 4200N-3450E	Qtz-carb bx, 2% py, mariposite
H39 093	o	7 m. S on cat trail from 3200N-3430E	Ankerite, mariposite
H39 147	o	176 m downstream from LCP BEN 1	Ankeritic volc., 1-4mm qtz-carb vns
H39 148	o	205 m downstream from LCP BEN 1	Or weath ank cataclasite, mariposite blebs, fracs
H39 149	o	225 m downstream from LCP BEN 1	Qtz-carb bx,perv sil, diss py,apy,po, minor marip.
H39 150	o	665 m upstream from LCP BEN 1	Or weath ank andesite, 2mm carb vns, wk py, tr cpy
H39 151	s	1189 m upstream from LCP BEN 1	Or weath med gy andes, q-carb stockwork, tr py
H39 152	f	1209 m upstream from logging slash, S Ben Ck	Gnstone cut by 2mm qv stockwork, minor py (1%)
H39 153	f	1178 m upstream	Bleached fspar ppy, spotty marip, q-carb vns
H39 154	o	1076 m	Fine gd diorite, dissem py (1%)
H39 155	o	754 m	Or weath ank volc,sub-// 1-4 mm carb vns
H39 156	o	516 m	Rusty weath dk gy shale, sub-horiz bedding
H39 157	o	366 m W of W bdry of BEN 5 on Skelton Ck	Rusty bk chert,sh partings,1cm qvs,bedding(72/32S)
H39 158	o	139 m W	Rusty bk shale, bedding(54/14SE)
H39 159	o	275 m E of W bdry of BEN 5, Skelton Ck	Rusty weath chert and argillite,bedding(135/14NE)
H39 160	o	Skelton Ck, elev=2950'	8m wide shr zone in bk chert, Mn stain,(168/86W)
H39 161	o	Skelton Ck, 244m above H39160	Sub-horiz shr gnstone, polished chl fracs
H39 162	o	Skelton Ck.,484 m above H39160	Or weath ank,1-4mm q-carb vns,py(1%),patchy marip..
H39 163	o	Skelton Ck, 1366 m upstream W bdry BEN 5	Or weath ank,crackled by q-carb,minor jasper
H39 164	o	Skelton Ck.,45m upstream from DMS-177	Or weath ank volc,fine gd py(10%)
H39 165	o	N Ben Ck, Main Showing	Or weath ank, wk marip, Mn staining
H39 166	o	N Ben Ck, Main Showing	Qtz bx, patchy mariposite, dissem fine bk sulfides
H39 167	o	N Ben Ck, Main Showing	Similar to H39166 but coarser py
H39 168	o	N Ben Ck, Main Showing	Qtz-carb bx,bl-gy qtz frags rehealed by sil
H39 169	o	N Ben Ck, Main Showing	Qtz-carb bx,bl-gy qtz frags rehealed by sil
H39 170	o	BEN 2, 1.3 km from road end	Qtz-carb vein in gnstone
H39 171	o	BEN 2, 1.65 km from road end	Gnstone bx,chert frags,f gd bk sulf?,adj H39085
H39 179	o	N Ben Ck, Main Showing	Qtz-carb bx, resample of H39169

APPENDIX IV

STATISTICS FOR QUESNEL PROJECT SOILS

Basic Statistics for Quesnel Project Soil Results

Element	# assays	max	min	mean	s.d.
Ag	4234	4.5	0.1	0.8	0.3
As	4234	441	1.0	8.9	10.4
Cu	4234	413	1.0	27.5	27.5
Pb	4234	53	2.0	12.3	4.1
Sb	4234	32	1.0	2.4	1.5
Zn	4234	813	2.0	87.0	43.8
Au	4234	2800	1.0	11.7	86.7

Threshold Values for Quesnel Project Soil Results

Element	Threshold Values		
	90%	95%	99%
Ag	1.1	1.3	1.8
As	16.0	21.0	33.0
Cu	44.0	64.0	160.0
Pb	16.0	18.0	23.0
Sb	3.0	4.0	6.0
Zn	130.0	160.0	230.0
Au	5.0	10.0	45.0

Silver Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0.0	0.1	12	12	0.3
0.1	0.2	29	41	1.0
0.2	0.3	136	177	4.2
0.3	0.4	220	397	9.4
0.4	0.5	374	771	18.2
0.5	0.6	556	1327	31.3
0.6	0.7	652	1979	46.7
0.7	0.8	629	2608	61.6
0.8	0.9	485	3093	73.1
0.9	1.0	358	3451	81.5
1.0	1.1	278	3729	88.1
1.1	1.2	166	3895	92.0
1.2	1.3	104	3999	94.4
1.3	1.4	62	4061	95.9
1.4	1.5	57	4118	97.3
1.5	1.6	30	4148	98.0
1.6	1.7	20	4168	98.4
1.7	1.8	8	4176	98.6
1.8	1.9	13	4189	98.9
1.9	2.0	8	4197	99.1
2.0	2.1	7	4204	99.3
2.1	2.2	6	4210	99.4
2.2	2.3	6	4216	99.6
2.3	2.4	4	4220	99.7
2.4	2.5	2	4222	99.7
2.5	>2.5	12	4234	100.0

Arsenic Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	1	686	686	16.2
1	2	218	904	21.4
2	3	231	1135	26.8
3	4	236	1371	32.4
4	5	263	1634	38.6
5	6	233	1867	44.1
6	7	236	2103	49.7
7	8	260	2363	55.8
8	9	239	2602	61.5
9	10	214	2816	66.5
10	11	197	3013	71.2
11	12	177	3190	75.3
12	13	176	3366	79.5
13	14	146	3512	82.9
14	15	116	3628	85.7
15	16	116	3744	88.4
16	17	77	3821	90.2
17	18	64	3885	91.8
18	19	58	3943	93.1
19	20	38	3981	94.0
20	21	38	4019	94.9
21	22	29	4048	95.6
22	23	26	4074	96.2
23	24	21	4095	96.7
24	25	16	4111	97.1
25	26	12	4123	97.4
26	27	14	4137	97.7
27	28	9	4146	97.9
28	29	15	4161	98.3
29	30	9	4170	98.5
30	31	12	4182	98.8
31	32	5	4187	98.9
32	33	5	4192	99.0
33	34	10	4202	99.2
34	35	6	4208	99.4
35	36	6	4214	99.5
36	37	0	4214	99.5
37	38	3	4217	99.6
38	39	3	4220	99.7
39	40	2	4222	99.7
40	>40	12	4234	100.0

