

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 89.06.13

ASSESSMENT REPORT 17514

MINING DIVISION: Fort Steele

PROPERTY: Purcell  
LOCATION: LAT 49 30 00 LONG 116 04 00  
UTM 11 5483240 567582  
NTS 082F08E 082F09E

CLAIM(S): LDM 1,2,4-12,Buck 6,8-11,13,Bar,Racki 5,6,8,9,12,14-18,Palm  
Bar Lode 1-3,Crystal,Lucky Bar 1-3

OPERATOR(S): Chapleau Res.

AUTHOR(S): Banting, R.T.

REPORT YEAR: 1988, 265 Pages

GEOLOGICAL  
SUMMARY:

The claim area is underlain by Precambrian sedimentary rocks of the Kitchener, Creston, and Aldridge Formations. In the Perry Creek area, the Creston and Kitchener Formations predominates, and are lenticular and trend north. They are commonly fault bounded by the Aldridge Formation to the north. Moyie sills are distributed throughout the map area.

WORK

DONE: Geological, Geochemical, Physical

GEOLOGICAL 5000.0 ha

Map(s) - 2; Scale(s) - 1:10 000

ROCK 390 sample(s) ;AU,PB,CU,ZN,AS

SAMP 16 sample(s) ;AU,PB,CU,ZN,AS

SILT 172 sample(s) ;AU,PB,CU,ZN,AS

SOIL 2678 sample(s) ;AU,PB,CU,ZN,AS

TREN 1220.0 m

MINFILE: 082FNE059,082ESE095

LOG NO: 0620	RD.
ACTION:	
FILE NO:	

**GOLD COMMISSIONER  
RECEIVED and RECORDED**  
JUN 13 1988  
M.R. \_\_\_\_\_ \$ \_\_\_\_\_  
CRANBROOK, B.C.

ASSESSMENT REPORT

FILMED

ON THE PURCELL CAMP

MORGAN SOUTH, BUCK II, AND BAR PROPERTIES

Fort Steele Mining Division

NTS: 82F/8E, 9E

Latitude: 49 30'N

Longitude: 116 4'W

on behalf of:

Chapleau Resources Ltd.  
2100 - 4th Street No.  
Cranbrook, B. C.  
VIC 4X9

by  
**GEOLOGICAL BRANCH**  
R. T. ~~Geological~~ ~~Assessment~~ ~~Report~~ ~~Engineer~~  
**ASSESSMENT REPORT**

June 3, 1988  
**17,514**

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## S U M M A R Y

This report is submitted on behalf of Chapleau Resources Ltd. of 2100 - 4th Street North, Cranbrook, B. C. Chapleau Resources Ltd. is presently the recorded owner of mining property in the Slocan and Cranbrook areas.

The Purcell Camp, comprising of 49 mineral claims of 414 units is located in the vicinity of lode gold prospects between Moyie River and Perry Creek. The property is divided into four contiguous blocks, designated as Morgan, Buck I, Buck II and Bar properties.

In 1987, Chapleau Resources Ltd. conducted an exploration program comprising of prospecting, geochemical sampling, trenching and geological survey. Geochemical analysis on the Morgan and Bar outlined anomolous zones in Gold and Arsenic, while on the buck and Bar properties, stream sediment surveys clearly defined anomolous concentrations of Zinc and Lead as high as 10,000 ppm.

Prospecting located and outlined a stockwork of gold bearing quartz veins yielding assays of .6 oz/ton.

In consideration of the favourable structural and lithological geology of the Purcell Camp, and in recognition of the several anomalous zones, as evidenced from the 1987 field season, a Phase II program is recommended to evaluate the possibility for bulk-tonnage low grade replacement-type Au deposits and sediment-hosted massive sulphide mineralization.

## 1.0 INTRODUCTION

### 1.1 Location and Access

The Purcell Camp, comprised of the Morgan, Buck and Bar claims is located approximately 20 km. due west of Cranbrook, British Columbia. It centers on latitude 49 30'N and longitude 116'04'W (see Figure 1 & 2).

There are two means of access to the property: Access to the Perry Creek - Morgan claims is by a good, active, gravelled logging road from the Kimberley - Cranbrook highway, with junction at Wycliffe. From this point, one keeps to the left along Perry Creek for the south block of claims or bear right (Sawmill Creek Road) for the north block. The last several miles are 4-wheeled drive only. Access to the Moyie River - Buck and Bar claims is by good, active, gravelled logging road from Highway #3 west with junction at Lumberton. From this point, one keeps to the Lumberton north side of Moyie River for the Buck and Bar claims.

### 1.2 Physiography

The property is situated west of the Rocky Mountain trench within the Moyie Range of the Purcell Mountains. The highest elevation in the area is Grassy Mountain at 2491m. Elevations vary between 1220m and 2130m.

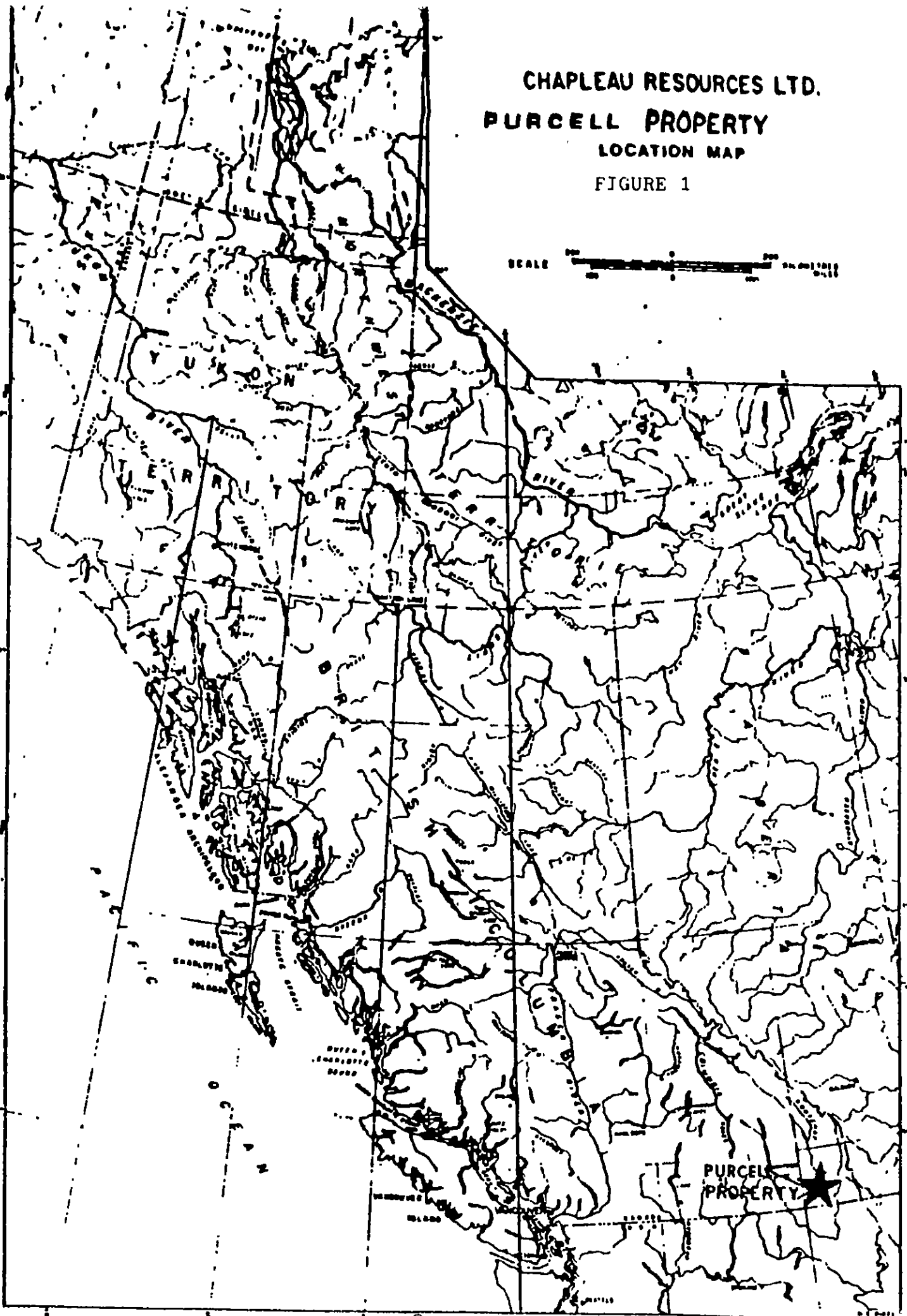
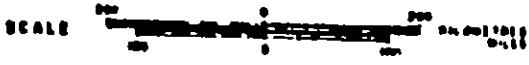
Precipitation is high (80-180cm) compared to other surrounding areas, while snow is considered moderate. Mean temperature compares to Kimberley norm at 17 C in July and -8 C in January.

The ravines are well timbered with spruce, larch, lodgepole pine, alpine fir, white pine and thick underbrush. The upper elevations exhibit much less forest cover.

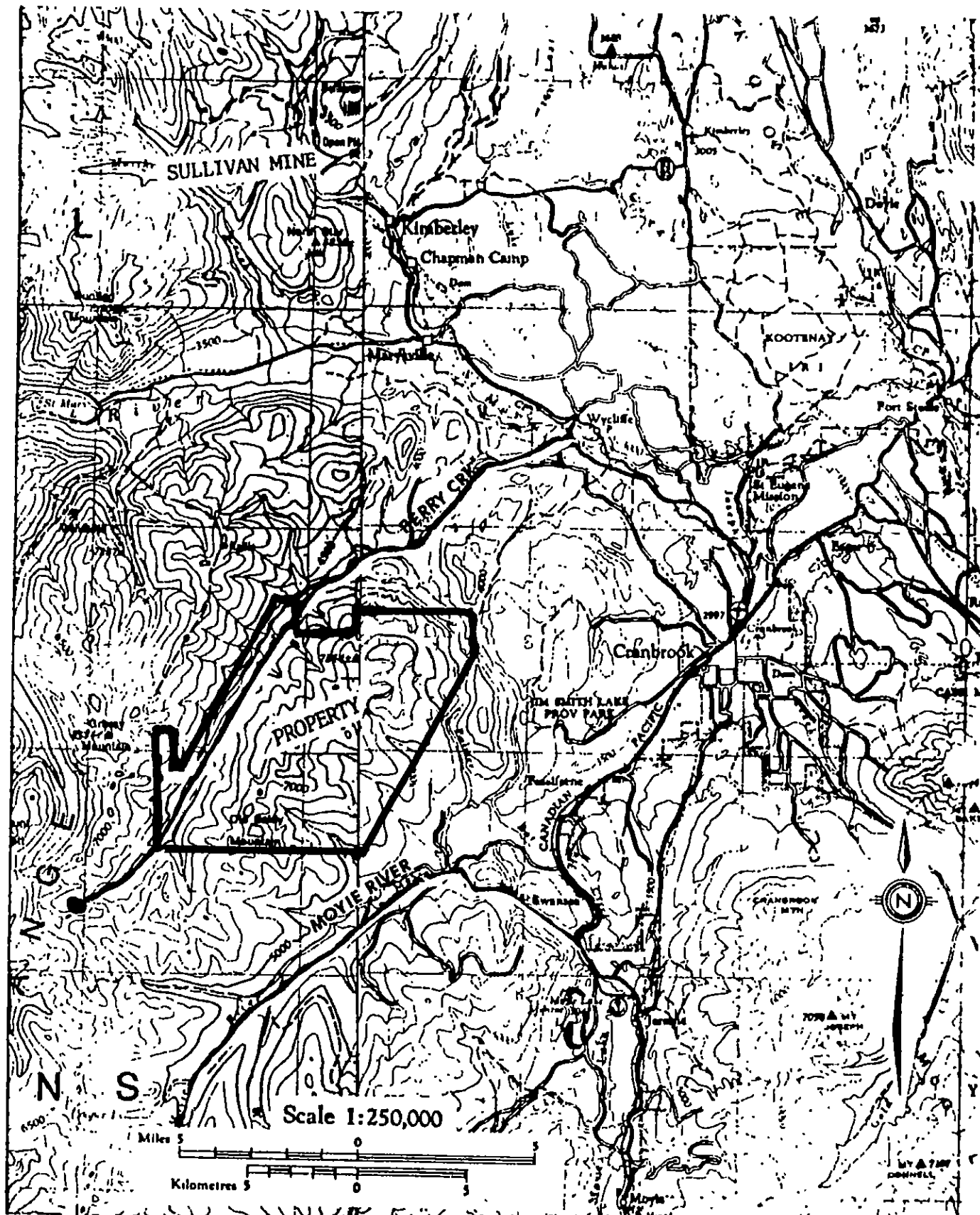
The property is drained on the west by Perry Creek and on the east by Moyie River. Perry Creek originates from a number of small high elevation lakes on the Grassy Mountain range as well as the Mt. Baldy - Biggatini range. The creek flows northeasterly through the Morgan claim group.

Moyie River originates from lakes on the east side of the Mt. Baldy - Biggatini range and tributaries to the south from the Moyie range. The river flows easterly bypassing the southern edge of the property (See Figure 2).

CHAPLEAU RESOURCES LTD.  
PURCELL PROPERTY  
LOCATION MAP  
FIGURE 1



*R. Bant.*



CHAPLEAU RESOURCES LTD.

**ACCESS MAP**

**PURCELL PROPERTY**

Fort Steele Mining Division - British Columbia

N.T.S. 82E, F



### 1.3 Claim Information

The Purcell property is comprised of 49 mineral claims of 414 units. The property is divided up into four blocks, in relation to individual ownership. Neigh-bouring claims are held by Gallant Gold Mines Ltd., Unique Resources, TransArctic Resources, Imperial Metals, Amstar Corp., and Leask Group (Goldpac) (See Figure 3).

#### 1.31 The Morgan Claims

The Morgan claims of Perry Creek comprise of 5 mineral claims of 28 units in the North Block and 22 mineral claims of 144 units in the South Block. The Morgan claims, designated as either RACKI or LDM are all located within the Fort Steele Mining Division of B. C. (See Figure 4 - Claim Map). The claims are owned by L. Morgan of Cranbrook, B. C., F. Fairclough of Cranbrook, B. C. and N. Gass of Calgary, Alta. The property has been optioned by Chapleau Resources Ltd. for a 60% interest.

#### 1.32 The Buck I Claims

The Buck I claims of Moyie River, comprising of 7 contiguous mineral claims of 90 units are all located within the Fort Steele Mining Division of B.C. (See Figure 5 - Claim Map). The claims are wholly owned by D. Melenka of Cranbrook, B.C. The property has been optioned by Chapleau Resources Ltd. for a 60% interest.

#### 1.33 The Buck II Claims

The Buck II claims of Moyie River, comprising of 6 contiguous mineral claims of 62 units are all located within the Fort Steele Mining Division of B. C. (See Figure 5 - Claim Map). The claims are wholly owned by C. Kennedy of Cranbrook, B. C. The property has been optioned by Chapleau Resources Ltd. for a 60% interest.

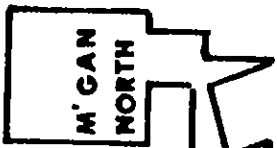
#### 1.34 The Bar Claims

The Bar claims of Moyie River, comprising of 9 contiguous mineral claims of 90 units are all located within the Fort Steele Mining Division of B. C. (See Figure 6 - Claim Map). The claims are wholly owned by Chapleau Resources Ltd.

(See Claim Status Table 1.3)



PURCELL CAMP  
CLAIM BLOCKS  
FIGURES 3/21/88



GALLANT

BACK CK

AMSTAR

BAR

LEASK

SOUTH

BUCK I

BUCK I

MORGAN

IMPERIAL

GALLANT

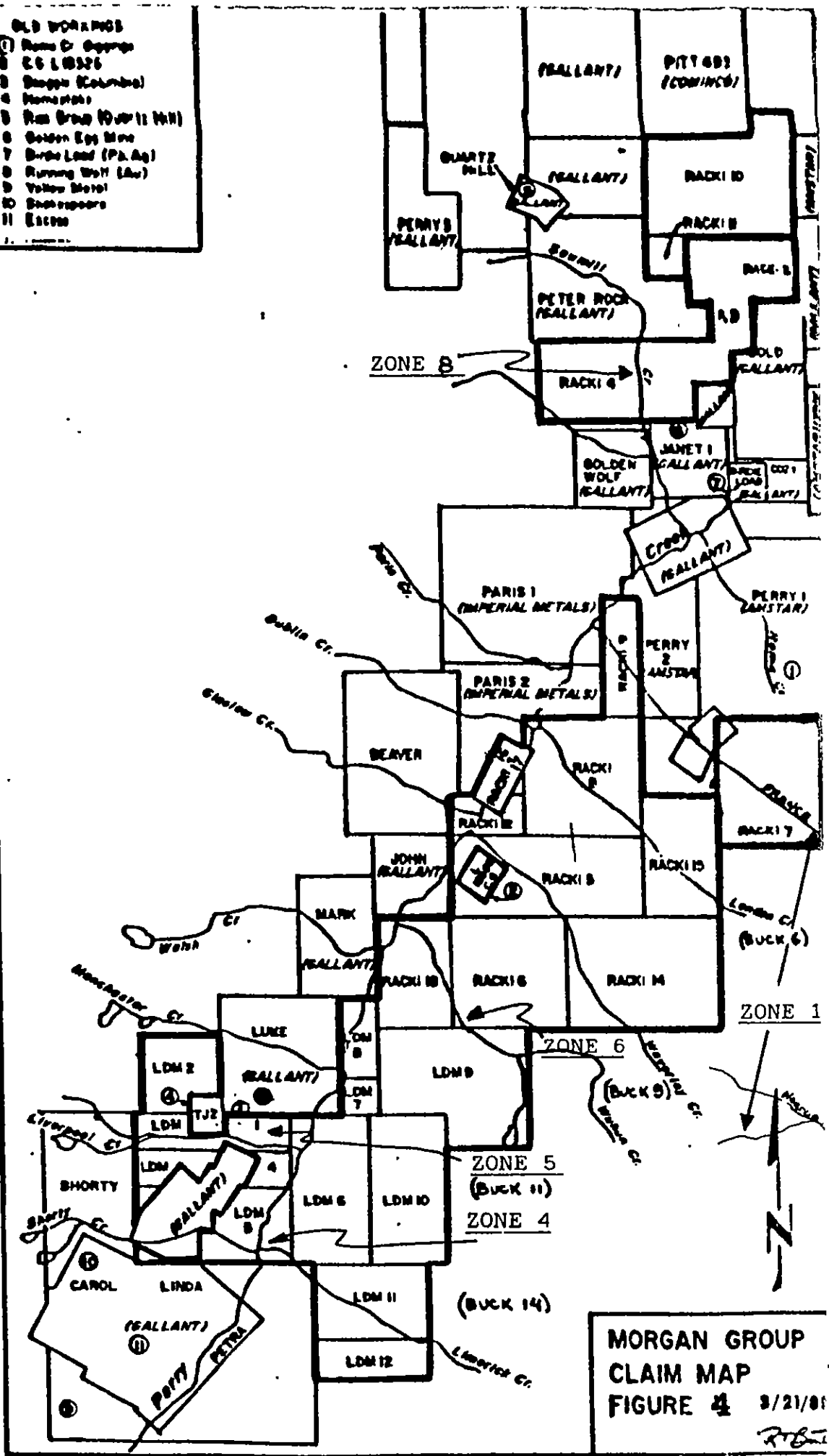
ARGUS CK

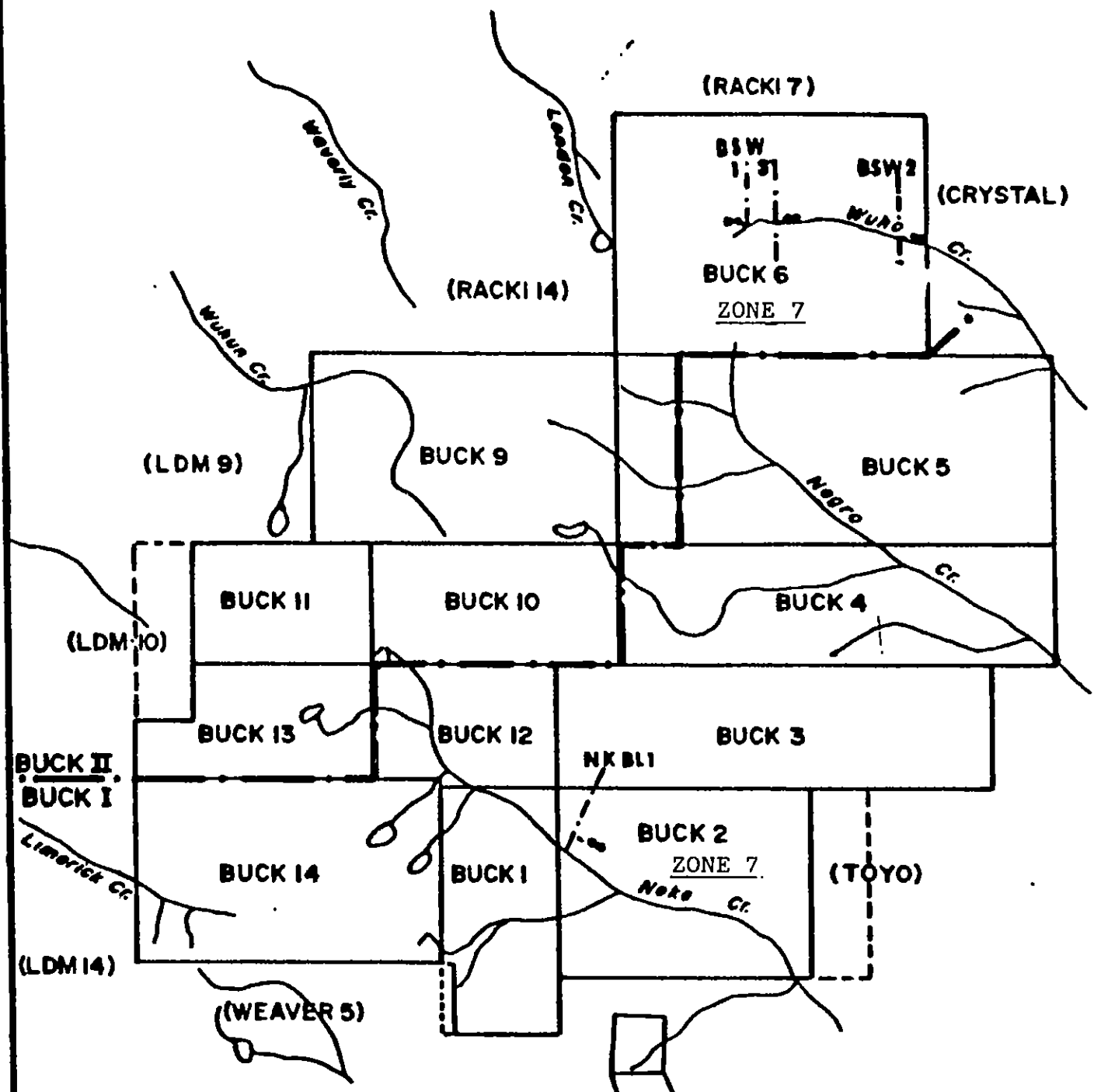
UNIQUE

GALLANT

NEAR BR

- OLD WORKS
- 1) Rome Cr. Gypsum
  - 2) EG L 0326
  - 3) Sledge (Columbia)
  - 4) Homestead
  - 5) Red Gray (Dun 12 MH)
  - 6) Golden Egg Mine
  - 7) Dingo Lead (P.A. Ag)
  - 8) Running Wolf (Lau)
  - 9) Yellow Metal
  - 10) Star reports
  - 11) Escape

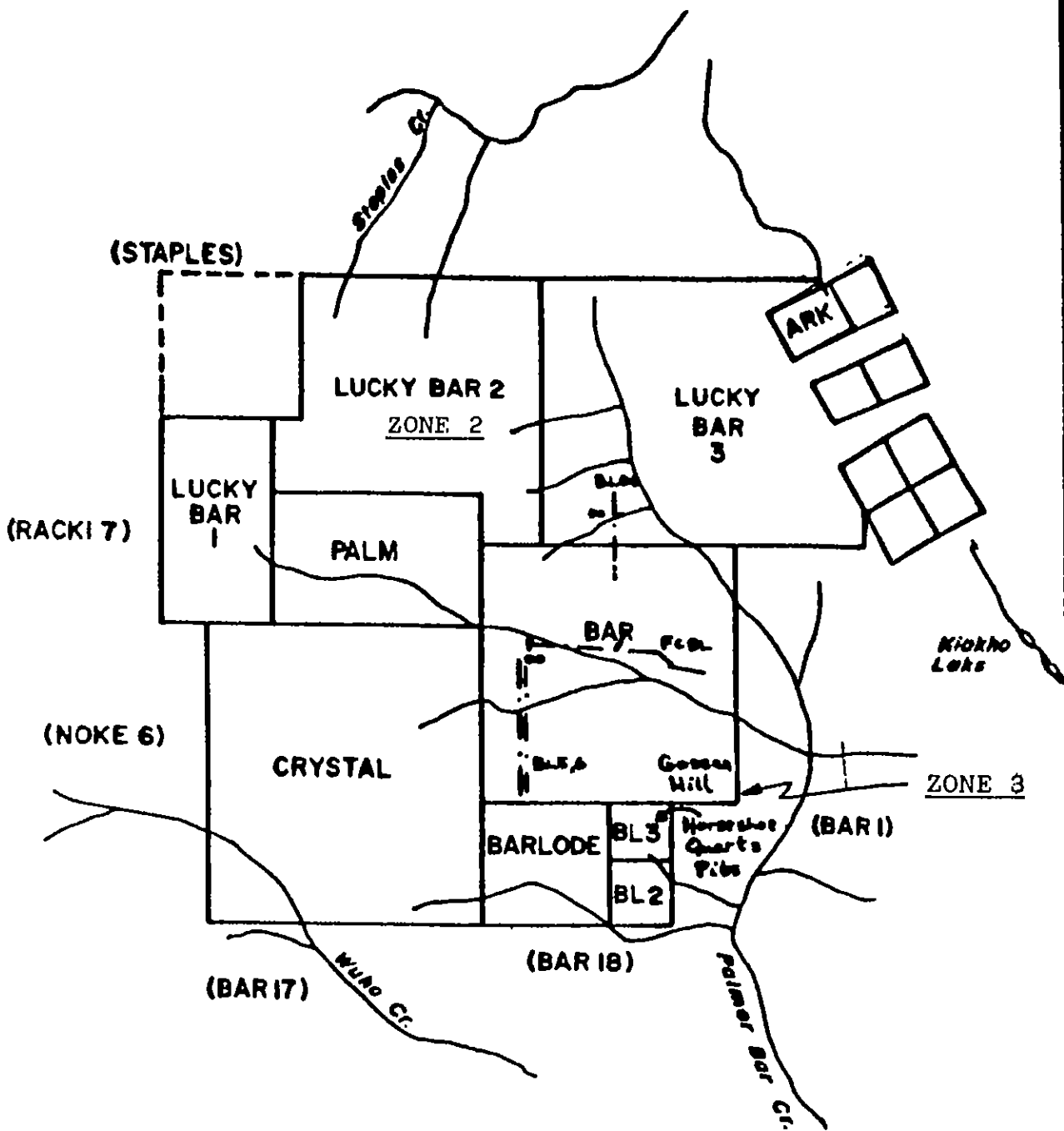




**LEGEND**  
 - - - - - Boundary BUCK I / BUCK II  
 (LDM 14) Adjacent claims  
 . . . . . Baseline

Chapleau Resources Ltd.  
**BUCK CLAIMS**  
 0 500 1000 1500 2000m  
 Scale 1:50000  
 Date: March/88  
 Figure 5

RTB



**LEGEND**

(BAR 17) Adjacent claims  
 - - - Baseline

Chapleau Resources Ltd.

**BAR CLAIMS**



Scale 1:50000

Date: March/88

Figure 6

*RTB*

The following Assessment Report covers the claim blocks of Morgan South Block, Bar, and Buck II. Assessment Reports on the Morgan North Block and Buck I claims were previously submitted of February 19, 1988 and February 20, 1988 respectively.

CLAIM STATUS

TABLE 1.3

MORGAN SOUTH  
SOUTH BLOCK

Covers Statement of Work documents 10, 11, 12

CLAIM NAME	REC. #	RECORDED DATE	EXPIRY DATE	# UNITS
LDM 1	751	SEPT 5/79	SEPT. 5/90	4
LDM 2	962	JULY 4/80	JULY 4/90	4
LDM 4	1769	APR. 26/83	APR. 26/90	4
LDM 5	1940	SEPT. 20/83	SEPT. 20/90	8
LDM 6	1954	SEPT. 30/90	SEPT. 30/90	8
LDM 7	2624	MAY 28/86	MAY 28/90	4
LDM 8	2874	APR. 21/87	APR. 21/90	2
LDM 9	2590	MAR. 14/86	MAR. 14/90	12
LDM 10	2591	MAR. 14/86	MAR. 14/90	8
LDM 11	2592	MAR. 14/86	MAR. 14/90	6
LDM 12	2609	APR. 21/86	APR. 21/90	3
RACKI 5	2326	NOV. 26/84	NOV. 26/90	10
RACKI 6	2380	APR. 22/85	APR. 22/90	9
RACKI 9	2450	AUG. 30/85	AUG. 30/90	9
RACKI 12	2593	AUG. 30/85	AUG. 30/90	3
RACKI 16	2648	JULY 2/86	JULY 2/90	2
RACKI 17	2649	JULY 2/86	JULY 2/90	1
RACKI 14	2610	APR. 25/86	APR. 25/89	12
RACKI 15	2611	APR. 25/86	APR. 25/89	6
RACKI 18	2873	APR. 21/87	APR. 21/89	8
Racki 8	2450	Aug 30/85	Aug 30/90	9

CLAIM STATUS

TABLE 1.3

BAR GROUP

CLAIM NAME	REC. #	REC. DATE	EXPIRY DATE	# UNITS
PALM	1862	JULY 4/83	JULY 4/88	6
BAR	1896	AUG. 12/83	AUG. 12/88	16
BAR LODE	1925	SEPT. 8/83	SEPT. 8/88	4
BAR LODE 2	1926	SEPT. 8/83	SEPT. 8/88	1
BAR LODE 3	1927	SEPT. 8/83	SEPT. 8/88	1
CRYSTAL	2271	SEPT. 24/84	SEPT. 24/88	20
LUCKY BAR 1	3002	OCT. 8/87	OCT. 8/88	4
LUCKY BAR 2	3003	OCT. 8/87	OCT. 8/88	18
LUCKY BAR 3	3004	OCT. 8/87	OCT. 8/88	20
TOTAL UNITS				90

BUCK GROUP II

BUCK 6	2928	JUNE 15/87	JUNE 15/88	20
BUCK 8	2929	JUNE 15/87	JUNE 15/88	3
BUCK 9	2930	JUNE 15/87	JUNE 15/88	15
BUCK 10	2931	JUNE 15/87	JUNE 15/88	8
BUCK 11	2926	JUNE 12/87	JUNE 12/88	8
BUCK 13	2927	JUNE 12/87	JUNE 12/88	8
TOTAL UNITS				62

## 1.4 History

The Perry Creek and Moyie River drainages were the scene of an intense gold rush near the turn of the century, having been the most prolific placer gold producers in the East Kootenay Region. Prospectors of the past explored by driving adits, sinking shafts and digging numerous hand trenches.

In Perry Creek, the Running Wolf mine (Figure 4) on French Creek has over 1000 feet of adits. The Homestake boasts a 560-foot tunnel and a 60-foot shaft. On Rome Creek, thirteen opencuts tested a two foot to 25-foot vein over 1500-feet in length. The Montezuma tunnel at the base of the Perry Creek Falls was driven in over 2000 feet to investigate the old channel.

Old records are scanty, but two bulk samples are on record: The Yellow Metal Group yielded .4 oz/ton Au from a one ton sample and a 3 ton sample from the Homestake gave .3 oz/ton Au. The Shakespeare group reported up to .75 oz/ton Au. The Excess, Rory, Red Mt., O'More, and Evil Genius claims all reported around .5 oz/ton. In 1973, a 1375 ton bulk sample from Quartz Hill ran .26 oz/ton gold, .2 oz/ton silver (Figure 4). Several of the veins carried gold and although no major deposit was discovered, several small shipments are reported.

In the Kiakho Creek area of the Moyie Range, numerous adits and shafts have been located adjacent to the syenite intrusion. Other small diggings of a lesser extent do occur along the diorite sills in various areas over the map area.

Immediately south of the property, several placer operations have worked the Moyie River to present day. Two such operations namely Kokanee Placer and Queenstake Resources are successfully producing gold in paying quantities.



### 1.5 Economic Potential - Geological Interpretation

The mineral deposits of Cranbrook area are many and varied. For purposes of description they have been classified into three main types:

- A) replacement deposits in sedimentary rocks, not localized along fractures.
- B) deposits associated with Moyle intrusions.
- C) veins and replacement deposits localized along fractures.

The Sullivan and North Star deposits are representative of the first type. Deposits of the second type, associated with Moyle intrusions have produced smaller mineral occurrences on a reduced scale due to their erratic distribution. The third type included the more promising prospects in the area. They include the early attempts at gold mining, made at such workings as Anderson, Birdie Load, Rice, Homestake, Running Wolfe in Perry Creek, and Prospector's Dream in the Moyle.

## 1.6 Summary - Work Programm 1987

In 1987, from May 23 to November 22, field work, at a total cost of \$105,000, conducted by Chapleau Resources Ltd., entailed the following:

### A. Geological Survey

Detailed geological mapping was completed over the entire Morgan group of claims. The structural and lithological features confirmed previous mapping results of the area. The mapping also unveiled a number of interesting zones worthy of further study

### B. Geochemical Survey

Soil, silt, bulk, and rock chip sampling was carried out over the recommended areas that highlighted mineralization and shear zones. A total of 3,256 samples taken over the entire Purcell camp were analyzed for Au, Pb, Cu, Zn, and As. Total soils collected amounted to 2,678 samples from 16 baselines, while silt samples totalled 172 from 7 drainages. Grab samples assayed totalled 390 specimens while 16 bulk samples were taken from 10 drainages.

### C. Physical Work

A total of 51 trenches were excavated over anomalies found by the combined assay results of soil sampling and systematic rock chip sampling.

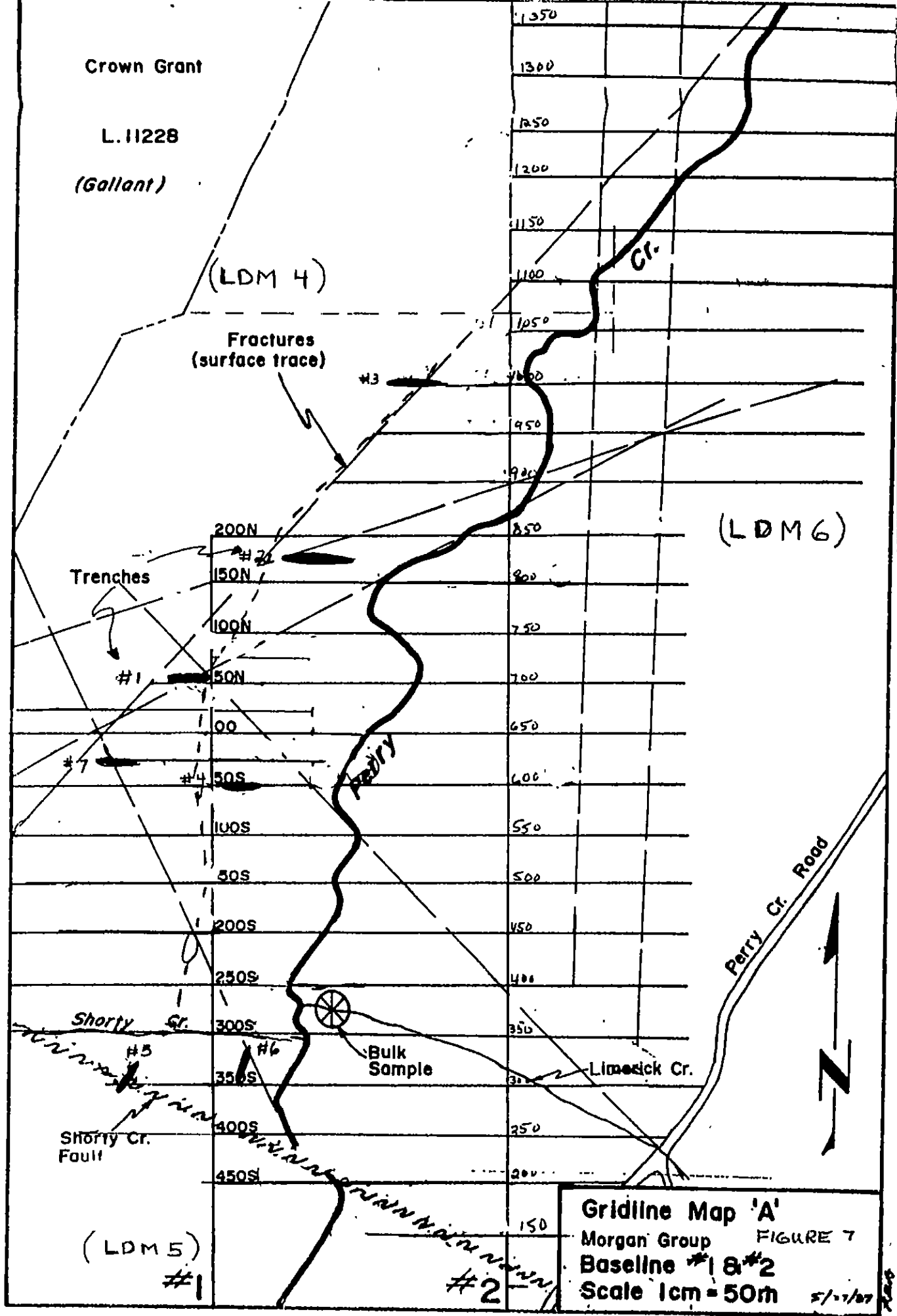
T R E N C H E S

A. MORGAN (all trenches 2m wide)

TRENCH#	DEPTH(m)	LENGTH(m)	FORMATION	AREA
1	7	10	Linonitic clay to blue	BL1 00 + 50N
2	7	7	Kitch.argillite	BL1 175N + 100E
3	7	10	Kit qtz/pyr & hem	BL2 1000N +100W
4	7	6	Aquifer	BL1 50S + 50E
5	4	17	Kitch/aquifer	BL1 350S + 100W
6	3	25	Crest-qtz/red hem	BL1 325S + 25E
7	9	10	Glacial	BL1 30S + 190W
8	6	8	Old Columbia/ Quartz	
9	6	8	Diorite	
10	6	10	Creston/ironstain	
11	8	7	Glacial	
12	8	10	Dark green diorite	
19	8	10	No bedrock	BL4 250E + 150N
20	8	10	Diorite float in glacial	Wuhun
21	8	20	Argillite-qtz/ diorite	Wuhun
22	4	10	Glacial	Wuhun
23	5	12	Kitchener	Wuhun
24	5	15	Kitch/linonite	Wuhun

B. BAR (all trenches 2m wide)

TRENCH#	DEPTH(m)	LENGTH(m)	FORMATION	AREA
1, 2, 3	1	50M x 12M	Creston/qtz veins	ELCR
4	3	5	Quartz/M	ELCR road/ corner
5	2	5	Aldridge	Quartz pit
6	2	5	Aldridge/Dior.	Horseshoe pit
7	8	10	Unconsol.	E.Hor.pit
8	8	15	Creston	W.Hor.pit
9	3	5	Lim/Diorite	Hor/Q road
10	3	5	Lim/Diorite	Hor/Q road
11	3	5	Aldridge	Hor/Q road
12,13,14 & 15	4	10	Unconsol.	
16	3	10	Creston	ELCR road
17	4	6	Quartz/M	
18	1	15	Creston	BL00 + 50N + 700W
20,21,22	5	5	Argillite/ quartzite	Palmer Road
23	1	4	Diorite/hem	



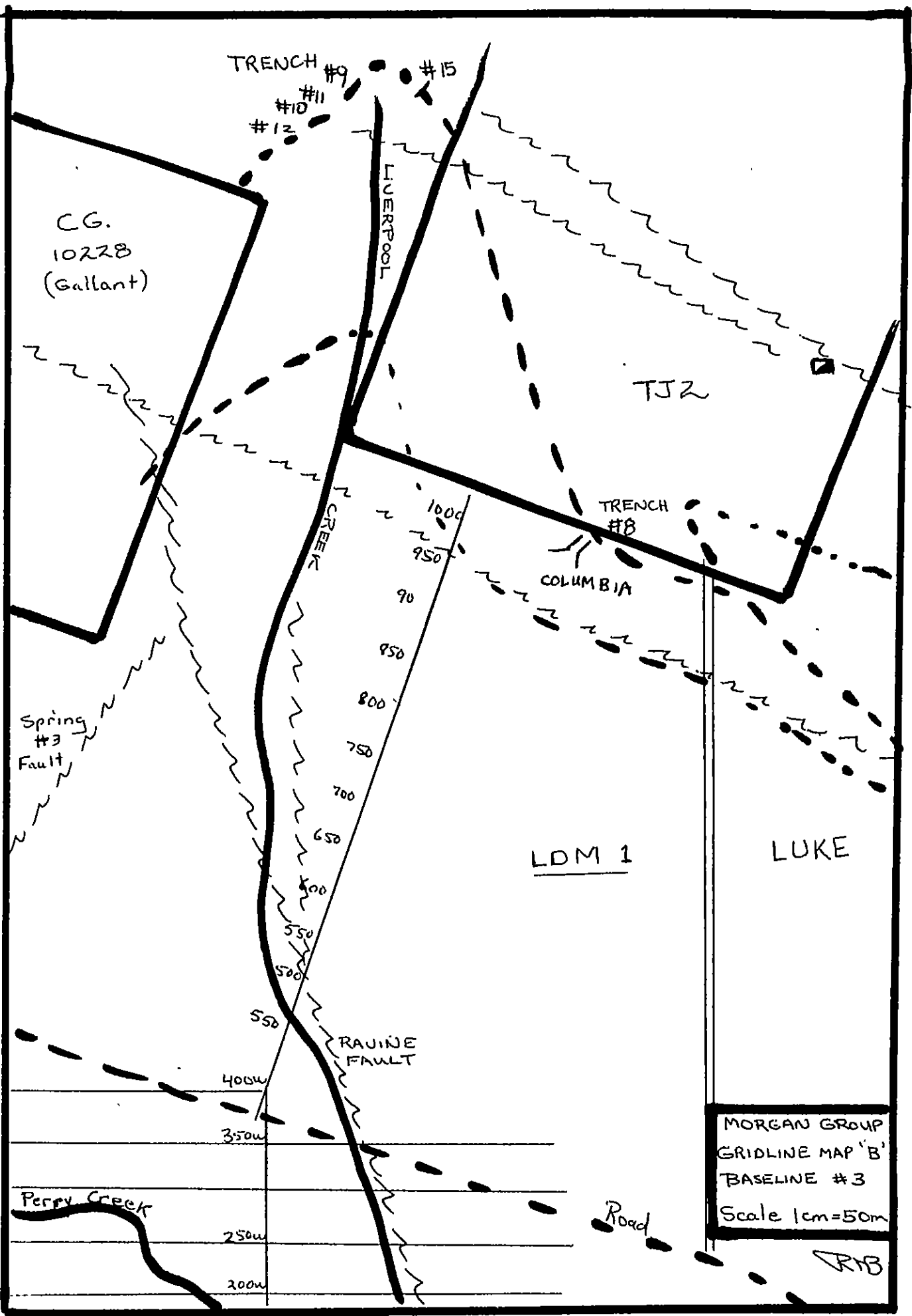
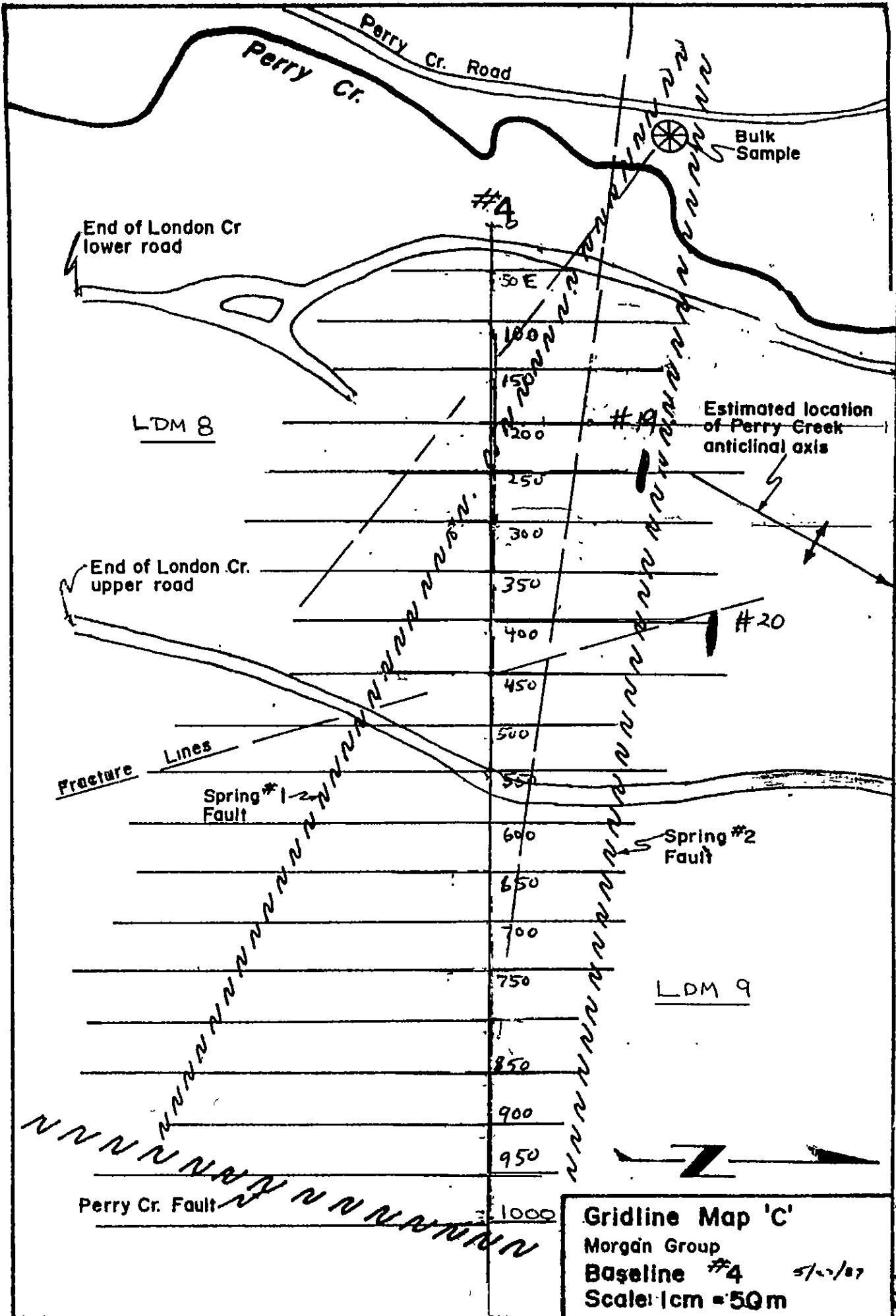


FIGURE 8



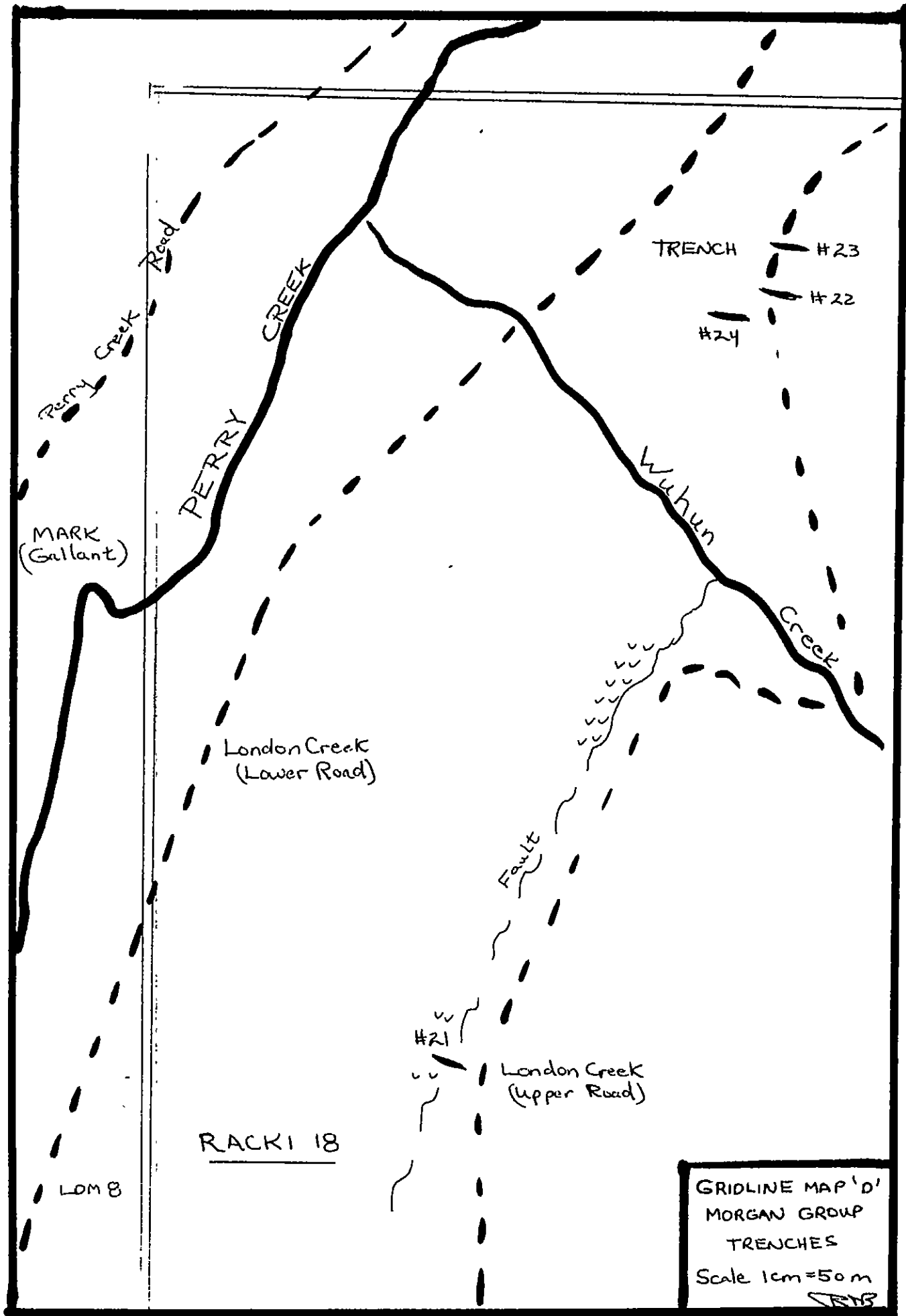


FIGURE 10



BAR GROUP  
 Geochemical &  
 Physical (Trenches)  
 Scale 1:20,000  
 RGS

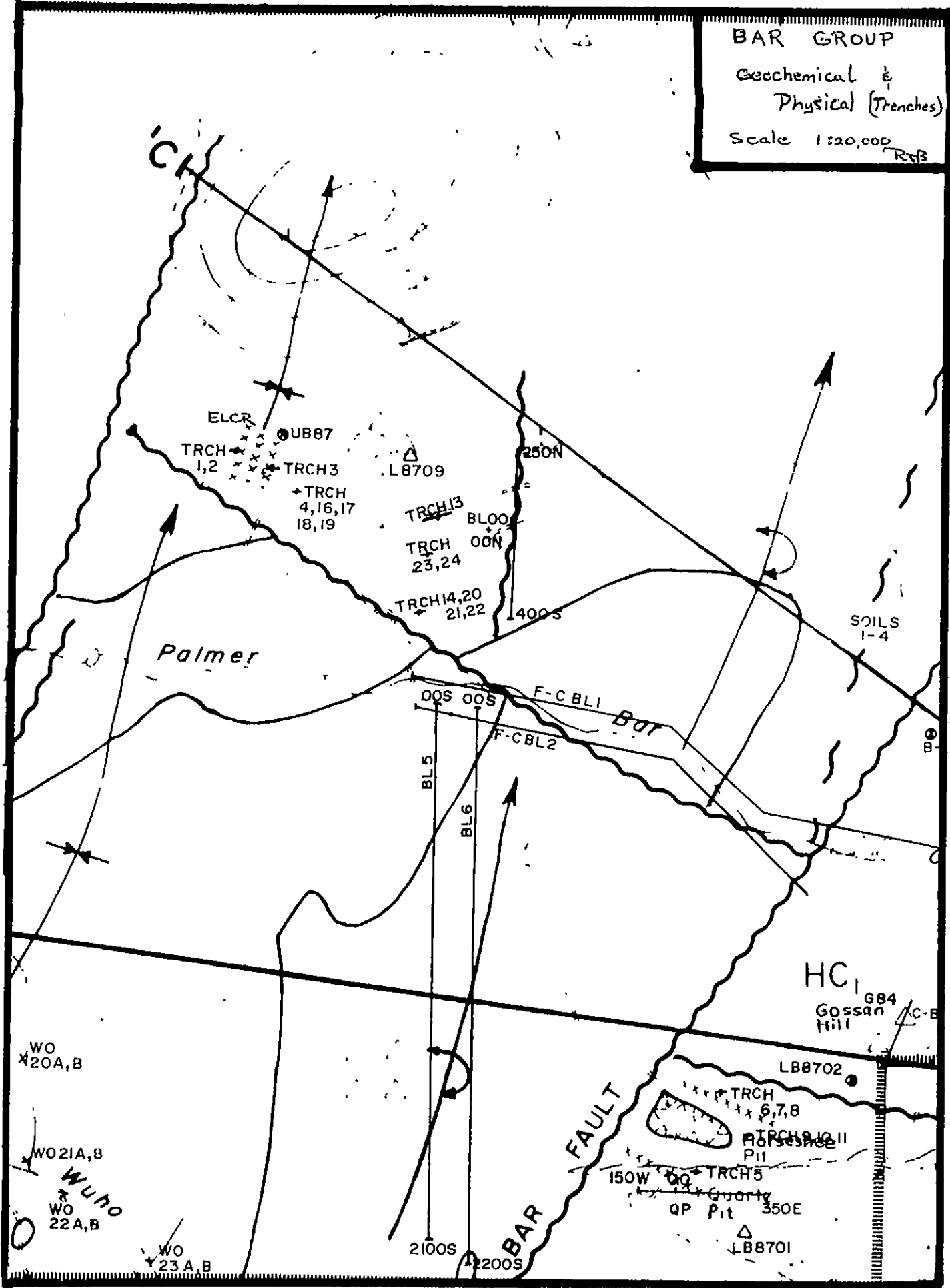


FIGURE 11

## 2.0 GEOLOGY

The following descriptions of the geology of the Purcell Range and the Perry Creek area are taken from G.S.C. Memoirs by Schofield, Rice and Hamilton.

### 2.1 Regional & Local Lithology

The Purcell Range is separated from the Selkirk range on the west and from the Rocky Mountain system on the east.

The rocks of the Purcell Range form the western part of the ancient group of sediments deposited in the Rocky Mountain geosyncline. These sediments, called the Purcell series, and of Pre-Cambrian Beltian age, consist of a great thickness of fine grained quartzites, argillaceous quartzites, argillites and limestones, all remarkable for their homogeneity.

In southeastern British Columbia, the Purcell Super group exceeds 10,000 m in thickness. In the vicinity of the Sullivan deposit at Kimberley the lowermost subdivision of the Purcell Supergroup, the Aldridge formation, is a 4,000m thick succession of fine-grained siliclastic rocks. Most of the Aldridge Formation was probably deposited by turbidity currents. East of Kimberley, in the western Rocky Mountains, the oldest rocks are greater than 2,000m thick, fining-upward platformal/deltaic sequence called the Fort Steele Formation. A transitional contact exists between the Fort Steele and the succeeding Aldridge Formation. The Fort Steele Formation is interpreted to be the facies equivalent of the lower part of the Aldridge Formation in the Kimberley area.

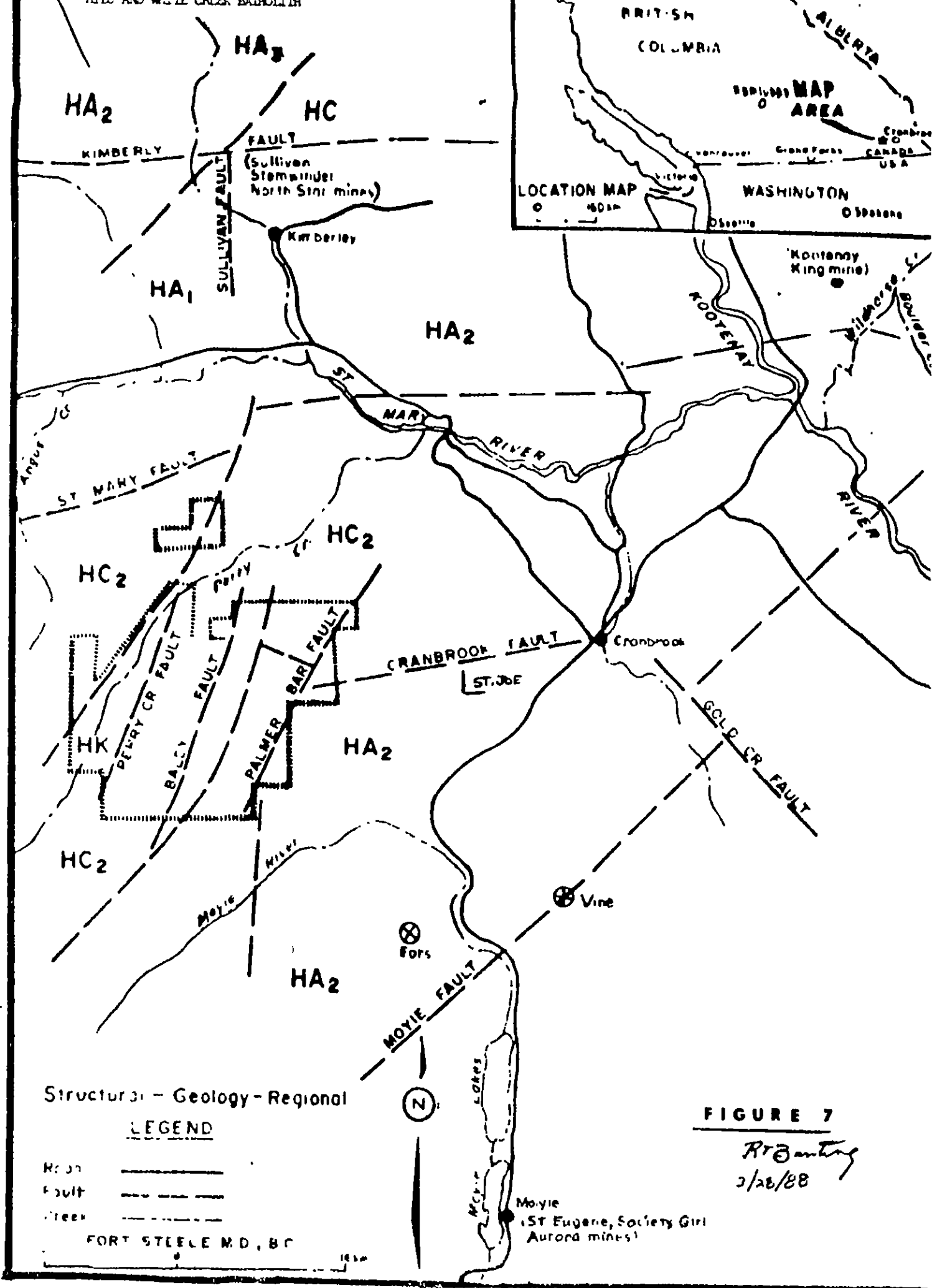
The Aldridge Formation is gradationally overlain by up to 1,800m of grey, green and maroon wacke of the tidal flat to deltaic Creston Formation. Conformably overlying the Creston Formation is 1,200m of dominantly platformal dolomite and terrigenous-dolomite admixtures of the Kitchener formation. The Kitchener is in turn overlain by 200 to 400m of green, slightly dolomitic and calcareous fine-grained sedimentary rocks of the Van Creek Formation and up to 500m of andesitic volcanic rocks of the Nicol Creek Formation.

In the Purcell Mountains, about 1,200m of grey to dark grey, dominantly platformal carbonates and fine-grained siliciclastic rocks of the Dutch Creek Formation rest with apparent conformity of the Lower Purcell sequence. The Dutch Creek Formation is overlain by 1,000m of grey, green and maroon wacke and buff orthoquartzite of the Mount Nelson Formation.

Middle Proterozoic gabbros of two ages intrude the Purcell Supergroup in southeastern British Columbia. The oldest (1433 ± 10 Ma) are sills, slightly discordant sheets and dykes of the Moyle Sills, which are most commonly developed in the lower part of the Aldridge Formation. Gabbro sills are most abundant in the Purcell Mountains, where they attain an aggregate thickness of up to 2,000m. The youngest event of gabbro intrusion is thought to be comagmatic with the volcanics of the Nicol Creek Formation, and is represented by abundant sills in the upper part of the Creston Formation and in the Kitchener and Van Creek Formations. Potassium-argon methods indicate an age of 1075 Ma for the Nicol Creek Formation.

The claim area studied is underlain by Precambrian sedimentary rocks of the Proterozoic age, either of the Kitchener, Creston or Aldridge formations.

In the Perry Creek area, the Creston and Kitchener Formations predominate, and are lenticularly North-east trending, commonly in a fault contact and bounded to the North and South by the Aldridge Formation. The Aldridge formation outcrops predominantly within an area south and east of the Baldy and Cranbrook faults - on the Moyie River side. Precambrian diorite sills are distributed throughout the map area, in concentrated form along fault zones.



Structural - Geology - Regional  
**LEGEND**

- Rock \_\_\_\_\_
- Fault - - - - -
- River ~~~~~

FORT STEELE M.D., B.C.

**FIGURE 7**  
*Rt Banting*  
 2/28/88



## 2.2 Regional Mineralization - Sulphide Prospects

The Kimberley area is transected by the right lateral transverse St. Mary's fault. The Sullivan deposit occurs at the boundary between the Lower and Middle Aldridge within the St. Mary's block, with the North Star and Stemwinder deposits located just to the south.

The Sullivan orebody is interpreted as a hydrothermal synsedimentary sulphide lens which formed in a sub-basin on the marine floor during deposition of the Aldridge Formation. It is located directly over and adjacent to conduits through which mineralized fluids passed.

The evidence relating stratiform mineralization to syndepositional faulting is found in the coarse conglomerates which occur close to the lower and middle Aldridge contact. Conglomerate is found on the footwall at this horizon beneath the stratiform Sullivan deposit and below the Hilo mineral showing (north of the Hall Lake fault). The conglomerate underlies a thin stratiform pyrrhotite laminated zone. Pyrrhotite fragments in the conglomerate also occur in the Kootenay King deposit in Boulder Creek (See Figure 7).

Slightly east of the property claim block, on the St. Joe property, quartz veins mineralized with galena, chalcopyrite and arsenopyrite are found cutting the Middle Aldridge. Mineralized conglomerate is also reported to have originated from these workings.

In recent years, exploration of the area has been advanced by developments which include:

- the recognition of laminated markers (varves) and their use in subdivision of Aldridge stratigraphy.
- the recent discovery of the lead-zinc VINE deposit, located 40km. southeast of the Sullivan mine (the deposit crosscuts stratigraphy and appears to be of St. Eugene type).
- the discovery of lead-zinc float boulders at the Fors Grid prospect (40km. south of the Sullivan) leading to exploration of bedding controlled mineralization which might have occurred at a higher level than Sullivan time.
- the discovery of finely laminated pyrrhotite-pyrite beds in silty argillite that may be equivalents of the Sullivan deposit in diamond drilled holes east and southeast of the Sullivan deposit.

## 23 Local Mineralization - Gold Prospect

The following is part of the report submitted by G. Rodgers, Geologist, as mapped over the entire Morgan group of claims (Lithology and Structure in Appendix).

### MINERALIZATION

Known mineralization is directly related to faulting and subsequent hydrothermal activity. As previously mentioned under 'Structure', the lensoidal diorite bodies control faulting somewhat by refracting the break around their margins. If the fault strikes through the diorite at a high angle, there is a high probability of void space being created and the void acts as a reservoir. This is due to the competency contrast between the diorite and the surrounding argillites and quartzites. Another potential reservoir for ore bearing fluids is at the loci of intersecting faults.

The majority of known showings and workings occur at similar elevations and along trend with the major longitudinal Perry Creek Fault and Richmond Lake Fault. It is possible that the graben created between these two faults may host undiscovered mineralization if the mineralizing event predates faulting.

Historically, the only showings of merit have been mined for their gold content. The gold has been found associated with quartz veins and shear zones as vein faults, stringers and lenses commonly enriched in iron (pyrite and its oxidation products) and less commonly enriched in lead, zinc and copper and their oxidation products. Chloritization and sericitization has affected the wall rock.

At least two phases of silica flooding have occurred. The first being milky white quartz which did not bring with it gold, but formed coarsely crystalline lenses, pods and at times huge irregular masses of quartz carrying iron visible at surface as pyrite and specular hematite. A second period of silica deposition occurred leaving transparent quartz in interstitial voids and carrying with it gold and sometimes silver, zinc and copper.

The gold was channeled to zones of greater dilatancy along strike of the faults where, since all major showings share a similar elevation, the level of erosion puts these showings in the epithermal model just below the silica capping. Temperatures were probably cool (100 C).

The topographic recession of vein surfaces hints that supergene enrichment has taken place but to what depth is as yet uncertain.

## 3.0 GEOCHEMISTRY

### 3.1 Introduction

This report addresses the results of the soil and stream sediment geochemical surveys which were undertaken during the 1987 field season on the Morgan, Buck and Bar Properties, Cranbrook, British Columbia by Chaplean Resources. Exploration targets on the properties, which also occur in similar host lithologies and geologic settings nearby, include sediment-hosted massive-sulphide mineralization similar to that at the Sullivan Mine and precious-metal ( $\pm$  base-metal) quartz veins, perhaps similar to those on the east side of Moyie Lake (the St. Eugene Mine). Possibilities also exist for bulk-tonnage low-grade replacement-type Au deposits in calcareous stratigraphy of the Purcell Supergroup.

Discussions of the results of these surveys are included separately (see references) and are based largely on statistical analyses of the geochemical determinations, and based on maps of the geochemical concentrations. This report summarizes the results and conclusions of these reports and looks at these results in an overall exploration context. Recommendations for further geochemical work on the property during the 1988 field season are also presented.

### 3.2 Conclusions - Stream Sediments

Stream sediment data from the Morgan, Buck and Bar Properties successfully identifies several stream sediment anomalies. Four of these occur along Wuho Creek and could be related to massive sulphide mineralization. A fifth anomaly occurs near the head of Noke Creek. (Fig.5 p8; s.s.p148,151)

'Anomalous' concentrations of Cu, Pb, Zn, Ag, As  $\pm$  Au downstream from the anomalous sources indicate that Cu, Pb, Ag, As and Au appear to have shorter dispersion trains than Zn.

The design of the stream sediment survey is clearly inadequate to accurately define drainages 'anomalous' in Au. The sampling density of the survey, the size of the sample collected and analyzed, the sample preparation technique and the analytical procedure also prevent recognition of known metal occurrences. Furthermore, geochemical contrast for most elements is not adequate to define 'anomalies' with confidence.

### 3.3 Conclusions - Soil Grids

Several 'anomalous' zones are observed on the many soil grids located on these properties. Those possibly related to massive sulphide mineralization occur on Soil Grids BSW-1/BSW-3, BSW-2 of the Buck Property and on the Gossan Hill and Quartz Pit/Horseshoe Soil Grids of the Bar Property. These are generally comprised of a distinct Pb 'anomaly' with 'anomalous' concentrations of Cu, Zn and As nearby. The patterns defined by these 'anomalies' suggest that, like the stream sediments, differential element mobility has acted to create different 'anomaly' geometries and intensities.

(Buck Fig.5 p8;p90) (Bar Fig.6 p9;p114)

Other geochemical 'anomalies' occurring on the properties consist of linear trends defined by one or more element. These occur on the Morgan # 4 Grid, where 'anomalous' As occurs at the intersection of 'anomalous' trends of Cu and Pb, and on the Noke Grid, where 'anomalous' Cu, Pb and As define two E-W oriented trends. These 'anomalies' may be related to sulphide bearing structures underlying the soil grids. These structures may also contain Au. (Morg Fig.10b p29;p49) (Buck Fig.5 p8;p90)

While the general soil survey design appears to be barely adequate to allow definition of massive sulphide targets, the geochemical contrast produced by the sample collection, reduction and analysis procedures is clearly not as high as that generally observed in the stream sediments. This soil survey design seems totally inadequate to locate known sources of Au mineralization, even when samples are collected immediately adjacent to and above prospects. For both massive sulphide and Au vein targets, higher sample densities would allow for greater confidence in anomaly detection.

### 3.4 Synopsis

In general, element concentrations have large levels of variation across short distances. This is probably due to inadequate sampling technique and probably resulted in the misinterpretation of 'anomalous' signatures and the non-detection of possibly several significant 'anomalous' zones. Sample sizes do not appear to be large enough to allow interpretation of Au concentration distributions. Also, the sampling, preparation and analytical procedures do not produce adequate contrast to allow easy and confident interpretation.

Patterns of concentrations of elements from both stream sediments and soils do show evidence for differential mobility. Specifically, Zn concentrations appear to be dispersed substantial distances from Pb 'anomalous' zones considered to be their source. Concentrations in stream sediments are generally higher than those in soils defining the possible source for the stream sediment 'anomaly'. This may be due to dilution of the soil samples by fine grained glacial till which does not contain significant concentrations of the elements.

Based on the observed patterns of element concentrations on the soil grids and in the stream sediments, there is little evidence to suggest the presence of disseminated, micron-sized Au replacement mineralization. The low reproducibility of the Au determinations suggests that a large nugget effect affects the results. This nugget effect is probably due to coarse grained native Au particles occurring in the samples, and could not be produced by micron-sized Au grains. The large As 'anomaly' located on the Morgan # 4 Grid is the only evidence which may suggest the presence of fine-grained Au replacement mineralization, because the equ-dimensional form of this anomaly does not appear to be controlled dominantly by structures.

### 3.5 Recommendations for 1988

Based on the above observations and conclusions, the following actions are recommended :



- an orientation survey of the stream sediment collection method, using one of the observed anomalies on Wuho Creek as a test case; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to both massive-sulphide and Au-quartz vein mineralization;
- a detailed stream sediment survey of all streams on the property (based on the above described orientation survey) at one sample every 250 m along the stream and above all forks; this should include a multi-element (+ Hg) ICP analysis of the silt fraction plus a non-magnetic and magnetic heavy liquid separation of up to 5 kg of fine grained stream sediment; analysis of Au should be by fire assay pre-concentration and atomic absorption; a barite specific determination should be included; this survey should take place immediately after spring run-off to avoid hydraulic re-distribution of heavy minerals;
- anomalous zones discovered by the 1987 stream sediment survey should be confirmed with this detailed stream sediment survey; bank sampling of the suspected anomalous zones should be done in conjunction with this survey to further constrain the location of the sources for these stream sediment 'anomalies';
- all confirmed stream sediment anomalies should be intensively prospected and covered with an extensive soil grid over the most likely locations; sample spacing should not be larger than 25 m; analysis of the -80 mesh fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in the stream sediment and soil orientation (see below) surveys;
- an orientation survey of the soil method for both massive sulphide and Au vein targets, using several of the known showings as test cases; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to massive-sulphide and Au-quartz vein mineralization;
- before the commencement of any soil survey, an assessment of the glacial overburden and its effect on the detection of geochemical anomalies must be undertaken; this should include a study of the soil and overburden stratigraphy and provenience;
- future soil grids should be located in known prospect areas where mineralization has been observed or as indicated by regional stream

sediment and bank sample results; these should cover large areas to ensure that ore-related geochemical signatures are not missed due to glacial dispersion; small numbers of samples in soil grids are not recommended because little information regarding the relative concentration can be obtained;

- future soil grids should have nodes at 25 m or less to allow enough sample to represent possible 'anomalous' zones; analysis of the appropriate sample size fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in defining stream sediment and soil 'anomalies' related to massive sulphide mineralization;
- geophysical methods should be employed over known Au vein showings and in several of the massive sulphide target areas; if useful, these should be integrated into the exploration procedure and used to the best advantage.

#### 4.0 CONCLUSION

It is the expressed opinion of the writer that the structural and lithological geology of the area contrasted with the findings of the 1987 exploration program indicate that the possibility exists for a potential mineral orebody on the Chapleau Property.

With respect to the Morgan property, Mr. Rodgers has presented two theories supporting potential gold deposits in the Perry Creek area.

One theory offers the prospect of gold discovery in quartz veins similar to those mined at the turn of the century. It is hypothesized "that detrital gold was formed at a certain horizon in the Aldridge, by the weathering of a proximal archean source. Subsequent faulting and hydrothermal activity scavenged this gold near to fault zones and redeposited it as lode gold in vein faults. Most showings of merit in the area occur at elevations between 5000 and 6000 feet. All showings consist of vein faults displaying silica deposition along with iron oxides and gold of a nature typical to epithermal veins".

The recently discovered stock work of veins found in the BUCK and BAR properties, typically similar to the old Perry and Moyie workings show promise, with visible gold and assays up to .6 oz/ton.

"If the hypothesis of detrital gold at a certain horizon can be substantiated, then a target area for a large tonnage gold deposit then exists at depth in the valley bottom between the Perry Creek and Richmond Lake faults. Diamond drill holes in the middle of the Kitchener argillites would test the validity of this theory." The common features in the description of a replacement type orebody can be traced to the subject property, as evidenced by:

- a) a driving mechanism such as a tertiary felsic magma body in the area of the headwaters of France Creek; where syenite float was discovered on both sides of the ridge.
- b) steeply dipping shear zones such as the Cranbrook fault, whereby the magnetic anomalies in preferential alignment with the intrusions of Kiakho Lake and Grassy Mountain suggest a continuation of the fault to the west.

c) associative elements such as arsenic found as an anomalous zone on the Morgan #4 Grid (See Geochemical Synopsis - P.31).

d) high fineness gold particles as found in the stream silt samples and placer operations in the Moyle and Perry Creeks.

In contrast to the potential for a gold deposit, there is also a strong indication that the possibility exists for a sulphide deposit on the BAR and BUCK group of claims. This supposition is evidenced by the structural features of the Palmer Bar region, the favourable stratigraphy of the underlying formations and the anomalous geochemical values obtained from the area drainages (See Geochemical - Conclusion - P.30).

## 5.0 RECOMMENDATIONS

The following recommendations are offered as part of the Phase II Work Program for 1988.

### Zone 1, 2, 3

- Detailed sediment survey of all streams on the western ridge between France and Strong Creeks and on the eastern ridge between Palmer Bar and Noke Creeks.
- Reconnaissance geological mapping and prospecting over the BUCK and BAR claims to confirm stream sediment anomalies.
- Geophysical surveys (EM & IP) on the Buck and Bar to map Au vein systems such as the ELCR, Horseshoe and Gossan Hill as well as several of the massive sulphide target areas.
- Selection of drill target areas to;
  - a) test known gold bearing veins to depth
  - b) substantiate the existence of a felsic intrusion
  - c) determine the source for the stream sediment and soil anomalies related to massive sulphide mineralization.

### Zone 4, 5, 6

Detailed (10m) soil sample program integrated with prospecting in order to delimit the anomalies already determined, thereby more accurately locating the diamond drill hole targets in Shorty Creek, Liverpool Creek, and Wuhun Creek areas.

### Phase III

Contingent upon the results of Phase II, Phase III will be an extension of the 1988 drill program. The estimated cost of this phase is \$400,000.00.

**STATEMENT OF QUALIFICATION**

**I, ROBERT T. BANTING, certify that:**

1. I am a Consulting Mining Engineer, of R.T. Banting Engineering Ltd., with offices at 1470 Theatre Road, Cranbrook, B.C.
2. I am a graduate of Michigan Technological University with a degree in Mining Engineering (B.Sc.)
3. I have practised my profession of engineering in British Columbia, Manitoba, Ontario and Quebec for a total of 14 years. As a consultant, I have been engaged in exploration and engineering activities for four years.
4. I am a member in good standing of the Association of Professional Engineers of British Columbia.

*June 16, 1988*



Geologist - G. Rodgers

I, GLEN M. RODGERS, certify that:

1. I am a graduate Geological Engineer from the University of Manitoba (1977).
2. I have practised the profession of Geologist for the last eleven years in B.C., the Yukon and Alaska.
3. I have gained experience with; epithermal silver and gold vein deposits, gold placer deposits, stratiform lead/zinc/silver deposits, uranium deposits, evaporite and other industrial mineral deposits. I have gained experience in all facets of mineral exploration techniques.
4. I am a fellow in good standing of the Geological Association of Canada, and am eligible for membership with the Association of Professional Engineers of British Columbia.

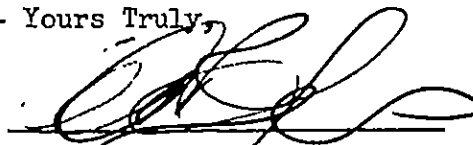
March 14, 1988

R.T.Banting PEng.,  
c/o Chapleau Resources Ltd.,  
2100 - 4th St. N., V1C 4X9

Dear Mr. Banting,

This letter is to authorize you to use all or any part of the geological reports and maps that I have submitted on the Morgan claims, Perry Creek for the years 1987 and 1988.

- Yours Truly,

A handwritten signature in black ink, appearing to read 'G.M. Rodgers', written over a horizontal line.

(G.M. Rodgers , geologist)



## Certificate of Qualifications

I, Clifford R. Stanley, of 3503 W. 20<sup>th</sup> Ave., Vancouver, British Columbia, hereby certify that :

1. I am a graduate of Dartmouth College (1980) and the University of British Columbia (1984) and hold an A.B. in Earth Science and an M.Sc. in Geological Science.
2. I have been employed in the mineral exploration field in permanent and consulting roles since 1980 as an exploration geochemist and economic geologist.
3. I am currently a principle of CyberQuest Exploration Systems, Ltd. and in their employ.
4. The opinions, conclusions and recommendations contained herein are based solely on an examination of geochemical data provided to me by Chapleau Resources, Ltd. of Cranbrook, British Columbia.
5. I own no direct, indirect or contingent interests in the subject property or shares or securities in Chapleau Resources, Ltd.
6. This report and its contents may be used by Chapleau Resources, Ltd. for all corporate purposes, including public financing.

Clifford R. Stanley

Dated in Vancouver, B.C. this 18<sup>th</sup> day of March, 1988.

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A P P E N D I X I

I. Morgan Geology - G. Rodgers

LITHOLOGY

The following formations are found in the claim area and are described here in order of oldest to youngest.

ALDRIDGE FORMATION

The Aldridge Formation (Ha) is commonly divided into 3 parts: upper, middle and lower. The Sullivan Mine is found at the lower-middle Aldridge contact. As the divisions between the Aldridge sections are difficult to distinguish and vary both across and along strike, the Aldridge formation as a whole is described here.

The Aldridge formation is the lowest member of the Purcell Group and as close as can be determined, it is proterozoic in age. Total formational thickness probably exceeds 15,000 feet (4570m). The Aldridge consists of grey-brown-rusty weathering, very fine grained, thin bedded quartzite, sericitic siltstone and argillaceous quartzite. The quartzites are commonly thin bedded, purple-grey-white-black. Pure argillite or slate forms a minor constituent. Primary depositional features such as scour and fill or cross-bedding are common.

The quartzite beds locally are thick bedded-massive. The interbedded argillite is thinly laminated and occasionally finely laminated. Other primary depositional features such as dessication cracks, ripple marks, etc. are not common.

The Aldridge Formation occurs north of the St. Mary Fault and west of the Racki 10 claim. It is in fault contact with the Creston Formation to the south. Near this fault contact, the Aldridge Formation is locally sheared, faulted and folded.

