1025

GEOLOGICAL and GEOCHEMICAL

REPORT

on the RAIN PROPERTY

(PHIL 17, RAIN 1 and RAIN 2 Claims)

Omineca Mining Divison
N.T.S. 93N/1E

Latitude: 55°-02'N Longitude: 124°-03'W

FILMED

Located approximately 60 km north northeast
of Fort St. James, British Columbia

Owner : BP Minerals Limited
Operator: BP Minerals Limited

SUB-RECORDER
RECEIVED
OCT 6 1988
M.R. # .... $........
VANCOUVER, B.C.

R. Pegg, BASc., P. Eng.
S. Hoffman, PhD.

July, 1988

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,860

For: BP Minerals Limited
700 - 890 West Pender Street
Vancouver, B.C.
V6C 1K5

BPVR 88-3

RESUME

The RAIN property, located 66 km north of Fort St. James, B.C. covers an area of high magnetic relief with coincidental government arsenic-antimony stream sediment anomalies. The claims are primarily underlain by Takla Group (Upper Triassic) volcanics and sediments. BP Minerals conducted geological and geochemical surveys over part of the property during 1988. A summary of results from this program are as follows:

- additional ground was staked to the west and north as a result of re-interpretaion of previous geochemical data;
- 1988 soil sampling program contained 10 samples with results ranging from 50 to 1010 ppb Au;
- Au soil anomalies appear to be peripherally associated with elevated As, Sb and Cu values;
- Moss mat sampling results indicate that some of the Au is introduced along the western portion of the tributary creek that cuts the PHIL 17 claim;
- the preliminary soil sampling indicates that the anomalous gold values may correspond to the contact of Takla Group volcanic flows and fragmentals;
- minor to moderate amounts of disseminated and fracture filling pyrite and pyrrhotite and traces of chalcopyrite were observed in the volcanics
- preliminary rock sampling of the few observed exposures failed to locate a source(s) for the gold soil anomalies.

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INTRODUCTION

In 1988, BP Minerals Limited conducted geological and geohemical surveys over part of the PHIL 17 claim.

The exploration target was economic precious metal ± base metal mineralization.

1. Location, Access, Physiography and Climate

The RAIN property is located south of Rainbow creek, approximately 66 km north of Fort St. James and 11 km east of the Fort St. James - Manson Creek road.

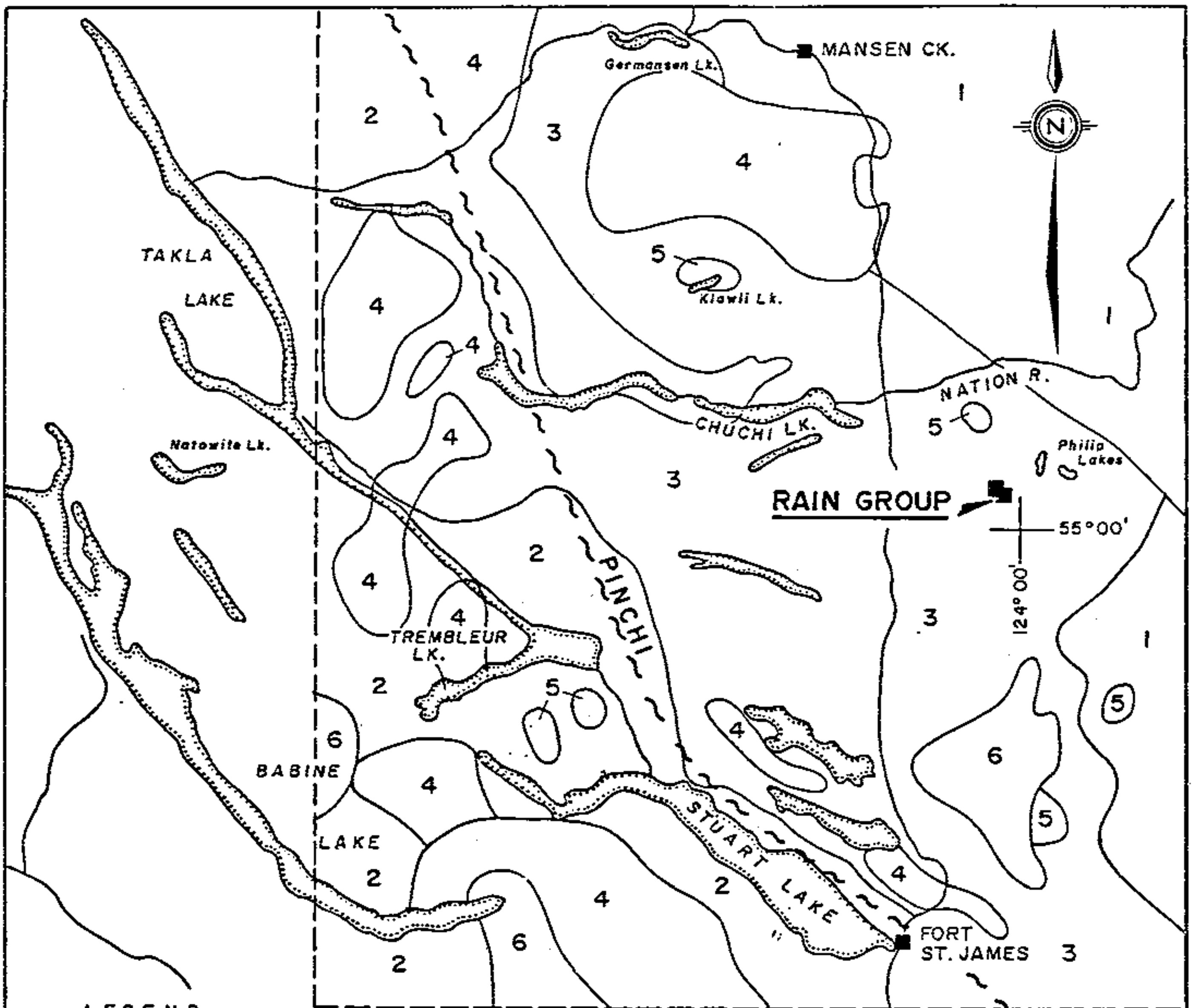
Access is by helicopter from Fort St. James.

The PHIL 17 claim covers an area of moderate relief with elevations ranging from 1150 to 1450 metres. With the exception of swampy valleys near the centre and along the west side of the claim, the slopes are covered by a thick growth of balsam, fir and spruce trees.

The property receives a moderate amount of precipitation during most of the year.

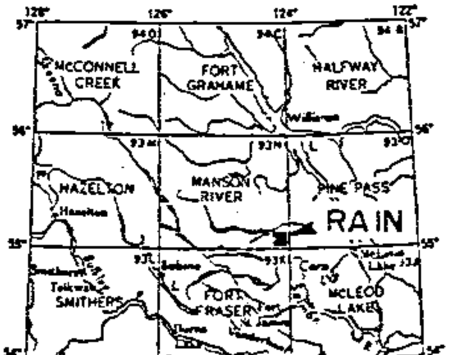
2. Property Status

The property consists of 3 claims (39 units) whose registered owner is BP Minerals Limited of Vancouver. These claims have been placed into a single claim group, as follows:



LEGEND

6	Tertiary : Volcanic Rocks
5	Cretaceous : Intrusive Rocks
4	Triassic - Jurassic : Intrusive Rocks
3	Upper Triassic : Takla Group ; Volcanic and Sedimentary Rocks
2	Upper Palaeozoic : Cache Creek Group ; Metamorphic Rocks
1	Proterozoic - Palaeozoic Metamorphic Rocks



SELCO DIVISION -
BP RESOURCES CANADA LIMITED

RAIN PROJECT

PROPERTY LOCATION MAP AND REGIONAL GEOLOGY

SCALE 1:1 000 000	DRAWN BY: R. P.			FIG. 1
DATE JULY 1988	DRAFTED BY:			
N.T.S. 93 N	PROJ. 10200	REPORT BPVR 88-3		

RAIN Group (39 units)

Name	Record No.	(Tag No.)	No. of Units	Date Recorded
PHIL 17	6486		20	July 20, 1984
RAIN 1		(108075)	15	July 15, 1988
RAIN 2		(108074)	4	July 15, 1988

3. History of Exploration

In August of 1984, BP conducted preliminary geological mapping and geochemical sampling. The PHIL 17 claim was staked following the release of results from a government stream sediment survey and covers an area of high magnetic relief with coincident arsenic-antimony anomalies.

4. 1988 Work Program

Re-interpretation of previous soil sample results was completed during June of 1988. Geological mapping and soil/moss mat/rock sampling surveys were conducted in July.

GEOLOGY

1. Regional Geology

The RAIN property is located within the Intermontane Tectonic Belt in an area underlain by the Upper Triassic Takla Group. This group is comprised of mainly basic volcanics and sediments that formed within the Quesnel Trough, a north-west trending graben lying between highly deformed Proterozoic and Palaeozoic strata to the east and deformed Palaeozoic strata to the west.

The major structure in the area is the Pinchi Fault which lies 67 km west of the property and demarks the western boundary of the Quesnel Trough.

2. Property Geology

The property is underlain by north-west trending and moderately dipping andesitic flows, tuffs and breccias. The fragmentals contain lesser amounts of interbedded flows. The fragmental rocks are green to black in colour, polylithic and contain abundant augite hornblende and plagioclase phenocrysts. The flows are green augite (± plagioclase ± hornblende) porphyries which locally display flow brecciation.

A sedimentary unit consisting of black argillite, greenish tuffaceous sandstone and siltstone has been reported to the north-west of the PHIL 17 claim.

Light to medium grey-green, fine-grained feldspar porphyry and darker grey, medium-grained hornblende (±augite) diorite dykes/sills cut the section.

Humphreys postulated a north-east trending fault separating the sediments from the volcanics. There is a possibility of folding in the eastern part of the property where the volcanics are more strongly foliated. He also reported weakly developed graded bedding in the tuffs which suggested younging to the north-east.

