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8

GEOLOGICAL REPORT ON THE BEACON GROUP  
CASSIAR DISTRICT  
LIARD MINING DIVISION, BRITISH COLUMBIA

Hall, Otto, Bear, Kitt

OWNER/OPERATOR: Erickson Gold Mining Corp.

LOCATED: 59° 15' N  
129° 35' W  
NTS Map 104P4/E, 104P5/E,  
104P3/W

BY: M. Ball, M.Sc., under the  
supervision of R. Somerville,  
P. Eng.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,523**

Beacon Group 104P/4E, 104P/5E, 104P/3W  
Geological Report

GEOLOGICAL REPORT  
ON THE  
BEACON GROUP

CASSIAR DISTRICT  
LIARD MINING DIVISION

OWNER: Erickson Gold Mining Corp.

WORK DONE ON: Hall 1 (20 units)  
Otto 1 (20 units)  
Kitt 1 (20 units)  
Bear 4 (20 units)  
Bear 5 (20 units)

WORK PERFORMED: July 1 - July 26, 1984

LOCATED: NTS 104P3/W  
104P4/E  
104P5/E

BY: M. Ball, M.Sc., under the  
supervision of R. Somerville,  
P. Eng.

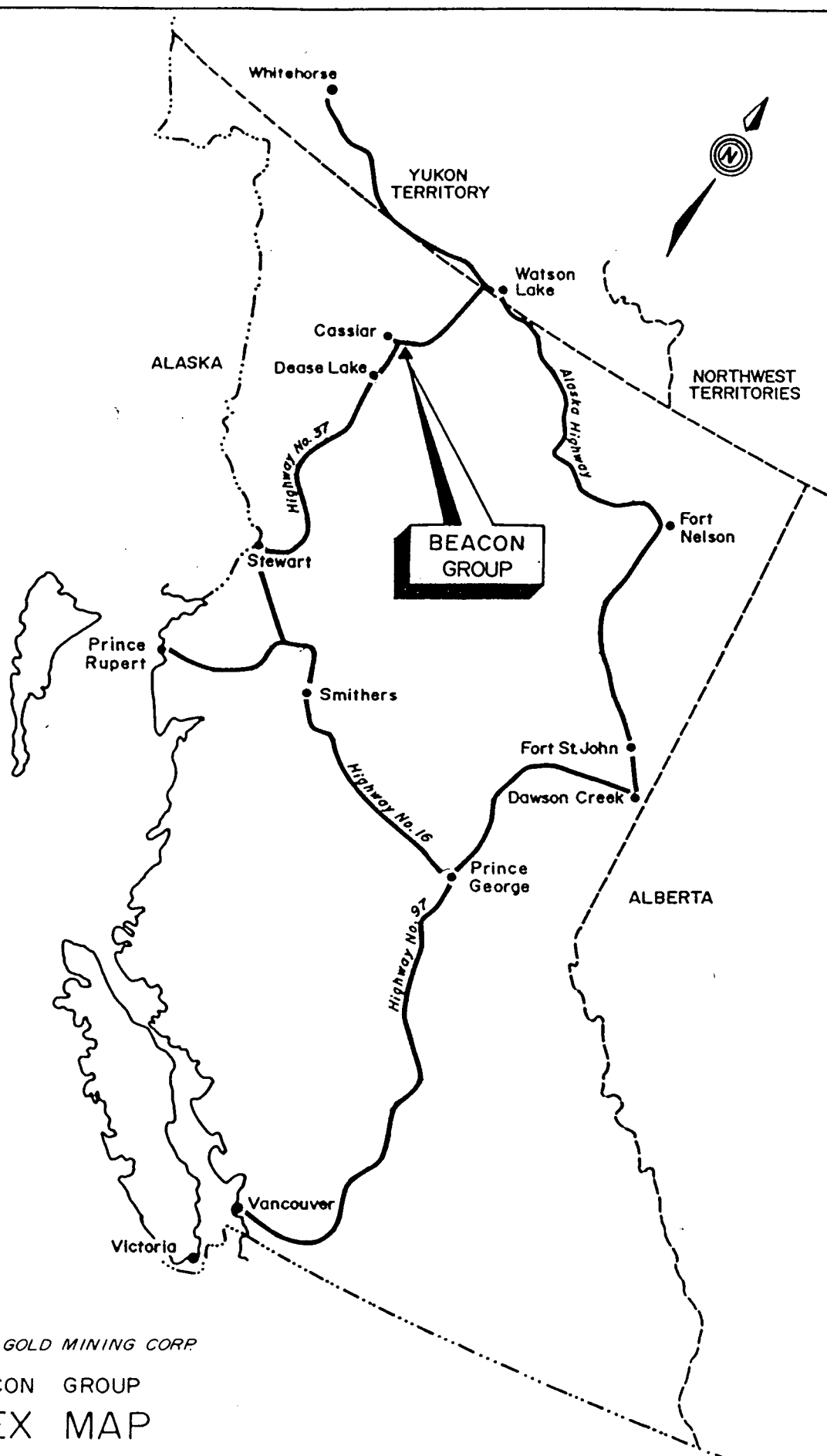
DATE: July 31, 1984

TABLE OF CONTENTS

	<u>Page No.</u>
0.0	3
1.0	6
2.0	6
3.0	6
4.0	7
5.0	7
6.0	7
7.0	8
8.0	9
9.0	9
10.0	9
Appendix A	11
Mine Fire Assay Method	12
Chip Sample Assay Results	

LIST OF FIGURES AND MAPS

Figure 1	Index Map, Beacon Group, Scale 1:7,500,000	1
Figure 2	Beacon Group Claim Map, Scale 1:50,000	2
Figure 3	Geological Legend	4
Figure 4	1:5,000 scale index to map sheets	5
Map 1	Geology and Chip Sample Locations, Scale 1:5,000, Sheet 14	in back pocket
Map 2	Geology and Chip Sample Locations, Scale 1:5,000, Sheet 15	in back pocket
Map 3	Geology and Chip Sample Locations, Scale 1:5,000, Sheet 16	in back pocket
Map 4	Geology and Chip Sample Locations, Scale 1:5,000, Sheet 33	in back pocket
Map 5	Geology and Chip Sample Locations, Scale 1:5,000, Sheet 34	in back pocket