Copper Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	4	14	14	0.3
4	8	65	79	1.9
8	12	357	436	10.3
12	16	822	1258	29.7
16	20	942	2200	52.0
20	24	627	2827	66.8
24	28	350	3177	75.0
28	32	224	3401	80.3
32	36	171	3572	84.4
36	40	129	3701	87.4
40	44	90	3791	89.5
44	48	80	3871	91.4
48	52	46	3917	92.5
52	56	42	3959	93.5
56	60	38	3997	94.4
60	64	23	4020	94.9
64	68	20	4040	95.4
68	72	15	4055	95.8
72	76	20	4075	96.2
76	80	11	4086	96.5
80	84	11	4097	96.8
84	88	7	4104	96.9
88	92	9	4113	97.1
92	96	5	4118	97.3
96	100	5	4123	97.4
100	104	10	4133	97.6
104	108	5	4138	97.7
108	112	4	4142	97.8
112	116	5	4147	97.9
116	120	8	4155	98.1
120	124	8	4163	98.3
124	128	8	4171	98.5
128	132	4	4175	98.6
132	136	1	4176	98.6
136	140	2	4178	98.7
140	144	2	4180	98.7
144	148	4	4184	98.8
148	152	2	4186	98.9
152	156	2	4188	98.9
156	160	2	4190	99.0
160	>160	44	4234	100.0

Lead Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	1	0	0	0.0
1	2	3	3	0.1
2	3	12	15	0.4
3	4	58	73	1.7
4	5	90	163	3.8
5	6	140	303	7.2
6	7	183	486	11.5
7	8	229	715	16.9
8	9	289	1004	23.7
9	10	391	1395	32.9
10	11	435	1830	43.2
11	12	467	2297	54.3
12	13	439	2736	64.6
13	14	380	3116	73.6
14	15	354	3470	82.0
15	16	225	3695	87.3
16	17	166	3861	91.2
17	18	105	3966	93.7
18	19	90	4056	95.8
19	20	53	4109	97.0
20	21	39	4148	98.0
21	22	23	4171	98.5
22	23	18	4189	98.9
23	24	10	4199	99.2
24	25	9	4208	99.4
25	26	7	4215	99.6
26	27	4	4219	99.6
27	28	1	4220	99.7
28	29	3	4223	99.7
29	30	1	4224	99.8
30	>30	10	4234	100.0

Antimony Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	1	1336	1336	31.6
1	2	1253	2589	61.1
2	3	976	3565	84.2
3	4	402	3967	93.7
4	5	147	4114	97.2
5	6	61	4175	98.6
6	7	24	4199	99.2
7	8	14	4213	99.5
8	9	9	4222	99.7
9	10	5	4227	99.8
10	>10	7	4234	100.0

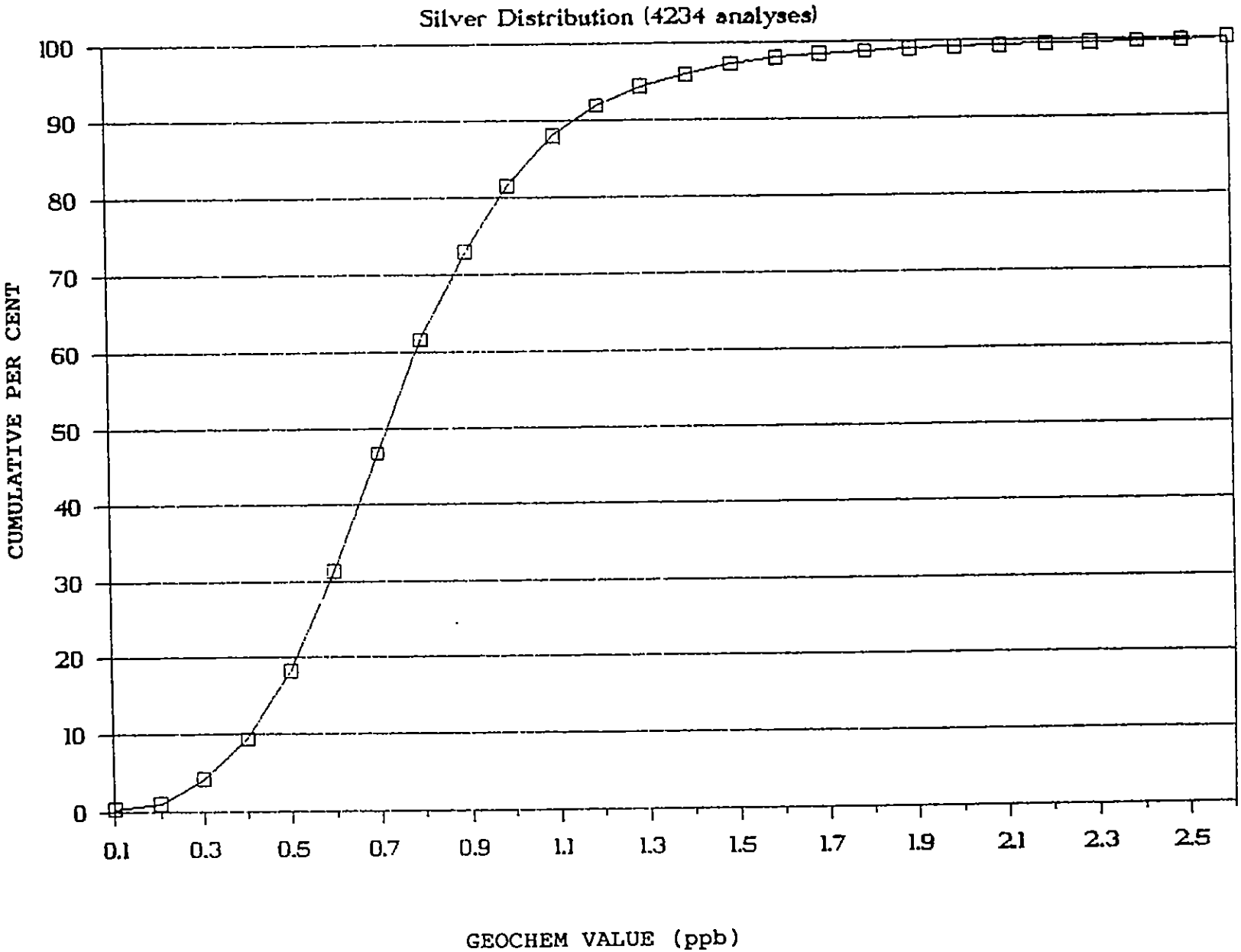
Zinc Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	10	14	14	0.3
10	20	27	41	1.0
20	30	36	77	1.8
30	40	112	189	4.5
40	50	420	609	14.4
50	60	529	1138	26.9
60	70	570	1708	40.3
70	80	543	2251	53.2
80	90	426	2677	63.2
90	100	376	3053	72.1
100	110	268	3321	78.4
110	120	258	3579	84.5
120	130	151	3730	88.1
130	140	128	3858	91.1
140	150	90	3948	93.2
150	160	63	4011	94.7
160	170	61	4072	96.2
170	180	30	4102	96.9
180	190	36	4138	97.7
190	200	16	4154	98.1
200	210	14	4168	98.4
210	220	6	4174	98.6
220	230	10	4184	98.8
230	240	13	4197	99.1
240	250	9	4206	99.3
250	260	6	4212	99.5
260	270	3	4215	99.6
270	280	4	4219	99.6
280	290	2	4221	99.7
290	300	2	4223	99.7
300	>300	11	4234	100.0