### CRESTON FORMATION

A gradational contact over 150m separates the underlying Aldridge Formation from the Creston Formation. The Creston Formation is primarily composed of greyish argillaceous quartzites. Minor purer quartzites and argillites form interbeds of up to 0.3 m thick. The formation as a whole resembles the Aldridge, but the purer quartzites are more abundant and are light grey on fresh fracture. The Creston Formation varies in total thickness between 4,000 ft. (1220 m) and 6500 ft. (1980 m). It has been divided into 3 sections:

- the Lower Creston (HC1) consists of black-grey argillites with interlaminated, lighter-coloured argillaceous quartzite. These laminae, pinch, and swell along strike. Other minor constituents are: very fine grained, sericitized, siliceous siltstones (which are dark coloured and weather rusty brown) and green argillaceous quartzites (found near the top of the Lower Creston Formation). Features suggesting shallow water deposition such as mud cracks, ripple marks, cross beds, and slumping are common in the Lower Creston.
- the Middle Creston Formation (HC2) is not as argillaceous as the Lower Creston Formation and consists primarily of grey-green-purple argillaceous quartzite. These predominantly purple quartzites form thick beds (0.3 to 3 m) and resemble limestone from a distance.
- the Upper Creston (HC3) consists of grey-green argillaceous quartzite with thick interbeds of purple argillite. Near the top of this unit, white-grey-purple argillaceous quartzites are most common with fine laminae of a dark purple quartzite being its most distinctive feature. This banding effect is due to seasonal changes in depositional climate. Shallow water depositional features are common.

#### KITCHENER FORMATION

The Kitchener Formation (Hk) lies unconformably upon the underlying Creston Formation. This formation consists of calcareous and argillaceous quartzites, quartzites and limestones. It weathers to a yellow-brown-grey. Leaching of calcareous minerals often leaves linear depressions on weathered surfaces. The main constituents are; very fine grained rusty-red-brown weathering quartzites and siltstones; fine grained buff dolomite; black limestone; impure limestones and argillites. The argillites are characteristically dark-light green in the lower part and black-grey-white in the upper part. The carbonate content, thin bedding and preferential weathering of carbonate are all features distinguishing this formation from others. Total formational thickness is thought to exceed 4,500 ft (1370 m).

Above the Kitchener Formation conformably sits the Siyeh Formation the contact of which is marked by the presence of igneous breccia and tuff. The Siyeh Formation is not found in the map area.

#### MOYIE SILLS

The Moyie Sills are also known as the Purcell Sills Purcell Intrusives, Moyie Intrusives and St. Mary's Sills. These are sill like intrusions that range in thickness from 10 metres to 300 metres. The sills were injected when the strata was still horizontal as they have subsequently undergone the same tectonism as the surrounding rock. They are most commonly found in the Aldridge Formation but also penetrate through to other formations from horizon to horizon and can pinch out along strike. They are termed diorites, but range in composition from gabbro to granite. Commonly a contact metamorphic effect with the country rock is evidenced by albite and biotite addition. These sills represent intrusions from a single intercrustal source of acid magma. The age of these intrusive rocks has not been accurately determined, but definitely post dates that of the Kitchener Formation and are possibly of late Proterozoic age.

The diorite sills are found on the property as lenticular bodies up to 400 ft. (122 m) thick. They follow the general strike of the bedding (N 30' E) and are found in Perry Creek mostly at lower elevations.

The diorite sills are found on the property as lenticular bodies up to 1,000 ft. (300 m) thick. Two smaller sills are found on the Racki 10 claim and a very large diorite sill is found to touch on the south-east corner of the Racki 4 claim.

#### CRANBROOK FORMATION

The Cranbrook Formation forms a very small percentage of the total study area. It consists of light brown-tan-grey siltstones, argillites and argillaceous quartzites. It is known to be lower Cambrian in age and contacts unconformably with the Kitchener Formation in the south-east corner of the map area.

#### STRUCTURE

Broad scale, regional folding is not apparent in the map area. Smaller scale deformations are occasionally found, but can usually be attributed to drag folding due to nearby fault action or to post emplacement movement of nearby diorite bodies. The Moyie Intrusives, because of their competency contrast with the surrounding argillites have served to locally control fault direction. Low angle faults tend to refract around the perimeters of the lenticular diorite bodies. Higher angle faults tend to break right through the diorite lenses creating offsets. When proximal to major faulting, the sills often exhibit a reoriented foliation parallel with that major deformational event. If the deformation has been intense, then the foliation permeates the entire sill. If the deformation has not been so strong, then foliation occurs only near to and parallel with the contacts.

Major longitudinal faulting has been confirmed in map area. Faults known as the Perry Creek Faults, Richmond Lake Fault and Baldy Fault strike north-east across the map area. These faults predate the many less intense transverse faults which break orthogonal to the major faulting and generally strike north-east. These transverse faults were probably responsible for localizing the main drainages that empty into Perry Creek.

Divergent bedding in the bottom of Perry Creek near Shorty Creek previously mapped as the "Perry Creek Anticline" does not (in this authors' opinion) exist. A package of rock thought to be Upper Creston in stratigraphy is exposed here at it's contact with the overlying Kitchener Formation. It is this obscure unconformable contact that gives the impression of anticlinal folding.

The Perry Creek Fault has been mapped on the basis of lithological and bedding plane changes, while foliation remains constant on either side of the fault. For most of its length in the claim area, the Perry Creek Fault separates Middle Creston to the east from Kitchener to the west.

On the west side of the Perry Creek Valley, the Richmond Lake Fault divides Middle Creston to the west from Kitchener on the east.

The St. Mary's Fault separates Upper Aldridge sediments to the north from Middle Creston to the south. It also divides a diorite body on the Quartz Hill claim at Upper Sawmill Creek.

In the vicinity of Paris Creek, these two major faults converge. Between the two, a graben exists with unknown total displacement. It is suspected that the Perry Creek Fault exceeds that of the Richmond Lake Fault.



**A PRELIMINARY REPORT ON THE 1987  
SOIL GEOCHEMISTRY OF THE  
MORGAN PROPERTY,  
CRANBROOK, BRITISH COLUMBIA**

**John Harrop            Clifford R. Stanley**

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Suite 210 - 830 W. Pender St.  
Vancouver, B.C. V6C 1J8**

**March 18, 1988**

# 1 Introduction

This report addresses the results of the soil geochemical surveys which were undertaken during the 1987 field season on the Morgan Property, Cranbrook, British Columbia by Chapleau Resources. Exploration targets on the property, which also occur in similar host lithologies and geologic settings nearby, include sediment-hosted massive-sulphide mineralization similar to that at the Sullivan Mine and precious-metal ( $\pm$  base-metal) quartz veins, perhaps similar to those on the east side of Moyie Lake (the St. Eugene Mine). Possibilities also exist for bulk-tonnage low-grade replacement-type Au deposits in calcareous stratigraphy of the Purcell Supergroup. A discussion of the results of these surveys is included based largely on a statistical analysis of the geochemical determinations, and based on maps of the geochemical concentrations. Recommendations for further geochemical work on the property are also presented.

Sampling was carried out by Chapleau Resources' employees during August through September 1987 and all geochemical element determinations were made by Rossbacher Laboratory, Ltd. Samples consisted of 0.5 kg of fine grained stream sediment material collected from the active bed of the streams. These were air dried and sieved to -80 mesh. A 0.5 gram sub-sample was digested with a 3:1 nitric:perchloric acid attack and analyzed using atomic absorption spectrometry. Elements determined include Cu, Ag, Pb and As for all four soil grids and Zn analyses for some samples on the Morgan Grid # 4. Gold was determined by a similar method, except that 10 grams of -80 mesh material was subjected to an aqua regia digestion followed by pre-concentration in MIBK. No standards were included in the analytical batches so data quality could not be determined; however, several sample sites have duplicate samples allowing a rough assessment of sample site reproducibility.

Four soil grids (Morgan-1 through Morgan-4) were sampled and maps presenting the sample locations and geochemical concentrations for these samples are presented in Appendix A. The grids are, for the most part, oriented N-S with 50 m between lines and 50 m between sample sites (with some exceptions in areas of interest, where the sample spacing was reduced to 25 m between lines and 25 m between samples). The grids are irregular because numerous grid nodes could not be sampled.

## 2 Statistical Analysis

### 2.1 Threshold Selection

A histogram and probability plot analysis (Sinclair 1974, 1976; Stanley 1987) of the geochemical concentrations was made on all of the data from the four soil grids. Output of these statistical results are presented in Appendix B.

Results indicate that all elements have subdued abundances and exhibit positively skewed distributions. Low element abundances are common in Belt-Purcell soils, even over sulphide mineralization, because of the overall low absorptive capacity of the soils (low

clay and Fe-oxy-hydroxide mineral content; Stanley 1984). This allows the easy leaching of the soluble base metals from the soils, despite high element concentrations in the source-bearing subjacent bedrock. The positive skewness of the element distributions probably results from a large number of 'background' concentrations and a small number of 'highly anomalous' concentrations which may possibly be related to economic mineralisation.

### **2.1.1 Copper**

The Cu distribution appears to have a bimodal, log-normal form. One mode consisting of a large group of samples, exhibiting what are interpreted to be 'background' Cu concentrations and a mean of 7 ppm. Assymetric  $\pm 1$  standard deviation values about this mean are 13 and 4 ppm, respectively. A second group of samples of higher abundance can be distinguished from this 'background' group. These concentrations are interpreted to be 'anomalous' and range up to 124 ppm Cu. This second group of 'anomalous' samples may be related to lithologies containing elevated Cu concentrations or to Cu-sulphide-bearing strata. A threshold which discriminates the 'background' and 'anomalous' sample groups occurs at approximately 35 ppm.

### **2.1.2 Silver**

Silver concentrations are positively skewed, of generally low abundance and have a maximum value of 1.2 ppm. The low number of reported concentration values does not allow rigorous statistical evaluation of the Ag data. The overall extremely low Ag abundances typical of B-horizon soil samples collected over Belt-Purcell strata (Stanley 1984) and observed on the Morgan Property cannot be considered to be indicative of the absence of economic mineralization. As a result, concentrations in excess of (an arbitrarily chosen)  $3 \times$  the detection limit of 0.2 ppm are considered to be 'anomalous' because they have the highest probability of resulting from nearby Ag-bearing sulphides which have undergone extreme weathering and depletion of the Ag.

### **2.1.3 Lead**

Lead concentrations also exhibit a positive skew and have an overall low abundance (with a maximum concentration of 258). Lead appears to be log-normally distributed with minor negative deviation in lower concentrations (interpreted to be due to truncation of the distribution by the detection limit). The unimodal distribution does not suggest the existance of a distinguishable 'anomalous' group of samples; consequently, a threshold has been chosen at the 'mean plus 2 standard deviations' (28 ppm) to define the 'anomalous' samples.

### **2.1.4 Gold**

Gold exhibits an obvious bimodal distribution consisting of samples with 'background' concentrations of up to 5 ppb and samples with 'anomalous' concentrations above 5 ppb.

While probably distributed poisson, this distribution can be approximated by a mixture of two log-normal distributions. Since gold probably exists largely in its native form in these soils, the 'background' sample group can be considered to be those samples where the analysed sub-sample contained no gold nuggets (and thus a concentration of 5 ppb). The 'anomalous' group of samples can be considered to consist of those samples where the analyzed sub-sample contained at least one grain of gold. Unfortunately, any 0.5 kg sample may contain numerous gold nuggets while a 10 gram sub-sample from it may contain none. As a result, given the small amount of sample collected and the small amount of material which was actually analyzed, samples from the 'background' group may contain significant concentrations of Au contained in nuggets not included in the 10 gram analyzed sub-sample. Nonetheless, a threshold of 10 ppb distinguishes the 'background' from the 'anomalous' samples.

### 2.1.5 Arsenic

Arsenic exhibits a trimodal log-normal distribution and relatively high overall concentrations. The lowest mode consists of detection limit values of 2 ppm and is probably a result of data truncation by the detection limit and the recoding of below detection limit concentrations to the detection limit value. The middle mode has a mean of 10 ppm ( $\pm 1$  standard deviation values of 16 and 6 ppm, respectively), is probably more representative of the 'background' As concentration. The highest mode, with a mean of 45 ppm (asymmetric  $\pm 1$  standard deviation values of 72 and 28 ppm, respectively) is probably 'anomalous' and may be related to sulphide-bearing strata. A threshold of 22 ppm separates the 'anomalous' and 'background' sample groups.

## 3 Interpretation

Interpretive symbolic maps of only those elements which showed what are considered to be significant patterns are presented in Appendix C. Circles have radii which are proportional to the sample concentrations. Heavy circles represent those samples which recorded a concentration in excess of 2 $\times$  the largest circle size indicated. These plots are discussed in five sections related to each of the five soil grid areas (the Morgan # 3 grid has been divided into East and West sections reflecting the different base line orientation).

### 3.1 Morgan Grid # 1 (Locations p.29)

Gold is the only element discussed on Morgan Grid # 1. Incoherent patterns of concentrations are observed for all other elements. Gold is no exception. Trends of relatively high Au concentrations can neither be considered coherent nor significant. Two of the three sets of duplicate samples report the lowest and some of the highest concentrations observed on the soil grid. With such little consistency on a single site basis, no confidence can be

placed in any interpretation. However, one item which can be concluded is that a significant 'nugget' effect exists which has not been eliminated or reduced through deliberate sampling and analysis procedures.

### **3.2 Morgan Grid # 2**

On Morgan Grid # 2, relatively high concentrations of Cu appear to define a NE-SW trend at the north end of the grid. This trend appears to be situated on top of and roughly parallel to an inferred photo-linear observed on air-photos of this area. This trend could represent a major fracture system across the soil grid which contains Cu-sulphide minerals. Alternatively, this trend directly overlies Perry Creek and could represent the different source material sampled (stream alluvium vs. colluvial/residual soil developed on glacial till) at these locations. Whether the Cu geochemical trend is due to an underlying Cu-bearing vein filling fracture, to hydromorphic concentration of Cu along a fracture system by fault gouge clays and Fe-oxy-hydroxides, or to a different source material is not known. Several relatively high concentrations of Au in samples along this trend may suggest the former and later hypotheses as more reasonable conjectures.

### **3.3 Morgan Grid # 3 (East)**

The eastern portion of the Morgan # 3 soil grid contains several important trends in Cu, Au and As. Relatively high Cu concentrations define three possible trends: one NE-SW trend in the NW corner of the grid, a parallel trend roughly bisecting the soil grid, and a NW-SE trend bisecting the NE quadrant of the soil grid. Obvious conclusions drawn from these observations are that they represent fracture zones related to possible Cu-bearing vein mineralization. Unfortunately, the hydromorphic concentration hypothesis described above cannot be ruled out.

High concentrations of Au appear to define a trend parallel to the NE-SW Cu trend which bisects the soil grid. Unfortunately, these high values are widely separated and several samples with 5 ppb Au concentrations lie in between, lending little significance to this interpretation.

Relatively high As concentrations appear to define two areas of interest in the NE and center portions of the grid, but on closer inspection, the boundaries of these areas are sharp and oriented exactly N-S. This suggests that there is a systematic sampling error. Patterns of this type suggest that at least two of the samplers (each sampling adjacent lines) had sampling techniques which produced systematically different 'background' As concentrations. The centrally located region of high As concentrations does appear to have a NE-SW elongation direction which does parallel one of the observed Cu trends.

No geochemical 'anomaly' can be interpreted over the Ravine Fault lying along Perry Creek.

### **3.4 Morgan Grid # 3 (West)**

Geochemical concentrations on the western portion of the Morgan # 3 soil grid also show interesting patterns. Relatively high concentrations of Cu occur in the NW corner of the grid, and an area of elevated Pb 'background' concentrations occur in the SE quadrant. The Cu 'anomaly' may be related to a N-S trending inferred fault projected beneath the 'anomaly'. The Pb pattern is more enigmatic, roughly straddling Liverpool Creek. The highly 'anomalous' Pb concentration in the SE corner of the grid occurs immediately adjacent to Liverpool Creek and may represent hydromorphic or detrital reconcentration of lead at that site by stream waters.

Gold concentrations define two 'anomalous' trends, both of which may not be significant. A set of 5 samples roughly parallel to the N edge of the grid, and a perpendicularly oriented set of 3 samples in the SE corner of the grid define two trends. The causes of these trends are not hypothesized. The high Au concentrations occurring in the SW corner of the grid may, like lead represent detrital reconcentration of Au by Liverpool Creek.

Arsenic concentrations are 'anomalous' in the north-central portion of the grid in a NW-SE orientation; however, no explanation for this pattern can be offered.

### **3.5 Morgan Grid # 4**

Geochemical patterns on the Morgan # 4 soil grid show the most coherent signature of all the soil grids sampled on the Morgan Property. The Cu and Pb concentrations define a NW-SE 'anomalous' trend which roughly bisects the soil grid and which is most developed on the western half of the soil grid. This trend is parallel and slightly north of the Spring # 1 Fault and appears to be related to it. The offset may represent glacial dispersion or a slight inaccuracy in the placement of the fault on the map.

Lead also defines a trend on the western half of the grid which is perpendicular to and which intersects this Cu and Pb trend. It extends to the northern edge of the grid and is roughly parallel to the mapped location of the Perry Creek anticlinal axis.

An As 'anomaly' centered over the intersection of these two trends in the western portion of the grid is the most distinct 'anomaly' on the property. These 'highly anomalous' As concentrations may be caused by hydrothermal mineralization centered at the intersection of these two, possibly fracture related, geochemical trends.

Gold concentrations on this soil grid are mostly at the detection limit and do not form any discernable trend.

## **4 Conclusions and Recommendations**

Based on the results of the 1987 soil surveys on the Morgan Property, several conclusions may be drawn :

- the method of collection of the soil samples was not consistently identical across the grids;

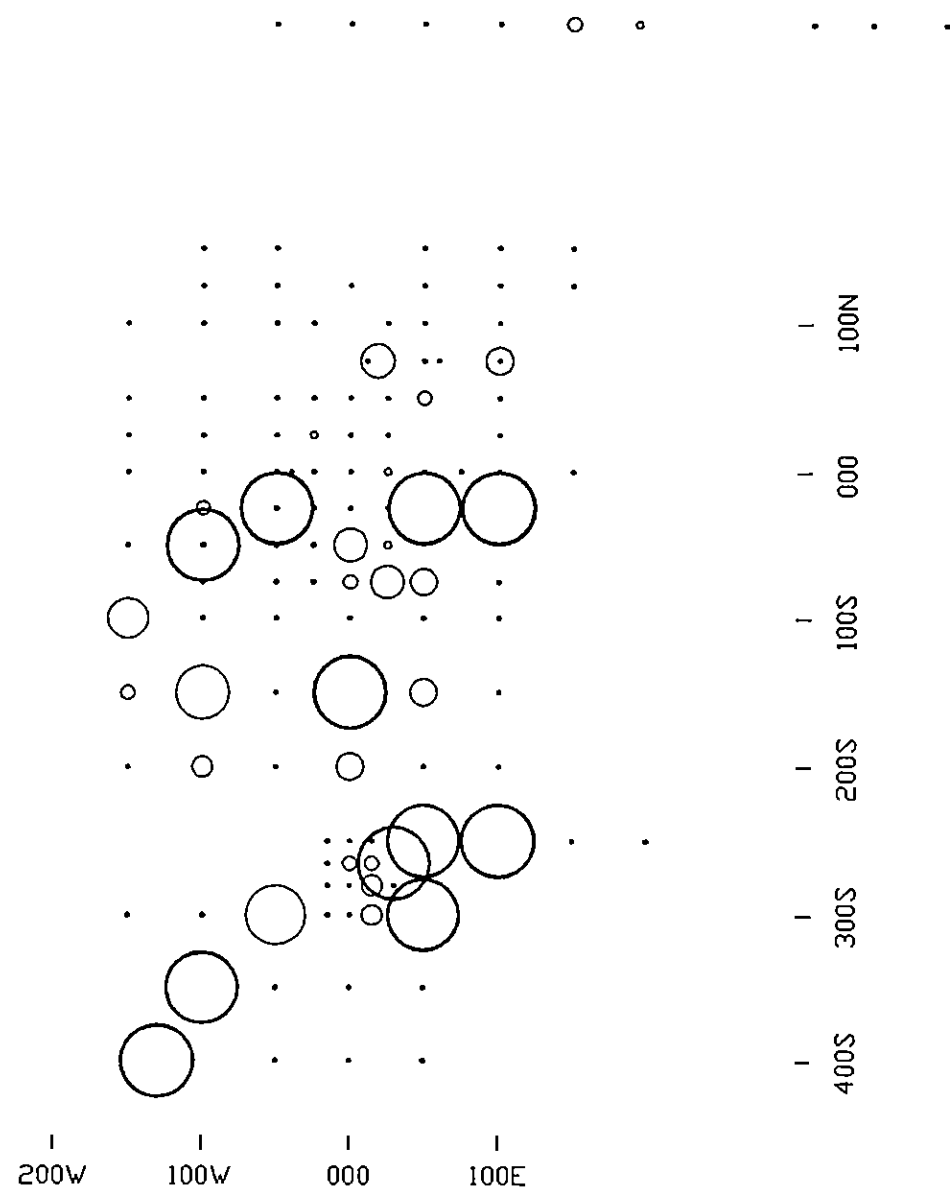
- the sample size, preparation and analytical method for Au is inadequate to detect, with confidence, the presence of Au in the soils;
- the preparation and analytical method for the base metals does not produce adequate contrast to confidently define samples as 'anomalous';
- several distinct geochemical anomalies occur on the soil grids in the form of trends which parallel known structures (Cu and Au(?) on Grid # 2; Cu and Au(?) on Grid # 3 (East); Cu and Pb on Grid # 4);
- an 'anomalous' zone of As occurs on Grid # 4 at the intersection of the two Pb trends; it may be related to possible intense fracturing which could occur at the intersection of two fault structures;
- given the sample density of the grids (50 m) and the observed width of the quartz veins which have been mined historically (generally less than 3 m), only a small probability ( ; 10 %) exists of sampling material derived directly from the vein material;
- no information about the effect of the glacial cover can be discerned from the data; this till could be exotic and totally unrelated to the lithologies and possible mineralization which it covers.

Based on the above conclusions, the following actions are recommended :

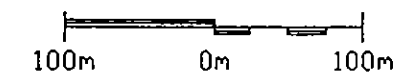
- an orientation survey of the soil method, using one of the known showings as a test case; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to massive-sulphide, Au replacement and Au-quartz vein mineralization;
- before the commencement of any soil survey, an assessment of the glacial overburden and its effect on the detection of geochemical anomalies must be undertaken; this should include a study of the soil and overburden stratigraphy and provenance;
- future soil grids should be located in known prospect areas where mineralization has been observed or as indicated by regional stream sediment results; these should cover large areas to ensure that ore-related geochemical signatures are not missed due to glacial dispersion; small numbers of samples in soil grids are not recommended because little information regarding the relative concentration can be obtained;

- **future soil grids should have nodes at 25 m or less if indicated by an orientation survey; analysis of the appropriate fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in the stream sediment and soil orientation surveys.**





- 1.0 ppb Au
- 16.8 ppb Au
- 32.6 ppb Au
- 48.4 ppb Au
- 64.2 ppb Au
- 80.0 ppb Au



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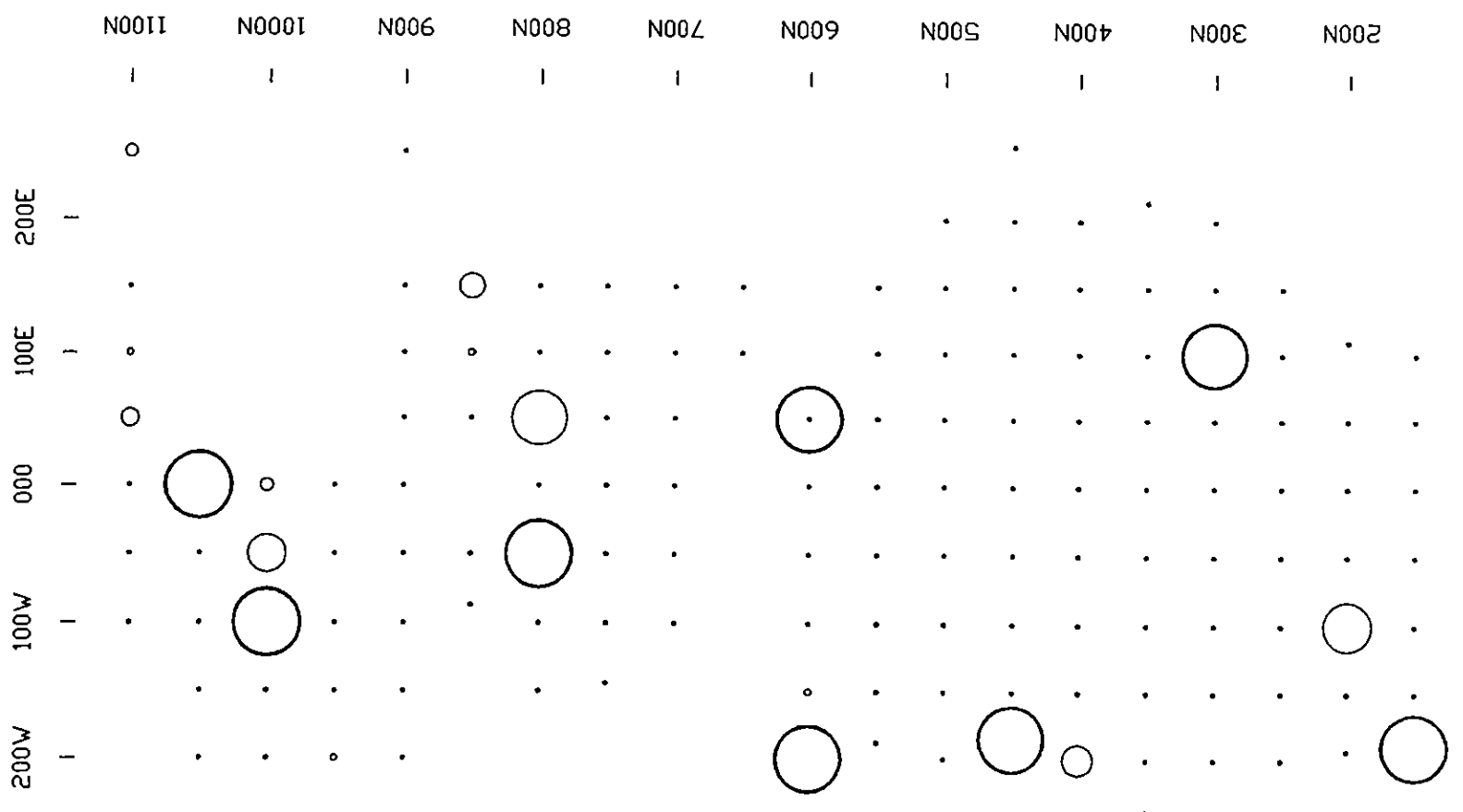
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Morgan 1 Grid  
 Soil Geochemistry - Gold  
 (symbolic posting)

fig:                      date: 3/88

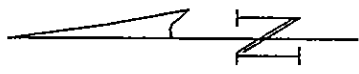
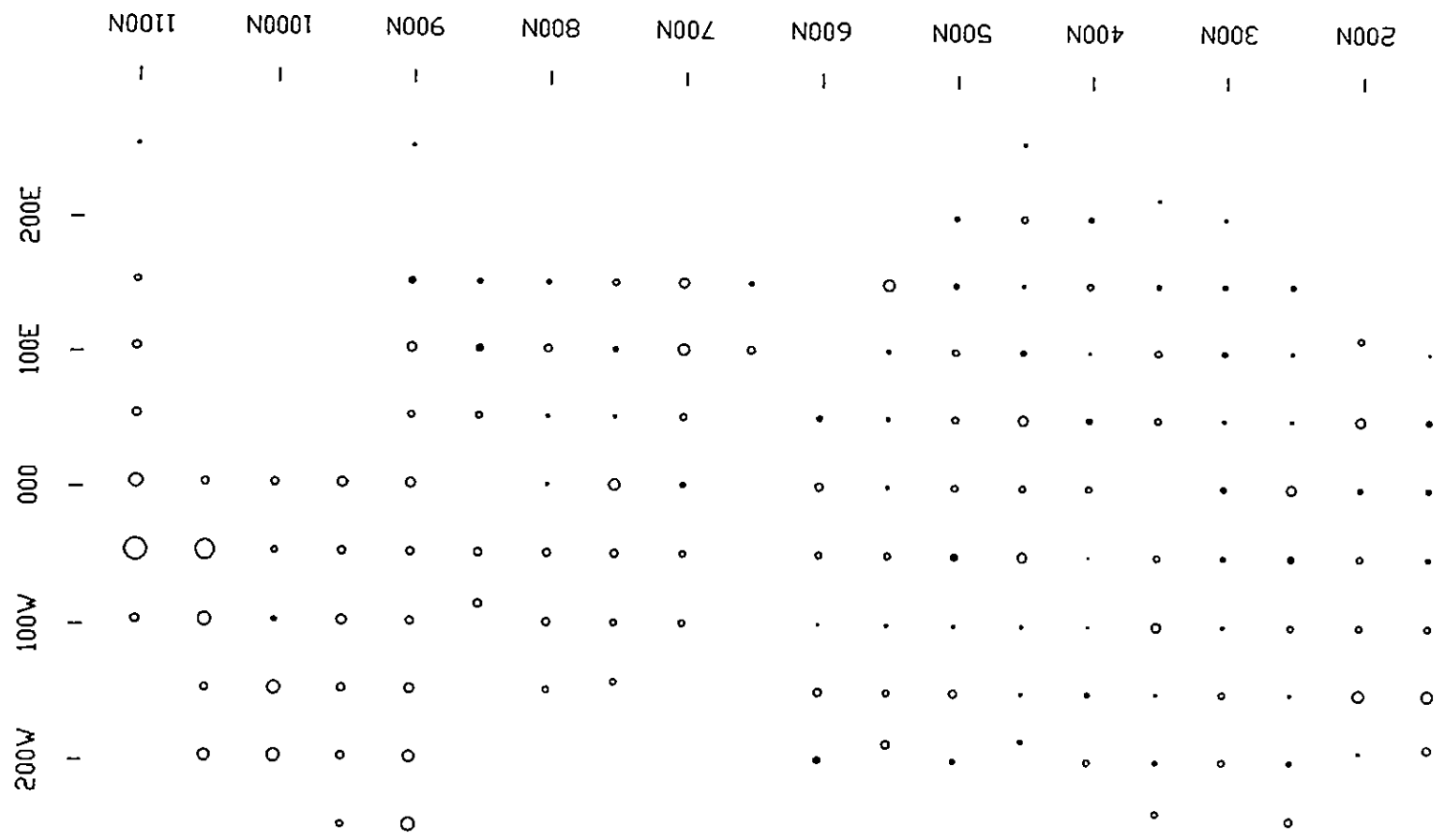
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Thalpean Resources Ltd

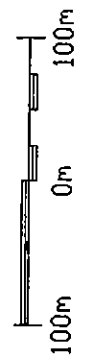
Morgan 2 Grid  
Soil Geochemistry - Gold  
(symbolic posting)  
fig: date: 3/88  
CyberQuest Exploration Systems Ltd

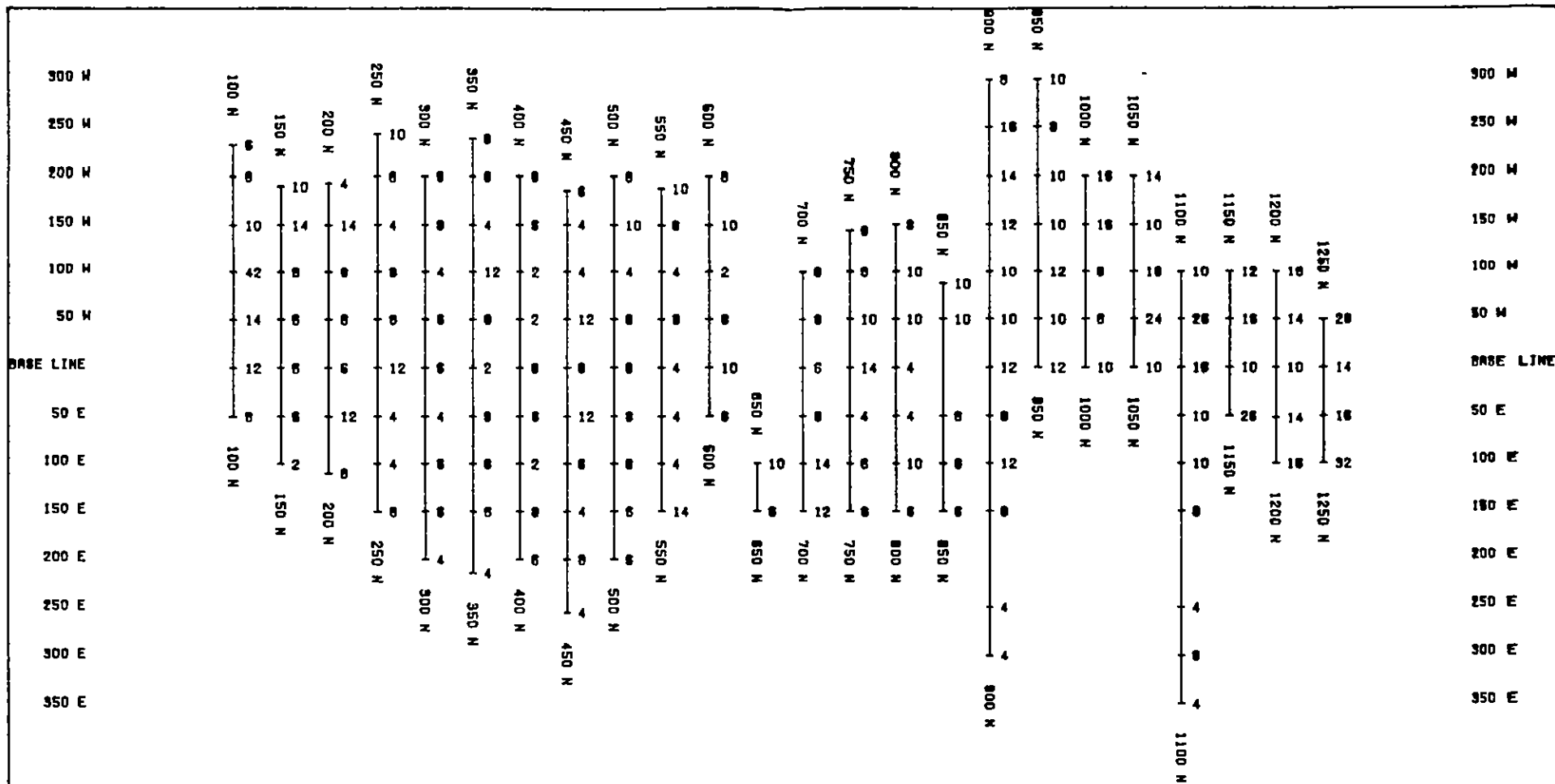


- 0.2 ppm Ag
- 0.4 ppm Ag
- 0.6 ppm Ag
- 0.8 ppm Ag
- 1.0 ppm Ag
- 1.2 ppm Ag

Chapleau Resources Ltd

Morgan 2 Grid  
 Soil Geochemistry - Silver  
 (symbolic posting)  
 Fig  
 date: 3/88  
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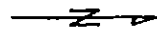
SOIL GEOCHEM SURVEY  
COPPER PPM.

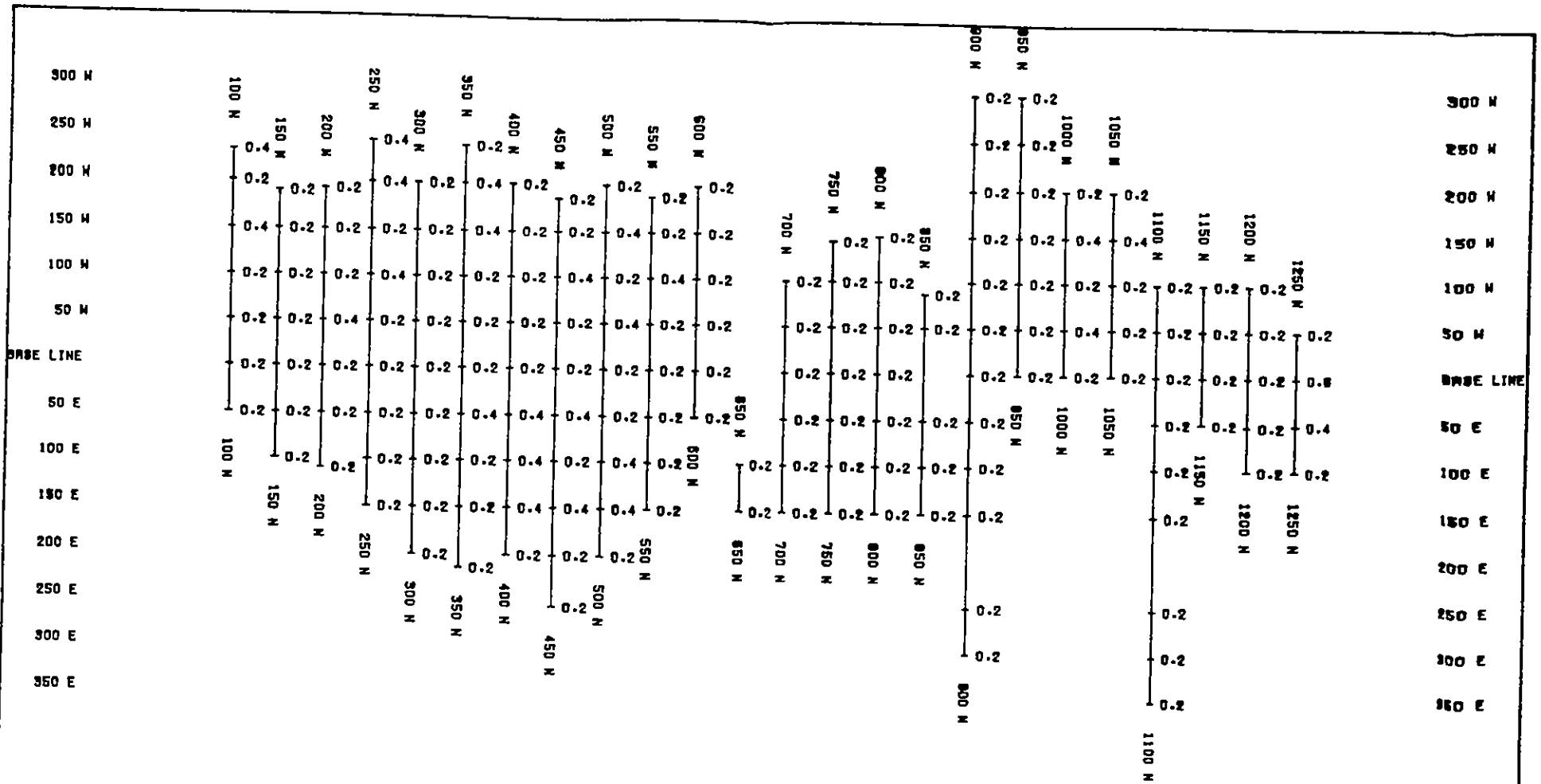
MORGAN GROUP GRID 2

MARCH 1988 FORT STEELE M.D. FIG --

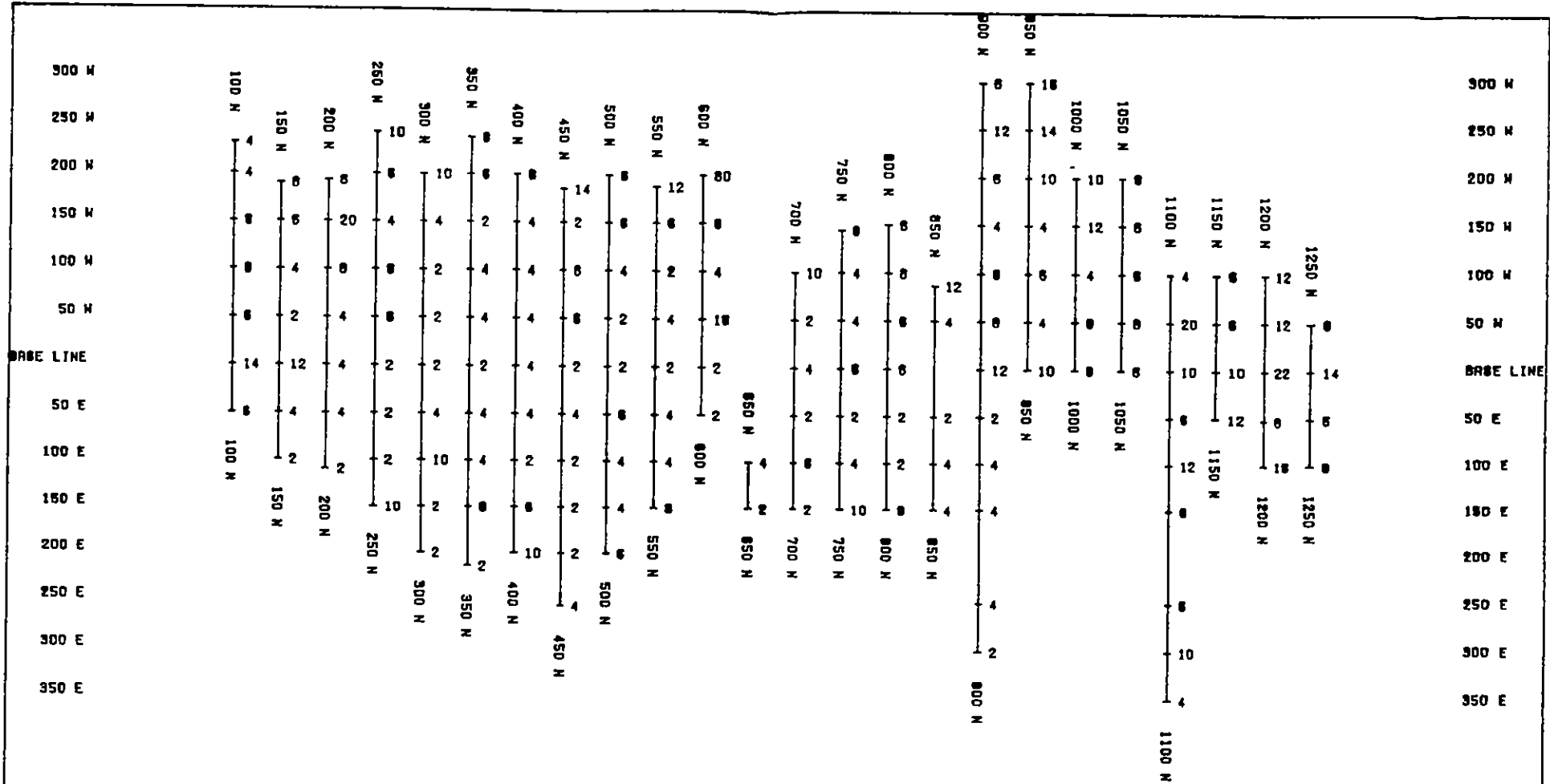
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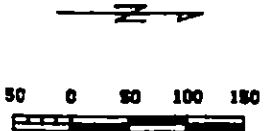
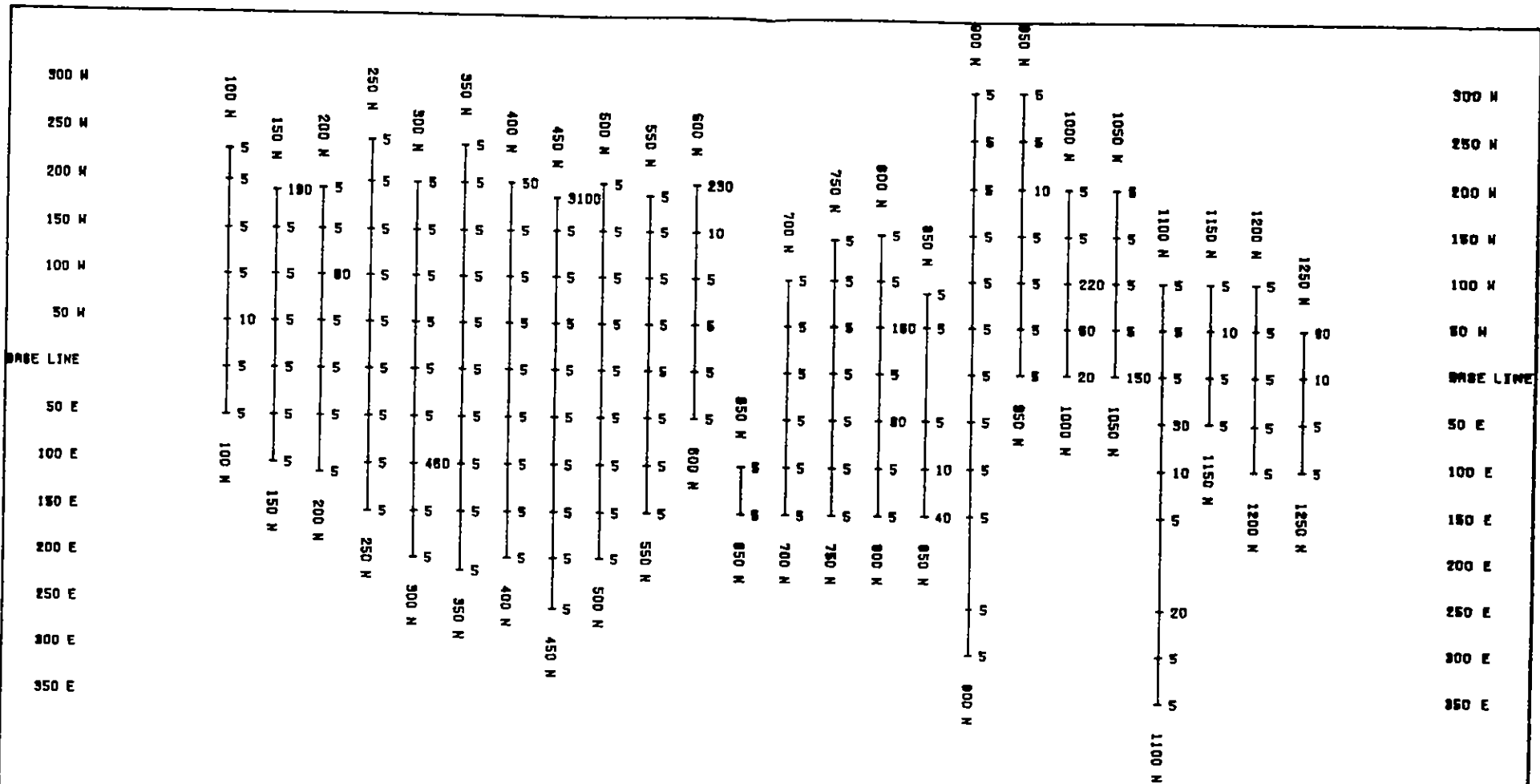




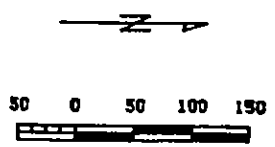
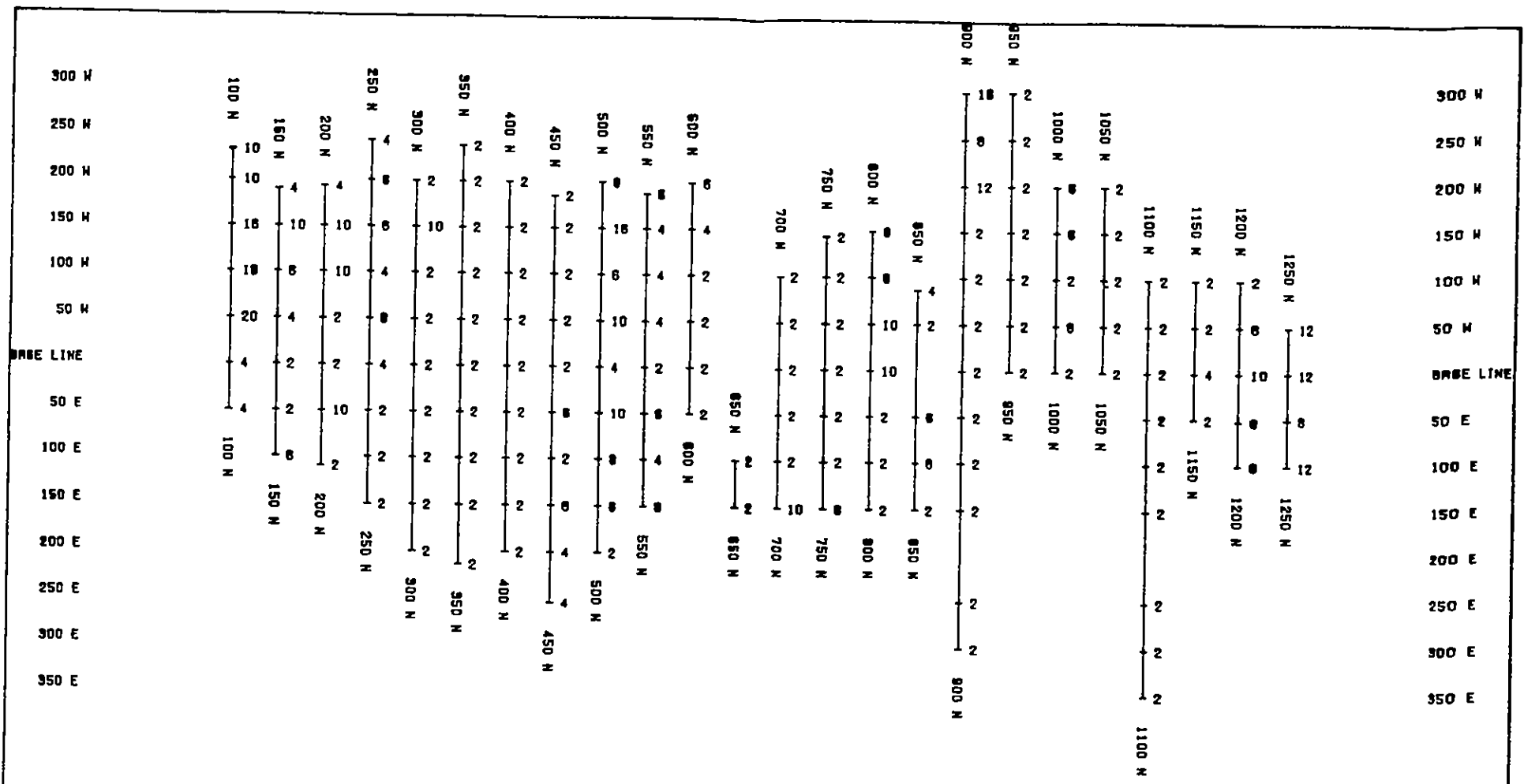
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<b>SOIL GEOCHEM SURVEY</b>		
<b>SILVER PPM.</b>		
<b>MORGAN GROUP GRID 2</b>		
MARCH 1988	FORT STEELE M.D.	FIG --
<b>CYBERQUEST EXPLORATION SYSTEMS LTD.</b>		



<b>CHAPLEAU RESOURCES LTD.</b>		
<b>SOIL GEOCHEM SURVEY</b>		
<b>LEAD PPM.</b>		
<b>MORGAN GROUP GRID 2</b>		
MARCH 1988	FORT STEELE M.O.	F10 --
<b>CYBERQUEST EXPLORATION SYSTEMS LTD.</b>		



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
GOLD PPM.		
MORGAN GROUP		GRID 2
MARCH 1988	FORT STEELE N.D.	F10 --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



**CHAPLEAU RESOURCES LTD.**

**SOIL GEOCHEM SURVEY**  
**ARSENIC PPM.**  
**MORGAN GROUP GRID 2**

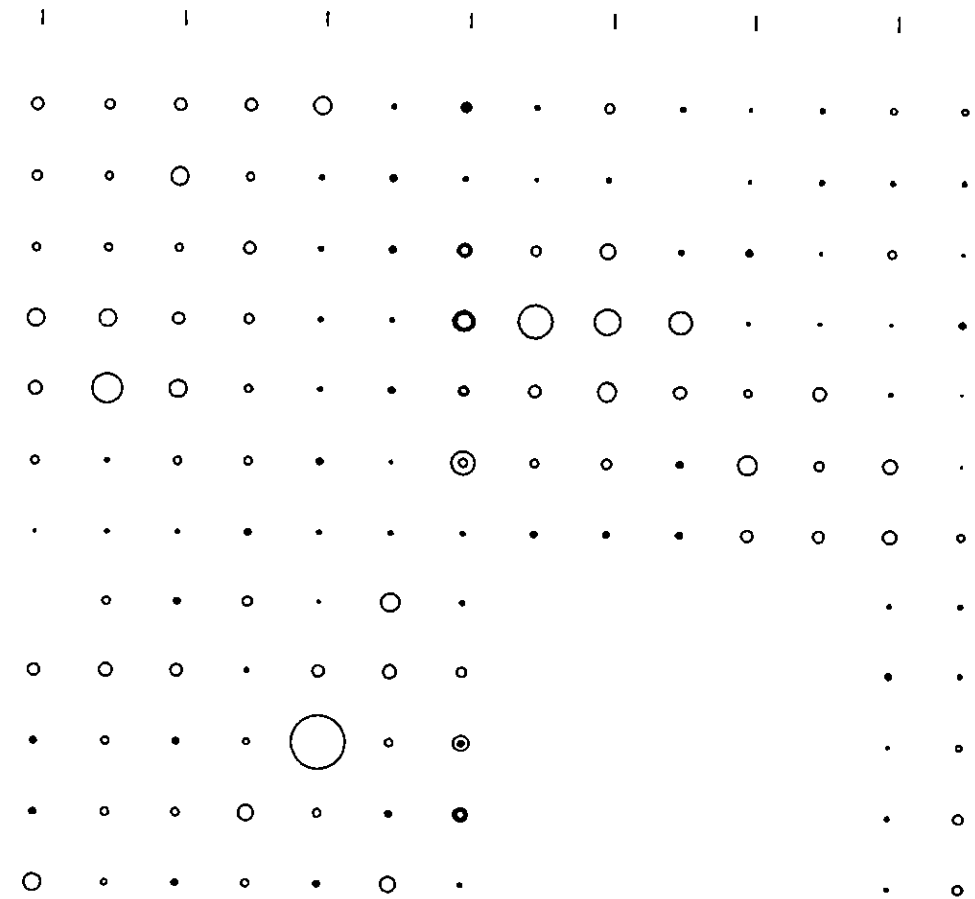
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**CYBERQUEST EXPLORATION SYSTEMS LTD.**





300W 200W 100W 000 100E 200E 300E



300N  
200N  
100N  
000  
100S  
200S

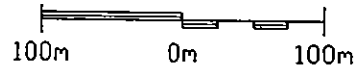
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○ 14 ppm Cu  
○ 25 ppm Cu  
○ 37 ppm Cu  
○ 48 ppm Cu  
○ 60 ppm Cu

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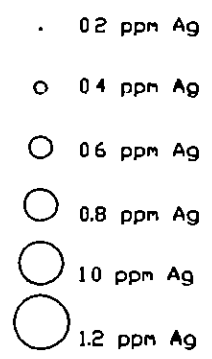
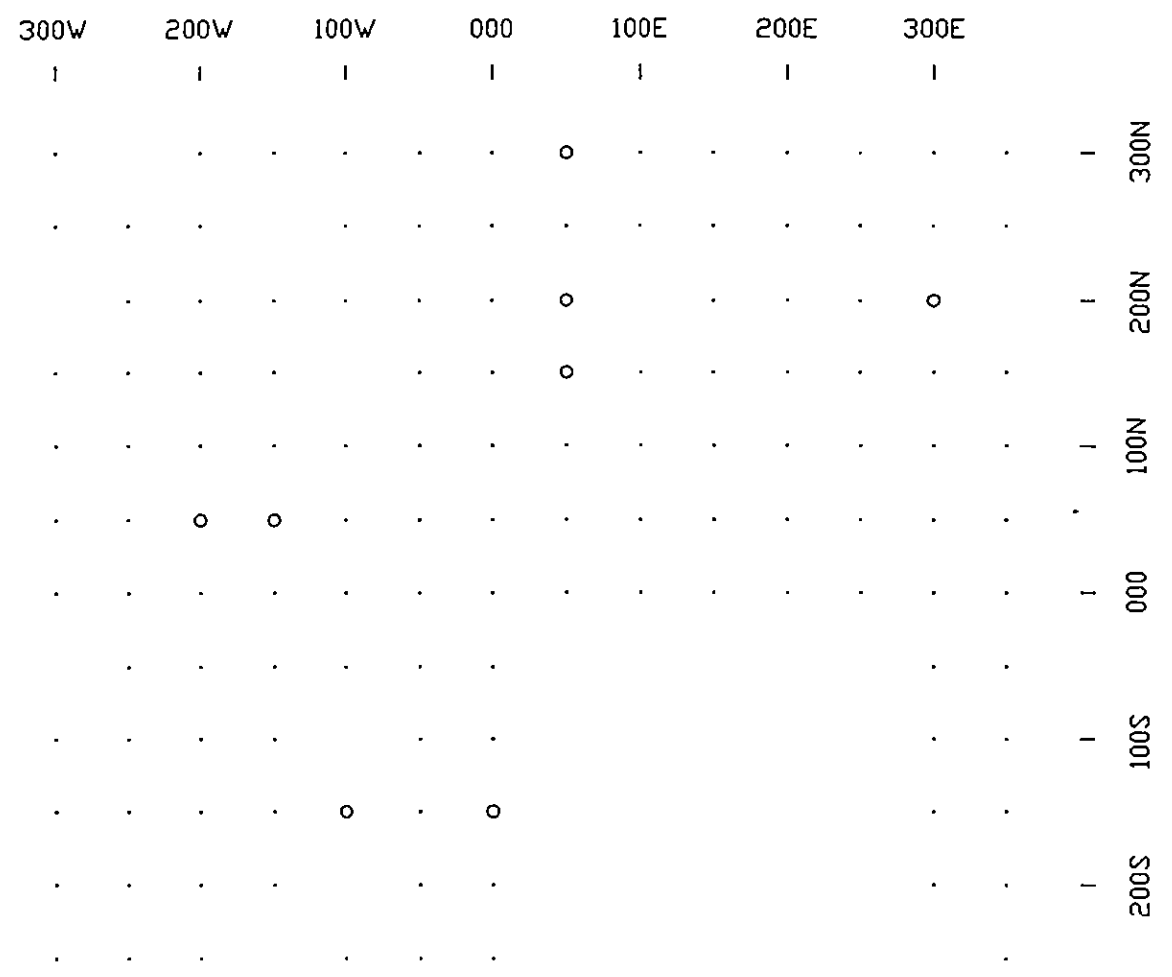
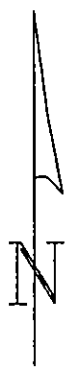
Morgan 3 East Grid  
Soil Geochemistry - Copper  
(symbolic posting)

fig:                      date: 3/88

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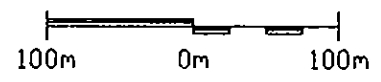
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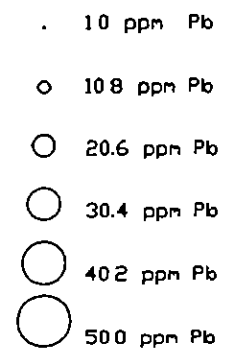
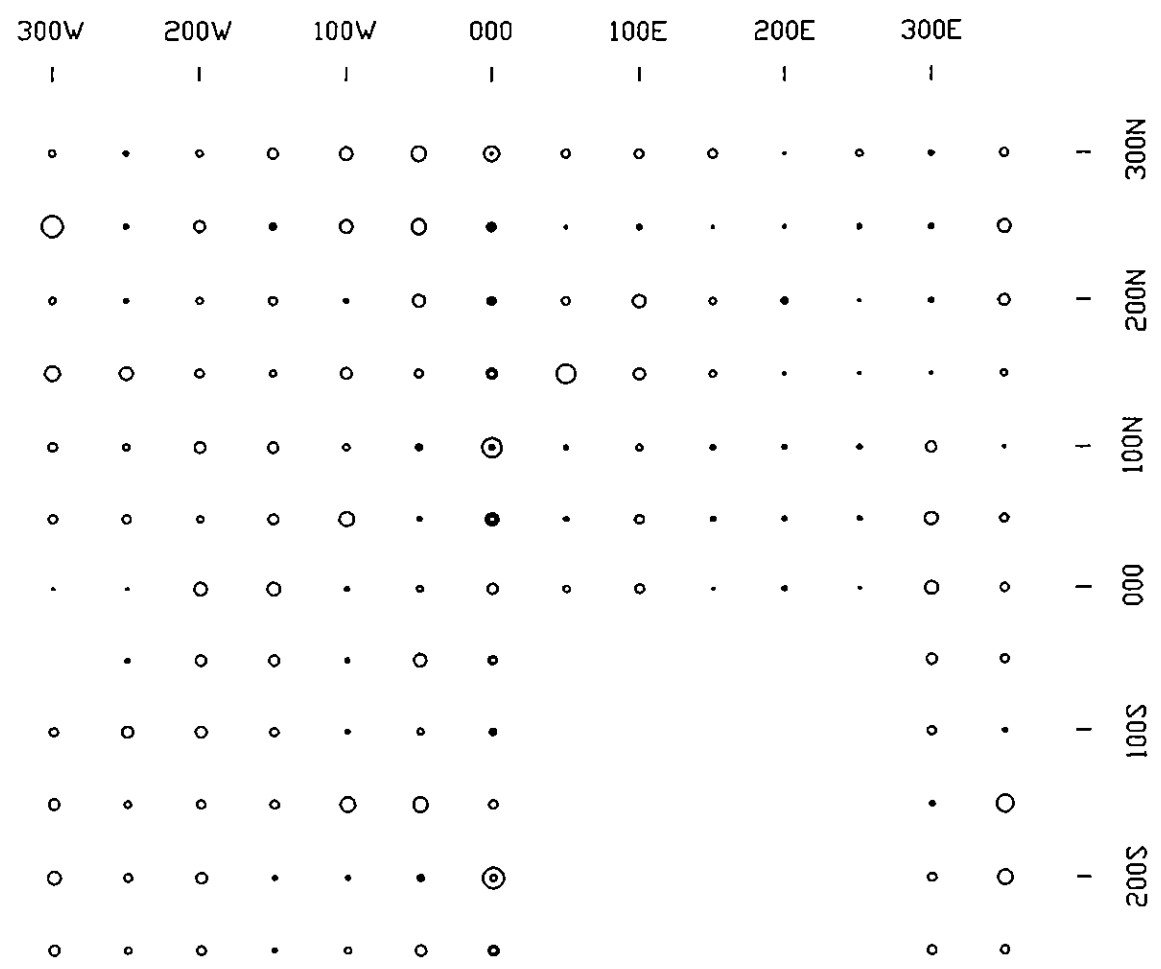
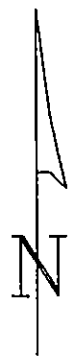
Morgan 3 East Grid  
Soil Geochemistry - Silver  
(symbolic posting)

fig:                      date: 3/88

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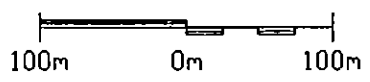


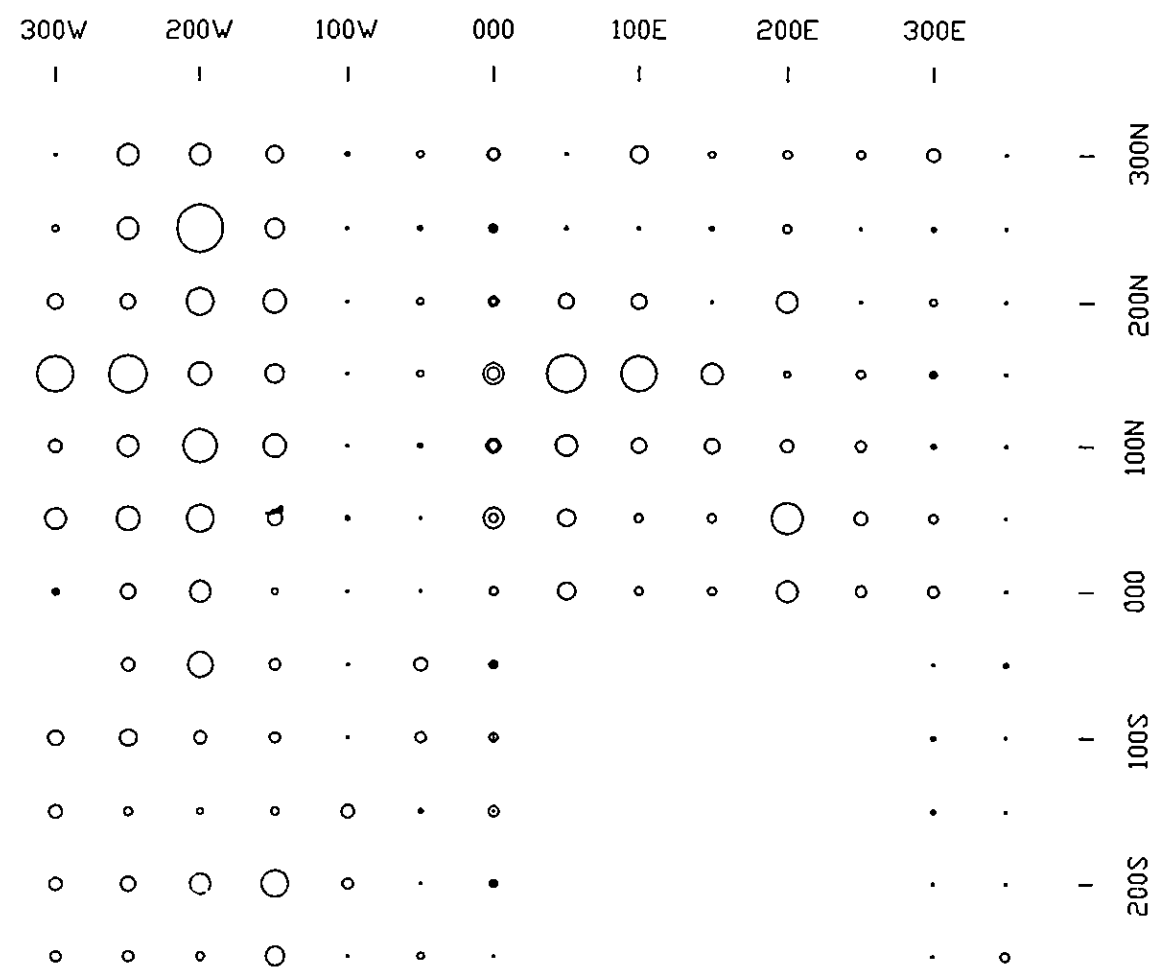
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Morgan 3 East Grid  
Soil Geochemistry - Lead  
(symbolic posting)

fig:                      date: 3/88

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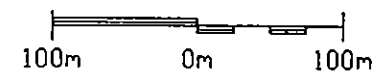
- 10 ppm As
- 108 ppm As
- 206 ppm As
- 304 ppm As
- 40.2 ppm As
- 50.0 ppm As

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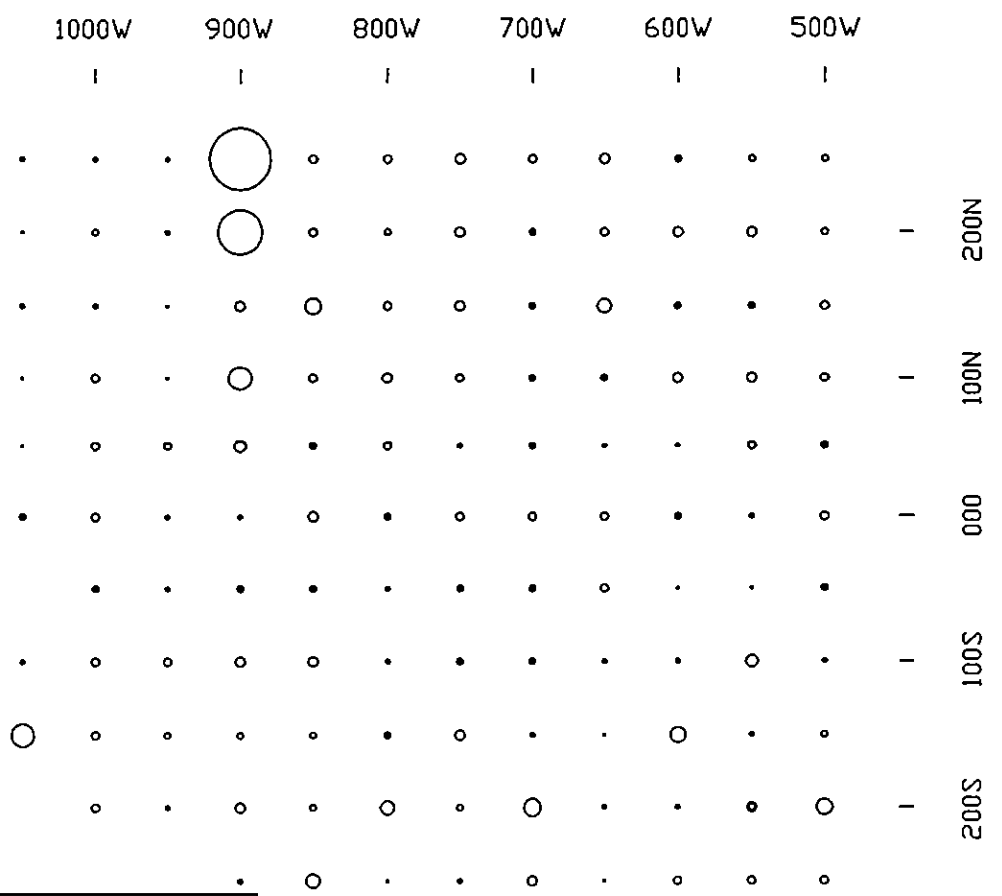
Morgan 3 East Grid  
Soil Geochemistry - Arsenic  
(symbolic posting)

fig:                      date: 3/88

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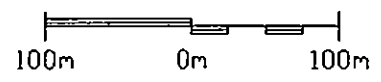
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- 14 ppm Cu
- 25 ppm Cu
- 37 ppm Cu
- 48 ppm Cu
- 60 ppm Cu

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Morgan 3 West Grid  
Soil Geochemistry - Copper  
(symbolic posting)

fig:                      date: 3/88

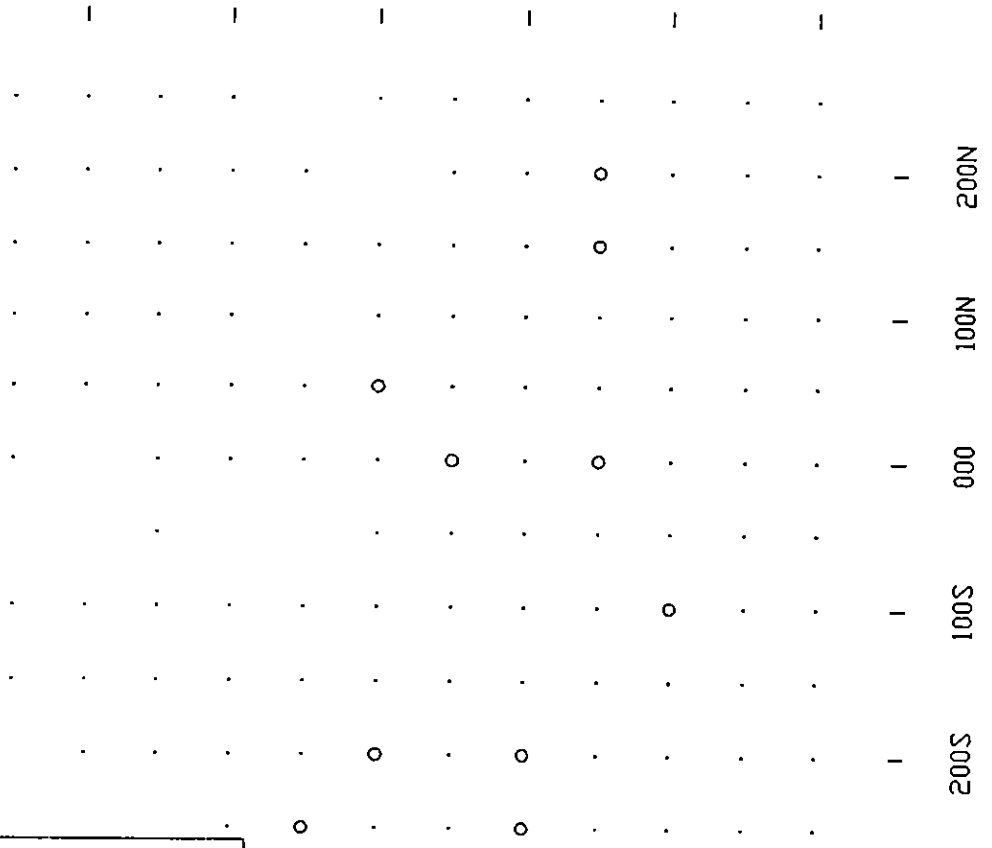
CyberQuest Exploration Systems Ltd



70



1000W 900W 800W 700W 600W 500W



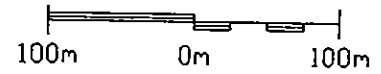
- 0.2 ppm Ag
- 0.4 ppm Ag
- 0.6 ppm Ag
- 0.8 ppm Ag
- 1.0 ppm Ag
- 1.2 ppm Ag

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Morgan 3 West Grid  
Soil Geochemistry - Silver  
(symbolic posting)

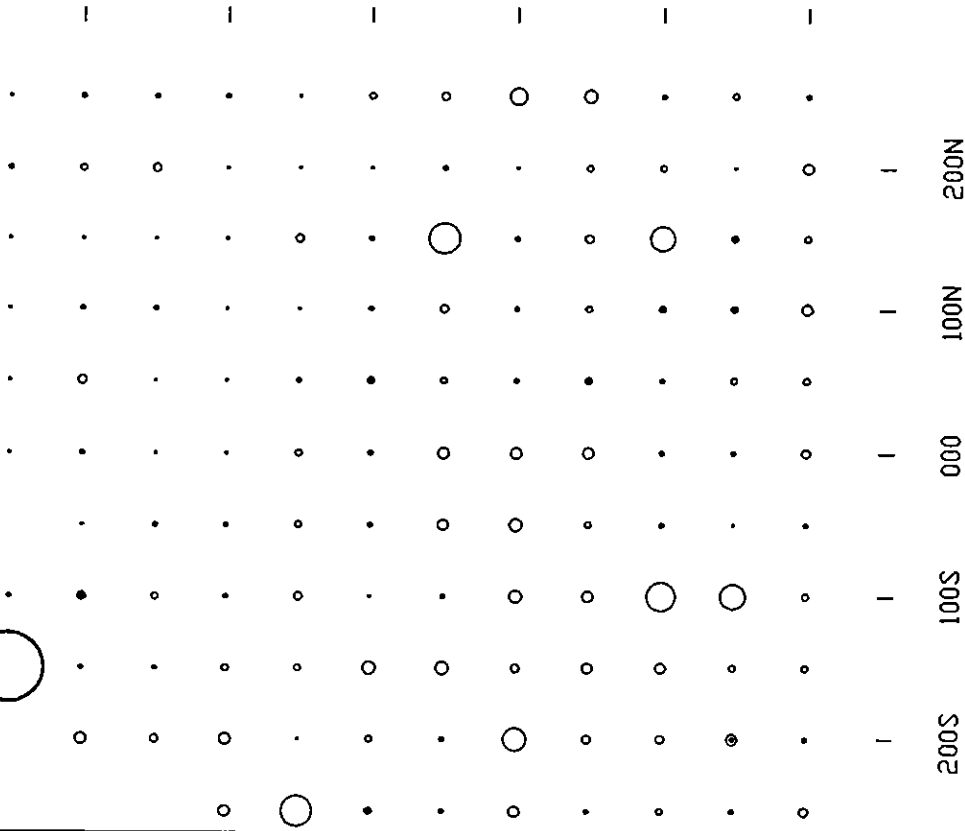
Fig:                      date: 3/88

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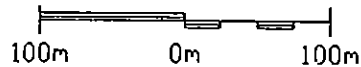
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- 10.8 ppm Pb
- 20.6 ppm Pb
- 30.4 ppm Pb
- 40.2 ppm Pb
- 50.0 ppm Pb

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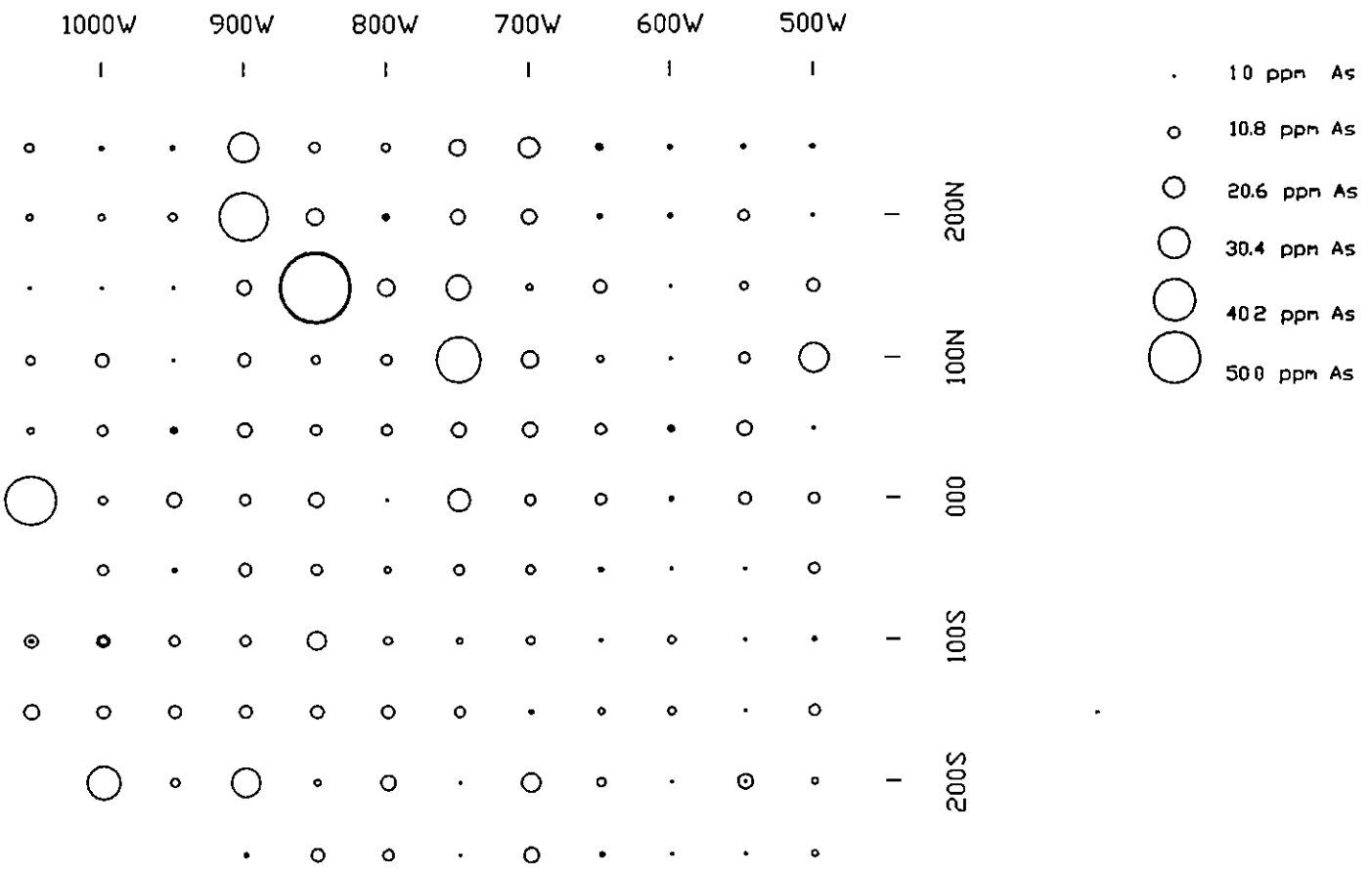
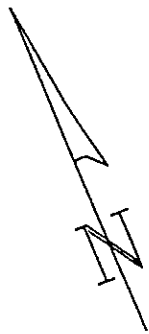
Morgan 3 West Grid  
Soil Geochemistry - Lead  
(symbolic posting)

fig:                    date: 3/88

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- 10 ppm As
- 10.8 ppm As
- 20.6 ppm As
- 30.4 ppm As
- 40.2 ppm As
- 50.0 ppm As

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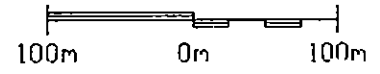
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Morgan 3 West Grid  
Soil Geochemistry - Arsenic  
(symbolic posting)

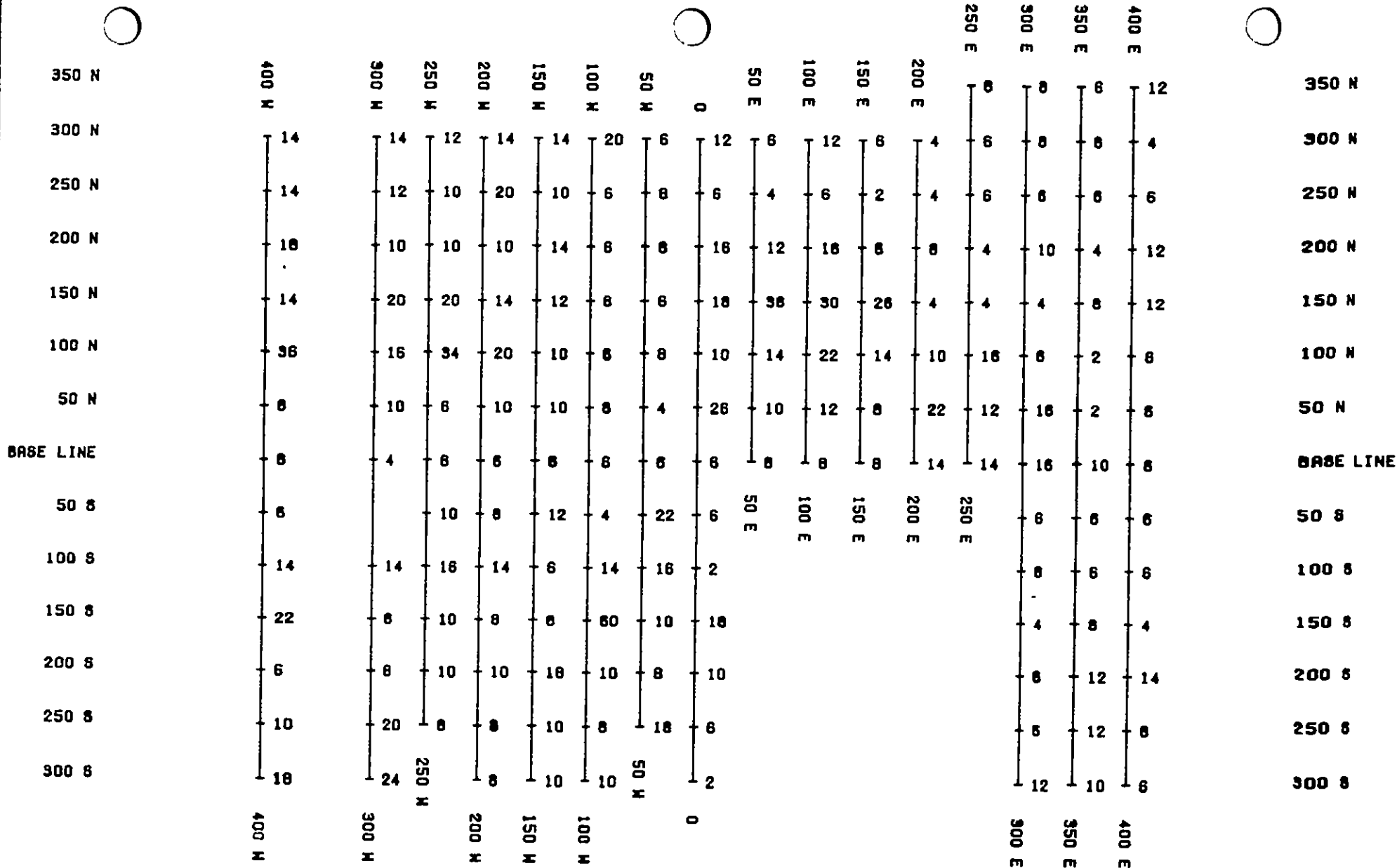
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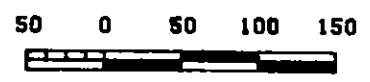
73

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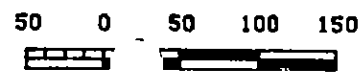
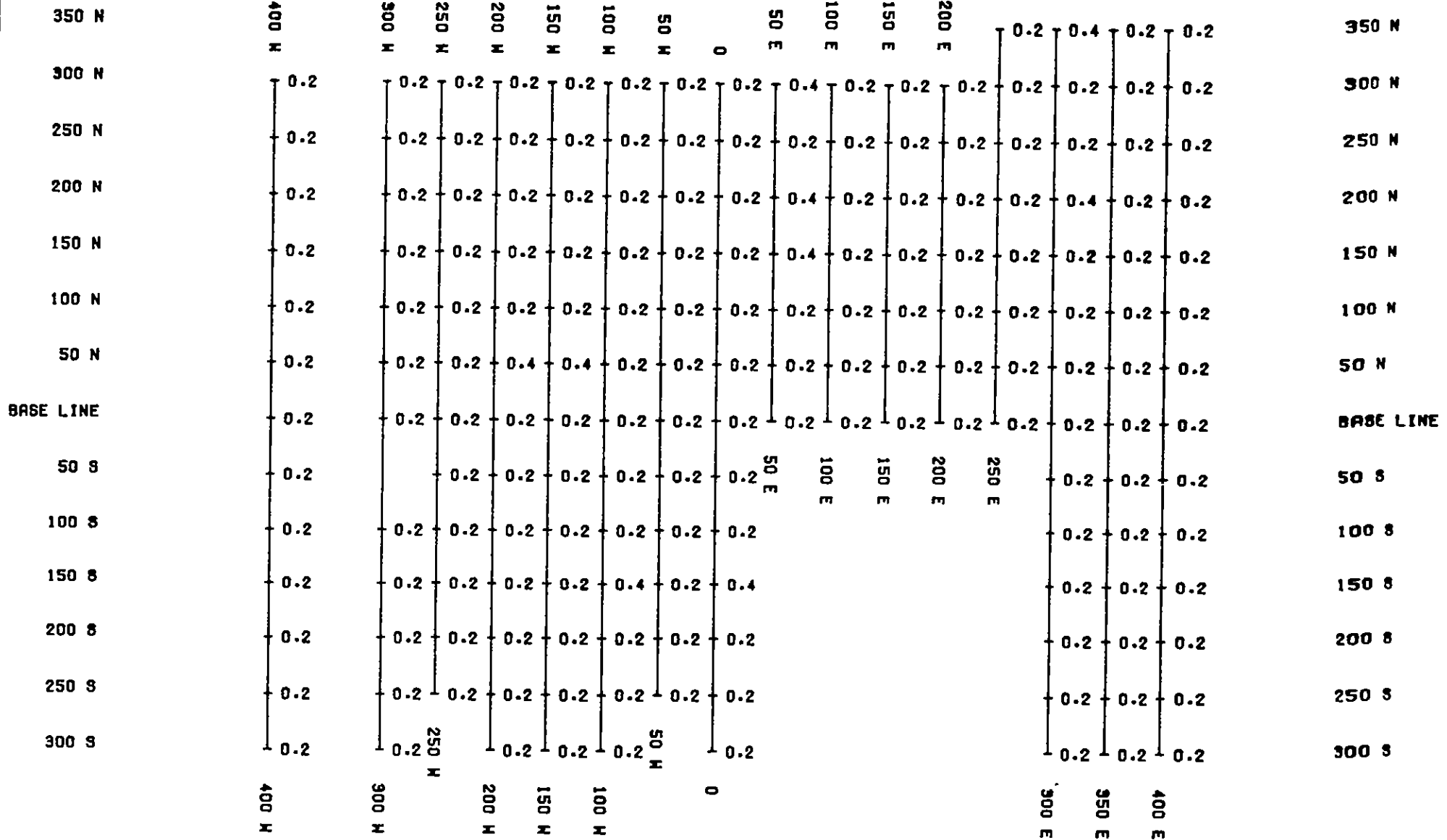
SOIL GEOCHEM SURVEY  
COPPER PPM.