3. Mineralization and Alteration

A 15 metre wide carbonate altered feldspar porphyry dyke was observed just north of the creek cutting the centre of the claim. This zone contains numerous discontinuous, milky white quartz veinlets up to 7 mm wide. Pyrite cubes and blebs, up to 5%, were observed.

Approximately 650 metres to the west, a very fine-grained, medium to light grey, siliceous and pyritic tuff was observed. This appears to be a shear-related zone with 1 to 5% pyrite fracture fillings and lesser disseminations, moderate amounts of carbonate fracture filling and minor jarosite staining.

Weakly magnetic, fine-grained, disseminated pyrrhotite was observed in most of the volcanics in amounts of up to 5%. Minor disseminated pyrite was also noted. Trace amounts of chalcopyrite was observed locally in the flows and flow breccias.

GEOCHEMICAL SURVEY

1. Rock Sampling

During the course of geological mapping, seven grab samples were collected for geochemical analysis. This was done to test for significant gold conentrations and/or possible indicator elements. Samples were shipped to Acme Analytical in Vancouver for analysis of 30 elements, following an aqua regia digestion, by ICP methods and for Au (aqua regia). Analytical methods are reported in Appendix I and a listing of data are found in Apendix II.

2. Topography, Landscape, Overburden and Soils

Although maximum relief within the grid area is only about 100 m (300 feet), the landscape is dominated by several major valleys the most prominent of which is a "V" shaped tributary of Rainbow Creek which flows to the west. Overburden along the east-west trending valley comprises residual or talus materials, and is locally derived from outcrops which are poorly to intermittantly exposed.

Away from the valleys, the landscape is relatively flat along grid lines. Overburden comprises sandy till and/or outwash, and at many sites it may be relatively thick, perhaps too thick and too exotic in origin to enable anomalous signals from underlying bedrock, if present, to be dispersed to surface soils. Outwash (alluvial) deposits are common along Rainbow Creek, but these may be thin as outcrop is intermittantly exposed. Elevation thus cannot act as a guide to where unfavourable outwash deposits might be found on the property.

Soils are generally well drained, and soil formation has proceeded to the stage of podzols over most of the landscape. A podzolic profile on the property is characterized by:

1. A thin LH horizon 0-5 cm thick comprising partly decomposed leaves and humus;
2. A poorly developed, light to medium brown AE horizon 0-20 cm thick representing a zone of leaching;
3. A medium red-brown zone of accumulation of Fe oxides, at depths of 20 to 30 cm, representing the horizon of choice on the claim group; and,

4. A medium olive brown BM horizon typically underlying the BF, but also present independant of the BF in more poorly drained portions of the property. The BM horizon was sampled if the BF zone was too thin or absent.

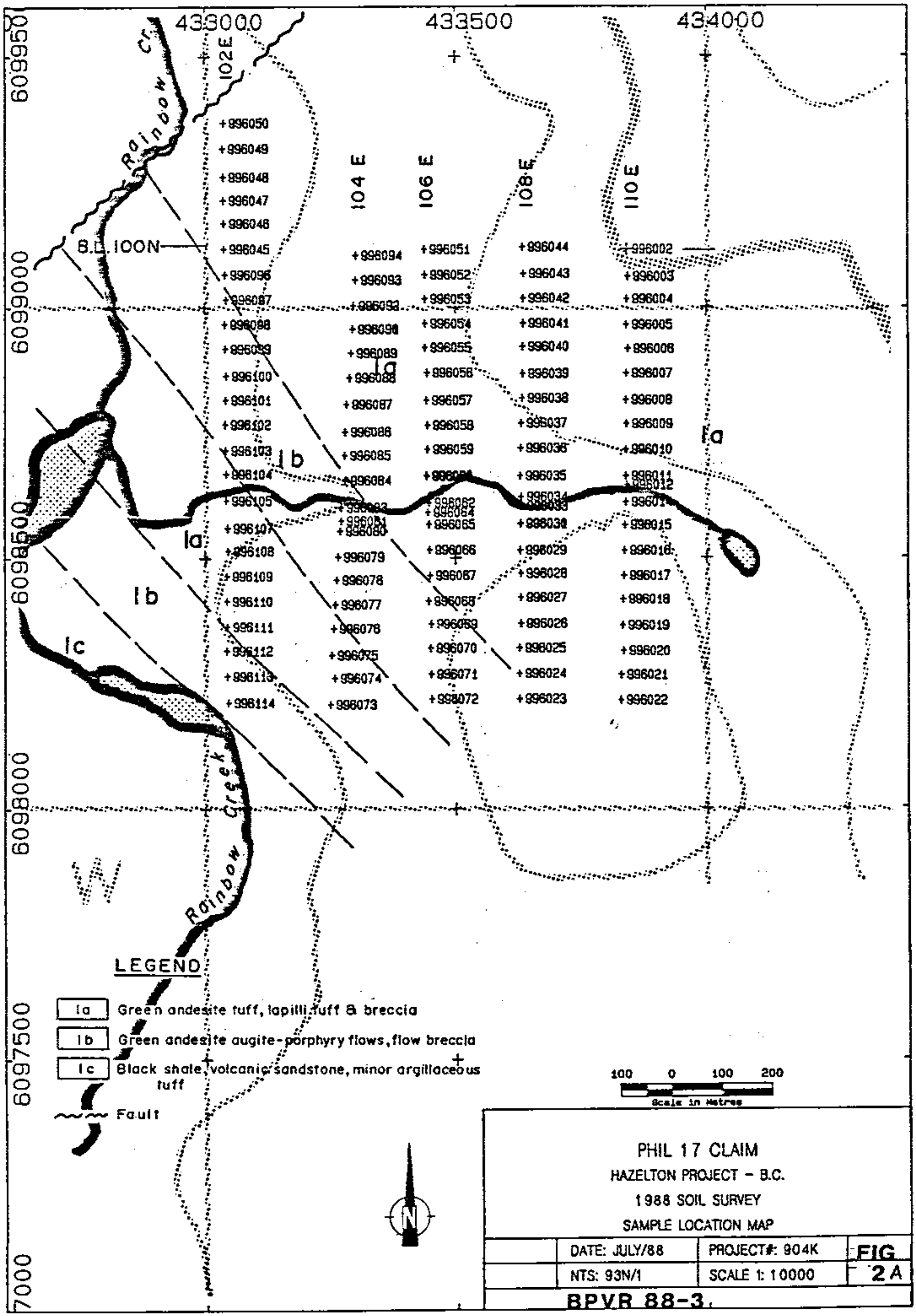
Organic accumulation in bogs were penetrated when encountered at sample sites, although it is likely that this would not be possible without an auger if more detailed sampling is conducted near the central portion of the baseline. Soil profiles in many areas contain abundant stones, making sampling rates slow and could frustrate beneath-bog sampling.

3. Sampling Program

To followup Cu, As and Sb anomalies along the east-west tributary of Rainbow Creek, a 1.0 km baseline was established from a survey marker along Rainbow Creek to the east. Crosslines were established at 200 m intervals, and samples were taken at 50 m spacings. Station locations along the baseline and along crosslines were marked on an aluminum tag and affixed at each station. Sample numbers were also written onto the aluminum tags. One hundred and eight soil samples were collected (Fig. 2A). In addition, 6 moss mat samples were taken along the east-west tributary creeks (Fig. 2B).

4. Sample Preparation, Analysis, and Interpretation

Samples were placed in wet strength Kraft paper envelopes onto which was written the sample and an archive number, on site. Samples were air-freighted to Vancouver and submitted to Acme Analytical for ICP and Au geochemical analysis on splits of the minus 80-mesh fraction. Analytical procedures are found in Appendix 1 and a list of geochemical data included in Appendix 2.