Gold Distribution for Soil Geochem (from 4234 analyses)

From	To	Freq.	Cum.	Cum. %
0	5	3052	3052	72.1
5	10	905	3957	93.5
10	15	117	4074	96.2
15	20	67	4141	97.8
20	25	23	4164	98.3
25	30	15	4179	98.7
30	35	5	4184	98.8
35	40	4	4188	98.9
40	45	3	4191	99.0
45	50	6	4197	99.1
50	55	2	4199	99.2
55	60	5	4204	99.3
60	65	1	4205	99.3
65	70	0	4205	99.3
70	75	0	4205	99.3
75	80	0	4205	99.3
80	85	1	4206	99.3
85	90	1	4207	99.4
90	95	0	4207	99.4
95	100	1	4208	99.4
100	105	0	4208	99.4
105	110	1	4209	99.4
110	115	1	4210	99.4
115	120	0	4210	99.4
120	125	0	4210	99.4
125	130	2	4212	99.5
130	135	2	4214	99.5
135	140	1	4215	99.6
140	145	0	4215	99.6
145	150	0	4215	99.6
150	155	0	4215	99.6
155	160	0	4215	99.6
160	165	0	4215	99.6
165	170	0	4215	99.6
170	175	0	4215	99.6
175	180	1	4216	99.6
180	185	0	4216	99.6
185	190	0	4216	99.6
190	195	0	4216	99.6
195	200	0	4216	99.6
200	>200	18	4234	100.0

Quesnel Project Soil Geochem



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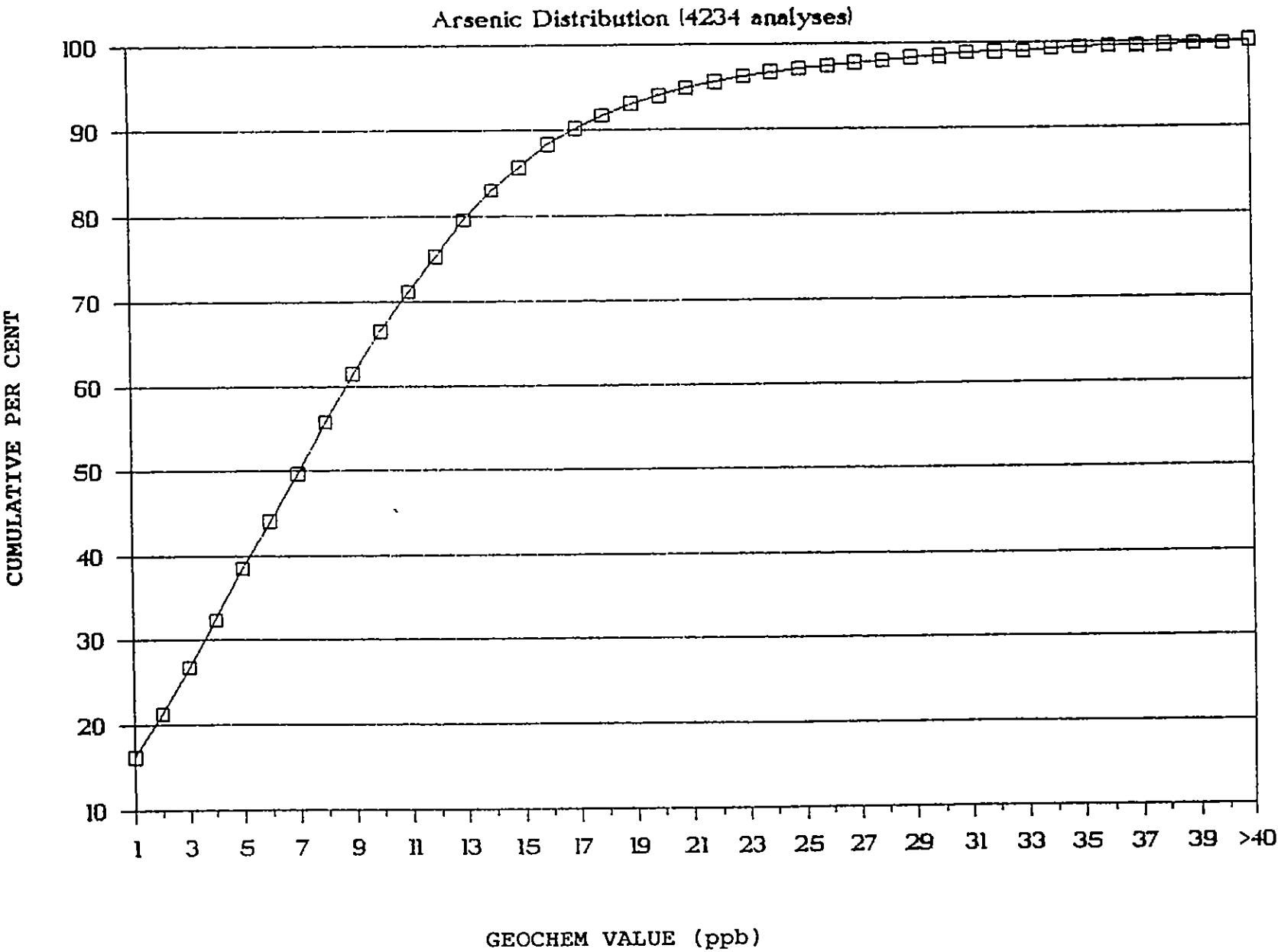