MORGAN GROUP GRID 3A

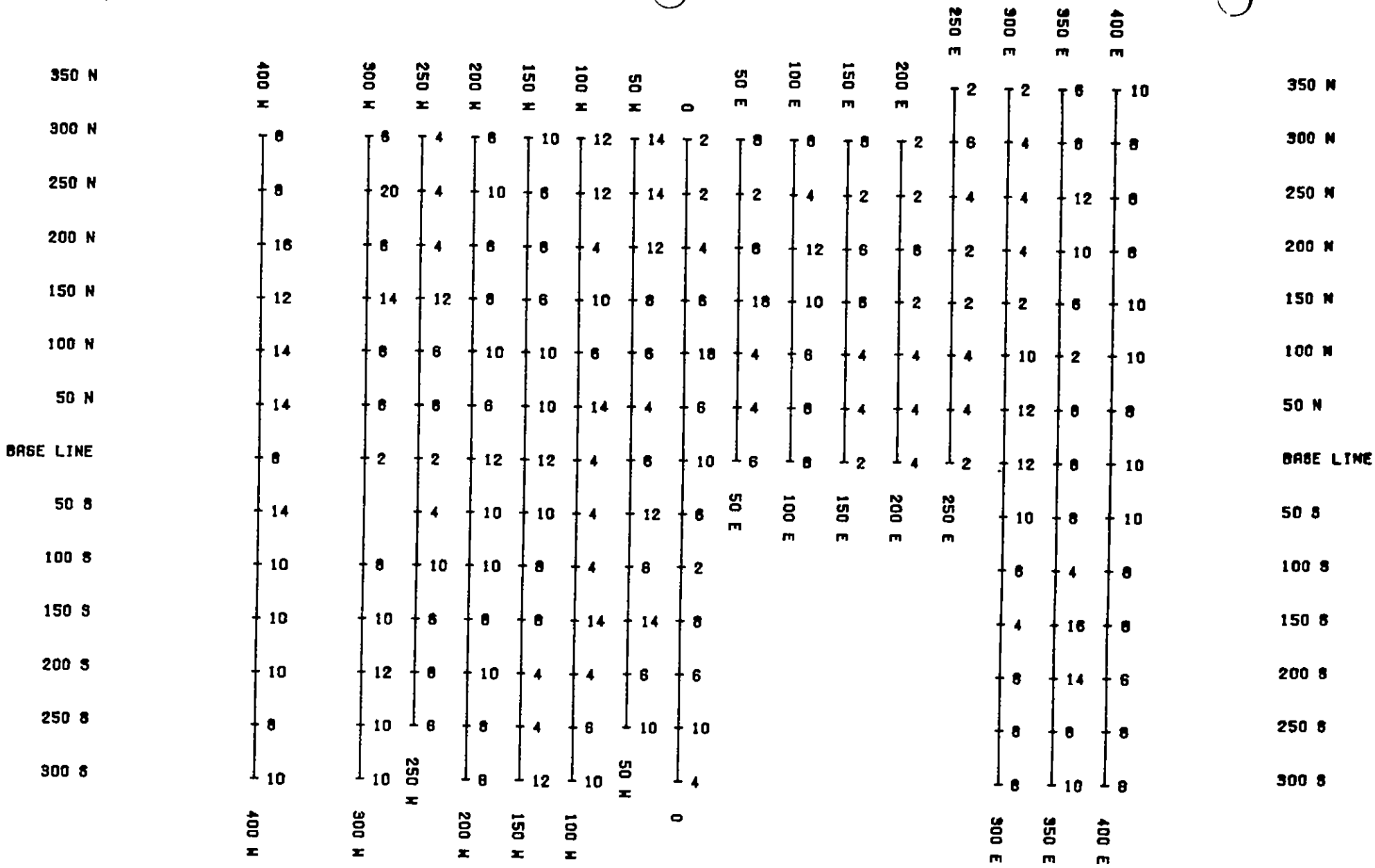
MARCH 1988	FORT STEELE M.D.	FIG -
CYBERQUEST EXPLORATION SYSTEMS LTD.		



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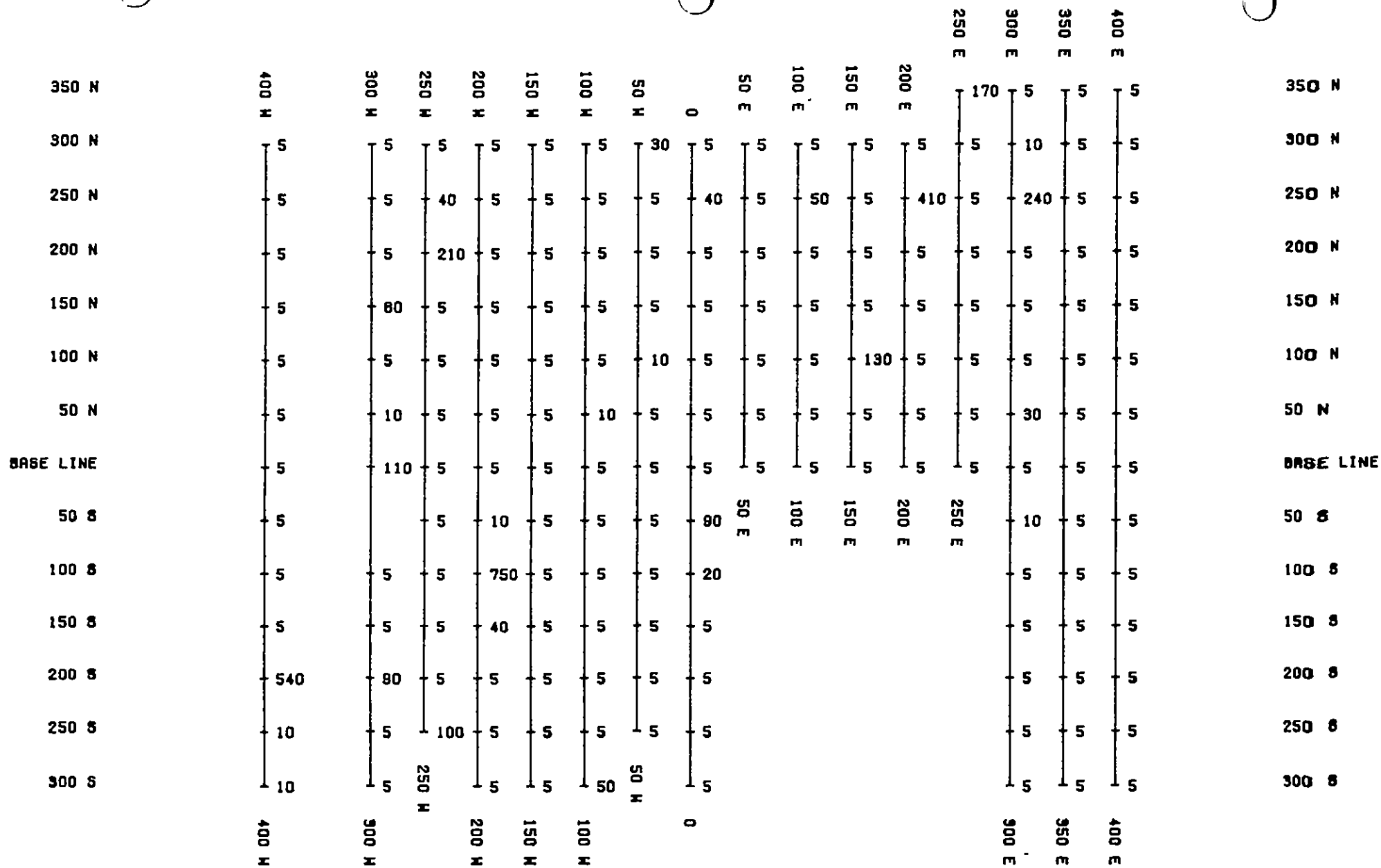
CHAPLEAU RESOURCES LTD  
 SOIL GEOCHEM SURVEY  
 SILVER PPM.  
 MORGAN GROUP GRID 3A  
 MARCH 1988 FORT STEELE M F10  
 CYBERQUEST EXPLORATION SYSTEMS LTD.



75

50 0 50 100 150

CHAPLEAU RESOURCES LTD  
 SOIL GEOCHEM SURVEY  
 LEAD PPM.  
 MORGAN GROUP GRID 3A



CHAPLEAU RESOURCES LTD.

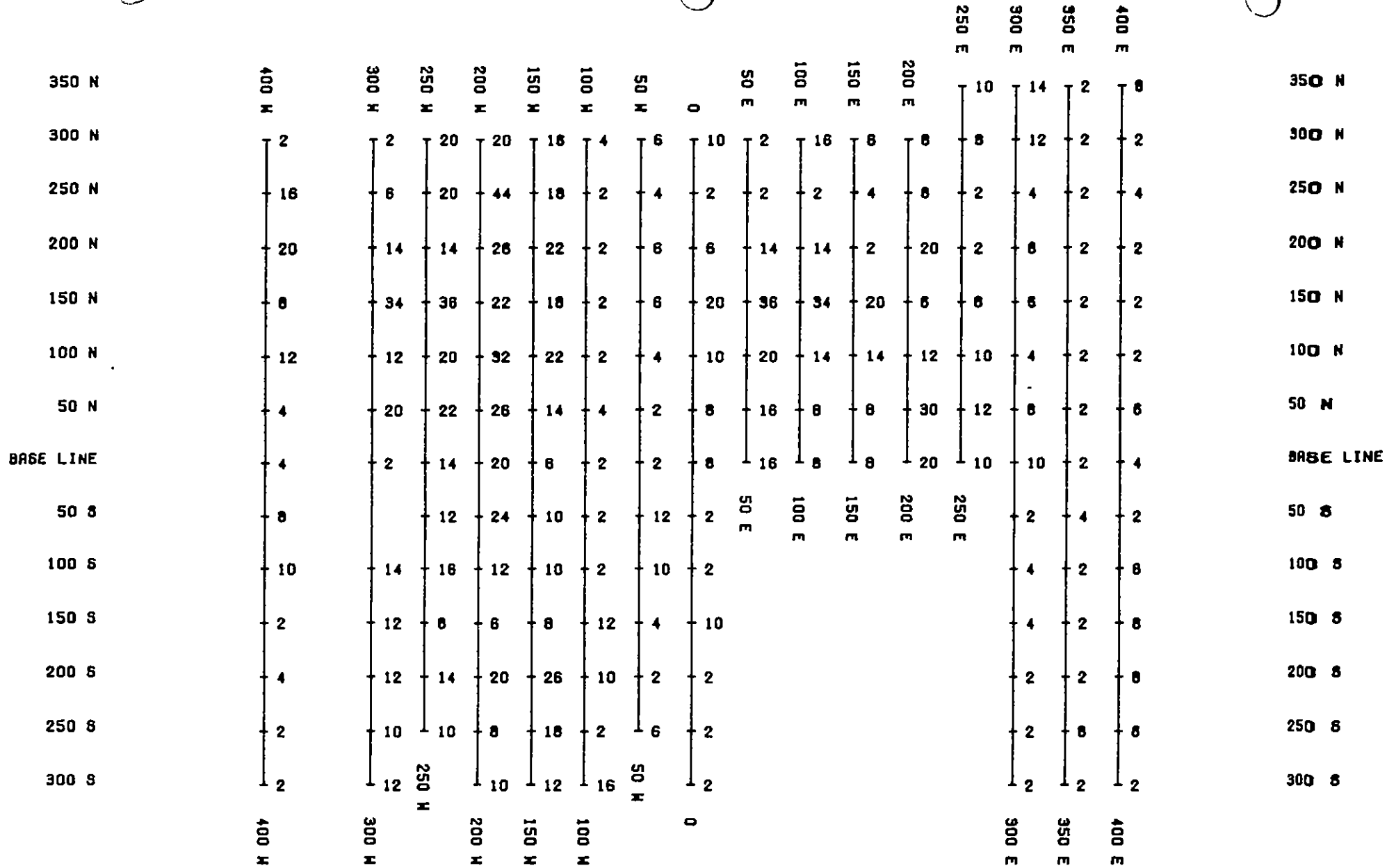
SOIL GEOCHEM SURVEY

GOLD PPM.

MORGAN GROUP

GRID 3A

50 0 50 100 150



CHAPLEAU RESOURCES LTD.

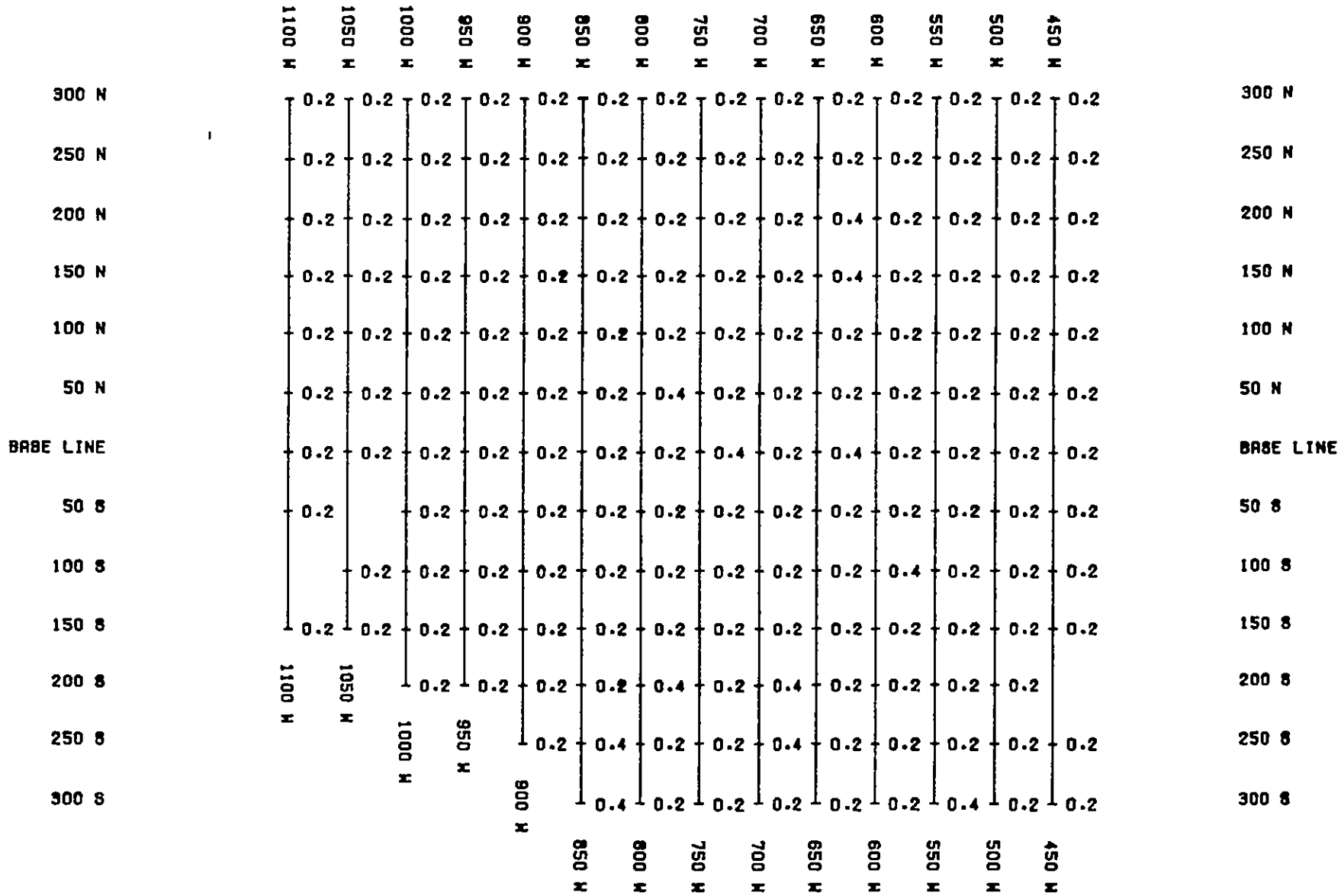
SOIL GEOCHEM SURVEY

ARSENIC PPM.

MORGAN GROUP

GRID 3A

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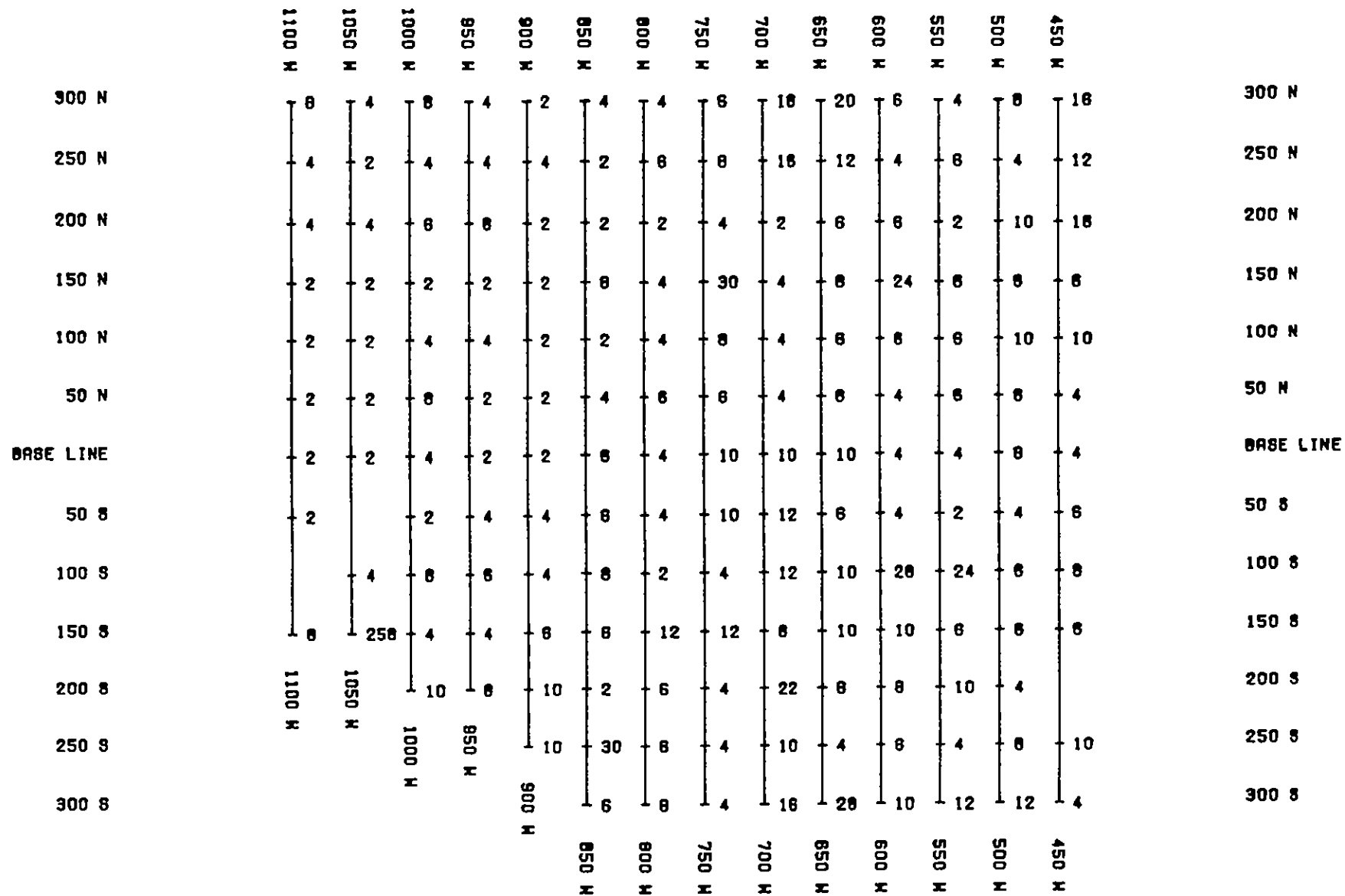


CHAPLEAU RESOURCES LTD  
 SOIL GEOCHEM SURVEY  
 SILVER PPM.  
 MORGAN GROUP GRID 3B

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300 N	8	10	6	8	16	8	10	12	12	8	8	8	14	12	300 N
250 N	8	8	6	6	6	10	10	12	10	12	8	8	8	12	250 N
200 N	10	4	8	6	4	10	8	12	8	10	12	12	8	18	200 N
150 N	6	6	6	4	12	18	10	12	8	16	6	6	10	12	150 N
100 N	4	4	10	4	26	10	12	10	8	8	12	12	10	14	100 N
50 N	8	4	10	10	14	8	10	8	8	8	8	10	8	14	50 N
BASE LINE	10	8	10	8	6	12	8	10	10	10	8	6	10	12	BASE LINE
50 S	18		8	6	8	6	6	8	8	10	4	4	8	8	50 S
100 S		8	10	10	12	12	8	8	8	8	6	14	8	4	100 S
150 S	10	26	10	8	8	8	8	12	8	4	18	6	8	12	150 S
200 S	1100 M	1050 M	10	6	12	8	16	8	20	6	6	8	18	200 S	
250 S			1000 M	850 M	8	18	4	6	12	4	10	10	10	24	250 S
300 S					900 M	8	8	14	16	24	30	32	12	10	300 S
						850 M	800 M	750 M	700 M	650 M	600 M	550 M	500 M	450 M	

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 SOIL GEOCHEM SURVEY  
 COPPER PPM.  
 MORGAN GROUP GRID 3

80



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SOIL GEOCHEM SURVEY

LEAD

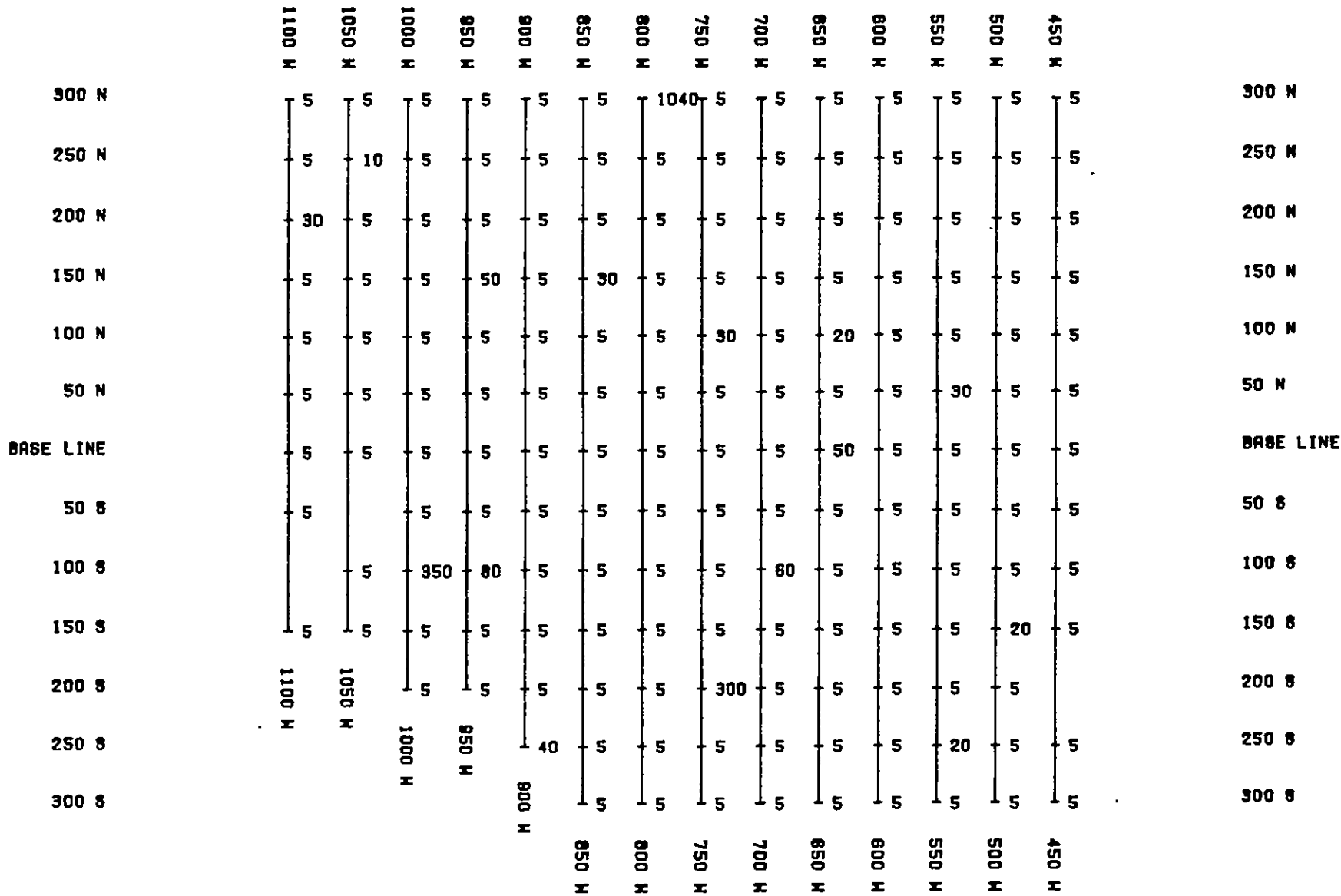
PPM.

MORGAN GROUP

GRID 3B

50 0 50 100 150





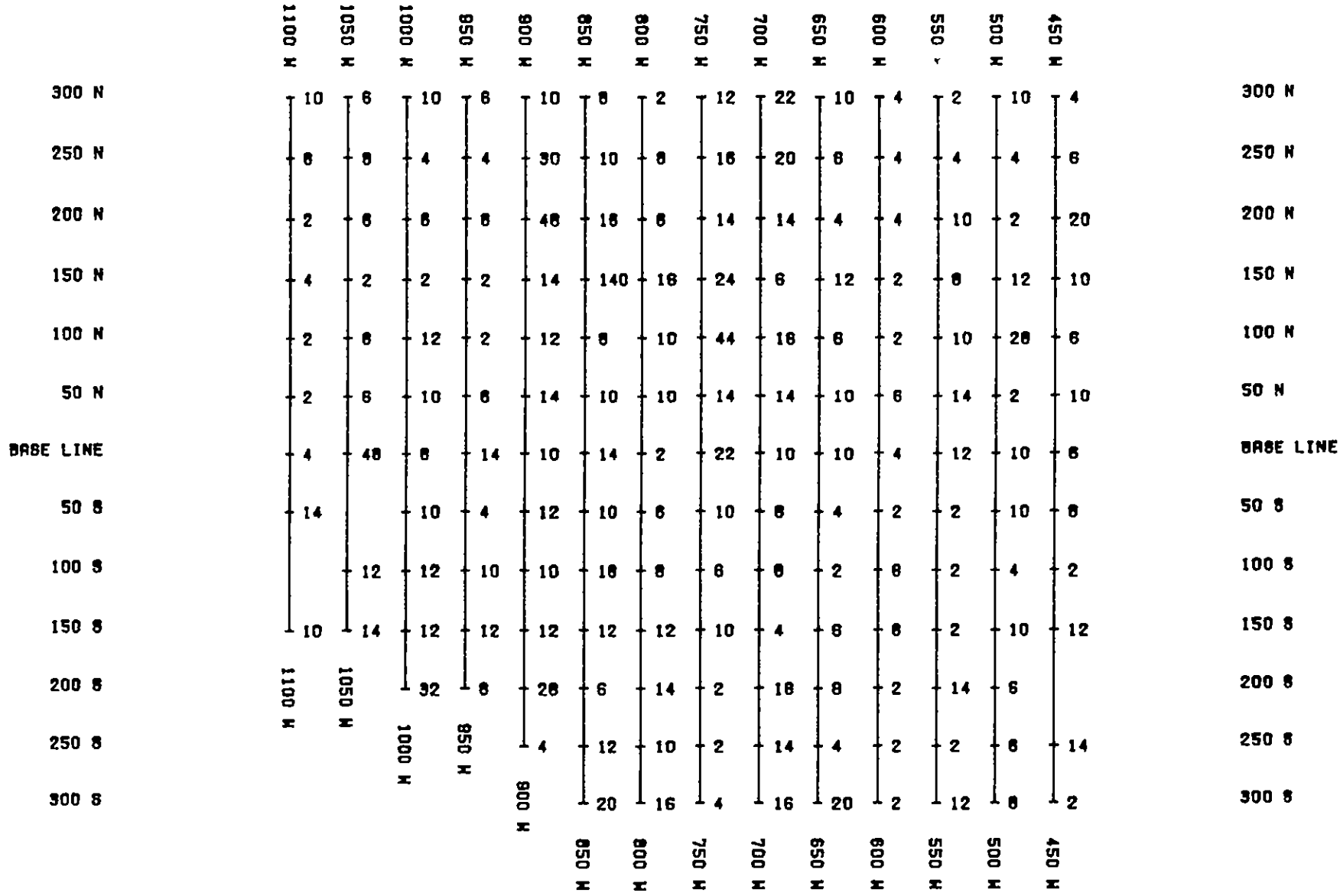
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SOIL GEOCHEM SURVEY

GOLD PPM.

MORGAN GROUP

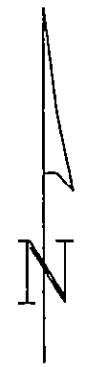
GRID 3B



82

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SOIL GEOCHEM SURVEY		
ARSENIC		PPM.
MORGAN GROUP		GRID 3B
MARCH 1988	EAST STEELE M.D.	ELD

50 50 100 150



200E

100E

000

400N

300N

200N

2 ppm Cu

○ 14 ppm Cu

○ 25 ppm Cu

○ 37 ppm Cu

○ 48 ppm Cu

○ 60 ppm Cu

100N

000

100S

200S

300S

400S

300E

400E

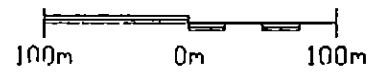
500E

600E

700E

800E

900E



Chapleau Resources Ltd

Morgan 4 Grid  
Soil Geochemistry - Cu  
(symbolic posting)

fig.                      date: 3/88

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200E

100E

000

400N

300N

200N

100N

000

100S

200S

300S

400S

300E

400E

500E

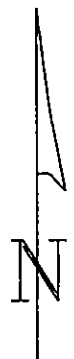
600E

700E

800E

900E

- 10 ppm As
- 108 ppm As
- 206 ppm As
- 304 ppm As
- 402 ppm As
- 500 ppm As

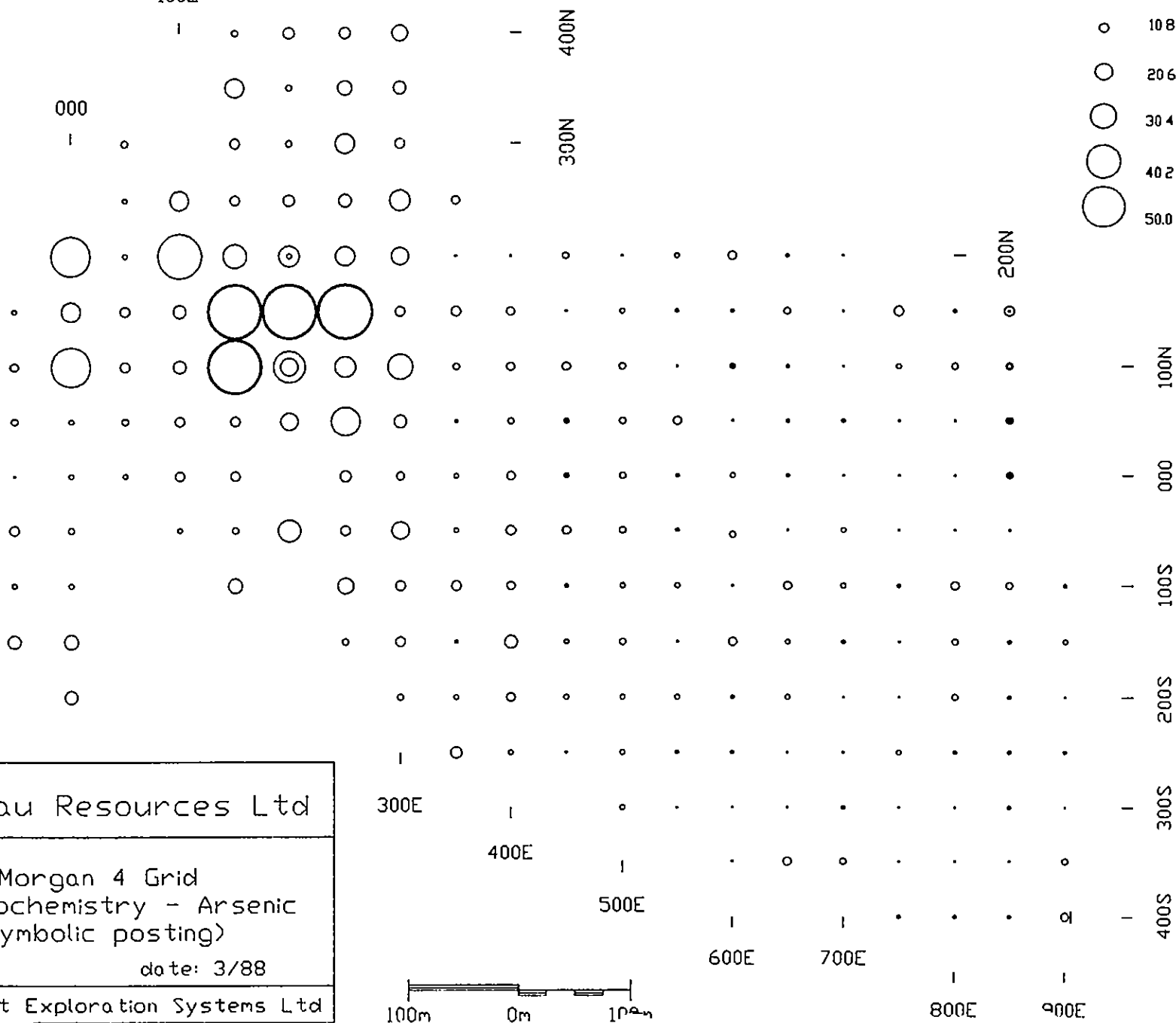
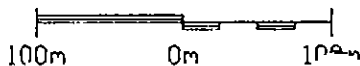


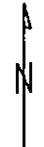
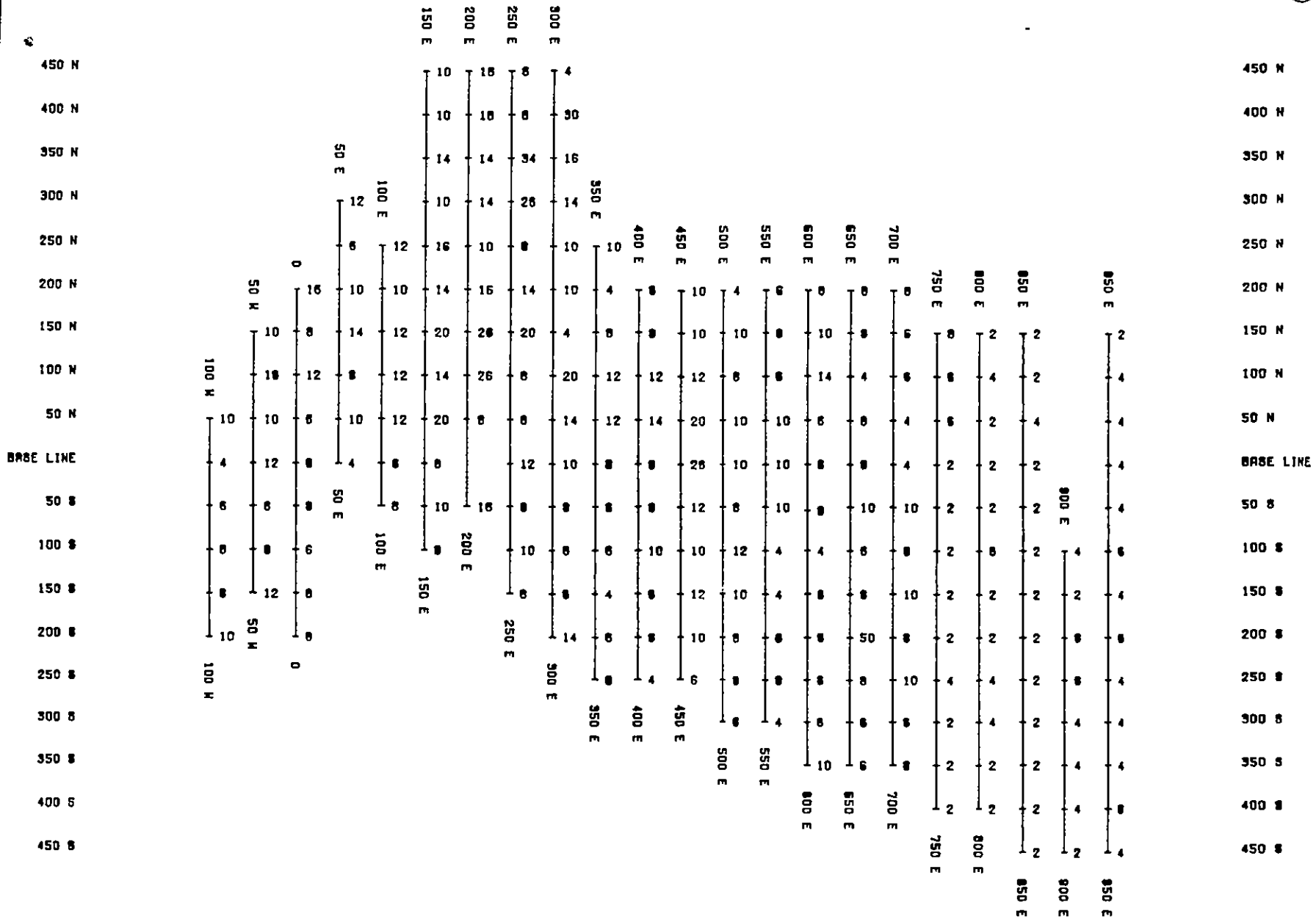
Chapleau Resources Ltd

Morgan 4 Grid  
Soil Geochemistry - Arsenic  
(symbolic posting)

fig:                      date: 3/88

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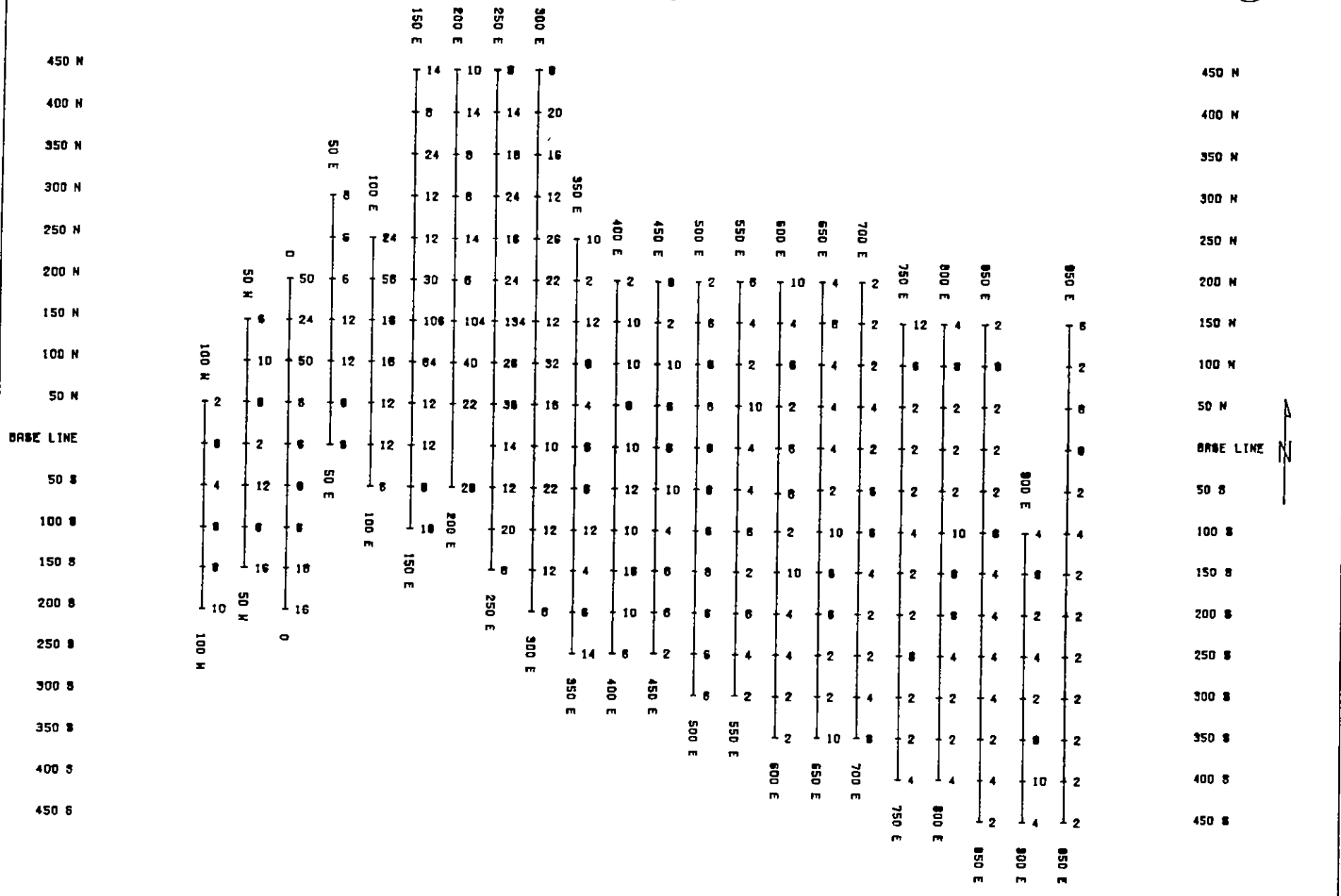


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LEAD PPM.  
MORGAN GROUP GRID 4

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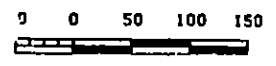


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SOIL GEOCHEM SURVEY  
ARSENIC PPM.  
MORGAN GROUP GRIP 4

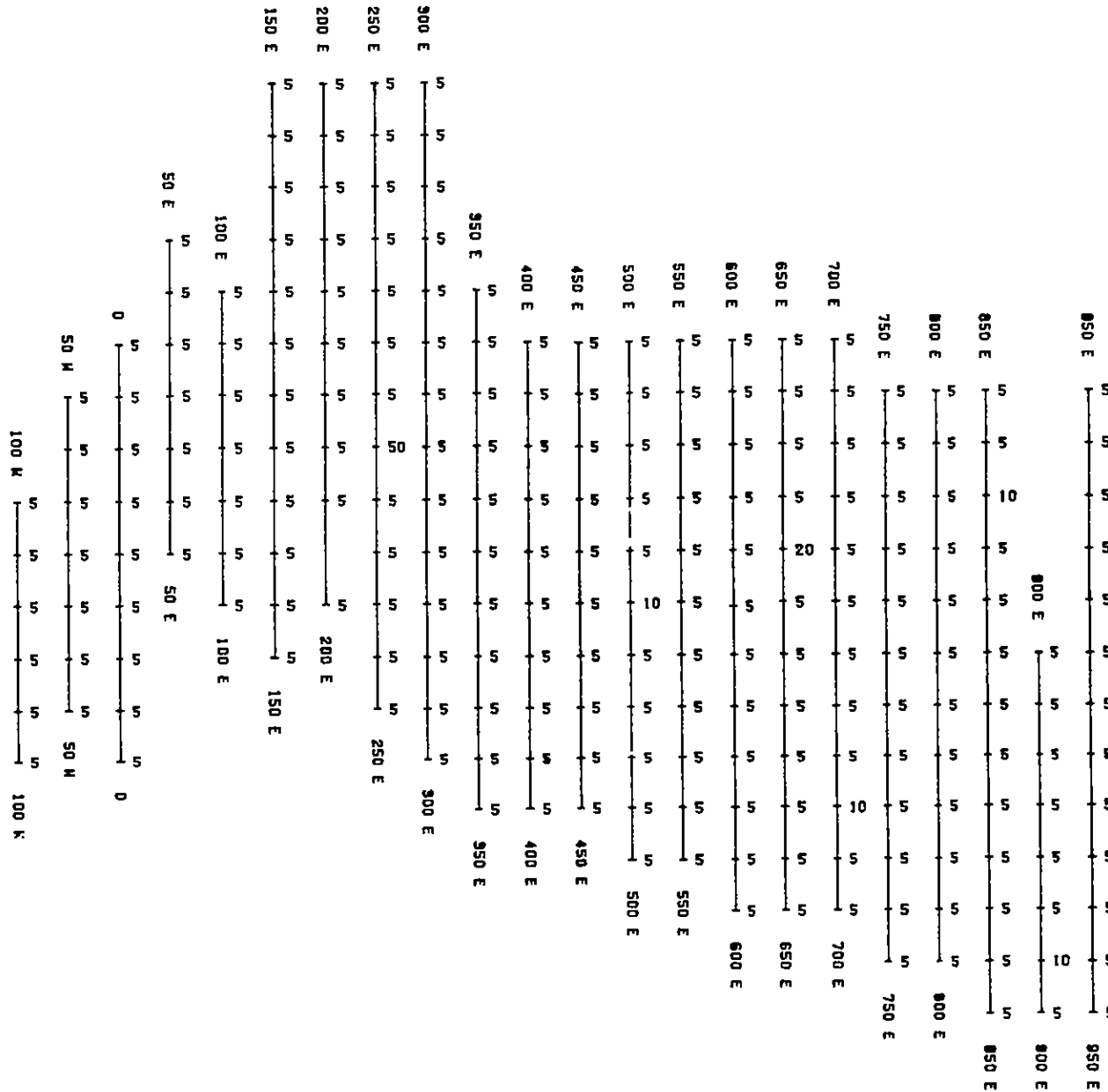
MARCH 1988 FORT STEELE M.O. 1/10 --

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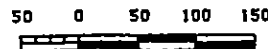


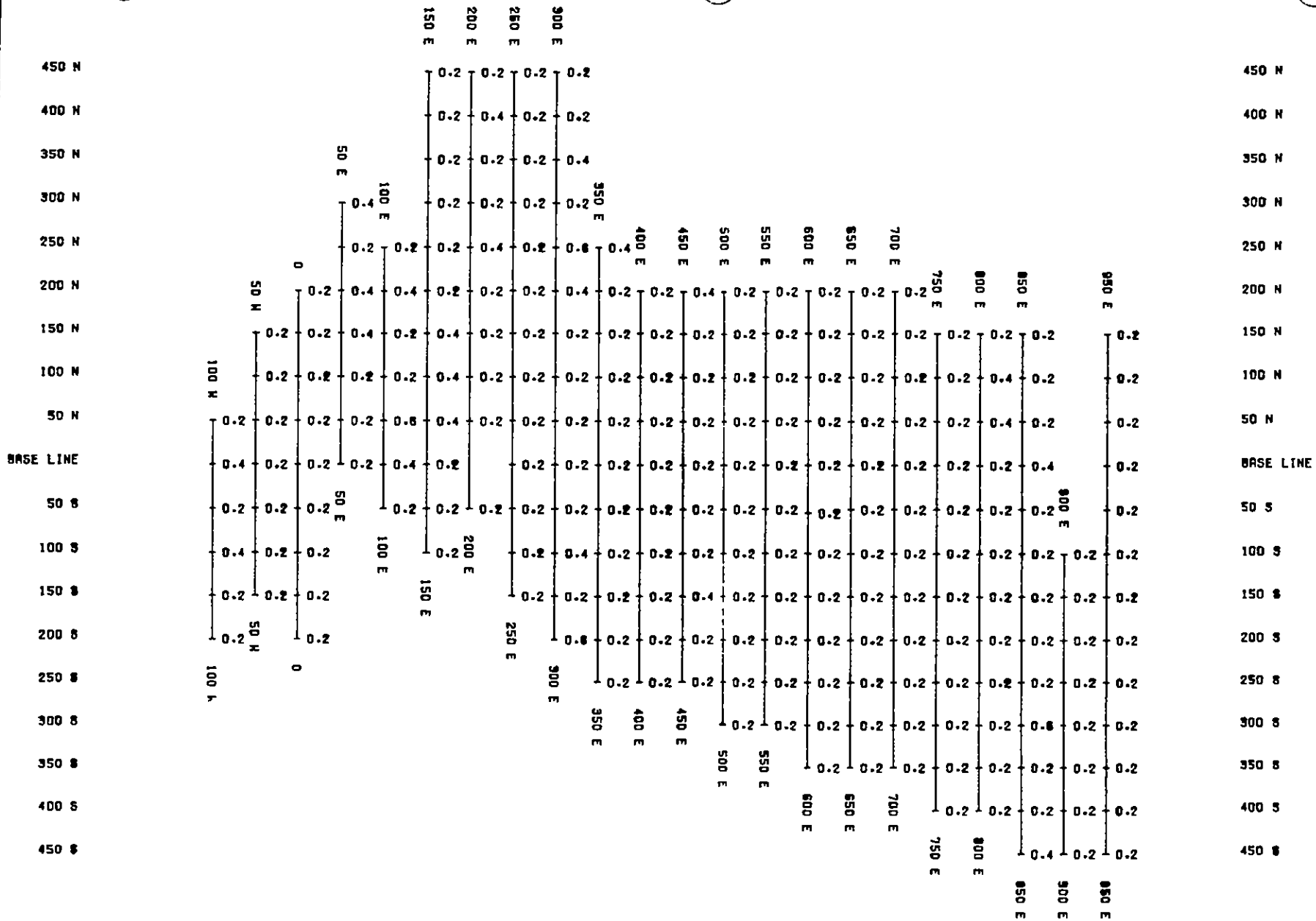
450 N  
400 N  
350 N  
300 N  
250 N  
200 N  
150 N  
100 N  
50 N  
BASE LINE  
50 S  
100 S  
150 S  
200 S  
250 S  
300 S  
350 S  
400 S  
450 S

450 N  
400 N  
350 N  
300 N  
250 N  
200 N  
150 N  
100 N  
50 N  
BASE LINE  
50 S  
100 S  
150 S  
200 S  
250 S  
300 S  
350 S  
400 S  
450 S



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GOLD PPM.		
MORGAN GROUP		GRID 4
MARCH 1988	FORT STEELE N.D.	FIG --
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SOIL GEOCHEM SURVEY

SILVER PPM.

MORGAN GROUP GRID 4

MARCH 1990

FORT STEELE M.D.

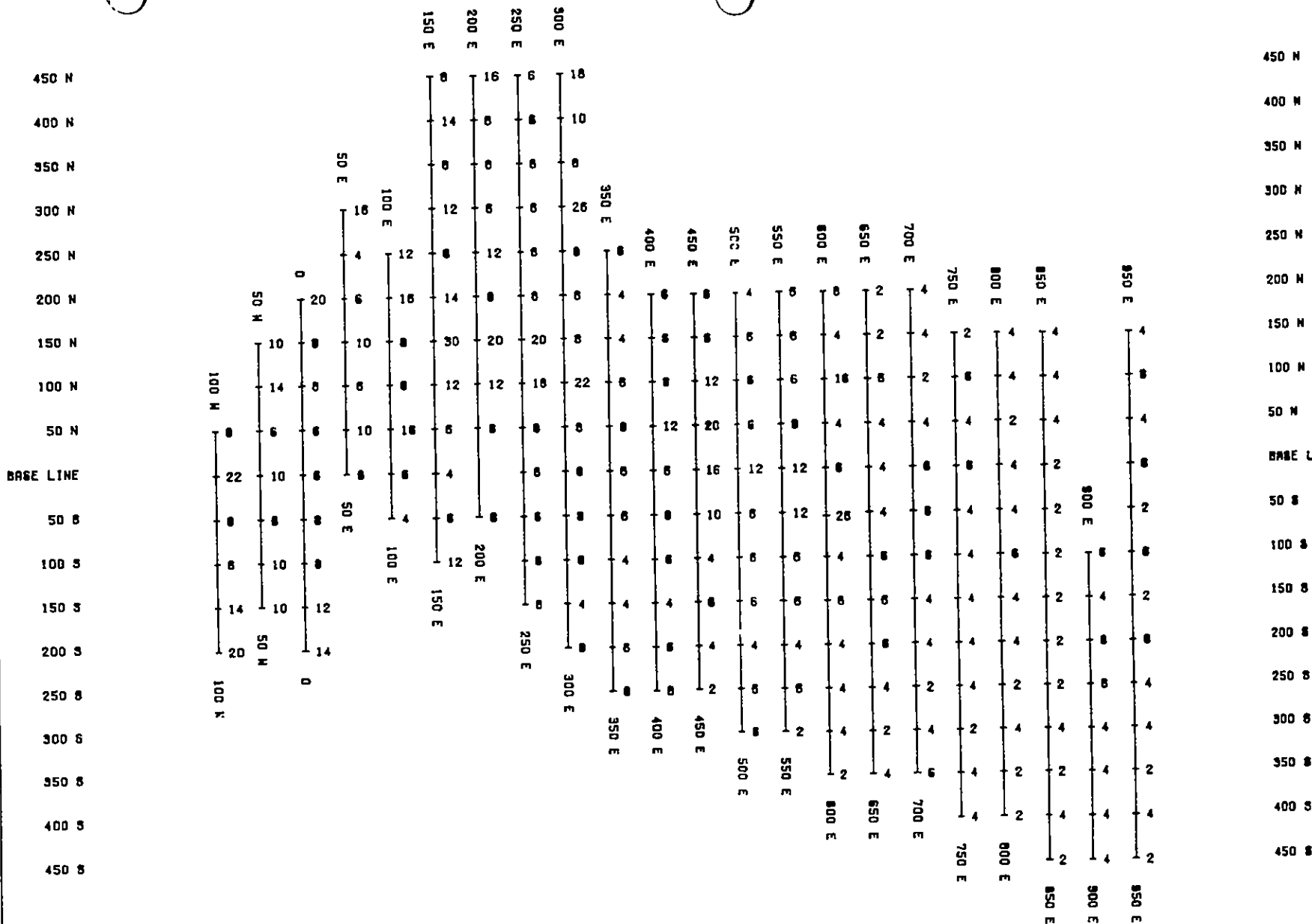
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CYBERQUEST EXPLORATION SYSTEMS LTD.

0 50 100 150







50 0 50 100 150



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SOIL GEOCHEM SURVEY  
COPPER PPM.

MORGAN GROUP GRID 4

MARCH 1988 FORT STEELE M.D. F10 --

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**A PRELIMINARY REPORT ON THE 1987  
SOIL GEOCHEMISTRY OF THE BUCK  
PROPERTY,  
CRANBROOK, BRITISH COLUMBIA**

John Harrop      Clifford R. Stanley

CyberQuest Exploration Systems, Ltd.  
Suite 210 - 830 W. Pender St.  
Vancouver, B.C. V6C 1J8

March 18, 1988

# 1 Introduction

This report addresses the results of the soil geochemical surveys which were undertaken during the 1987 field season on the Buck Property, Cranbrook, British Columbia by Chapleau Resources. Exploration targets on the property, which also occur in similar host lithologies and geologic settings nearby, include sediment-hosted massive-sulphide mineralization similar to that at the Sullivan Mine and precious-metal ( $\pm$  base-metal) quartz veins, perhaps similar to those on the east side of Moyie Lake (the St. Eugene Mine). Possibilities also exist for bulk-tonnage low-grade replacement-type Au deposits in calcareous stratigraphy of the Purcell Supergroup. A discussion of the results of these surveys is included based largely on a statistical analysis of the geochemical determinations, and based on maps of the geochemical concentrations. Recommendations for further geochemical work on the property are also presented.

Sampling was carried out by Chapleau Resources' employees during August through September 1987 and all geochemical element determinations were made by Rossbacher Laboratory, Ltd. Samples consisted of 0.5 kg of fine grained stream sediment material collected from the active bed of the streams. These were air dried and sieved to -80 mesh. A 0.5 gram sub-sample was digested with a 3:1 nitric:perchloric acid attack and analyzed using atomic absorption spectrometry. Elements determined include Cu, Ag, Pb, Zn and As for all soil grids. Gold was determined by a similar method, except that 10 grams of -80 mesh material was subjected to an aqua regia digest on followed by pre-concentration in MIBK. No standards were included in the analytical batches so data quality could not be determined; however, several sample sites have duplicate samples allowing a rough assessment of sample site reproducibility.

Four soil grids (Noke, BSW-1, BSW-2, BSW-3) were sampled and maps presenting the sample locations and geochemical concentrations for these samples are presented in Appendix A. The grids are, for the most part, oriented N-S with 50 m between lines and 50 m between sample sites (with the exception of the Noke Grid, which is oriented with its base line  $30^\circ$  east of true north). The grids are irregular because numerous grid nodes could not be sampled.

## 2 Statistical Analysis

### 2.1 Threshold Selection

A histogram and probability plot analysis (Sinclair 1974, 1976; Stanley 1987) of the geochemical concentrations was made on all of the data from the four soil grids. Output of these statistical results are presented in Appendix B.

Results indicate that all elements have subdued abundances and exhibit positively skewed distributions. Low element abundances are common in Belt-Purcell soils, even over sulphide mineralization, because of the overall low absorptive capacity of the soils (low clay and Fe-oxy-hydroxide mineral content; Stanley 1984). This allows the easy leaching of

the soluble base metals from the soils, despite high element concentrations in the source-bearing subjacent bedrock. The positive skewness of the element distributions probably results from a large number of 'background' concentrations and a small number of 'highly anomalous' concentrations which may possibly be related to economic mineralization.

### **2.1.1 Copper**

The Cu distribution appears to have a trimodal, log-normal form. One mode consisting of a large group of samples, exhibiting what are interpreted to be 'background' Cu concentrations and a mean of 10 ppm. Assymmetric  $\pm 1$  standard deviation values about this mean are 13 and 7 ppm, respectively. A second group of samples of higher abundance can be distinguished from this 'background' group. This group of samples has a mean of 21 ppm ( $\pm 25,17$ ). The third group of samples has a mean of 45 ppm ( $\pm 63,32$ ). These concentrations are interpreted to be 'anomalous' and range up to 128 ppm Cu. The second and third groups of 'anomalous' samples may be related to lithologies containing elevated Cu concentrations or to Cu-sulphide-bearing strata. A threshold which discriminates the 'background' and 'anomalous' sample groups occurs at approximately 15 ppm, while one that discriminates the two anomalous groups occurs at 25 ppm.

### **2.1.2 Silver**

Silver concentrations are all equal to the detection limit value of 0.2 ppm. Consequently, silver is not discussed.

### **2.1.3 Zinc**

Zinc concentrations exhibit only moderate positive skewness and the frequency distribution of the concentrations can be modelled with a single log-normal distribution. A threshold which distinguishes possibly anomalous samples occurs at 125 ppm, a value only slightly lower than the mean plus two standard deviations value.

### **2.1.4 Lead**

Lead concentrations also exhibit a positive skew and have an overall low abundance (with a maximum concentration of 78). Lead appears to be log-normally distributed with minor negative deviation in lower concentrations (interpreted to be due to truncation of the distribution by the detection limit). A possible second distribution on the high concentration tail of the distribution is not of substantial enough size to obtain estimates of its mean and standard deviation values, but it can be distinguished from the 'background' group of samples by a threshold of 17 ppm (the mean plus 2 standard deviations value).

### **2.1.5 Gold**

Gold concentrations on the Buck Property are all below or at the detection limit of 5 ppb, with one exception of 30 ppb. Consequently, the distribution of Au is not discussed.

### **2.1.6 Arsenic**

Arsenic exhibits a bimodal normal distribution and a maximum concentration of 26 ppm. The lower mode consists of concentrations below approximately 13 ppm and probably represents 'background' sources. The higher mode, with a mean of 17 ppm and a standard deviation of 4 ppm is probably 'anomalous' and may be related to sulphide-bearing strata. A threshold of 13 ppm separates the 'anomalous' and 'background' sample groups.

## **3 Interpretation**

Data posting plots are discussed in three sections related to the three sets of plots of the soil grid areas (BSW-1 and BSW-3 have been plotted together because of their proximity).

### **3.1 Noke Grid (Locations p8)**

Concentrations of Au and Ag on the Noke Grid are, with the exception of one 30 ppb Au value, all equal to their respective detection limits. Copper, Pb and As exhibit anomalous concentrations along the western edge of the grid from 50 N to 100 S. In addition, high background concentrations of these elements occur in an ENE-WSW orientation which intersects this anomaly. A second, similar parallel trend occurs 75 m south of this pattern in similar elements and element concentrations. These trends may be subtle expressions of sulfide bearing structures or stratigraphy on the soil grid.

### **3.2 BSW Grids # 1 and # 3**

The BSW-1 and BSW-3 soil grid contains only background concentrations of Au and Ag. Arsenic concentrations are above the detection limit but are not anomalous. A significant Pb anomaly, with scattered anomalous Cu and Zn concentrations within it, occurs in a zone bounded by 0 N, 100 W and 200 N 175 W. Other anomalous Zn concentrations occur on the eastern edge of the grid. The Pb anomaly may represent sulphide bearing lithologies, while the scattered Zn anomalies may represent hydromorphic dispersion of the Zn from its possible source in the Pb anomaly. The low mobility of Pb in the secondary environment, relative to Zn and Cu, supports this interpretation.

### **3.3 BSW Grid # 2**

The BSW-2 soil grid contains only background concentrations of Au and Ag. Scattered As and Pb anomalies occur along the base line at 250 N and 50 S. These may reflect

sampling problems. In addition, a well defined Pb anomaly occurs in the SW corner of the grid and is bounded by locations 200 S, 150 W and 0 N, 50 W and contains scattered anomalous Cu concentrations. Anomalous Zn occurs at scattered locations across, but, with one exception, not over the Pb anomaly. This geochemical signature is similar to that observed on the BSW-1 and BSW-3 soil grid and may represent a similar sulphide mineral source.

## 4 Conclusions and Recommendations

Based on the results of the 1987 soil surveys on the Buck Property, several conclusions may be drawn :

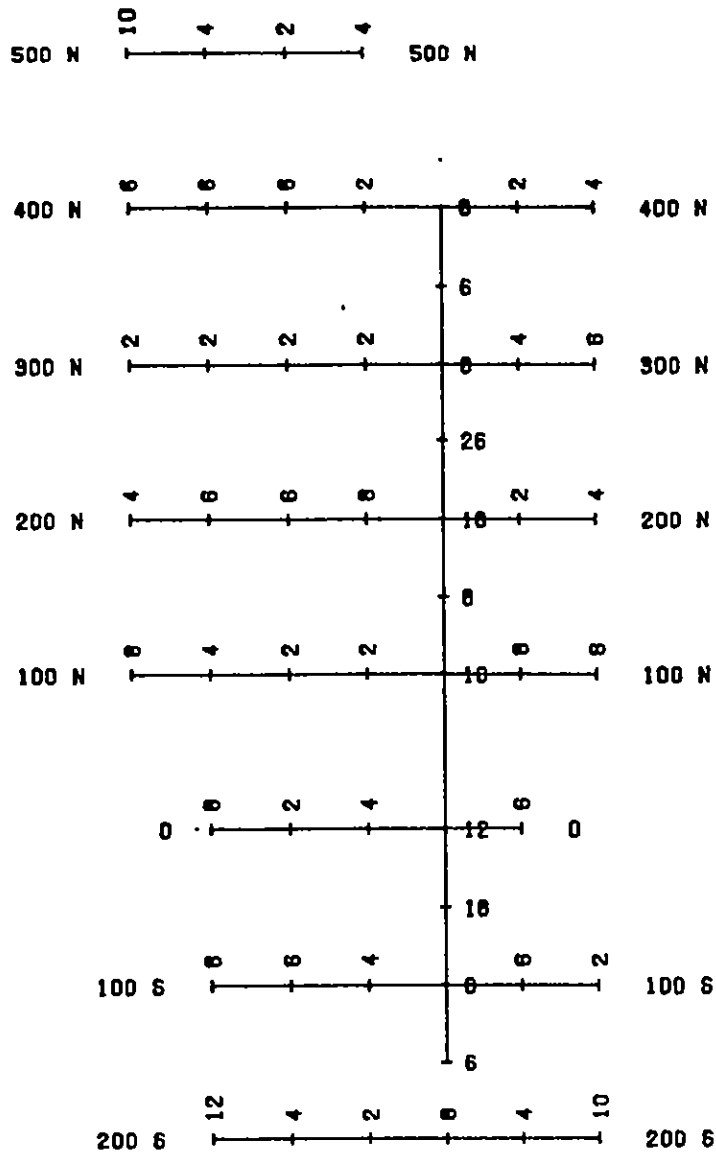
- the sample size, preparation and analytical method for Au is inadequate to detect, with confidence, the presence of Au in the soils; Au is not anomalous on any of the grids;
- the preparation and analytical method for the base metals does not produce adequate contrast to confidently define samples as 'anomalous';
- two roughly E-W oriented trends defined by anomalous and 'sub-anomalous' Cu, Pb and As occur on the Noke Grid which may reflect sulphide bearing structures or stratigraphy;
- anomalous Pb zones, with scattered Cu and Zn anomalies, occur on both the BSW-1/BSW-3 and BSW-2 soil grids which may be related to massive sulphide mineralization; the Pb could be a residual anomaly, with Cu and, particularly, Zn being leached and concentrated nearby as hydromorphic anomalies;
- given the sample density of the grids (50 m) and the observed width of the quartz veins which have been mined historically (generally less than 3 m), only a small probability (< 10 %) exists of sampling material derived directly from the vein material;
- no information about the effect of the glacial cover can be discerned from the data; this till could be exotic and totally unrelated to the lithologies and possible mineralization which it covers.

Based on the above conclusions, the following actions are recommended :

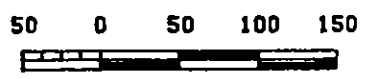
- an orientation survey of the soil method, using one of the known showings as a test case; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to massive-sulphide, Au replacement and Au-quartz vein mineralization;

- before the commencement of any soil survey, an assessment of the glacial overburden and its effect on the detection of geochemical anomalies must be undertaken; this should include a study of the soil and overburden stratigraphy and provenience;
- follow-up of the described soil anomalies should consist of detailed soil sampling over the anomalies with the techniques defined by the orientation survey to confirm their existence;
- future soil grids should be located in known prospect areas where mineralization has been observed or as indicated by regional stream sediment results; these should cover large areas to ensure that ore-related geochemical signatures are not missed due to glacial dispersion; small numbers of samples in soil grids are not recommended because little information regarding the relative concentration can be obtained;
- future soil grids should have nodes at 25 m or less if indicated by an orientation survey; analysis of the appropriate fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in the stream sediment and soil orientation surveys.