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6099500
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6098500
6098000
6097500
6097000
102E
104E
106E
108E
110E
Rainbow Cr.
Rainbow Creek
B.L. 100N
Ia
Ib
Ic
+996050
+996049
+996048
+996047
+996046
+996045
+996096
+996097
+996098
+996099
+996100
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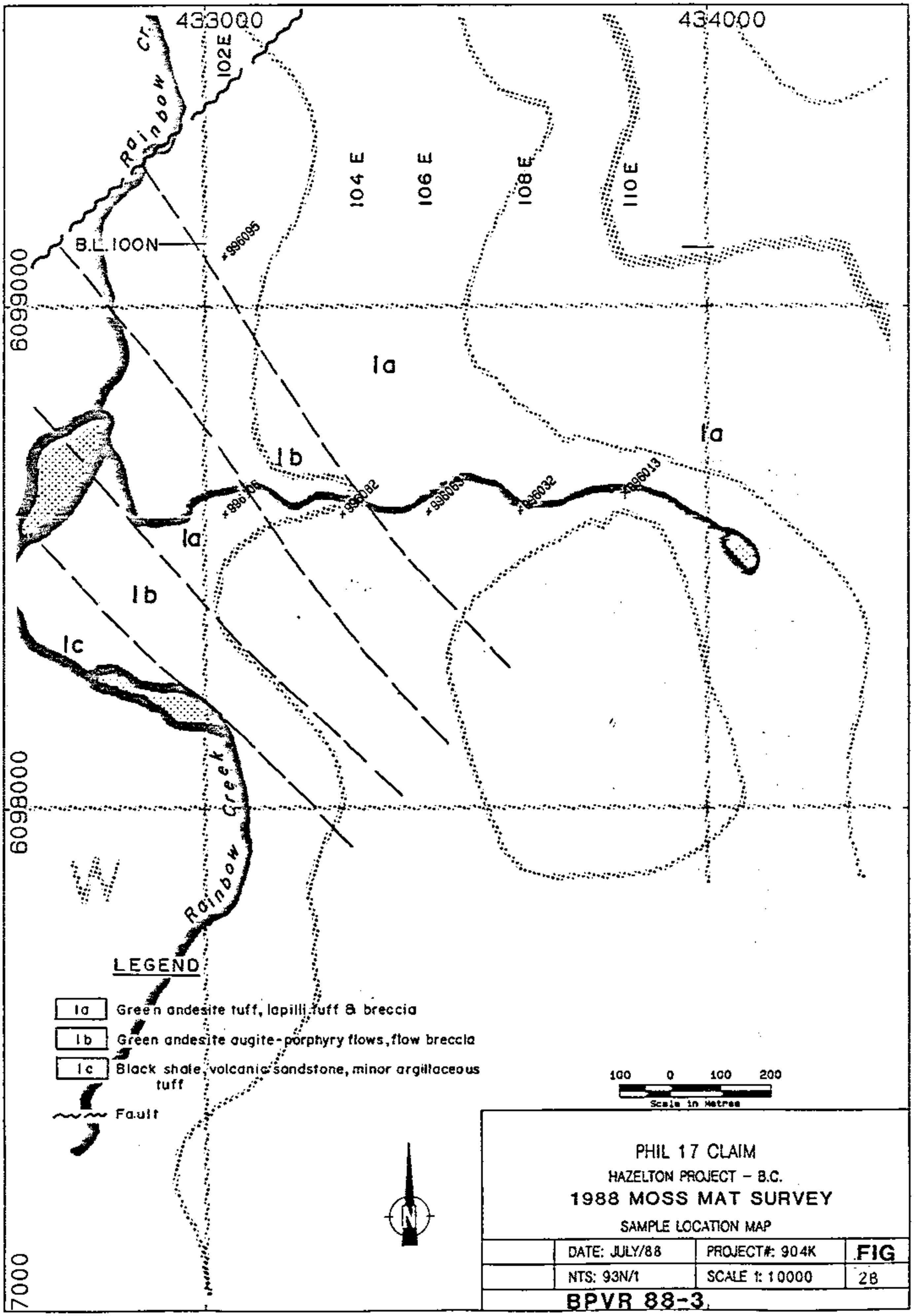
+996012
+996015
+996016
+996017
+996018
+996019
+996020
+996021
+996022
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
SAMPLE LOCATION MAP
DATE: JULY/88
PROJECT#: 904K
FIG 2A
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



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110E
Rainbow Cr.
B.L. 100N
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996013
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
SAMPLE LOCATION MAP
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
28
BPVR 88-3

The significance of the geochemical numbers returned from the laboratory was established with reference to procedures of Appendix 3 applied to histograms of Plan 2.

5. Description of Results - Soils

1. Gold (Fig. 3A)

Most Au values are less than 4 ppb. An anomaly threshold of 12 ppb defines 3 multisample anomalies. Ten samples report values of 50 ppb, and two samples contain about 1000 ppb Au. Anomaly 2 in the southwest is the largest and highest contrast feature. Gold anomalies are not characteristic of the tributary valley.

2. Ag (Fig. 3W)

All samples report values at detection limits.

3. As (Fig. 3B)

As enhancement is prominent along the east-west tributary. Two As anomalies are defined, south of Au zone 2 (As anomaly 3) and north of Au zone 1 (As anomaly 1). The southwestern As anomaly is a high contrast feature against a background of less than 4 ppm.

4. Sb (Fig. 3C)

One sample contains detectable Sb levels of 16 ppm. That sample is also very As-rich.

5. Bi (Fig. 3D)

All Bi levels are at detection limits.

6. Mo (Fig. 3E)

With one 13 ppm exception, all Mo values are at detection limits.

7. Cu (Fig. 3F)

Four Cu anomalies are defined. The largest zone, No. 2, follows the tributary creek and becomes a larger feature along the westernmost line. In fact, the westernmost line is associated with a majority of above threshold (>55 ppm) values, to a maximum of 100 to 200 ppm. Cu anomaly 1 is the weakest feature, but it correlates with As anomaly 1.

8. Pb (Fig. 3G)

Pb levels are not exceptional. Highest values follow the creek valley and lie along the westernmost line.

9. Zn (Fig. 3H)

Zn contents also are not exceptionally high. The Zn pattern follows that of Pb.

10. Fe (Fig. 3I)

The Fe distribution resembles that of Cu, Pb and Zn. Enhanced levels follow the east-west valley and are found in the southwest. Maximum values are 8 to 11%, and the highest value is in the same sample that contains the most As and Sb.

11. Mn (Fig. 3J)

Mn has accumulated to its greatest levels of 550 to 4000 ppm along the tributary valley. Weakly anomalous conditions only are found on the plateau region (400 to 1000 ppm).

12. Co (Fig. 3K)

Co-rich soils follow the valley base of slope zone. High Co values are also found in the northwest and southwest.

13. Ni (Fig. 3L)

Ni backgrounds are highest in the west, but characteristic patterns are not evident.

14. Cr (Fig. 3M)

Cr contents do not vary greatly over the grid area. Highest values characterize the westernmost line and lie north of the east-west valley.

15. V (Fig. 3N)

V follows Fe.

16. Ba (Fig. 3Ø)

The Ba distribution is somewhat noisy, although large Ba-rich zones are defined along the east-west tributary creek (No. 1 and 4) and in the southwest (No. 3).

17. Sr (Fig. 3P)

Sr has accumulated along the westernmost portion of the tributary creek to levels in the 50 to 350 ppm range. Weaker Sr accumulation is seen in zones 1 and 2 in the north, and anomaly 4 in the south.

18. Ca (Fig. 3Q)

The Ca distribution correlates strongly with that of Sr, except that areas of enhanced values are more striking. Unit 16 may be a Ca-rich unit south of the east-west creek. Large portions of regions underlain by unit 1a are Ca-rich north of the creek. The Ca distribution is homogeneous and maximum values are in the 0.7 to 0.8% range.

19. Mg (Fig. 3R)

Mg enhancement follows the tributary creek, becoming stronger in character westward. Background Mg contents are high in the north.

20. Al (Fig. 3S)

Most enhanced Al values lie along the westernmost line, suggesting the possibility of analytical error. Values are also enriched along the tributary valley.

21. K (Fig. 3T)

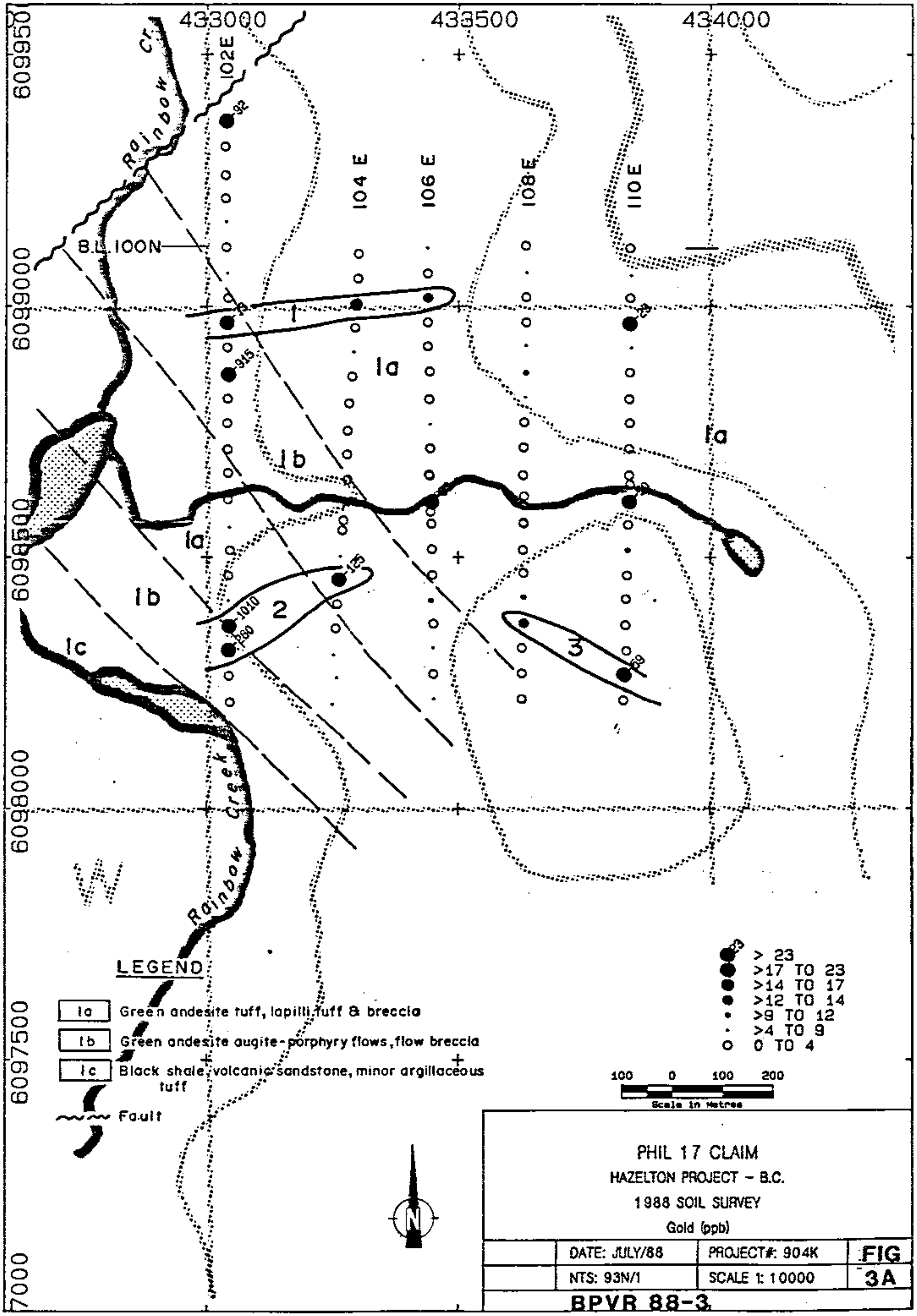
One K anomaly is defined along the westernmost portions of the tributary creek.