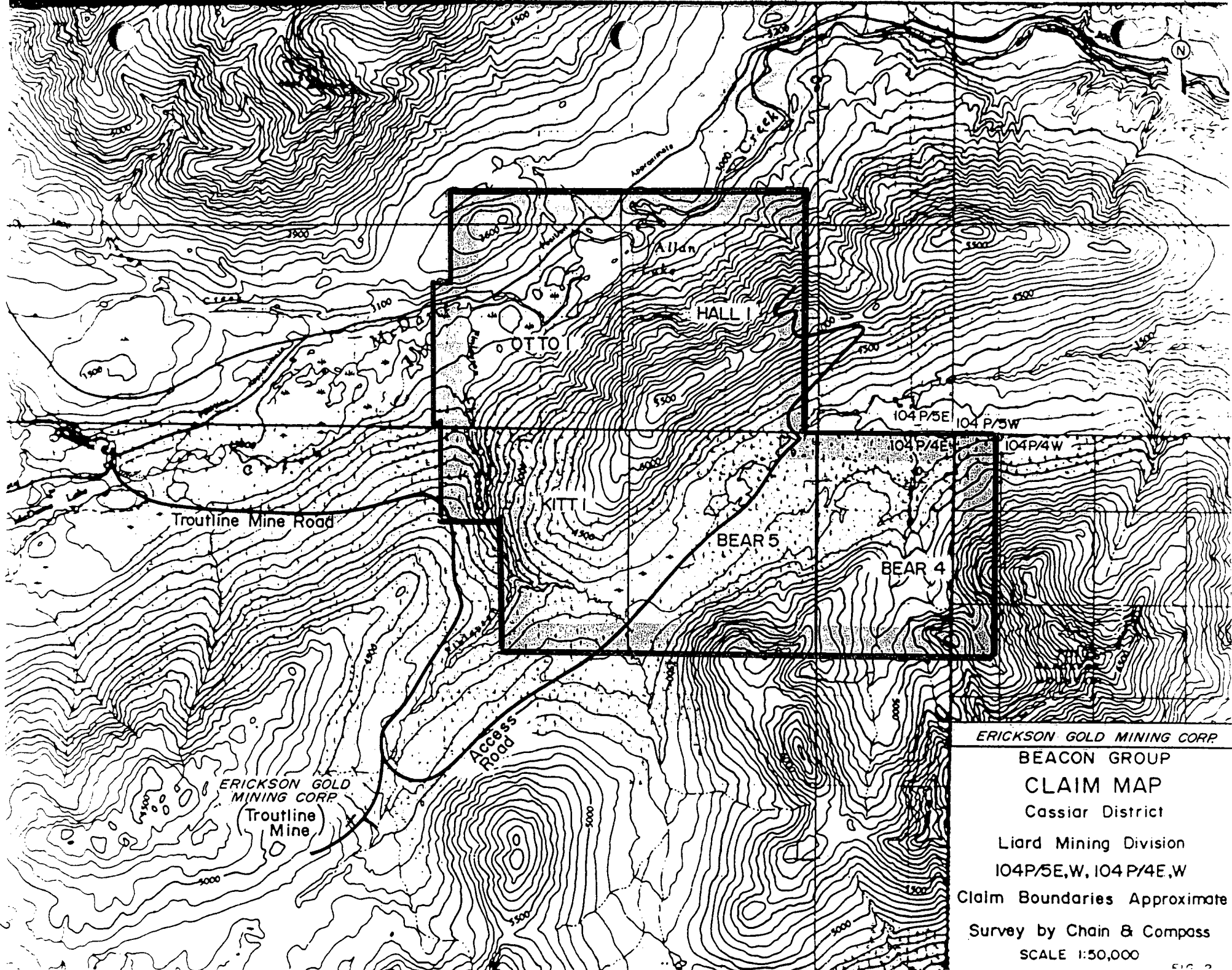
ERICKSON GOLD MINING CORP

BEACON GROUP  
INDEX MAP

100 50 0 100 200 km

SCALE 1:7,500,000

FIGURE 1



ERICKSON GOLD MINING CORP.

BEACON GROUP

CLAIM MAP

Cassiar District

Liard Mining Division

104P/5E,W, 104P/4E,W

Claim Boundaries Approximate

Survey by Chain & Compass

SCALE 1:50,000

CLAIM RECORD  
BEACON GROUP

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Owner</u>	<u>FMC#</u>
Hall 1	20	1214	Mar. 3/1980	Erickson Gold Mining Corp.	264216
Otto 1	20	1216	Mar. 3/1980	"	"
Kitt 1	20	1217	Mar. 26/1980	"	"
Bear 4	20	2899	Aug. 8/1983	"	"
Bear 5	20	2900	Aug. 8/1983	"	"

TERTIARY AND (?) EARLIER

Conglomerate

- 11 Kechika, Sandpile, Atan loosely cemented.

AGE UNKNOWN - INTRUSIVES

Dykes

- 10a Diabase  
10b Andesite - dacite  
10c Aplite

Quartz Veins

- 9 Often containing sulphides (tetrahedrite arsenopyrite), graphite and sometimes visible gold.

UPPER CRETACEOUS

- 8 Cassiar Stock quartz monzonite porphyry.

AGE UNKNOWN

Listwanite (altered basic to ultrabasic rocks, may contain veinlets of quartz, dolomite, brucite and talc).

- 7a Serpentine, chlorite, carbonate, with minor talc.  
7b Talc, carbonate, minor chlorite.  
7c Quartz, mariposite, carbonate and minor talc.  
6 Diorite; volcanic plug ? Sill ?; locally fine-grained feldspar porphyry.