200 M  
150 M  
100 M  
50 M  
BASE L  
50 E  
100 E

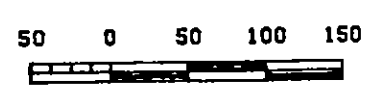
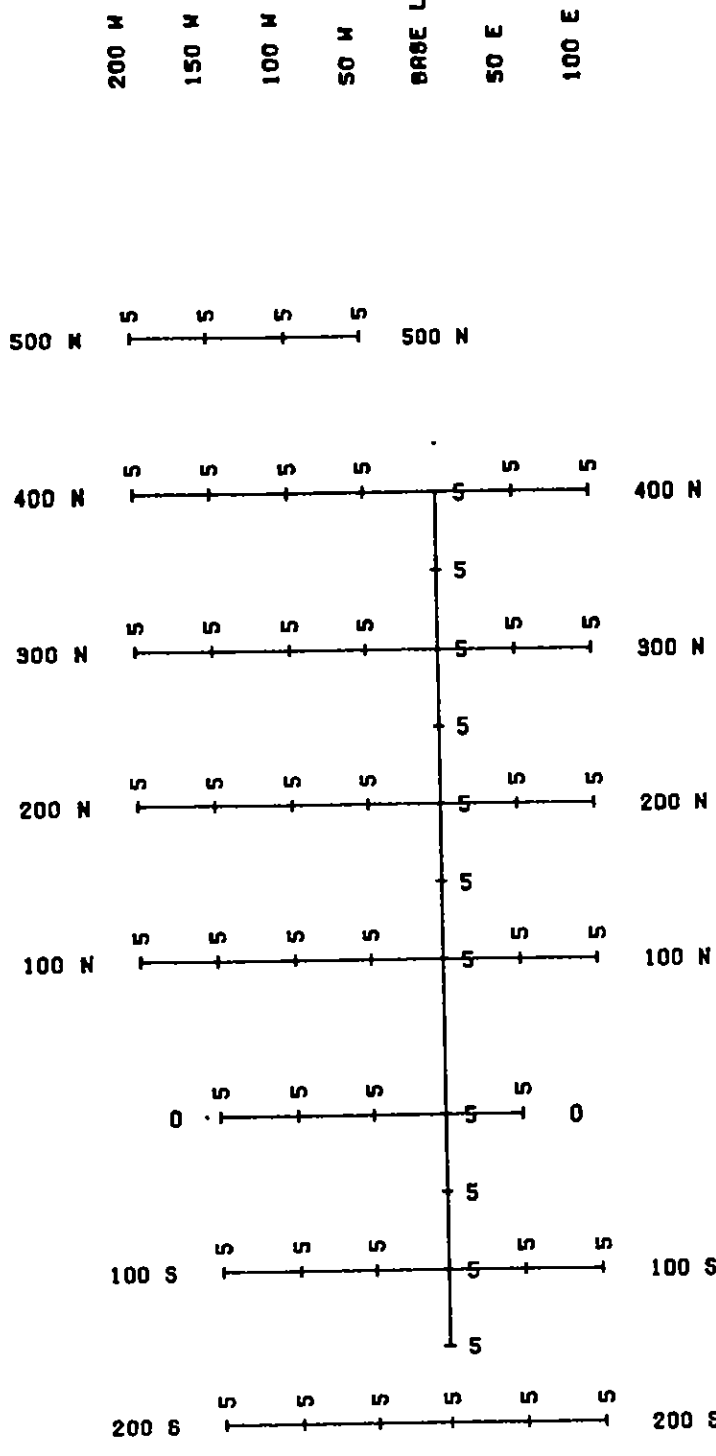


200 W  
150 W  
100 W  
50 W  
BASE LINE  
50 E  
100 E



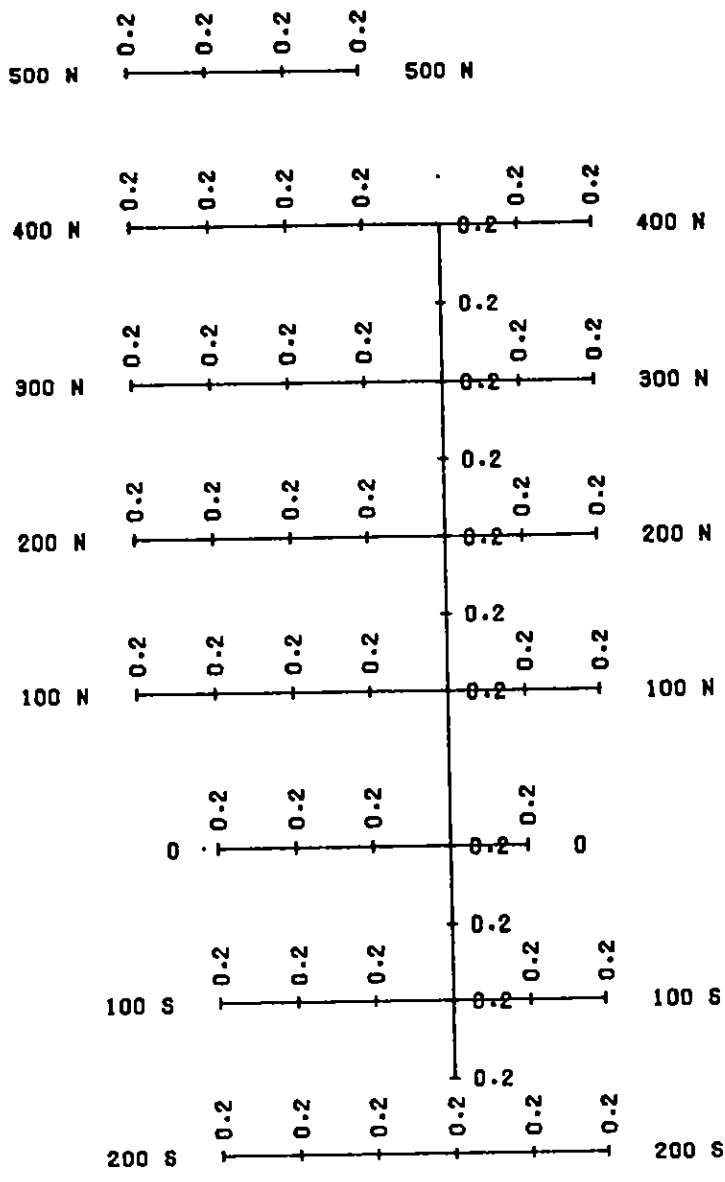
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
ARSENIC PPM.		
BUCK 2 CLAIMS WUHO BSW 2		
MARCH 1988	FORT STEELE M.D.	F10 --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



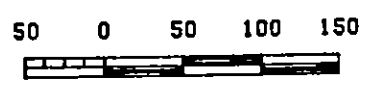


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SOIL GEOCHEM SURVEY		
GOLD PPB.		
BUCK 2 CLAIMS WUHO BSW		
MARCH 1988	FORT STEELE M.D.	F10
CYBERQUEST EXPLORATION SYSTEMS LTD		

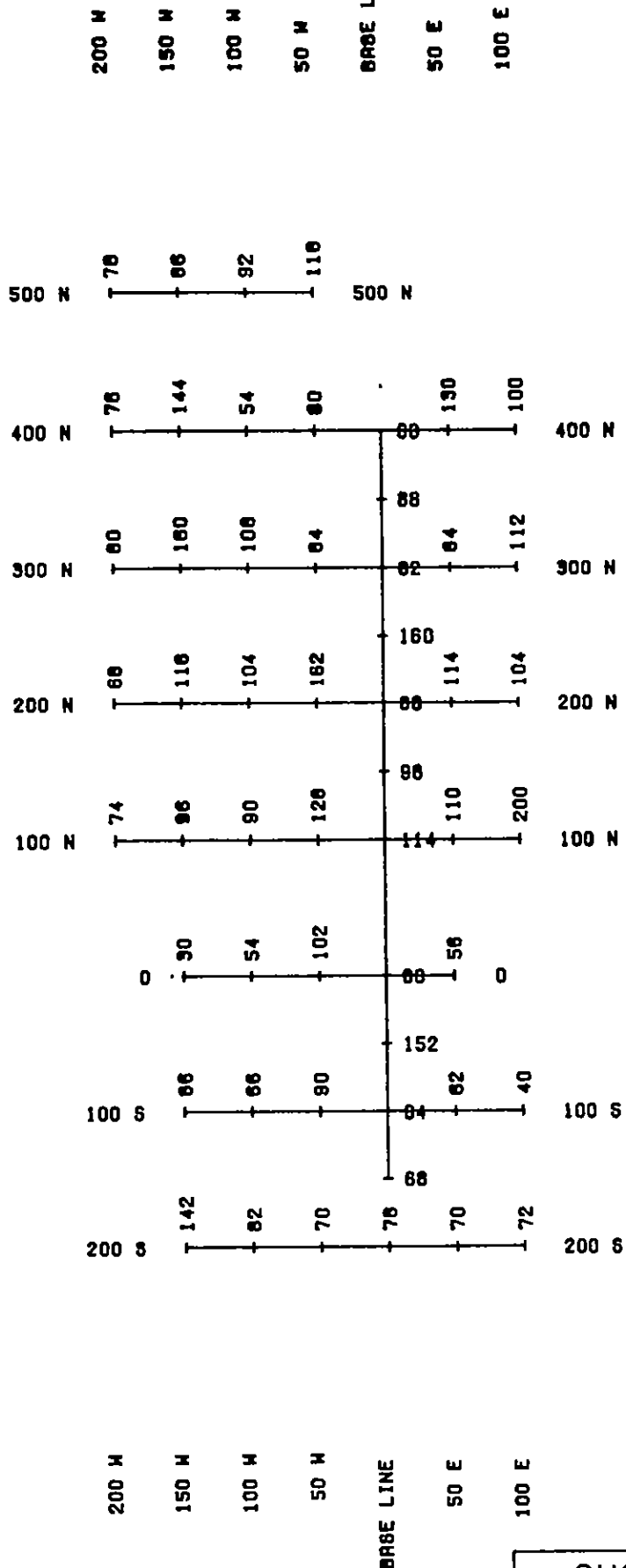
200 M  
150 M  
100 M  
50 M  
BASE I  
50 E  
100 E



200 M  
150 M  
100 M  
50 M  
BASE LINE  
50 E  
100 E



CHAPLEAU RESOURCES LTD		
SOIL GEOCHEM SURVEY		
SILVER PPM.		
BUCK 2 CLAIMS WUHO BSW 2		
MARCH 1988	FORT STEELE H.O.	FIG
CYBERQUEST EXPLORATION SYSTEMS LTD		



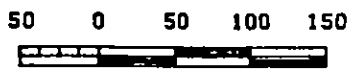
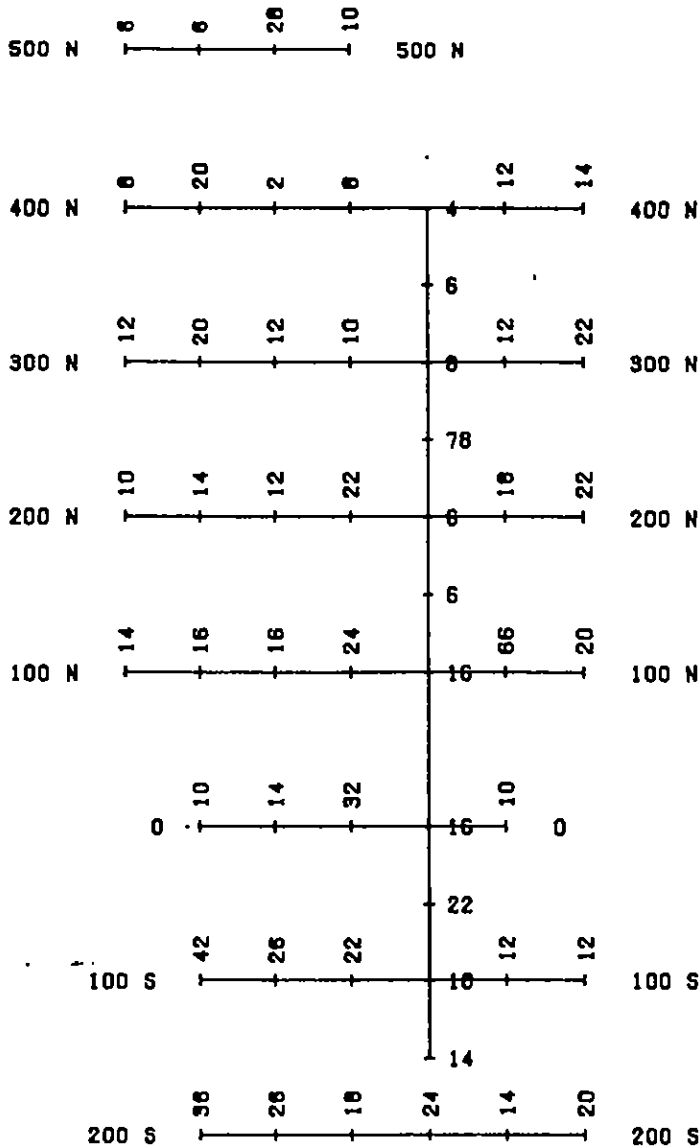
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SOIL GEOCHEM SURVEY  
ZINC PPM.

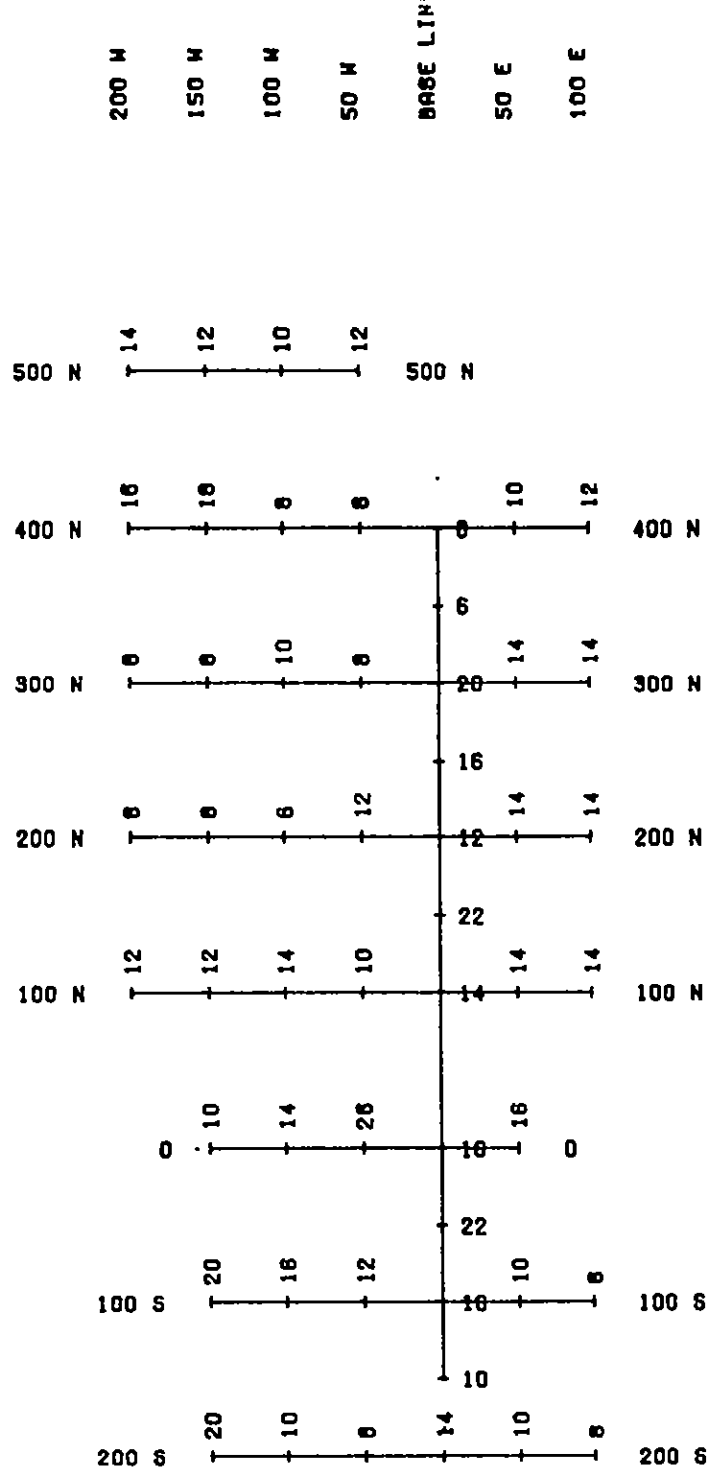
BUCK 2 CLAIMS WUHO BSW 2

MARCH 1988	FORT STEELE M.D.	F10 --
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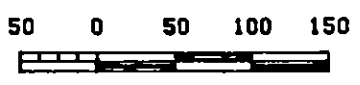
CYBERQUEST EXPLORATION SYSTEMS LTD.



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
LEAD		PPM.
BUCK 2 CLAIMS		WUHO BSW 2
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

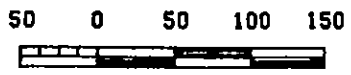
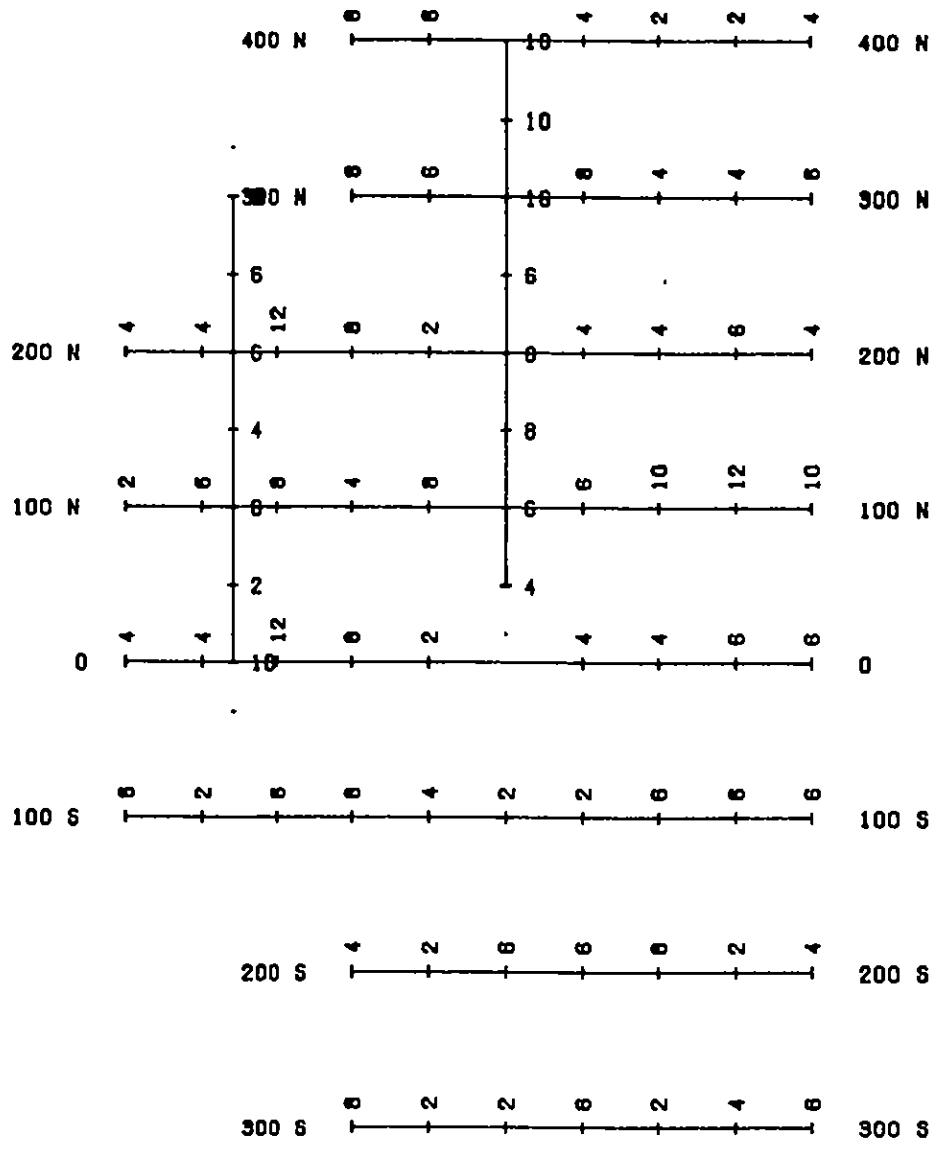


200 W 150 W 100 W 50 W BASE LINE 50 E 100 E



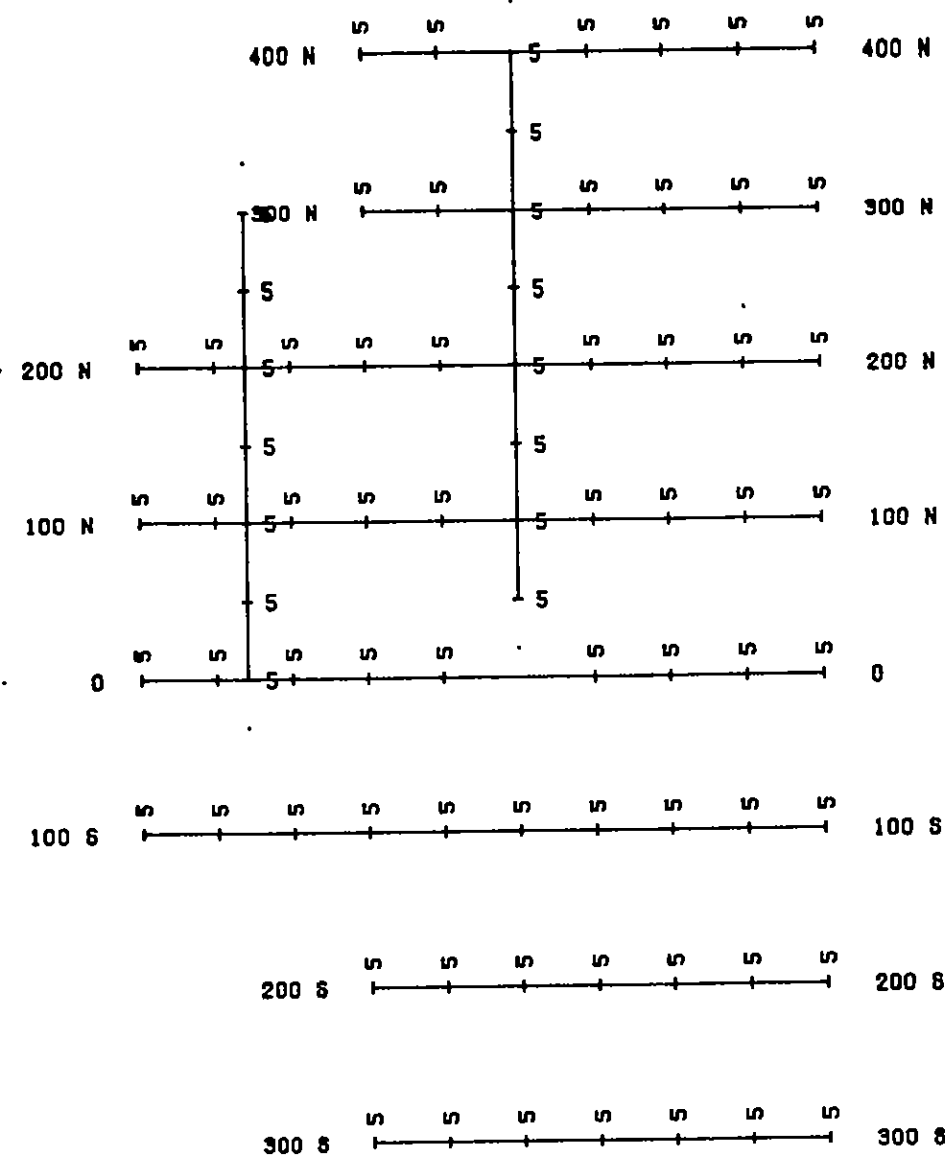
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
COPPER PPM.		
BUCK 2 CLAIMS WUHO BSW 2		
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

250 W 200 W 150 W 100 W 50 W BASE L 50 E 100 E 150 E 200 E

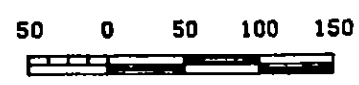


CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
ARSENIC PPM.		
BUCK 2 CLAIMS WUHO BSW 1 & 3		
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

250 M 200 M 150 M 100 M 50 M BARGE 50 E 100 E 150 E 200 E

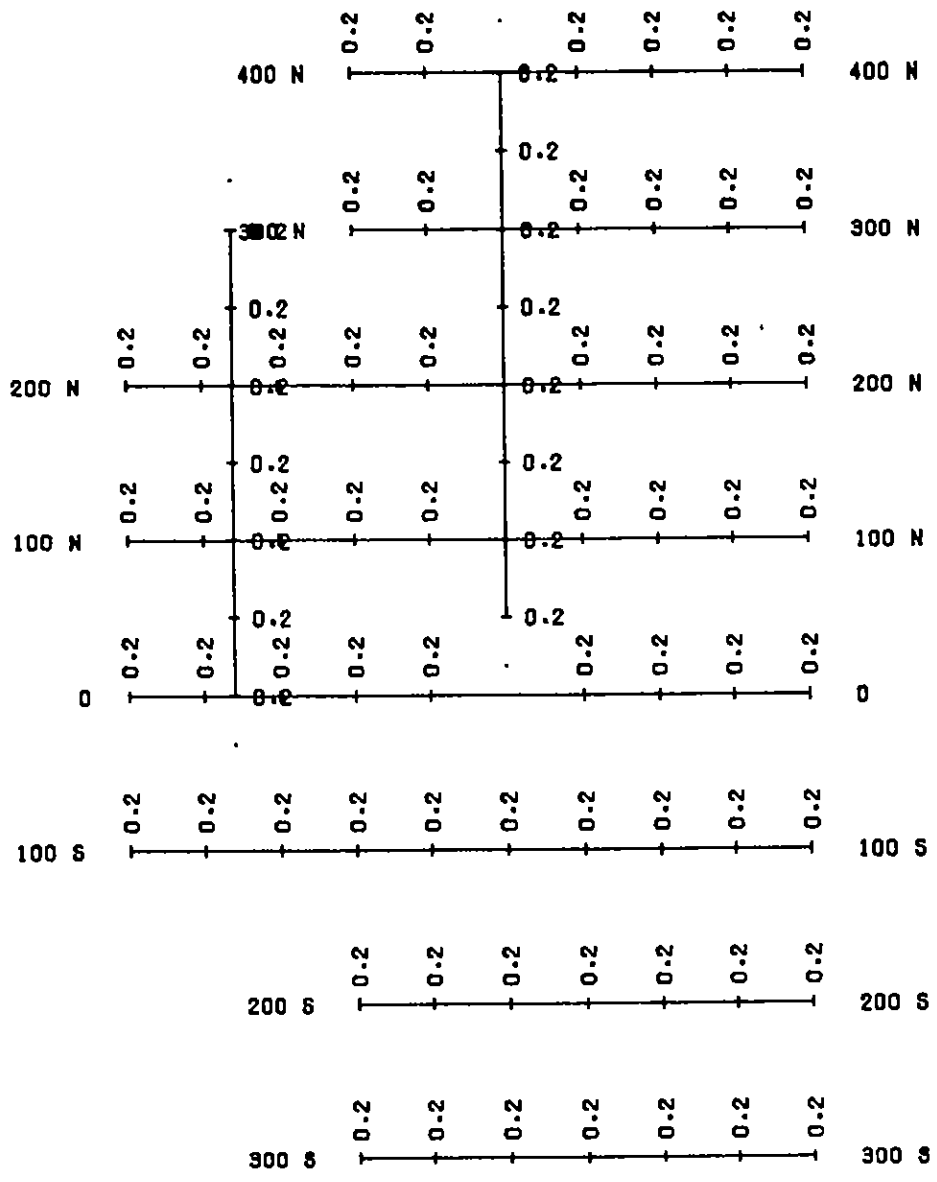


250 M 200 M 150 M 100 M 50 M BARGE LINE 50 E 100 E 150 E 200 E



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SOIL GEOCHEM SURVEY		
GOLD PPB.		
BUCK 2 CLAIMS WUHO BSW 1 & 3		
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

250 M  
200 M  
150 M  
100 M  
50 M  
BASE  
50 E  
100 E  
150 E  
200 E

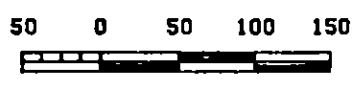
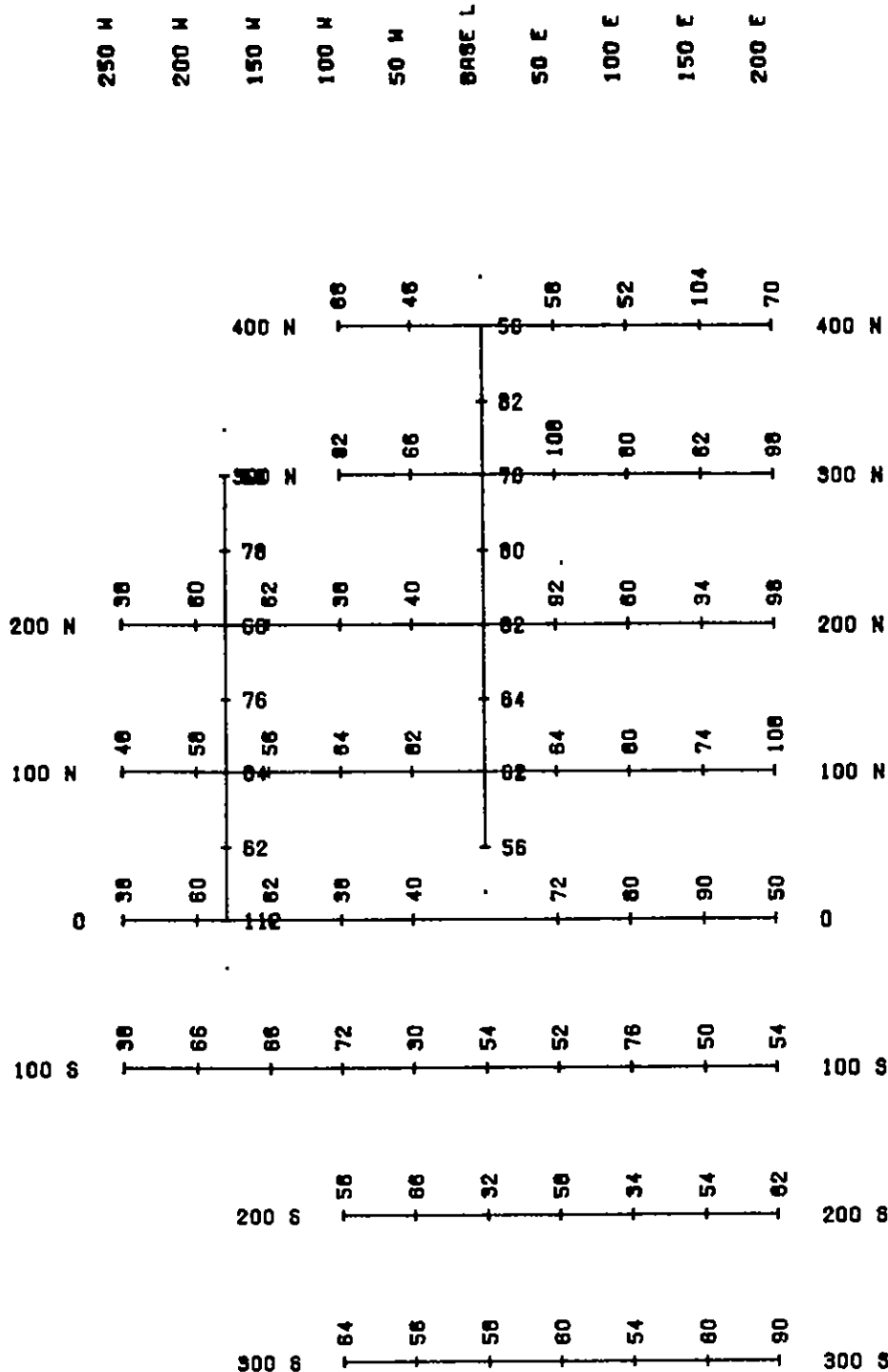


250 M  
200 M  
150 M  
100 M  
50 M  
BASE LINE  
50 E  
100 E  
150 E  
200 E



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
SILVER PPM.		
BUCK 2 CLAIMS WUHO BSW 1 & 3		
MARCH 1988	FORT STEELE M.O.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		





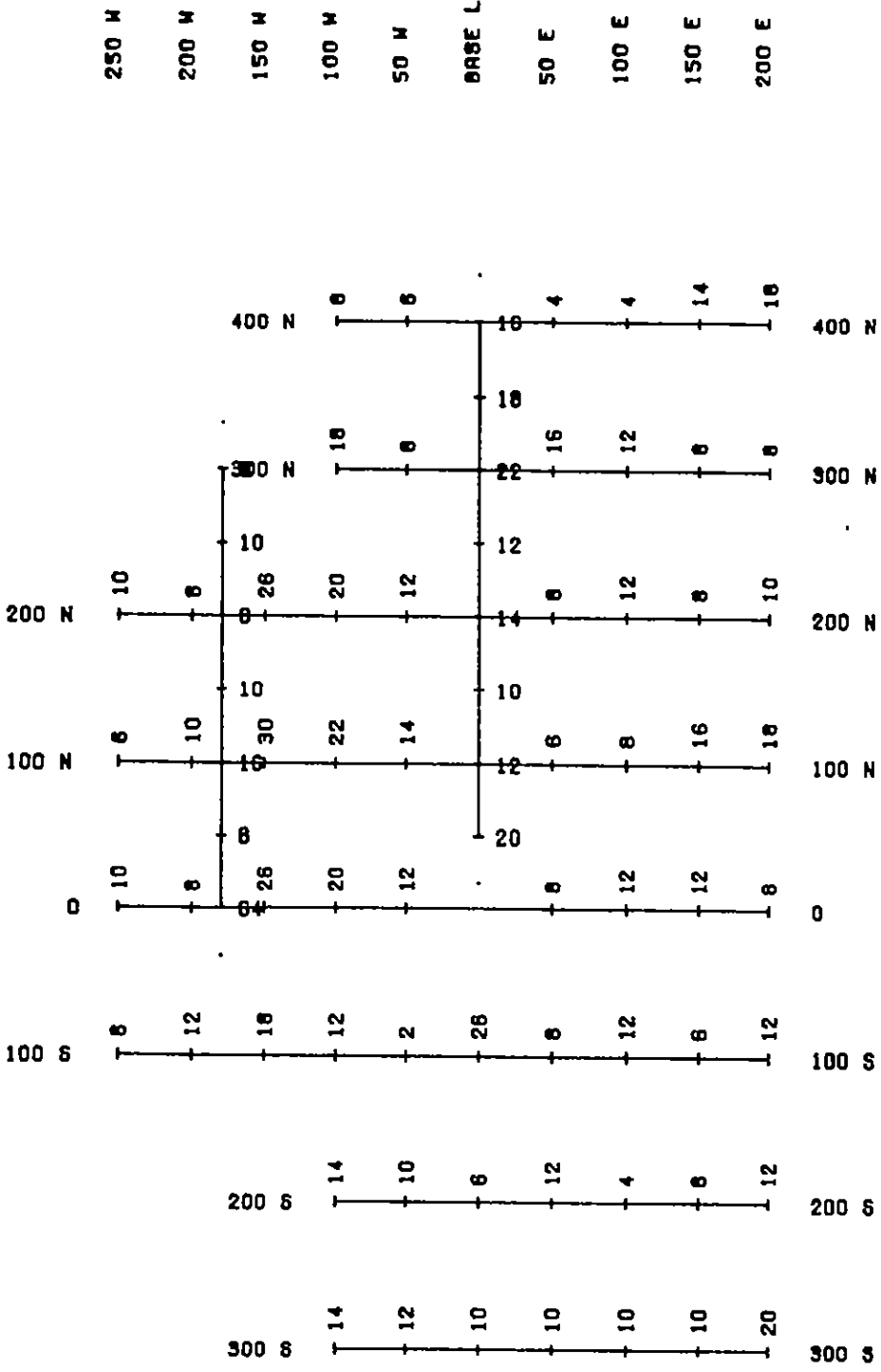
CHAPLEAU RESOURCES LTD.

SOIL GEOCHEM SURVEY  
ZINC PPM.

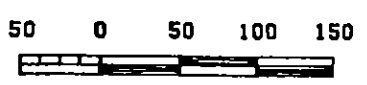
BUCK 2 CLAIMS WUHO BSW 1 & 3

MARCH 1988	FORT STEELE M.D.	F10 --
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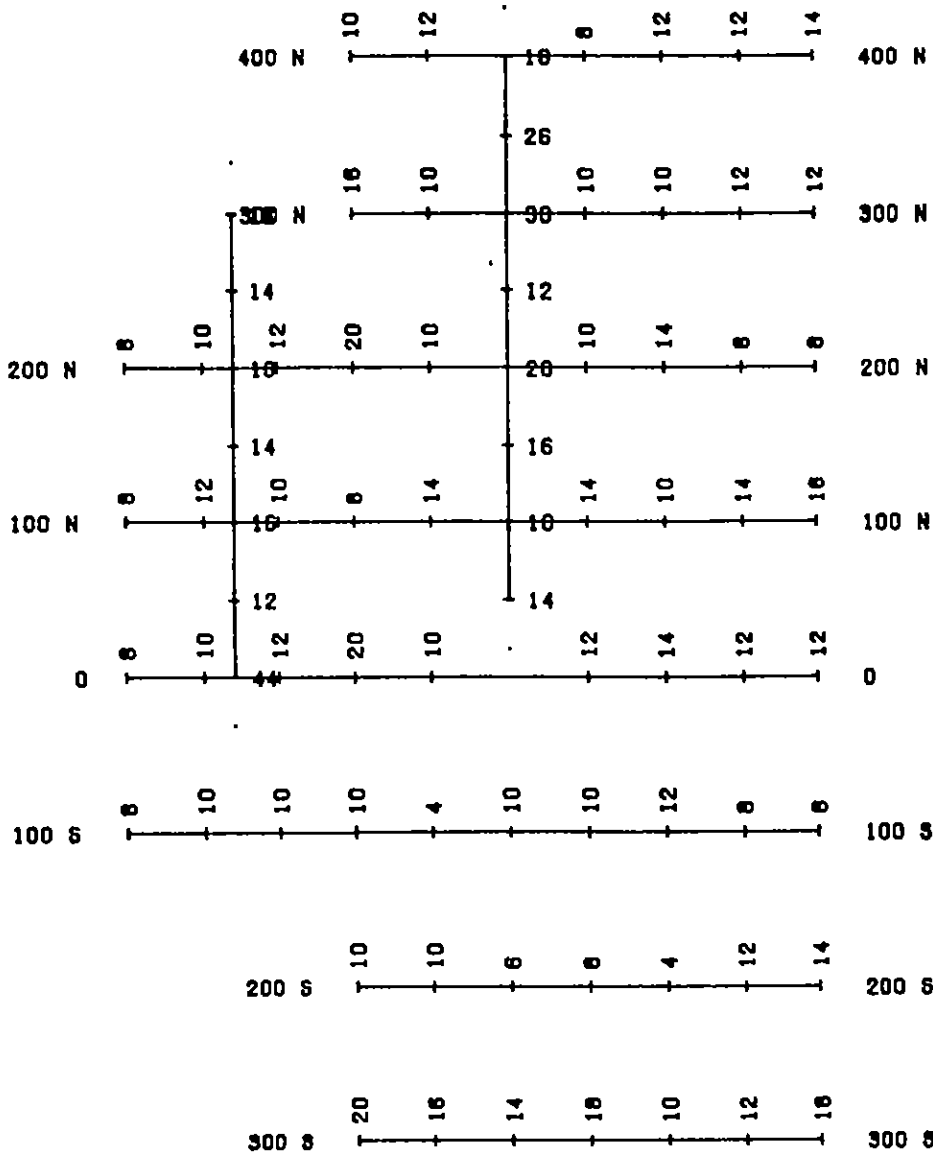


250 W 200 W 150 W 100 W 50 W  
 BASE LINE 50 E 100 E 150 E 200 E



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
LEAD PPM.		
BUCK 2 CLAIMS WUHO BSW 1 & 3		
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

250 W 200 W 150 W 100 W 50 W BASE LINE 50 E 100 E 150 E 200 E



250 W 200 W 150 W 100 W 50 W BASE LINE 50 E 100 E 150 E 200 E

CHAPLEAU RESOURCES LTD.

SOIL GEOCHEM SURVEY  
COPPER PPM.

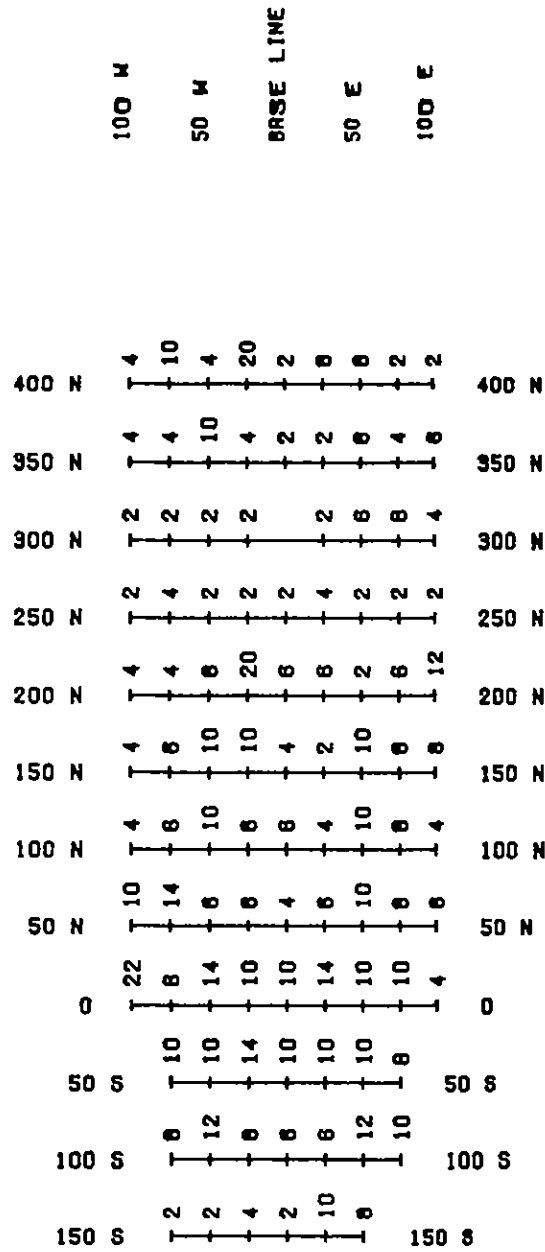
BUCK 2 CLAIMS WUHO BSW 1 & 3

MARCH 1988 FORT STEELE H.D. FIG --

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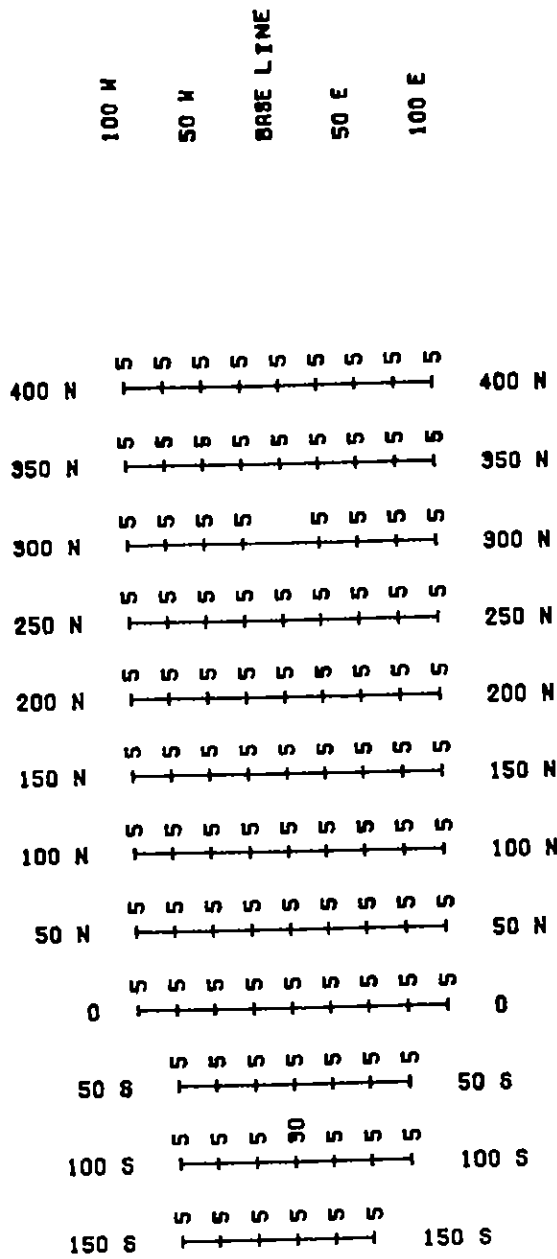




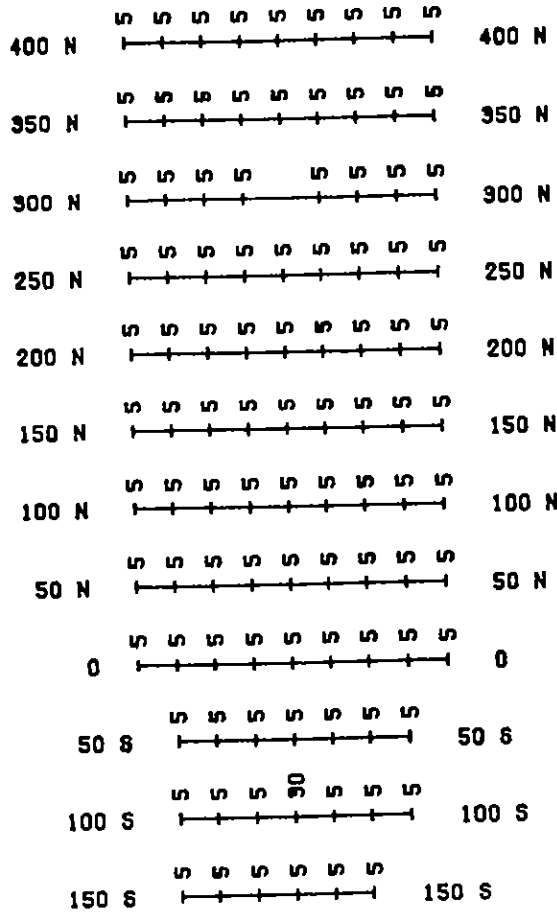
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 BASE LINE  
 50 E      100 E



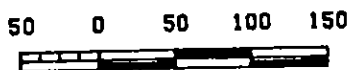
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
ARSENIC      PPM.		
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MARCH 1998	FORT STEELE M.D.	F10 --
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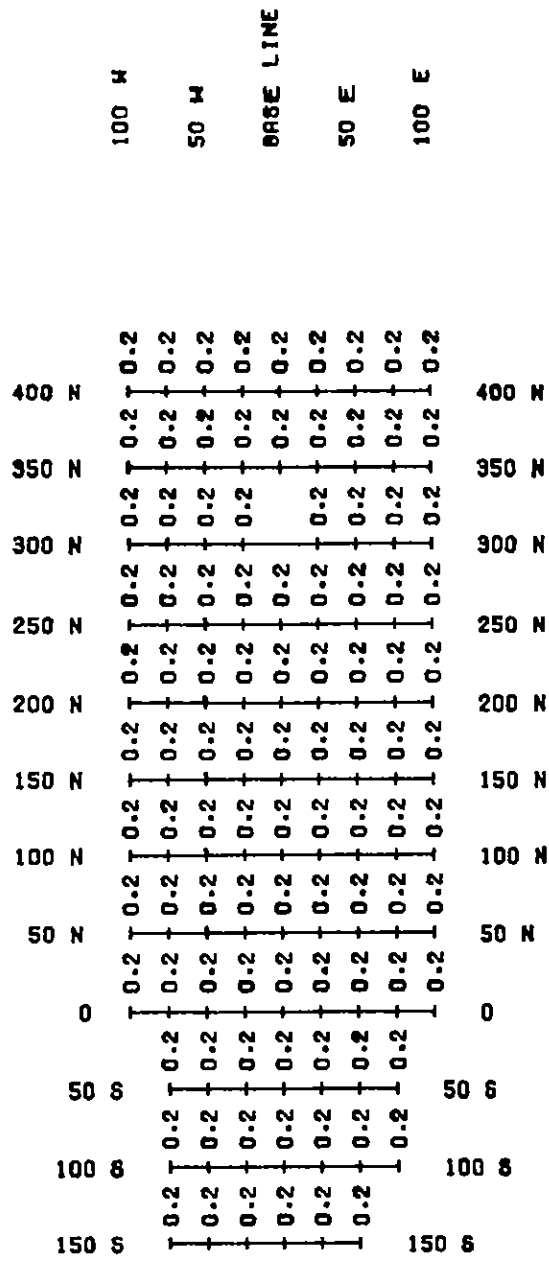
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50 W  
BASE LINE  
50 E  
100 E



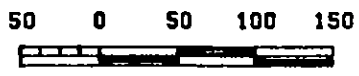
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50 W  
BASE LINE  
50 E  
100 E



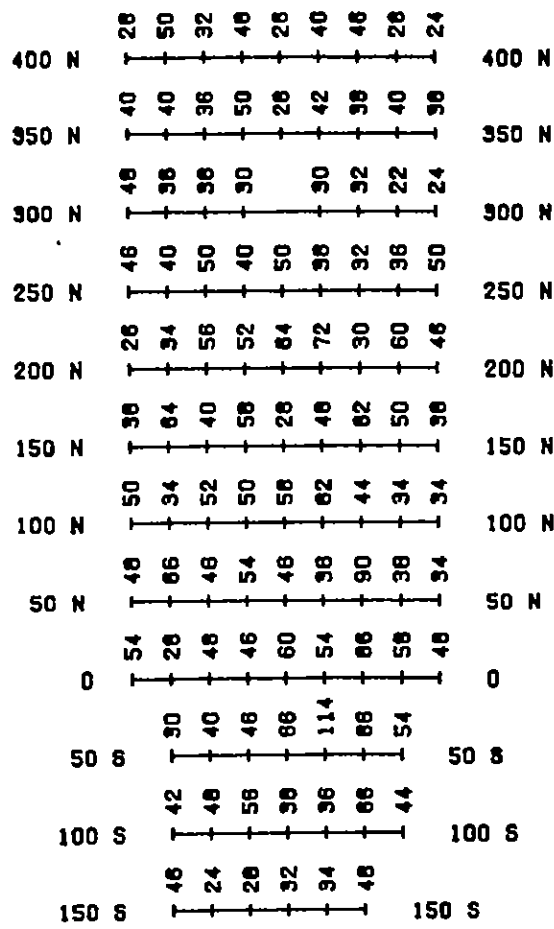
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
GOLD PPB.		
BUCK 1 CLAIMS NOKE GRID		
MARCH 1988	FORT STEELE M.O.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



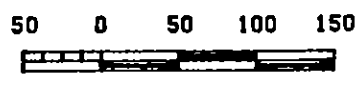
100 W  
50 W  
BASE LINE  
50 E  
100 E



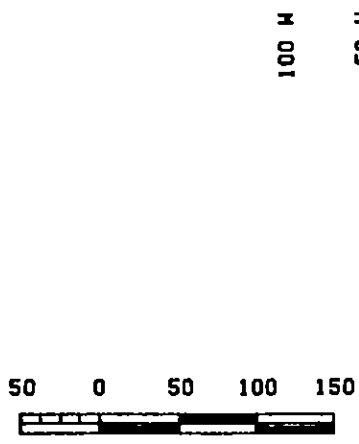
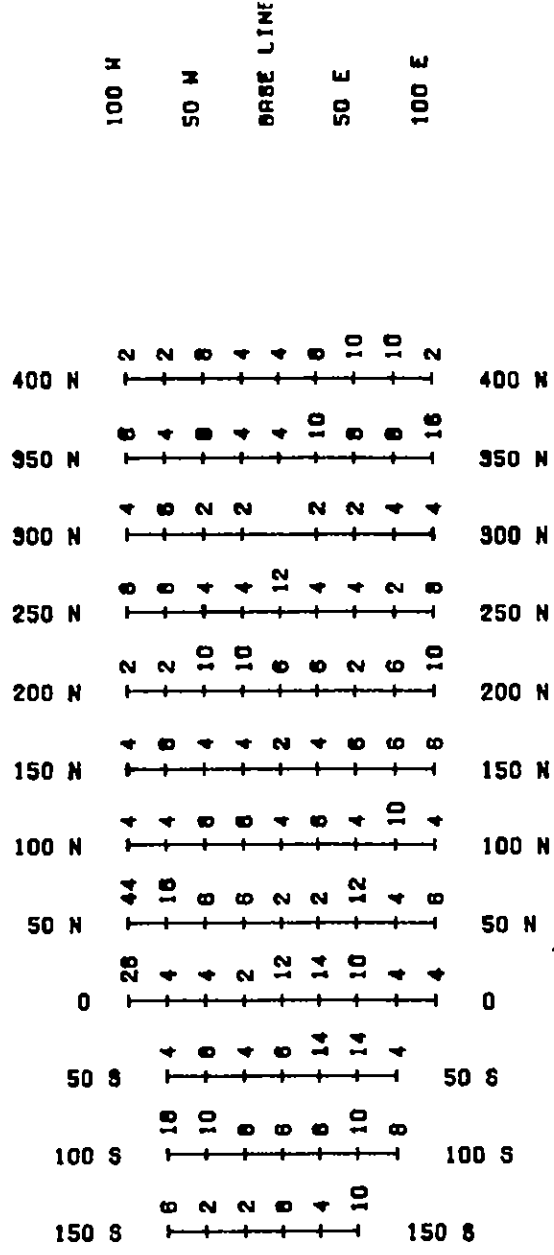
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
SILVER PPM.		
BUCK 1 CLAIMS NOKE GRID		
MARCH 1988	FORT STEELE M.D.	FIG --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



100 W  
50 W  
BASE LINE  
50 E  
100 E



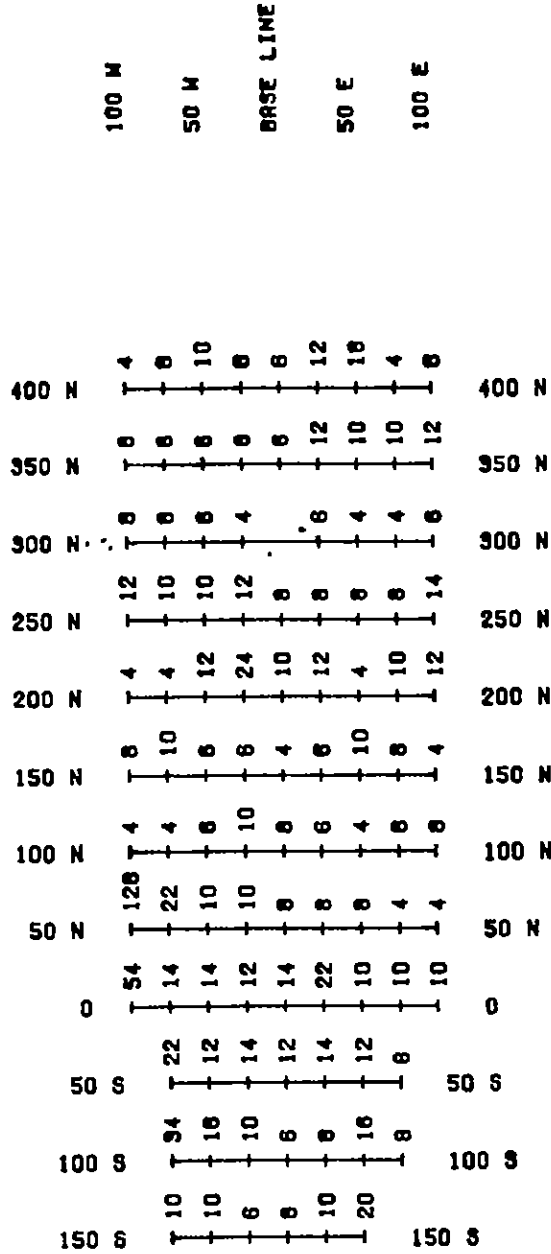
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SOIL GEOCHEM SURVEY		
ZINC PPM.		
BUCK 1 CLAIMS NOKE GRID		
MARCH 1988	FORT STEELE N.D.	F10 --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



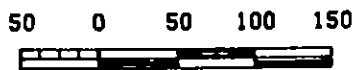
100 W      50 W      BASE LINE      50 E      100 E

CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
LEAD		PPM.
BUCK 1 CLAIMS NOKE GRID		
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100 W      50 W      BASE LINE      50 E      100 E



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
COPPER                  PPM.		
BUCK 1 CLAIMS      NOKE GRID		
MARCH 1988	FORT STEELE M.O.	FIG --
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**A PRELIMINARY REPORT ON THE 1987  
SOIL GEOCHEMISTRY OF THE BAR  
PROPERTY,  
CRANBROOK, BRITISH COLUMBIA**

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Suite 210 - 830 W. Pender St.  
Vancouver, B.C. V6C 1J8

March 18, 1988

# 1 Introduction

This report addresses the results of the soil geochemical surveys which were undertaken during the 1987 field season on the Bar Property, Cranbrook, British Columbia by Chapleau Resources. Exploration targets on the property, which also occur in similar host lithologies and geologic settings nearby, include sediment-hosted massive-sulphide mineralization similar to that at the Sullivan Mine and precious-metal ( $\pm$  base-metal) quartz veins, perhaps similar to those on the east side of Moyie Lake (the St. Eugene Mine). Possibilities also exist for bulk-tonnage low-grade replacement-type Au deposits in calcareous stratigraphy of the Purcell Supergroup. A discussion of the results of these surveys is included based largely on a statistical analysis of the geochemical determinations, and based on maps of the geochemical concentrations. Recommendations for further geochemical work on the property are also presented.

Sampling was carried out by Chapleau Resources' employees during August through September 1987 and all geochemical element determinations were made by Roessbacher Laboratory, Ltd. Samples consisted of 0.5 kg of fine grained stream sediment material collected from the active bed of the streams. These were air dried and sieved to -80 mesh. A 0.5 gram sub-sample was digested with a 3:1 nitric:perchloric acid attack and analyzed using atomic absorption spectrometry. Elements determined include Cu, Ag, Pb and As for all soil grids and lines. Zn was determined for only two of the four soil lines. Gold was determined by a similar method, except that 10 grams of -80 mesh material was subjected to an aqua regia digestion followed by pre-concentration in MIBK. No standards were included in the analytical batches so data quality could not be determined; however, several sample sites have duplicate samples allowing a rough assessment of sample site reproducibility.

Three soil grids (Quartz Pit/Horseshoe, Gossan Hill, BL-00/Float Train) and 4 soil lines (BL-1, BL-2, BL-5, BL-6) were sampled and maps presenting the sample locations and geochemical concentrations for these samples are presented in Appendix A. The grids are, for the most part, oriented N-S with 50 m between lines and 50 m between sample sites. The grids are irregular because numerous grid nodes could not be sampled. Soil lines are oriented in two orientations. BL-1 and BL-2 are parallel to each other, oriented roughly E-W and straddle both sides Palmer Bar Creek. BL-5 and BL-6 are also parallel, oriented roughly N-S, and have their northern termini along the south side of Palmer Bar Creek near those of soil lines BL-1 and BL-2. None of the soil lines are precisely straight, but all have been plotted on the same set of maps.

## 2 Statistical Analysis

### 2.1 Threshold Selection

A histogram and probability plot analysis (Sinclair 1974, 1976; Stanley 1987) of the geochemical concentrations was made on all of the data from the three soil grids and four soil

lines. Output of these statistical results are presented in Appendix B.

Results indicate that all elements have subdued abundances and exhibit positively skewed distributions. Low element abundances are common in Belt-Purcell soils, even over sulphide mineralisation, because of the overall low absorptive capacity of the soils (low clay and Fe-oxy-hydroxide mineral content; Stanley 1984). This allows the easy leaching of the soluble base metals from the soils, despite high element concentrations in the source-bearing subjacent bedrock. The positive skewness of the element distributions probably results from a large number of 'background' concentrations and a small number of 'highly anomalous' concentrations which may possibly be related to economic mineralisation.

### **2.1.1 Copper**

The Cu distribution appears to have a trimodal, log-normal form. One mode consisting of a large group of samples, exhibiting what are interpreted to be 'background' Cu concentrations and a mean of 15 ppm. Assymmetric  $\pm 1$  standard deviation values about this mean are 25 and 9 ppm, respectively. A second group of samples of higher abundance can be distinguished from this 'background' group. This group of samples has a mean of 70 ppm ( $\pm 94,54$ ). The third group of samples has a mean of 194 ppm ( $\pm 280,136$ ). The higher two modes have concentrations interpreted to be 'anomalous'. The second and third groups of 'anomalous' samples may be related to lithologies containing elevated Cu concentrations or to Cu-sulphide-bearing strata. A threshold which discriminates the 'background' and 'anomalous' sample groups occurs at approximately 40 ppm, while one that discriminates the two 'anomalous' groups occurs at 110 ppm.

### **2.1.2 Silver**

Silver concentrations are positively skewed and range up to 4.0 ppm. A threshold of 0.6 ppm ( $3\times$  the detection limit of 0.2 ppm) can be used to distinguish 'background' from 'anomalous' concentrations.

### **2.1.3 Zinc**

Zinc concentrations exhibit only moderate positive skewness and the frequency distribution of the concentrations can be modelled with a mixture of three normal distribution. The lowest mode has a mean of 59 ppm and standard deviation of 13 ppm and probably represents 'background' concentrations. The middle mode, with a mean and standard deviation of 92 and 15 ppm, may reflect 'background' or 'anomalous' concentrations. The highest mode, with a mean concentration of 137 ppm ( $\pm 20$  ppm) is classified as 'anomalous'. A threshold which distinguishes the lowest mode of samples from the middle mode occurs at 70 ppm, and the threshold between the higher two modes occurs at 120 ppm.

#### **2.1.4 Lead**

Lead concentrations also exhibit a positive skew and have an overall low abundance (with a maximum concentration of 116). Lead appears to be log-normally distributed with minor negative deviation in lower concentrations (interpreted to be due to truncation of the distribution by the detection limit). A possible second distribution on the high concentration tail of the distribution is not of substantial enough size to obtain estimates of its mean and standard deviation values, but it can be distinguished from the 'background' group of samples by a threshold of 32 ppm (the mean plus 2 standard deviations value).

#### **2.1.5 Gold**

Gold concentrations on the Bar Property are extremely positively skewed with a maximum value of 130 ppb. Since 98 % of the samples report concentrations of 5 or 10 ppb, 'anomalous' concentrations can be considered those greater than 15 ppb.

#### **2.1.6 Arsenic**

Arsenic exhibits a bimodal normal distribution and a maximum concentration of 60 ppm. The lower mode consists of concentrations below approximately 18 ppm and probably represents 'background' sources. The higher mode, with a mean of 17 ppm and a standard deviation of 4 ppm is probably 'anomalous' and may be related to sulphide-bearing strata. A threshold of 18 ppm separates the 'anomalous' and 'background' sample groups.

### **3 Interpretation**

Data posting plots are discussed in five sections related to each of the three soil grid areas and a combined summary of the soil line results. (Locations p.9)

#### **3.1 Quartz Pit/Horseshoe Grid**

Highly 'anomalous' Cu concentrations occur along the base and 50 W lines. These define a distinct 'anomalous' zone. 'Anomalous' Ag, Pb, Au and As occur SE of this zone in an irregular pattern, but, significantly, not over it. This may suggest that the element distribution pattern is largely a function of secondary dispersion processes. The high concentrations of most elements on this grid do suggest that presence, somewhere, of a sulphide bearing source.

#### **3.2 Gossan Hill Grid**

'Anomalous' Cu concentrations occur in two well defined anomalies on the Gossan Hill soil grid. These occur at 100 N, 75 W to 100 N, 200 W (plus at site 200 N, 150 W) and at 300 N, 100 E to 300 N, 250 E. Scattered 'anomalous' Ag, Au, Pb and As also occur in

these sites. These 'anomalies' may be related to sulphide bearing lithologies beneath the soil grid.

### **3.3 BL-00/Float Train Grid**

Generally, 'anomalous' concentrations of the elements do not occur on the BL-00/Float Train soil grid. No distinct 'anomalous' zone is defined by any element; however, higher 'background' concentrations of Cu occur along the two northern-most grid lines. Gold concentrations are all at the detection limit and Ag concentrations cannot be distinguished from its detection limit.

### **3.4 Soil Lines 1, 2, 5 and 6**

Soil Lines 1, 2, 5 and 6 define several suspected 'anomalous' zones. Slightly 'anomalous' As, Pb and Zn concentrations occur at several locations along lines 5 and 6. These do not generally overlap each other, and thus may represent differential dispersion of As, Pb and Zn. Samples from all soil lines report no 'anomalous' Ag and Cu concentrations, but Au several anomalies occur along line 1 which may deserve follow-up.

## **4 Conclusions and Recommendations**

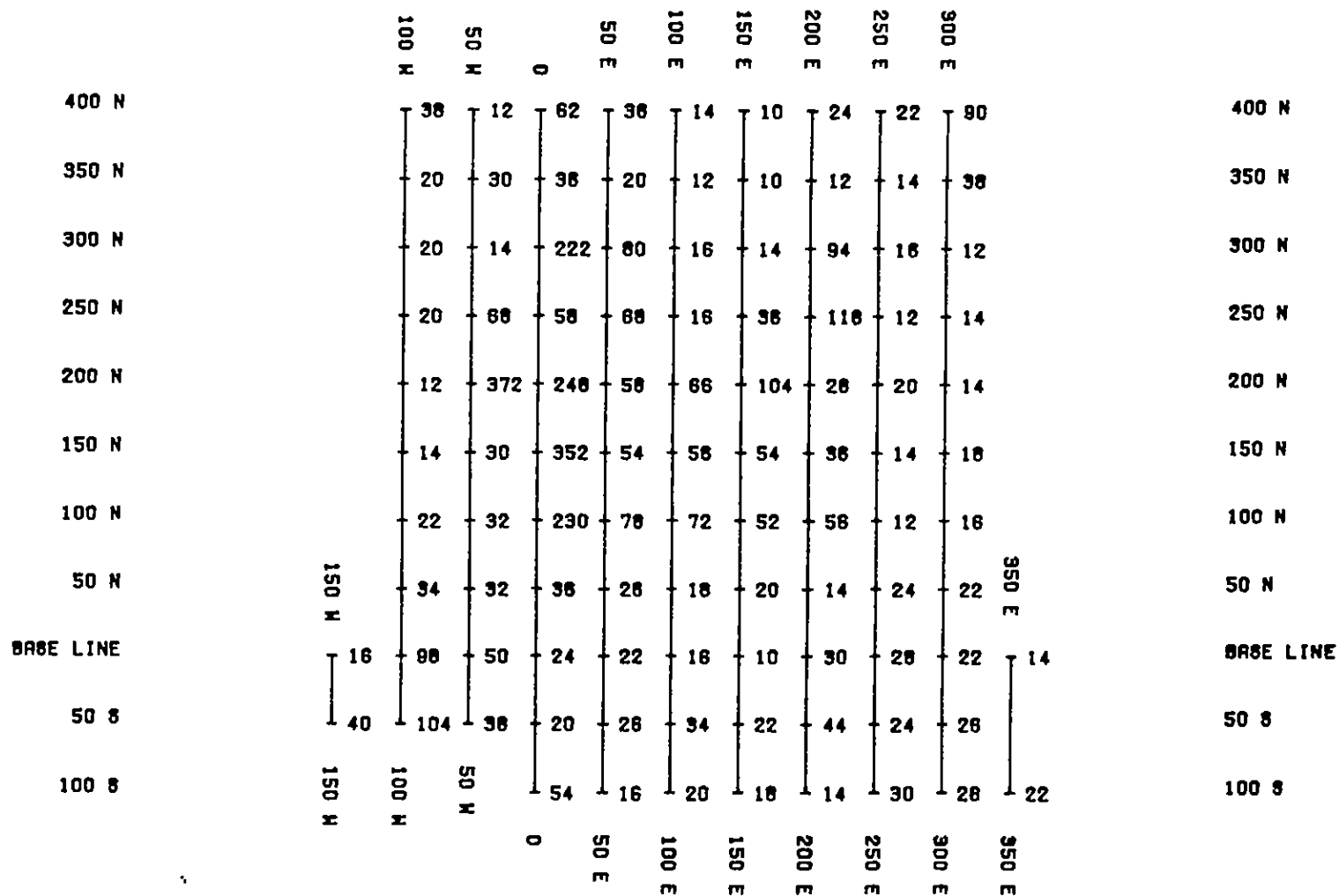
Based on the results of the 1987 soil surveys on the Bar Property, several conclusions may be drawn :

- the sample size, preparation and analytical method for Au is inadequate to detect, with confidence, the presence of Au in the soils;
- the preparation and analytical method for the base metals does not produce adequate contrast to confidently define samples as 'anomalous';
- 'anomalous' zones of Pb, Zn, As and sometimes Ag and Au occur on the Gossan Hill and Quartz Pit/Horseshoe grids and along several of the soil lines; geometries of these zones suggest that they are a product of differential dispersion;
- given the sample density of the grids (50 m) and the observed width of the quartz veins which have been mined historically (generally less than 3 m), only a small probability (10 %) exists of sampling material derived directly from the vein material;
- no information about the effect of the glacial cover can be discerned from the data; this till could be exotic and totally unrelated to the lithologies and possible mineralization which it covers.

Based on the above conclusions, the following actions are recommended :

- an orientation survey of the soil method, using one of the known showings as a test case; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to massive-sulphide, Au replacement and Au-quartz vein mineralisation;
- before the commencement of any soil survey, an assessment of the glacial overburden and its effect on the detection of geochemical anomalies must be undertaken; this should include a study of the soil and overburden stratigraphy and provenience;
- follow-up of the described soil anomalies should consist of detailed soil sampling over the anomalies with the techniques defined by the orientation survey to confirm their existance;
- future soil grids should be located in known prospect areas where mineralisation has been observed or as indicated by regional stream sediment results; these should cover large areas to ensure that ore-related geochemical signatures are not missed due to glacial dispersion; small numbers of samples in soil grids are not recommended because little information regarding the relative concentration can be obtained;
- future soil grids should have nodes at 25 m or less if indicated by an orientation survey; analysis of the appropriate fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in the stream sediment and soil orientation surveys.

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Q-BAR QUARTS PIT & HO ESHOE

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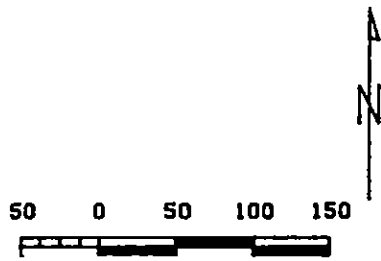
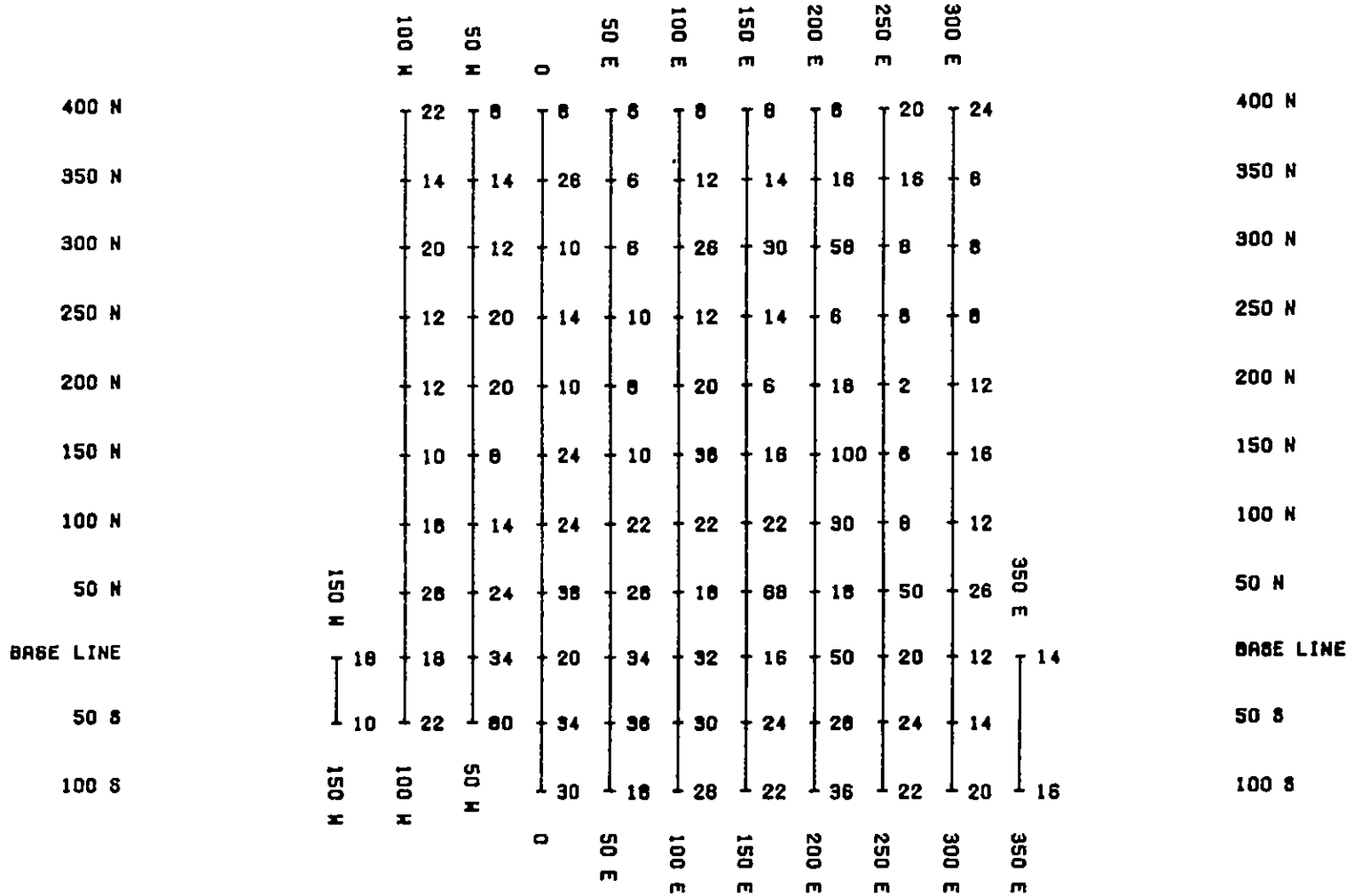
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FIG --

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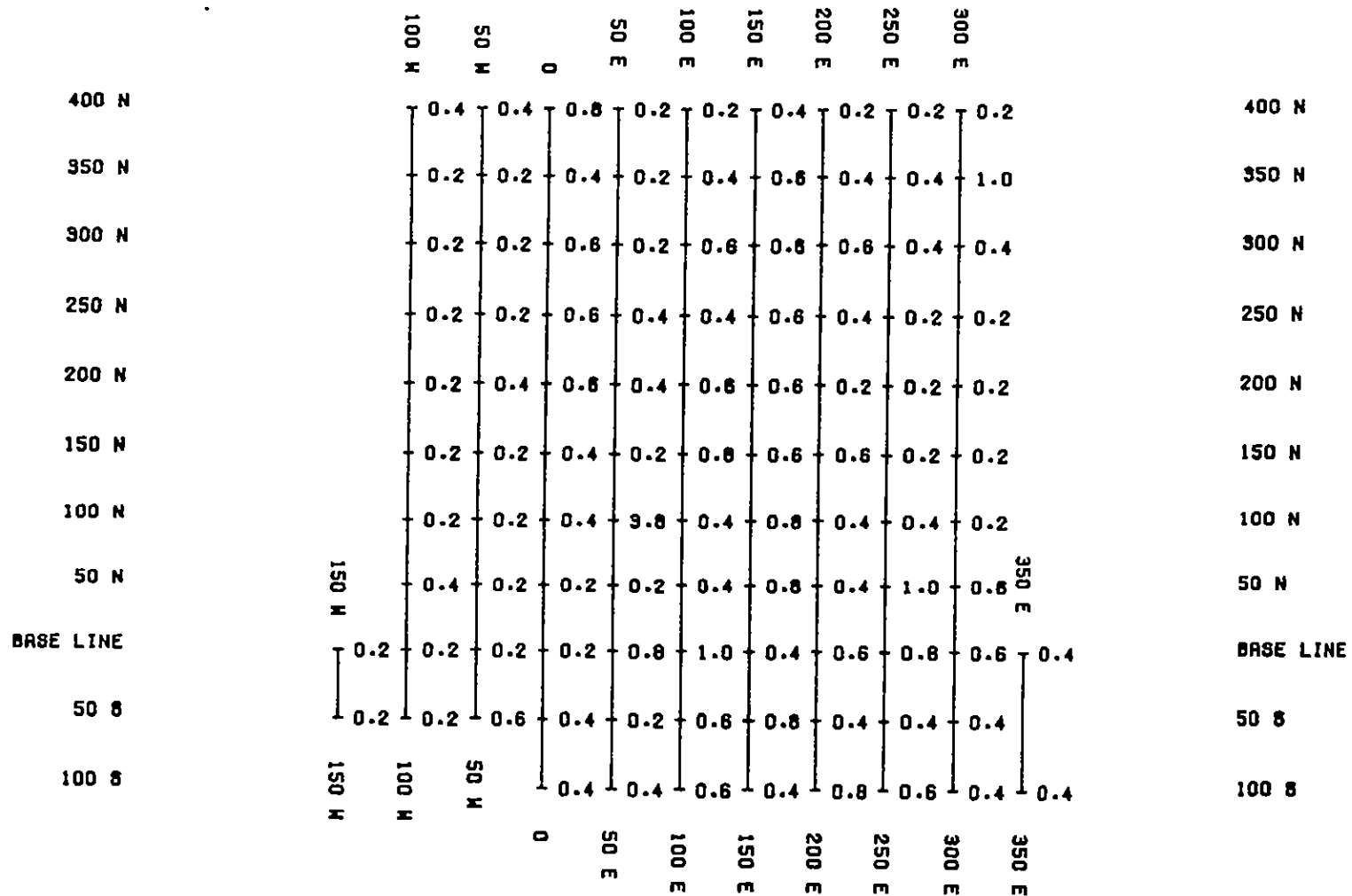
SOIL GEOCHEM SURVEY

LEAD PPM.

Q-BAR QUARTS PIT & HORSESHOE

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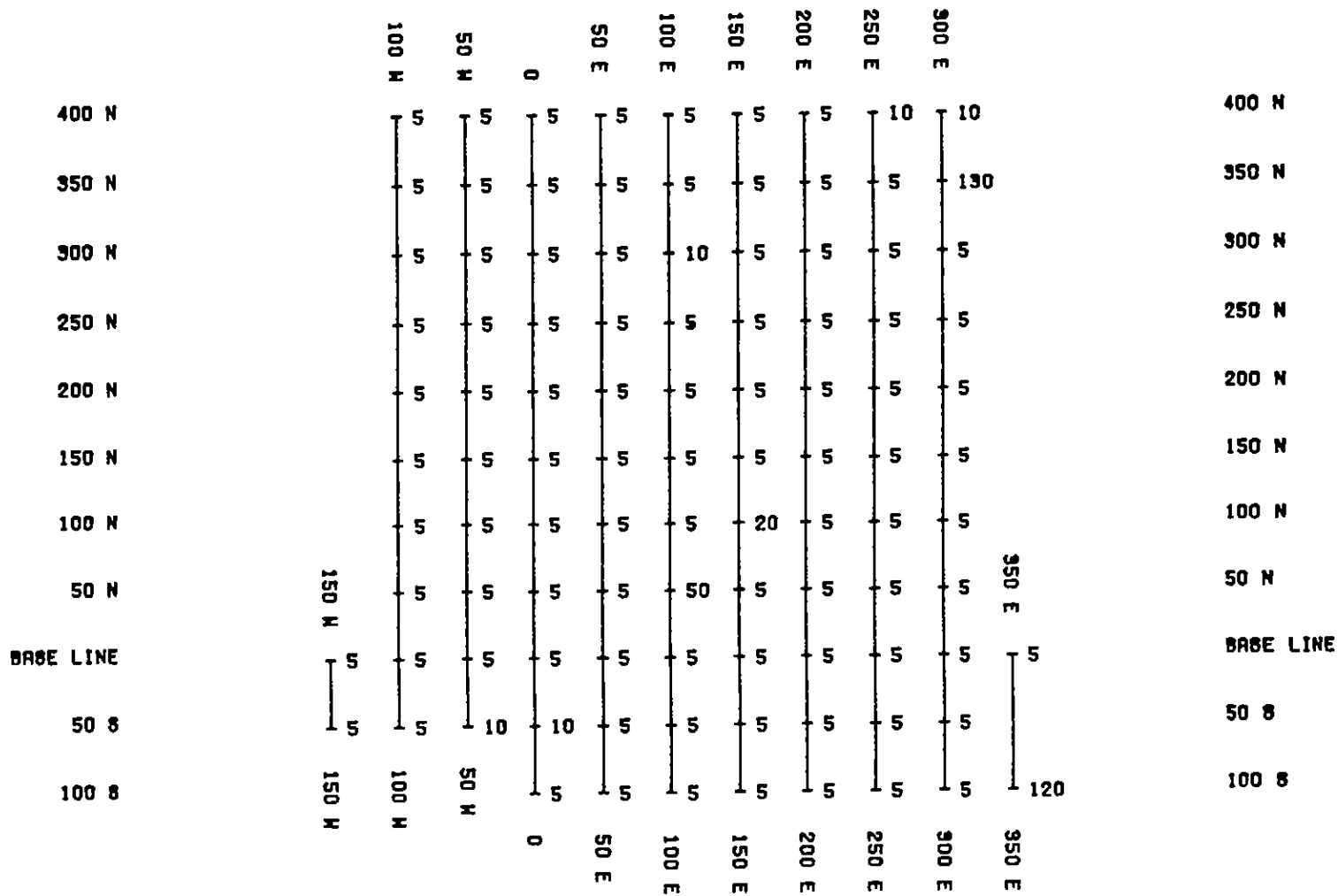
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 SOIL GEOCHEM SURVEY  
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 Q-BAR QUARTS PIT & HORSES JE

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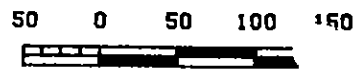
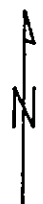
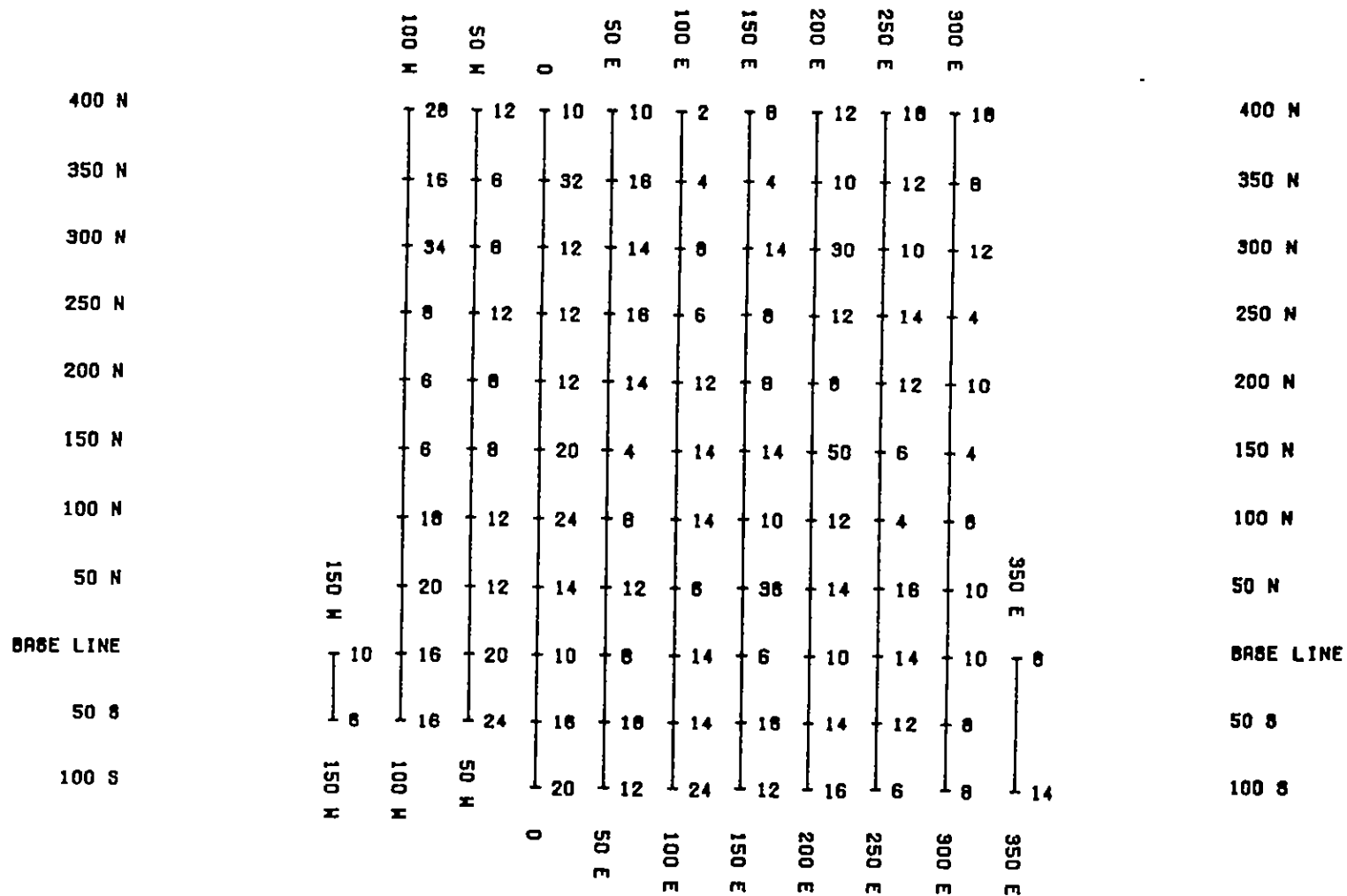
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SOIL GEOCHEM SURVEY  
GOLD PPB.