22. Ti (Fig. 3U)

Ti enhancement characterizes the westernmost line, with 200 m of enhanced values centering on the east-west creek. Lowest Ti values follow the same creek in the east.

23. P (Fig. 3V)

Above background and anomalous P contents lie along the westernmost line, the east-west trending valley, and in the southwest portion of the grid.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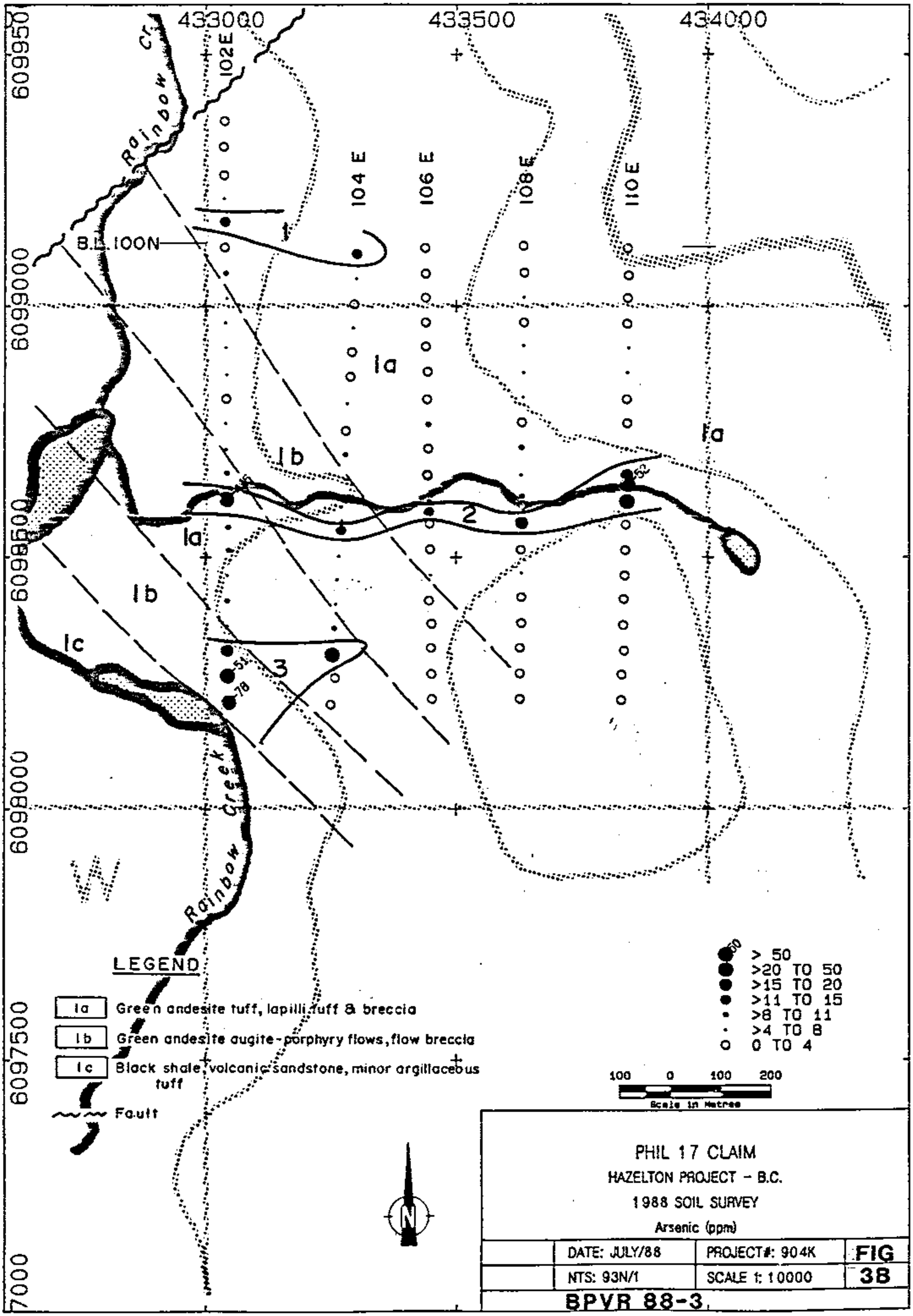
Rainbow Cr.
Rainbow Creek
B.L.100N
92
915
1010
960
125
69
1
2
3
1a
1b
1c
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 23
>17 TO 23
>14 TO 17
>12 TO 14
>9 TO 12
>4 TO 9
0 TO 4
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT – B.C.
1988 SOIL SURVEY
Gold (ppb)
DATE: JULY/88
PROJECT#: 904K
FIG 3A
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



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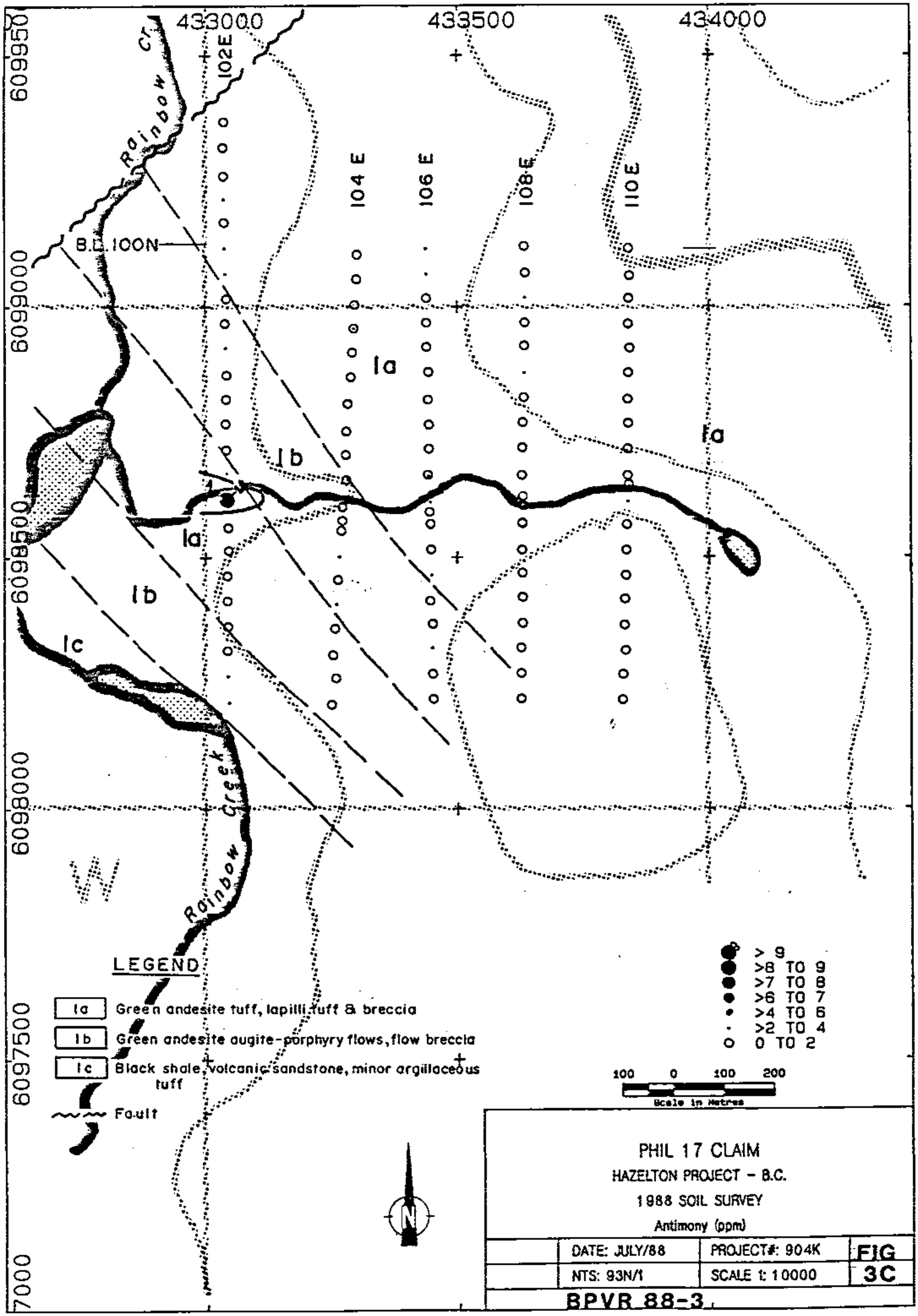
108 E
110 E
B.L.100N
Rainbow Cr.
Rainbow Creek
1a
1b
1c
1
2
3
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 50
>20 TO 50
>15 TO 20
>11 TO 15
>8 TO 11
>4 TO 8
0 TO 4
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Arsenic (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3B
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