MISSISSIPPIAN TO ? PERMIAN

SYLVESTER GROUP

Interbedded Sediments - 5D

- 5Da Greywacke  
5Db Siltstone  
5Dc Sandstone  
5Dd Argillite  
5De Limestone (continuous pods)  
5Df Chert

Interbedded Volcanics - 5C

- 5Ca Basalt to andesite flows, with or without pillows, occasional local phenocrysts of feldspar or pyroxene.  
5Cb Basalt to andesite tuff breccia and/or flow breccia, with local phenocrysts of feldspar or pyroxene.  
5Cc Rhyolite, sills and/or dykes.  
5Cd Argillaceous tuff and breccia.  
5Ce Cherty tuff  
5D Chert, tuff chert, includes some argillite, in northeast well layered chert - phyllite, tuff chert, ribboned chert and argillite.  
5A Argillite, siltstone, chert, quartzite limestone pebble conglomerate, tuff includes numerous diabase and andesite sills.

MIDDLE AND UPPER DEVONIAN

MCDAME GROUP

- 4a Dolomite (black) and limestone (grey) - numerous veinlets and vugs of dolomite, occasional laminations and nodules of chert.

SANDPILE GROUP

- 3a Dolomite and dolomitic sandstone - dark grey to light grey, commonly laminated.

CAMBRIAN AND ORDOVICIAN

KECHIKA GROUP

- 2c Argillite, shale, slate - black to grey-black; mostly argillite with a pervasive mild slaty cleavage, some selections of shale and slate; cherty and calcareous sections throughout, laminated to bedded, pyrite occurs as fine disseminations up to 1X and as fine streaks.  
2b Phyllite - black, friable, carbonaceous, with minor pyrite.  
2a Argillaceous limestone - grey-black, massive, with argillite and shale fragments

CAMBRIAN

LOWER CAMBRIAN

Atan Group

- 1f Limestone - blue-grey to dark grey, laminated to well-bedded to massive, with flaggy patches and minor fragmental or breccia sections.  
1e Recrystallized limestone (marble) - bluff, white, massive and as stringers and patches in 5De, large rhombohedral crystals.  
1d Dolomite - yellow, buff, brown, rose, crystalline, massive with some friable sections, minor pyritohedrons in the crystalline portions.  
1c Quartzite - maroon, green, brown, and tan, well bedded with cross bedded sections, pyrite and lesser pyrrhotite as disseminations and stringers.  
1b Hornfelsic quartzite - maroon, green, buff and brown; pure quartzite beds are crystalline, less pure beds are schistose and contain andalusite patches; chlorite clots occur in the chlorite-rich green beds; more abundant pyrite and pyrrhotite.  
1a Shale and slate - black, grey and buff, laminated, pyritic, and carbonaceous, with some calcareous interbeds.

ALTERATION SYMBOLS

- |  |  |
|--|--|
| G Graphite                             | Ch Chlorite  |
| K Clay (Kaolinite, montmorillonite?)   | EP Epidote   |
| M Mariposite - Fuchsite                | C Calcite  |
| S Silicification                       | Sk Skarn: garnet diopside and garnet-actinolite - minor sheelite mineralization. |
| D Carbonate: dolomite, siderite        |  |
| CB Crocidite Breccia: fracture texture |  |

SYMBOLS

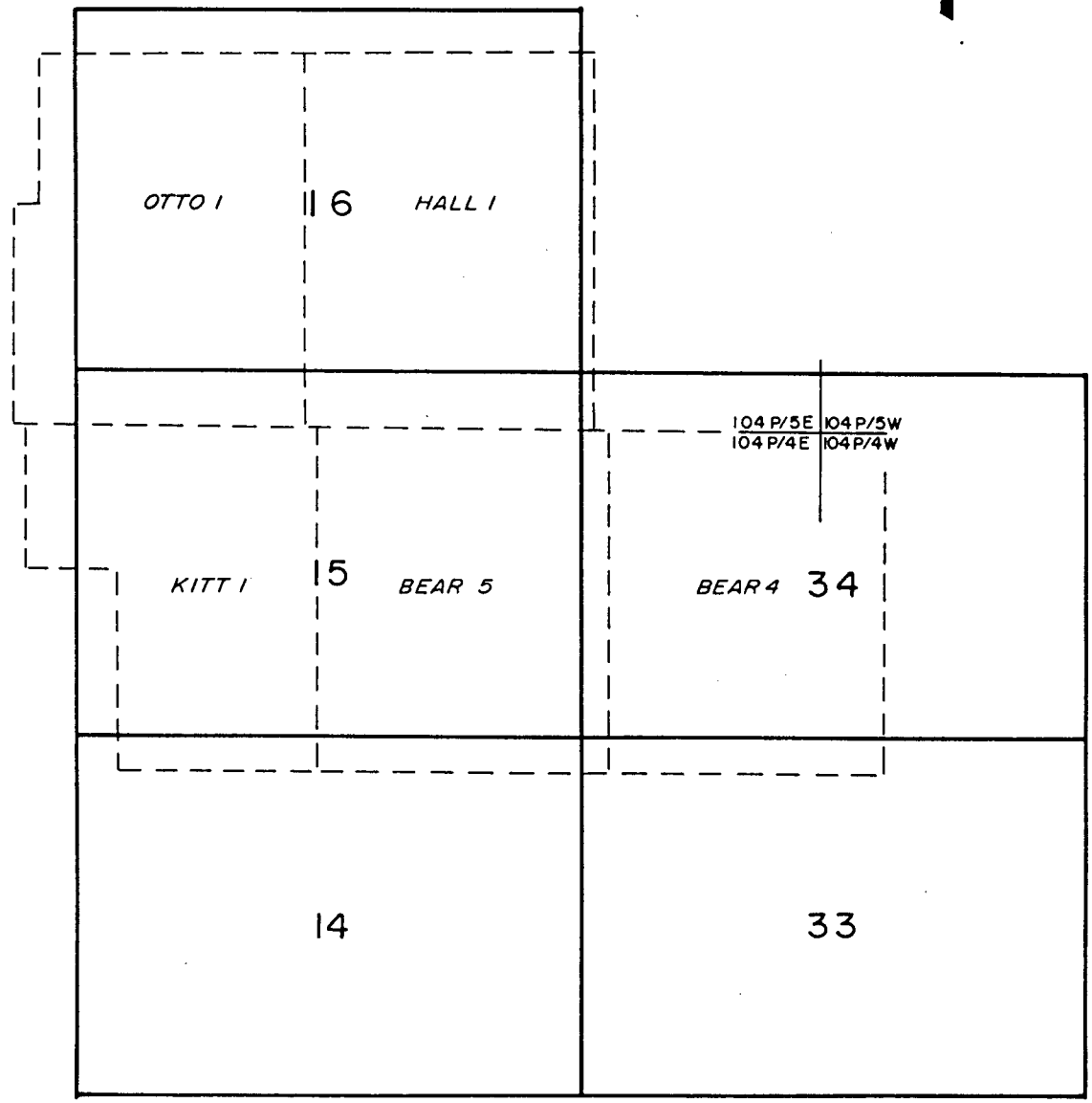
- Geological boundary (Inferred/ approximate)  
/ / Quartz vein (inclined, vertical, dip unknown)  
--- Zone of alteration  
XXX Float