Q-BAR QUARTS PIT & HORSESHOE

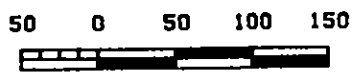
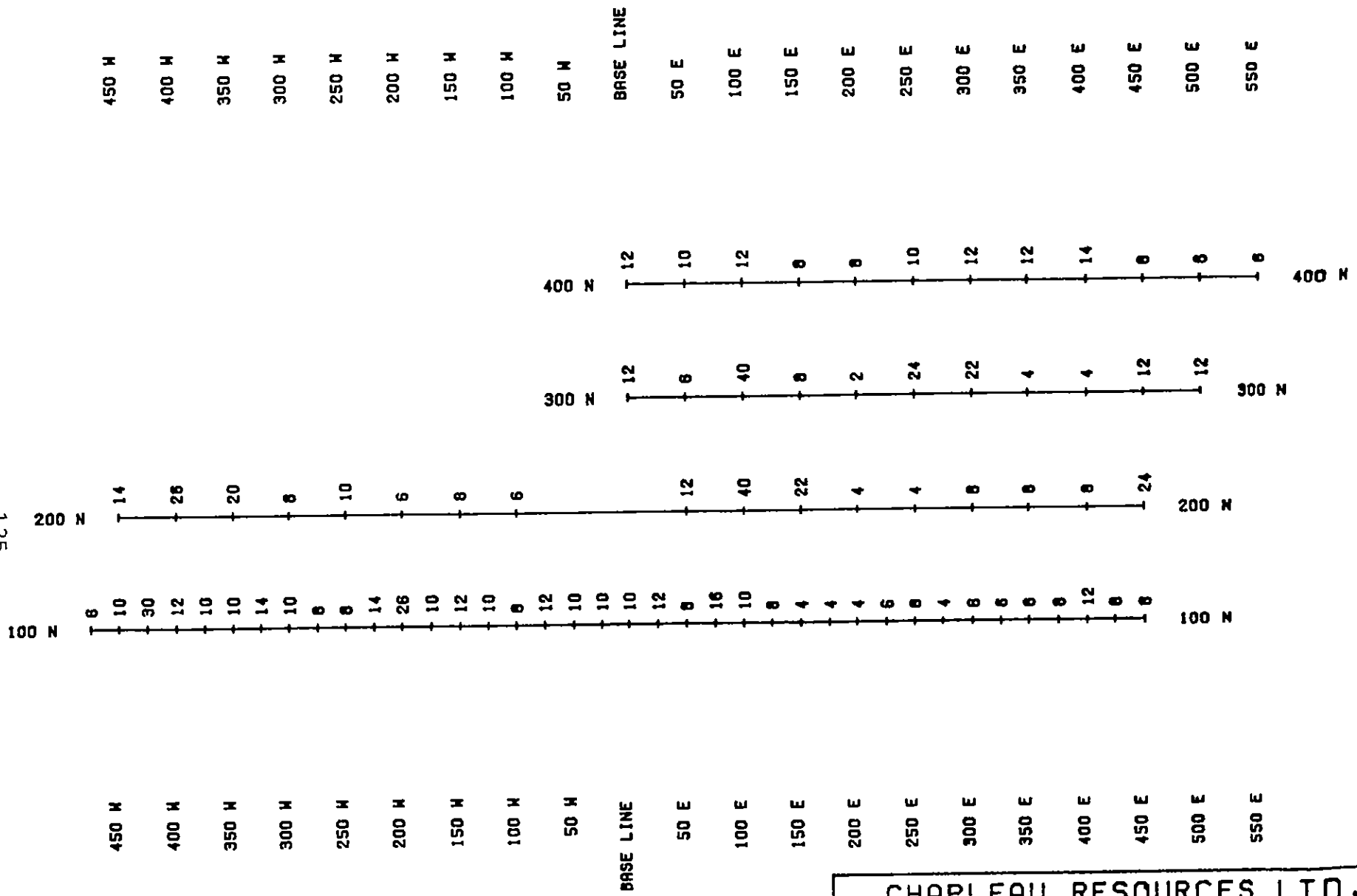
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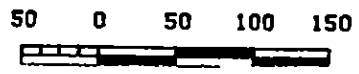
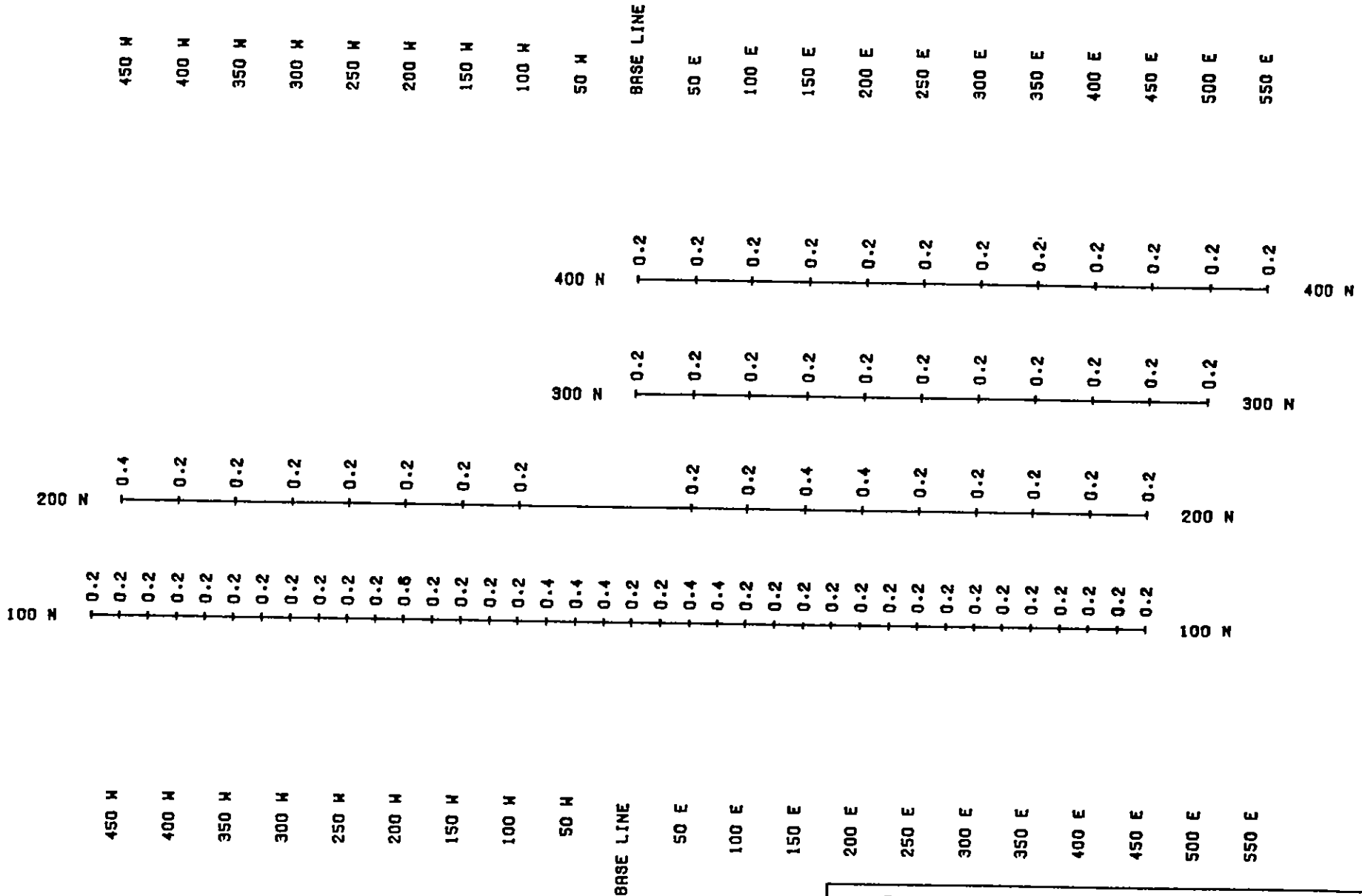
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SOIL GEOCHEM SURVEY  
LEAD PPM.  
H-BAR GOSSAN HILL

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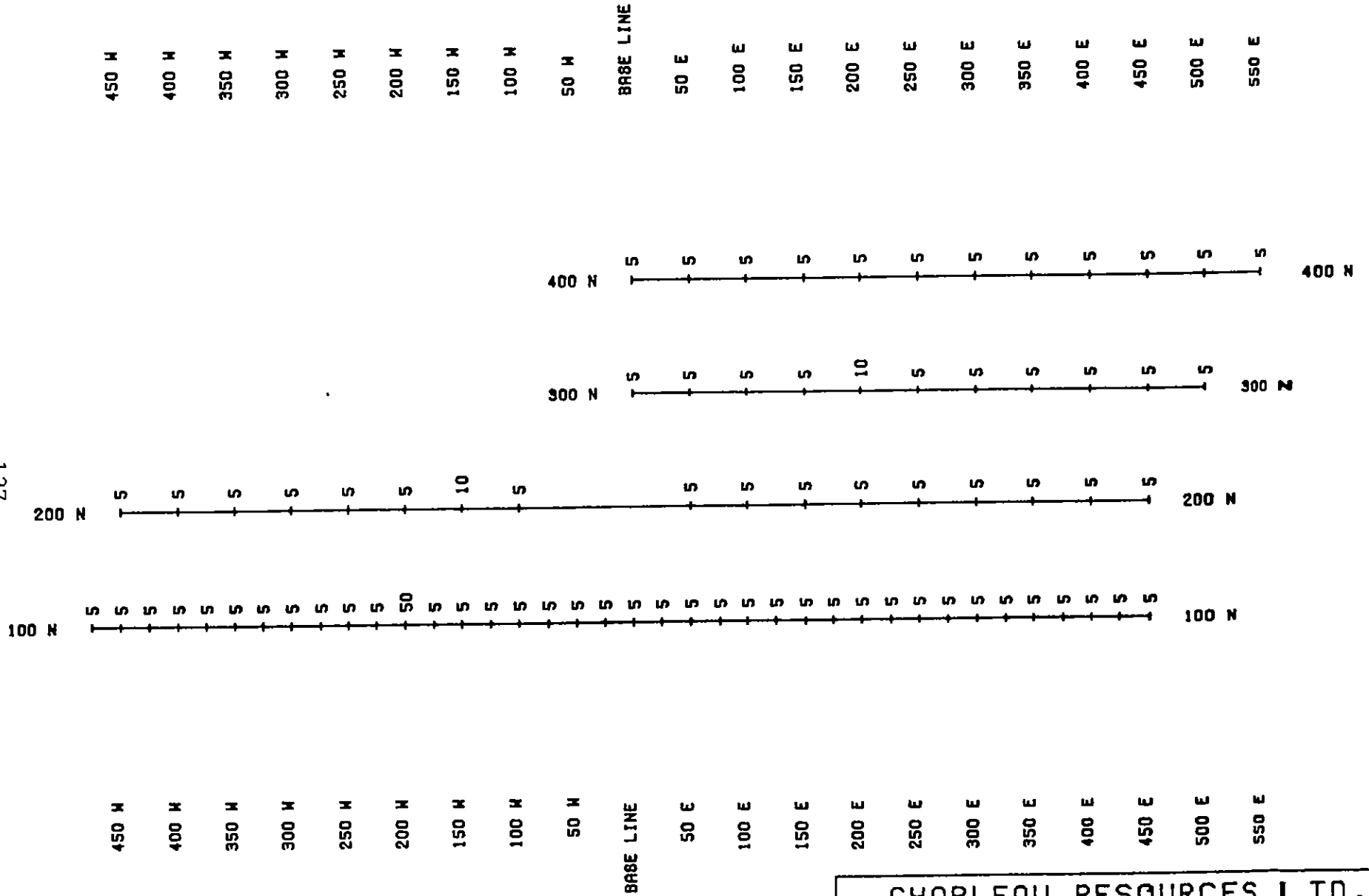
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SOIL GEOCHEM SURVEY  
SILVER PPM.

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MARCH 1988 | FORT STEELE N.D. | FIG. 1

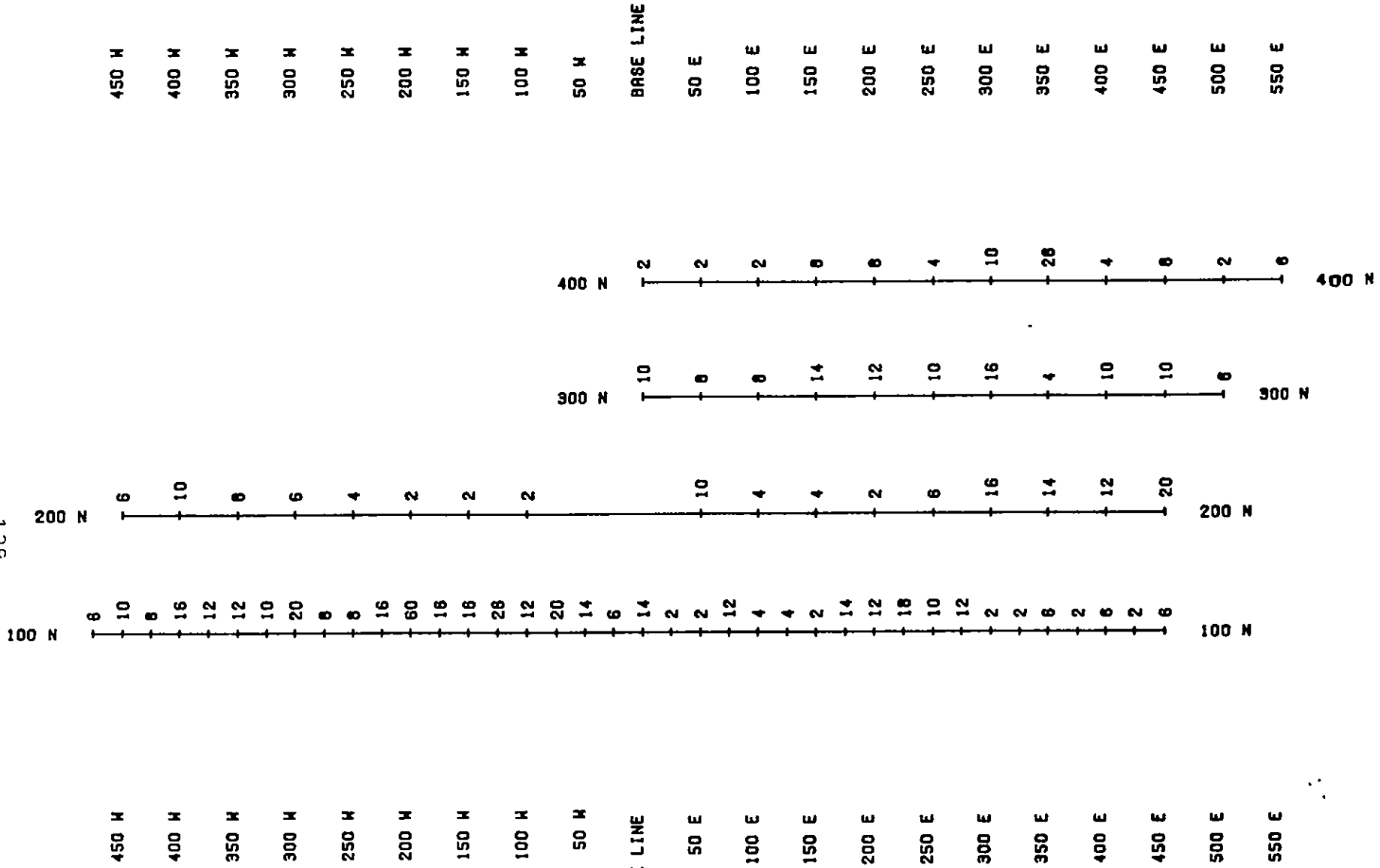
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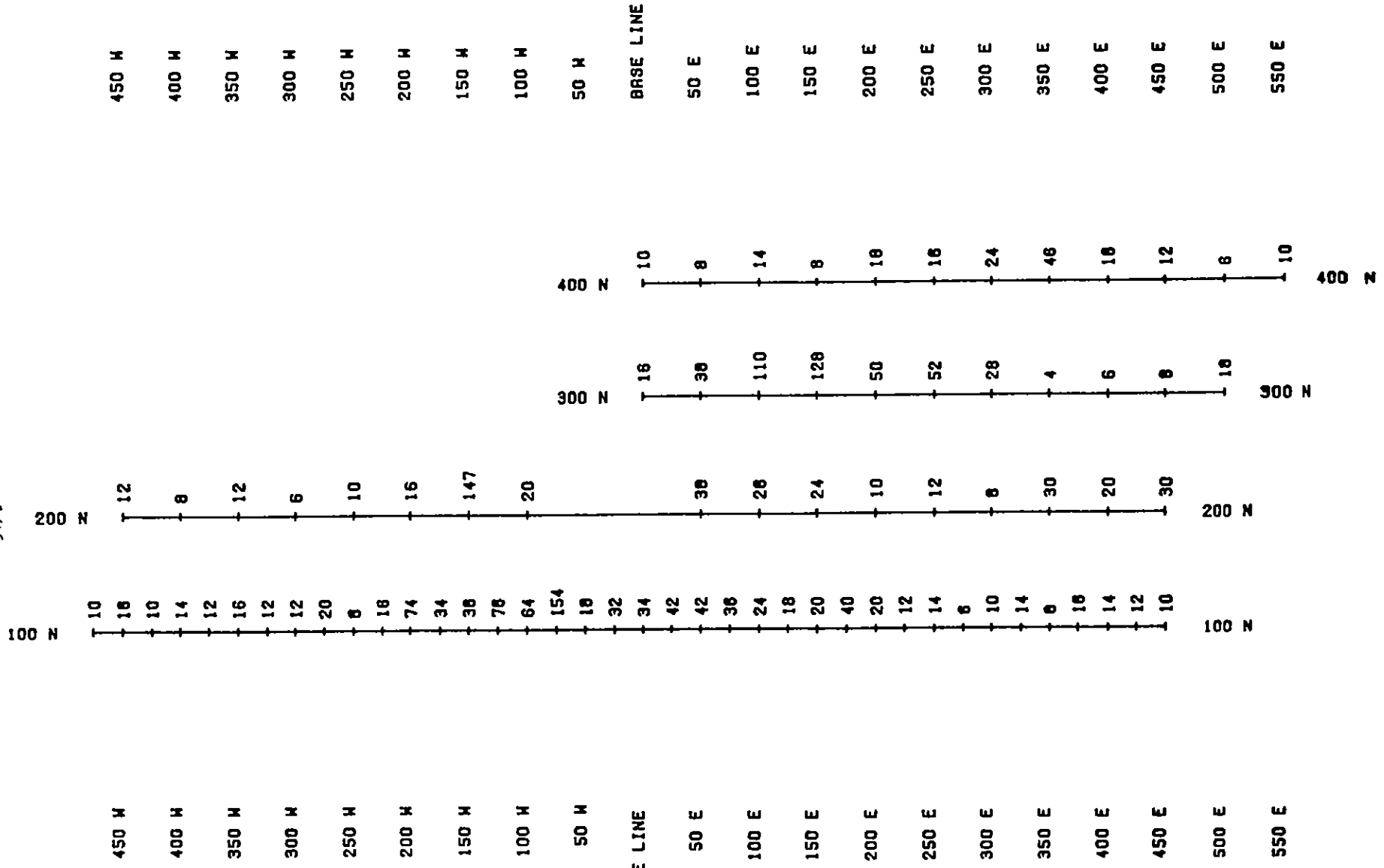
SOIL GEOCHEM SURVEY

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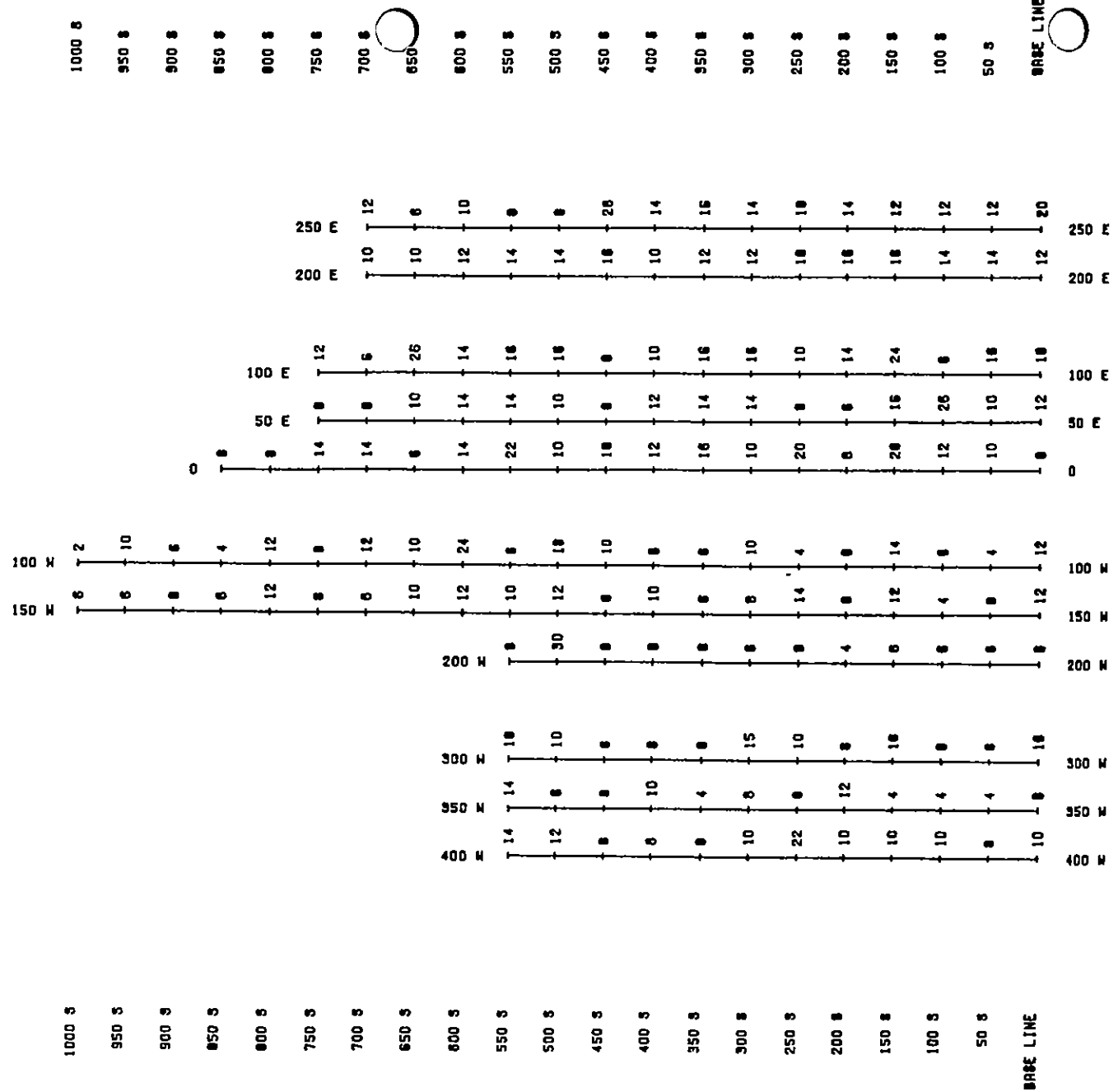
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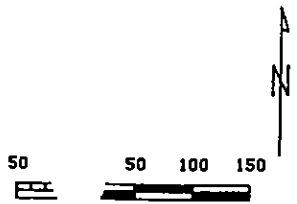
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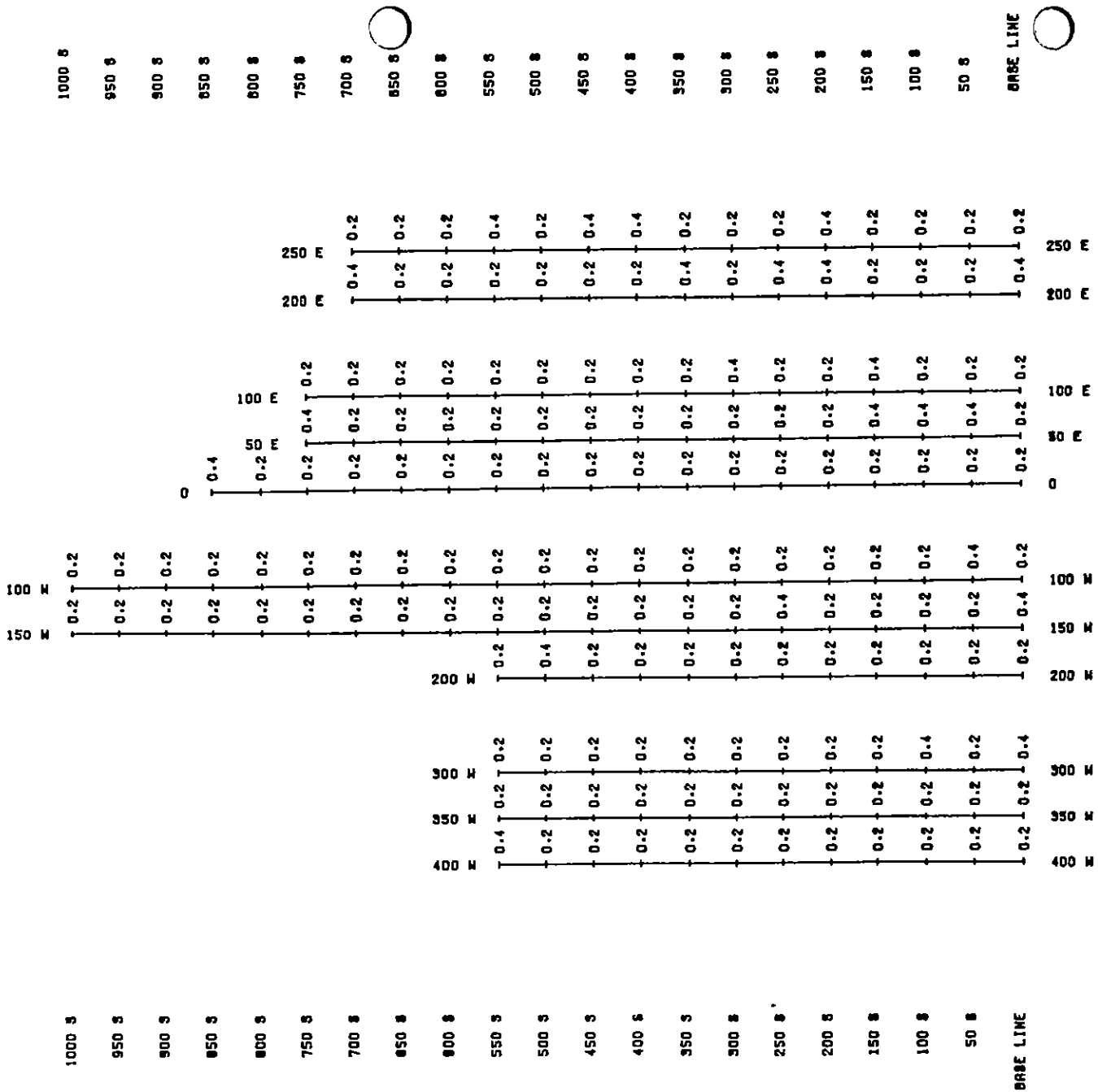
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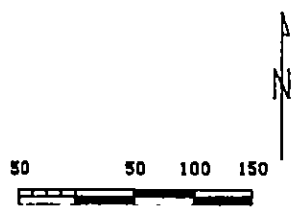
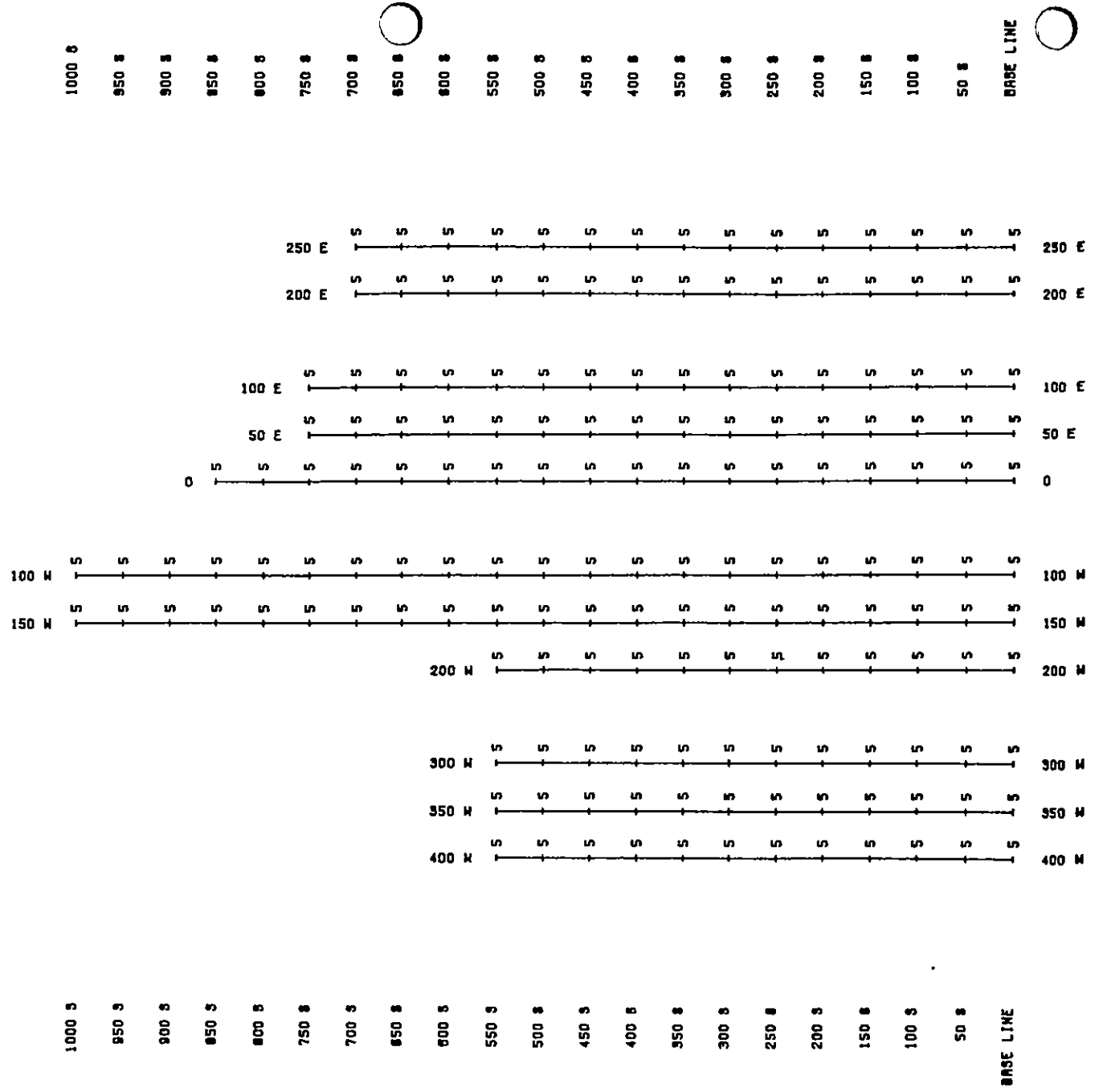




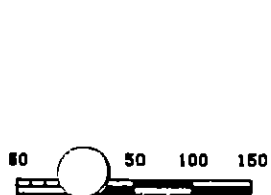
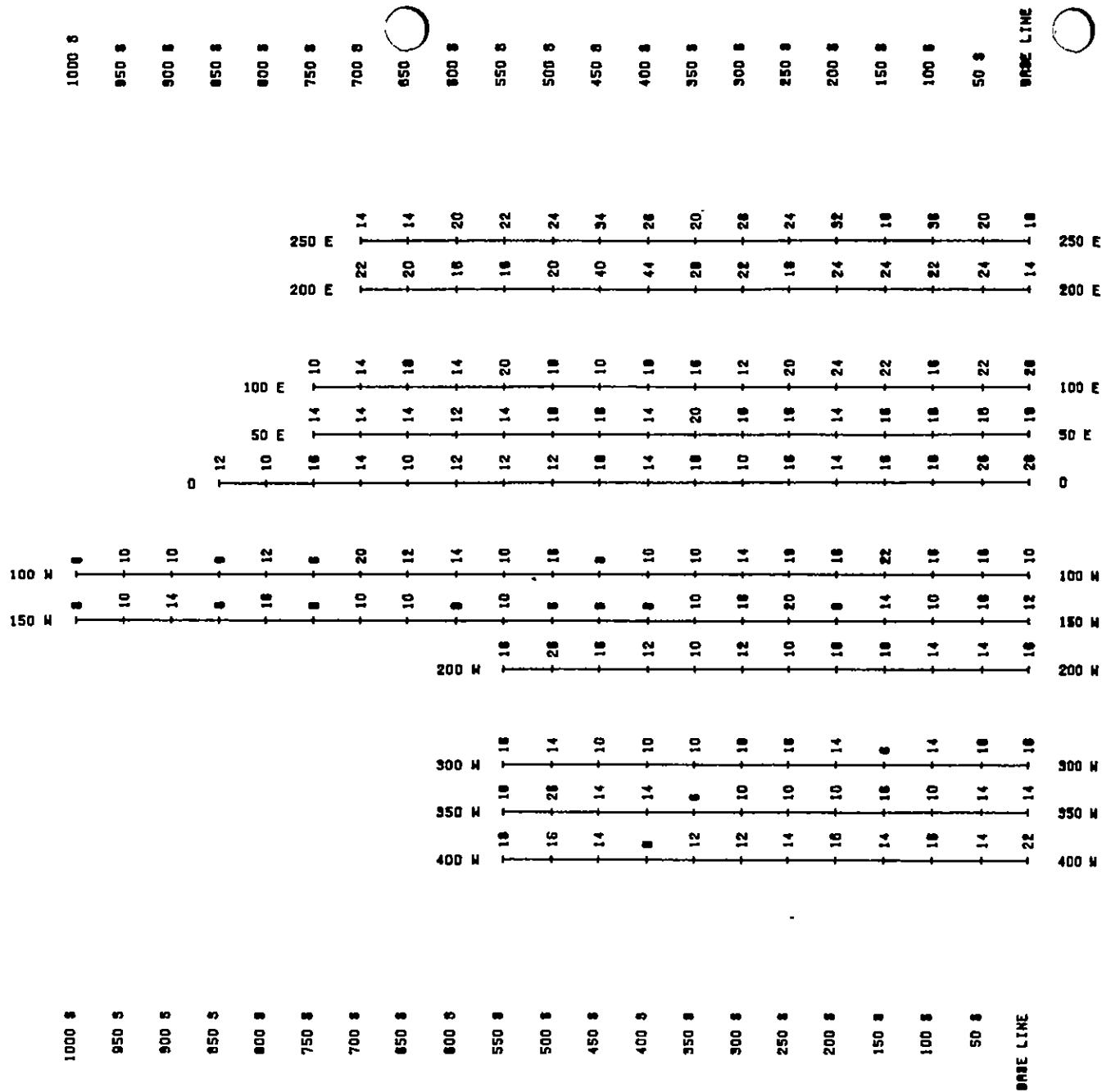
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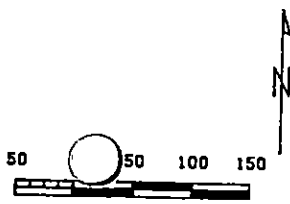
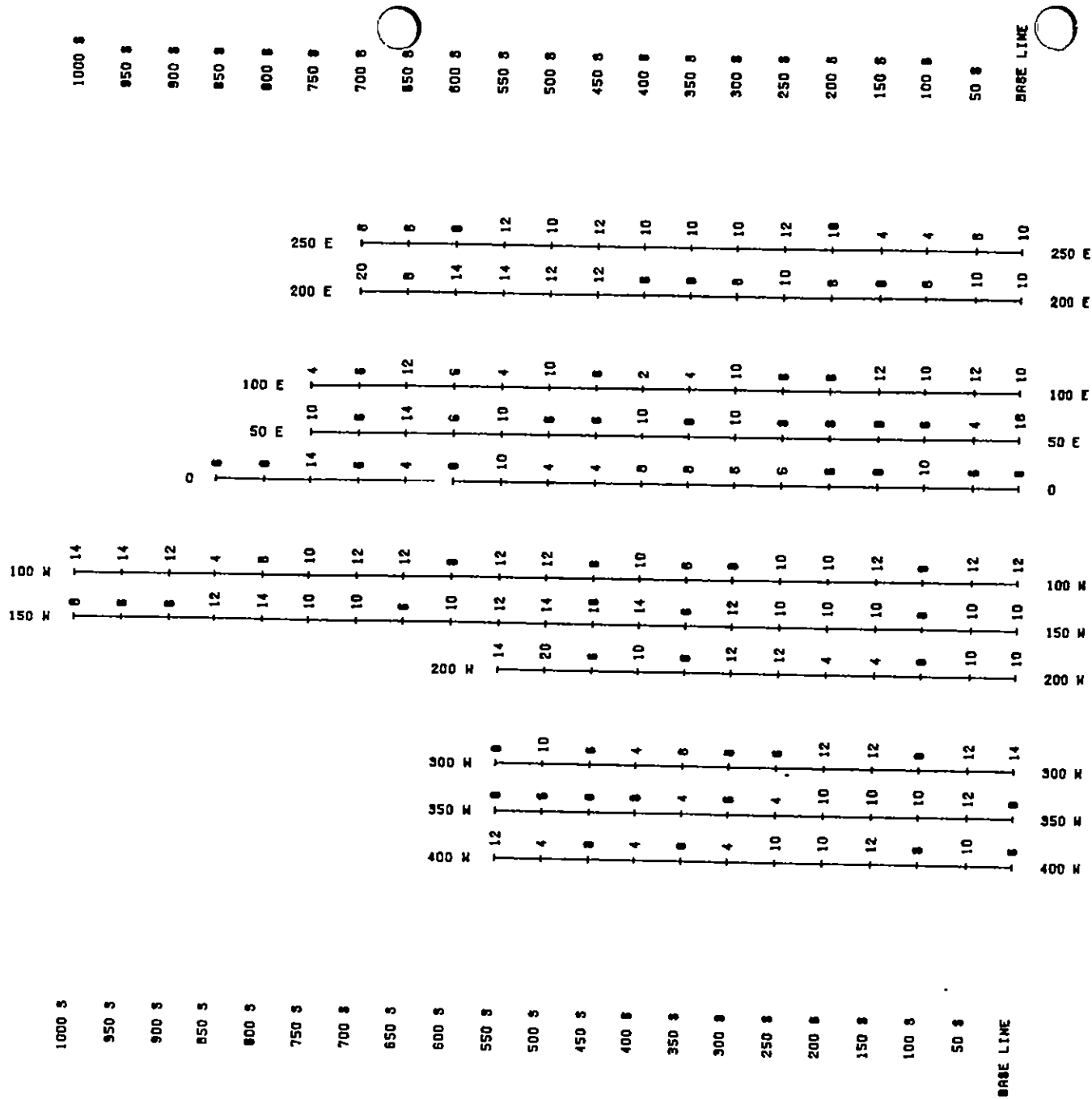
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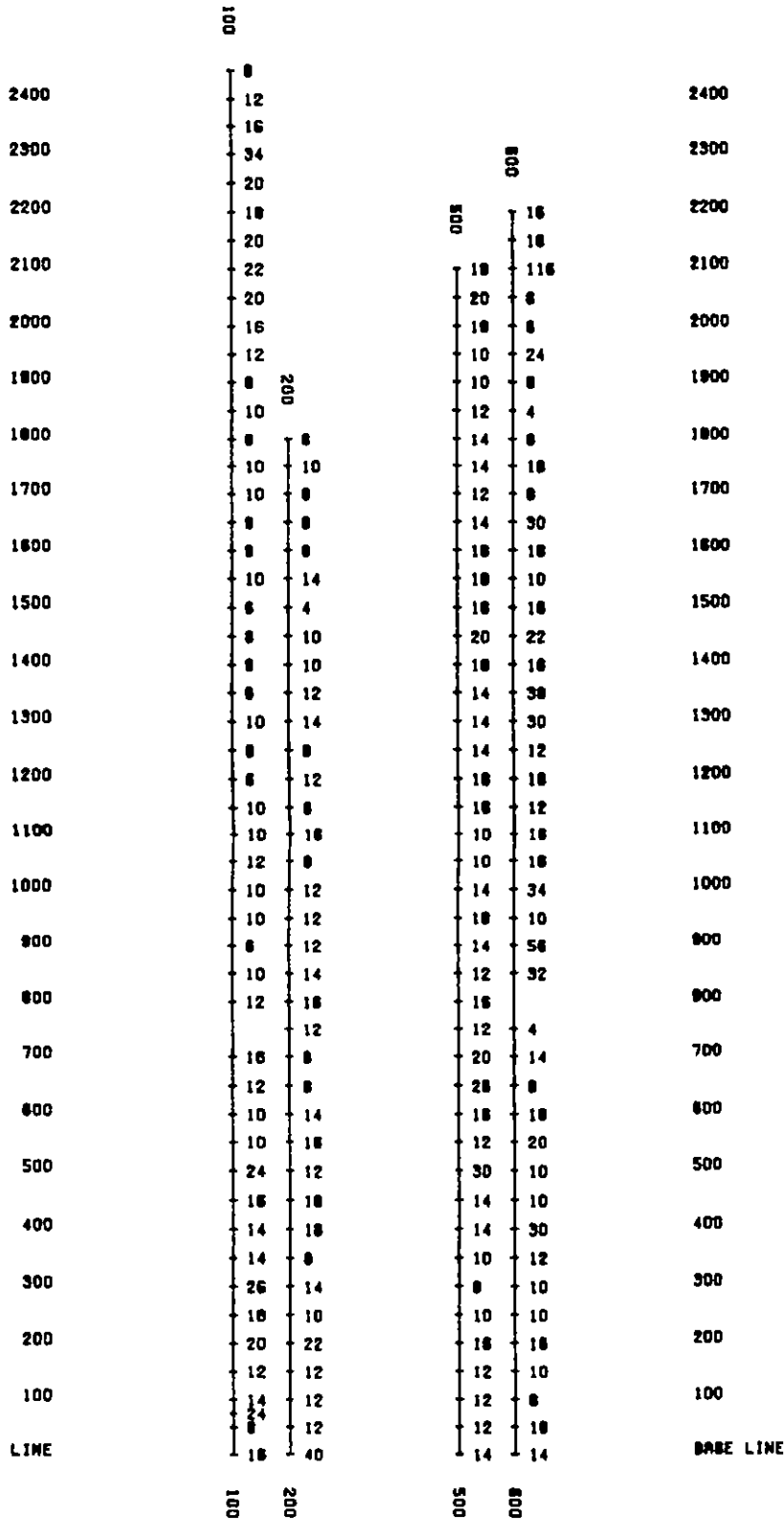
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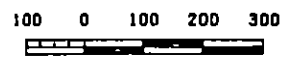
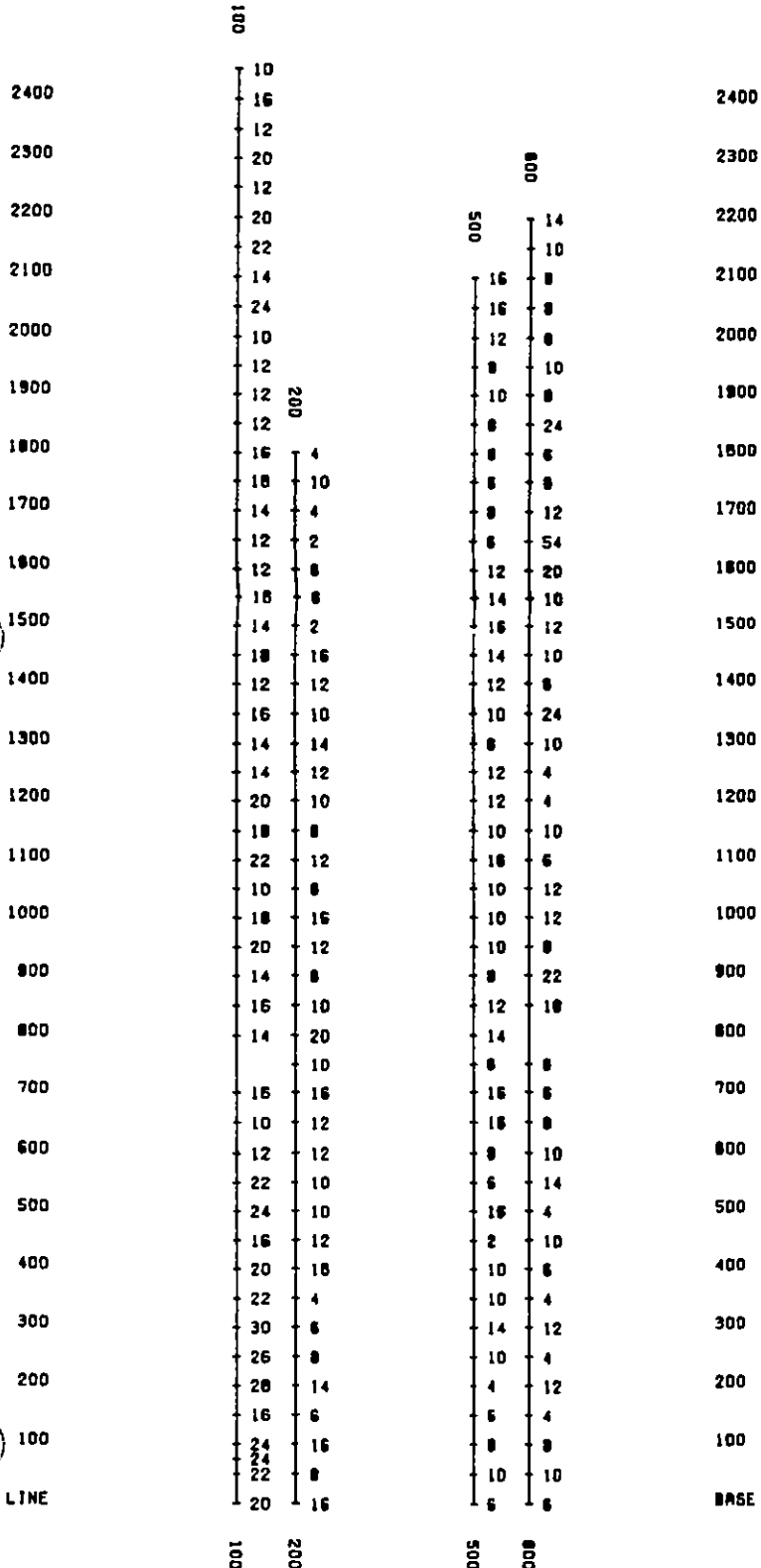
CHAPLEAU RESOURCES LTD.  
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 O-BAR BLOO-FLOAT TR  
 MARCH 1988 FORT STEELE H.D. FIG --



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LEAD PPM.		
BAR SOIL LINES		
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CYBERQUEST EXPLORATION SYSTEMS LTD.		



CHAPLEAU RESOURCES LTD.

SOIL GEOCHEM SURVEY

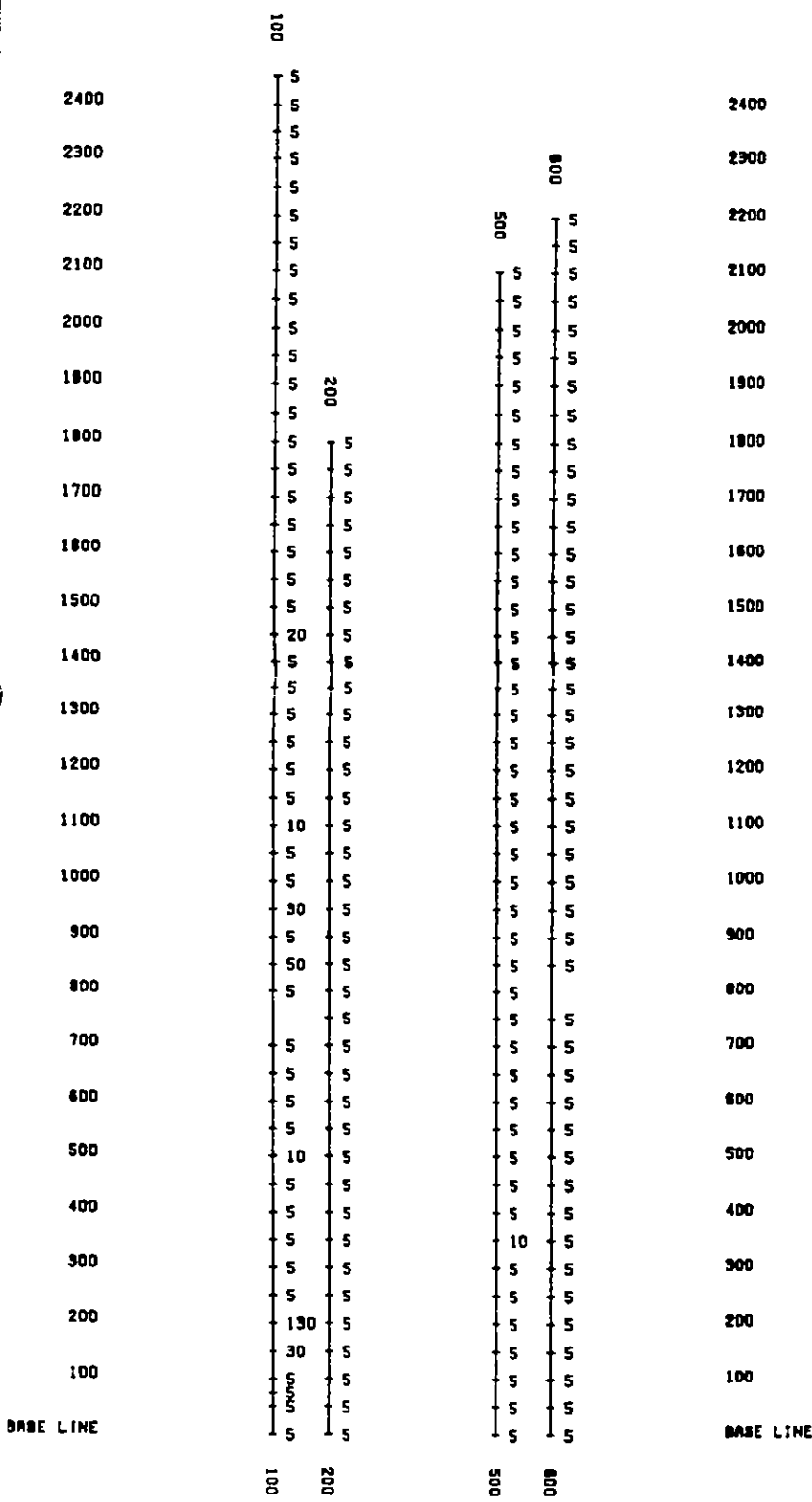
ARSENIC PPM.

BAR SOIL LINES

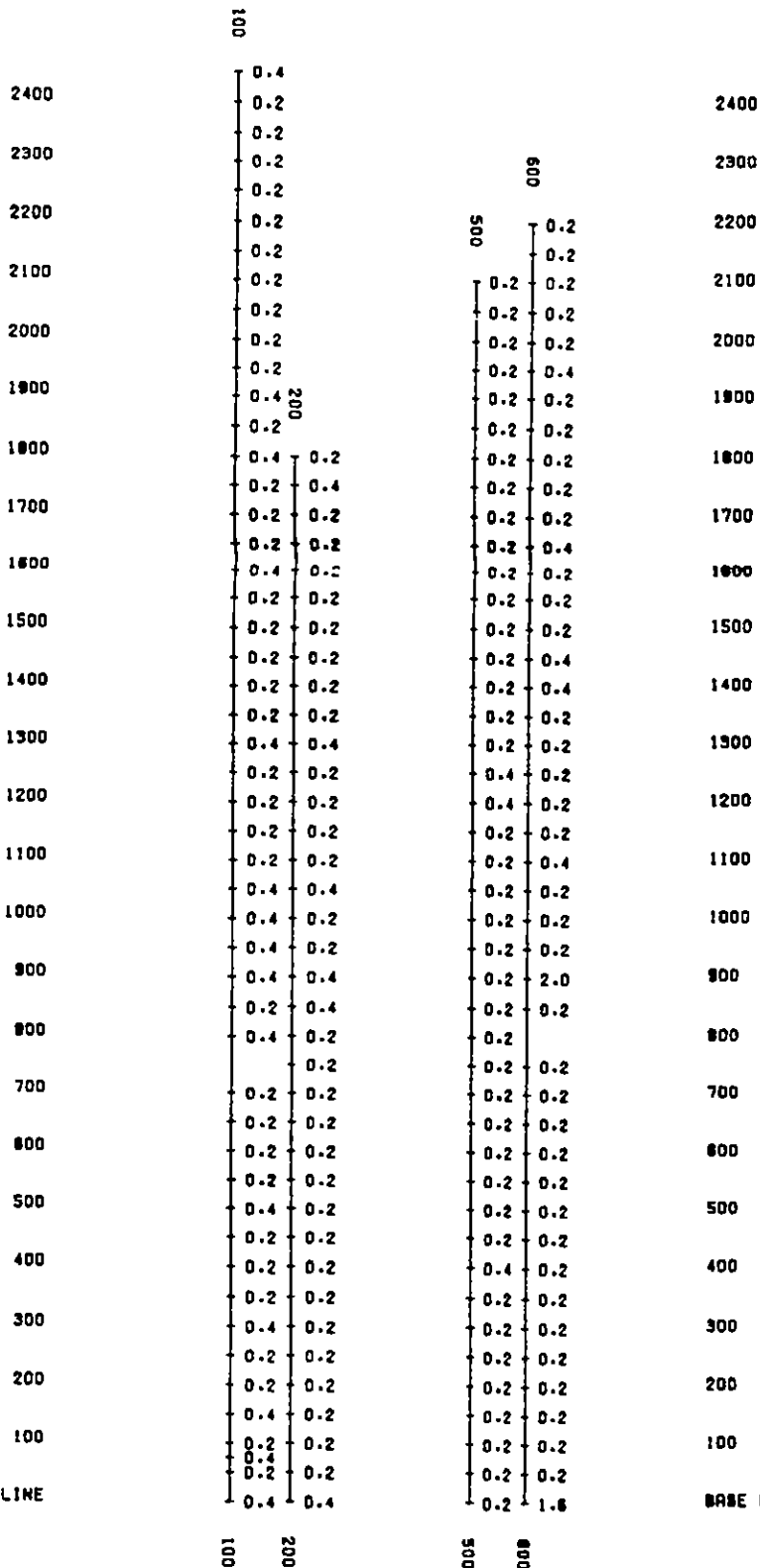
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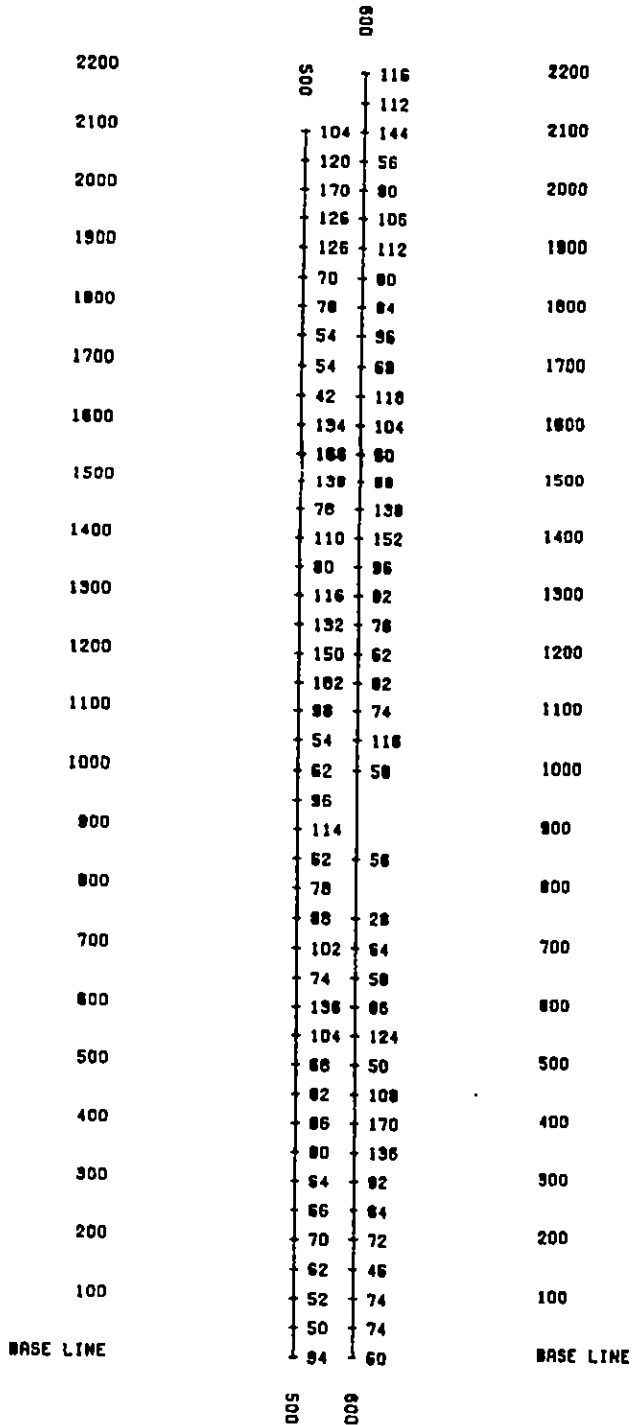


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CYBERQUEST EXPLORATION SYSTEMS LTD.		



100 0 100 200 300

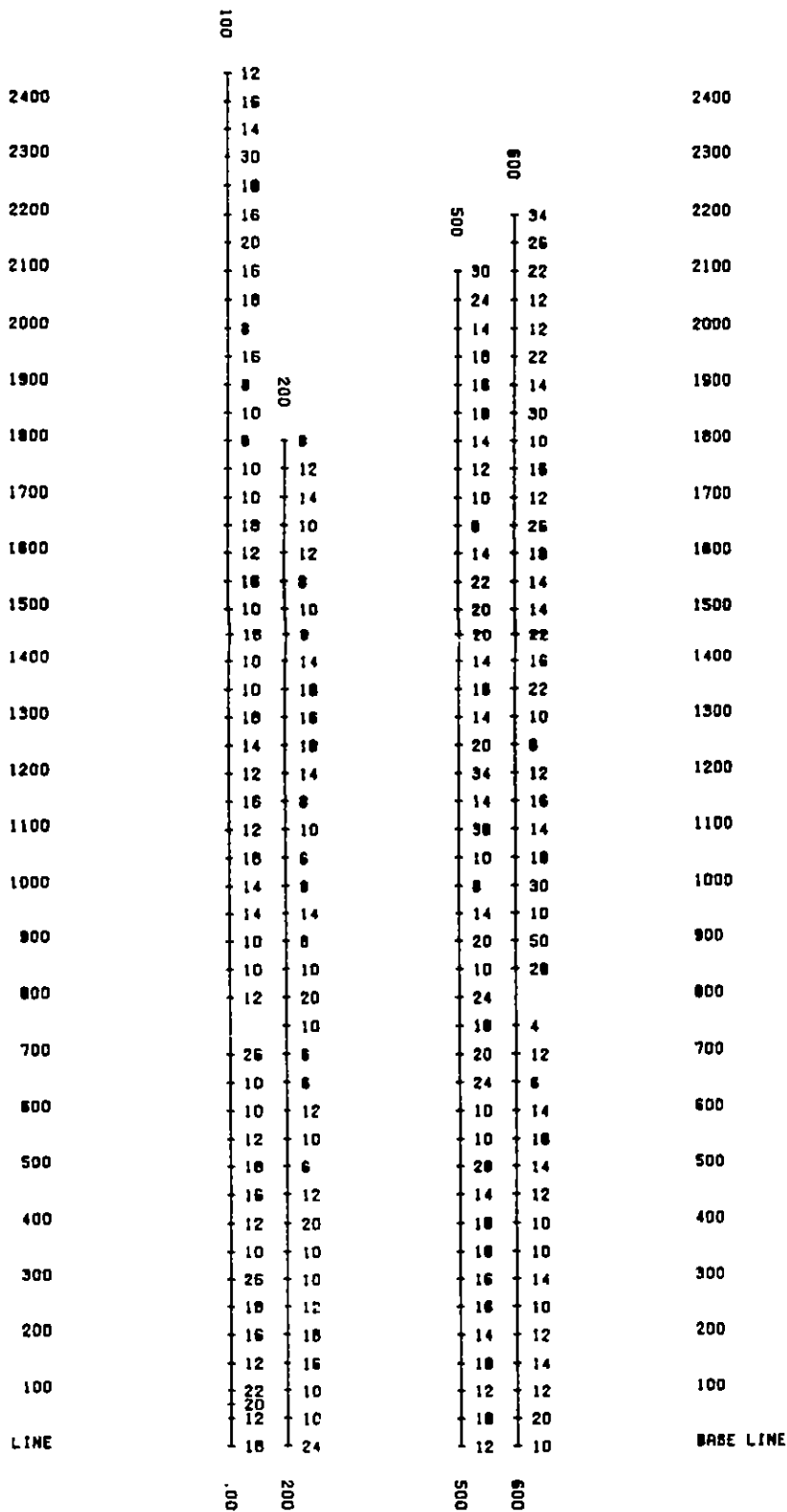
CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
SILVER PPM.		
BAR SOIL LINES		
MARCH 1988	FORT STEELE N.D.	F10 --
CYBERQUEST EXPLORATION SYSTEMS LTD.		



100 0 100 200 300



CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
ZINC PPM.		
BAR SOIL LINES		
MARCH 1988	FORT STEELE N.D.	F10 --
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CHAPLEAU RESOURCES LTD.		
SOIL GEOCHEM SURVEY		
COPPER PPM.		
BAR SOIL LINES		
MARCH 1988	FORT STEELE M.D.	F10 --
CYBERQUEST EXPLORATION SYSTEMS LTD.		

**REPORT ON THE 1987  
STREAM SEDIMENT GEOCHEMISTRY  
OF THE  
MORGAN, BUCK AND BAR  
PROPERTIES,  
CRANBROOK, BRITISH COLUMBIA**

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Vancouver, B.C. V6C 1J8**

**March 18, 1988**

# 1 Introduction

This report addresses the results of the stream sediment silt geochemical survey which was undertaken during the 1987 field season on the Morgan, Buck and Bar Properties, Cranbrook, British Columbia by Chapleau Resources. Exploration targets on the property, which also occur in similar host lithologies and geologic settings nearby, include sediment-hosted massive-sulphide mineralization similar to that at the Sullivan Mine and precious-metal ( $\pm$  base-metal) quartz veins, perhaps similar to those on the east side of Moyie Lake (the St. Eugene Mine). Possibilities also exist for bulk-tonnage low-grade replacement-type Au deposits in calcareous stratigraphy of the Purcell Supergroup. A discussion of the results of this survey is included based largely on a statistical analysis of the geochemical determinations, and based on maps of the geochemical concentrations. Recommendations for further geochemical work on the property are also presented.

Sampling was carried out by Chapleau Resources' employees during August through September 1987 and all geochemical element determinations were made by Rossbacher Laboratory, Ltd. Samples consisted of 0.5 kg of fine grained stream sediment material collected from the active bed of the streams. These were air dried and sieved to -80 mesh. A 0.5 gram sub-sample was digested with a 3:1 nitric:perchloric acid attack and analysed using atomic absorption spectrometry. Elements determined include Cu, Ag, Zn, Pb, and As for all samples. Gold was determined by a similar method, except that 10 grams of -80 mesh material was subjected to an aqua regia digestion followed by pre-concentration in MIBK. No standards were included in the analytical batches so data quality could not be determined; however, almost 90 % of the sites were sampled in duplicate, allowing an assessment of sample site reproducibility.

Seven major stream drainages were sampled at an irregular interval averaging approximately 500 m. These drainages include the Wuho, Negro, Noke, London, Waverley, Wuhun Creeks and an unnamed stream (abbreviated 'Wo', 'Ng', 'Nk', 'Ld', 'Wv', 'Wu' and 'Ck', respectively). Maps presenting the sample locations and geochemical concentrations for these samples are presented in Appendix A.

## 2 Statistical Analysis

### 2.1 Error Analysis

Evaluation of the sample site reproducibility based on the Thompson-Howarth method using duplicate samples (Thompson and Howarth 1973, 1976a, 1976b, 1978; Thompson 1978) was made. Output from the analysis are presented in Appendix B. Because of the large number of detection level values for Ag and Au, the Thompson-Howarth analysis could not be performed on these elements. Results for Cu, Zn and As indicate that they have relative site reproducibility errors of approximately 5 %, while Pb has a relative site reproducibility error of approximately 10 %. These levels of error in a site replicate context are considered excellent for geochemical determinations.

## **2.2 Threshold Selection**

A histogram and probability plot analysis (Sinclair 1974, 1976; Stanley 1987) of the geochemical concentrations was also made on all of the stream sediment data. Output of the statistical results are presented in Appendix C.

Results indicate that all elements exhibit positively skewed distributions. The positive skewness of these element distributions probably occurs because the samples have a large number of 'background' concentrations and a small number of 'highly anomalous' concentrations which may be derived from economic mineralization.

### **2.2.1 Copper**

The Cu distribution appears to have a bimodal, normal form. One mode, consisting of a large group of samples and exhibiting what are interpreted to be 'background' Cu concentrations, has a mean of 15 ppm and a standard deviation of 10 ppm. A second group of samples of higher abundance can be distinguished from this 'background' group. Concentrations from this group are interpreted to be 'anomalous' and range up to 198 ppm Cu. This second group of 'anomalous' samples may be related to lithologies containing elevated Cu concentrations or to Cu-sulphide-bearing strata. A threshold which discriminates the 'background' and 'anomalous' sample groups occurs at approximately 35 ppm.

### **2.2.2 Silver**

Silver concentrations are positively skewed and have a maximum value of > 100 ppm. The low number of reported concentration values does not allow rigorous statistical evaluation of the Ag data. Concentrations in excess of (an arbitrarily selected) 3× the detection limit of 0.2 ppm are thus considered anomalous.

### **2.2.3 Zinc**

Zinc concentrations are extremely positively skewed with a maximum concentration of > 10000 ppm. The distribution appears to be bimodal log-normal. A 'background' group of samples has a mean of 62 ppm and asymmetric  $\pm 1$  standard deviation values of 87 and 44 ppm, respectively. An 'anomalous' group of samples can be distinguished from these 'background' samples with a threshold of 90 ppm.

### **2.2.4 Lead**

Lead concentrations also exhibit a positive skew and have a maximum concentration of > 10000 ppm. Lead appears to be bimodal, log-normally distributed with minor negative deviation in lower concentrations (interpreted to be due to truncation of the distribution by the detection limit). The 'background' group of samples has a mean of 11 ppm and asymmetric  $\pm 1$  standard deviation values of 24 and 5 ppm, respectively. The 'background'

sample group can be distinguished from the 'anomalous' group of samples with a threshold of 52 ppm.

### **2.2.5 Gold**

Gold exhibits a positively skewed distribution consisting of samples with 'background' concentrations of 5 ppb and samples with 'anomalous' concentrations above 5 ppb. While probably distributed poisson, this distribution can be approximated by a mixture of two log-normal distributions. Since gold probably exists largely in its native form in these stream sediments, the 'background' sample group can be considered to be those samples where the analyzed sub-sample contained no gold nuggets (resulting in a reported concentration of 5 ppb). The 'anomalous' group of samples can be considered to consist of those samples where the analyzed sub-sample contained at least one grain of gold (yielding concentrations greater than 5 ppb).

Unfortunately, while any of the 0.5 kg samples may contain numerous gold nuggets, the 10 gram sub-sample split from it may not contain any. Furthermore, hydraulic effects from the stream water flow regime may have acted to concentrate or deplete sample sites in the creeks, adding further inaccuracy to the sampling. As a result, given the relatively small amount of sample which was collected and even smaller amount that was actually analyzed, samples from sites which actually contain gold may report 5 ppb concentrations. Little confidence may be placed on samples reporting concentrations of 5 ppb as representing stream locations not containing Au. Nonetheless, a threshold of 10 ppb distinguishes the 'background' from 'anomalous' samples.

### **2.2.6 Arsenic**

Arsenic exhibits a trimodal normal distribution and relatively high overall concentrations (cf. Stanley 1984). The lowest mode has a mean of 5 ppm with a standard deviation of 4 ppm. The middle mode has a mean of 17 ppm, a 4 ppm standard deviation, and can be distinguished from the lower mode with a threshold of 11 ppm. The highest mode, with a 31 ppm mean and 7 ppm standard deviation is probably 'anomalous' and may be related to sulphide-bearing strata. A threshold of 21 ppm separates this 'anomalous' group from the two, probably, 'background' sample groups.

## **3 Interpretation**

Interpretive symbolic maps of the stream sediment data are presented in Appendix D. Samples with average replicate concentrations exceeding the threshold are indicated by large circles while those average concentrations less than the threshold are indicated with small circles. These plots suggest that the primary area of interest lies in the Wuho Creek drainage and specifically on the north side of the main stream. On this stream, four distinct stream sediment anomalies exist in several elements.



The most western anomaly is defined by sample site Wo-6, where highly anomalous concentrations of Cu, Pb, Zn, Ag, Au and As are observed. For Pb, Zn and Ag, the concentrations exceed the maximum determinable concentrations using geochemical methods of 10000, 10000 and 100 ppm, respectively. These extremely high concentrations and the accompanying high replicate disparity suggests that detrital sulphides are present in the stream sediment samples and that these comprise a major portion of the element concentration. Furthermore, these observations may suggest that the source of the anomaly may be located only a small distance north of the sample site.

Sample Wo-3 probably represents downstream dispersion from the Wo-6 anomaly, and the proximity of 'anomalous' sample Wo-7 to Wo-6 suggests that the source of this anomaly may be on the west side of the stream sampled by Wo-6. Anomalous Zn concentrations at sites Wo-2, Wo-4 and Wo-7 may represent more extensive hydromorphic dispersion due to the generally higher mobility of Zn in the secondary environment. Alternatively, these samples may be anomalous due to organic concentration of Zn in a boggy reach of the drainage.

Downstream (to the east) of this site is another anomaly defined by sample Wo-8. It is clearly not part of the dispersion train from the Wo-6 anomaly and related to another source of high element concentration because of the presence of non-anomalous sample Wo-1 immediately upstream of it. It also has anomalous concentrations in Cu, Pb, Zn, Ag, Au and As, suggesting a source for this anomaly somewhere between Wo-8 and Wo-1.

Sample Wo-20 defines an anomaly of a possibly different type. It has anomalous concentrations in all of the elements anomalous in samples Wo-3 and Wo-8, except for Au. The source of this anomaly is probably north of the sample site, and dispersion from this anomaly is probably represented in samples Wo-21 and Wo-22.

The last anomaly observed considered of primary importance is defined by anomalous concentrations of Cu, Pb, Zn, Ag and As in sample Wo-23. It, thus, has a geochemical signature similar to the anomaly defined by sample Wo-20. Dispersion downstream from this anomaly is probably represented by sample Wo-24, and its source is probably to the north of the sample site.

Several other anomalies also exist on the property. These consist mainly of single point anomalies in several different elements and all are defined by element concentrations which are not significantly in excess of the threshold value, given the observed relative error. One exception exists.

Near the head of Noke Creek, a coherent set of anomalous Zn concentrations occur (samples Nk-12, Nk-13, Nk-14 and Nk-16). While these may represent organic concentration of Zn in a boggy reach of the drainage, the stream immediately west of this site (containing 3 lakes) has a multi-point Cu anomaly. In addition, anomalous Ag and As occur at site Nk-16. The similarity of this anomaly to the one defined by sample Wo-6 augurs its importance.

## 4 Conclusions and Recommendations

Based on the results of the 1987 stream sediment survey, several conclusions may be drawn :

- the size of the stream sediment samples and analytical method is inadequate to detect, with confidence, the presence of Au in the streams;
- four distinct geochemical anomalies occur on Wuho Creek which may potentially be related to massive sulphide mineralization similar to that observed at the Sullivan Mine;
- these anomalies may be of two types: those that contain anomalous Au (the two to the west), and those that don't; alternatively, these anomalies may all be similar and the sampling inadequacies for Au (described above) may have contributed to the non-detection of Au in the two eastern anomalies;
- a fifth anomaly exists near the head of Noke Creek which may be similar to those observed on Wuho Creek;
- given the sample density on the streams and the length of the dispersion trains observed below the anomalies on Wuho Creek, only one or two samples actually record anomalous concentrations; as a result, anomalies may exist between sample sites which are spaced more than 500 m apart, and thus may go undetected.

Based on the above conclusions, the following actions are recommended :

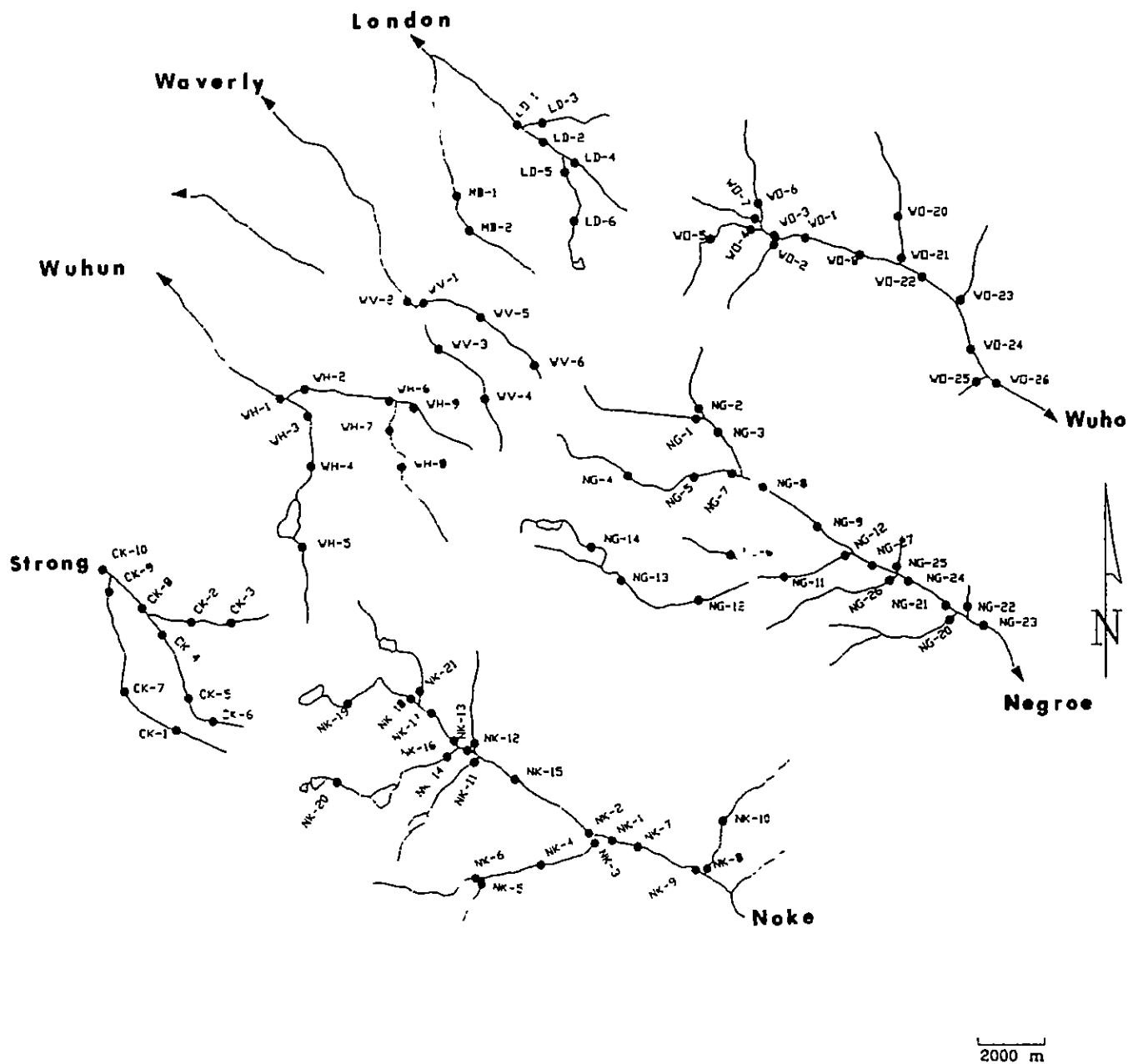
- an orientation survey of the stream sediment collection method, using one of the observed anomalies on Wuho Creek as a test case; from this an optimal sampling design and set of analytical procedures can be determined which will give confident detection of anomalies related to both massive-sulphide and Au-quartz vein mineralization;
- a detailed stream sediment survey of all streams on the property (based on the above described orientation survey) at one sample every 250 m along the stream and above all forks; this should include a multi-element (+ Hg) ICP analysis of the silt fraction plus a non-magnetic and magnetic heavy liquid separation of up to 5 kg of fine grained stream sediment; analysis of Au should be by fire assay pre-concentration and atomic absorption; a barite specific determination should be included; this survey should take place immediately after spring run-off to avoid hydraulic re-distribution of heavy minerals;

- anomalous zones discovered by the 1987 stream sediment survey should be confirmed with a follow-up detailed stream sediment survey according to the design defined by the stream sediment orientation survey;
- before the commencement of any subsequent soil survey, an assessment of the glacial overburden and its effect on the detection of geochemical anomalies must be undertaken; this should include a study of the soil/overburden stratigraphy and provenience and a search for the optimal sample design in a soil orientation survey;
- all confirmed stream sediment anomalies should be intensively prospected and covered with an extensive soil grid with nodes at 25 m centers; analysis of the -80 mesh fraction should include an ICP multi-element (+ Hg) determination plus Au by fire assay pre-concentration and atomic absorption finish; a barite specific analysis should also be included if found to be of value in the stream sediment and soil orientation surveys.

## 5 References

- Sinclair, A.J. (1974):** *Selection of Threshold Values in Geochemical Data Using Probability Graphs*. Journal of Geochemical Exploration, Vol. 3, pp. 129-149.
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- Stanley, C.R. (1984):** *The Geology and Geochemistry of the Daisy Creek Prospect, A Stratabound Copper-Silver Occurrence in Western Montana*. Unpublished M.Sc. Thesis, University of British Columbia, 288 p.
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- Thompson, M. (1973):** *DUPAN 3, A Subroutine for the Interpretation of Duplicated Data in Geochemical Analysis*. Computers and Geosciences, Vol. 4, pp. 333-340.
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- Thompson, M. and Howarth, R.J. (1976a):** *Duplicate Analysis in Geochemical Practice - Part 1. Theoretical Approach and Estimation of Analytical Reproducibility*. Analyst, Vol. 101, pp. 690-698.
- Thompson, M. and Howarth, R.J. (1976b):** *Duplicate Analysis in Geochemical Practice - Part 2. Examination of Proposed Method and Examples of its Use*. Analyst, Vol. 101, pp. 699-709.
- Thompson, M. and Howarth, R.J. (1978):** *A New Approach to the Estimation of Analytical Precision*. Journal of Geochemical Exploration, Vol. 9, pp. 23-30.