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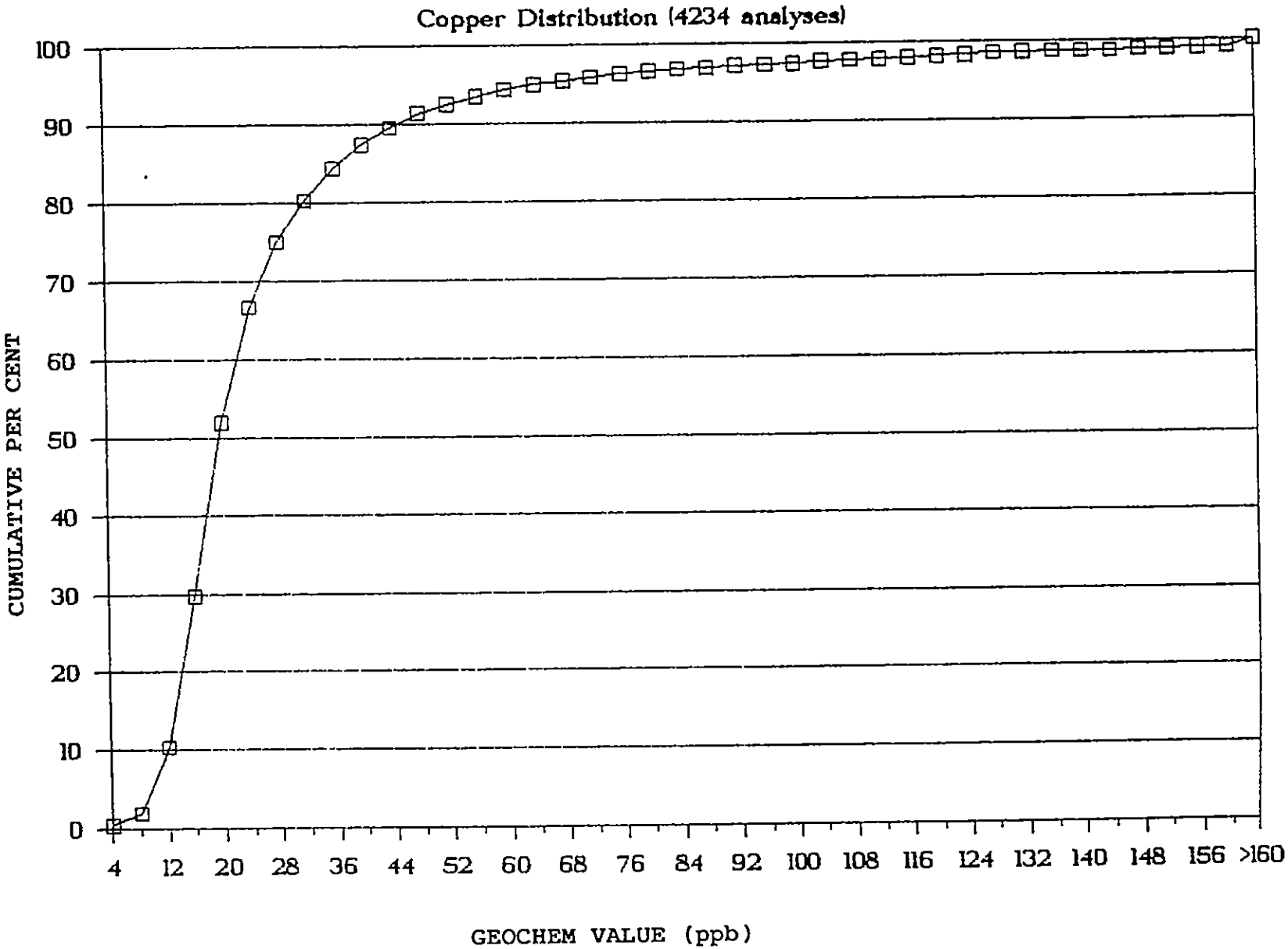

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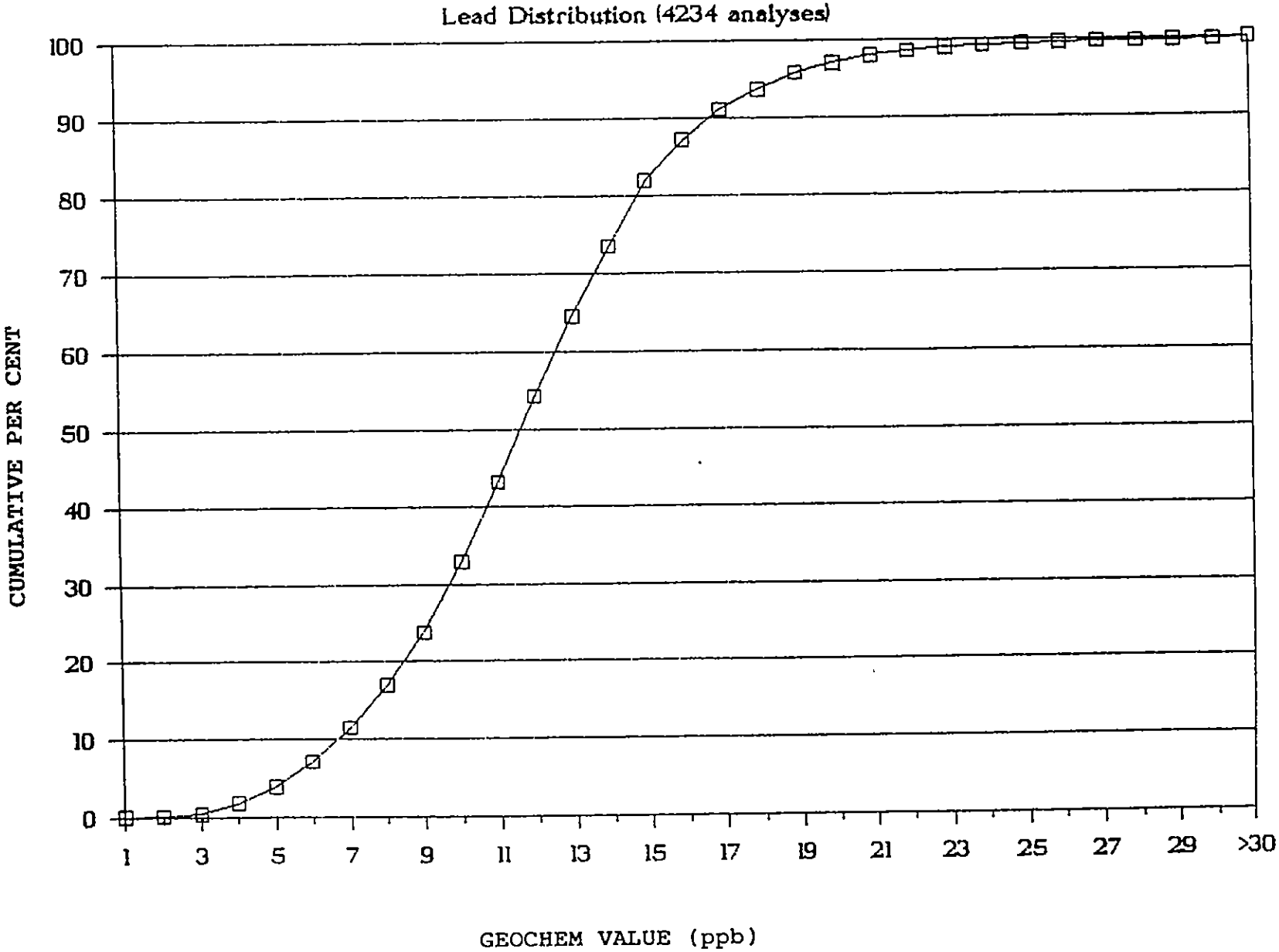