ERICKSON GOLD MINING CORP

BEACON GROUP

GEOLOGICAL LEGEND

FIGURE 3



ERICKSON GOLD MINING CORP

BEACON GROUP

INDEX TO  
MAP SHEETS

SCALE 1:50,000

FIGURE 4



## 1.0 Introduction

This report describes the results of reconnaissance geological mapping conducted on the Beacon claim group. Maps showing the property location, claims, geologic mapping and rock chip sample locations are included.

## 2.0 Location and Access

The property is located in northern British Columbia, 17 km east of the town of Cassiar, mainly south of Highway No. 37, and covers Allan Lake on McDame Creek. The geographic coordinates are  $59^{\circ} 15' N$ ,  $129^{\circ} 35' W$  (see Fig. 1 and Fig. 2).

Access to the claims is by four wheel drive truck via the Troutline Mine road, which departs southeast from Highway No. 37 at the east end of McDame Lake, and then east across the headwaters of Finlayson Creek along a branch off the Troutline road.

Access to the northern portion of the claim group is by boat across McDame Creek or Allan Lake.

## 3.0 History

Gold was initially discovered in placer deposits on McDame Creek in 1874. Since then, considerable prospecting and development has been conducted on numerous quartz veins which occur in the area.

The Hall 1, Otto 1 and Kitt 1 claims were located in 1980 and acquired by Erickson Gold Mining Corp. in 1983. The Bear 4 and Bear 5 claims were staked by Erickson Gold Mining Corp. in 1983. There is no evidence of work done on these claims prior to 1983 when an access road was constructed by Erickson Gold Mining Corp.

The Beacon claim group lies immediately to the east of the Troutline gold mine, which was operated by Plaza Mining Corp. before being acquired by Erickson Gold Mining Corp. in 1983. Troutline ore was taken from the Vollaug vein on Table Mountain.

#### 4.0 Summary of Work

Between July 1 and July 26, 1984 an area of approximately 25 square kilometers comprising the Beacon claim group was traversed. The geology of rock outcrops was mapped at 1:5,000 scale and exposed quartz veins were chip sampled and assayed (see Maps 1-5).

#### 5.0 Purpose

The purpose of the 1984 exploration program was to:

- 1) Locate and sample potential gold and silver bearing quartz veins, and
- 2) Outline the lithologies present and nature of the rusty weathering outcrops which occur on the claims.

#### 6.0 Geology

The Beacon claim group is underlain by metasediments, metavolcanics, diorite and serpentinite belonging to the Lower Mississippian - Upper Pennsylvanian age Sylvester Group. Within the claim boundaries the metasediments consist of green to black and locally maroon coloured ribbon-bedded chert, black graphitic argillite, brown to grey locally calcareous siltstone, and minor medium to coarse-grained sandstone. The metavolcanics are medium green coloured, mainly aphanitic but locally porphyritic, and massive to banded in texture. Diorite is dark green and

fine to medium grained. The serpentinite is dark green and is locally altered to a rusty weathering, foliated talc-carbonate rich rock.

Locally, the metavolcanics and diorite host quartz and quartz-carbonate veins up to 0.30 meters thick. Within diorite, the veins do not contain any visible mineralization, are not associated with any significant alteration of the host rock and are of limited strike length (< 4.0 meters). Veins hosted by metavolcanics also appear barren and of limited strike length but are commonly accompanied by rusty-weathering carbonate alteration of the wall rock.

Quartz veins up to 2.5 meters thick are exposed locally within rusty weathering chert. These veins grade from massive, granular white quartz in the vein center to vein breccia at the vein margin. This vein breccia consists of 1-4 centimeter, angular clasts of chert in a white to clear quartz matrix.

#### 7.0 Sample Results

Quartz veins encountered on traverses were chip sampled and  $\frac{1}{2}$  assay-ton subsamples were assayed by Fine Assay method at the Erickson Gold Mining Corp. mine assay lab. Where quartz veins were associated with minor alteration of the wall rock, this material was sampled and assayed separately. Sample locations and results are shown on Maps 1-5. Assay results are also listed in Appendix A. None of the veins sampled carried significant gold or silver mineralization.

## 8.0 Conclusions

No potentially economic gold or silver-bearing quartz veins were located on the Beacon claim group. The carbonatized volcanics along Finlayson Creek and southwest of Allan Lake host minor quartz veins and may be related to hydrothermal alteration associated with the mineralization encountered in the Troutline mine. For this reason, further exploration is warranted and should be focused on the metavolcanics on the Kitt 1 and Otto 1 claims.