# Sample Locations/Numbers



Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988

# Copper Stream Sediment Interpretation

Threshold. 35 ppm



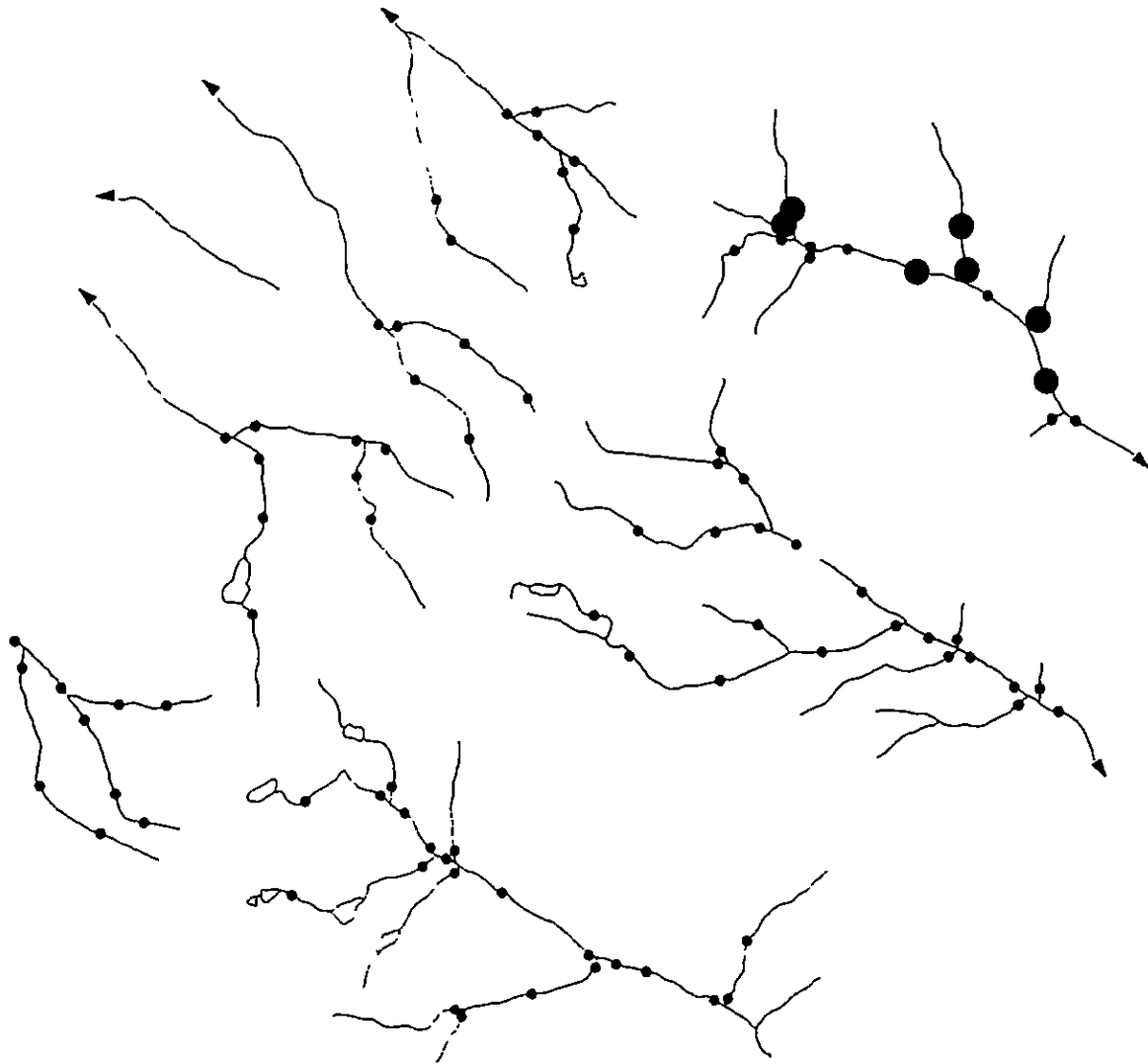
2000 m

- Background
- Anomalous

Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988

# Lead Stream Sediment Interpretation

Threshold: 52 ppm



● Background

● Anomalous

Morgan/Buck/Bar Property

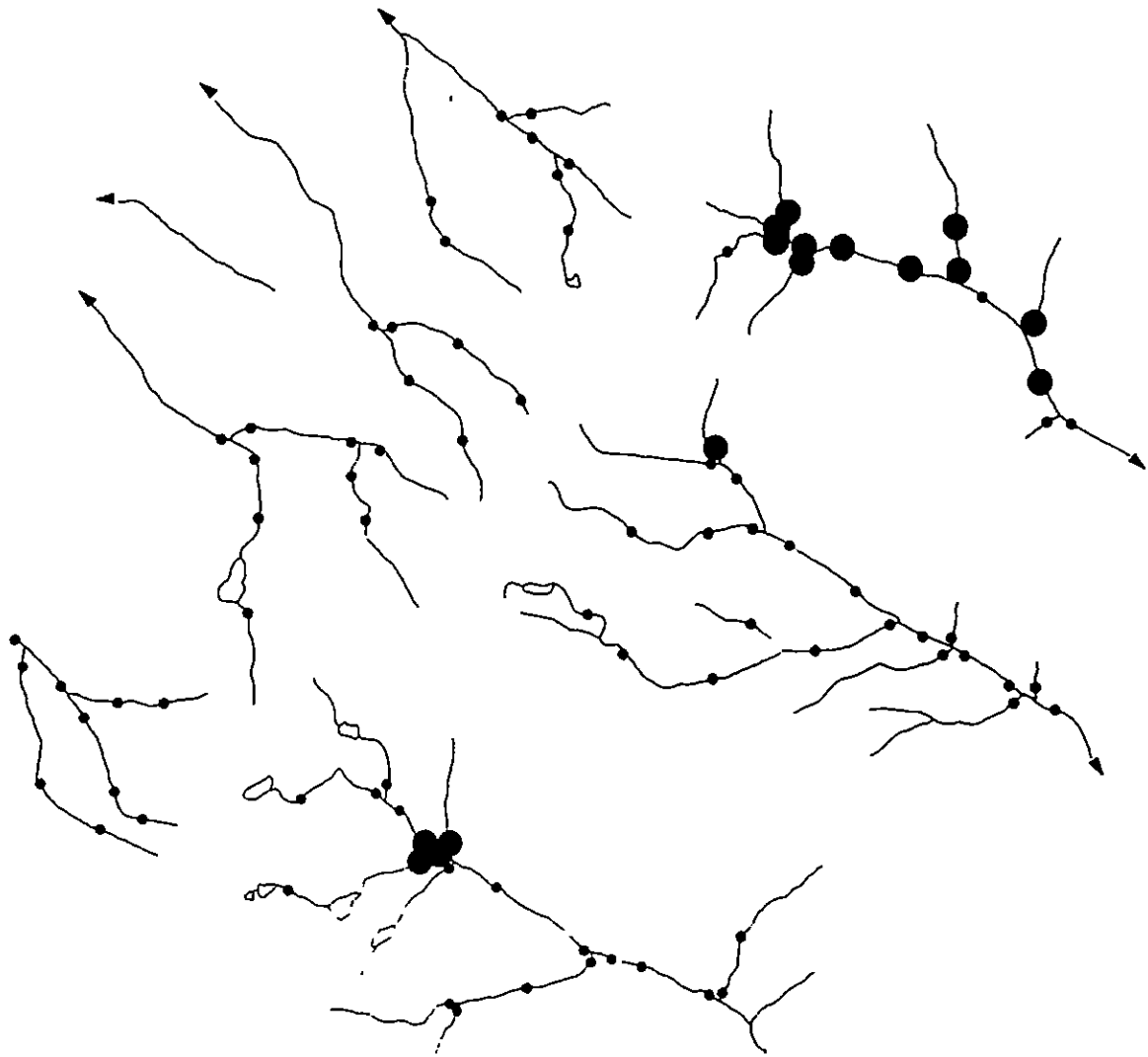
Chapleau Resources Ltd.

1987 Stream Sediment Geochemistry

March 18, 1988

# Zinc Stream Sediment Interpretation

Threshold. 90 ppm



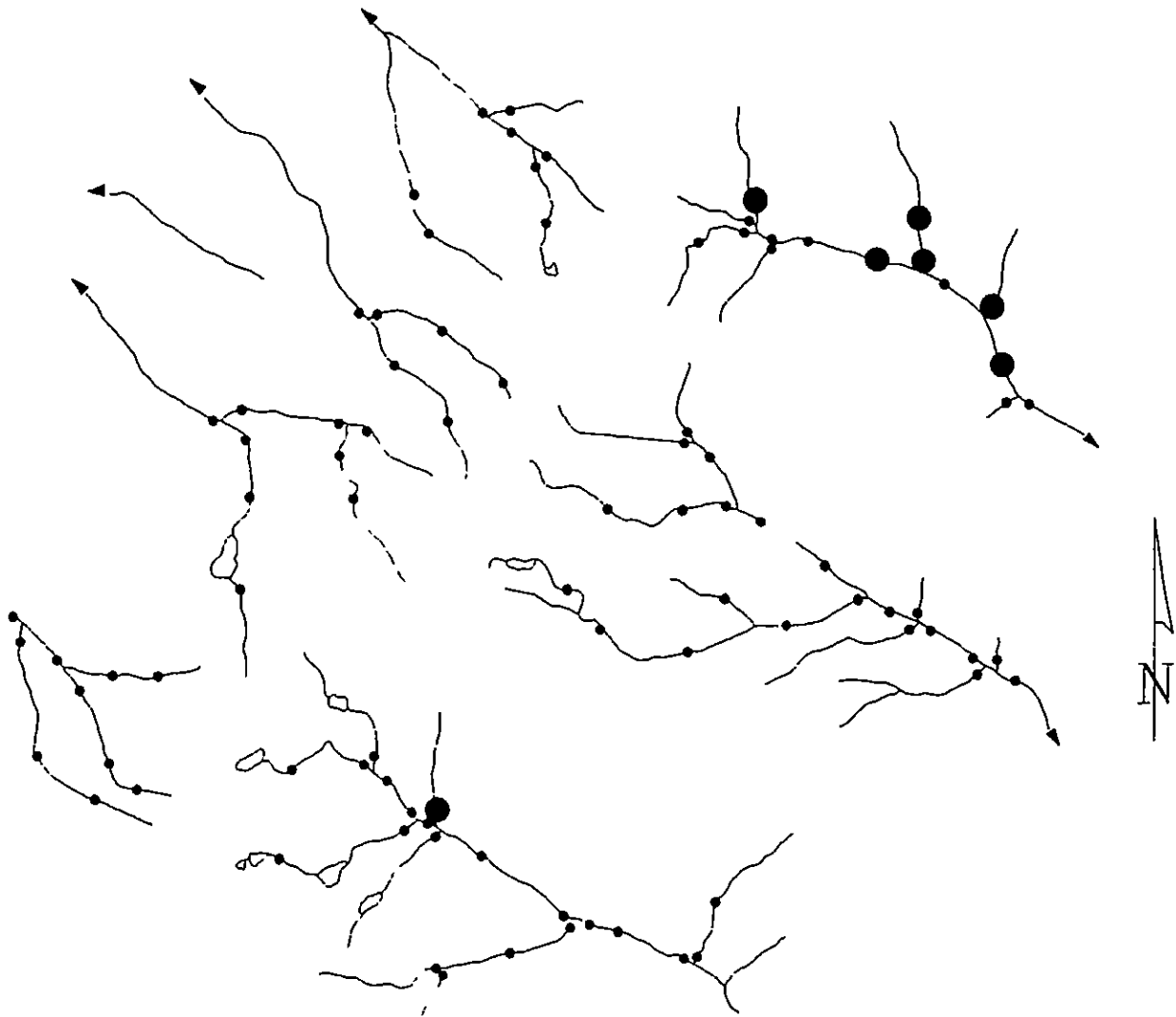
2000 m

- Background
- Anomalous

Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988

# Silver Steam Sediment Interpretation

○ Threshold: 0.6 ppm



- Background
- Anomalous

Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988



# Gold Stream Sediment Interpretation

Threshold 10 ppb

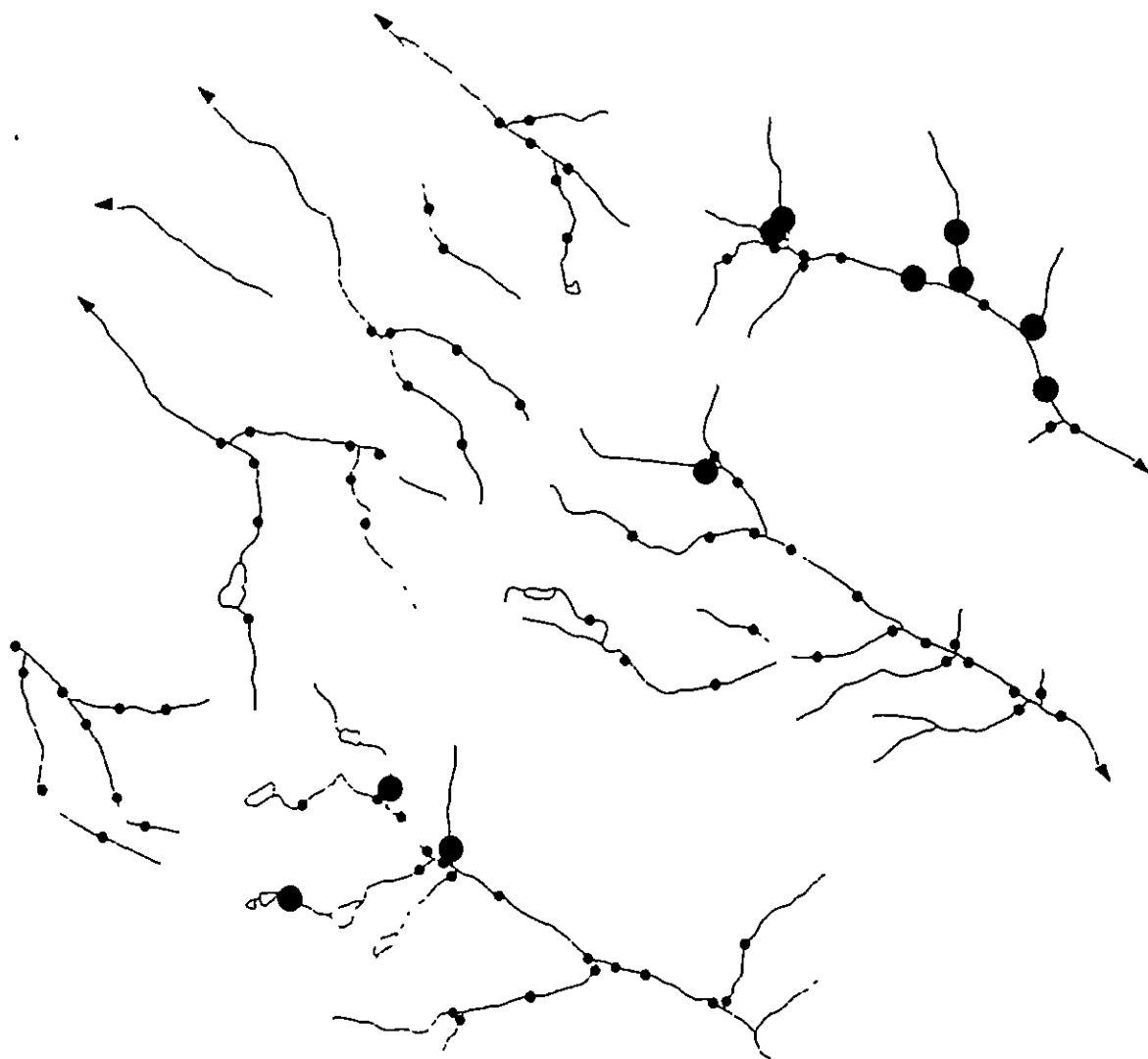


- Background
- Anomalous

Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988

# Arsenic Stream Sediment Interpretation

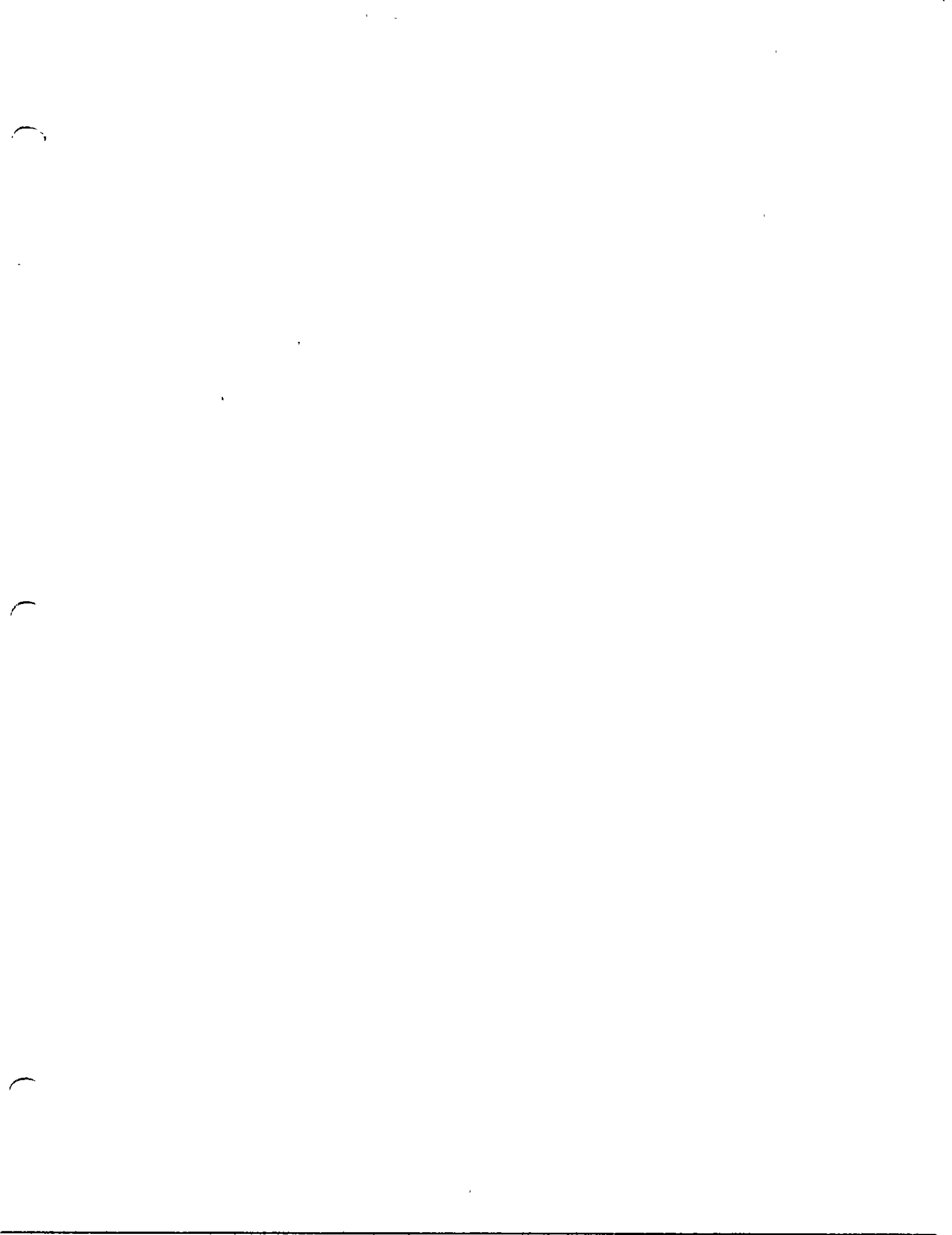
Threshold 21 ppm



2000 m

- Background
- Anomalous

Morgan/Buck/Bar Property  
Chapleau Resources Ltd.  
1987 Stream Sediment Geochemistry  
March 18, 1988



1.7 COST STATEMENT - EXPLORATION 1987

Chapleau Resources Ltd.  
 Geological & Geochemical Surveys  
 PURCELL CAMP  
 May 23 - Nov. 22, 1987

1.7.1 Morgan Property

North Block	
Geochemical Costs:	
Wages - 2 persons, 6 1/2 man days @ \$120./day	\$ 800
Supplies & Vehicle	440
Assay Costs	1,147
Geological Costs:	
Field Survey - Consultant Fee	2,279
- Report	250
Engineering Costs:	
Report Preparation (Assessment)	640
	-----
Total Cost - Morgan North	\$ 5,556
South Block	
Geochemical Costs:	
Wages - 4 persons, 104 man days @ \$120./day	\$12,545
Supplies & Vehicle	1,885
Assay Costs	10,955
Assay Analyses - Report Preparation (Apportioned)	1,000
Geological Costs:	
Field Survey - Consultant Fee	2,765
Supervision - Consultant Fee (6 days @ \$250)	1,500
- Benefits	419
Engineering Costs:	
Field Supervision - 20 Days @ \$250	5,000
Report Preparation (Assessment)	1,633
Drafting	781
Physical - Trenchwork Hoe (88 Hrs. @ \$99/hr.)	8,712
- Expense Benefits	1,661
	-----
Total Cost - Morgan South	\$ 48,857
TOTAL COST - MORGAN GROUP	\$ 54,413
	-----

1.7.2 Buck I Property

Geochemical Costs:

Wages - 2 persons, 10 man days @ \$120/day	\$ 1,200
Assay Costs	1,606
Supplies & Vehicle	240
Engineering Costs:	
Report Preparation	800
Drafting Services	240
Prospect Geology	960
Physical - Trenchwork Hoe 20 Hrs. @ \$135/hr.	2,681
- Benefits Expense	397
	-----
Total Cost - Buck I	\$ 8,124

1.7.3 Buck II Property

Geochemical Costs:

Wages - 2 persons, 40 man days @ \$120/day	4,750
Assay Costs	3,342
Supplies & Vehicle	1,155
Engineering Costs:	
Report Preparation	992
Draft Services	332
	-----
Total Cost - Buck II	\$ 10,561

1.7.4 Bar Property

Geochemical Costs:

Wages - 4 persons, 55 man days @ \$120/day	\$ 6,632
Assay Costs	6,719
Assay Analysis - Report Preparation (Apportioned)	1,200
Supplies & Vehicle	2,410
Engineering Costs:	
Field Supervision - 14 days @ \$250	3,500
Report Preparation (Assessment)	1,500
Consultant (A & M Explorations)	680
Drafting	281
Physical:	
Line and Hand Trench - 2 men, 12 man days @ \$120/day	1,427
Tenchwork - Hoe - 52 Hrs. @ \$135	7,020
Expense Benefits	663
	-----
Total Cost - Bar Property	\$ 32,032

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TOTAL COST - PURCELL CAMP (Field Cost only) \$105,131 --  
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## SAMPLE LOCATION

### BASE LINES

#### **MORGAN**

<u>Line</u>	<u>Assay Name</u>	<u>Area</u>	<u>Sheet Ref. Number</u>	<u>Description</u>
Base Line 1	BL-1	Shorty Creek	2ab,3abg, 10a	Soil "B"
Base Line 2	BL-2	Limerick Creek	3bcdef,4ab 10ab	Soil "B"
Base Line 3	BL-3	Liverpool Creek	7abc,8abcdef 11ef	Soil "B"
Base Line 4	BL-4	Wuhun Creek	5efg,6a, 11abcde	Soil "B"
Base Line 5	BL-5	London Creek	7c	Soil "B"
Base Line PE	PE	Sawmill Creek	1abc	Soil "B"

#### **Bar**

Base Line 1	FC-BL1	Palmer Bar Creek	5ab	Soil "B"
Base Line 2	FC-BL2	Palmer Bar Creek	5b	Soil "B"
Base Line 5	BL5	Palmer Bar Creek	14de,15ab	Soil "B"
Base Line 6	BL6	Palmer Bar Creek	15b,27a,29a	Soil "B"
C-BL	C-BL	Gossan Hill	5cde	Soil "B"
QP	QP	Quartz Pit	14abc	Soil "B"
Base Line 0	BL00	Palmer Bar Creek	22abcde	Soil "B"
Base Line OA	BL00A	Palmer Bar Creek	14cd	Soil "B"
S1	S 1,2,3,4	Palmer Bar Creek	25a	Soil "B"

#### **BUCK**

	BSW 1	Wuho Creek	31a,32a	Soil "B"
	BSW 2	Wuho Creek	28ab,31a	Soil "B"
	BSW 3	Wuho Creek	27a,30ab	Soil "B"
Noke	Noke BL 1	Noke Creek	20ab,32a	Soil "B"

## SILT SAMPLES

<u>Sample</u>	<u>Assay Sample Name</u>	<u>Area</u>	<u>Sheet Ref. Number</u>
Strong	CK- 1A, 1B, 2A, 2B, 2Bii, 2Biii, 3A, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 9A, 9B, 10A, 10B	Strong Creek	21a
London	LD- 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B	London Creek	21a
London (Branch)	MP- 1A, 1B, 2A, 2B	London Creek	21a
Wuhun	WH- 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 9A, 9B	Wuhun Creek	21a,b
Waverly	WL- 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6C,	Waverly Creek	21b
Wuho	WO- 1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B, 20A, 20B, 21A, 21B, 22A, 22B, 23A, 23B, 24A, 24B, 25A, 25B, 26A, 26B	Wuho Creek	13a
Noke	NKD- 1, 2 to 9, 10A, 10B, 10C, 11A, 11B to 21A, 21B	Noke Creek	13ab
Negro	NG- 1A, 1B, to 14A, 14B 20A, 20B to 27A, 27B	Negro Creek	13b,c

**BULK SAMPLES**

<u>Assay Sheet Name</u>	<u>Area</u>	<u>Sheet Ref. Number</u>
Lim 1	Limerick Creek	1c
Lim 2	Limerick Creek	1c
Lim 3	Limerick Creek	1c
Lim 4	Strong Creek	1c
Lim 5	Strong Creek	1c
Lim 6	Manchester Creek	1c
Lim 7	Perry Creek/Walsh Creek	1c
Lim 8	Wuhun Creek	1c
Lim 8	Wuhun Creek/ Perry Creek	1c
Lim 10	Perry Creek/ Waverly Creek	1c
Lim 11	Perry Creek/ Tributary	1c
Lim 12	London Creek	1c
Lim 13	Waverly Creek	1c
Lim 14	London Creek	1c
Lim 15	Liverpool Creek	1c
Lim 16	Perry Creek/ London Creek	1c



## MORGAN TRENCHES

<u>TRENCH</u>	<u>ASSAY SAMPLE NAME</u>	<u>AREA</u>	<u>SHEET REFERENCE NUMBER</u>
1 to 7	Numbers 1 to 17	Shorty Creek	12
8	Numbers 18 to 42	Columbia Adit	12a,b
9 to 12	Numbers 43 to 46	Liverpool Creek	12b
15	Numbers 47 to 48	Liverpool Creek	12b
16 to 18	Numbers 56 to 68	Hornestake Shaft	19a
19	Numbers 70	Wuhun Fault (Spring)	19a
20	Numbers 71	Wuhun Fault (Spring)	19a
21 to 24	Numbers 72 to 90	Wuhun Creek	19a

## BAR TRENCHES

1 and 2	11-4e1 - 1 to 11 (UB87-01)	Palmer Bar Cr. (ELCR)	16,17,18,23,24, 36,39
5	11-5 QP	Quartz Pit	36b
6	11-5 HP	Horseshoe Pit	36b
7 and 8	11-5008	Horseshoe Pit	36b
16 to 18	711-10-6	Palmer Bar Cr. (ELCR)	40,37
20 to 23	711-11-1	Palmer Bar Cr.	40,37

## BUCK TRENCHES

1	BK Vein A,B 711-18	Noke Creek	37,40,37b
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# ROCK SAMPLE

<u>Assay Name</u>	<u>Area</u>	<u>Sheet Reference</u>	<u>Note.</u>
N8701 to 05	Negro Creek	3h	-----
Neg B01 & B02	Negro Creek	5g	-----
WB8701	Shorty Creek (W. Bog)	5g	Float
SLDM 5	Shorty Creek	5g	Quartz Vein
W18-01	Wuhun Creek	5g	Skarn Diorite
NWB 87 02	Shorty Creek (W. Bog)	5h	Float
Neg 87 10	Negro Creek	6a	Breccia
Neg 87 20	Negro Creek	6a	Breccia
LDM 9 5H	Wuhun Creek	6a	Quartz
LDM 9 5H DP	Wuhun Creek	6a	Quartz
LDM 9 +200	Wuhun Creek	6a	Quartz
L87100, 101	Liverpool Creek	7c	Quartz Vein
1350 75W BL-2	Liverpool Creek	7c	Float Quartz with Pyrite
F-L-25R	Shorty Creek	7c	Breccia
LB8701,02	Palmer Bar Creek Gossan Hill	17b	Quartz Float
B-01	Palmer Bar Creek	23a	Quartz Stringer
w-01	Wuhun Creek	23a	Diorite Float
Nake Adit	Nake Creek (Adit)	27a	-----
BL 6-10-11	Palmer Bar Creek	27a	-----
Neg100 to 104	Negro Creek	27a	Quartz Vein
WQ1 to WQ4	Wuhun Creek	27a	Float
L87-1	Wuhun Creek	35a	Diorite
L87-2	London Creek	35a	Diorite Float
L87-3	London Creek	35a	Diorite Float
L87-4	Shorty Creek	35a	Float Diorite
L87-5	Manchester Creek	35a	Diorite
L87-7	Walsh Creek	35a	Diorite Float
L87-8	Nake Creek	35a	Diorite Float
L87-9	Palmer Bar Creek	35a	Diorite Float
QP	Quartz Pit	44b	-----
G64	Gossan Hill	44b	-----

## ROCK SAMPLES (Grob)

### Morgan North Block

<u>Sample Number</u>	<u>Area</u>	<u>Description</u>	<u>Reference Sheet</u>
14501	Lisbon Creek	-----	3h
14502	Lisbon Creek	-----	3h
14503	Lisbon Creek	-----	3h
14504	Lisbon Creek	-----	3h
14505	Lisbon Creek	-----	3h
14506	Lisbon Creek	-----	3h
14507	Lisbon Creek	-----	3h
14508	Lisbon Creek	-----	3h
14509	Lisbon Creek	-----	3h
14510	Lisbon Creek	Quartz & Argillite	3h
14511	Lisbon Creek	Quartz & Argillite	3h
14512	Lisbon Creek	Quartz	3h
14513	Lisbon Creek	Argillite (altered)	3h
14514	Lisbon Creek	Argillite (altered) Silicified	3h
14515	Lisbon Creek	Quartz	3h
37809	Sawmill Creek	Blue Quartz	9a
37811	Sawmill Creek	Vein Fault	9a
37812	Sawmill Creek	Specular Hematite	9a
37824	Sawmill Creek	Bull Quartz	9a

### Morgan South Block

14504	Liverpool Creek	Quartz Vein	3h
14516	London Creek	Bull Quartz	3h
14518	London Creek	Bull Quartz	3h
14519	Wuhun Creek	Quartz (dump)	4a
14520	Wuhun Creek	Limonitic Argillite & Quartz	4a
14521	Wuhun Creek	Argillite & Quartz	4a
14522	Waverly Creek	Quartz with Pyrite	4a
14523	Limerick Creek	Quartz	4a
14524	Limerick Creek	Quartz	4a
14525	Strong Creek	Gouge Material	4a

14526	Perry Creek	Argillite (green)	4a
37808	Liverpool Creek	-----	9a
37810	Liverpool Creek	-----	9a
37813	France Creek	-----	4a
37814	France Creek	-----	4a
37815	France Creek	-----	4a
37816	Wuhun Creek	with Hematite	4a
37817	Wuhun Creek	-----	4a
37818	Wuhun Creek	-----	4a
37819	Liverpool Creek	-----	5a
37820	Liverpool Creek	Diorite & Quartz	5a
37821	Liverpool Creek	Siltstone	5a
37822	Liverpool Creek	Bull Quartz	5g
37823	Liverpool Creek	Quartz with Pyrite	5g

① a

**ROSSBACHER LABORATORY LTD.**  
**CERTIFICATE OF ANALYSIS**

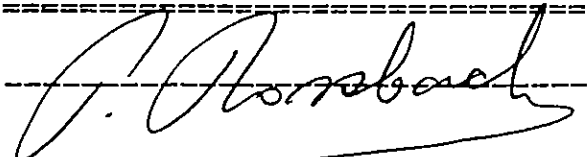
2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87327  
INVOICE#: 7774  
DATE ENTERED: 87-07-16  
FILE NAME: CHA87327  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	PE 000+075E	40	0.2	22	5	18
S	+050E	28	0.2	34	5	12
S	+025E	12	0.2	14	5	10
S	+000	10	0.2	14	5	10
S	+025W	8	0.2	18	5	10
S	+050W	10	0.2	12	5	8
S	+075W	8	0.2	10	5	10
S	+100W	14	0.2	8	5	16
S	PE 000+125W	8	0.2	12	5	4
S	PE 050+075E	10	0.2	8	5	6
S	+050E	6	0.2	8	5	6
S	+025E	10	0.2	10	30	2
S	+000	6	0.2	6	5	2
S	+025W	10	0.2	10	5	4
S	+050W	8	0.2	8	5	4
S	+075W	10	0.2	10	5	4
S	+100W	8	0.2	10	5	8
S	PE 050+125W	10	0.2	8	20	4
S	PE 100+075E	34	0.2	18	5	16
S	+050E	16	0.2	10	5	4
S	+025E	8	0.2	6	5	4
S	+000	32	0.2	8	5	8
S	+025W	10	0.2	8	5	4
S	+050W	10	0.2	8	5	4
S	+075W	14	0.2	12	5	8
S	+100W	12	0.2	8	5	10
S	PE 100+125W	14	0.2	6	5	6
S	PE 150+075E	8	0.2	8	5	4
S	+050E	12	0.2	6	5	4
S	+025E	12	0.2	8	5	2
S	+000	10	0.2	8	5	6
S	+025W	8	0.2	6	5	4
S	+050W	10	0.2	6	5	6
S	+075W	10	0.2	8	5	4
S	+100W	10	0.2	8	5	4
S	FE 150+125W	10	0.2	8	5	8
S	FE 200+075E	14	0.2	10	5	8
S	+050E	8	0.2	6	5	6
S	+025E	12	0.2	6	5	12
S	FE 200+000	8	0.2	6	5	4

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

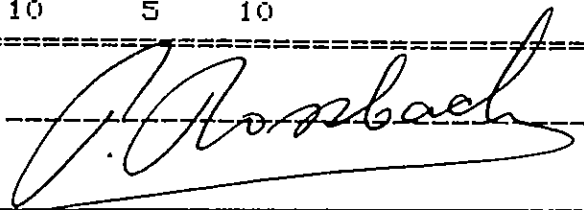
TO : CHAPLEAU RESOURCES LTD.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87327  
 INVOICE#: 7774  
 DATE ENTERED: 87-07-16  
 FILE NAME: CHA87327  
 PAGE # : 2

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	FE 200+025W	14	0.2	16	5	6
S	+050W	10	0.2	10	5	2
S	+075W	8	0.2	8	5	2
S	+100W	8	0.2	8	5	2
S	PE 200+125W	10	0.2	8	5	4
S	PE 250+075E	8	0.2	42	5	12
S	+050E	8	0.2	8	5	4
S	+025E	8	0.2	4	5	6
S	+000	6	0.2	8	5	4
S	+025W	6	0.2	4	5	2
S	+050W	10	0.6	6	5	4
S	+075W	8	0.2	6	5	4
S	+100W	8	0.2	6	5	2
S	PE 250+125W	40	0.2	16	5	12
S	PE 300+075E	12	0.2	6	5	10
S	+050E	6	0.2	4	5	2
S	+025E	8	0.2	4	210	8
S	+000	6	0.2	6	5	6
S	+025W	10	0.2	12	5	4
S	+050W	8	0.2	4	5	4
S	+075W	8	0.2	6	5	2
S	+100W	14	0.2	10	5	4
S	PE 300+125W	8	0.2	8	5	6
S	PE 350+075E	4	0.2	4	5	6
S	+050E	8	0.2	4	5	4
S	+025E	10	0.2	4	5	4
S	+000	8	0.2	4	5	4
S	+025W	4	0.2	2	10	12
S	+050W	8	0.2	6	5	12
S	+075W	8	0.2	8	5	12
S	+100W	8	0.2	8	5	4
S	PE 350+125W	8	0.2	8	5	4
S	PE 400+075E	4	0.2	4	5	2
S	+050E	6	0.2	4	5	8
S	+025E	8	0.2	4	5	6
S	+000	12	0.2	8	5	10
S	+025W	10	0.2	6	5	6
S	+050W	12	0.2	8	5	16
S	+075W	8	0.2	6	5	4
S	FE 400+100W	6	0.2	10	5	10

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87327  
INVOICE#: 7774  
DATE ENTERED: 87-07-16  
FILE NAME: CHA87327  
PAGE # : 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	PE 400+125W	14	0.2	18	5	10
S	PE 450+075E	8	0.2	6	5	2
S	+050E	6	0.2	6	5	4
S	+025E	4	0.2	4	5	8
S	000	8	0.2	8	5	10
S	+025W	8	0.2	6	5	2
S	+050W	8	0.2	6	5	2
S	+075W	10	0.2	12	5	2
S	+100W	12	0.2	8	5	2
S	PE 450+125W	10	0.2	8	5	2
S	PE 500+075E	6	0.2	8	5	6
S	+050E	4	0.2	6	5	2
S	+025E	8	0.2	6	5	4
S	+000	4	0.2	8	5	2
S	+025W	4	0.2	6	5	4
S	+050W	8	0.2	6	5	12
S	+075W	6	0.2	8	5	6
S	+100W	6	0.2	6	5	2
S	PE 500+125W	8	0.2	8	5	4
S	LIM CK 1	2	0.2	6	5	2
S	2	4	0.2	6	5	2
S	Bulke Sample 3	2	0.2	8	5	2
S	4	2	0.2	8	5	2
S	5	4	0.2	6	5	2
S	6	4	0.2	6	5	4
S	7	Manchester 4	0.2	10	860	2
S	8	Walah 4	0.2	6	180	2
S	9	Upper Wuhun 4	0.2	6	3340	2
S	10	4	0.2	8	10	2
S	11	Wuhun(S) 2	0.2	8	800	8
S	12	6	0.2	10	5	2
S	13	4	0.2	6	10	4
S	14	8	0.2	12	5	2
S	15	Liverpool 4	0.2	8	1180	2
S	LIM CK 16	4	0.2	8	5	2

Samples = 99

$\bar{x} = 11.13$

S = 14.26

$\bar{x} + 2S = 39.65$

$\bar{x} + 3S = 53.91$

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Threshold  
*Amptious*  
 Rossbach

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

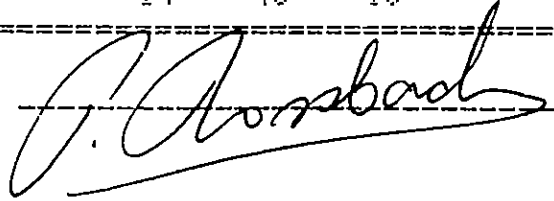
CERTIFICATE#: 87350  
INVOICE#: 7799  
DATE ENTERED: 87-07-29  
FILE NAME: CHP87350  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
8	BL-I 00+00 1000	12	0.2		14	5	12
9	+025E	32	0.2		12	10	18
00	Base line 1 Shorty Creek +050E	6	0.2		16	5	4
00	+100E	8	0.2		14	5	4
00	+025W	2	0.2		6	5	2
00	+040W	12	0.2		10	5	10
00	+050W	8	0.2		8	5	4
00	+100W	10	0.2		16	5	14
00	+150W	12	0.2		14	5	14
00	20 +200W	10	0.2		8	90	10
00	25N+000	28	0.2		14	5	2
00	+025E	12	0.2		8	5	2
00	* → 25N+100E	8	0.2		10	5	2
00	25N+025W	16	0.2		14	10	8
00	+050W	10	0.2		22	5	10
00	+100W	14	0.2		18	5	12
00	+150W	8	0.2		18	5	10
00	25N+200W	8	0.2		22	5	6
00	25S+000	14	0.2		18	5	6
00	+025E	46	0.2		26	5	18
00	+050E	38	0.2		16	190	12
00	25S+100E	2	0.2		4	480	2
00	25S+025W-FAULT	12	0.2		6	5	12
00	+050W	10	0.2		6	5	6
00	+050W	4	0.2		10	140	2
00	25S+100W	18	0.2		14	20	10
00	50S+000	36	0.2		16	50	16
00	50S+025E	60	0.2		20	10	18
00	50N+000	16	0.2		7	5	6
00	+025E	6	0.2		10	5	6
00	+050E	8	0.2		16	20	6
00	50N+100E	10	0.2		12	5	4
00	50N+025W	18	0.2		26	5	16
00	+050W	14	0.2		10	5	10
00	+100W	26	0.2		24	5	18
00	+150W	14	0.2		20	5	14
00	50N+200W	12	0.2		6	5	6
00	→ 70N+018E	24	0.2		18	50	4
00	+060E	10	0.2		16	5	10
00	BL-I 00+072N+100E	10	0.2		14	40	10

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

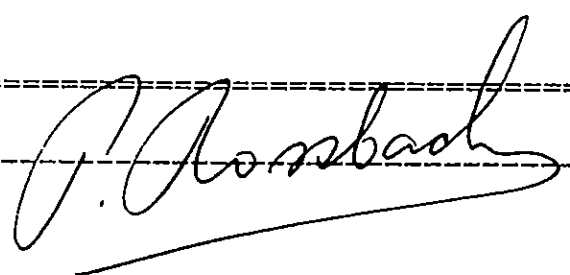
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87350  
INVOICE#: 7799  
DATE ENTERED: 87-07-29  
FILE NAME: CHF87350  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	RL-I 00+075+011E	12	0.2		16	5	14
S	+050E	24	0.2		6	5	8
S	Baseline 1 Shanty Cr 075N+100E	14	0.2		18	5	16
S	100N+025E	28	0.2		12	5	6
S	+050E	14	0.2		4	5	2
S	100N+100E	6	0.2		10	5	2
S	100N+025W	18	0.2		8	5	4
S	+050W	18	0.2		12	5	2
S	+100W	18	0.2		18	5	12
S	100N+150W	10	0.2		18	5	4
S	125N+000	14	0.2		6	5	10
S	+050E	48	0.2		32	5	8
S	+100E	6	0.2		16	5	2
S	125N+150E	14	0.2		16	5	8
S	125N+050W	14	0.2		18	5	26
S	125N+100W	8	0.2		22	5	2
S	150N+050E	16	0.2		20	5	8
S	+100E	16	0.2		14	5	16
S	150N+150E	10	0.2		10	5	2
S	150N+050W	54	0.2		20	5	30
S	RL-I 00+150N+100W	14	0.2		16	5	18
L	SFU 87-10		0.2	70	16	5	
L	-20		0.2	80	32	5	
L	-30		0.4	80	32	5	
L	-40		0.2	50	18	5	
L	SFU 87-50		0.2	90	26	5	
S	★ BL-I 00+025N+050E	6	0.2	26	14	5	2
A	11yd Puma PU 87-01			66.0	>10000	10000	
A	-02			58.0	>10000	10000	
A	-03			28.0	422	8500	
A	-04			4.2	150	1000	
A	PU 87-05			MISSING			
S	BL-I 00+075N	16	0.2		12	5	14
S	00+100N	22	0.2	18	8	5	4
S	BL-I 00+150N	14	0.2	44	16	5	2

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ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

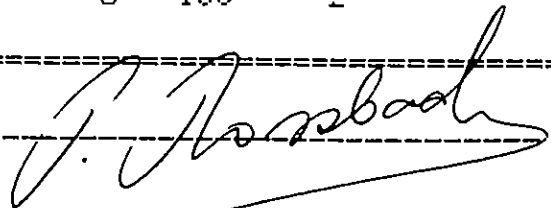
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87379  
INVOICE#: 7829  
DATE ENTERED: 87-08-04  
FILE NAME: CHP87379  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-1 00+050S 200W	14	0.6		12	5	2
S	Base line 1 Shorty Cr 150W	14	0.2		8	5	2
S	100W	6	0.2		12	5	2
S	050W	12	0.2		10	5	2
S	025W	36	0.8		18	5	24
S	00+050S 100E	6	0.4		6	100 -	4
S	00+075S 100W	20	0.2		8	5	12
S	050W	8	0.2		8	5	2
S	025W	16	0.4		6	5	12
S	000	10	0.2		4	20 -	5
S	050E	8	0.2		8	40 -	2
S	00+075S 100E	10	0.2		16	5	4
S	00+100S 200W	14	0.2		14	20	6
S	150W	18	0.2		6	60 -	20
S	100W	12	0.2		8	5	20
S	050W	12	0.2		8	5	8
S	000	14	0.4		12	5	8
S	050E	20	0.2		30	5	18
S	00+100S 100E	12	0.2		20	5	4
S	00+150S 200W	10	0.4		10	5	8
S	150W	18	0.2		12	20 -	8
S	100W	12	0.2		10	80 -	4
S	050W	14	0.2		26	5	10
S	000	8	0.2		28	150 -	2
S	050E	8	0.4		20	40 -	2
S	00+150S 100E	8	0.2		10	5	2
S	00+200S 200W	8	0.2		26	5	54
S	150W	6	0.2		22	5	6
S	100W	10	0.2		46	30 -	18
S	050W	12	0.4		38	5	8
S	000	8	0.2		28	40 -	12
S	050E	8	0.2		24	5	2
S	00+200S 100E	10	0.2		18	5	2
S	00+250S 200E	8	0.2		12	5	6
S	150E	14	0.4		6	5	8
S	100E	8	0.2		8	180 -	2
S	050E )?	4	0.2		4	270 -	2
S	000	4	0.2		18	5	6
S	BL-1 00+250S 050E	8	0.2		6	100	2

CERTIFIED BY :



# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

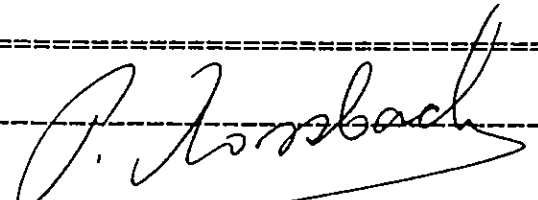
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87379  
INVOICE#: 7829  
DATE ENTERED: 87-08-04  
FILE NAME: CHP87379  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-1 00+300S 200W	12	0.2		6	5	4
S	150W	10	0.2		10	5	2
S	100W	14	0.2		54	5	14
S	050W	14	0.2		20	90 -	12
S	000	14	0.4		20	5	6
S	00+300S 050E	20	0.2		40	120 -	12
S	00+350S 100W	40	0.2		28	300 -	2
S	050W	24	0.2		24	5	8
S	000	8	0.2		2	5	2
S	00+350S 050E	8	0.4		8	5	4
S	00+400S 130W	16	0.2		18	300 -	2
S	050W	14	0.2		18	5	2
S	000	12	0.2		8	5	2
S	00+400S 050E	6	0.2		4	5	2
S	00+450S 000	16	0.4		6	5	20
S	050E	10	0.2		6	40 -	16
S	BL-1 00+450S 080E	124	1.2		50	110 -	14 -
S	BL-2 00+100N 232W	6	0.4		4	5	10
S	200W	6	0.2		4	5	10
S	150W	10	0.4		8	5	16
S	100W	42	0.2		8	5	18
S	050W	14	0.2		6	8	20
S	000	12	0.2		14	5	4
S	00+100N 050E	8	0.2		6	5	4
S	00+150N 190W	10	0.2		8	190 -	4
S	150W	14	0.2		6	5	10
S	100W	8	0.2		4	5	6
S	050W	6	0.2		2	5	4
S	000	6	0.2		12	5	2
S	050E	6	0.2		4	5	2
S	00+150N 100E	2	0.2		2	5	6
S	00+200N 193W	4	0.2		6	5	4
S	150W	14	0.2		20	5	10
S	100W	8	0.2		8	80 -	10
S	050W	8	0.4		4	5	2
S	000	6	0.2		4	5	2
S	050E	12	0.2		4	5	10
S	00+200N 110E	8	0.2		2	5	2
S	00+250N 243W	10	0.4		10	5	4

*Base line 2  
Shoof Creek  
Himerick Creek*

CERTIFIED BY : 

# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5E 3N1  
 TEL : (604) 299 - 6910

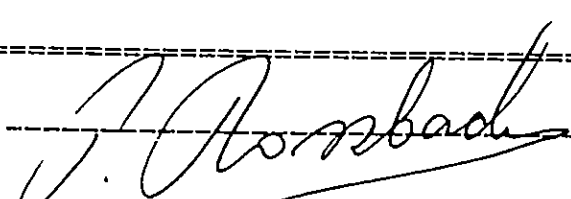
TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87379  
 INVOICE#: 7829  
 DATE ENTERED: 87-08-04  
 FILE NAME: CHP87379  
 PAGE # : 3

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-2 00+250N 200W	6	0.4		6	5	6
S	Base line 2 150W	4	0.2		4	5	6
S	100W	8	0.4		6	5	4
S	Limerick Cr. 050W	8	0.2		6	5	8
S	000	12	0.2		2	5	4
S	050E	4	0.2		2	5	2
S	100E	4	0.2		2	5	2
S	00+250N 150E	6	0.2		10	5	2
S	00+300N 200W	8	0.2		10	5	2
S	150W	8	0.2		4	5	10
S	100W	4	0.2		2	5	2
S	050W	6	0.2		2	5	2
S	000	6	0.2		2	5	2
S	050E	4	0.2		4	5	2
S	100E	6	0.2		10	460 -	2
S	150E	6	0.2		2	5	2
S	00+300N 200E	4	0.2		2	5	2
S	00+350N 238W	8	0.2		8	5	2
S	200W	6	0.4		6	5	2
S	150W	4	0.4		2	5	2
S	100W	12	0.2		4	5	2
S	050W	8	0.2		4	5	2
S	000	2	0.2		2	5	2
S	050E	8	0.4		4	5	2
S	100E	8	0.2		4	5	2
S	150E	6	0.2		6	5	2
S	00+350N 214E	4	0.2		2	5	2
S	00+400N 200W	8	0.2		8	56 -	2
S	150W	6	0.2		4	5	2
S	100W	2	0.2		4	5	2
S	050W	2	0.2		4	5	2
S	000	8	0.2		4	5	2
S	050E	6	0.4		4	5	2
S	100E	2	0.4		2	5	2
S	150E	8	0.4		6	5	2
S	00+400N 200E	6	0.2		10	5	2
S	00+450N 185W	6	0.2		14	3100 -	2
S	150W	4	0.2		2	5	2
S	BL-2 00+450N 100W	4	0.4		6	5	2

CERTIFIED BY :



# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

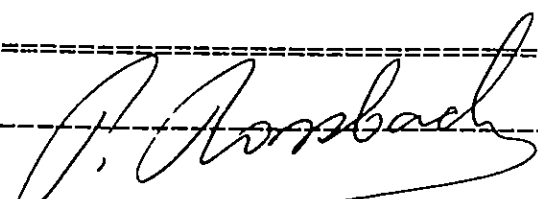
TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87379  
 INVOICE#: 7829  
 DATE ENTERED: 87-08-04  
 FILE NAME: CHP87379  
 PAGE # : 4

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-2 00+450N 050W	12	0.2		6	5	2
S		8	0.2		2	5	2
S	Base line 2 000	12	0.4		4	5	6
S	Limerick Cr 050E	6	0.2		2	5	2
S		4	0.4		2	5	8
S		8	0.2		2	5	4
S	00+450N 255E	4	0.2		4	5	4
S	00+500N 200W	6	0.2		6	5	8
S		10	0.4		6	5	16
S		4	0.2		4	5	6
S		8	0.4		2	5	10
S		8	0.2		2	5	4
S		8	0.2		6	5	10
S		8	0.4		4	5	8
S		6	0.4		4	5	6
S	00+500N 200E	6	0.2		6	5	2
S	00+550N 188W	10	0.2		12	5	6
S		8	0.2		6	5	4
S		4	0.4		2	5	4
S		8	0.2		4	5	4
S		4	0.2		2	5	2
S		4	0.2		4	5	6
S		4	0.2		4	5	4
S	00+550N 150E	14	0.2		8	5	8
S	00+600N 200W	8	0.2		80	230	6
S		10	0.2		8	10	4
S		2	0.2		4	5	2
S		8	0.2		18	5	2
S		10	0.2		2	5	2
S		2	0.2		6	150	2
S		4	0.2		4	5	2
S	00+600N 150E	8	0.4		6	5	2
S	00+650N 185W	12	0.2		4	220	4
S		4	0.2		2	5	2
S		8	0.2		8	5	4
S		12	0.4		4	5	2
S		6	0.4		4	5	4
S		6	0.2		2	5	2
S	BL-2 00+650N 100E	10	0.2		4	5	2

CERTIFIED BY :



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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

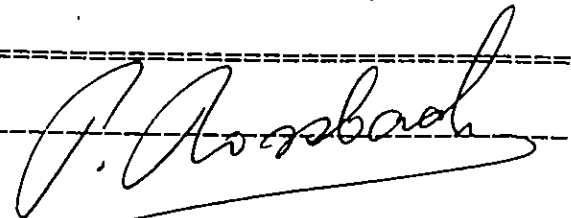
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87379  
INVOICE#: 7829  
DATE ENTERED: 87-08-04  
FILE NAME: CHF87379  
PAGE # : 5

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-2 00+650N 150E	6	0.2		2	5	2
S	00+700N 100W	8	0.2		10	5	2
S	050W	8	0.2		2	5	2
S	000	6	0.2		4	5	2
S	050E	8	0.2		2	5	2
S	100E	14	0.2		6	5	2
S	00+700N 150E	12	0.2		2	5	10
S	00+750N 144W	8	0.2		8	5	2
S	100W	8	0.2		4	5	2
S	050W	10	0.2		4	5	2
S	000	14	0.2		6	5	2
S	050E	4	0.2		2	5	2
S	100E	6	0.2		4	5	2
S	00+750N 150E	8	0.2		10	5	8
S	00+800N 150W	8	0.2		6	5	8
S	Baseline 2 100W	10	0.2		8	5	8
S	050W	10	0.2		6	460	10
S	Limemack Cr 000-A	4	0.2		6	5	10
S	000-B	4	0.2		2	5	8
S	050E	4	0.2		2	90	2
S	100E	10	0.2		2	5	2
S	00+800N 150E	6	0.2		8	5	2
S	00+850N 087W	10	0.2		12	5	4
S	050W	10	0.2		4	5	2
S	050E	8	0.2		2	5	6
S	100E	8	0.2		4	10	6
S	00+850N 150E	6	0.2		4	40	2
S	00+900N 300W	8	0.2		6	5	16
S	250W	16	0.2		12	5	8
S	200W	14	0.2		6	5	12
S	150W	12	0.2		4	5	2
S	100W	10	0.2		8	5	2
S	050W	10	0.2		8	5	2
S	000	12	0.2		12	5	2
S	050E	8	0.2		2	5	2
S	100E	12	0.2		4	5	2
S	150E	8	0.2		4	5	2
S	200E	MISSING					
S	BL-2 00+900 250E	4	0.2		4	5	2

CERTIFIED BY :



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**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

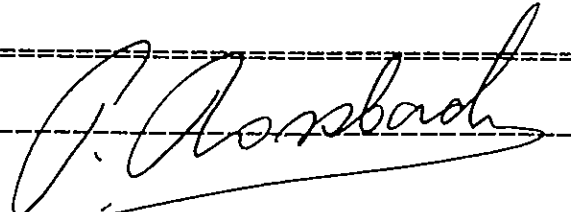
**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87379  
 INVOICE#: 7829  
 DATE ENTERED: 87-08-04  
 FILE NAME: CHP87379  
 PAGE # : 6

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As	
S	BL-2 00+900N 300E	4	0.2		2	5	2	
S	00+950N 300W	10	0.2		16	5	2	
S	250W	8	0.2		14	5	2	
S	200W	10	0.2		10	10	2	
S	150W	10	0.2		4	5	2	
S	100W	12	0.2		6	5	2	
S	050W	10	0.2		4	5	2	
S	00+ 950N 000	12	0.2		10	5	2	
S	00+1000N 200W	16	0.2		10	5	6	
S	150W	16	0.4		12	5	6	
S	100W	6	0.2		4	220-	2	
S	050W	8	0.4		8	60-	6	
S	BL-2 00+1000N 000W	10	0.2		8	20	2	
S	BL-2 01+ 050N 200W	14	0.2		8	5	2	
S	(1,050N) 150W	10	0.4		6	5	2	
S	100W	16	0.2		6	5	2	
S	050W	24	0.2		8	5	2	
S	01+050N 000	10	0.2		6	150-	2	
S	01+100N 100W	10	0.2		4	5	2	
S	050W	26	0.2		20	5	2	
S	Baseline 2 000	16	0.2		10	5	2	
S	Limerick C 050E	10	0.2		6	30-	2	
S	100E	10	0.2		12	10	2	
S	150E	8	0.2		6	5	2	
S	200E	MISSING						
S	250E	4	0.2		6	20	2	
S	300E	8	0.2		10	5	2	
S	01+100N 350E	4	0.2		4	5	2	
S	01+150N 100W	12	0.2		6	5	2	
S	050W	16	0.2		6	10	2	
S	000	10	0.2		10	5	4	
S	01+150N 050E	26	0.2		12	5	2	
S	01+200N 100W	18	0.2		12	5	2	
S	050W	14	0.2		12	5	8	
S	000	10	0.2		22	5	10	
S	052E	14	0.2		8	5	8	
S	01+200N 100E	16	0.2		16	5	8	
S	01+250N 050W	28	0.2		8	90-	12	
S	BL-2 01+250N 000	14	0.6		14	10	12	

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**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

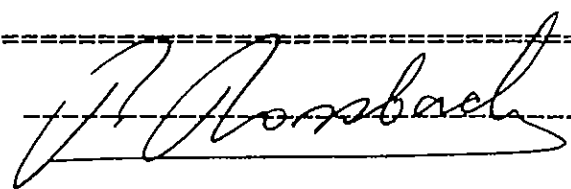
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87379  
INVOICE#: 7829  
DATE ENTERED: 87-08-04  
FILE NAME: CHP87379  
PAGE # : 7

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-2 01+250N 050E	16	0.4		6	5	8
S	BL-2 01+250N 100E	32	0.2		8	5	12
S	KP 87-01	8	0.4	86	10	5	
S	BL-1 00+75S 025E	10	0.6	36	18	50	4

CERTIFIED BY :





**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

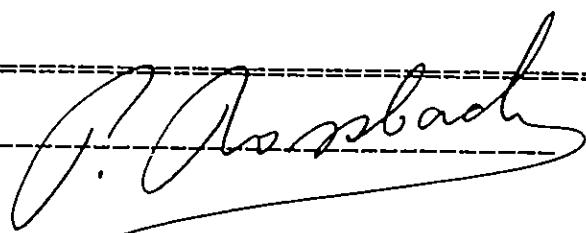
TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87379  
 INVOICE#: 7829  
 DATE ENTERED: 87-08-04  
 FILE NAME: CHF87379  
 PAGE # : 8

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	Ra. 10 14501	80	0.4		52	5	6
A	10 14502	42	0.6		10	10	8
A	11 14503	4	0.4		4	5	2
A	HM 14504	312	4.2		1280	22400	154
A	Rock 11 14505	12	0.2		14	40	2
A	" 10 14506 -	12	0.2		6	20	6
A	10 14507	4	0.2		4	5	2
A	10 14508	8	0.2		2	5	2
A	10 14509	2	0.2		2	5	2
A	7 14510	2	0.2		2	5	2
A	10 14511	330	0.4		86	5	4
A	10 14512	104	0.2		26	5	2
A	14513	4	0.2		2	5	2
A	14514	74	0.2		42	5	2
A	14515	334	1.8		90	5	16
A	14516	6	0.4		8	5	2
A	14517	2	0.4		2	5	2
A	14518	2	0.2		10	5	2
A	Negro N 87-01					5	
A	-02			80	28		
A	-03			36	10	5	2
A	-04			40	64	5	2
A	N 87-05			32	24	5	20

CERTIFIED BY :



(4)6

# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 7N1  
TEL : (604) 299-2510

TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

*Perry*

CERTIFICATE#: 87385  
INVOICE#: 7871  
DATE ENTERED: 87-08-12  
FILE NAME: CHF87385  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
A	37813	4	0.2	12	5	2
A	37814	4	0.2	8	5	4
A	37815	4	0.2	10	5	2
A	37816	6	0.4	102	130	2
A	37817	10	0.2	30	40	2
A	37818	2	0.2	4	5	2
A	14519	2	0.2	4	5	8
A	14520	2	0.2	4	5	2
A	14521	12	0.2	28	5	4
A	14522	388	6.8	720	14000	2
A	14523	6	0.2	4	5	4
A	14524	4	0.2	12	40	4
A	14525	2	0.2	4	5	2
S	01+300N+000E	16	0.2	8	5	2
S	+050E	8	0.2	38	5	2
S	+100E	22	0.2	10	5	4
S	+150E	12	0.2	18	20	2
S	+194E	8	0.2	12	10	2
S	+310E	4	0.2	6	5	2
S	+350E	8	0.2	8	5	2
S	+400E	6	0.2	10	5	2
S	01+300N+050W	16	0.2	20	5	2
S	01+350N+000	10	1.0	16	5	2
S	+050E	42	0.4	14	5	2
S	+100E	20	0.2	14	5	2
S	+150E	20	0.4	12	5	2
S	+200E	10	0.2	8	5	2
S	+250E	8	0.2	12	5	2
S	+365E	10	0.4	12	5	2
S	+400E	8	0.4	12	5	2
S	+450E	10	0.4	10	5	2
S	01+350N+050W	10	0.4	8	5	2

012  
Shorty Creek  
Base line 2

CERTIFIED BY :

*J. Rossbach*

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES LTD.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87435  
 INVOICE#: 7924  
 DATE ENTERED: 87-08-24  
 FILE NAME: CHP87435  
 PAGE # : 1

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	<i>off to right</i> FC-BL 1 1+ 00	18	0.4	86	16	5	20
S	1+ 50 -	12	0.2	76	8	5	22
S	9 BL#4 1+ 75	20	0.4	66	24	5	24
S	1+ 100	22	0.2	58	14	5	24
S	Palmar Bar 1+ 150	12	0.4	56	12	30	16
S	1+ 200	16	0.2	62	20	130	28
S	Base line 1 1+ 250	18	0.2	62	18	5	26
S	1+ 300	26	0.4	66	26	5	30
S	1+ 350	10	0.2	50	14	5	22
S	1+ 400	12	0.2	50	14	5	20
S	1+ 450	16	0.2	86	16	5	16
S	1+ 500	18	0.4	70	24	10	24
S	1+ 550	12	0.2	56	10	5	22
S	1+ 600	10	0.2	62	10	5	12
S	1+ 650	10	0.2	76	12	5	10
S	1+ 700	26	0.2	60	16	5	16
S	1+ 800	12	0.4	68	12	5	14
S	1+ 850	10	0.2	70	10	50	16
S	1+ 900	10	0.4	66	6	5	14
S	FC-BL 1 1+ 950	14	0.4	108	10	30	20
S	Base line 1 1+1000	14	0.4	90	10	5	18
S	Palmar Bar 1+1050	18	0.4	90	12	5	10
S	1+1100	12	0.2	88	10	10	22
S	1+1150	16	0.2	44	10	5	18
S	1+1200	12	0.2	58	6	5	20
S	1+1250	14	0.2	56	8	5	14
S	1+1300	18	0.4	58	10	5	14
S	1+1350	10	0.2	82	8	5	16
S	1+1400	10	0.2	64	8	5	12
S	1+1450	16	0.2	56	8	20	18
S	1+1500	10	0.2	56	6	5	14
S	1+1550	16	0.2	72	10	5	16
S	1+1600	12	0.4	96	8	5	12
S	1+1650	18	0.2	80	8	5	12
S	1+1700	10	0.2	68	10	5	14
S	1+1750	10	0.2	86	10	5	18
S	1+1800	8	0.4	90	8	5	16
S	1+1850	10	0.2	98	10	5	12
S	FC-BL 1 1+1900	8	0.4	80	8	5	12

39

CERTIFIED BY : *J. Rossbach*

# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87435  
INVOICE#: 7924  
DATE ENTERED: 87-08-24  
FILE NAME: CHP87435  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	FC-BL 1 1+1950	16	0.2	90	12	5	12
S	1+2000	8	0.2	52	16	5	10
S	1+2050	18	0.2	80	20	5	24
S	<i>Palmar Bar Creek</i> 1+2100	16	0.2	148	22	5	14
S	1+2150	20	0.2	82	20	5	22
S	<i>Base line</i> 1+2200	16	0.2	92	18	5	20
S	1+2250	18	0.2	166	20	5	12
S	1+2300	30	0.2	136	34	5	20
S	1+2350	14	0.2	110	16	5	12
S	1+2400	16	0.2	60	12	5	16
S	FC-BL 1 1+2450	12	0.4	64	8	5	10
S	FC-BL 2 2+ 00	24	0.4	84	40	5	16
S	2+ 50	10	0.2	62	12	5	8
S	2+ 100	10	0.2	36	12	5	16
S	2+ 150	16	0.2	48	12	5	6
S	<i>Base line 2</i> 2+ 200	18	0.2	56	22	5	14
S	2+ 250	12	0.2	48	10	5	8
S	2+ 300	10	0.2	52	14	5	6
S	2+ 350	10	0.2	52	8	5	4
S	FC-BL 2 2+ 400	20	0.2	86	18	5	16
S	2+ 450	12	0.2	44	18	5	12
S	2+ 500	6	0.2	46	12	5	10
S	2+ 550	10	0.2	70	16	5	10
S	2+ 600	12	0.2	48	14	5	12
S	2+ 650	6	0.2	38	8	5	12
S	2+ 700	6	0.2	52	8	5	16
S	<i>Palmar Bar Creek</i> 2+ 750	10	0.2	66	12	5	10
S	2+ 800	20	0.2	78	16	5	20
S	2+ 850	10	0.4	48	14	5	10
S	2+ 900	8	0.4	80	12	5	8
S	<i>Base line 2:</i> 2+ 950	14	0.2	52	12	5	12
S	2+1000	8	0.2	94	12	5	16
S	2+1050	6	0.4	52	8	5	8
S	2+1100	10	0.2	76	16	5	12
S	2+1200	14	0.2	64	12	5	10
S	2+1300	16	0.4	56	14	5	14
S	2+1450	8	0.2	52	10	5	16
S	2+1550	8	0.2	54	14	5	6
S	2+1750	12	0.4	62	10	5	10
S	FC-BL 2+1800	8	0.2	48	8	5	4

CERTIFIED BY : *J. Rossbach*

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

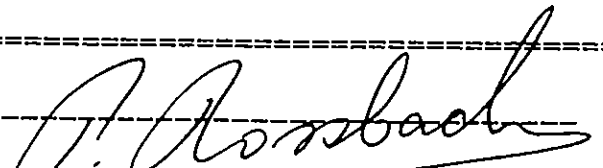
**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES LTD.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87435  
 INVOICE#: 7924  
 DATE ENTERED: 87-08-24  
 FILE NAME: CHP87435  
 PAGE # : 3

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	C-BL B1 0+ 00	34	0.2	56	10	5	14
S	0+ 25	32	0.4	98	10	5	6
S	0+ 50	18	0.4	92	10	5	14
S	0+ 75	154	0.4	86	12	5	20
S	0+100	64	0.2	84	8	5	12
S	0+125	76	0.2	108	10	5	26
S	0+150	38	0.2	98	12	5	16
S	<i>Cooson Hill</i> 0+175	34	0.2	36	10	5	16
S	0+200	74	0.6	68	26	50	60
S	0+225	16	0.2	68	14	5	16
S	0+250	8	0.2	68	8	5	8
S	0+275	20	0.2	48	8	5	8
S	0+300	12	0.2	70	10	5	20
S	0+325	12	0.2	86	14	5	10
S	0+350	16	0.2	64	10	5	12
S	0+375	12	0.2	60	10	5	12
S	0+400	14	0.2	62	12	5	16
S	0+425	10	0.2	132	30	5	8
S	0+450	18	0.2	66	10	5	10
S	C-BL B1 0+475	10	0.2	48	6	5	6
S	C-BL B2 0+ 00	MISSING					
S	0+ 25	MISSING					
S	0+ 50	MISSING					
S	0+ 75	MISSING					
S	0+100	MISSING					
S	0+125	MISSING					
S	0+150	MISSING					
S	0+175	MISSING					
S	0+200	MISSING					
S	0+225	MISSING					
S	0+250	MISSING					
S	0+275	MISSING					
S	0+300	MISSING					
S	0+325	MISSING					
S	0+350	MISSING					
S	0+375	MISSING					
S	0+400	MISSING					
S	0+425	MISSING					
S	0+450	MISSING					



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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87435  
INVOICE#: 7924  
DATE ENTERED: 87-08-24  
FILE NAME: CHP87435  
PAGE # : 4

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	C-BL B2 0+475						
S	C-BL B2 0+500						
S	C-BL B1E 0+ 25	42	0.2	62	12	5	2
S	0+ 50	42	0.4	60	8	5	2
S	0+ 75	36	0.4	92	16	5	12
S	0+100	24	0.2	38	10	5	4
S	0+125	18	0.2	64	8	5	4
S	0+150	20	0.2	36	4	5	2
S	0+175	40	0.2	38	4	5	14
S	0+200	20	0.2	38	4	5	12
S	0+225	12	0.2	54	6	5	18
S	0+250	14	0.2	92	8	5	10
S	Gosson Hill 0+275	6	0.2	28	4	5	12
S	0+300	10	0.2	92	6	5	2
S	0+325	14	0.2	84	6	5	2
S	0+350	8	0.2	86	8	5	6
S	0+375	16	0.2	54	8	5	2
S	0+400	14	0.2	60	12	5	6
S	0+425	12	0.2	54	8	5	2
S	C-BL B1E 0+450	10	0.2	72	8	5	6
S	C-BL B2E 0+ 50	38	0.2	60	12	5	10
S	0+100	26	0.2	24	40	5	4
S	0+150	24	0.4	46	22	5	4
S	0+200	10	0.4	46	4	5	2
S	0+250	12	0.2	96	4	5	6
S	0+300	8	0.2	40	8	5	16
S	0+350	30	0.2	120	8	5	14
S	0+400	20	0.2	102	8	5	12
S	C-BL B2E 0+450	30	0.2	122	24	5	20
S	C-BL B3E 0+ 00	16	0.2	8	12	5	10
S	0+ 50	38	0.2	50	6	5	8
S	0+100	110	0.2	52	40	5	8
S	0+150	128	0.2	14	8	5	14
S	0+200	50	0.2	24	2	10	12
S	0+250	52	0.2	62	24	5	10
S	0+300	28	0.2	50	22	5	16
S	0+350	4	0.2	34	4	5	4
S	0+400	6	0.2	76	4	5	10
S	C-BL B3E 0+450	8	0.2	84	12	5	10

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87435  
INVOICE#: 7924  
DATE ENTERED: 87-08-24  
FILE NAME: CHP87435  
PAGE # : 5

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	C-BL B3E 0+500	18	0.2	62	12	5	6
S	C-BL B4E 0+ 00	10	0.2	92	12	5	2
S	0+ 50	8	0.2	66	10	5	2
S	0+100	14	0.2	60	12	5	2
S	0+150	8	0.2	72	8	5	8
S	0+200	18	0.2	54	8	5	8
S	<i>Gosson Hill</i> 0+250	16	0.2	48	10	5	4
S	0+300	24	0.2	74	12	5	10
S	0+350	46	0.2	110	12	5	26
S	0+400	18	0.2	64	14	5	4
S	0+450	12	0.2	44	8	5	8
S	0+500	6	0.2	38	6	5	2
S	C-BL B4E 0+550	10	0.2	62	6	5	6
S	C-BL B2W 0+100	20	0.2	104	6	5	2
S	0+150	147	0.2	120	8	10	2
S	0+200	16	0.2	64	6	5	2
S	0+250	10	0.2	62	10	5	4
S	0+300	6	0.2	80	8	5	6
S	0+350	12	0.2	76	20	5	8
S	0+400	8	0.2	98	26	5	10
S	C-BL B2W 0+450	12	0.4	74	14	5	6
S	<i>Wuhun Creek</i> <i>Base line #</i> BL-4 00+ 50E + 50S	4	0.2	40	4	5	4
S	+ 00	6	0.2	58	4	5	6
S	+ 50N	10	0.2	54	10	5	8
S	+100N	6	0.2	44	8	5	12
S	+150N	10	0.4	46	14	5	12
S	+200N	6	0.4	42	10	5	6
S	+250N	4	0.2	40	6	5	6
S	BL-4 00+ 50E +300N	16	0.4	56	12	5	8
S	BL-4 00+100E + 50S	4	0.2	40	8	5	6
S	+ 00	6	0.4	44	6	5	12
S	+ 50N	16	0.6	54	12	5	12
S	+100N	8	0.2	36	12	5	16
S	+150N	8	0.2	40	12	5	16
S	+200N	16	0.4	54	10	5	<del>56</del>
S	BL-4 00+100E +250N	12	0.2	58	12	5	<del>24</del>
S	BL-4 00+150E +100S	12	0.2	56	8	5	<del>18</del>
S	+ 00	4	0.2	48	8	5	12
S	BL-4 00+150E + 50N	6	0.4	62	20	5	12

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BURNABY, B.C. V5B 3N1  
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CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87435  
INVOICE#: 7924  
DATE ENTERED: 87-08-24  
FILE NAME: CHP87435  
PAGE # : 6

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-4 00+150E +100N	12	0.4	50	14	5	64
S	+150N	30	0.4	44	20	5	106
S	+200N	14	0.2	40	14	5	30
S	+250N	6	0.2	68	16	5	12
S	+350N	8	0.2	50	14	5	24
S	+400N	14	0.2	36	10	5	8
S	BL-4 00+150E +450N	8	0.2	44	10	5	14
S	BL-4 00+200E + 50S	8	0.2	54	16	5	28
S	+ 50N	8	0.2	48	8	5	22
S	+100N	8	0.2	62	18	5	22
S	+150N	20	0.2	50	26	5	104
S	+200N	8	0.2	42	16	5	6
S	+300N	6	0.2	68	14	5	8
S	BL-4 00+200E +350N	8	0.2	80	14	5	8
S	BL-4 00+250E +150S	8	0.2	52	8	5	8
S	+100S	8	0.2	48	10	5	20
S	+ 50S	6	0.2	54	8	5	12
S	+ 00	6	0.2	60	12	5	14
S	+ 50N	8	0.2	38	8	5	36
S	+100N	18	0.2	46	8	50	26
S	+150N	20	0.2	46	20	5	134
S	+200N	8	0.2	38	14	5	24
S	+250N	6	0.2	66	8	5	16
S	+300N	6	0.2	86	26	5	24
S	+350N	6	0.2	38	34	5	18
S	+400N	6	0.2	46	6	5	14
S	BL-4 00+250E +450N	6	0.2	48	6	5	8
S	BL-4 00+00 +200S	14	0.2	54	8	5	16
S	+150S	12	0.2	44	8	5	18
S	+100S	8	0.2	40	6	5	6
S	+ 50S	8	0.2	42	8	5	8
S	+ 00	6	0.2	28	6	5	6
S	+ 50N	6	0.2	28	6	5	6
S	+100N	8	0.2	44	12	5	50
S	+150N	8	0.2	46	8	5	24
S	BL-4 00+00 +200N	20	0.2	48	16	5	50
S	BL-4 00+50W +150S	10	0.2	30	12	5	16
S	+100S	10	0.2	40	8	5	6
S	BL-4 00+50W + 50S	6	0.2	32	6	5	12

CERTIFIED BY :

*Rossbach*



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**CERTIFICATE OF ANALYSIS**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87435  
INVOICE#: 7924  
DATE ENTERED: 87-08-24  
FILE NAME: CHP87435  
PAGE # : 8

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	NWB 87-02 ✓ <i>nw 8.7</i>	20	0.2	24	2	5	10

*178 17 PE*

CERTIFIED BY :

*J. Rossbach*

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES LTD.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87435  
 INVOICE#: 7924  
 DATE ENTERED: 87-08-24  
 FILE NAME: CHF87435  
 PAGE # : 7

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL-4 00+50W + 00	10	0.2	36	12	5	2
S	+ 50N	6	0.2	40	10	5	8
S	+100N	14	0.2	54	16	5	10
S	BL-4 00+50W +150N	10	0.2	46	10	5	6
S	BL-4 00+100W +200S	20	0.2	48	10	5	10
S	Base line 4 +150S	14	0.2	32	8	5	8
S	Wuhon Cr +100S	6	0.4	26	8	5	8
S	+ 50S	8	0.2	30	6	5	4
S	+ 00	22	0.4	18	4	5	8
S	BL-4 00+100W + 50N	8	0.2	38	10	5	2
S	BL-4 00+150E + 50S	6	0.2	38	10	5	8
S	BL-4 00+150E +300N	12	0.2	56	10	5	12
S	A 300+25E	22	0.2	48	12	5	6
S	B 300+25E	16	0.2	50	8	5	4
S	C 300+25E	6	0.2	30	4	5	4
S	D 300+25E	8	0.2	36	8	5	4
S	C-BL B1 2+ 500	10	0.2	48	4	5	6
S	C-BL 2 2+1150	8	0.2	54	6	5	8
S	C-BL 2 2+1250	18	0.2	58	8	5	12
S	C-BL 2 2+1350	18	0.2	62	12	5	10
S	C-BL 2 2+1400	14	0.2	54	10	5	12
S	C-BL 2 2+1500	10	0.2	38	4	5	2
S	C-BL 2 2+1600	12	0.2	60	8	5	6
S	C-BL 2 2+1650	10	0.2	42	8	5	2
S	C-BL 2 2+1700	14	0.2	46	8	5	4
S	C-BL B2 0+ 00	100	0.2	100	18	5	4
S	C-BL B2 0+ 50	54	0.2	66	6	5	16
A	✓ 37819	150	1.8	46	4	7800	44
A	✓ 37820	6	0.2	26	4	840	14
A	✓ 37821	6	0.2	14	2	60	22
A	✓ 37822	34	0.6	22	88	5	56
A	✓ 37823	8	1.4	30	118	30	22
A	✓ N.BIK 37824	2	0.2	4	4	5	8
A	✓ 14526	4	0.2	6	6	5	16
A	+ NEG-B-01	18	0.2	12	22	10	124
A	+ NEG-B-02	4	0.2	12	32	5	16
A	GMR-216 ✓	10	0.2	50	12	5	18
A	with b.gWB 87-01 ✓	940	0.8	12	10	5	12
A	SLDM 5 ✓	6000	0.6	10	2	50	6
A	with W18-01 ✓	80	0.4	104	4	50	2240

→ Negro Creek  
 Gravity Station

See on p. 1.