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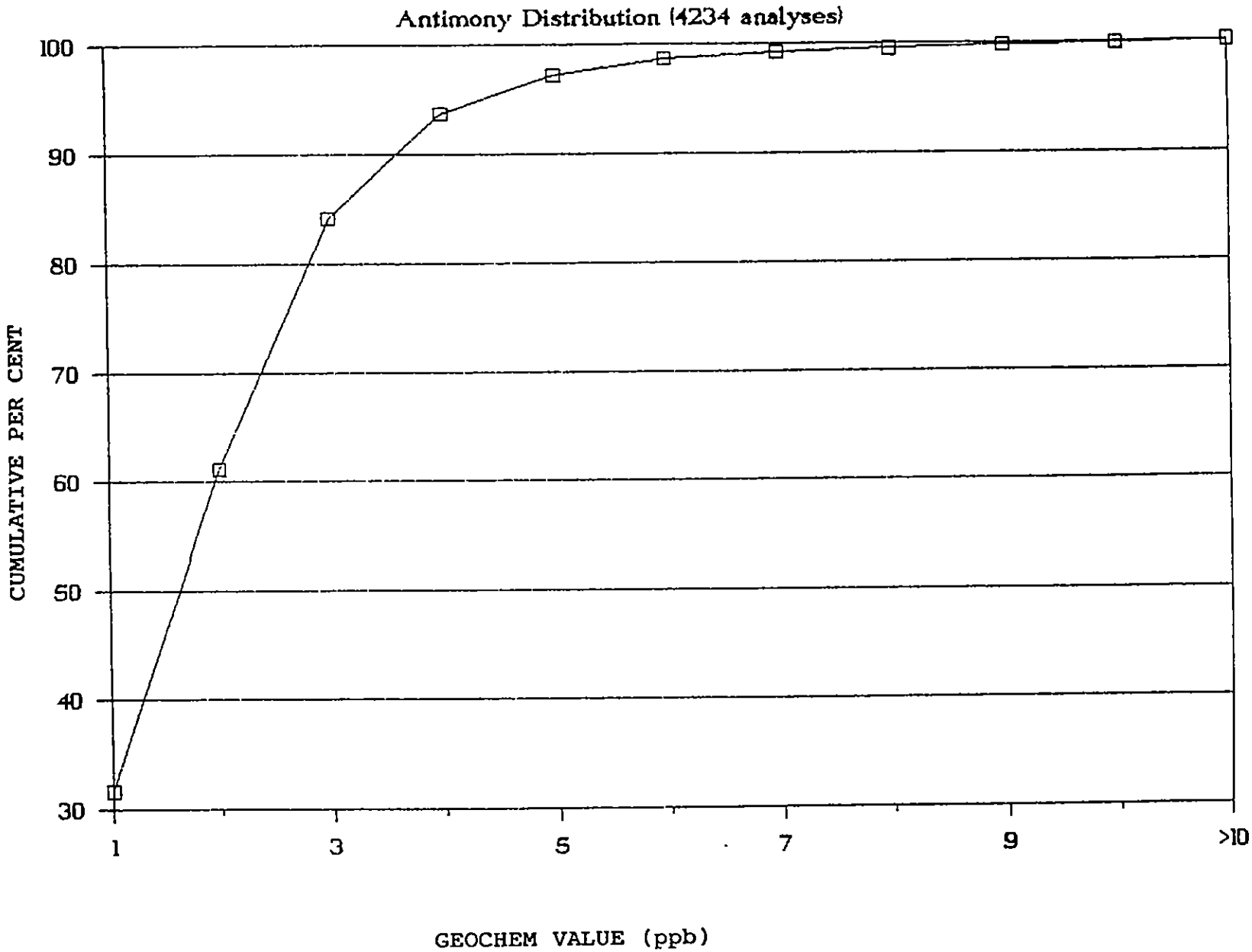