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108 E
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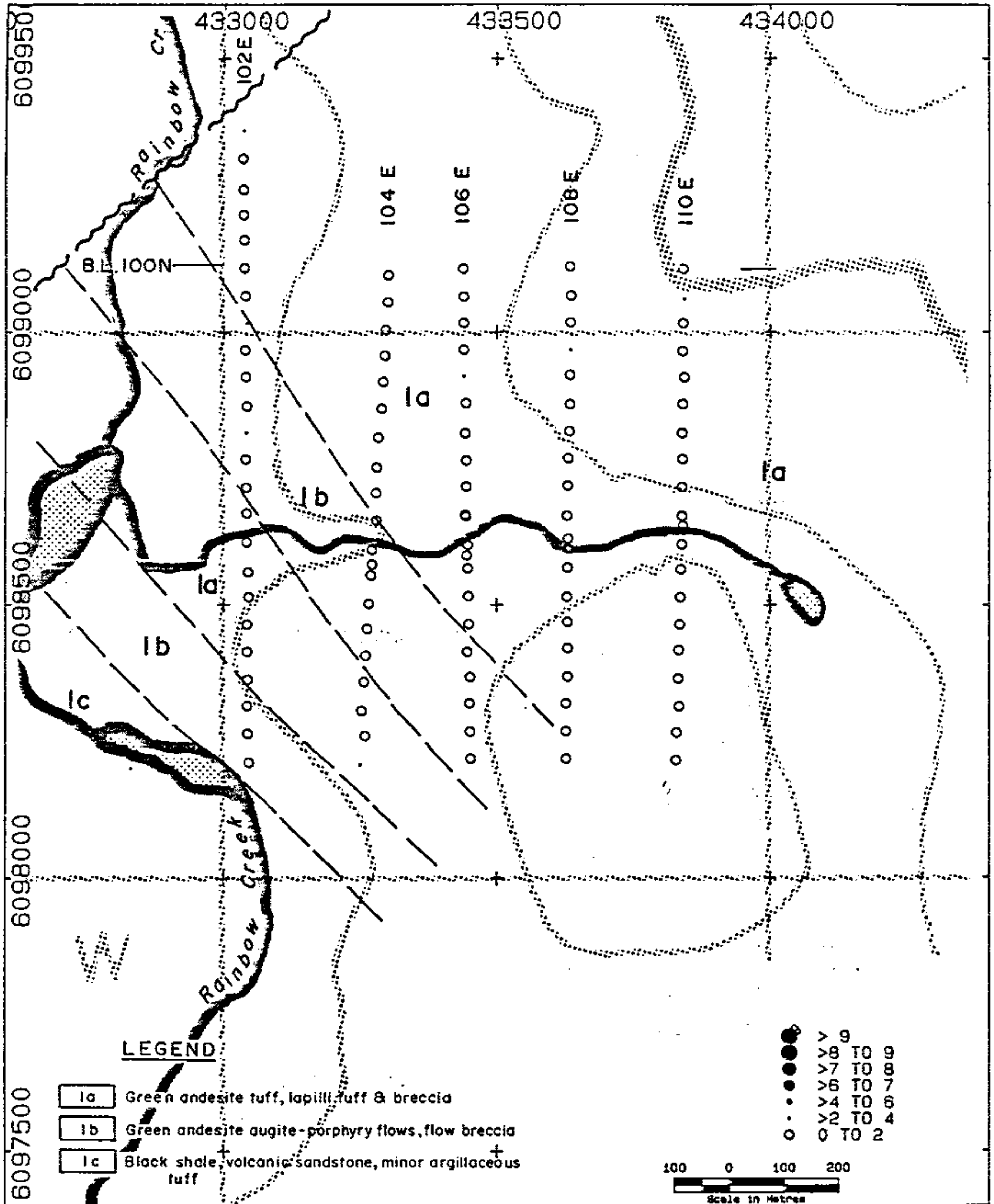
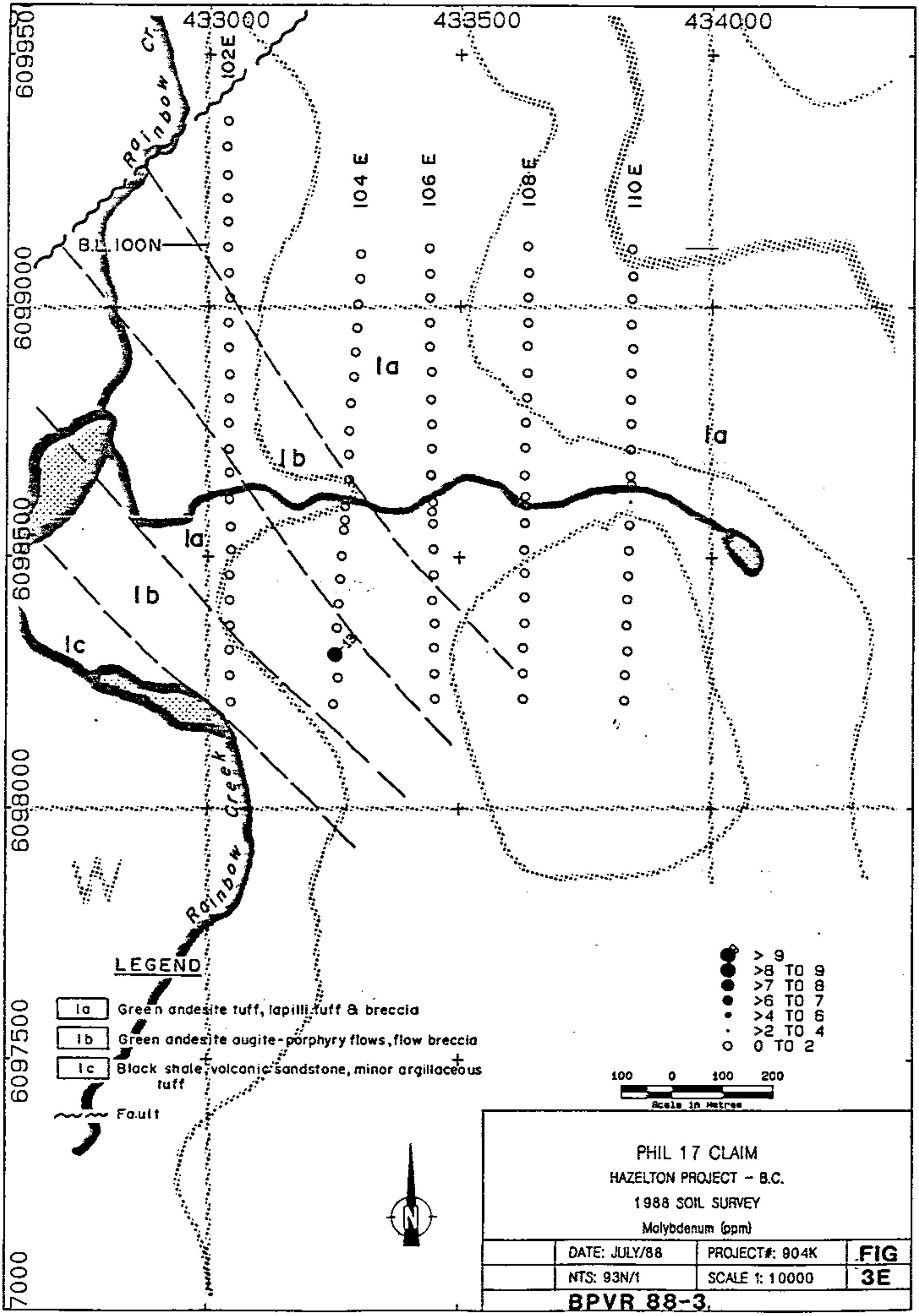
B.L.100N
Rainbow Cr.
Rainbow Creek
Ia
Ib
Ic
W
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 9
>8 TO 9
>7 TO 8
>6 TO 7
>4 TO 6
>2 TO 4
0 TO 2
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Antimony (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3C
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM HAZELTON PROJECT - B.C. 1988 SOIL SURVEY Bismuth (ppm)	
DATE: JULY/88	PROJECT#: 904K
NTS: 93N/1	SCALE 1: 10000