CERTIFIED BY :

*[Signature]*

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BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87439  
INVOICE#: 7923  
DATE ENTERED: 87-08-21  
FILE NAME: CHP87439  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-4 00+200E+100N	12	0.2	26	5	40
S	Base line 4 +200N	16	0.6	14	5	26
S	Wohon Creek. +250N	12	0.4	10	5	14
S	+400N	8	0.4	18	5	14
S	00+200E+450N	16	0.2	16	5	10
S	00+300E+200S	8	0.6	14	5	8
S	+150S	4	0.2	6	5	12
S	+100S	8	0.4	6	5	12
S	+ 50S	8	0.2	8	5	22
S	+ 00	6	0.2	10	5	10
S	+ 50N	8	0.2	14	5	16
S	+100N	22	0.2	20	5	32
S	+150N	8	0.2	4	5	12
S	+200N	8	0.4	10	5	22
S	+250N	8	0.6	10	5	26
S	+300N	26	0.2	14	5	12
S	+350N	8	0.4	16	5	16
S	+400N	10	0.2	30	5	20
S	00+300E+450N	18	0.2	4	5	8
S	00+350E+250S	8	0.2	8	5	14
S	+200S	6	0.2	6	5	6
S	+150S	4	0.2	4	5	4
S	+100S	4	0.2	6	5	12
S	+ 50S	6	0.2	6	5	6
S	+ 00	6	0.2	8	5	6
S	+ 50N	8	0.2	12	5	4
S	+100N	6	0.2	12	5	8
S	+150N	4	0.2	8	5	12
S	+200N	4	0.2	4	5	2
S	+250N	6	0.4	10	5	10
S	+300N	MISSING				
S	00+350E+350N	MISSING				
S	00+400E+150S	4	0.2	6	5	16
S	+100S	6	0.2	10	5	10
S	+ 50S	8	0.2	8	5	12
S	BL-4 00+400E+ 00	6	0.2	8	5	10
A	Base line 4 NEG 87-10 creek	4	0.2	24	5	26
A	Wohon Cr NEG 87-20	4	0.2	18	5	14
A	LDM9-SH wohon	4	0.2	4	5	20
A	LDM9-SH DP wohon	6	0.2	2	5	22

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ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87439  
INVOICE#: 7923  
DATE ENTERED: 87-08-21  
FILE NAME: CHP87439  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
A	LDM9-200' AB DP <i>Water</i> <i>air</i>	4	0.2	2	5	16

CERTIFIED BY :

*J. Rossbach*

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

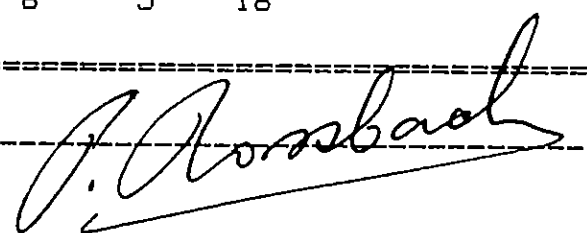
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87497  
INVOICE#: 70002  
DATE ENTERED: 87-09-04  
FILE NAME: CHP87497  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-3 00+150W+300S	10	0.2	12	5	12
S	+250S	10	0.2	4	5	18
S	+200S	18	0.2	4	5	26
S	+150S	8	0.2	8	5	8
S	+100S	6	0.2	8	5	10
S	+ 50S	12	0.2	10	5	10
S	+ 00	8	0.2	12	5	6
S	+ 50N	10	0.4	10	5	14
S	+100N	10	0.2	10	5	22
S	+150N	12	0.2	6	5	18
S	+200N	14	0.2	8	5	22
S	+250N	10	0.2	6	5	18
S	150W+300N	14	0.2	10	5	16
S	200W+300S	8	0.2	8	5	10
S	+250S	8	0.2	8	5	8
S	+200S	10	0.2	10	5	20
S	+150S	8	0.2	8	<del>40</del>	6
S	+100S	14	0.2	10	<del>750</del>	12
S	+ 50S	8	0.2	10	10	24
S	+ 00	6	0.2	12	5	20
S	+ 50N	10	0.4	6	5	26
S	+100N	20	0.2	10	5	32
S	+150N	14	0.2	8	5	22
S	+200N	10	0.2	6	5	26
S	+250N	20	0.2	10	5	44
S	200W+300N	14	0.2	6	5	20
S	250W+250S	8	0.2	6	100	10
S	+200S	10	0.2	8	5	14
S	+150S	10	0.2	6	5	8
S	+100S	16	0.2	10	5	16
S	+ 50S	10	0.2	4	5	12
S	+ 00	6	0.2	2	5	14
S	+ 50N	6	0.2	8	5	22
S	+100N	34	0.2	6	5	20
S	+150N	20	0.2	12	5	36
S	+200N	10	0.2	4	210	14
S	+250N	10	0.2	4	40	20
S	250W+300N	12	0.2	4	5	20
S	BL-3 00+ 50E+ 00	8	0.2	6	5	16

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

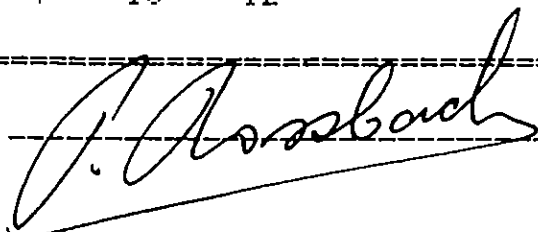
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87497  
INVOICE#: 70002  
DATE ENTERED: 87-09-04  
FILE NAME: CHP87497  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-3 00+ 50E+ 50N	10	0.2	4	5	16
S	Base line 3 +100N	14	0.2	4	5	20
S	+150N	38	0.4	18	5	36
S	Liverpool Creek +200N	12	0.4	8	5	14
S	+250N	4	0.2	2	5	2
S	50E+300N	6	0.4	8	5	2
S	100E+ 00	8	0.2	8	5	8
S	+ 50N	12	0.2	8	5	8
S	+100N	22	0.2	6	5	14
S	+150N	30	0.2	10	5	34
S	+200N	18	0.2	12	5	14
S	+250N	6	0.2	4	50	2
S	100E+300N	12	0.2	8	5	16
S	150E+ 00	8	0.2	2	5	8
S	+ 50N	8	0.2	4	5	8
S	+100N	14	0.2	4	130	14
S	+150N	26	0.2	6	5	20
S	+200N	6	0.2	6	5	2
S	+250N	2	0.2	2	5	4
S	+300N	6	0.2	8	5	6
S	200E+ 00	14	0.2	4	5	20
S	+ 50N	22	0.2	4	5	30
S	+100N	10	0.2	4	5	12
S	+150N	4	0.2	2	5	6
S	+200N	8	0.2	6	5	20
S	+250N	4	0.2	2	410	8
S	200E+300N	4	0.2	2	5	8
S	250E+ 00	14	0.2	2	5	10
S	+ 50N	12	0.2	4	5	12
S	+100N	16	0.2	4	5	10
S	+150N	4	0.2	2	5	8
S	+200N	4	0.2	2	5	2
S	+250N	6	0.2	4	5	2
S	+300N	6	0.2	6	2	8
S	250E+350N	8	0.2	2	170	10
S	300E+150N	4	0.2	2	5	6
S	+200N	10	0.4	4	5	6
S	+250N	6	0.2	4	240	4
S	BL-3 00+300E+300N	8	0.2	4	10	12

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87497  
INVOICE#: 70002  
DATE ENTERED: 87-09-04  
FILE NAME: CHF87497  
PAGE # : 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-3 00+300E+350N	8	0.4	2	5	14
S	BL-5 00+500S+ 50E	10	0.2	10	5	8
S	+ 00	10	0.2	8	5	20
S	+ 50W	6	0.2	6	5	8
S	+100W	8	0.2	6	5	18
S	+150W	8	0.2	8	5	6
S	500S+200W	10	0.2	10	60	12
S	550S+ 50E	8	0.2	6	5	12
S	+ 00-A	6	0.4	6	5	20
S	+ 00-B	14	0.4	8	5	16
S	+ 50W	10	0.4	8	5	12
S	+100W	10	0.2	10	5	18
S	+150W	8	0.2	6	5	20
S	550S+200W	8	0.2	14	5	12
S	600S+100E	8	0.2	4	5	6
S	+ 50E	10	0.2	8	5	8
S	+ 00	8	0.2	8	5	2
S	+ 50W	6	0.2	4	10	12
S	600S+100W	6	0.4	6	5	14
S	650S+100E	6	0.2	6	5	14
S	+ 50E	12	0.2	8	5	20
S	+ 00	10	0.2	8	5	24
S	+ 50W	6	0.2	2	5	22
S	650S+100W	4	0.2	4	5	18
S	700S+100E	8	0.2	8	5	16
S	+ 50E	6	0.2	6	5	12
S	+ 00	10	0.2	6	5	4
S	+ 50W	10	0.2	6	5	8
S	700S+100W	8	0.2	6	5	10
S	750S+100E	6	0.2	4	5	12
S	+ 60E	6	0.4	4	5	8
S	+ 00	6	0.2	4	5	12
S	+ 50W	10	0.2	6	5	18
S	BL-5 00+750S+100W	8	0.2	6	5	18
A	100M Bar L B7-100	10	0.2	44	20	4
A	Rock 504 L B7-101	8	0.4	56	100	30
A	1350-75W	1840	0.6	34	5	4
A	F-L25R	262	0.8	34	5	8

Base Line 5  
London Creek

} Rock chip  
?

Printed 9/10/87  
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② a

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 0910

## CERTIFICATE OF ANALYSIS

TO : CHEM LEAD RESOURCES INC.  
1100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87513  
INVOICE#: 70022  
DATE ENTERED: 87-09-08  
FILE NAME: CHF87513  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL 3N 0+050N 300W	10	0.2	12	280	20
S	100	10	0.2	18	5	10
S	Baseline 3 Liverpool Creek 150	24	0.2	10	5	12
S	200	16	0.2	4	5	6
S	250	6	0.2	2	40	2
S	1 BL 3N 0+300	12	0.2	2	5	10
S	3 BL 300W 0+000S	4	0.2	2	110	2
S	050S	6	0.2	6	90	2
S	100S	2	0.2	2	20	2
S	150S	8	0.2	8	5	2
S	200S	10	0.2	6	5	2
S	250S	6	0.2	6	5	2
S	BL 300W 0+300S	24	0.2	10	5	12
S	BL 350W 0+300N	14	0.2	6	5	2
S	250N	12	0.2	20	5	6
S	200N	10	0.2	6	5	14
S	150N	20	0.2	14	80	34
S	100N	16	0.2	8	5	12
S	050N	10	0.2	8	10	20
S	000	4	0.2	2	5	6
S	100S	14	0.2	8	5	14
S	150S	8	0.2	10	5	12
S	200S	8	0.2	12	90	12
S	250S	20	0.2	10	5	10
S	BL 350W 0+300S	48	0.2	10	5	6
S	BL 400W 0+300N	14	0.23	8	5	2
S	Baseline 3 Liverpool Creek 250N	14	0.2	8	5	16
S	200N	18	0.2	16	5	20
S	150N	14	0.2	12	5	8
S	100N	36	0.2	14	5	12
S	BL 400W 0+050N	8	0.2	14	5	4
S	BL 3 400E+000	8	0.2	8	5	4
S	050S	6	0.2	14	5	6
S	100S	14	0.2	10	5	10
S	150S	22	0.2	10	5	2
S	200S	6	0.2	10	540	4
S	250S	10	0.2	8	10	2
S	BL 3 400W+300S	18	0.2	10	10	2
S	BL 3 450W+300N	12	0.2	16	5	4
S	BL 3 450E+250N	12	0.2	12	5	6

CERTIFIED BY :

*J. Rossbach*



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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5E 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

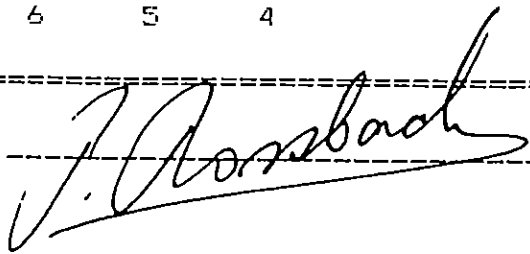
TO : CHAMPEAU RESOURCES INC.  
100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87517  
INVOICE#: 70021  
DATE ENTERED: 87-09-08  
FILE NAME: CHF07513  
PAGE #: 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL3 450W+200N	18	0.2	16	5	20
S	150N	12	0.2	6	5	10
S	100N	14	0.2	10	5	6
S	50N	14	0.2	4	5	10
S	00	12	0.2	4	5	6
S	50S	8	0.2	6	5	8
S	100S	4	0.2	8	5	2
S	150S	12	0.2	6	5	12
S	250S	24	0.2	10	5	14
S	BL3 450W+300S	10	0.2	4	5	2
S	BL3 500W+300N	14	0.2	8	5	10
S	Baseline 3 250N	8	0.2	4	5	4
S	Liverpool Creek 200N	8	0.2	10	5	2
S	150N	10	0.2	6	5	12
S	100N	10	0.2	10	5	28
S	50N	8	0.2	6	5	2
S	00	10	0.2	8	5	10
S	50S	8	0.2	4	5	10
S	100S	6	0.2	6	5	4
S	150S	8	0.2	6	20	10
S	200S	18	0.2	4	5	6
S	250S	10	0.2	8	5	6
S	BL3 500W+300S	12	0.2	12	5	8
S	BL3 550W+300N	8	0.2	4	5	2
S	250N	8	0.2	6	5	4
S	200N	12	0.2	2	5	10
S	150N	8	0.2	6	5	8
S	100N	12	0.2	6	5	10
S	50N	10	0.2	6	30	14
S	00	6	0.2	4	5	12
S	50S	4	0.2	2	5	2
S	100S	14	0.2	24	5	2
S	150S	6	0.2	6	5	2
S	200S	12	0.2	4	5	2
S	250S	10	0.2	4	20	2
S	BL3 550W+300S	32	0.4	12	5	12
S	BL3 600W+300N	8	0.2	6	5	4
S	250N	8	0.2	4	5	4
S	BL3 600W+200N	12	0.2	6	5	4

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## CERTIFICATE OF ANALYSIS

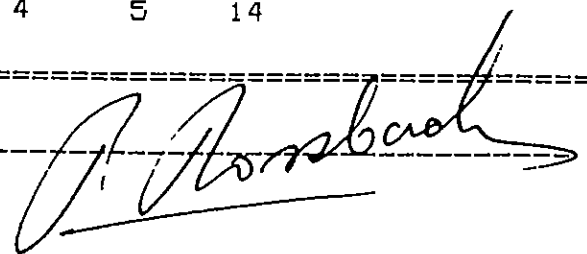
TO : CHATEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87513  
 INVOICE#: 70022  
 DATE ENTERED: 87-09-08  
 FILE NAME: CHP87513  
 PAGE # : 3

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL3 600W+150N	8	0.2	24	5	2
S	100N	12	0.2	6	5	2
S	50N	6	0.2	4	5	6
S	00	8	0.2	4	5	4
S	50S	4	0.2	4	5	2
S	100S	6	0.4	28	5	8
S	150S	18	0.2	10	5	8
S	200S	6	0.2	8	5	2
S	250S	10	0.2	6	5	2
S	BL3 600W+300S	30	0.2	10	5	2
S	BL3 650W+300N	8	0.2	20	5	10
S	250N	12	0.2	12	5	6
S	200N	10	0.4	6	5	4
S	150N	16	0.4	8	5	12
S	100N	8	0.2	6	20	6
S	50N	6	0.2	6	5	10
S	00	10	0.4	10	50	10
S	50S	10	0.2	6	5	4
S	100S	6	0.2	10	5	2
S	150S	4	0.2	10	5	6
S	200S	6	0.2	8	5	8
S	250S	4	0.2	4	5	4
S	BL3 650W+300S	24	0.2	28	5	20
S	BL3 700W+300N	12	0.2	18	5	22
S	250N	10	0.2	16	5	20
S	200N	8	0.2	2	5	14
S	150N	8	0.2	4	5	6
S	100N	8	0.2	4	5	16
S	50N	8	0.2	4	5	14
S	00	10	0.2	10	5	10
S	50S	8	0.2	12	5	8
S	100S	8	0.2	12	60	8
S	150S	6	0.2	8	5	4
S	200S	20	0.4	22	5	18
S	250S	12	0.4	10	5	14
S	BL3 700W+300S	16	0.2	16	5	16
S	BL3 750W+300N	12	0.2	6	5	12
S	250N	12	0.2	8	5	16
S	BL3 750W+200N	12	0.2	4	5	14

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 2N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

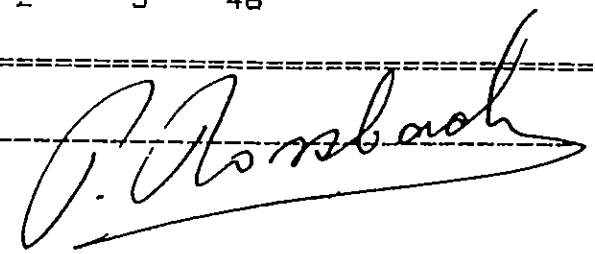
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87517  
INVOICE#: 70022  
DATE ENTERED: 87-09-08  
FILE NAME: CHP87513  
PAGE #: 4

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL3 750W+150N	12	0.2	30	5	24
S	100N	10	0.2	8	30	44
S	50N	6	0.2	6	5	14
S	00	10	0.4	10	5	22
S	50S	8	0.2	10	5	10
S	100S	8	0.2	4	5	6
S	150S	12	0.2	12	5	10
S	200S	8	0.2	4	300	2
S	250S	6	0.2	4	5	2
S	BL3 750W+300S	14	0.2	4	5	4
S	BL3 800W+300N	10	0.2	4	1040	2
S	Base line 3 250N	10	0.2	6	5	8
S	Liver pool Creek 200N	8	0.2	2	5	6
S	150N	10	0.2	4	5	16
S	100N	12	0.2	4	5	10
S	50N	10	0.4	6	5	10
S	00	8	0.2	4	5	2
S	50S	6	0.2	4	5	6
S	100S	6	0.2	2	5	8
S	150S	8	0.2	12	5	12
S	200S	16	0.4	6	5	14
S	250S	4	0.2	6	5	10
S	BL3 800W+300S	8	0.2	8	5	16
S	BL3 850W+300N	6	0.2	4	5	8
S	250N	10	0.2	2	5	10
S	200N	10	0.2	2	5	16
S	150N	18	0.2	8	30	140
S	100N	10	0.2	2	5	8
S	50N	8	0.2	4	5	10
S	00	12	0.2	6	5	14
S	50S	8	0.2	6	5	10
S	100S	12	0.2	8	5	18
S	150S	8	0.2	6	5	12
S	200S	8	0.2	2	5	6
S	250S	16	0.4	30	5	12
S	BL3 850W+300S	8	0.4	6	5	20
S	BL3 900W+300N	16	0.2	2	5	10
S	250N	66	0.2	4	5	30
S	BL3 900W+200N	48	0.2	2	5	48

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5E 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

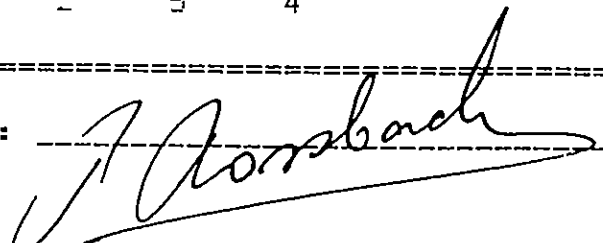
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87517  
INVOICE#: 70022  
DATE ENTERED: 87-09-08  
FILE NAME: CHF87513  
PAGE #: 5

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL3 900W+150N	12	0.2	2	5	14
S	100N	26	0.2	2	5	12
S	50N	14	0.2	2	5	14
S	00	6	0.2	2	5	10
S	50S	8	0.2	4	5	12
S	100S	12	0.2	4	5	10
S	150S	8	0.2	6	5	12
S	200S	12	0.2	10	5	28
S	BL3 900W+250S	6	0.2	10	40	5
S	BL3 950W+300N	6	0.2	4	5	6
S	250N	6	0.2	4	5	4
S	200N	6	0.2	8	5	8
S	150N	4	0.2	2	50	2
S	100N	4	0.2	4	5	2
S	50N	10	0.2	2	5	6
S	00	6	0.2	2	5	14
S	50S	6	0.2	4	5	4
S	100S	10	0.2	6	80	10
S	150S	8	0.2	4	5	12
S	BL3 950W+200S	6	0.2	8	5	8
S	BL3 1000W+300N	6	0.2	8	5	10
S	250N	6	0.2	4	5	4
S	200N	8	0.2	6	5	6
S	150N	6	0.2	2	5	2
S	100N	10	0.2	4	5	12
S	50N	10	0.2	8	5	10
S	00	10	0.2	4	5	8
S	50S	8	0.2	2	5	10
S	100S	10	0.2	2	5	8
S	150S	10	0.2	4	5	12
S	BL3 1000W+200S	10	0.2	10	5	32
S	BL3 1050W+300N	10	0.2	4	5	6
S	250N	6	0.2	2	10	8
S	200N	4	0.2	4	5	6
S	150N	6	0.2	2	5	2
S	100N	4	0.2	2	5	8
S	50N	4	0.2	2	5	6
S	00	8	0.2	2	5	48
S	BL3 1050W+100S	6	0.2	2	5	4

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

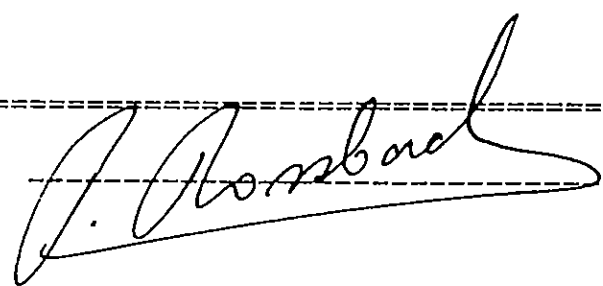
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 275.0  
INVOICE#: 7002.  
DATE ENTERED: 87-09-08  
FILE NAME: CHF87513  
PAGE # : 6

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL3 1050W+100S	6	0.2	4	5	12
S	BL3 1050W+150S	26	0.2	258	5	14
S	BL3 1100W+300N	8	0.2	8	5	10
S	250N	8	0.2	4	5	8
S	200N	10	0.2	4	30	2
S	150N	6	0.2	2	5	4
S	100N	4	0.2	2	5	2
S	50N	8	0.2	2	5	2
S	00	10	0.2	2	5	4
S	50S	18	0.2	2	5	14
S	BL3 1100W+150S	10	0.2	8	5	10
S	BL3 550W+200S(B) ?	8	0.2	10	5	14
S	BL3 1000W+100S(B)	10	0.2	8	350	12

CERTIFIED BY :



ya

# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

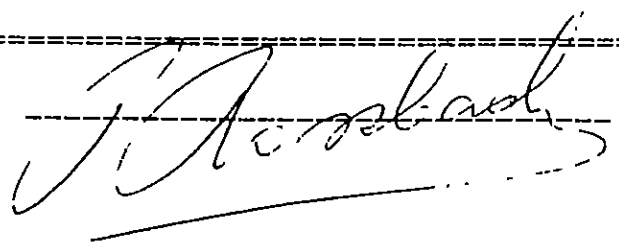
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87327.A  
INVOICE#: 7784  
DATE ENTERED: 87-07-22  
FILE NAME: CHA87327.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPB Au	PPM As
A	HM 37808	298	0.4	36	400	62
A	Rock 4 37809	4	0.2	6	5	2
A	HM 37810	4	0.8	78	50	2
A	Price 37811	94	1.0	3720	4020	38
A	Price 37812	50	524.0	10000	11800	2

CERTIFIED BY :



10<sup>a</sup>

# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87475  
INVOICE#: 7959  
DATE ENTERED: 87-08-27  
FILE NAME: CHP87475  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-1 00+250S+ 15E	10	0.2	30	5	4
S	00+250S+ 15W	8	0.2	30	5	6
S	<i>Baseline 1</i> 00+265S+ 30E	10	0.2	28	140	2
S	<i>Shanty Cr</i> + 15E	8	0.2	36	20	4
S	+ 00	10	0.2	24	20	6
S	00+265S+ 15W	6	0.2	34	5	8
S	00+280S+ 30E	22	0.2	36	5	10
S	+ 15E	16	0.2	24	30	8
S	+ 00	8	0.2	18	5	2
S	00+280S+ 15W	8	0.4	46	5	2
S	00+300S+ 15E	8	0.2	16	30	8
S	BL-1 00+300S+ 15W	16	0.2	30	5	8
S	BL-2 00+135N+178W	10	0.4	14	5	4
S	+193W	6	0.2	14	20	4
S	<i>Baseline 2</i> 00+135N+205W	8	0.4	14	160	6
S	<i>limonite Cr</i> 00+150N+175W	4	0.2	12	5	10
S	00+150N+208W	6	0.2	10	30	8
S	00+165N+178W	2	0.2	6	10	6
S	193W	6	0.2	4	5	8
S	00+165N+208W	8	0.2	10	20	4
S	00+285N+115E	16	0.2	10	5	6
S	+100E	8	0.2	8	5	8
S	00+285N+ 85E	4	0.2	4	5	2
S	00+300N+115E	6	0.2	8	5	2
S	00+300N+ 85E	2	0.2	6	5	2
S	00+315N+115E	6	0.2	6	5	4
S	+100E	4	0.2	4	5	2
S	00+315N+ 85E	12	0.2	6	5	6
S	00+585N+ 65E	10	0.2	10	5	10
S	+ 50E	8	0.2	12	5	2
S	00+585N+ 35E	8	0.2	8	5	8
S	00+600N+ 65E	6	0.2	10	5	2
S	00+600N+ 35E	6	0.2	8	10	2
S	00+615N+ 65E	12	0.2	8	5	8
S	+ 50E	8	0.2	8	5	6
S	00+615N+ 35E	4	0.2	6	5	2
S	00+635N+170W	6	0.2	10	5	2
S	+185W	8	0.2	12	10	2
S	BL-2 00+635N+200W	8	0.2	16	30	2

CERTIFIED BY : *J. Rossbach*

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

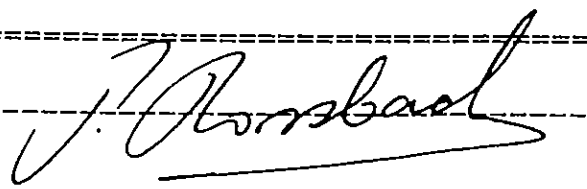
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87475  
INVOICE#: 7959  
DATE ENTERED: 87-08-27  
FILE NAME: CHF87475  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-2 00+650N+170W	6	0.2	16	20	16
S	00+650N+200W	14	0.2	16	10	8
S	<i>Baseline 2</i> 00+665N+170W	6	0.2	14	10	14
S	<i>Shmerick Cr</i> +185W	8	0.2	12	100	8
S	00+665N+200W	8	0.2	18	5	10
S	00+935N+140W	18	0.2	10	10	6
S	+150W	10	0.2	8	10	8
S	00+935N+165W	18	0.2	6	10	10
S	00+950N+135W	16	0.2	4	5	8
S	00+950N+165W	14	0.2	8	5	6
S	00+965N+135W	8	0.2	4	70	2
S	+150W	14	0.2	6	5	4
S	00+965N+165W	14	0.2	18	5	20
S	01+1035N+ 00	12	0.2	12	5	2
S	+ 15W	6	0.2	6	5	2
S	01+1035N+ 30W	12	0.2	14	20	4
S	01+1050N+ 15E	10	0.2	12	5	6
S	+ 15W	26	0.2	12	5	10
S	01+1050N+ 30W	16	0.2	10	5	2
S	01+1065N+ 15E	8	0.2	16	50	4
S	+ 00	14	0.2	10	180	2
S	+ 15W	24	0.2	10	5	8
S	BL-2 01+1065N+ 30W	16	0.2	14	5	4

CERTIFIED BY :





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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
RUFNABY, B.C. V5P 3N1  
TEL : (604) 298 - 6910

## CERTIFICATE OF ANALYSIS

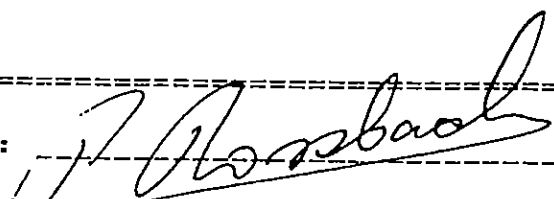
TO : PHOENIX RESOURCES INC.  
215 N. 4TH ST.  
GRANDBOOK, B.C.

CERTIFICATE#: 87462  
INVOICE#: 7952  
DATE ENTERED: 87-08-28  
FILE NAME: CHR87462  
PAGE #: 6

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-4 00+900E+100S	6	0.2	4	5	4
S	+150S	4	0.2	2	5	6
S	Base Line 4 +200S	8	0.2	8	5	2
S	Wahon Creek +250S	8	0.2	6	5	4
S	+300S	4	0.2	4	5	2
S	+350S	4	0.2	4	5	8
S	+400S	4	0.2	4	10	10
S	+450S	4	0.2	2	5	4
S	00+950E+150N	4	0.2	2	5	6
S	+100N	8	0.2	4	5	2
S	+ 50N	4	0.2	4	5	8
S	+ 00	6	0.2	4	5	8
S	+ 50S	2	0.2	4	5	2
S	+100S	6	0.2	6	5	4
S	+150S	2	0.2	4	5	2
S	+200S	8	0.2	6	5	2
S	+250S	4	0.2	4	5	2
S	+300S	4	0.2	4	5	2
S	+350S	2	0.2	4	5	2
S	+400S	4	0.2	6	5	2
S	BL-4 00+950E+450S	2	0.2	4	5	2
A	SH87- 1	402	10.2	6400	5	2
A	F87-211	6	1.8	900	5	6
A	F87- B2	46	0.4	162	5	24
A	F87- B4	4	0.2	74	5	2
A	F87-B21	20	4.2	1120	5	2

CERTIFIED BY :



**ROSSBACHER LABORATORY LTD.**

**CERTIFICATE OF ANALYSIS**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6911

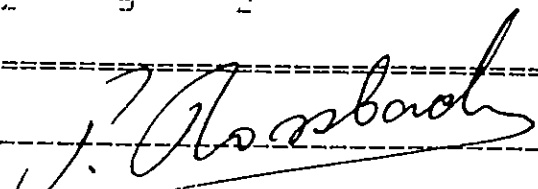
TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87462  
 INVOICE#: 7962  
 DATE ENTERED: 87-08-28  
 FILE NAME: CHK87462  
 PAGE # : 5

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-4 00+750E+ 00	8	0.2	2	5	2
S	+ 50S	4	0.2	2	5	2
S	Baseline 4 +100S	4	0.2	2	5	4
S	Wuhun Creek +150S	4	0.2	2	5	2
S	+200S	4	0.2	2	5	2
S	+250S	4	0.2	4	5	6
S	+300S	2	0.2	2	5	2
S	+350S	4	0.2	2	5	2
S	+400S	4	0.2	2	5	4
S	00+800E+150N	4	0.2	2	5	4
S	+100N	4	0.4	4	5	8
S	+ 50N	2	0.4	2	5	2
S	+ 00	4	0.2	2	5	2
S	+ 50S	4	0.2	2	5	2
S	+100S	6	0.2	6	5	10
S	+150S	4	0.2	2	5	8
S	+200S	4	0.2	2	5	8
S	+250S	2	0.2	4	5	4
S	+300S	4	0.2	4	5	2
S	+350S	2	0.2	2	5	2
S	+400S	2	0.2	2	5	4
S	00+850E+150N	6	0.2	2	5	12
S	+100N	4	0.2	2	10	6
S	+ 50N	4	0.2	4	10	2
S	+ 00	4	0.2	4	5	8
S	+ 50S	2	0.2	2	5	2
S	+100S	2	0.2	2	5	8
S	+150S	2	0.2	2	5	4
S	+200S	2	0.2	2	5	4
S	+250S	2	0.2	2	5	4
S	+300S	4	0.6	2	5	4
S	+350S	2	0.2	2	5	2
S	+400E	4	0.2	2	5	4
S	+450E	2	0.4	2	5	2
S	00+850E+150N	4	0.2	2	5	2
S	+100N	4	0.2	2	5	8
S	+ 50N	4	0.2	2	5	8
S	+ 00N	2	0.4	2	5	2
S	BL-4 00+850E+ 50S	2	0.2	2	5	2

CERTIFIED BY :



# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
 BURBANK, B.C. V5B 3N1  
 TEL : 604) 299 - 6010

TO : CHATEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

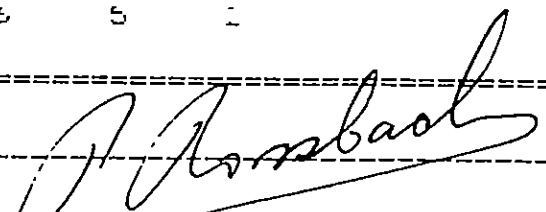
CERTIFICATE#: 87462  
 INVOICE#: 7962  
 DATE ENTERED: 87-08-28  
 FILE NAME: CHR87462  
 PAGE # : 4

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-4 00+600+150N	4	0.2	10	5	4
S	+100N	16	0.2	14	5	6
S	+ 50N	4	0.2	6	5	2
S	+ 00	6	0.2	6	5	6
S	+ 54S	26	0.2	8	5	8
S	+100S	4	0.2	4	5	2
S	+150S	6	0.2	6	5	10
S	+200S	4	0.2	6	5	4
S	+250S	4	0.2	6	5	4
S	+300S-A	4	0.2	4	5	2
S	+300S-B	4	0.2	6	5	2
S	+350S	2	0.2	10	5	2
S	00+650E+200N	2	0.2	8	5	4
S	+150N	2	0.2	8	5	8
S	+100N	6	0.2	4	5	4
S	+ 50N	4	0.2	8	5	4
S	+ 00	4	0.2	8	20	4
S	+ 50S	4	0.2	10	5	2
S	+100S	6	0.2	6	5	10
S	+150S	6	0.2	8	5	6
S	+200S	6	0.2	50	5	6
S	+250S	4	0.2	8	5	2
S	+300S	2	0.2	6	5	2
S	+350S	4	0.2	6	5	10
S	00+700E+200N	4	0.2	8	5	2
S	+150N	4	0.2	6	5	2
S	+100N	2	0.2	6	5	2
S	+ 50N	4	0.2	4	5	4
S	+ 00	6	0.2	4	5	2
S	+ 50S	6	0.2	10	5	6
S	+100S	6	0.2	8	5	6
S	+150S	4	0.2	10	5	4
S	+200S	4	0.2	8	5	2
S	+250S	2	0.2	10	10	2
S	+300S	4	0.2	6	5	4
S	+350S	6	0.2	8	5	8
S	00+750E+150N	2	0.2	8	5	12
S	+100N	6	0.2	6	5	6
S	BL-4 00+750E+ 50N	4	0.2	6	5	2

*Base line of  
 Wuhon Creek*

CERTIFIED BY :



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# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5P 3N1  
TEL : (604) 299-6910

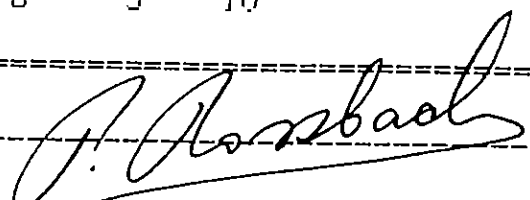
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87462  
INVOICE#: 7962  
DATE ENTERED: 87-08-28  
FILE NAME: CHR87462  
PAGE #: 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-4 00+400E+150N	6	0.2	8	5	10
S	+100N	8	0.2	12	5	10
S	+ 50N	12	0.2	14	5	8
S	+200S	6	0.2	8	5	10
S	+250S	8	0.2	4	5	6
S	00+450E+200N	6	0.4	10	5	8
S	+150N	6	0.2	10	5	2
S	Baseline 4 +100N	12	0.2	12	5	10
S	Wuhon Creek + 50N	20	0.2	20	5	6
S	+ 00-A	16	0.2	14	5	2
S	+ 00-B	16	0.2	28	5	6
S	+ 50S	10	0.2	12	5	10
S	+100S	4	0.2	10	5	4
S	+150S	6	0.4	12	5	6
S	+200S	4	0.2	10	5	6
S	+250S	2	0.2	6	5	2
S	00+500E+200N	4	0.2	4	5	2
S	+150N	6	0.2	10	5	6
S	+100N	6	0.2	8	5	8
S	+ 50N	6	0.2	10	5	8
S	+ 00	12	0.2	10	5	8
S	+ 50S	6	0.2	8	10	8
S	+100S	6	0.2	12	5	6
S	+150S	6	0.2	10	5	8
S	+200S	4	0.2	8	5	6
S	+250S	6	0.2	8	5	6
S	+300S	6	0.2	6	5	2
S	00+550E+200N	6	0.2	6	5	6
S	+150N	6	0.2	8	5	4
S	+100N	6	0.2	6	5	2
S	+ 50N	8	0.2	10	5	10
S	+ 00	12	0.2	10	5	4
S	+ 50S	12	0.2	10	5	4
S	+100S	6	0.2	4	5	6
S	+150S	6	0.2	4	5	2
S	+200S	4	0.2	6	5	4
S	+250S	6	0.2	8	5	4
S	+300S	2	0.2	4	5	2
S	BL 4 00+600E+100N	8	0.2	8	5	10

CERTIFIED BY :



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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3M1  
TEL : (604) 299-8920

## CERTIFICATE OF ANALYSIS

TO : CHAMPLAIN RESOURCES, INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

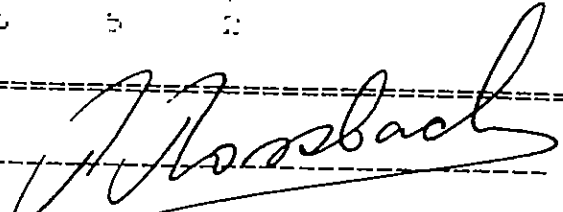
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INVOICE#: 7962  
DATE ENTERED: 87-08-28  
FILE NAME: CHR87462  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-7 00+300E+100N	6	0.2	10	5	4
S	+ 50N	16	0.2	12	30	8
S	Base line 3 Liver pool Creek + 00	16	0.2	12	5	10
S	+ 50S	6	0.2	10	10	2
S	+100S	8	0.2	8	5	4
S	+150S	4	0.2	4	5	4
S	+200S	6	0.2	8	5	2
S	+250S	6	0.2	8	5	2
S	+300S	12	0.2	8	5	2
S	00+350E+350N	6	0.2	6	5	2
S	+300N	8	0.2	8	5	2
S	+250N	6	0.2	12	5	2
S	+200N	4	0.2	10	5	2
S	+150N	8	0.2	6	5	2
S	+100N	2	0.2	2	5	2
S	+ 50N	2	0.2	8	5	2
S	+ 00	10	0.2	8	5	2
S	+ 50S	6	0.2	8	5	4
S	+100S	6	0.2	4	5	2
S	+150S	8	0.2	16	5	2
S	+200S	12	0.2	14	5	2
S	+250S	12	0.2	8	5	8
S	+300S	10	0.2	10	5	2
S	+350S	MISSING				
S	00+400E+350N	12	0.2	10	5	8
S	+300N	4	0.2	8	5	2
S	+250N	6	0.2	8	5	4
S	+200N	12	0.2	8	5	2
S	+150N	12	0.2	10	5	2
S	+100N	6	0.2	10	5	2
S	+ 50N	6	0.2	8	5	6
S	+ 00	6	0.2	10	5	4
S	+ 50S	6	0.2	10	5	2
S	+100S	6	0.2	8	5	8
S	+150S	4	0.2	8	5	8
S	+200S	14	0.2	6	5	8
S	+250S	8	0.2	8	5	6
S	+300S	6	0.2	8	5	2
S	PL 00+400E+300N	6	0.2	6	5	2

Base line 4  
Wagon Creek

CERTIFIED BY :



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**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

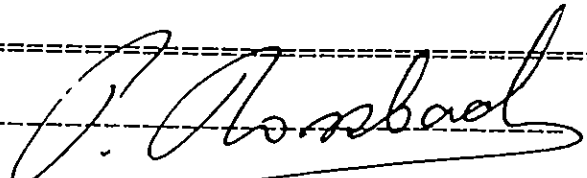
TO : CHRYSLER RESOURCES INC.  
 1100 N. 4TH ST.  
 CRANBROOK, B.C.

P.C

CERTIFICATE#: 87462  
 INVOICE#: 7920  
 DATE ENTERED: 87-08-28  
 FILE NAME: CHR87462  
 PAGE # : 1

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL-3 00+100W+300N	20	0.2	12	5	4
S	+250N	6	0.2	12	5	2
S	Base line 3 +200N	6	0.2	4	5	2
S	+150N	6	0.2	10	5	2
S	Liver-pool Creek +100N	6	0.2	6	5	2
S	+ 50N	8	0.2	14	10	4
S	+ 00	6	0.2	4	5	2
S	+ 50S	4	0.2	4	5	2
S	+100S	14	0.2	4	5	2
S	+150S	6	0.4	14	5	12
S	+200S	10	0.2	4	5	10
S	+250S	8	0.2	6	5	2
S	+300S	10	0.2	10	50	16
S	00+ 50W+300N	6	0.2	14	30	6
S	+250N	8	0.2	14	5	4
S	+200N	8	0.2	12	5	6
S	+150N	6	0.2	8	5	6
S	+100N	8	0.2	6	10	4
S	+ 50N	4	0.2	5	4	2
S	+ 00	6	0.2	6	5	2
S	+ 50S	22	0.2	12	5	12
S	+100S	16	0.2	6	5	10
S	+150S	10	0.2	14	5	4
S	+200S	8	0.2	6	5	2
S	+250S	18	0.2	10	5	6
S	00+00 +300N	6	0.2	14	5	12
S	+250N	6	0.2	8	5	8
S	+200N	12	0.2	8	5	10
S	+150N	18	0.2	6	5	20
S	+100N	12	0.2	4	5	14
S	+ 50N	26	0.2	6	5	8
S	+ 00	6	0.2	10	5	8
S	+ 50S	4	0.2	8	5	8
S	+100S	12	0.2	6	5	8
S	+150S	18	0.4	8	5	10
S	+200S	16	0.2	20	5	8
S	+250S	6	0.2	10	5	2
S	BL-7 00+00 +300S	2	0.2	4	5	2

CERTIFIED BY : 

120

# ROSSBACHER LABORATORY LTD.

## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAM-LEAU RESOURCES INC.  
2100 N. 4TH ST,  
CRANBROOK, B.C.

CERTIFICATE#: 87550  
INVOICE#: 70066  
DATE ENTERED: 87-09-15  
FILE NAME: CHP87550  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEUCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As	
A							
A	<i>Trenches P.C.</i>	1	18	16.8	54	5	22
A		2	14	4.6	38	5	10
H		3	12	2.0	6	5	2
A		4	10	0.4	6	5	2
A		5	12	0.6	8	5	4 s
A		6	4	0.4	6	5	2
A		7	26	0.8	60	5	2
A		8	8	0.2	12	5	2 B.L. + 1
A		9	4	0.2	8	5	2
A		10	6	0.2	26	5	2
A		11	4	0.2	16	5	6
A		12	2	0.2	4	5	2
A		13	4	0.2	2	5	6
A		14	4	0.2	4	5	2
A		15	4	0.2	2	5	4
A		16	2	0.2	2	5	8
A		17	10	0.2	6	5	8
A		18	4	0.2	2	5	12
A		19	6	0.2	2	5	10
A		20	4	0.2	2	5	24
A		21	4	0.2	2	5	4
A		22	2	0.2	2	5	2
A		23	4	0.8	2	5	44
A		24	4	1.0	4	5	54
A		25	2	0.4	4	5	20
A		26	4	0.2	6	5	22
A		27	4	0.6	22	5	72
A		28	6	0.2	8	5	16
A		29	4	0.2	2	5	4
A		30	4	0.8	12	5	16
A		31	6	0.4	6	5	54
A		32	10	0.6	14	5	72
A		33	4	0.4	4	5	50
A		34	4	0.2	2	5	14
A		35	4	0.2	10	5	10
A		36	6	0.2	4	5	48
A		37	8	0.4	4	5	32
A		38	8	0.4	14	10	104
A		39	4	0.4	16	5	70
A		40	16	0.4	4	40	66

shanty Co bag

W End B.L. 2

B.L. + 1

shanty W. End

shanty at Denny

Columbia Mine Adit  
Views

CERTIFIED BY :

(125)

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

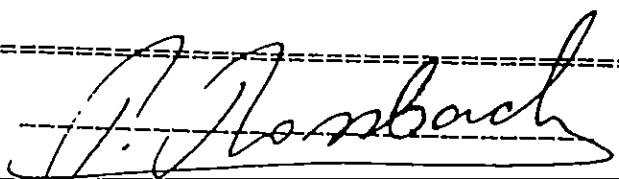
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST,  
CRANBROOK, B.C.

CERTIFICATE#: 87550  
INVOICE#: 70066  
DATE ENTERED: 87-09-15  
FILE NAME: CHP87550  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As	
A	41	6	1.4	820	5	22	} Columbia
A	42	6	0.2	18	5	14	
A	43	80	0.4	10	5	16	
A	44	26	0.2	106	5	20	- Liverpool Cr. & Road
A	45-A	6	0.2	10	5	96	} t
A	45-B	10	0.2	4	5	128	
A	46	10	0.2	28	5	12	Liverpool Cr. Rd
A	47	28	0.6	102	5	20	Road below Columbia
A	48	4	0.2	12	5	10	↓
A	49	4	0.2	6	5	6	
A	50	30	0.2	12	5	12	
A	51	4	0.2	4	5	4	
A	52	2	0.2	2	5	6	
A	53	110	0.2	4	5	2	
A	54	2	0.2	4	5	28	
A	55	2	0.2	4	5	14	

CERTIFIED BY :





- Dig - 7m in washed area
- Lab screened to -80M
- Sgr. sample for assay

(13)a

(N.S.S. not enough)

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 FURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87679  
 INVOICE#: 80051  
 DATE ENTERED: 87-10-16  
 FILE NAME: CHP87679  
 PAGE # : 1

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
L	WD-1A	24	0.2	146	60	5	8
L	Wuho 1B	22	0.2	80	22	5	16
L	2A	30	0.2	102	24	5	22
L	2B	20	0.2	80	16	5	14
L	(ck Buck) 3A	34	0.2	86	24	5	18
L	3B	32	0.2	104	42	5	20
L	4A	20	0.2	98	28	5	18
L	4B	24	0.2	90	28	5	14
L	5A	24	0.2	86	38	5	12
L	5B	24	0.2	84	34	5	8
L	6A	198	>100.0	>10000	>10000	40	2560
L	6B	106	32.0	4800	>10000	20	1000
L	7A	44	0.4	104	100	5	44
L	7B	44	0.2	102	68	5	44
L	8A	30	11.6	434	2540	5	172
L	8B	52	13.4	1340	3460	20	376
L	20A	36	11.0	488	1020	5	98
L	20B	20	2.8	280	456	5	72
L	21A	20	2.2	154	276	5	34
L	21B	20	3.4	196	380	5	30
L	22A	18	0.2	74	20	5	18
L	22B	20	0.2	80	20	5	22
L	23A	18	3.2	174	436	5	42
L	23B	20	3.4	200	468	5	74
L	24A	18	3.0	152	344	5	34
L	24B	18	1.6	134	246	5	34
L	25A	18	0.2	52	14	5	20
L	25B	18	0.2	66	16	5	12
L	26A	14	0.2	56	16	5	4
L	WD-26B / 30	16	0.2	60	16	5	6
L	NKD 1	10	0.2	54	6	5	6
L	NKD11A	6	0.2	52	4	5	8
L	NKD-2	14	0.2	78	10	5	10
L	3	24	0.2	88	16	5	10
L	4	20	0.2	64	14	5	16
L	5	26	0.2	82	14	5	26
L	6	16	0.2	76	12	5	9
L	7	10	0.2	52	6	5	4
L	NKD-8	10	0.2	38	4	5	2

*Salts*

CERTIFIED BY :

*[Signature]*

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**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

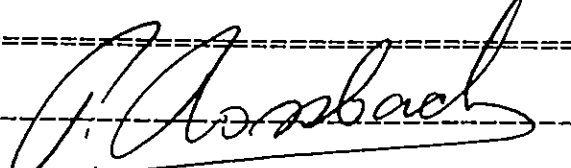
**CERTIFICATE OF ANALYSIS**

TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87679  
INVOICE#: 80051  
DATE ENTERED: 87-10-16  
FILE NAME: CHP87679  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
L	NKD- 9	14	0.2	96	74	5	20
L	10A	14	0.4	74	34	5	22
L	<i>Nc 1</i> 10B	18	0.2	90	28	5	20
L	10C	10	0.2	56	26	5	18
L	<i>(J.K. Buck)</i> 11B	16	0.4	78	24	5	20
L	12A	10	0.2	124	22	5	26
L	12B	14	0.6	94	26	5	26
L	13A	20	0.2	94	24	5	18
L	13B	18	0.2	96	16	5	22
L	14A	14	0.2	108	40	5	10
L	14B	38	0.2	128	26	5	20
L	16A	20	0.2	118	22	5	18
L	16B	10	0.2	78	16	5	16
L	17A	12	0.2	70	20	5	14
L	17B	18	0.2	76	18	5	18
L	18A	20	0.2	54	4	5	22
L	18B	12	0.2	50	4	5	24
L	19A	12	0.2	72	2	5	16
L	19B	10	0.2	62	2	5	20
L	20A	30	0.2	58	12	5	26
L	20B	30	0.2	46	10	5	26
L	21A	24	0.2	84	6	5	32
L	<i>Negro.</i> NKD-21B	24	0.2	80	4	5	24
L	NG- 1A	22	0.2	80	18	5	32
L	1B	28	0.2	94	24	5	20
L	2A	28	0.2	96	32	5	24
L	2B	24	0.2	102	26	5	20
L	3A	24	0.2	86	22	5	22
L	3B	24	0.2	88	24	5	22
L	4A	70	0.4	76	28	5	26
L	4B	24	0.2	68	10	5	12
L	5A	20	0.2	82	12	5	14
L	5B	20	0.2	84	14	5	16
L	6A	18	0.2	86	14	5	18
L	6B	16	0.2	80	16	5	16
L	7A	18	0.2	82	10	5	16
L	7B	18	0.2	80	12	5	20
L	8A	18	0.2	76	12	5	18
L	NG- 8B	18	0.2	76	10	5	10

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

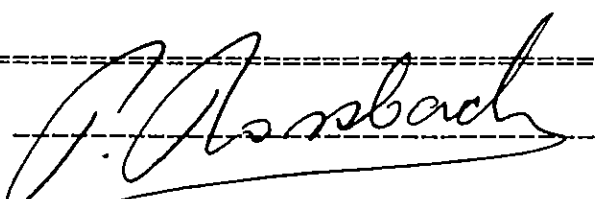
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87679  
INVOICE#: 80051  
DATE ENTERED: 87-10-16  
FILE NAME: CHF87679  
PAGE # : 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
L	NG- 9A	18	0.2	72	14	5	16
L	9B	16	0.2	92	10	5	16
L (I.K Buck)	10A	14	0.2	56	10	5	12
L	10B	12	0.2	64	8	5	10
L	11A	14	0.2	70	10	5	12
L	11B	20	0.2	78	18	5	12
L	12A	24	0.2	76	18	5	16
L	12B	12	0.2	56	10	5	10
L	13A	14	0.2	60	8	5	4
L	13B	16	0.2	60	12	5	2
L	14A	16	0.2	48	10	5	2
L	14B	14	0.2	56	10	5	2
L	20A	14	0.2	44	6	5	4
L	20B	18	0.2	50	8	5	8
L	21A	12	0.2	44	8	5	2
L	21B	14	0.2	72	10	5	6
L	22A	12	0.2	56	8	5	6
L	22B	12	0.2	52	10	5	2
L	23A	20	0.2	74	16	5	20
L	23B	20	0.2	70	14	5	14
L	24A	12	0.2	58	10	5	16
L	24B	12	0.2	60	12	5	22
L	25A	14	0.2	64	10	5	16
L	25B	14	0.2	72	10	5	12
L	26A	14	0.2	60	10	5	22
L	26B	12	0.2	72	14	5	16
L	27A	12	0.2	54	12	5	8
L	NG-27B	12	0.2	60	12	5	18

20  
110 total

CERTIFIED BY : 

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ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600  
INVOICE#: 70112  
DATE ENTERED: 87-09-23  
FILE NAME: CHP87600  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	QF 00 + 50S	20	0.4	34	10	16
S	00 +100S	54	0.4	30	5	20
S	00N+150W	16	0.2	18	5	10
S	00 + 00N	24	0.2	20	5	10
S	50N	36	0.2	38	5	14
S	Quanta Pit 100N	230	0.4	24	5	24
S	150N	352	0.4	24	5	20
S	200N	248	0.6	10	5	12
S	250N	58	0.6	14	5	12
S	300N	222	0.6	10	5	12
S	350N	36	0.4	26	5	32
S	QF 00+400N	62	0.8	8	5	10
S	QF 00+ 50W+ 00N	50	0.2	34	5	20
S	50N	32	0.2	24	5	12
S	100N	32	0.2	14	5	12
S	150N	30	0.2	8	5	8
S	200N	372	0.4	20	5	8
S	250N	68	0.2	20	5	12
S	300N	14	0.2	12	5	8
S	350N	30	0.2	14	5	6
S	50W+400N	12	0.4	8	5	12
S	50W+ 50S	38	0.6	80	10	24
S	50S+100W	104	0.2	22	5	16
S	50S+150W	40	0.2	10	5	6
S	50E+ 00N	22	0.8	34	5	8
S	50N	26	0.2	28	5	12
S	100N	78	3.8	22	5	8
S	150N	54	0.2	10	5	4
S	200N	58	0.4	8	5	14
S	250N	68	0.4	10	5	16
S	300N	80	0.2	6	5	14
S	350N	20	0.2	6	5	16
S	400N	36	0.2	6	5	10
S	50S	26	0.2	36	5	18
S	50E+100S	16	0.4	18	5	12
S	100W+ 00N	98	0.2	18	5	16
S	50N	34	0.4	28	5	20
S	100N	22	0.2	18	5	18
S	QF 00+100W+150N	14	0.2	10	5	6

CERTIFIED BY :

*J. Rossbach*

b

# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

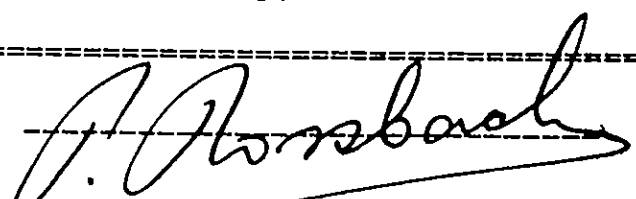
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600  
INVOICE#: 70112  
DATE ENTERED: 87-09-23  
FILE NAME: CHP87600  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	OF 00+100W+200N	12	0.2	12	5	6
S	250N	20	0.2	12	5	8
S	Quartz Pt 300N	20	0.2	20	5	34
S	350N	20	0.2	14	5	16
S	100W+400N	38	0.4	22	5	28
S	100E+ 00N	16	1.0	32	5	14
S	50N	18	0.4	18	50	6
S	100N	72	0.4	22	5	14
S	150N	56	0.8	38	5	14
S	200N	66	0.6	20	5	12
S	250N	16	0.4	12	5	6
S	300N	16	0.6	26	10	8
S	350N	12	0.4	12	5	4
S	400N	14	0.2	8	5	2
S	50S	34	0.6	30	5	14
S	100E+100S	20	0.6	28	5	24
S	150E+ 00N	10	0.4	16	5	6
S	50N	20	0.8	68	5	36
S	100N	52	0.8	22	20	10
S	150N	54	0.6	16	5	14
S	200N	104	0.6	6	5	8
S	250N	36	0.6	14	5	8
S	300N	14	0.6	30	5	14
S	350N	10	0.6	14	5	4
S	400N	10	0.4	8	5	8
S	50S	22	0.8	24	5	16
S	150E+100S	18	0.4	22	5	12
S	200E+ 00N	30	0.6	50	5	10
S	50N	14	0.4	18	5	14
S	100N	56	0.4	30	5	12
S	150N	36	0.6	100	5	50
S	200N	28	0.2	18	5	8
S	250N	118	0.4	6	5	12
S	300N	94	0.6	58	5	30
S	350N	12	0.4	16	5	10
S	400N	24	0.2	8	5	12
S	50S	44	0.4	28	5	14
S	200E+100S	14	0.8	36	5	16
S	OF 00+250E+ 00N	28	0.8	20	5	14

CERTIFIED BY :



**BOSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

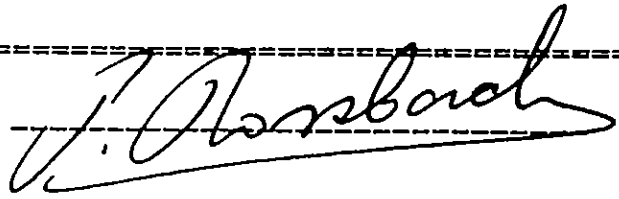
TO : CHAPLEAU RESOURCES INC.  
 2100 N. 4TH ST.  
 CRANBROOK, B.C.

CERTIFICATE#: 87600  
 INVOICE#: 70112  
 DATE ENTERED: 87-09-23  
 FILE NAME: CHP87600  
 PAGE # : 3

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	QP 00+250E+ 50N	24	1.0	50	5	16
S	100N	12	0.4	8	5	4
S	Quartz Pit 150N	14	0.2	6	5	6
S	200N	20	0.2	2	5	12
S	250N	12	0.2	8	5	14
S	300N	16	0.4	8	5	10
S	350N	14	0.4	16	5	12
S	400N	22	0.2	20	10	18
S	50S	24	0.4	24	5	12
S	250E+100S	30	0.6	22	5	6
S	300E+ 00N	22	0.6	12	5	10
S	50N	22	0.6	26	5	10
S	100N	16	0.2	12	5	8
S	150N	18	0.2	16	5	4
S	200N	14	0.2	12	5	10
S	250N	14	0.2	8	5	4
S	300N	12	0.6	14	5	12
S	350N	14	0.2	8	5	6
S	400N	18	0.2	16	5	12
S	50S	32	0.6	20	5	12
S	300E+100S	28	0.4	20	5	8
S	350E+ 00N	14	0.4	14	5	8
S	50N	20	0.2	18	5	2
S	100N	10	0.2	8	5	4
S	150N	32	0.2	20	5	12
S	200N	10	0.2	6	5	10
S	250N	30	0.2	10	5	6
S	300N	12	0.4	8	5	12
S	350N	38	1.0	8	130	8
S	400N	90	0.2	24	10	18
S	50S	26	0.4	14	5	8
S	QP 00+350E+100S	22	0.4	16	120	14
S	BL 00A 200N+100W	34	0.4	20	5	6
S	150W	20	0.6	24	5	8
S	200W	30	0.4	12	5	8
S	250W	28	0.4	22	5	8
S	300W	18	0.4	22	5	8
S	350W	30	0.2	14	5	10
S	BL 00A 200N+400W	34	0.6	20	5	4

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

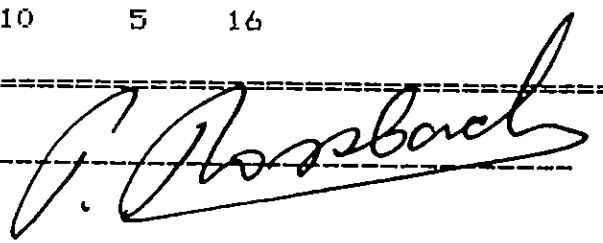
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600  
INVOICE#: 70112  
DATE ENTERED: 87-09-23  
FILE NAME: CHP87600  
PAGE # : 4

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL 00A 200N+450W	24	0.2	18	5	10
S	500W	18	0.2	18	5	6
S	550W	24	0.2	14	5	8
S	600W	18	0.2	16	5	12
S	650W	14	0.2	10	5	4
S	200N+700W	16	0.2	14	5	8
S	250N+250W	26	0.2	22	5	16
S	300W	22	0.2	16	5	12
S	350W	26	0.2	38	5	14
S	400W	18	0.2	14	5	12
S	450W	16	0.2	14	5	12
S	500W	18	0.2	10	5	12
S	550W	28	0.2	14	5	8
S	600W	16	0.2	12	5	12
S	650W	14	0.2	14	5	8
S	BL 00A 250N+700W	14	0.2	12	5	4
S	BL5+ 00N	12	0.2	14	5	6
S	Base line 50N	18	0.2	12	5	10
S	5 100N	12	0.2	12	5	8
S	150N	18	0.2	12	5	6
S	Palmer Bar 200N	14	0.2	16	5	4
S	250N	16	0.2	10	5	10
S	300N	16	0.2	8	5	14
S	350N	18	0.2	10	10	10
S	400N	18	0.4	14	5	10
S	450N	14	0.2	14	5	2
S	500N	28	0.2	30	5	16
S	550N	10	0.2	12	5	6
S	600N	10	0.2	16	5	8
S	650N	24	0.2	26	5	16
S	700N	20	0.2	20	5	16
S	BL5+750N	18	0.2	12	5	8
S	BL5+800S	24	0.2	16	5	14
S	850S	10	0.2	12	5	12
S	900S	20	0.2	14	5	8
S	950S	14	0.2	18	5	10
S	1000S	8	0.2	14	5	10
S	1050S	10	0.2	10	5	10
S	BL5+1100S	38	0.2	10	5	16

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**CERTIFICATE OF ANALYSIS**

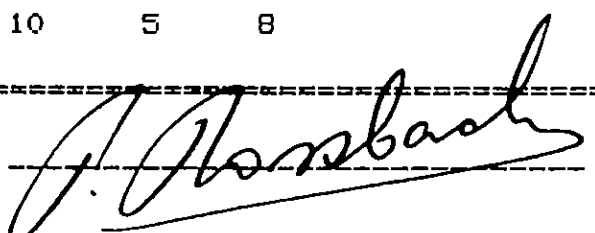
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600  
INVOICE#: 70112  
DATE ENTERED: 87-09-23  
FILE NAME: CHP87600  
PAGE # : 5

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL5+1150S	14	0.2	16	5	10
S	Base line 5 1200S	34	0.4	18	5	12
S	1250S	20	0.4	14	5	12
S	Palmer Bar 1300S	14	0.2	14	5	8
S	1350S	16	0.2	14	5	10
S	1400S	14	0.2	18	5	12
S	1450S	20	0.2	20	5	14
S	1500S	20	0.2	16	5	16
S	1550S	22	0.2	18	5	14
S	1600S	14	0.2	18	5	12
S	1650S	8	0.2	14	5	6
S	1700S	10	0.2	12	5	8
S	1750S	12	0.2	14	5	6
S	1800S	14	0.2	14	5	6
S	1850S	18	0.2	12	5	8
S	1900S	16	0.2	10	5	10
S	1950S	18	0.2	10	5	8
S	2000S	14	0.2	18	5	12
S	2050S	24	0.2	20	5	16
S	BL5+2100S	30	0.2	18	5	16
S	BL6+ 00N	10	1.6	14	5	6
S	Base line 6 50N	20	0.2	16	5	10
S	Palmer Bar 100N	12	0.2	8	5	8
S	150N	14	0.2	10	5	4
S	200N	12	0.2	16	5	12
S	250N	10	0.2	10	5	4
S	300N	14	0.2	10	5	12
S	350N	10	0.2	12	5	4
S	400N	10	0.2	30	5	6
S	450N	12	0.2	10	5	10
S	500N	14	0.2	10	5	4
S	550N	18	0.2	20	5	14
S	600N	14	0.2	18	5	10
S	650N	6	0.2	8	5	8
S	700N	12	0.2	14	5	6
S	BL6+ 750N	4	0.2	4	5	6
S	BL6+ 850S	28	0.2	32	5	18
S	900S	50	2.0	56	5	22
S	BL6+ 950S	10	0.2	10	5	8

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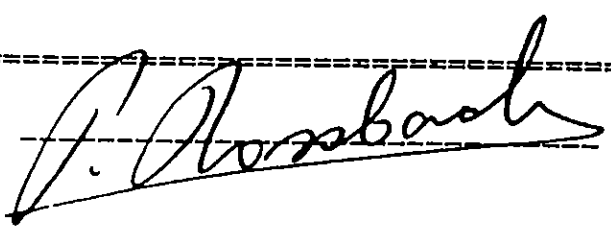
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600  
INVOICE#: 70112  
DATE ENTERED: 87-09-23  
FILE NAME: CHP87600  
PAGE #: 6

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
S	BL6+1000S	30	0.2	34	5	12
S	1050S	18	0.2	18	5	12
S	Base line 6 1100S	14	0.4	16	5	6
S	Palmer Bar 1150S	16	0.2	12	5	10
S	1200S	12	0.2	18	5	4
S	1250S	8	0.2	12	5	4
S	1300S	10	0.2	30	5	10
S	1350S	22	0.2	38	5	24
S	1400S	16	0.4	16	5	8
S	1450S	22	0.4	22	5	10
S	1500S	14	0.2	16	5	12
S	1550S	14	0.2	10	5	10
S	1600S	18	0.2	18	5	20
S	1650S	26	0.4	30	5	54
S	1700S	12	0.2	8	5	12
S	1750S	16	0.2	18	5	8
S	1800S	10	0.2	8	5	6
S	1850S	30	0.2	4	5	24
S	1900S	14	0.2	8	5	8
S	1950S	22	0.4	24	5	10
S	2000S	12	0.2	6	5	8
S	2050S	12	0.2	6	5	8
S	2100S	22	0.2	116	5	8
S	2150S	26	0.2	16	5	10
S	BL6+2200S	34	0.2	16	5	14

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(15)<sup>a</sup>

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2225-5. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4th ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600.A  
INVOICE#: 70170  
DATE ENTERED: 87-09-30  
FILE NAME: CHF87600.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Zn
S	BL5 00N	94
S	Base Line 5 50N	50
S	Palmer Bar 100N	52
S	150N	62
S	200N	70
S	250N	66
S	300N	64
S	350N	90
S	400N	86
S	450N	82
S	500N	68
S	550N	104
S	600N	136
S	650N	74
S	700N	102
S	750N	88
S	800N	78
S	850N	62
S	900N	114
S	BL5 950N	96
S	1000N	62
S	1050N	54
S	1100N	98
S	1150N	182
S	1200N	150
S	1250N	132
S	1300N	116
S	1350N	80
S	1400N	110
S	1450N	78
S	1500N	138
S	1550N	166
S	1600N	134
S	1650N	42
S	1700N	54
S	1750N	54
S	1800N	78
S	1850N	70
S	1900N	126
S	BL5 1950N	126

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*P. Rossbach*

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

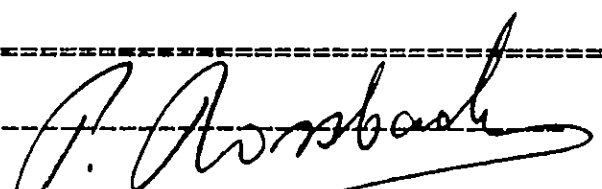
**TO :** CHAPLEAU RESOURCES LTD.  
2100 N. 4th ST.  
CRANBROOK, B.C.

**CERTIFICATE#:** 87600.A  
**INVOICE#:** 70170  
**DATE ENTERED:** 87-09-30  
**FILE NAME:** CHF87600.A  
**PAGE # :** 2

**PROJECT:**  
**TYPE OF ANALYSIS:** GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Zn
S	Base line 5 BL5 2000N	170
S	2050N	120
S	BL5 2100N	104
S	BL6 00N	60
S	50N	74
S	100N	74
S	Base line 6 150N	46
S	Palmar Bari 200N	72
S	250N	64
S	300N	92
S	350N	136
S	400N	170
S	450N	108
S	500N	50
S	550N	124
S	600N	86
S	650N	58
S	700N	64
S	750N	28
S	BL6 850N	56
S	900N	NSS
S	950N	70
S	1000N	58
S	1050N	116
S	1100N	74
S	1150N	82
S	1200N	62
S	1250N	76
S	1300N	92
S	1350N	96
S	1400N	152
S	1450N	138
S	1500N	88
S	1550N	60
S	1600N	104
S	1650N	118
S	1700N	68
S	1750N	96
S	1800N	84
S	BL6 1850N	80

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## CERTIFICATE OF ANALYSIS

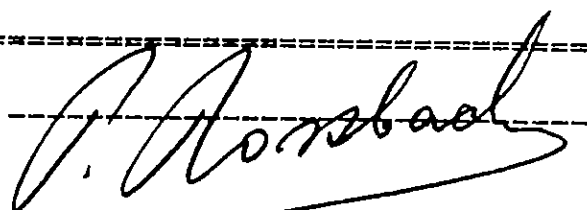
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4th ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87600.A  
INVOICE#: 70170  
DATE ENTERED: 87-09-30  
FILE NAME: CHF87600.A  
PAGE # : 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Zn
S	BL6 1900N	112
S	Base Line 6 1950N	106
S	2000N	80
S	Palmar Bar 2050N	56
S	2100N	144
S	2150N	112
S	BL6 2200N	116

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BURNABY, B.C. V5B 3N1  
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CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87566  
PROJECT :  
INVOICE# : 70094  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

ELCR SAMPLE NAME	Oz/t -100M	Oz/t +100M	mg. Au +100M	Wt. gm -100M	Wt. gm +100M	Oz/t FINAL
CUT #1: 87-UB-04	0.019	0.114	0.032	224	8.17	0.022
87-UB-05	0.094	0.089	0.027	234	8.80	0.094
87-UB-09	0.018	1.186	0.120	190	2.95	0.036
87-UB-10	0.001	0.001	0.001	284	6.79	0.001
87-UB-11	0.001	0.001	0.001	202	9.33	0.001
87-UB-12	0.001	0.001	0.001	269	5.65	0.001
87-UB-14	0.044	0.064	0.018	205	8.14	0.045
CUT #1: W-01	0.009	0.001	0.001	224	5.34	0.009
CUT #2: UB-87-09	0.005	0.340	0.042	229	3.60	0.010
87-UB-10	0.001	0.001	0.001	198	1.41	0.001
87-UB-11	0.004	0.133	0.008	217	1.75	0.005
CUT #2: UB-87-12	0.101	0.001	0.001	237	4.07	0.099

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*[Handwritten Signature]*

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
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## CERTIFICATE OF ANALYSIS

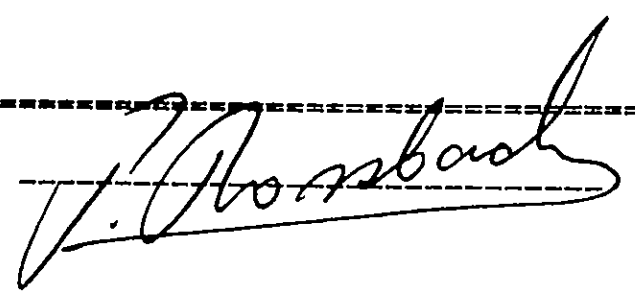
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87607  
INVOICE#: 70117  
DATE ENTERED: 87-10-05  
FILE NAME: CHP87607  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
A	ELCR- 1	740	1.0	190	2220	98
A	2	194	0.2	18	250	18
A	3	210	0.2	18	7200	8
A	ELCR- 4	228	0.2	28	2380	6
A	LB 87-01	2840	1.6	2	20	2
A	LB 87-02	94	0.2	2	30	92
A	ELCR-10	110	5.4	36	4020	8
S	ELCR-10	82	0.2	32	4180	8

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

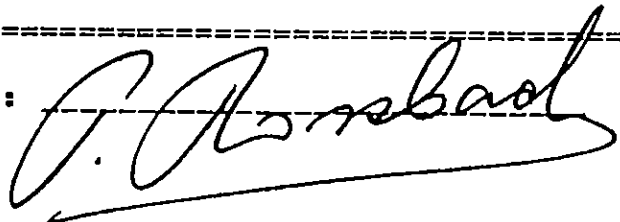
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4th STREET  
CRANBROOK, B.C.

CERTIFICATE#: 87607.A  
PROJECT :  
INVOICE# : 70117  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t	Oz/t	mg. Au	Wt. gm	Wt. gm	Oz/t
	-100M	+100M	+100M	-100M	+100M	FINAL
ELCR -01	0.090	0.001	0.001	242	3.74	0.089
ELCR -02	0.007	0.001	0.001	193	1.48	0.007
ELCR -03	0.076	1.488	0.050	185	0.98	0.083
ELCR -04	0.082	0.455	0.054	209	3.46	0.088
LB87 -01	0.001	0.001	0.001	228	5.82	0.001
LB87 -02	0.001	0.001	0.001	230	9.05	0.001
-80M.ELCR-10C	0.101	16.812	1.124	224	1.95	0.245

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2225 3. SPRINGER AVENUE  
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## CERTIFICATE OF ANALYSIS

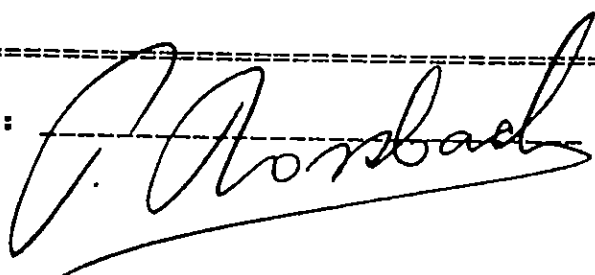
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4th STREET  
VANCOUVER, B.C.

CERTIFICATE#: 87633  
PROJECT :  
INVOICE# : 70171  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t	Oz/t	mg. Au	Wt. gm	Wt. gm	Oz/t
	-100M	+100M	+100M	-100M	+100M	FINAL
ELCR 5-A	1.890	43.609	9.240	228	6.18	2.991
ELCR 5-B	2.940	31.005	10.290	235	9.68	4.050
ELCR 5-C	1.890	45.235	7.770	236	5.01	2.791
ELCR 6-A	0.063	2.781	0.082	195	0.86	0.075
ELCR 6-B	0.017	1.209	0.080	216	1.93	0.028
ELCR 6-C	0.013	0.001	0.001	248	3.96	0.013
ELCR 7-A	0.630	109.376	1.575	184	0.42	0.878
ELCR 7-B	0.578	148.187	1.575	166	0.31	0.853

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## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

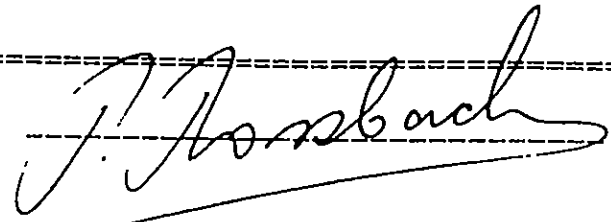
TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562.A  
INVOICE#: 70073  
DATE ENTERED: 87-09-17  
FILE NAME: CHP87562.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As		
A	56	16	0.2	30	160	44	} Homestate Veins	
A	57	10	5.8	90	30	24		
A	58	8	0.2	12	5	6		
A	59	14	0.2	42	2120	56		
A	60	8	0.2	4	- 20	20		
A	61	28	0.6	78	50	26		
A	62	4	0.4	10	20	8		
A	63	22	0.6	36	40	16		
A	64	40	1.4	600	12600	68		
A	65	8	0.6	64	60	8		
A	66	4	0.4	10	40	14	} Wuhun Spring fault	
A	67	16	0.6	132	6000	74		
A	68	6	0.4	46	70	16		
A	70	8	0.2	6	5	12		
A	71	6	0.2	2	5	6		
A	72	48	0.4	336	5	6		} Wuhun Cr. Road South
A	73	12	0.4	72	5	4		
A	74	4	0.2	24	5	6		
A	75	6	0.2	8	5	4		
A	76	6	0.2	4	5	6		
A	77	4	0.2	8	5	2		
A	78	10	0.2	6	5	2		
A	79	2	0.2	2	5	4		
A	80	10	0.2	2	5	10		
A	81	4	0.2	2	5	4		
A	82	6	0.2	2	5	6	} Wuhun Cr. Road North	
A	83	2	0.2	2	5	14		
A	84	2	0.2	2	5	12		
A	85	28	0.2	2	5	12		
A	86	12	0.2	2	5	8		
A	87	38	0.2	2	5	14		
A	88	42	0.2	4	5	14		
A	89	26	0.2	18	5	14		
A	90	14	0.2	18	5	14		

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

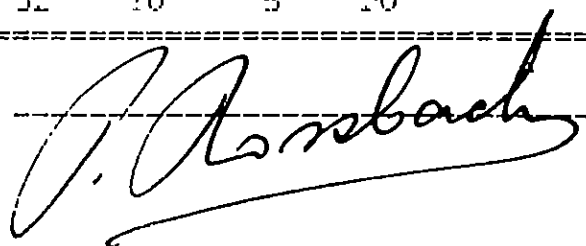
CLIENT: CHRYSTAL RESOURCES LTD.,  
2100 E. 11TH ST.,  
CRANFORD, B.C.

CERTIFICATE#: 87707  
INVOICE#: 80090  
DATE ENTERED: 07-10-22  
FILE NAME: CHF87707  
PAGE #: 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
	NOLE BL 100N+100W	54	0.2	54	18	5	22
	75W	14	0.2	23	4	5	8
	<i>Roche Creek</i> 50W	14	0.2	40	4	5	14
	25W	12	0.2	46	2	5	10
	00	14	0.2	50	2	5	10
	25E	22	0.2	54	14	5	14
	50E	10	0.2	35	0	5	10
	75E	10	0.2	57	4	5	10
	NOLE BL 100N+100E	10	0.2	41	1	5	4
	NOLE BL 100N+100W	128	0.2	40	14	5	10
	75W	22	0.2	67	3	5	14
	50W	10	0.2	45	5	5	6
	25W	10	0.2	54	5	5	9
	00	8	0.2	46	2	5	4
	25E	8	0.2	36	2	5	6
	50E	8	0.2	90	2	5	10
	75E	4	0.2	78	4	5	8
	NOLE BL 100N+100E	4	0.2	34	6	5	6
	NOLE BL 100N+100W	4	0.2	50	4	5	4
	75W	4	0.2	34	4	5	6
	50W	6	0.2	52	8	5	10
	25W	10	0.2	50	6	5	6
	00	8	0.2	58	4	5	6
	25E	6	0.2	82	4	5	4
	50E	4	0.2	67	4	5	10
	75E	8	0.2	51	10	5	8
	NOLE BL 100N+100E	8	0.2	34	4	5	4
	NOLE BL 100N+100W	8	0.2	36	4	5	4
	75W	10	0.2	64	3	5	6
	50W	6	0.2	41	4	5	10
	25W	6	0.2	59	4	5	10
	00	4	0.2	33	2	5	4
	25E	6	0.2	48	4	5	2
	50E	10	0.2	62	4	5	10
	75E	8	0.2	50	6	5	8
	NOLE BL 100N+100E	4	0.2	37	5	5	8
	NOLE BL 100N+100W	4	0.2	26	2	5	4
	75W	4	0.2	34	2	5	4
	50W	12	0.2	56	10	5	8
	NOLE BL 100N+ 25W	24	0.2	52	10	5	20

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

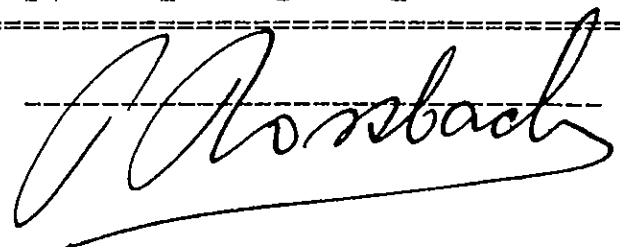
TO: CHAPLEAU RESOURCES LTD.,  
 2100 N 4TH ST.,  
 CRANERODD, B.C.