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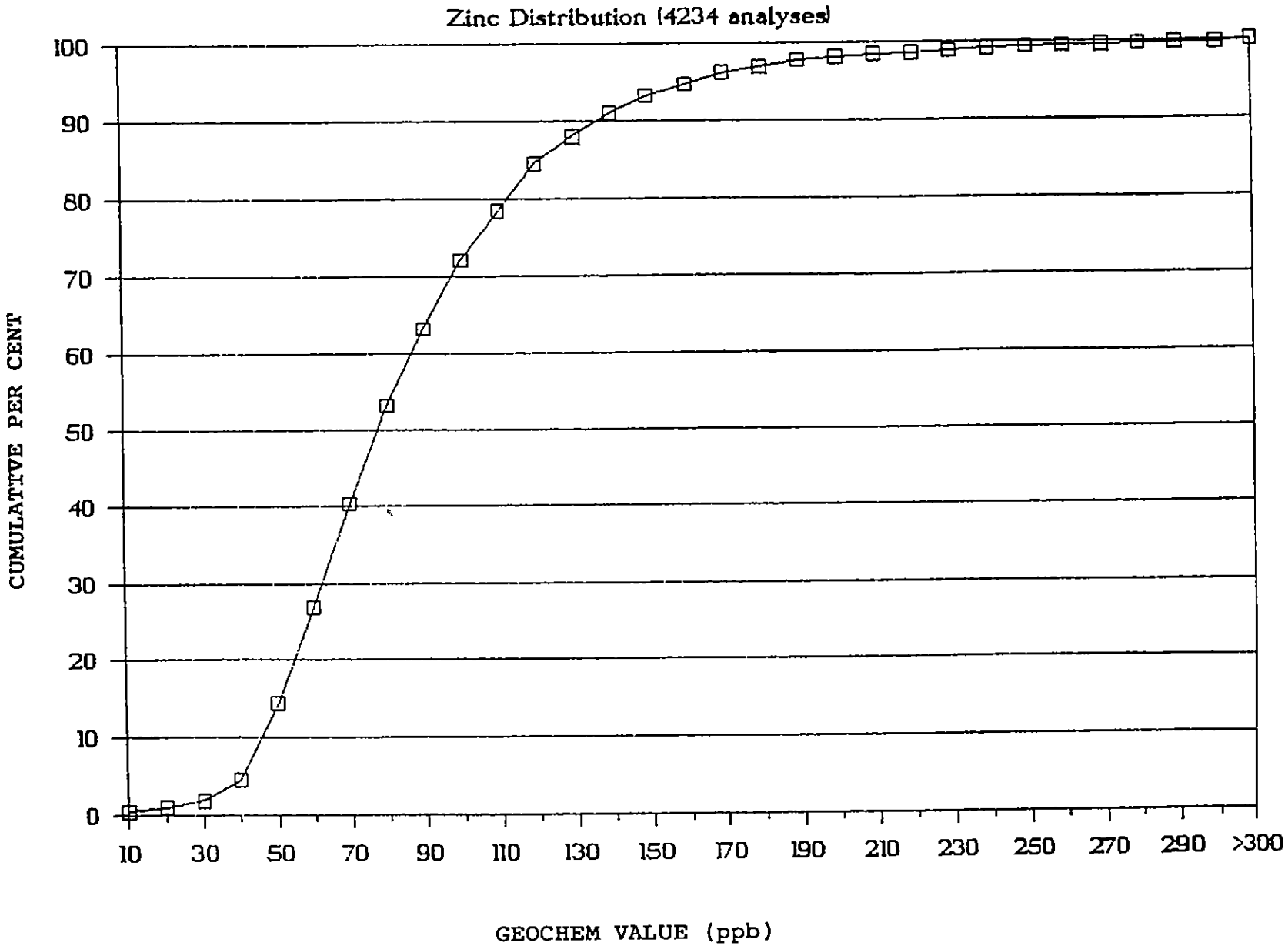
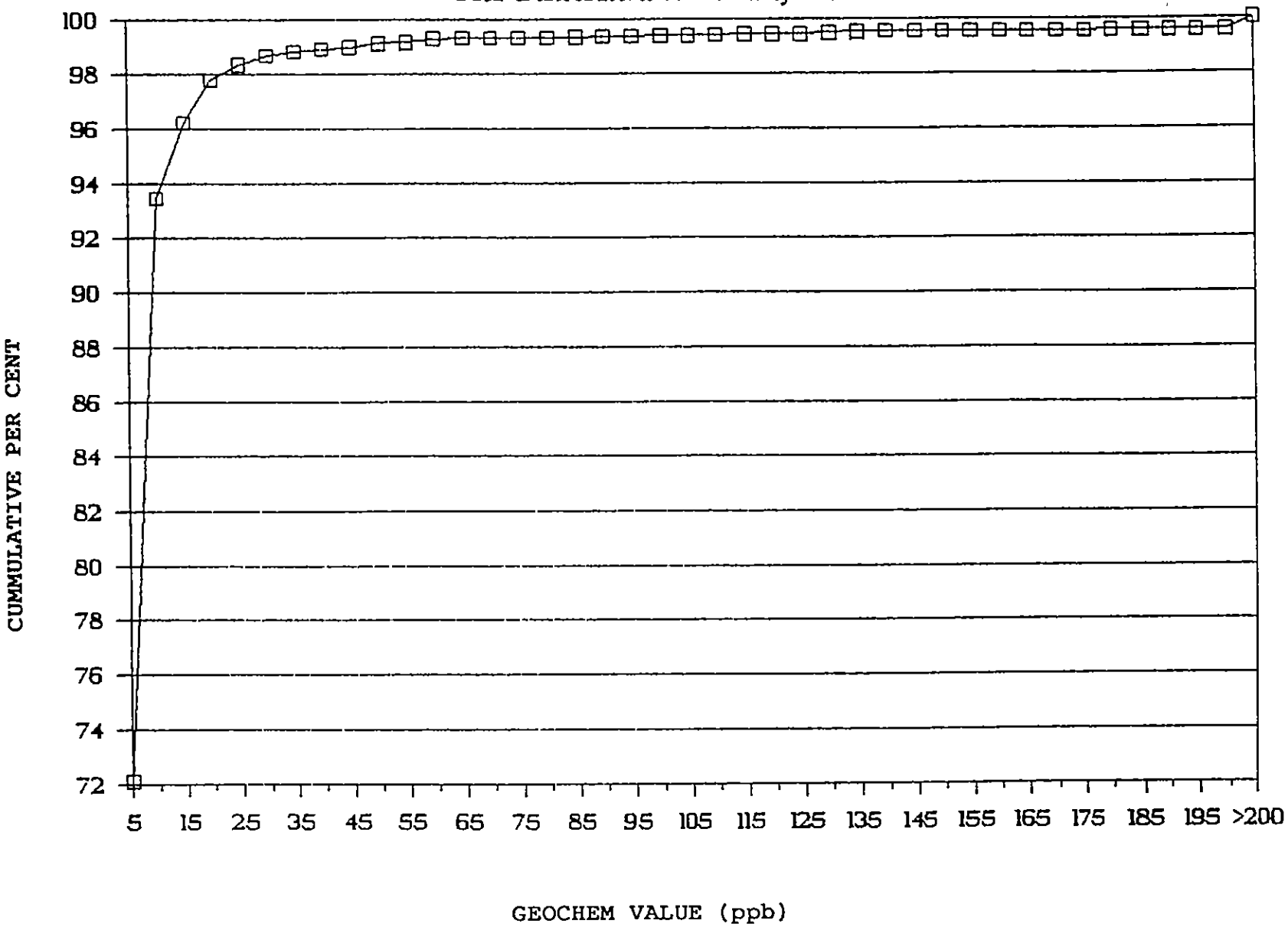


Quesnel Project Soil Geochem

Gold Distribution (4234 analyses)



APPENDIX V

Statistics for BEN Soil Data

Element	# Assays	Max	Min	Mean	S.D.
Ag	376	2.1	0.2	0.74	0.28
As	376	125	1	9.7	9.6
Cu	376	310	7	27.9	29.1
Pb	376	33	2	11.7	3.9
Sb	376	32	1	3.4	2.4
Zn	376	753	11	126.8	63.4
Au	376	650	5	9.7	38.8

Gold Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	5	293	293	77.9
5	10	65	358	95.2
10	15	7	365	97.1
15	20	4	369	98.1
20	25	2	371	98.7
25	30	1	372	98.9
30	35	0	372	98.9
35	40	0	372	98.9
40	45	1	373	99.2
45	50	0	373	99.2
50	55	0	373	99.2
55	60	0	373	99.2
60	>60	3	376	100.0

Silver Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0.0	0.2	1	1	0.3
0.2	0.4	41	42	11.2
0.4	0.6	104	146	38.8
0.6	0.8	116	262	69.7
0.8	1.0	71	333	88.6
1.0	1.2	27	360	95.7
1.2	1.4	8	368	97.9
1.4	1.6	3	371	98.7
1.6	1.8	2	373	99.2
1.8	2.0	1	374	99.5
2.0	2.2	2	376	100.0
2.2	2.4	0	376	100.0
2.4	>2.4	0	376	100.0

Arsenic Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	5	116	116	30.9
5	10	119	235	62.5
10	15	89	324	86.2
15	20	38	362	96.3
20	25	5	367	97.6
25	30	1	368	97.9
30	35	1	369	98.1
35	40	2	371	98.7
40	45	2	373	99.2
45	50	1	374	99.5
50	55	0	374	99.5
55	60	0	374	99.5
60	>60	2	376	100.0

Copper Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	10	19	19	5.1
10	20	177	196	52.1
20	30	100	296	78.7
30	40	31	327	87.0
40	50	22	349	92.8
50	60	5	354	94.1
60	70	4	358	95.2
70	80	3	361	96.0
80	90	3	364	96.8
90	100	1	365	97.1
100	110	3	368	97.9
110	120	2	370	98.4
120	>120	6	376	100.0

Lead Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	2	2	2	0.5
2	4	8	10	2.7
4	6	18	28	7.4
6	8	46	74	19.7
8	10	69	143	38.0
10	12	90	233	62.0
12	14	68	301	80.1
14	16	35	336	89.4
16	18	19	355	94.4
18	20	15	370	98.4
20	22	3	373	99.2
22	24	1	374	99.5
24	>24	2	376	100.0

Antimony Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	1	73	73	19.4
1	2	59	132	35.1
2	3	88	220	58.5
3	4	76	296	78.7
4	5	41	337	89.6
5	6	21	358	95.2
6	7	8	366	97.3
7	8	3	369	98.1
8	9	2	371	98.7
9	10	2	373	99.2
10	11	1	374	99.5
11	12	0	374	99.5
12	>12	2	376	100.0