FIG 3D

BPVR 88-3.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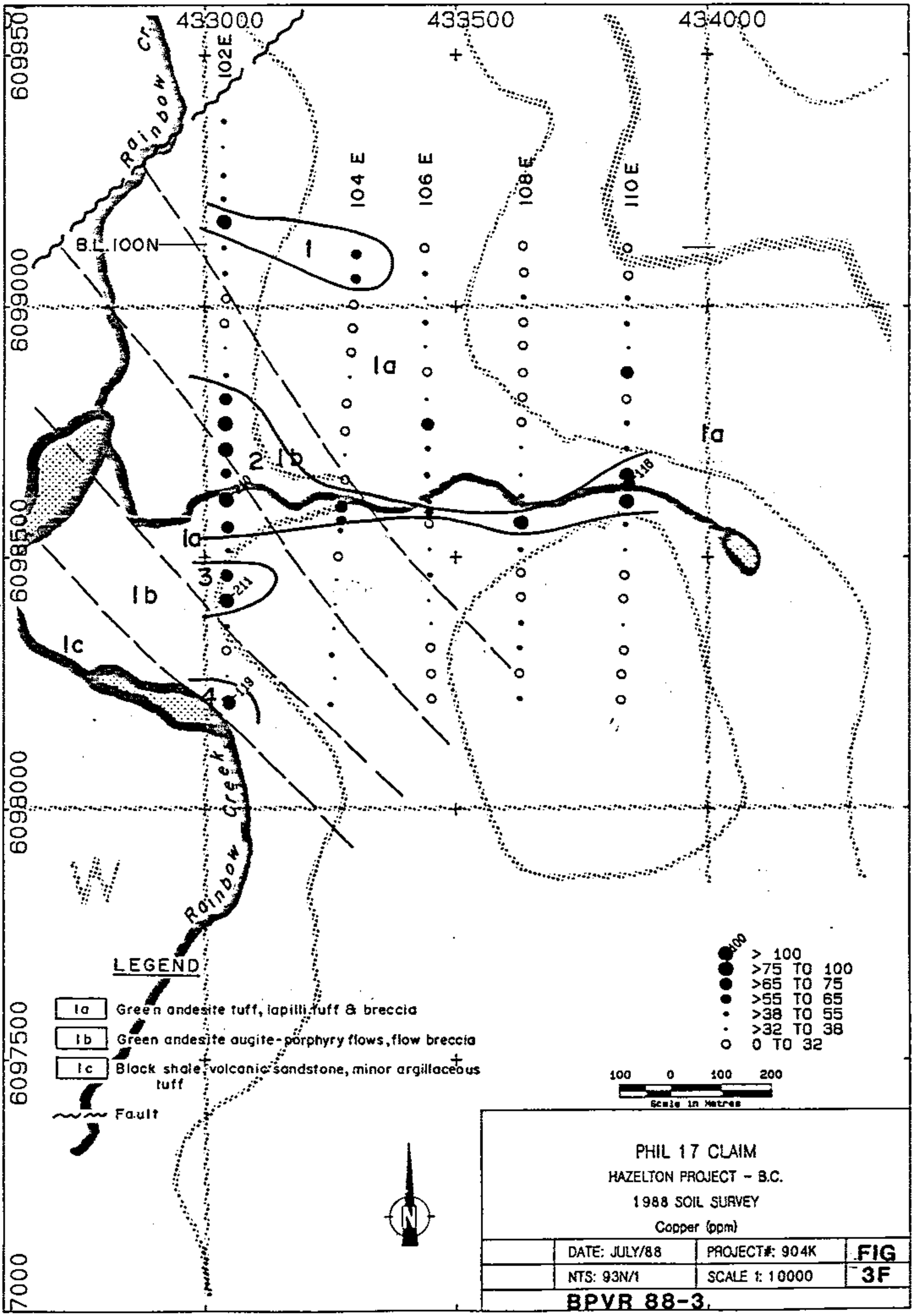
B.L.100N
Rainbow Cr.
Rainbow Creek
Ia
Ib
Ic
13
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 9
>8 TO 9
>7 TO 8
>6 TO 7
>4 TO 6
>2 TO 4
0 TO 2
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Molybdenum (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3E
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3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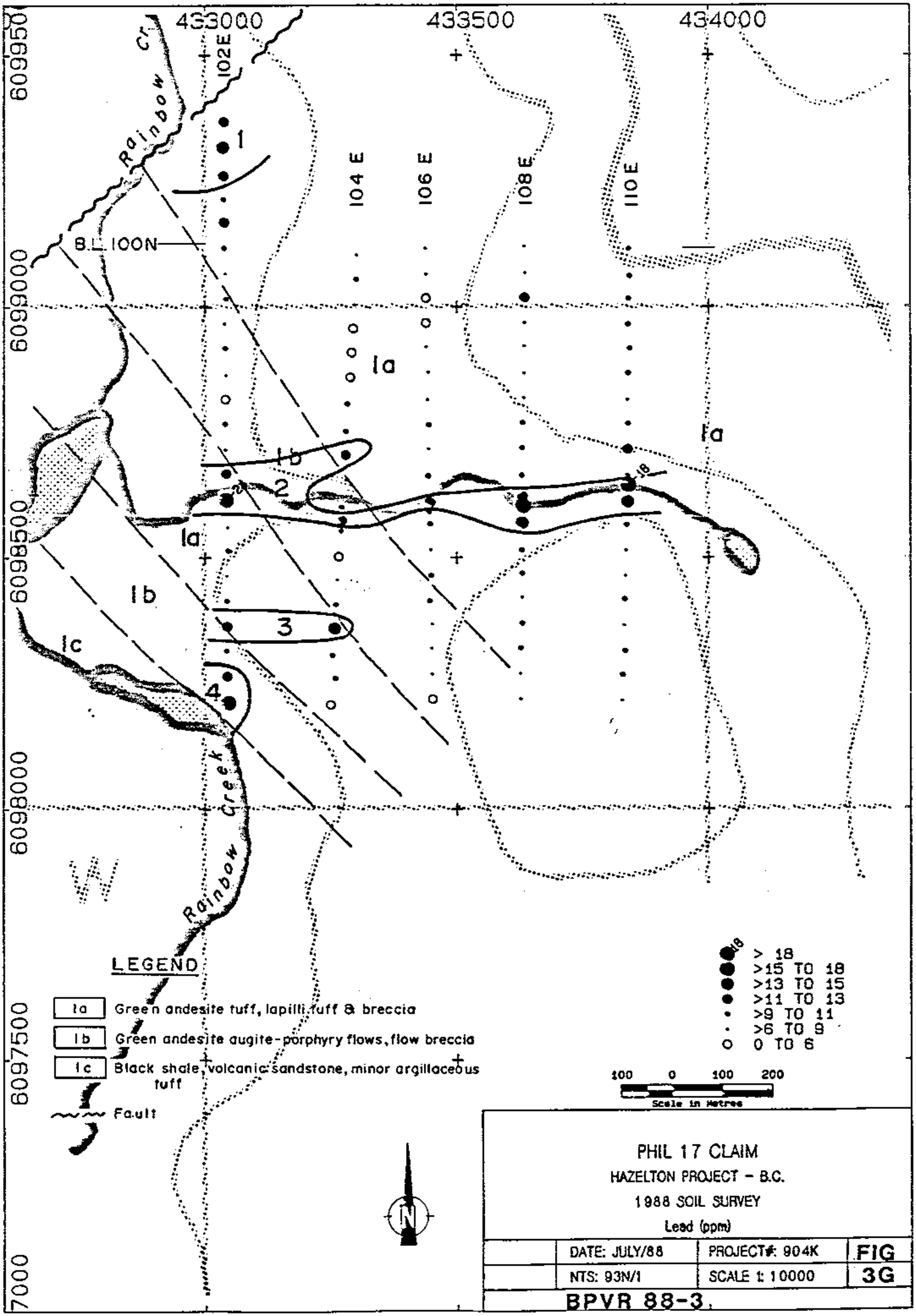
6097000
102E
104 E
106 E
108 E
110 E
B.L.100N
Rainbow Cr.
Rainbow Creek
1
2
3
4
1a
1b
1c
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 100
>75 TO 100
>65 TO 75
>55 TO 65
>38 TO 55
>32 TO 38
0 TO 32
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Copper (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3F
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3.