## 9.0 Statement of Costs

July 1, 3, 4, 7, 10, 12, 13, 23-26;

2 geologists mapping	2 days @ \$190/man/day	\$ 760
1 geologist mapping	9 days @ \$190/man/day	1,710
1 assistant	9 days @ \$140/man/day	1,260
1 truck	11 days @ \$ 50/day	550
1 canoe	2 days @ \$ 40/day	80
40 chip samples, fine assayed	@ \$ 20/sample	800

August 1,2;

1 geologist, 2 days report writing @ \$190/day	380
2 days drafting @ \$120/day	240
field supplies and report materials	200
typing	200
	<hr/>
	\$6,180

## 10.0 Statement of Qualifications

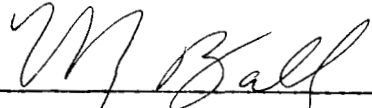
I, Mathew Ball, of 1217 East 4th Street, North Vancouver, B.C., do hereby certify that:

- 1) I hold an M.Sc. degree in Mineral Exploration obtained at Queen's University at Kingston, Ontario and am a member of

-B-

the Canadian Institute of Mining and Metallurgy. I have practiced my profession for four (4) years.

- 2) I am author of this report, which is based upon work conducted under the supervision of R. Somerville, P. Eng., during the 1984 field season on the Beacon claim group of Erickson Gold Mining Corp. near Cassiar, B.C.

  
M. Ball, M.S.C.

APPENDIX A

Chip Sample Assay Results

# ERICKSON

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# GOLD

## MINE FIRE ASSAY METHOD FOR AU AND AG

The samples are crushed, pulverized and split to  $\frac{1}{2}$  assay ton (14.583 gram) subsamples. One subsample is assayed for regional samples and two subsamples are assayed for diamond drill core by the following procedures.

The subsample is placed in a crucible along with 1 scoop of standard flux,  $\frac{1}{2}$  tsp of flour, 1 in quartz, and 1 tsp of borax cover.

It is then heated for 45 minutes at 1060°C to fuse, poured off and left to cool before the glass is hammered off the button (bead).

The cupels are heated for 10 minutes in the furnace at 970°C until white before the lead bead is put in the cupels for 30 minutes.

After cupelation the beads are hammered flat and weighed in milligrams. If over 2.79 mg, in quartz is added in the appropriate amounts and recupelled.

The bead is placed in diluted (16%) nitric acid for 30 minutes. The acid is then removed and the bead is rinsed two times with de-ionized water before annealing to remove tarnish and weighing in milligrams.

All assays are then given in ounces per ton.

























# ERICKSON GOLD

Bag 1500  
Cassiar, BC  
VOC 1E0

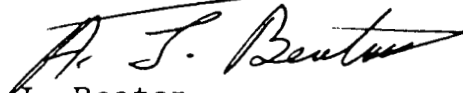
September 05, 1984

Chief Gold Commissioner  
Victoria, BC

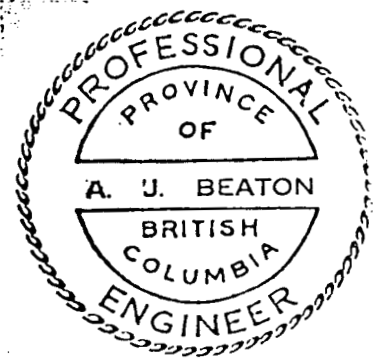
Sir / Madam;

The Assay Lab at Erickson Gold Mining Corp. is under my direct supervision, and has been for the last 5 (five) years. Regular check assays are done by an outside source.

Yours truly,



A.J. Beaton  
Mine Manager



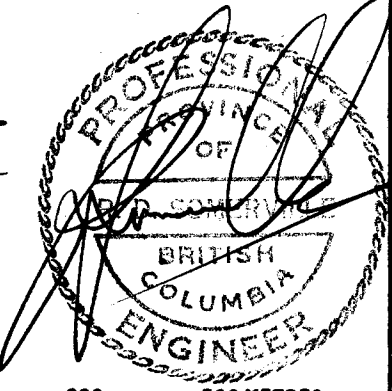




18	17	16	35	62
5	4	15	34	61
0	3	14	33	60
1	2	13	32	59
10	11	12	31	58

**SYMBOLS**

- Rock outcrop (right side of map)
- Geological boundary defined, approximate, inferred
- Bedding, tops known (horizontal, inclined, vertical, overturned, dip unknown)
- Bedding, tops unknown (inclined, vertical, dip unknown)
- Schistosity, gneissosity, cleavage, foliation (horizontal, inclined, vertical, dip unknown)
- Lineation, axis of minor folds (horizontal, inclined, vertical)
- Drag fold (arrow indicates plunge)
- Fault (defined, approximate, interpreted)
- Syncline (defined, approximate)
- Anticline (defined, approximate)
- Anticline and syncline (overturned)
- Intensity (weak, moderate, strong)
- Quartz vein (inclined, vertical, dip unknown)
- Zone of alteration
- Trench
- Adit or tunnel
- Rock dump or tailings
- Shaft, raise, winze
- Diamond drill hole
- Contours 2500
- Stream or creek (perennial, intermittent)
- Marsh
- Lake
- Road
- Trail
- Treed area