Zinc Distribution for BEN Soils

From	To	Freq.	Cum.	Cum. %
0	20	4	4	1.1
20	40	5	9	2.4
40	60	12	21	5.6
60	80	38	59	15.7
80	100	69	128	34.0
100	120	83	211	56.1
120	140	60	271	72.1
140	160	33	304	80.9
160	180	22	326	86.7
180	200	13	339	90.2
200	220	6	345	91.8
220	240	12	357	94.9
240	>240	19	376	100.0

BEN PROPERTY ROCK GEOCHEM

(Values in ppm except for Au (ppb))

Sample	Ag	As	B	Ba	Cu	K	Na	Ni	Pb	Sb	V	Zn	Au
01	2.0	396	11	73	62	120	40	580	38	39	2.2	31	50
02	0.6	374	17	127	80	150	20	631	41	124	5.0	40	63
03	1.0	61	23	206	46	1070	50	747	38	29	40.2	69	4
04	3.0	14	40	1286	94	1810	1440	76	26	7	115.5	97	3
05	0.1	19	1	27	6	190	20	14	9	3	2.8	13	2
06	0.4	140	7	71	29	580	20	46	27	52	10.4	24	44
07	1.4	451	35	159	82	2080	50	267	38	249	51.2	82	53
08	0.8	382	16	50	36	130	30	651	24	77	0.7	28	37
09	0.8	635	21	121	36	120	30	690	32	67	1.1	32	158
09A	0.7	556	17	198	19	120	70	758	24	42	0.7	25	90
10	0.9	469	10	64	56	120	20	665	35	52	1.8	27	57
11	1.3	2	24	348	24	470	440	11	22	4	113.4	72	10
11A	0.3	282	16	82	18	190	20	981	34	136	3.4	25	16
12	1.4	23	47	310	20	360	130	1	5	8	112.2	101	3
13	0.2	25	5	13	15	70	230	48	19	2	16.7	27	4
13A	0.3	18	13	21	15	100	290	52	13	1	30.9	39	2
14	1.2	14	13	62	58	950	100	17	24	4	30.5	63	9
14A	1.9	31	36	195	74	2770	190	27	22	3	82.6	128	6
14B	2.2	33	43	153	44	2030	170	9	23	8	69.6	107	5
H39 070	0.1	14	4	31	10	150	30	938	28	5	0.2	21	4
H39 071	1.6	21	30	137	111	690	280	25	14	7	280.9	58	2
H39 072	0.2	226	4	79	6	140	10	1060	29	29	1.0	20	14
H39 073	0.2	10	181	49	7	40	70	1329	31	1	0.9	72	60
H39 074	2.1	24	56	59	69	90	190	23	20	8	256.3	97	5
H39 075	1.2	9	24	35	55	60	410	12	7	5	92.9	49	9
H39 076	0.9	24	25	42	65	530	240	45	13	5	90.4	51	4
H39 077	1.0	1	21	71	1083	390	210	51	18	2	86.4	48	13
H39 078	1.0	12	7	15	42	250	830	1	20	1	15.6	280	1
H39 079	1.8	1	40	321	51	1300	180	43	20	1	67.2	48	2
H39 080	1.5	7	55	597	35	1590	190	73	18	6	62.0	53	3
H39 081	1.6	33	32	355	14	630	140	144	29	2	88.4	58	2
H39 082	3.1	30	43	130	45	1560	380	6	13	2	108.8	102	14
H39 083	1.7	49	1	127	1	90	80	8	31	1	9.9	16	2
H39 084	2.2	32	33	122	51	80	460	6	18	2	119.8	69	1
H39 085	1.5	10	31	777	374	70	190	52	18	1	78.5	53	2
H39 086	3.3	10	38	102	37	1300	430	1	22	1	103.6	86	4
H39 087	2.3	17	9	228	44	4660	90	5	41	5	48.0	64	32

APPENDIX VI

BEN PROPERTY ROCK GEOCHEM

(Values in ppm except for Au (ppb))

Sample	Ag	As	B	Ba	Cu	K	Na	Ni	Pb	Sb	V	Zn	Au
H39 088	1.7	72	27	382	91	3480	220	14	39	50	47.3	80	22
H39 089	8.5	54	83	1591	107	2210	560	84	17	8	283.1	168	4
H39 090	1.0	69	14	786	24	410	50	985	31	4	12.7	35	1
H39 091	1.6	413	7	85	64	210	30	513	40	76	6.7	20	78
H39 092	1.5	24	12	102	21	140	70	908	39	4	0.4	25	5
H39 093	1.6	37	4	181	12	290	30	959	42	1	10.6	36	4
H39 147	1.1	5	30	172	84	650	150	234	31	6	92.1	89	2
H39 148	0.9	52	15	202	41	920	40	478	40	28	43.2	59	4
H39 149	1.2	573	3	68	346	270	30	473	31	252	33.4	20	103
H39 150	1.5	2	70	570	99	1960	560	11	18	1	130.9	92	12
H39 151	1.5	74	17	220	59	2460	240	45	28	36	32.5	87	9
H39 152	2.1	28	50	88	66	140	630	6	11	8	264.1	95	4
H39 153	1.1	32	23	2092	52	2560	310	93	30	2	51.1	74	10
H39 154	2.8	13	19	4193	43	1690	2640	68	27	2	85.8	73	6
H39 155	1.7	20	30	724	49	1540	370	149	26	1	107.5	91	11
H39 156	0.3	19	32	385	139	2870	120	267	11	68	85.4	865	9
H39 157	0.9	24	8	6379	31	1180	60	28	15	3	5.1	41	3
H39 158	0.5	8	10	2914	46	3130	60	18	12	2	9.7	53	4
H39 159	0.4	14	12	697	31	1420	80	8	12	2	5.5	33	3
H39 160	0.7	20	4	230	46	960	40	41	13	3	6.6	84	6
H39 161	0.7	16	53	19	7	30	10	1584	30	5	3.1	37	3
H39 162	1.0	4	55	45	3	30	10	767	34	4	0.5	23	8
H39 163	0.8	1	44	28	3	40	60	1421	33	1	0.8	31	2
H39 164	1.2	8	25	4175	12	3000	310	59	34	1	46.4	63	3
H39 165	5.7	21	45	252	117	540	270	399	30	4	167.8	98	2
H39 166	1.2	323	3	112	12	240	50	475	37	276	10.5	27	28
H39 167	1.4	407	2	85	28	160	30	655	41	134	8.8	30	210
H39 168	1.2	682	18	150	25	110	60	801	36	86	1.0	22	183
H39 169	1.3	115	1	78	19	520	60	59	26	37	10.4	38	54
H39 170	1.8	8	27	22	108	350	340	14	17	2	122.4	51	3
H39 171	1.1	32	53	41	54	90	120	40	5	3	56.7	48	2
H39 179	0.6	100	2	53	30	810	30	46	11	61	8.5	17	55