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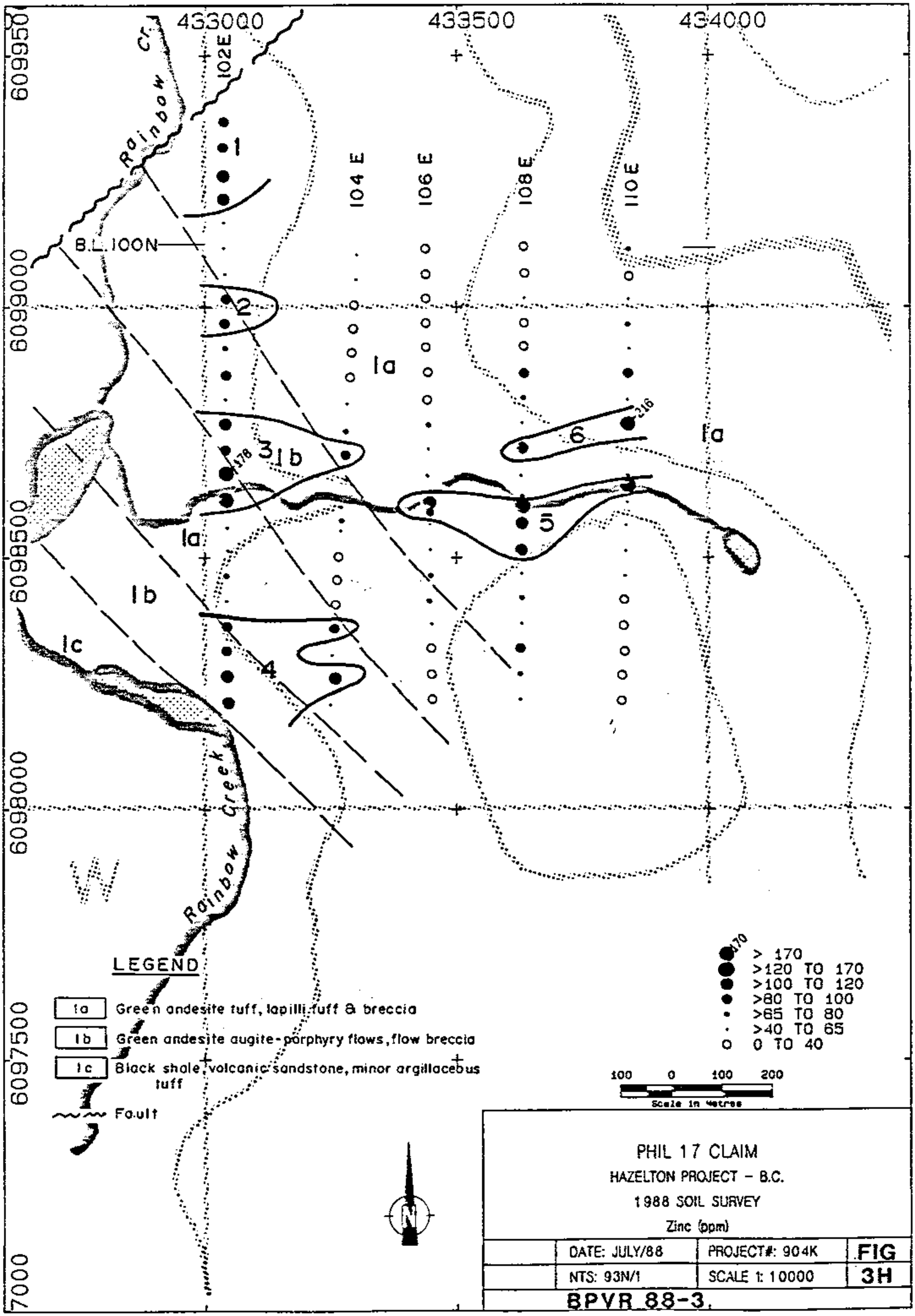
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
1
1a
1b
2
1a
1b
3
1c
4
1a
Rainbow Creek
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 18
>15 TO 18
>13 TO 15
>11 TO 13
>9 TO 11
>6 TO 9
0 TO 6
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Lead (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3G
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3.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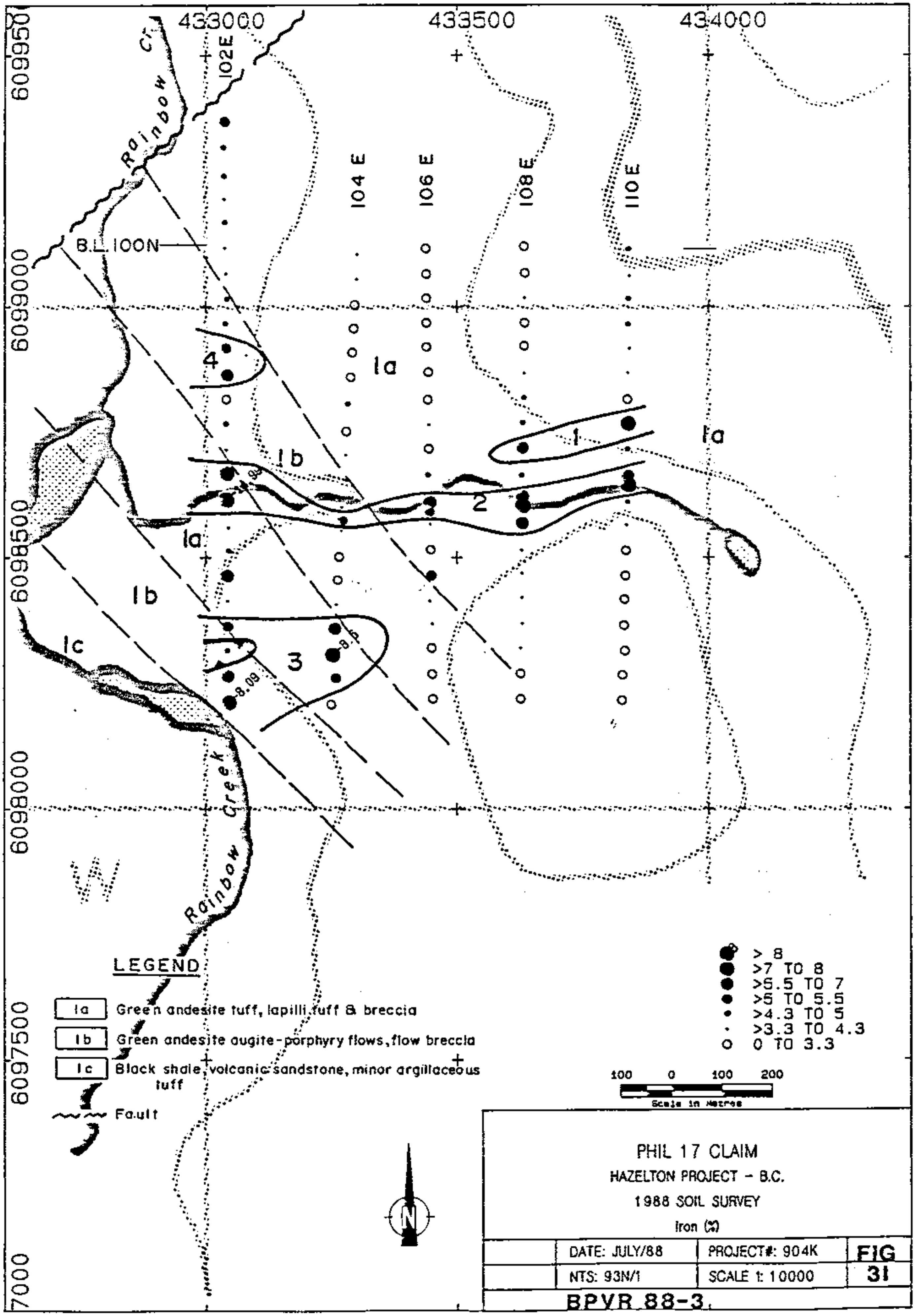
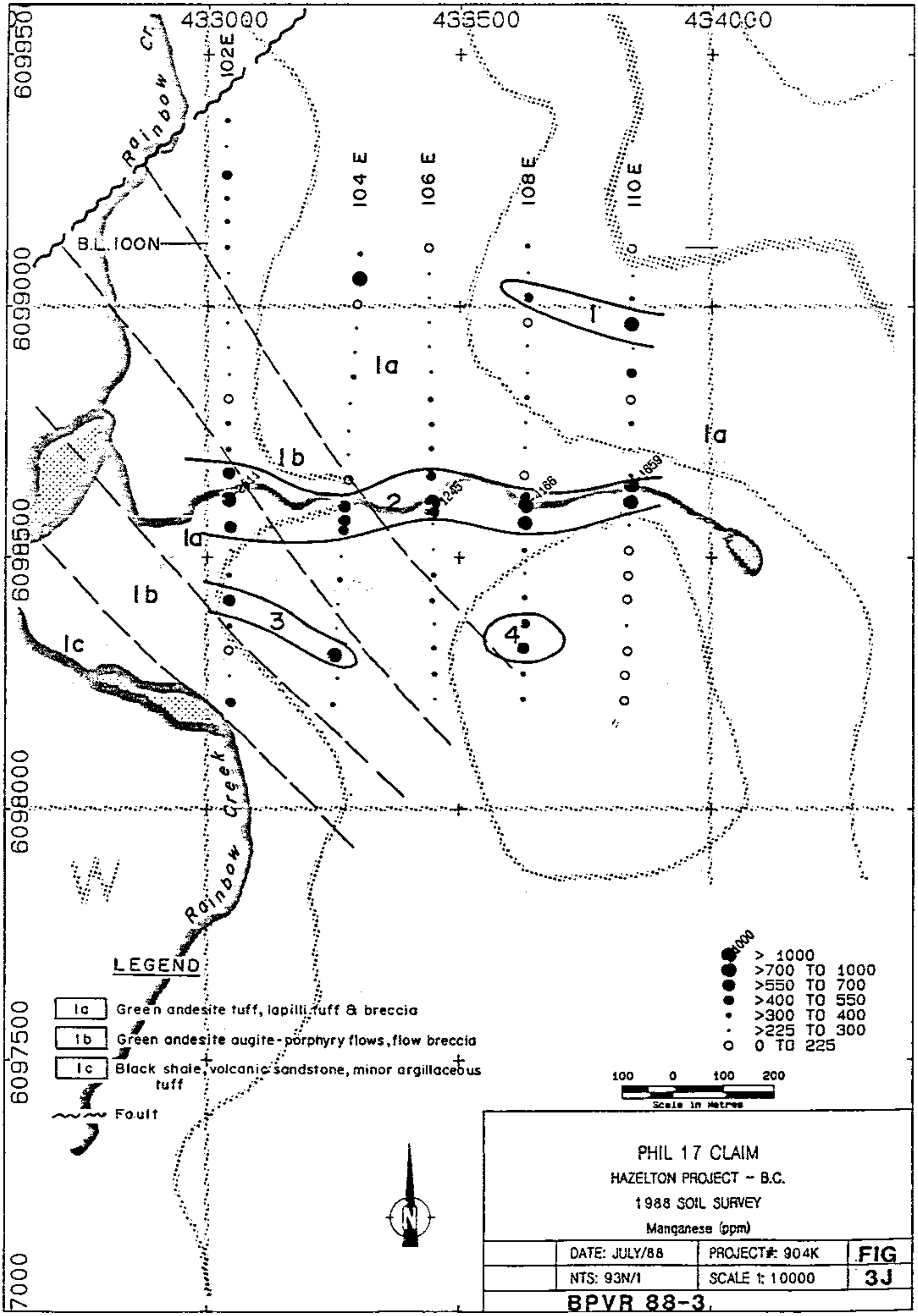
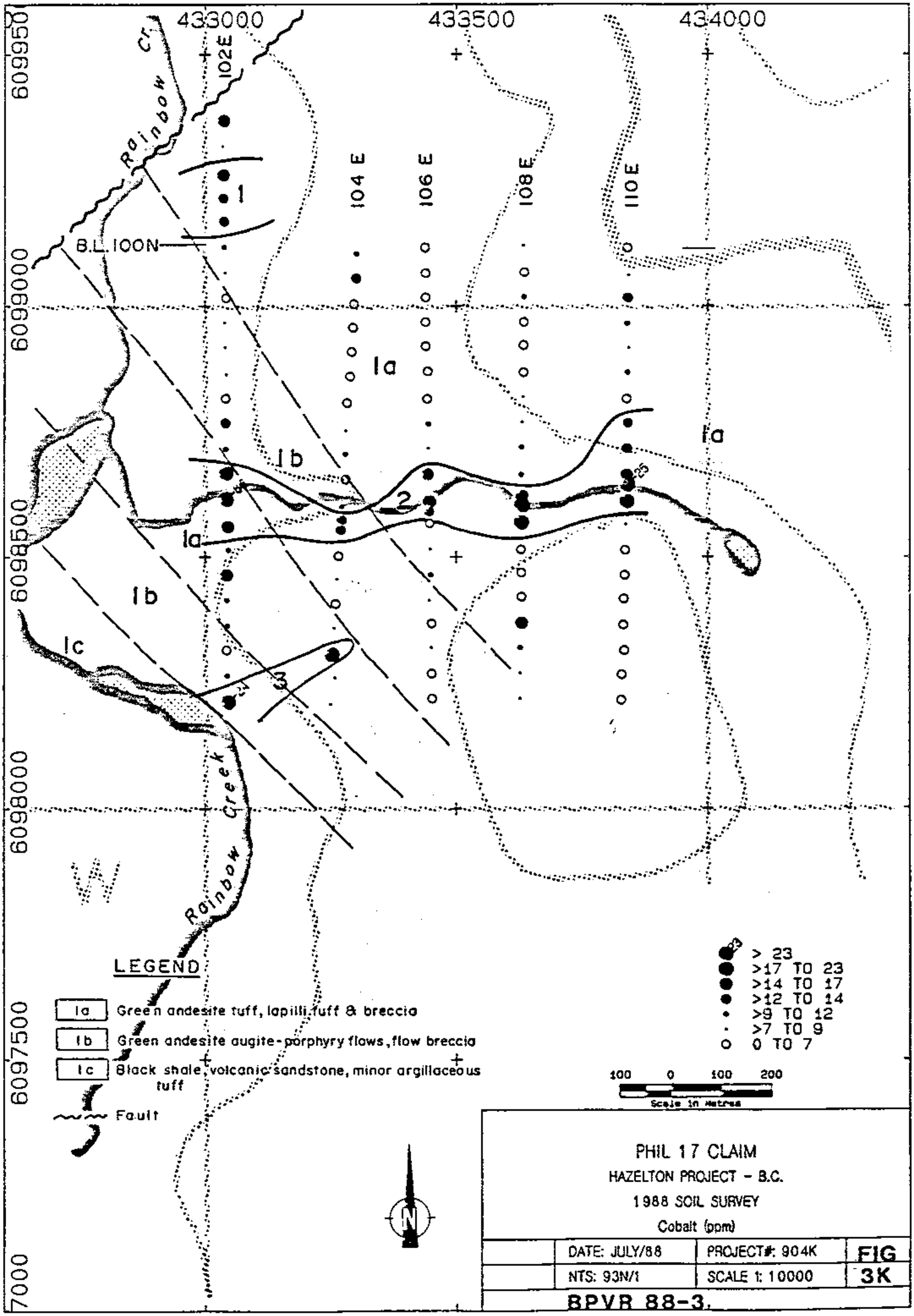
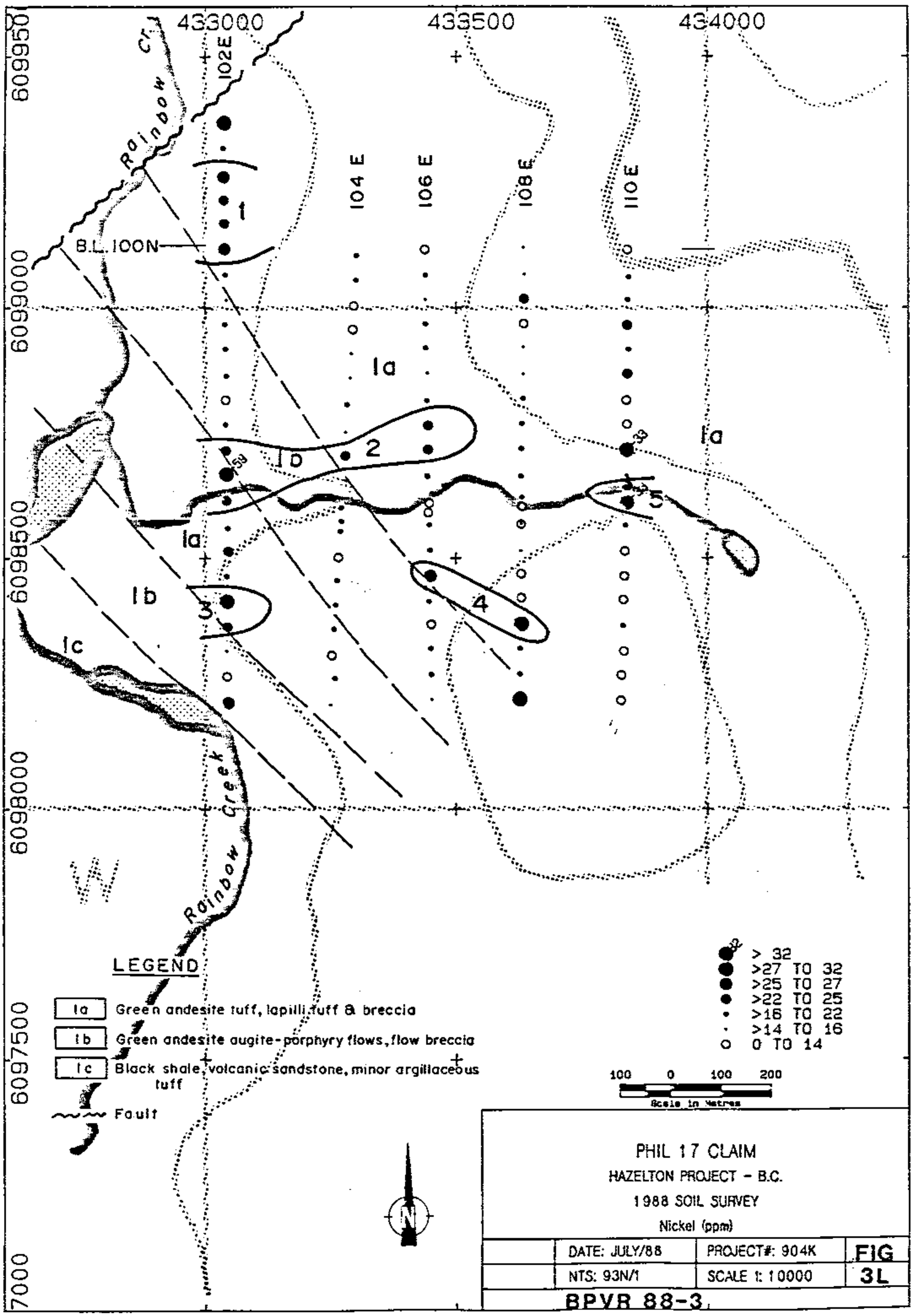
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
Rainbow Creek
B.L.100N
1
2
3
4
5
6
1a
1b
1c
176
216
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
170
> 170
>120 TO 170
>100 TO 120
>80 TO 100
>65 TO 80
>40 TO 65
0 TO 40
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Zinc (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3H
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