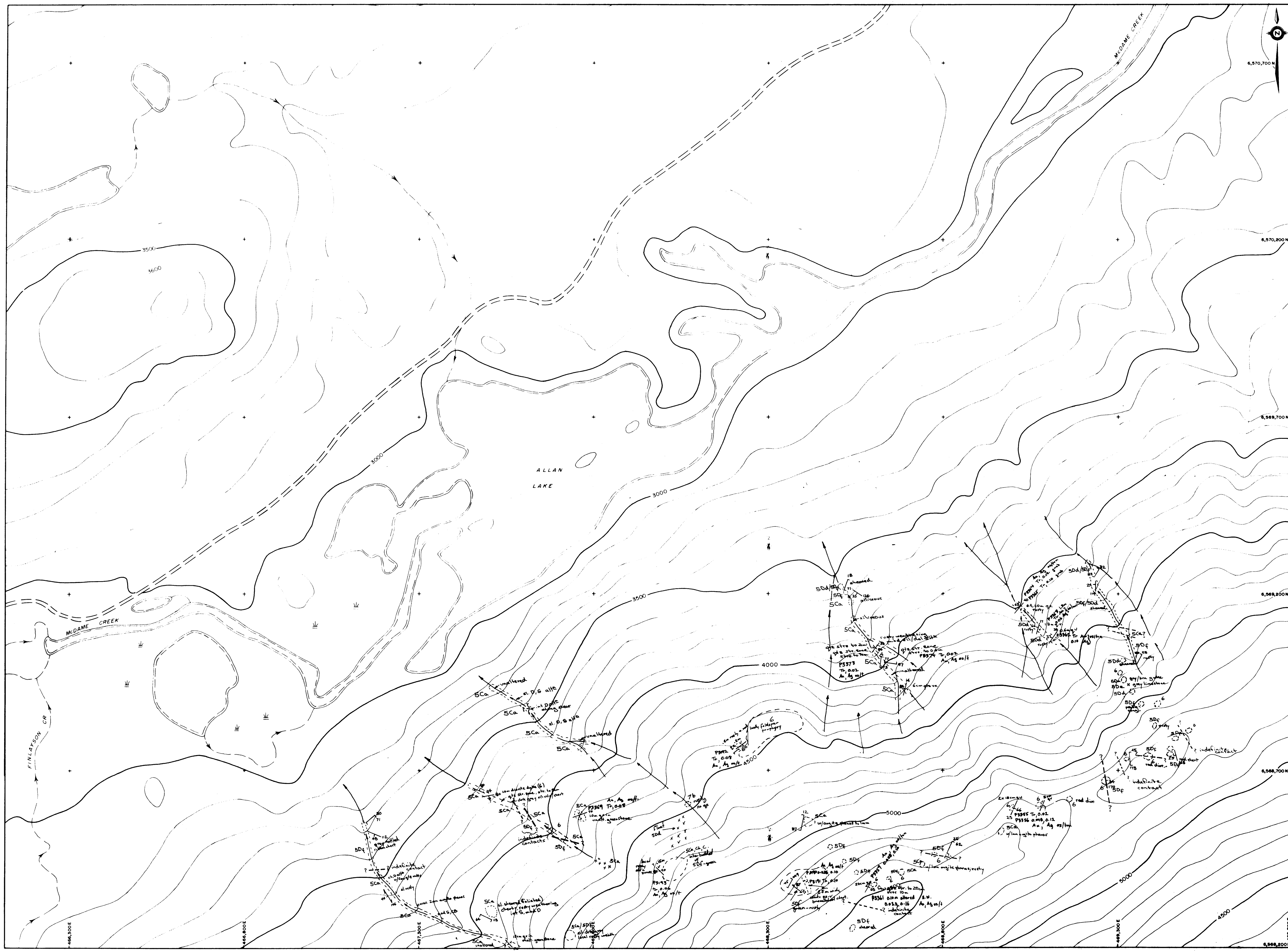


SCALE 1:5,000

ERICKSON GOLD MINING CORP.

**BEACON GROUP  
GEOLOGY &  
CHIP SAMPLE LOCATIONS**

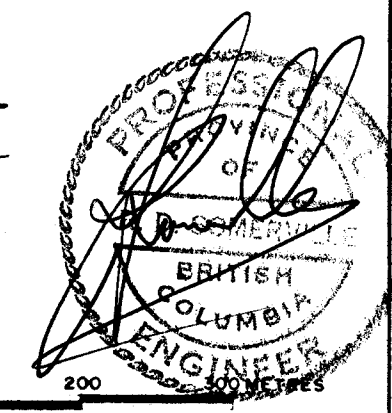
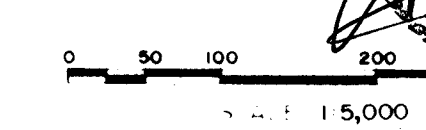
Project Name ERICKSON Project No. 1003  
 Latitude 59°16'18"-59°14'55" Longitude 129°35'21"-129°31'43"  
 Mining Division LIARD NTS: 104 P/4E  
 To accompany a report by R. SOMERVILLE, P. Eng.  
 Alpha No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date AUGUST 1984 Map No. 16 MAP 3



18	17	16	35	62
5	4	15	34	61
0	3	14	33	60
1	2	13	32	59
10	11	12	31	58

**SYMBOLS**

- Rock outcrop, area of outcrop, float x (XXX) X
- Geological boundary (defined, approximate, inferred) ———
- Bedding, tops known (horizontal, inclined, vertical, overturned, dip unknown) + / \ / \
- Bedding, tops unknown (inclined, vertical, dip unknown) / \ / \
- Schistosity, gneissosity, cleavage, foliation (horizontal, inclined, vertical, dip unknown) + / \ / \
- Lineation, axis of minor folds (horizontal, inclined, vertical) / \ / \
- Drag-fold (arrow indicates plunge) / \ / \
- Fault (defined, approximate, interpreted) ———
- Joint (horizontal, inclined, vertical, dip unknown) + / \ / \
- Syncline (defined, approximate) + / \ / \
- Anticline (defined, approximate) + / \ / \
- Anticline and syncline (overturned) + / \ / \
- Intensity (weak, moderate, strong) / \ / \
- Quartz vein (inclined, vertical, dip unknown) / \ / \
- Zone of alteration (dotted line)
- Trench ———
- Add or tunnel ———
- Rock dump or tailings ———
- Shaft, raise, winze ———
- Diamond drill hole entering section, leaving section ———
- Contours ——— C:1
- Stream or creek (perennial, intermittent) ———
- Marsh ———
- Lake ———
- Road ———
- Trail ———
- Treed area ———