CERTIFICATE#: 87707  
 INVOICE#: 80090  
 DATE ENTERED: 87-10-22  
 FILE NAME: CHF87707  
 PAGE #: 2

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	NOI E BL 1+200N+ 00	10	0.2	64	6	5	6
S	25E	12	0.2	72	6	5	6
S	50E	4	0.2	30	2	5	2
S	75E	10	0.2	60	6	5	6
S	NOI E BL 1+200N+100E	12	0.2	46	10	5	10
S	NOI E BL 1+250N+100W	12	0.2	46	8	5	2
S	75W	10	0.2	40	3	5	4
S	50W	10	0.2	50	4	5	2
S	25W	12	0.2	40	4	5	2
S	00	8	0.2	50	12	5	2
S	25E	8	0.2	38	4	5	4
S	50E	8	0.2	32	4	5	2
S	75E	8	0.2	36	2	5	2
S	NOI E BL 1+250N+100E	14	0.2	50	8	5	2
S	NOI E BL 1+300N+100W	8	0.2	48	4	5	2
S	75W	8	0.2	36	6	5	2
S	50W	6	0.2	38	2	5	2
S	25W	4	0.2	30	2	5	2
S	25E	6	0.2	30	2	5	2
S	NOI E BL 1+300N+ 50E	4	0.2	32	2	5	6
S	75E	4	0.2	22	4	5	8
S	NOI E BL 1+300N+100E	6	0.2	24	4	5	4
S	NOI E BL 1+300N+100W	8	0.2	40	6	5	4
S	75W	6	0.2	40	1	5	4
S	50W	6	0.2	36	3	5	10
S	25W	8	0.2	50	4	5	4
S	00	6	0.2	28	4	5	2
S	25E	12	0.2	42	10	5	2
S	50E	10	0.2	38	8	5	8
S	75E	10	0.2	40	8	5	4
S	NOI E BL 1+350N+100E	12	0.2	36	16	5	6
S	NOI E BL 1+400N+100W	4	0.2	26	2	5	4
S	75W	8	0.2	50	2	5	10
S	50W	10	0.2	32	8	5	4
S	25W	8	0.2	48	4	5	20
S	00	6	0.2	26	4	5	2
S	25E	12	0.2	40	6	5	8
S	50E	18	0.2	46	10	5	8
S	75E	4	0.2	28	10	5	2
S	NOI E BL 1+400N+100E	6	0.2	24	2	5	2

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ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS *Morgan*

TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87698  
INVOICE#: 80089  
DATE ENTERED: 87-10-22  
FILE NAME: CHF87698  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As	
S	<i>Strong</i> CK-1A	16	0.2	54	16	5	10	
S		1B	14	0.2	56	14	5	4
S		2A	8	0.2	48	12	5	2
S		2Bi	6	0.2	66	12	5	4
S		2Bii	6	0.2	44	6	5	2
S	3A	8	0.2	72	10	5	2	
S	4A	4	0.2	38	2	5	12	
S	4B	4	0.2	36	2	5	10	
S	5A	4	0.2	52	2	5	4	
S	CK-5B	4	0.2	34	2	5	6	
S	6A	4	0.2	66	2	5	6	
S	6B	4	0.2	40	2	5	2	
S	7A	4	0.2	32	2	5	2	
S	7B	2	0.2	26	2	5	2	
S	8A	4	0.2	46	2	5	2	
S	8B	6	0.2	40	2	70	4	
S	9A	6	0.2	42	4	5	4	
S	9B	6	0.2	30	2	5	2	
S	10A	6	0.2	40	4	5	2	
S	CK-10B	6	0.2	42	6	5	2	
S	LD-1A	16	0.2	78	14	5	10	
S	<i>London</i> 1B	14	0.2	52	18	5	10	
S		2A	26	0.2	92	28	5	16
S		2B	26	0.2	72	24	5	12
S		3A	30	0.2	64	72	5	8
S		3B	32	0.2	50	28	5	14
S	4A	30	0.2	72	40	5	10	
S	4B	24	0.2	58	22	5	8	
S	5A	22	0.2	66	18	5	12	
S	5B	20	0.2	58	18	5	10	
S	6A	14	0.2	58	12	5	6	
S	LD-6B	18	0.2	140	18	5	14	
S	<i>London Branch</i> MB-1A	4	0.2	28	4	5	2	
S		1B	4	0.2	34	4	5	10
S	2A	10	0.2	36	8	5	8	
S	MB-2B	10	0.2	36	10	5	8	
S	<i>Wahnum</i> WH-1A	12	0.2	54	10	5	10	
S		1B	10	0.2	56	6	5	4
S		2A	10	0.2	50	6	5	6
S		WH-2B	16	0.2	50	14	20	2

CERTIFIED BY :

*J. Rossbach*

# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

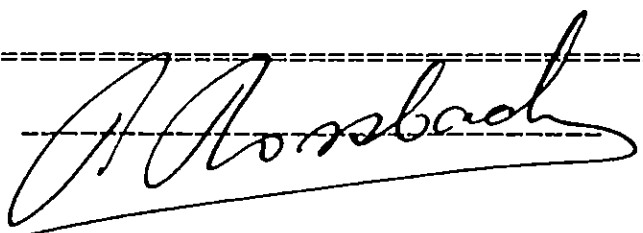
TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87698  
INVOICE#: 80089  
DATE ENTERED: 87-10-22  
FILE NAME: CHP87698  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	WH-3A	12	0.2	44	12	5	2
S	3B	8	0.2	42	6	5	2
S	4A	12	0.2	44	10	5	2
S	4B	18	0.2	56	12	5	4
S	5A	12	0.2	44	8	5	4
S	5B	10	0.2	40	10	5	8
S	6A	12	0.2	44	10	5	4
S	6B	10	0.2	38	8	5	2
S	7A	16	0.2	42	10	5	8
S	WH-7B	12	0.2	38	8	5	4
S	8A	8	0.2	48	8	5	2
S	<i>w</i> 8B	8	0.2	48	10	20	6
S	9A	14	0.2	44	10	5	4
S	WH-9B	14	0.2	44	10	5	6
S	WL-1A	16	0.2	52	8	5	4
S	<i>Waverly</i> 1B	14	0.2	48	8	5	2
S	2A	14	0.2	54	8	5	6
S	2B	10	0.2	46	6	5	4
S	3A	14	0.2	64	6	5	6
S	WL-3B	12	0.2	78	12	5	2
S	4A	12	0.2	42	6	5	6
S	4B	8	0.2	38	10	5	10
S	5A	12	0.2	48	8	5	6
S	5B	12	0.2	68	10	5	10
S	6A	16	0.2	56	8	5	4
S	WL-6B	12	0.2	50	8	5	8

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**BOSSBACHER LABORATORY LTD.**  
**CERTIFICATE OF ANALYSIS**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3M1  
TEL : (604) 299 - 6910

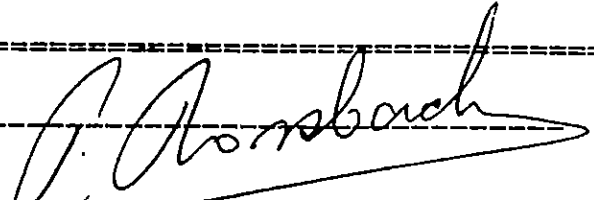
TO : CHAPLEAU RESOURCES INC  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562  
INVOICE#: 70054  
DATE ENTERED: 87-09-14  
FILE NAME: CHP87562  
PAGE #: 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL 00+ 00N+ 00W	28	0.2	86	8	5	6
S	50W	26	0.2	104	10	5	6
S	Palmer Bar 100W	18	0.2	72	12	5	10
S	150W	16	0.2	198	28	5	8
S	200W	14	0.2	100	8	5	6
S	250W	16	0.2	120	20	5	6
S	300W	10	0.2	98	10	5	6
S	350W	18	0.2	106	16	5	8
S	400W	14	0.2	74	12	5	8
S	450W	18	0.2	120	18	5	4
S	500W	12	0.2	94	10	5	4
S	550W	12	0.2	128	22	5	10
S	600W	12	0.2	130	14	5	8
S	650W	10	0.2	50	6	5	4
S	700W	14	0.2	112	14	5	6
S	750W	16	0.2	90	14	5	14
S	800W	10	0.2	72	8	5	8
S	00N+850W	12	0.4	100	8	5	6
S	50N+ 00W	18	0.2	88	12	5	18
S	50W	18	0.4	98	10	5	4
S	100W	18	0.4	120	26	5	6
S	150W	16	0.4	140	16	5	8
S	200W	14	0.2	168	6	5	8
S	250W	16	0.2	108	8	5	8
S	300W	16	0.2	142	14	5	10
S	350W	20	0.2	102	14	5	8
S	400W	14	0.2	68	12	5	10
S	450W	18	0.2	84	8	5	6
S	500W	18	0.2	64	10	5	6
S	550W	14	0.2	68	14	5	10
S	600W	12	0.2	92	14	5	6
S	650W	14	0.2	128	10	5	14
S	700W	14	0.2	60	8	5	6
S	50N+750W	14	0.4	118	8	5	10
S	100N+ 00W	28	0.2	112	18	5	10
S	50W	22	0.2	128	16	5	12
S	100W	16	0.2	58	8	5	10
S	150W	22	0.4	130	24	5	12
S	BL 00+100N+200W	24	0.2	120	14	5	8

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

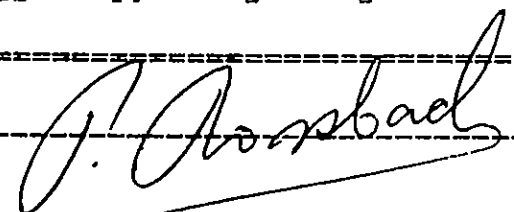
TO : CHAPLEAU RESOURCES INC  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562  
INVOICE#: 70054  
DATE ENTERED: 87-09-14  
FILE NAME: CHP87562  
PAGE #: 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL 00+100N+250W	20	0.2	100	10	5	8
S	300W	12	0.4	100	16	5	10
S	350W	16	0.2	98	16	5	4
S	400W	18	0.2	102	10	5	2
S	<i>Palmer Bar</i> 450W	10	0.2	102	8	5	6
S	500W	18	0.2	70	16	5	10
S	550W	20	0.2	56	16	5	4
S	600W	14	0.2	68	14	5	6
S	650W	18	0.2	98	26	5	12
S	700W	14	0.2	80	6	5	6
S	100N+750W	10	0.2	122	12	5	4
S	200N+ 00W	14	0.4	128	12	5	10
S	50W	24	0.2	110	14	5	10
S	100W	22	0.2	78	14	5	6
S	150W	24	0.2	114	16	5	8
S	200W	24	0.4	102	16	5	8
S	250W	18	0.4	94	18	5	10
S	300W	22	0.2	150	12	5	8
S	350W	28	0.4	108	12	5	8
S	400W	44	0.2	72	10	5	8
S	450W	40	0.2	102	16	5	12
S	500W	20	0.2	138	14	5	12
S	550W	16	0.2	146	14	5	14
S	600W	16	0.2	102	12	5	14
S	650W	20	0.2	62	10	5	8
S	200N+700W	22	0.4	88	10	5	20
S	250N+ 00W	18	0.2	98	20	5	10
S	50W	20	0.2	150	12	5	6
S	100W	36	0.2	100	12	5	4
S	150W	18	0.2	138	12	5	4
S	200W	32	0.4	60	14	5	18
S	250W	24	0.2	90	18	5	12
S	300W	26	0.2	176	14	5	10
S	350W	20	0.2	118	16	5	10
S	400W	26	0.4	192	14	5	10
S	450W	34	0.4	82	26	5	12
S	500W	24	0.2	78	8	5	10
S	550W	22	0.4	134	8	5	12
S	BL 00+250N+600W	20	0.2	128	10	5	8

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## CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

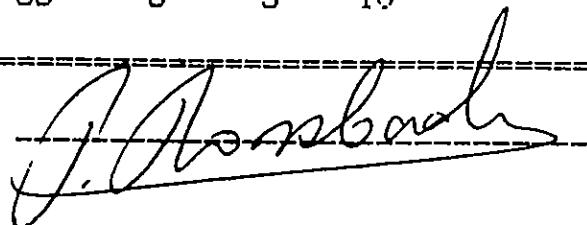
TO : CHAPLEAU RESOURCES INC  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562  
INVOICE#: 70054  
DATE ENTERED: 87-09-14  
FILE NAME: CHF87562  
PAGE # : 3

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL 00+250N+650W	14	0.2	104	6	5	6
S	250N+700W	14	0.2	110	12	5	6
S	100S+ 00W	10	0.2	92	12	5	12
S	50W	18	0.4	94	4	5	12
S	100W	16	0.2	102	8	5	6
S	150W	22	0.2	96	14	5	12
S	200W	18	0.2	64	8	5	10
S	250W	18	0.2	48	4	5	10
S	300W	14	0.2	66	10	5	8
S	350W	10	0.2	62	6	5	6
S	400W	10	0.2	66	6	5	10
S	450W	8	0.2	68	10	5	8
S	500W	16	0.2	100	18	5	12
S	550W	10	0.2	72	6	5	12
S	600W	14	0.2	64	24	5	8
S	650W	12	0.2	72	10	5	12
S	700W	20	0.2	84	12	5	12
S	750W	8	0.2	78	8	5	10
S	800W	12	0.2	138	12	5	8
S	850W	8	0.2	82	4	5	4
S	900W	10	0.2	56	6	5	12
S	950W	10	0.2	68	10	5	14
S	100S+1000W	8	0.2	40	2	5	14
S	150S+ 00W	12	0.4	78	12	5	10
S	50W	18	0.2	88	8	5	10
S	100W	10	0.2	86	4	5	8
S	150W	14	0.2	94	12	5	10
S	200W	8	0.2	84	8	5	10
S	250W	20	0.4	94	14	5	10
S	300W	18	0.2	94	8	5	12
S	350W	10	0.2	52	6	5	6
S	400W	8	0.2	56	10	5	14
S	450W	8	0.2	68	6	5	16
S	500W	6	0.2	102	12	5	14
S	550W	10	0.2	80	10	5	12
S	600W	8	0.2	80	12	5	10
S	650W	10	0.2	66	10	5	6
S	700W	10	0.2	92	6	5	10
S	BL 00+150S+750W	8	0.2	66	8	5	10

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

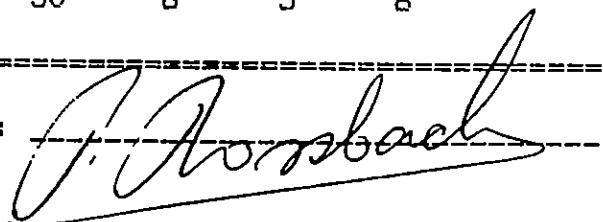
TO : CHAPLEAU RESOURCES INC  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562  
INVOICE#: 70054  
DATE ENTERED: 87-09-14  
FILE NAME: CHF87562  
PAGE # : 4

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL 00+150S+ 800W	18	0.2	74	12	5	14
S	850W	8	0.2	52	6	5	12
S	900W	14	0.2	60	8	5	8
S	950W	10	0.2	50	6	5	6
S	150S+1000W	8	0.2	46	6	5	8
S	200S+ 00W	16	0.2	114	8	5	10
S	50W	14	0.2	66	6	5	10
S	100W	14	0.2	74	6	5	8
S	150W	18	0.2	58	8	5	4
S	200W	16	0.2	46	4	5	4
S	250W	10	0.2	72	8	5	12
S	300W	12	0.2	50	6	5	12
S	350W	10	0.2	52	8	5	8
S	400W	12	0.2	60	8	5	10
S	450W	16	0.2	60	8	5	6
S	500W	26	0.4	114	30	5	20
S	200S+ 550W	16	0.2	98	8	5	14
S	300S+ 00W	16	0.4	90	16	5	14
S	50W	16	0.2	108	8	5	12
S	100W	14	0.4	76	8	5	8
S	150W	6	0.2	74	16	5	12
S	200W	14	0.2	92	8	5	12
S	250W	16	0.2	74	10	5	6
S	300W	18	0.2	92	15	5	8
S	350W	10	0.2	52	8	5	8
S	400W	10	0.2	64	8	5	4
S	450W	10	0.2	60	6	5	6
S	500W	14	0.2	68	10	5	10
S	300S+ 550W	16	0.2	54	18	5	8
S	350S+ 00W	14	0.2	56	8	5	8
S	50W	14	0.2	76	4	5	12
S	100W	10	0.2	86	4	5	10
S	150W	16	0.2	88	4	5	10
S	200W	10	0.2	72	12	5	10
S	250W	10	0.2	66	8	5	4
S	300W	10	0.2	46	8	5	6
S	350W	6	0.2	56	4	5	4
S	400W	14	0.2	88	10	5	8
S	BL 00+350S+ 450W	14	0.2	50	8	5	6

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e

# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

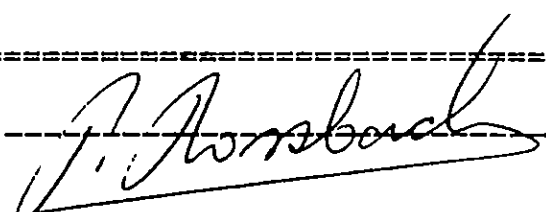
TO : CHAPLEAU RESOURCES INC  
2100 N. 4TH ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87562  
INVOICE#: 70054  
DATE ENTERED: 87-09-14  
FILE NAME: CHP87562  
PAGE # : 5

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL 00+350S+500W	26	0.2	48	8	5	6
S	350S+550W	18	0.2	52	14	5	8
S	400S+ 00W	22	0.2	54	10	5	6
S	50W	14	0.2	88	8	5	10
S	100W	16	0.2	76	10	5	8
S	150W	14	0.2	76	10	5	12
S	200W	16	0.2	96	10	5	10
S	250W	14	0.2	86	22	5	10
S	300W	12	0.2	60	10	5	4
S	350W	12	0.2	44	8	5	8
S	400W	8	0.2	48	8	5	4
S	450W	14	0.2	84	8	5	8
S	500W	16	0.2	56	12	5	4
S	BL 00+400S+550W	18	0.4	62	14	5	12

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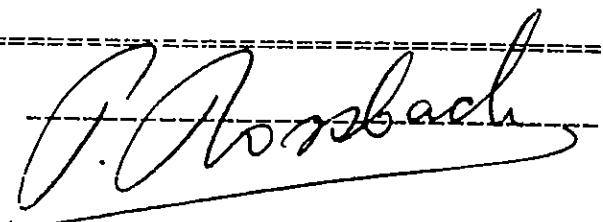
TO : CHAPLEAU RESOURCES LTD.  
2100 N. 4th ST.  
CRANBROOK, B.C.

CERTIFICATE#: 87566  
INVOICE#: 80006  
DATE ENTERED: 87-10-07  
FILE NAME: CHF87566  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au	PPM As
A	UBB7-01	6	0.2	2	5	8
A	02	6	0.2	2	5	6
A	<i>up, p. line</i> 03	6	0.2	2	5	2
A	04	14	0.2	2	1040	2
A	<b>ELCR</b> 05	36	0.4	2	3660	2
A	<b>vein</b> 06	18	0.2	2	10	2
A	07	4	0.2	2	5	4
A	08	4	0.2	2	5	2
A	09	18	0.2	2	440	2
A	10	28	0.2	2	5	10
A	11	18	0.2	2	5	2
A	12	14	0.2	2	5	2
A	13	22	0.2	2	5	2
A	14	6	0.2	14	1820	2
A	UBB7-15	18	0.2	2	5	2
A	H-01	4	0.4	2	5	26
A	H-02	4	0.2	2	5	26
A	B-01	40	0.4	25	5	26
A	W-01	42	0.4	2	250	80

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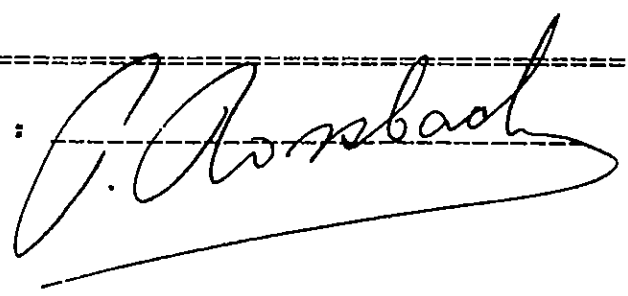
TO : CHATLEAU RESOURCES LTD.  
2100 N. 4th STREET N.  
CRANBROOK, B.C.

CERTIFICATE#: 87654  
PROJECT :  
INVOICE# : 80012  
PAGE# : 1

TYPE OF ANALYSIS: ALL METALLICS

SAMPLE NAME	Oz/t	Oz/t	mg. Au	Wt. gm	Wt. gm	Oz/t
	-100M	+100M	+100M	-100M	+100M	FINAL
ELCR8-01	0.093	0.058	0.020	230	10.04	0.092
ELCR8-02	0.134	0.278	0.149	258	15.64	0.147
ELCR8-03	0.137	0.150	0.014	191	2.73	0.137
ELCR8-04	0.120	0.076	0.025	225	9.63	0.118
ELCR9-01	0.128	1.230	0.116	201	2.75	0.143
ELCR9-02	0.090	0.349	0.086	212	7.18	0.098
ELCR9-03	0.110	0.136	0.037	228	7.94	0.111
ELCR9-04	0.120	0.052	0.006	193	3.38	0.119
NM87-100-1	0.001	0.001	0.001	137	0.16	0.001
NM87-100-2	0.001	0.001	0.001	129	0.66	0.001
NM87-101-1	0.001	0.001	0.001	124	0.11	0.001
NM87-101-2	0.001	0.001	0.001	110	0.12	0.001
NM87-101-3	0.001	0.001	0.001	82	0.09	0.001
NM87-102-1	0.012	0.001	0.001	178	1.64	0.012
NM87-102-2	0.015	0.001	0.001	139	0.10	0.015
NM87-102-3	0.019	0.001	0.001	103	0.06	0.019

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TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST  
CRANBROOK, B.C.

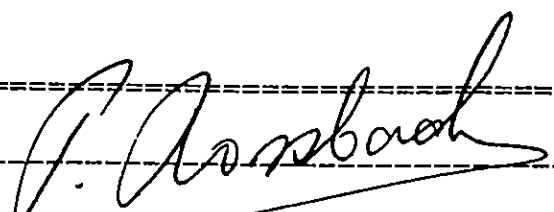
CERTIFICATE#: 87654.A  
INVOICE#: 80050  
DATE ENTERED: 87-10-16  
FILE NAME: CHF87654.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As	
S	# 1	4	0.2	44	2	5	16	} Palmer Bar Fault
S	# 2	10	0.2	54	4	4700	10	
S	# 3	10	0.2	44	6	40	8	
S	# 4	6	0.2	28	10	5	6	
A	NM 87-100-1	8	0.2	14	8		2	}
A	NM 87-101-1	1120	16.4	270	3100		152	
A	NM 87-102-1	1160	100.0	118	>10000		200	

N.M.

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TO : CHAPLEAU RESOURCES INC.  
2100 N. 4TH ST.  
CRANBROOK, B.C.

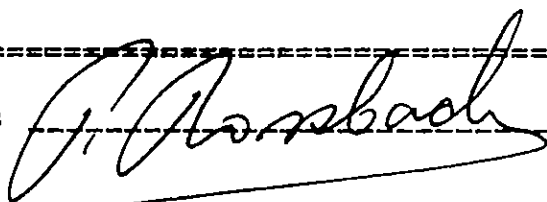
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INVOICE#: 7757  
DATE ENTERED: 87-09-15  
FILE NAME: CHA87312  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Pb	PPB Au
A	R 87-01	34	0.2	34	5
A	R 87-02	18	0.2	20	5
A	L.F. 87-01	12000	2.0	2	5
A	L.J. 87-01	80	4.2	36	50

West Kootenay, Crown Grant

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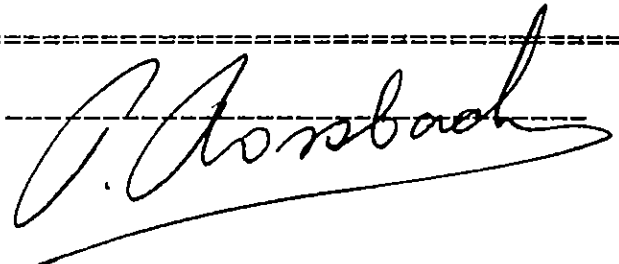
TO: CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87733 .A  
INVOICE#: 80125  
DATE ENTERED: 87-10-29  
FILE NAME: CHP87733 .A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	Nike Adit DUMP A	4	0.2	24	6		6
A	DUMP B	4	0.2	6	2		4
A	DUMP C	18	0.2	2	4		116 *
A	DUMP D	4	0.2	8	2		2
A	RUCI ADB7-01	4	0.2	8	2		2
A	RUCI ADB7-02	16	0.2	10	2		2
A	RUCI ADB7-03	2	0.2	28	2		6
A	Nike adit 91	2	0.2	10	2		2
A	96	2	0.2	8	2		4
A	98	4	0.2	22	4		10
A	99	6	0.2	8	12		4
A	101	16	0.2	10	16		16
A	102	12	0.2	12	14		12
A	104	30	0.2	18	26		10
A	105	60	0.2	40	6		10
A	106	18	0.2	16	36		22
A	Palmer Bar BL6-10	2	0.2	4	4		2
A	Base line 6 BL6-11	22	0.2	26	4		12
A	LDM-5	>10000	3.0	30	16		2
A	NEG-100	24	0.2	36	94		12
A	NEG-101	34	1.4	28	2200		2
A	NEG-102	10	0.2	38	70		2
A	NEG-103	14	0.2	60	24		2
A	NEG-104	30	0.2	28	184		2
A	RA-3	60	0.2	50	4		2
A	RA-3A	16	0.2	6	2		2
A	W-01	40	0.2	70	2		600
A	W-02	510	0.2	54	2		250
A	W-03	10	0.2	16	80		12
A	BSW 3 W-04	8	0.2	38	38		12
A	Waho Creek BL3 2015	12	0.2	62	20	5	2
A	ADIT ENTRANCE	4	0.2	8	2		2

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## CERTIFICATE OF ANALYSIS

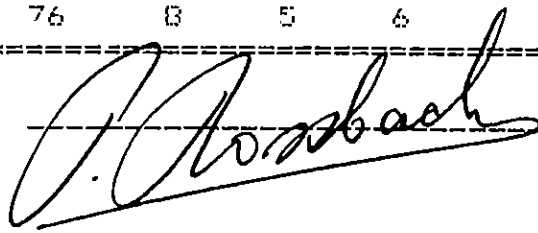
TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87736  
INVOICE#: 80127  
DATE ENTERED: 87-10-29  
FILE NAME: CHF87736  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL2+ 00 + 50E	16	0.2	56	10	5	6
S	Wuho Creek 50W	26	0.2	102	32	5	4
S	100W	14	0.2	54	14	5	2
S	BL2+ 00 +150W	10	0.2	30	10	5	8
S	BL2+100N+100E	14	0.2	200	20	5	8
S	BL2+100N+ 50E	14	0.2	110	66	5	8
S	BSW BL2+100N+ 50W	10	0.2	128	24	5	2
S	100W	14	0.2	90	16	5	2
S	150W	12	0.2	96	16	5	4
S	BSW BL2+100N+200W	12	0.2	74	14	5	8
S	BL2+100S+100E	6	0.2	40	12	5	2
S	50E	10	0.2	62	12	5	6
S	50W	12	0.2	90	22	5	4
S	100W	16	0.2	66	26	5	6
S	BL2+100S+150W	20	0.2	86	42	5	8
S	BL2+150S+ 00	10	0.2	68	14	5	6
S	BL2+200N+100E	14	0.2	104	22	5	4
S	50E	14	0.2	114	18	5	2
S	50W	12	0.2	162	22	5	8
S	100W	6	0.2	104	12	5	6
S	150W	8	0.2	118	14	5	6
S	BL2+200N+200W	8	0.2	68	10	5	4
S	BL2+200S+100E	8	0.2	72	20	5	10
S	50E	10	0.2	70	14	5	4
S	00	14	0.2	78	24	5	8
S	50W	8	0.2	70	18	5	2
S	100W	10	0.2	82	26	5	4
S	BL2+200S+150W	20	0.2	142	36	5	12
S	BL2+300N+100E	14	0.2	112	22	5	6
S	50E	14	0.2	94	12	5	4
S	Wuho Creek 50W	8	0.2	84	10	5	2
S	100W	10	0.2	108	12	5	2
S	150W	8	0.2	160	20	5	2
S	BL2+300N+200W	8	0.2	86	12	5	2
S	BL2+400N+100E	12	0.2	100	14	5	4
S	50E	10	0.2	130	12	5	2
S	50W	8	0.2	80	8	5	2
S	100W	8	0.2	54	2	5	6
S	150W	18	0.2	144	20	5	6
S	BL2+400N+200W	16	0.2	76	8	5	6

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BURNABY, B.C. V5B 3N1  
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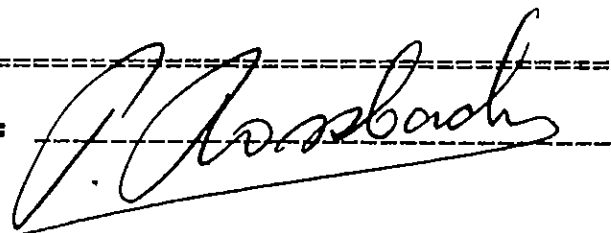
○: CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87736  
INVOICE#: 80127  
DATE ENTERED: 87-10-29  
FILE NAME: CHP87736  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BL2+500N+ 50W	12	0.2	118	10	5	4
S	Wuho Creek 100W	10	0.2	92	28	5	2
S	150W	12	0.2	86	6	5	4
S	BL2+500N+200W	14	0.2	78	6	5	10

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CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87733.A  
PROJECT :  
INVOICE# : 80126  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t -100M	Oz/t +100M	mg. Au +100M	Wt. gm -100M	Wt. gm +100M	Oz/t FINAL
Nokeadit DUMP A	0.001	0.001	0.001	196	16.95	0.001
DUMP B	0.001	0.001	0.001	192	2.86	0.001
DUMP C	0.001	0.001	0.001	238	2.41	0.001
DUMP D	0.001	0.001	0.001	241	4.34	0.001
BUCK ADB7-01	0.001	0.029	0.004	238	4.00	0.001
BUCK ADB7-02	0.001	0.001	0.001	209	1.37	0.001
BUCK ADB7-03	0.001	0.001	0.001	92	0.91	0.001
Noke 91	0.001	0.001	0.001	198	0.88	0.001
adit 96	0.001	0.001	0.001	237	13.10	0.001
98	0.001	0.001	0.001	211	2.86	0.001
99	0.001	0.001	0.001	214	1.67	0.001
101	0.014	0.001	0.001	213	0.83	0.014
102	0.001	0.001	0.001	250	2.43	0.001
104	0.005	0.001	0.001	228	2.24	0.005
105	0.001	0.001	0.001	224	8.97	0.001
106	0.022	0.001	0.001	241	2.01	0.022
Base line 6 BL6-10	0.001	0.001	0.001	189	0.54	0.001
almon bar BL6-11	0.001	0.001	0.001	229	3.69	0.001
LDM-5	0.001	0.001	0.001	222	1.79	0.001
NEG-100	0.001	0.001	0.001	222	0.94	0.001
NEG-101	0.001	0.001	0.001	206	1.21	0.001
NEG-102	0.001	0.001	0.001	195	1.02	0.001
NEG-103	0.001	0.001	0.001	207	1.43	0.001
NEG-104	0.001	0.001	0.001	248	2.26	0.001
Rocky RA-3	0.001	0.001	0.001	249	5.95	0.001
RA-3A	0.001	0.001	0.001	198	0.77	0.001
DIORITE W-01	0.008	0.001	0.001	222	1.87	0.008
SILL W-02	0.032	2.709	0.183	232	1.97	0.055
W-03	0.001	0.001	0.001	209	1.26	0.001
W-04	0.001	0.001	0.001	197	0.67	0.001
ADIT ENTRANCE	0.001	0.001	0.001	227	1.80	0.001

0.01

N.E

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2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87728  
INVOICE#: 80120  
DATE ENTERED: 87 10-29  
FILE NAME: CHF07728  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
5	u. l. Crk. BSW+100N+200E	16	0.2	108	18	5	10
5	Baseline 3 150E	14	0.2	74	16	5	12
5	BSW 3 100E	10	0.2	80	8	5	10
5	50E	14	0.2	64	6	5	6
5	50W	14	0.2	82	14	5	8
5	100W	8	0.2	64	22	5	4
5	150W	10	0.2	56	30	5	8
5	200W	12	0.2	58	10	5	6
5	BSW+100N+250W	8	0.2	48	6	5	2
5	BSW+200N+ 50E	10	0.2	92	8	5	4
5	100E	10	0.2	74	10	5	8
5	150E	8	0.2	34	8	5	6
5	BSW+200N+200E	8	0.2	98	10	5	4
5	BSW+ 00 +200E	12	0.2	50	8	5	6
5	150E	12	0.2	90	12	5	6
5	100E	14	0.2	60	12	5	4
5	50E	12	0.2	72	8	5	4
5	50W	10	0.2	40	12	5	2
5	100W	20	0.2	38	20	5	8
5	150W	12	0.2	62	26	5	12
5	200W	10	0.2	80	8	5	4
5	BSW+ 00 +250W	8	0.2	38	10	5	4
5	BSW+100S+200E	8	0.2	54	12	5	6
5	150E	8	0.2	50	6	5	6
5	100E	12	0.2	76	12	5	6
5	50E	10	0.2	52	8	5	2
5	00	10	0.2	54	26	5	2
5	50W	4	0.2	30	2	5	4
5	100W	10	0.2	72	12	5	8
5	150W	10	0.2	60	18	5	6
5	200W	10	0.2	60	12	5	2
5	BSW+100S+250W	8	0.2	38	6	5	6
5	BSW+200S+200E	14	0.2	62	12	5	4
5	150E	12	0.2	54	8	5	2
5	100E	4	0.2	24	4	5	8
5	50E	8	0.2	52	12	5	6
5	00	6	0.2	32	5	5	6
5	50W	10	0.2	66	10	5	2
5	BSW+200S+100W	10	0.2	56	14	5	4
5	BSW+200S+200E	18	0.2	90	20	5	6

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2225 S. SPRINGER AVENUE  
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TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

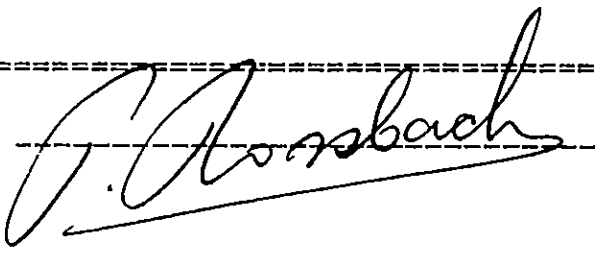
TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87728  
INVOICE#: 80123  
DATE ENTERED: 87-10-29  
FILE NAME: CHP87728  
PAGE # : 2

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL.

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BSW+300S+150E	12	0.2	60	10	5	4
S	100E	10	0.2	54	10	5	2
S	50E	18	0.2	60	10	5	6
S	00	14	0.2	58	10	5	2
S	50W	16	0.2	56	12	5	2
S	BSW+300S+100W	20	0.2	64	14	5	8

CERTIFIED BY :



CERTIFICATE OF ANALYSIS

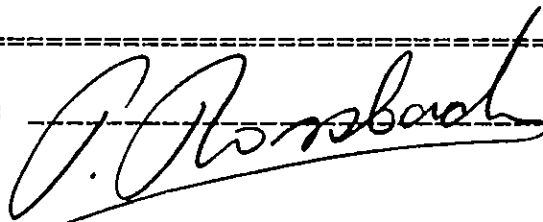
CHAPLEAU RESOURCES LTD.,  
 2100 N 4TH ST.,  
 CRANBROOK, B.C.

CERTIFICATE#: 87732  
 INVOICE#: 80124  
 DATE ENTERED: 87-10-29  
 FILE NAME: CHP87732  
 PAGE # : 1

PROJECT:  
 TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
W. 1	BSW BL1+ 50N	14	0.2	96	10	5	14
S	BSW BL2+100S	16	0.2	64	10	5	8
S	BSW BL2+ 50S	22	0.2	152	22	5	17
S	00	16	0.2	88	16	5	12
S	50N	MISSING					
S	100N	14	0.2	114	16	5	10
S	150N	22	0.2	98	6	5	8
S	Who Creek 200N	12	0.2	88	6	5	18
S	250N	*	16	0.2	160	78	26
S	300N	20	0.2	82	8	5	8
S	350N	6	0.2	88	6	5	6
S	400N	8	0.2	68	4	5	8
S	450N	10	0.2	94	10	5	10
S	BSW BL3+500N	8	0.2	116	6	5	8
S	BSW +5N+ 50E	12	0.2	88	8	5	6
S	BSW +5N+100E	12	0.2	76	4	5	10

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ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87720  
INVOICE#: 80105  
DATE ENTERED: 87-10-28  
FILE NAME: CHF87720  
PAGE # : 1

PROJECT: BUCI PROP  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	NOKE BL1+50S+75W	22	0.2	30	4	5	10
S	50W	12	0.2	40	8	5	10
S	25W	14	0.2	46	4	5	14
S	00	12	0.2	66	6	5	10
S	25E	14	0.2	114	14	5	10
S	50E	12	0.2	86	14	5	10
S	NOKE BL1+50S+75E	8	0.2	54	4	5	8
S	NOKE BL1+100S+75W	34	0.2	42	18	5	8
S	50W	16	0.2	40	10	5	12
S	25W	10	0.2	54	8	5	8
S	00	6	0.2	38	6	30	6
S	25E	8	0.2	36	6	5	6
S	50E	16	0.2	66	10	5	12
S	NOKE BL1+100S+75E	8	0.2	44	8	5	10
S	NOKE BL1+150S+75WA	18	0.2	40	4	5	10
S	75WB	10	0.2	46	6	5	6
S	50W	10	0.2	24	2	5	2
S	25W	6	0.2	28	2	5	4
S	00	8	0.2	32	8	5	2
S	25E	10	0.2	34	4	5	10
S	NOKE BL1+150S+50E	20	0.2	48	10	5	8
S	BSW BL1+300N	18	0.2	58	8	5	8
S	Woho Creek 250N	14	0.2	78	10	5	6
S	200N	10	0.2	60	8	5	6
S	150N	14	0.2	76	10	5	4
S	100N	16	0.2	84	16	5	8
S	50N	12	0.2	62	8	5	2
S	00A	42	0.2	80	40	5	14
S	BSW BL1+ 00B	44	0.2	112	64	5	18
S	BSW BL3+400N	18	0.2	56	16	5	10
S	BSW 3 350N	26	0.2	82	18	5	10
S	Woho Creek 300N	30	0.2	76	20	5	16
S	250N	12	0.2	30	12	5	6
S	200N	20	0.2	82	14	5	6
S	150N	16	0.2	44	10	5	8
S	100N	10	0.2	62	12	5	6
S	BSW BL3+ 50N	14	0.2	56	20	5	4
S	BSW 3 200N+100W	14	0.2	74	12	5	2
S	BSW 200N+ 50W	16	0.2	100	20	5	6
S	BSW 300N+100W	16	0.2	82	18	5	8

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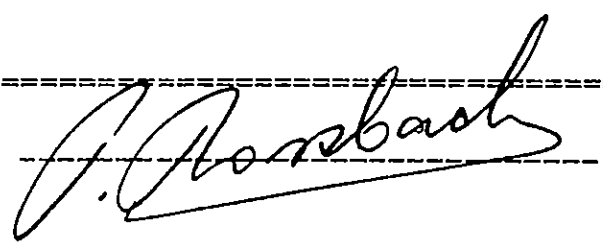
CERTIFICATE OF ANALYSIS

TO : CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.  
PROJECT: BUCK PROP  
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 87720  
INVOICE#: 80105  
DATE ENTERED: 87-10-28  
FILE NAME: CHF87720  
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	BSW <sup>3</sup> 300N+ 50W	10	0.2	66	0	5	6
S	BSW <sup>3</sup> 50E	10	0.2	108	16	5	8
S	100E	10	0.2	80	12	5	4
S	Woho C <sub>2</sub> 150E	12	0.2	60	8	5	4
S	BSW <sup>3</sup> 300N+ 200E	12	0.2	93	8	5	6
S	BSW <sup>3</sup> 400N+ 100W	10	0.2	68	8	5	8
S	50W	12	0.2	46	6	5	6
S	50E	8	0.2	58	4	5	4
S	100E	12	0.2	52	4	5	2
S	150E	12	0.2	104	14	5	2
S	BSW <sup>3</sup> 400N+ 200E	14	0.2	70	18	5	4

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BURNABY, B.C. V5B 3N1  
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**CERTIFICATE OF ANALYSIS**

CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87747  
PROJECT :  
INVOICE# : 80153  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t		mg. Au	Wt. gm		Oz/t FINAL
	-100M	+100M	+100M	-100M	+100M	
WU-S-1	0.001	0.001	0.001	198	5.71	0.001
WU-S-2	0.006	0.001	0.001	207	1.47	0.006
WU-S-3	0.001	0.001	0.001	222	2.08	0.001
WU-S-4	0.001	0.001	0.001	242	10.07	0.001
WU-S-5	0.001	0.001	0.001	233	3.21	0.001
WU-S-6	0.001	0.001	0.001	229	11.15	0.001
WU-S-7	0.001	0.001	0.001	240	2.90	0.001
WU-S-8	0.001	0.001	0.001	218	1.61	0.001



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ROSSBACHER LABORATORY LTD.

2025 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO: CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87747.A  
INVOICE#: 80152  
DATE ENTERED: 87-11-02  
FILE NAME: CHP87747.A  
PAGE #: 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPM As
A	WU-S-1	2	0.2	44	2	2
A	WU-S-2	2	0.2	42	10	2
A	WU-S-3	2	0.2	18	2	2
A	WU-S-4	2	0.2	38	4	4
A	WU-S-5	2	0.2	28	2	2
A	WU-S-6	2	0.2	32	2	6
A	WU-S-7	2	0.2	32	2	4
A	WU-S-8	2	0.2	31	2	6

*WLU - S1-8*

CERTIFIED BY :

*J. Rossbach*

32

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO: CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

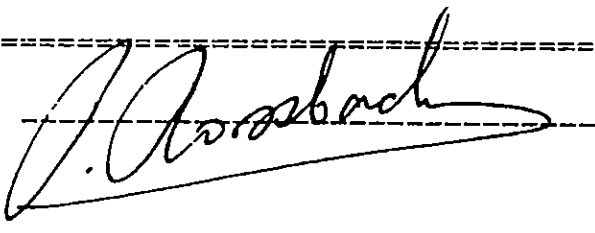
CERTIFICATE#: 87754  
INVOICE#: 80157  
DATE ENTERED: 87-11-03  
FILE NAME: CHFB7754  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
A	L-87-01	6	0.2	29	2	5	6
A	L-87-02	34	0.2	172	7	5	88
A	L-87-03	6	0.2	6	2	7	8
A	L-87-04	6	0.2	10	4	5	6
A	L-87-05	8	0.2	24	2	5	28
A	L-87-06	6	0.2	4	2	5	35
A	L-87-07	12	0.2	40	1	5	10
A	L-87-08	16	0.2	360	138	5	10
A	L-87-09	36	0.2	500	2	5	4
A	L-87-10	24	0.2	36	20	5	62

*Low...*

L DM-5      10000      3.0      10      15      -  
 PP      60      5      1      6  
 70      10      2      1      0

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# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

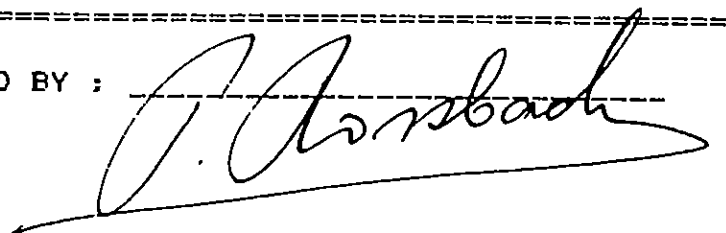
TO : CHADICOM RESOURCES LTD.  
 2100 HATH ST.  
 GRANBY B.C.

CERTIFICATE#: 37009  
 PROJECT :  
 INVOICE# : 80028  
 PAGE# :

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t		mg. Au +100M	Wt. gm		Oz/t FINAL
	-100M	+100M		-100M	+100M	
11-4EL-1A	0.022	0.001	0.001	201	1.40	0.022
1B	0.018	0.001	0.001	188	0.47	0.018
1C	0.020	0.001	0.001	165	0.41	0.020
11-4EL-1D	0.029	1.800	0.029	186	1.47	0.033
11-4EL-2A	0.001	0.001	0.001	279	14.17	0.001
2B	0.001	0.001	0.001	271	14.13	0.001
2C	0.001	0.001	0.001	272	14.82	0.001
11-4EL-2D	0.001	0.001	0.001	700	1.84	0.001
11-4EL-3A	0.452	40.186	1.240	250	0.90	0.575
3B	0.536	29.569	0.588	284	3.58	0.595
3C	0.630	3.757	0.389	291	3.02	0.662
11-4EL-3D	0.515	3.893	1.240	251	9.29	0.636
11-4EL-4A	0.179	6.303	0.389	274	1.80	0.219
4B	0.174	0.841	0.225	302	7.80	0.191
4C	0.206	0.712	0.273	248	11.19	0.228
11-4EL-4D	0.164	2.137	0.126	268	1.72	0.177
11-4EL-5A	0.001	0.001	0.001	251	13.16	0.001
5B	0.001	0.001	0.001	287	1.22	0.001
5C	0.001	0.001	0.001	260	10.54	0.001
11-4EL-5D	0.002	0.001	0.001	703	2.49	0.002
11-4EL-6A	0.001	0.001	0.001	255	9.07	0.001
6B	0.001	0.001	0.001	269	9.79	0.001
6C	0.001	0.001	0.001	269	12.27	0.001
11-4EL-6D	0.001	0.001	0.001	290	0.96	0.001
11-4EL-7A	0.001	0.001	0.001	243	7.44	0.001
7B	0.001	0.001	0.001	257	12.65	0.001
7C	0.001	0.001	0.001	251	7.76	0.001
11-4EL-7D	0.001	0.001	0.001	262	12.03	0.001
11-4EL-8A	0.001	0.001	0.001	260	10.93	0.001
8B	0.001	0.001	0.001	260	13.17	0.001
8C	0.001	0.001	0.001	242	7.46	0.001
11-4EL-8D	0.001	0.001	0.001	264	13.28	0.001
11-4EL-9A	0.001	0.001	0.001	264	13.04	0.001
9B	0.001	0.001	0.001	267	12.09	0.001
9C	0.001	0.001	0.001	280	5.33	0.001
11-4EL-9D	0.001	0.001	0.001	267	17.15	0.001
11-4EL-10A	0.001	0.001	0.001	277	8.12	0.001
10B	0.001	0.001	0.001	276	12.63	0.001
10C	0.001	0.001	0.001	263	12.77	0.001
11-4EL-10D	0.001	0.001	0.001	257	4.39	0.001

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# ROSSBACHER LABORATORY LTD.

2225 S SPRINGER AVENUE  
 DUNNELL, E.C. 958 3N1  
 TEL : 441 299 - 6910

## CERTIFICATE OF ANALYSIS

○: C. H. F. M. REYNOLDS LTD.  
 1001 W. 4TH ST.  
 C. H. F. M. REYNOLDS LTD.  
 TYPE OF ANALYSIS: Au METALLICS

CERTIFICATE#: 21010  
 PROJECT :  
 INVOICE# : 21010  
 PAGE# : 1

SAMPLE NAME	Oz/t -100M	Oz/t +100F	mg. Au +100M	wt. gr -100F	wt. gr +100M	Grms FINSL
11-NE-11A	0.001	0.001	0.001	258	4.17	0.001
11B	0.001	0.001	0.001	267	1.59	0.001
11C	0.001	0.001	0.001	248	4.71	0.001
11-NE-11D	0.001	0.001	0.001	258	2.55	0.001
11-NE-11E	0.001	0.001	0.001	25	2.15	0.001
11-NE-11F	0.001	0.001	0.001	251	7.21	0.001
11-NE-11G	0.001	0.001	0.001	271	6.18	0.001
11-NE-11H	0.001	0.001	0.001	241	11.27	0.001
11-NE-11I	0.001	0.001	0.001	187	3.62	0.001
11-NE-11J	0.001	0.001	0.001	178	2.18	0.001
11-NE-11K	0.001	0.001	0.001	181	2.17	0.001
11-NE-11L	0.001	0.001	0.001	173	1.92	0.001
11-NE-11M	0.001	0.001	0.001	254	2.75	0.001
11-NE-11N	0.002	0.001	0.001	217	3.54	0.002
11-NE-11O	0.001	0.001	0.001	235	10.93	0.001
11-NE-11P	0.002	0.001	0.001	257	4.14	0.002
11-NE-11Q	0.006	0.001	0.001	272	7.97	0.006
11-NE-11R	0.009	0.001	0.001	251	1.80	0.009
11-NE-11S	0.004	0.001	0.001	248	5.11	0.004
11-NE-11T	0.004	0.001	0.001	277	0.99	0.004
11-NE-11U	0.001	0.001	0.001	258	1.10	0.001
11-NE-11V	0.001	0.001	0.001	277	1.46	0.001
11-NE-11W	0.001	0.001	0.001	277	0.16	0.001
11-NE-11X	0.001	0.001	0.001	248	0.32	0.001
11-NE-11Y	0.001	0.001	0.001	247	0.53	0.001
11-NE-11Z	0.002	0.001	0.001	257	0.55	0.002
11-NE-12A	0.001	0.001	0.001	272	1.28	0.001
11-NE-12B	0.001	0.001	0.001	272	1.21	0.001
11-NE-12C	0.002	0.001	0.001	242	1.03	0.002
11-NE-12D	0.002	0.001	0.001	247	3.43	0.002
11-NE-12E	0.002	0.001	0.001	277	0.81	0.002
11-NE-12F	0.005	0.001	0.001	221	0.33	0.005
ELL1MA	0.001	0.001	0.001	257	1.32	0.001
ELL1MB	0.001	0.001	0.001	219	1.17	0.001
ELL1MC	0.001	0.001	0.001	273	1.58	0.001
ELL1MD	0.001	0.001	0.001	187	0.44	0.001

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Pt*

*Obvialz  
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CERTIFIED BY :

*J. Rossbach*

# ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3M1  
TEL : (604) 299 - 6910

## CERTIFICATE OF ANALYSIS

CLIENT : CHAPLEAU RESOURCES LTD.  
2100 N 4TH ST.  
CRANBROOK B.C.

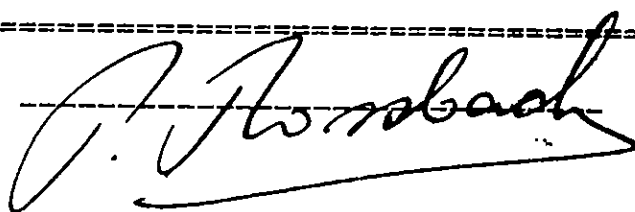
CERTIFICATE#: 87837.A  
INVOICE#: 80258  
DATE ENTERED: 87-12-02  
FILE NAME: CHP87837.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPM As	
A	Bar. rock 16 711-10-6A	40	0.2	48	2	2	Lim. Quartz
A	" 711-10-6B	16	0.2	14	2	2	
A	TK-20 711-11-1	26	0.2	56	14	6	Soil
A	21 711-11-2	20	0.2	54	12	4	Soil
A	22 711-11-3	16	0.2	48	10	8	soil
A	23 711-11-4	24	0.2	174	2	8	Di. sil. float
A	Bar. R. 711-18-1	14	0.2	48	8	4	soil
A	1 711-18-2	8	0.2	36	4	10	soil
A	1 711-18-3	16	0.2	50	6	14	soil
A	Pit 2 711-19-3	6	0.2	40	4	10	Quartz veins
A	BI VEIN A	6	0.2	12	2	14	
A	BI VEIN B	4	0.2	10	2	6	
A	ELCR COUNTRY	38	0.2	24	2	6	
A	RA-A	4	0.2	8	2	2	

11-5 -  
11-6

CERTIFIED BY :



ROSSBACHER LABORATORY LTD.

2025 S. SPRINGER AVENUE  
BIRMINGHAM, B.C. USE INI  
TEL: (205) 299-5810

CERTIFICATE OF ANALYSIS

TO : MINERAL RESOURCES LTD.  
1000 1/2 ST. ...  
MEMPHIS, TENN.

CERTIFICATE#: ...  
INVOICE#: ...  
DATE ENTERED: ...  
FILE NAME: ...  
PAGE # : ...

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
Rock #1		14	0.2				
		14	0.2				
		14	0.2				
		16	0.2				
		14	0.2				
		10	0.2				
		12	0.2				

CERTIFIED BY :

*J. Rossbach*

(39)

**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

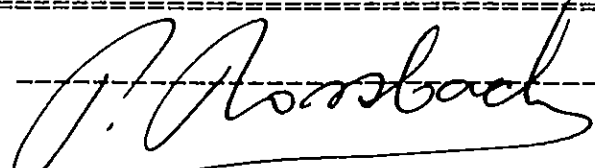
TO : CHAPLEAU RESOURCES LTD.  
2100 N 4TH ST.  
CRANBROOK B.C.

CERTIFICATE#: 87809.6  
INVOICE#: 80240  
DATE ENTERED: 87-11-26  
FILE NAME: CHPB7809.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Zn	PPM Pb	PPM Bi	PPM As
A	11-4EL-1A	66	22	16	2	2
A	1B	58	14	18	2	2
A	1C	58	14	10	2	2
A	11-4EL-1D	60	12	10	2	2
A	11-4EL-2A	36	6	4	2	2
A	2B	44	6	4	2	2
A	2C	32	4	2	2	2
A	11-4EL-2D	34	4	18	2	2
A	11-4EL-3A	404	24	166	142	2
A	3B	466	26	172	168	2
A	3C	418	24	162	134	2
A	11-4EL-3D	414	24	150	154	2
A	11-4EL-4A	328	20	40	20	2
A	4B	350	22	34	20	2
A	4C	314	20	24	20	2
A	11-4EL-4D	318	20	30	20	2
A	11-4EL-5A	26	8	2	4	2
A	5B	28	8	4	2	2
A	5C	26	8	2	2	2
A	11-4EL-5D	26	8	2	2	2
A	11-4EL-6A	34	6	2	2	2
A	6B	34	8	2	2	2
A	6C	32	8	2	2	2
A	11-4EL-6D	32	6	4	2	2
A	11-4EL-7A	32	12	2	2	2
A	7B	36	10	2	2	2
A	7C	34	10	2	2	2
A	11-4EL-7D	32	10	2	2	2
A	11-4EL-8A	20	10	2	2	2
A	8B	20	10	2	2	2
A	8C	16	8	2	2	2
A	11-4EL-8D	20	10	2	2	2
A	11-4EL-9A	10	6	2	2	2
A	9B	10	6	2	2	2
A	9C	10	8	6	2	2
A	11-4EL-9D	10	8	2	2	2
A	11-4EL-10A	14	6	2	2	2
A	10B	14	6	2	2	2
A	10C	12	6	2	2	2
A	11-4EL-10D	16	8	2	2	2

CERTIFIED BY :



**ROSSBACHER LABORATORY LTD.**

2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

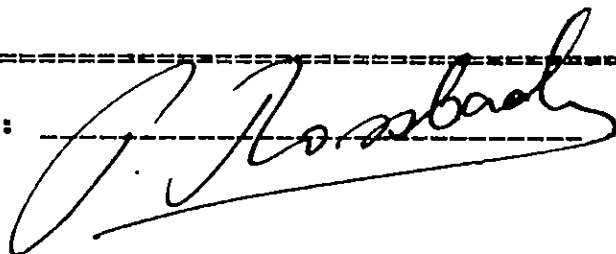
TO : CHAPLEAU RESOURCES LTD.  
 2100 N. 4TH STREET  
 CRANBROOK, B.C.

CERTIFICATE#: 87837.B  
 PROJECT :  
 INVOICE# : 80351  
 PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t		mg. Au	Wt. gm		Oz/t
	-100M	+100M	+100M	-100M	+100M	FINAL
<i>Bar</i> TRCH 16 { 711-10-6A 711-10-6B	0.001	0.001	0.001	152	5.23	0.001
TRCH 20 711-11-01	0.001	0.001	0.001	183	7.25	0.001
21 711-11-02	0.001	0.001	0.001	198	2.35	0.001
22 711-11-03	0.001	0.001	0.001	176	4.32	0.001
23 711-11-04	0.001	0.001	0.001	186	12.68	0.001
<i>BUCK TR.</i> 1 711-18-01	0.001	0.001	0.001	209	2.56	0.001
1 711-18-02	0.001	0.001	0.001	176	4.65	0.001
1 711-18-03	0.001	0.001	0.001	201	8.23	0.001
<i>Pit</i> 2 711-19-03	0.001	0.001	0.001	216	16.20	0.001
? BK VEIN A	0.001	0.001	0.001	195	9.25	0.001
? BK VEIN B	0.001	0.001	0.001	210	6.32	0.001
ELCR COUNTRY	0.001	0.001	0.001	198	5.36	0.001
RA - A	0.001	0.001	0.001	203	4.23	0.001
	0.001	0.001	0.001	189	14.20	0.001

CERTIFIED BY :





ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

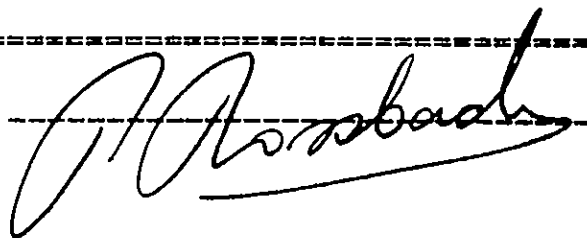
TO: CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87896.A  
INVOICE#: 80345  
DATE ENTERED: 88-01-06  
FILE NAME: CHP87896.A  
PAGE # : 1

PROJECT:  
TYPE OF ANALYSIS: GEOCHEMICAL

PRE FIX	SAMPLE NAME	PPM Cu	PPM Zn	PPM Bi	PPM As	
A	Buck pits	2	4	2	8	. minute quantity
A	26656	2	4	2	10	
A	26657	2	2	2	14	
A	26658	2	2	2	10	

CERTIFIED BY :



**ROSSBACHER LABORATORY LTD.**

2225 8. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

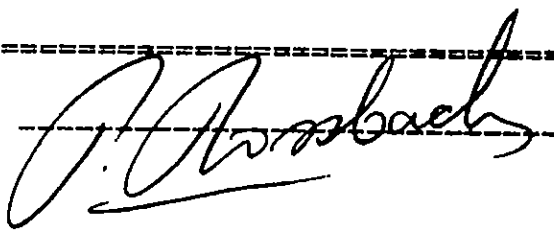
TO : CHAPLEAU RESOURCES LTD.,  
 2100 4TH ST.,  
 CRANBROOK, B.C.  
 TYPE OF ANALYSIS: Au METALLICS

CERTIFICATE#: 87896  
 PROJECT :  
 INVOICE# : 80344  
 PAGE# : 1

SAMPLE NAME	Oz/t	Oz/t	ug Au	Wt. gm	Wt. gm	Oz/t	
	-100M	+100M	+100M	-100M	+100M	FINAL	
FY	26651	0.001	0.001	0.001	209	18.25	0.001
	26651A	0.001	0.001	0.001	205	4.19	0.001
	26652	0.013	0.001	0.001	234	7.38	0.013
	26652A	0.018	0.001	0.001	227	3.51	0.018
	26653	0.008	0.001	0.001	229	2.87	0.008
	26653A	0.007	0.001	0.001	218	3.03	0.007
	26654	0.016	0.001	0.001	210	1.83	0.016
	26654A	0.014	0.001	0.001	222	2.68	0.014
	26655	0.001	0.001	0.001	208	1.27	0.001
	26655A	0.001	0.001	0.001	195	1.55	0.001
Buck pits	26656	0.001	0.001	0.001	229	5.66	0.001
	26656A	0.001	0.001	0.001	209	3.68	0.001
	26657	0.001	0.001	0.001	209	4.16	0.001
	26657A	0.001	0.001	0.001	189	1.00	0.001
	26658	0.001	0.001	0.001	224	7.60	0.001
	26658A	0.001	0.001	0.001	210	6.30	0.001
3	0.001	0.001	0.001	216	3.34	0.001	
3A	0.001	0.001	0.001	194	1.99	0.001	

Limonite.  
 Quartz +  
 Country.

CERTIFIED BY :



ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

CHAPLEAU RESOURCES LTD.,  
2100 N 4TH ST.,  
CRANBROOK, B.C.

CERTIFICATE#: 87895  
PROJECT : KENNELLY CON  
INVOICE# : 80346  
PAGE# : 1

TYPE OF ANALYSIS: Au METALLICS

SAMPLE NAME	Oz/t -100M	Oz/t +100M	mg. Au +100M	Wt. gm -100M	Wt. gm +100M	Oz/t FINAL	
Bar 4 reb 23 711-11-5	0.001	0.001	0.001	196	11.94	0.001	<i>quartz</i>
24 711-11-6	0.001	0.001	0.001	241	0.57	0.001	

CERTIFIED BY :

*J. Rossbach*

(Rocks) Cossan Hill

44

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

TO : A&M EXPLORATION LTD.  
214-850 W. HASTINGS ST.  
VANCOUVER, B.C.

CERTIFICATE No.: 84499 - 6  
INVOICE No.: 5087  
DATE ANALYSED: NOV. 19, 1984  
FILE NAME: A&M499

PROJECT No.: 242

PRE FIX	SAMPLE NAME	PPM Mo	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPM Au	PPM As	MESH SIZE
S	B 84 11-26	1	14	0.4	58	12	10	14	
S	11-27	1	18	0.4	86	20	10	16	
S	11-28	1	16	0.2	62	16	10	16	
S	11-51	1	20	0.2	58	16	10	14	
S	11-52	1	14	0.2	40	14	10	10	
S	G 84 20-02	1	14	0.2	42	8	10	8	
S	20-03	1	18	0.2	72	8	10	10	
S	20-04	1	14	0.2	48	8	10	10	
S	20-05	1	14	0.2	38	8	10	12	
S	20-06	1	12	0.2	54	12	10	12	
S	G 84 20-07	1	18	0.2	76	10	10	10	
S	20-08	1	16	0.2	52	8	10	10	
S	20-09	1	18	0.2	64	8	10	12	
S	20-10	1	20	0.2	66	8	10	16	
S	20-11	1	16	0.2	66	6	10	12	
S	20-12	1	16	0.2	64	8	10	10	
S	20-13	1	12	0.2	72	10	10	10	
S	20-14	1	10	0.2	48	10	10	8	
S	20-15	1	10	0.2	46	6	10	4	
S	20-16	1	8	0.2	38	6	10	4	
S	G 84 20-17	1	14	0.2	72	12	10	8	
S	20-18	1	16	1.0	124	22	10	14	
L	<del>20-19</del>	1	58	0.2	146	54	10	26	
L	W-01	1	18	0.2	70	40	10	14	-40
L	F 84 /S-01	1	26	0.2	88	44	10	14	-40
L	R-S 1-01	1	28	0.2	68	30	10	20	
L	2-01	1	12	0.2	42	14	10	10	
L	3A-01	1	24	0.2	74	32	26000	20	-40
A	GR 1	4	134	2.8	74	2400	170	200	
A	2	4	146	1.4	70	2030	210	228	
A	3	3	136	3.4	64	1520	370	136	
A	5	2	104	0.8	176	1180	120	22	
A	6	2	172	3.0	354	1880	50	24	
A	7	3	14	0.4	28	54	10	20	
A	8	4	266	0.2	48	74	10	70	
A	9	3	62	0.2	62	14	10	26	
A	GR 10	2	84	0.2	60	12	10	20	
A	B4 1B-01	4	64	0.2	54	16	10	22	
A	02	1	54	0.4	38	16	10	8	
A	03	1	12	0.2	12	4	10	2	

CERTIFIED BY :

*J. Rossbach*

(Rocks) Gossan Hill

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
BURNABY, B.C. V5B 3N1  
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

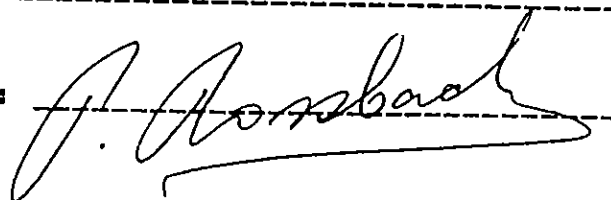
TO : A&M EXPLORATION LTD.  
214-850 W. HASTINGS ST.  
VANCOUVER, B.C.

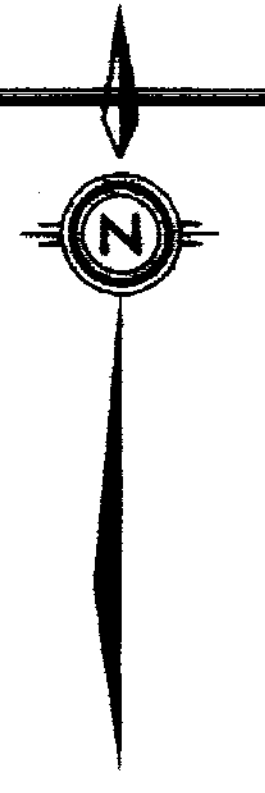
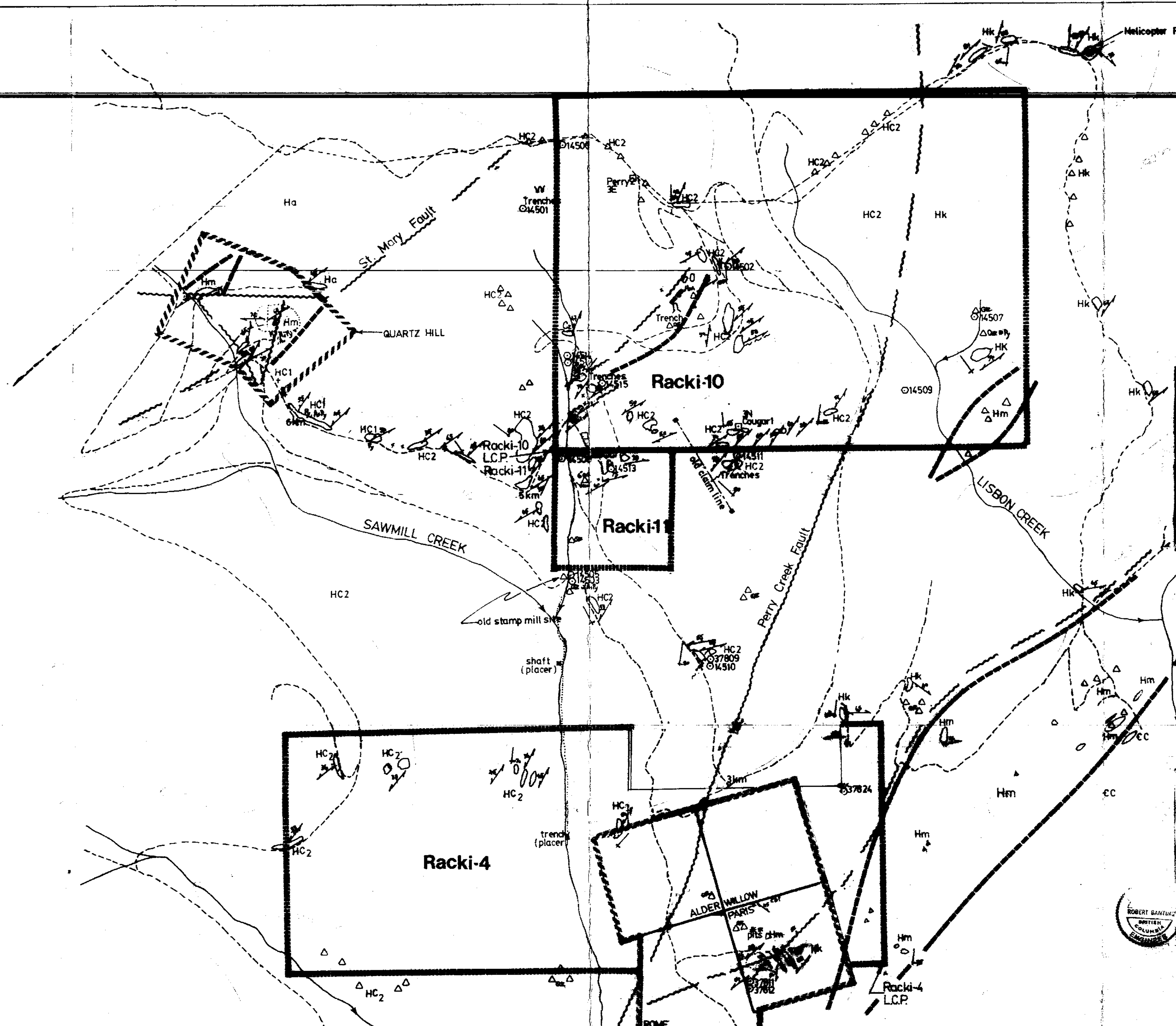
CERTIFICATE No.: 84499 - 7  
INVOICE No.: 5087  
DATE ANALYSED: NOV. 19, 1984  
FILE NAME: A&M499

PROJECT No.: 242

PRE FIX	SAMPLE NAME	PPM Mo	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As	MESH SIZE
A	84 18-04	2	72	0.2	60	6	10	20	
A	05	1	42	0.2	24	4	10	42	
A	06	1	204	0.4	16	16	10	202	
A	07	1	164	0.4	10	4	10	52	
A	08	2	730	0.6	12	20	10	80	
A	09	1	76	0.4	12	4	10	20	
A	10	1	304	0.4	14	16	10	162	
A	84 20-01	2	90	0.4	52	2	10	40	
A	02	2	88	0.4	44	4	10	36	
A	03	4	236	0.8	72	4	10	50	
A	04	1	18	0.2	14	4	10	10	
A	05	2	2060	1.4	22	70	220	462	
A	06	2	166	0.6	22	28	10	60	
A	G 84 R1	1	58	0.4	42	74	10	18	
A	G 84 R2	1	44	0.2	196	50	10	12	
A	OP 1	2	418	130.0	390	900	10800	210	
A	LAKE 1	2	6	0.4	16	4	10	10	

CERTIFIED BY :





**CHAPLEAU RESOURCES LTD.** GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**Morgan Claims  
North Block 17,514**

Scale = 1:10,000  
(1 in. = 833 ft.)

**Legend**

- PALEOZOIC - WAUCOBAN (LwC)
  - CC - Cranbrook Em. (Siltstone, Quartzite)
- PROTEROZOIC - HELIKIAN (UpPC)
  - Hm - Mayie Intrusion (Diorite Sills)
  - Hk - Kichener Em. (Green Argillites / Minor Siltstone / Dolomite)
  - HC<sub>3</sub> - Creston Em. Upper - (Green Siltstone / Argillite)
  - HC<sub>2</sub> - Creston Em. Middle - (Purple Argillite / Quartzite)
  - HC<sub>1</sub> - Creston Em. Lower - (Grey Argillite / Siltstone)
  - Ha - Aldridge Em. (Black Argillites)
- GEOLOGICAL CONTACT
- - - FAULT (Assumed)
- FAULT (Known)
- 4 POST CLAIM BOUNDARY
- 2 POST CLAIM BOUNDARY
- CONTOUR LINE (Feet)
- FOLIATION
- BEDDING
- JOINTING (Strong, Weak)
- TRENCH
- SAMPLE SITE (Assay No.)
- △ FLOAT



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

17,514

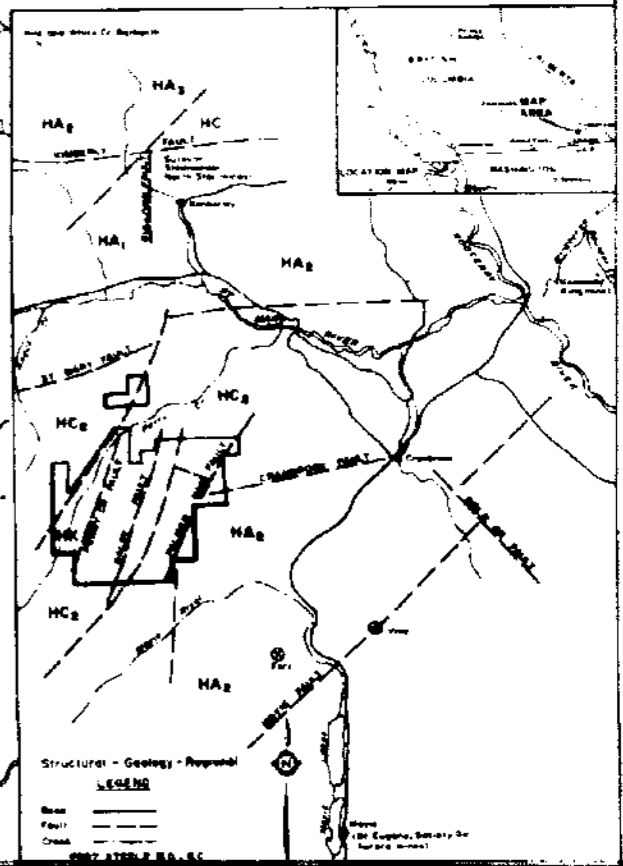
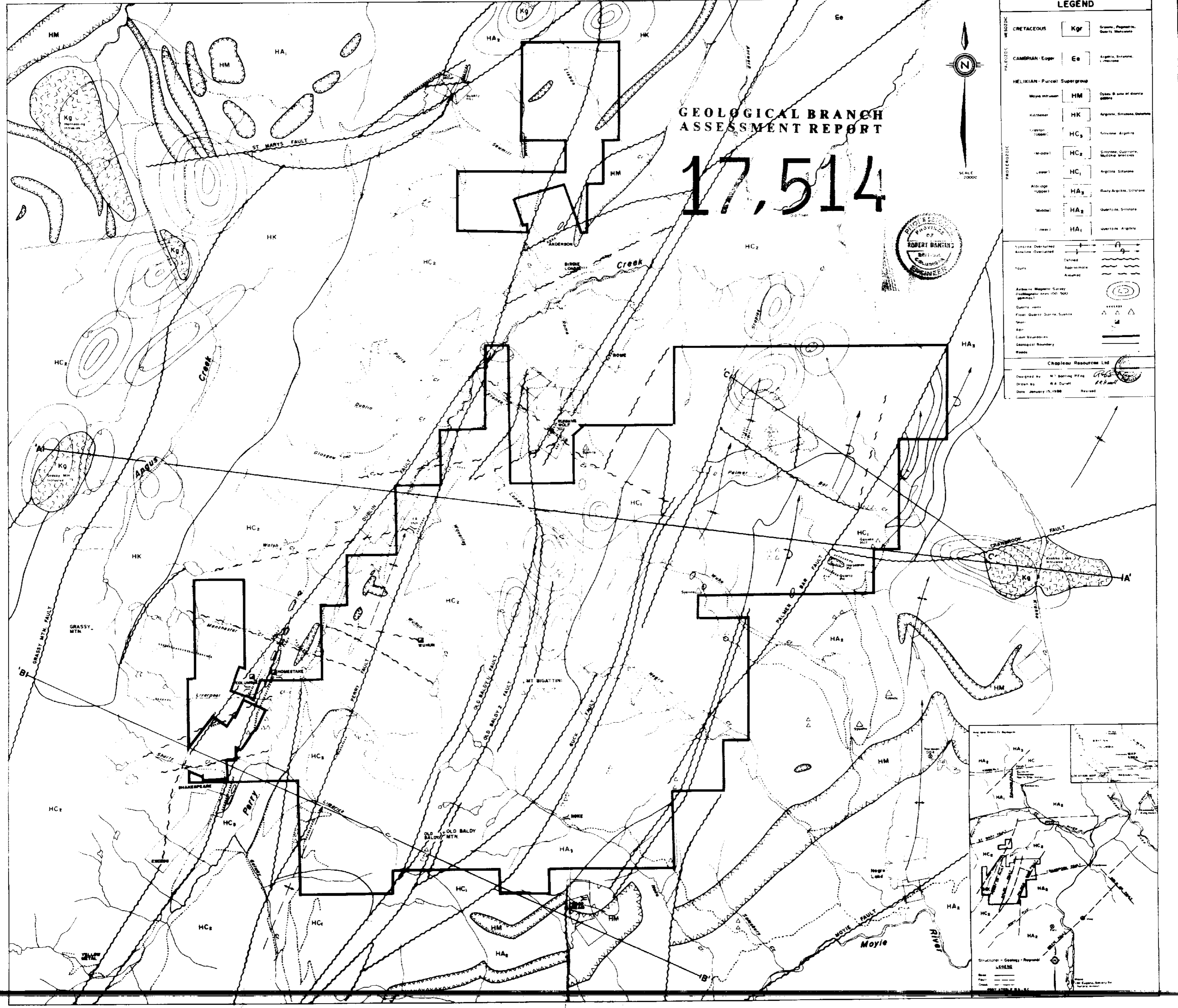
LEGEND

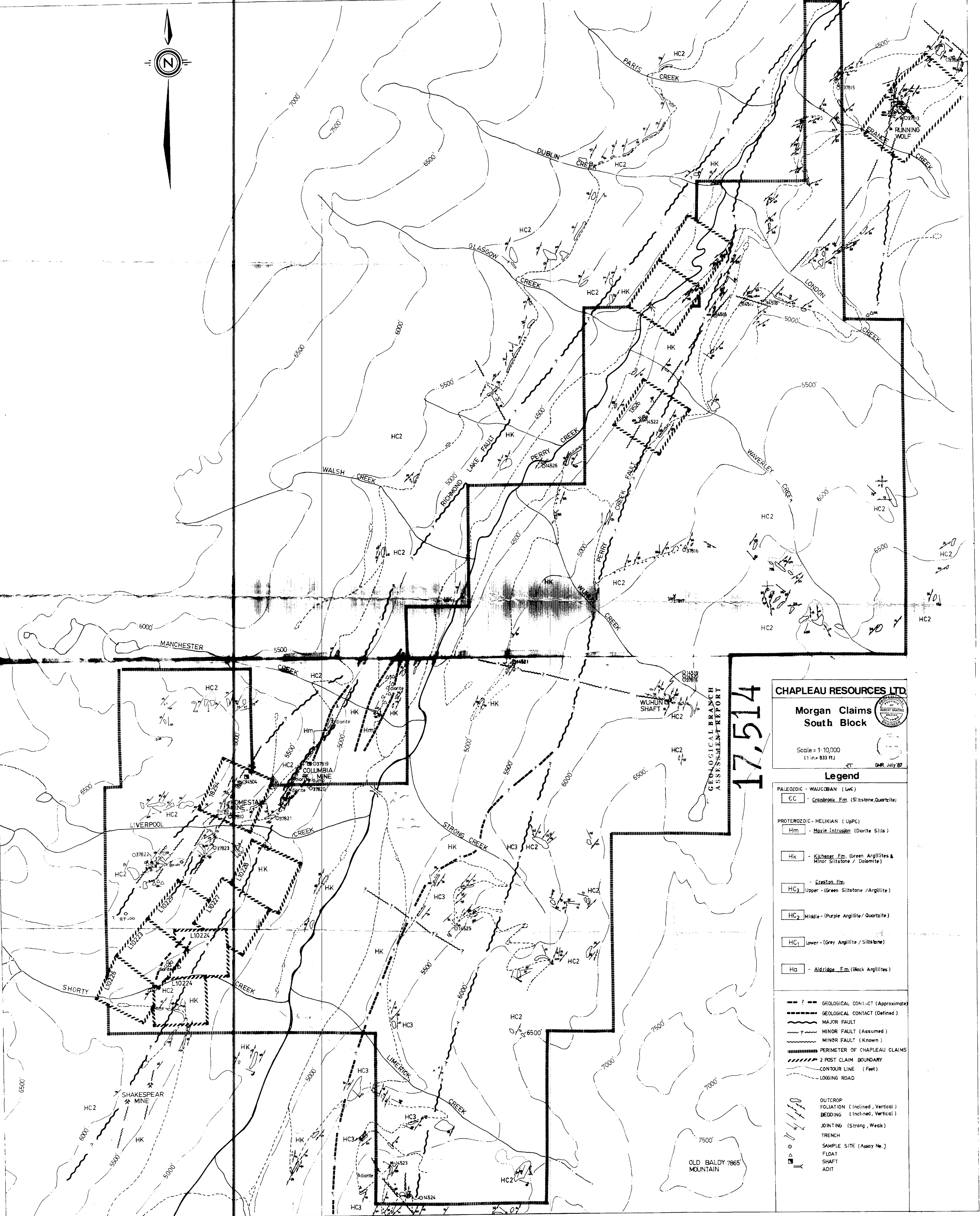
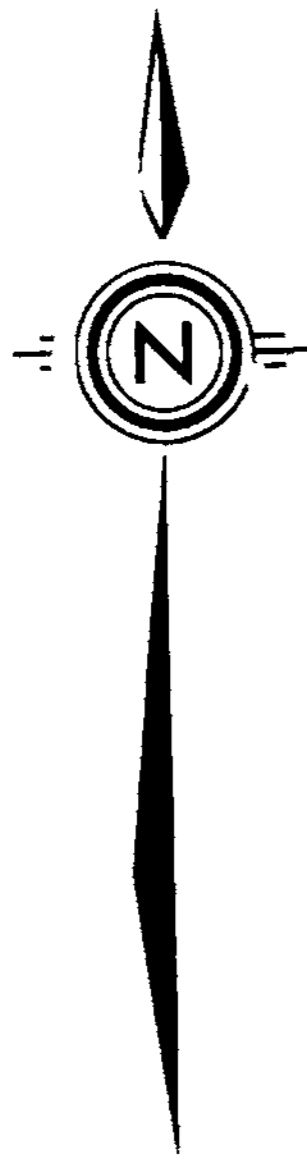
MESOZOIC	CRETACEOUS	Kgr	Grauw, Paganini, Quarts, Metavolts
PALEOZOIC	CAMBRIAN - Eooper	Ee	Argente, Sistrone, Limestone
HELIKIAN - Purcell Supergroup			
	Moyle intrusion	HM	Dykes, & some of diorite gabbro
	Kilbuck	HK	Argente, Sistrone, Dolomite
	Upper	HC <sub>3</sub>	Sistrone, Argente
	Middle	HC <sub>2</sub>	Sistrone, Quartzite, Middle Metavolts
	Lower	HC <sub>1</sub>	Argente, Sistrone
	Alridge (Upper)	HA <sub>3</sub>	Black Argente, Sistrone
	Middle	HA <sub>2</sub>	Quartzite, Sistrone
	Lower	HA <sub>1</sub>	Metavolts, Argente

Structural Deformed	Anticline Overlain	Defined	Approximate	Assumed
Archeic Magnetic Survey (Isomagnetic Area 100, 500, 1000)	Quartz vein	Fossil Quartz Dike, Vein	Well	Ap
Clam Boundaries	Geological Boundary	Roads		

Chapleau Resource Ltd

Designed by: R. Banting P. F. F. F.  
Drawn by: G. A. Duffell  
Date: January 15, 1988





17,514

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**CHAPLEAU RESOURCES LTD.**

**Morgan Claims  
South Block**

Scale = 1:10,000  
(1 in. = 833 ft.)

GMR July '87

**Legend**

PALEOZOIC - WAUCOBAN (Lw6)

- EC - Cranbrook Fm. (Siltstone, Quartzite)

PROTEROZOIC - HELIKIAN (Up6C)

- Hm - Mafic Intrusion (Diorite Sills)
- Hk - Kitchener Fm. (Green Argillites & Minor Siltstone / Dolomite)
- HC3 - Creston Fm. Upper - (Green Siltstone / Argillite)
- HC2 - Middle - (Purple Argillite / Quartzite)
- HC1 - Lower - (Grey Argillite / Siltstone)
- Ha - Aldridge Fm. (Black Argillites)

--- ? --- GEOLOGICAL CONTACT (Approximate)

--- --- GEOLOGICAL CONTACT (Defined)

--- MAJOR FAULT

--- MINOR FAULT (Assumed)

--- MINOR FAULT (Known)

--- PERIMETER OF CHAPLEAU CLAIMS

--- 2 POST CLAIM BOUNDARY

--- CONTOUR LINE (Feet)

--- LOGGING ROAD

OUTCROP FOLIATION (Inclined, Vertical)

BEDDING (Inclined, Vertical)

JOINTING (Strong, Weak)

TRENCH

SAMPLE SITE (Assay No.)

○ FLOAT

□ SHAFT

ADIT

OLD BALDY 7865 MOUNTAIN