APPENDIX VII

Major Suppliers of Goods and Services for Quesnel Project

Supplier	Service
Aurum Geological Consultants 604 - 675 West Hastings Street Vancouver, B.C. V6B 1N2 (604) 683-9656	Geologist Field Assistant
C.J.L. Enterprises Ltd. Box 666 Smithers, B.C. V0J 2N0 (604) 847-3612	Prospector
Bill Chase and Associates Ltd. 1585 - 130th Street White Rock, B.C. V4A 3Z6 (604) 536-2936	Soil Crew
Pacific Northwest Geotech Ltd. 2246 Sifton Avenue Kamloops, B.C. (604) 374-3237 (Kamloops) (604) 689-3122 (Vancouver)	Proton Mag Operator
Valhalla Motal Box 4625 Quesnel, B.C. V2J 3J8 (604) 747-1111	Board
Campbell & Associates Ltd. #8 - 84 Lonsdale Avenue North Vancouver, B.C. V7M 2E6 (604) 985-4588	Petrology Engineering Reports
Rotortech Helicopters Ltd. 4189 - 104th Street Delta, B.C. V4K 3N3 (604) 992-3242 (Quesnel) (604) 591-7174 (Vancouver)	Helicopter (Quesnel)
Northern Mountain Helicopters P.O. Box 368 Princee George, B.C. V2L 4S2 (604) 992-3610 (Quesnel) (604) 398-6322 (Williams Lake)	Helicopter (Quesnel)
Min-En Laboratories 705 West 15th Street North Vancouver, B.C. V7M 1T2 (604) 980-5814	Geochemical Analyses, Supplies

APPENDIX VIII

Circle Resources Ltd.

Statement of Costs

Ben 1-5 Claims
Cariboo Mining Division

Gridding (36 km @ $1.00)		$ 3,600
Soil Sample Collection (365 @ $5.50)		2,068
Labour		
Geologist (7 days @ $225)	1,575	
Field Assistant (6 days @ $125)	750	
Prospector (9 days @ $225)	2,025	
		4,350
Accommodation (22 days @ $50)		1,150
Geochemical Analyses		
Soils (372 @ $10)	3,920	
Heavy Minerals (3 @ $36)	108	
Rocks (69 @ $15)	1,035	
Silts (113 @ $10)	1,130	
		6,193
Field Supplies		225
Truck Rental (8 days @ $100)		800
Drafting		475
Transportation (excluding truck rental)		636
Report Preparation (3 days $ 350)		1,050
Total Costs		$20,497

APPENDIX IX

STATEMENT OF QUALIFICATIONS

I, Bernard H. Kahlert, of the City of West Vancouver, in the Province of British Columbia do hereby certify that:

1. I am a Consulting Geologist and a principal in B.H. Kahlert and Associates Ltd. with offices at 1195 Sutton Place, West Vancouver, British Columbia;

2. I am a graduate of the University of British Columbia, 1966, with a Degree of B.Sc. in Geology;

3. I was registered with the Association of Professional Engineers of British Columbia in 1971;

4. I have practiced my profession as an exploration geologist continuously for over 22 years in Canada, the United States, Australia and China;

5. I have been employed by major mining, oil and consulting companies;

6. The information in this report was obtained from personal supervision of field operations, review of all results and compiling data for future planned work programs.

DATED at Vancouver, British Columbia, this 31st day of May, 1988.

B.H. Kahlert, P.Eng.

BEN 1

BEN 2

BEN 3

BEN 4

BEN 5

BEN LAKE

SKELTON LAKE

North Ben Creek

South Ben Creek

LCP

LCP L

2000 E BASELINE

5200 N
5000 N
4800 N
4600 N
4400 N
4200 N
4000 N
3800 N
3600 N
3400 N
3200 N
3000 N

1500 N
1300 N
1100 N
900 N
700 N
500 N

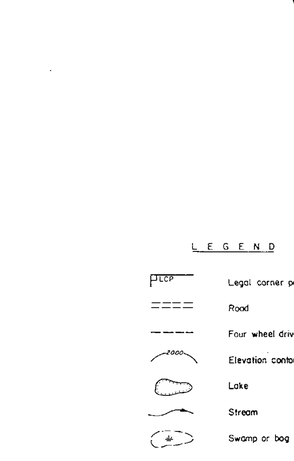
0 100 200 300 400
METRES

LEGEND

- LCP — Legal corner post and claim boundary
- Road
- Four wheel drive track
- 2000 — Elevation contour in feet above sea level
- Lake
- Stream
- Swamp or bog

Symbols

- Soil sample sites, Ag ppm, Cu ppm, Zn ppm
- Silt sample sites, Ag ppm, Cu ppm, Zn ppm
- Rock sample site
- Heavy mineral sample site, sample number Ag ppm, Cu ppm, Zn ppm (40 mesh) / Ag ppm, Cu ppm, Zn ppm (80 mesh)
- +10,70,145 — Recce soil sample site, Ag ppm, Cu ppm, Zn ppm
- Not sampled



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,481

B.H. KAHLERT & ASSOC. LTD.

QUESNEL PROJECT

BEN PROPERTY

GEOCHEMISTRY
(Silver, Copper, Zinc)

DATE DECEMBER, 1987	JOB NO 8724	FIG NO H-2
DRAWN BY BF/lgc		
REVISED BY	SCALE 1:5000	

CIRCLE RESOURCES LTD.

BEN 1

BEN 2

BEN 3

BEN 4

BEN 5

BEN LAKE

SKELTON LAKE

South Ben creek

Skelton Creek

BASE LINE

LCP

4800 N
4600 N
4400 N
4200 N
4000 N
3800 N
3600 N
3400 N
3200 N
3000 N

3500 E
3600 E
3700 E
3800 E
3900 E
4000 E

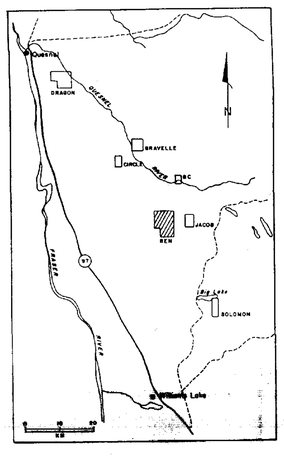
1500 N
1300 N
1100 N
900 N
700 N
500 N

LEGEND

- Legal corner post and claim boundary
- Road
- Four wheel drive track
- Elevation contour in feet above sea level
- Lake
- Stream
- Swamp or bog

Symbols

- Soil sample sites, Au ppb, As ppm, Sb ppm
- Silt sample sites
- Rock sample site
- Heavy mineral sample site
- Recce soil sample site
- Not sampled
- Sb contour ±6 ppm



0 100 200 300 400
METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,481

B.H. KAHLERT & ASSOC. LTD.

QUESNEL PROJECT

BEN PROPERTY

GEOCHEMISTRY
(Gold, Arsenic, Antimony)

DATE DECEMBER, 1987	JOB NO 8724	FIG NO H-1
DRAWN BY BF/pc		
REVISED BY	SCALE 1:5000	

CIRCLE RESOURCES LTD.