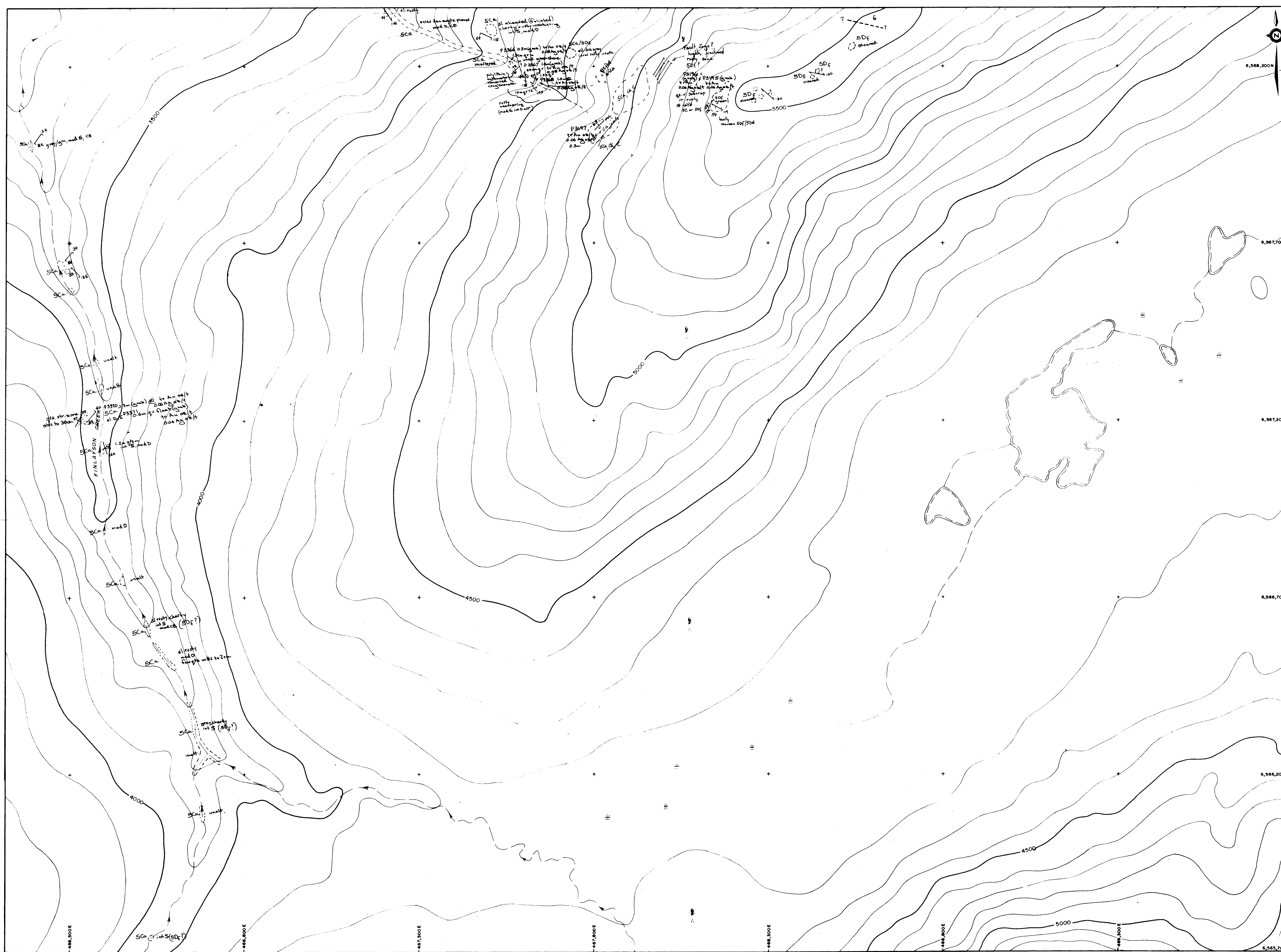


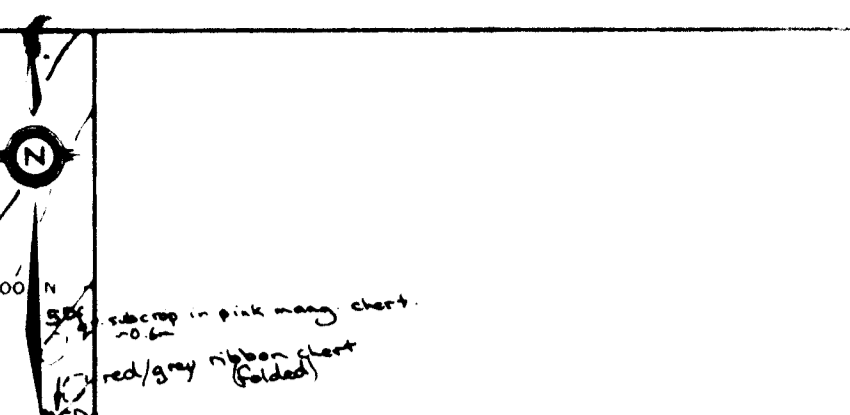
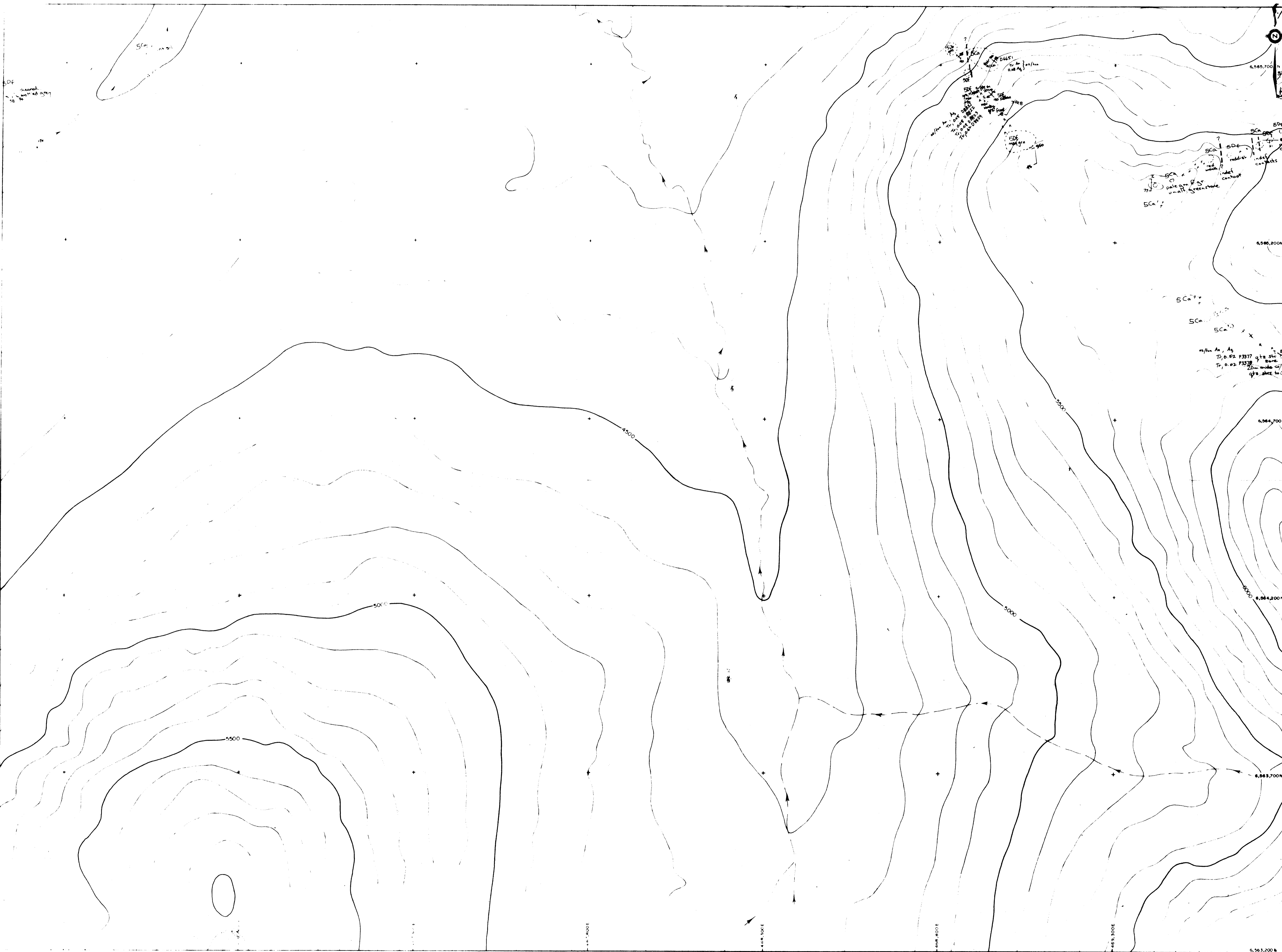
ERICKSON GOLD MINING CORP

**BEACON GROUP  
GEOLOGY &  
CHIP SAMPLE LOCATIONS**

Project Name ERICKSON Project No 1003  
 Latitude 59°46'55" 59°43'52" Longitude 129°39'08" 129°35'21"  
 Mining Division LIARD NTS 104 P/AE

To accompany a report by R. SOMERVILLE, P. Eng  
 Alpha No \_\_\_\_\_ Drawing No \_\_\_\_\_  
 Date AUGUST 1984 Map No 15  
 MAP 2



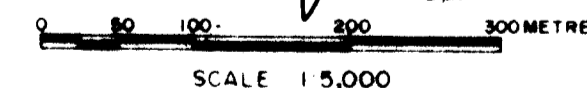


**SHEET INDEX**

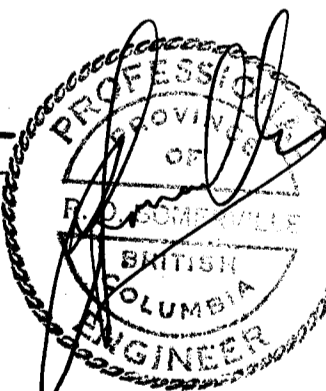
0	3	14	33	60
1	2	13	32	59
10	11	12	31	58
27	28	29	30	57
52	53	54	55	56

**SYMBOLS**

- Rock outcrop, area of outcrop, float **X (XXX) X**
- Geological boundary (defined, approximate, inferred) **---**
- Bedding, tops known (horizontal, inclined, vertical, overturned, dip unknown) **+ / X / \**
- Bedding, tops unknown (inclined, vertical, dip unknown) **/ X /**
- Schistosity, gneissosity, cleavage, foliation (horizontal, inclined, vertical, dip unknown) **+ / X / \**
- Lination, axis of minor folds (horizontal, inclined, vertical) **/ X /**
- Drag - fold (arrow indicates plunge) **X**
- Fault (defined, approximate, interpreted) **---**
- Joint (horizontal, inclined, vertical, dip unknown) **+ / X / \**
- Syncline (defined, approximate) **+ - + -**
- Anticline (defined, approximate) **- + - +**
- Anticline and syncline (overturned) **+ - + -**
- Intensity (weak, moderate, strong) **/ X /**
- Quartz vein (inclined, vertical, dip unknown) **X / X /**
- Zone of alteration **-----**
- Trench **==**
- Adit or tunnel **==**
- Rock dump or tailings **-----**
- Shaft, raise, winze **□**
- Diamond drill hole **○**
- entering section, leaving section **→**
- Contours **---** 2500 **C:1**
- Stream or creek (perennial, intermittent) **---**
- Marsh **-----**
- Lake **-----**
- Road **---**
- Trail **---**
- Treed area **-----**



SCALE 1:5,000



ERICKSON GOLD MINING CORP

**BEACON GROUP  
GEOLOGY &  
CHIP SAMPLE LOCATIONS**

Project Name **ERICKSON** Project No **1003**  
 Latitude **59°32'59" N** Longitude **129°30'29" W**  
 Mining Division **LIARD** NTS **104 P/4E**

To accompany a report by **R. SOMERVILLE, P. Eng**  
 Date **AUGUST 1984** Map No **14**

**12,523**

MAP I