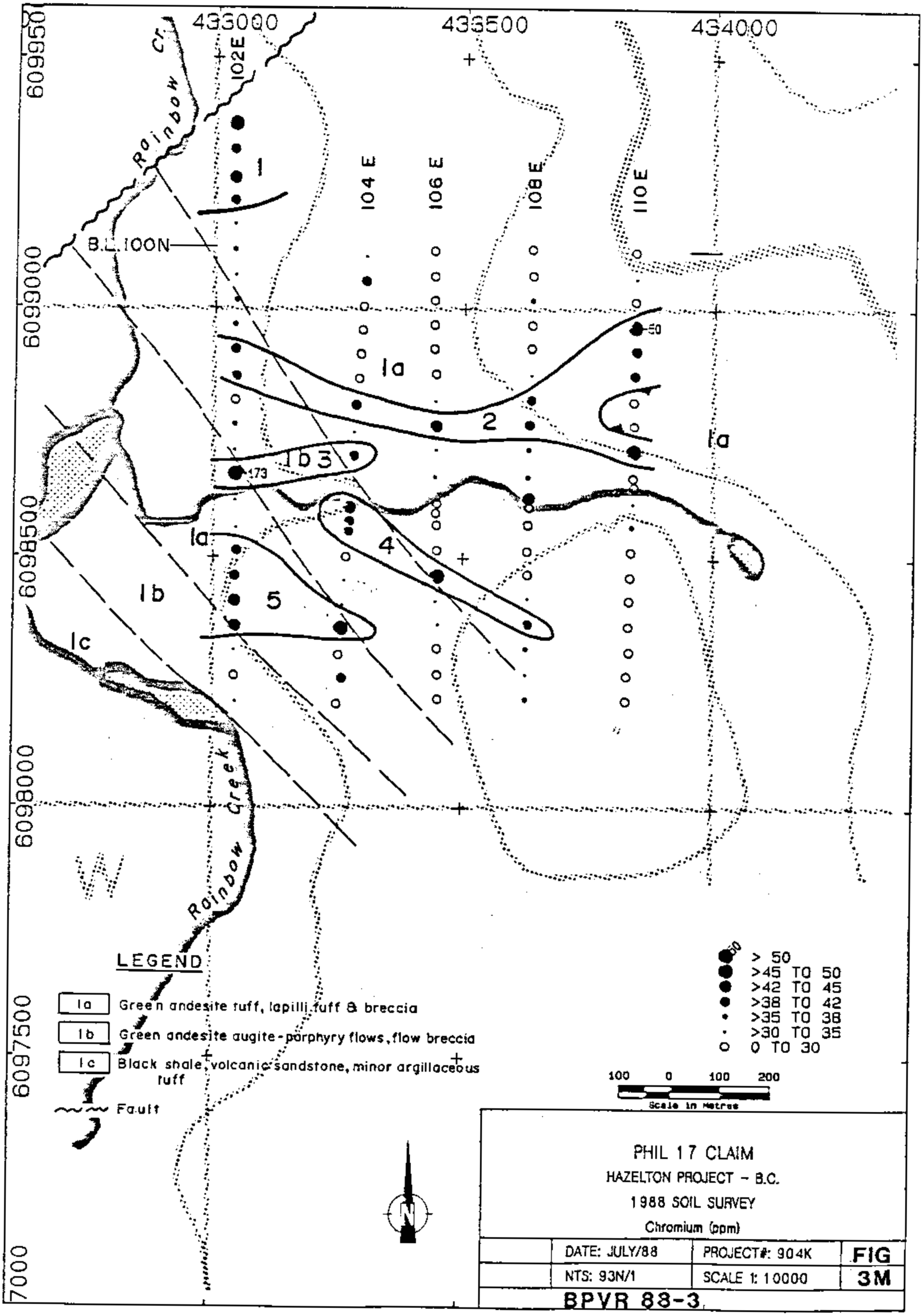
433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
Rainbow Creek
B.L.100N
1a
1b
1c
1
2
3
4
8.09
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 8
>7 TO 8
>5.5 TO 7
>5 TO 5.5
>4.3 TO 5
>3.3 TO 4.3
0 TO 3.3
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Iron (%)
DATE: JULY/88
PROJECT#: 904K
NTS: 93N/1
SCALE 1: 10000
FIG 31
BPVR 88-3

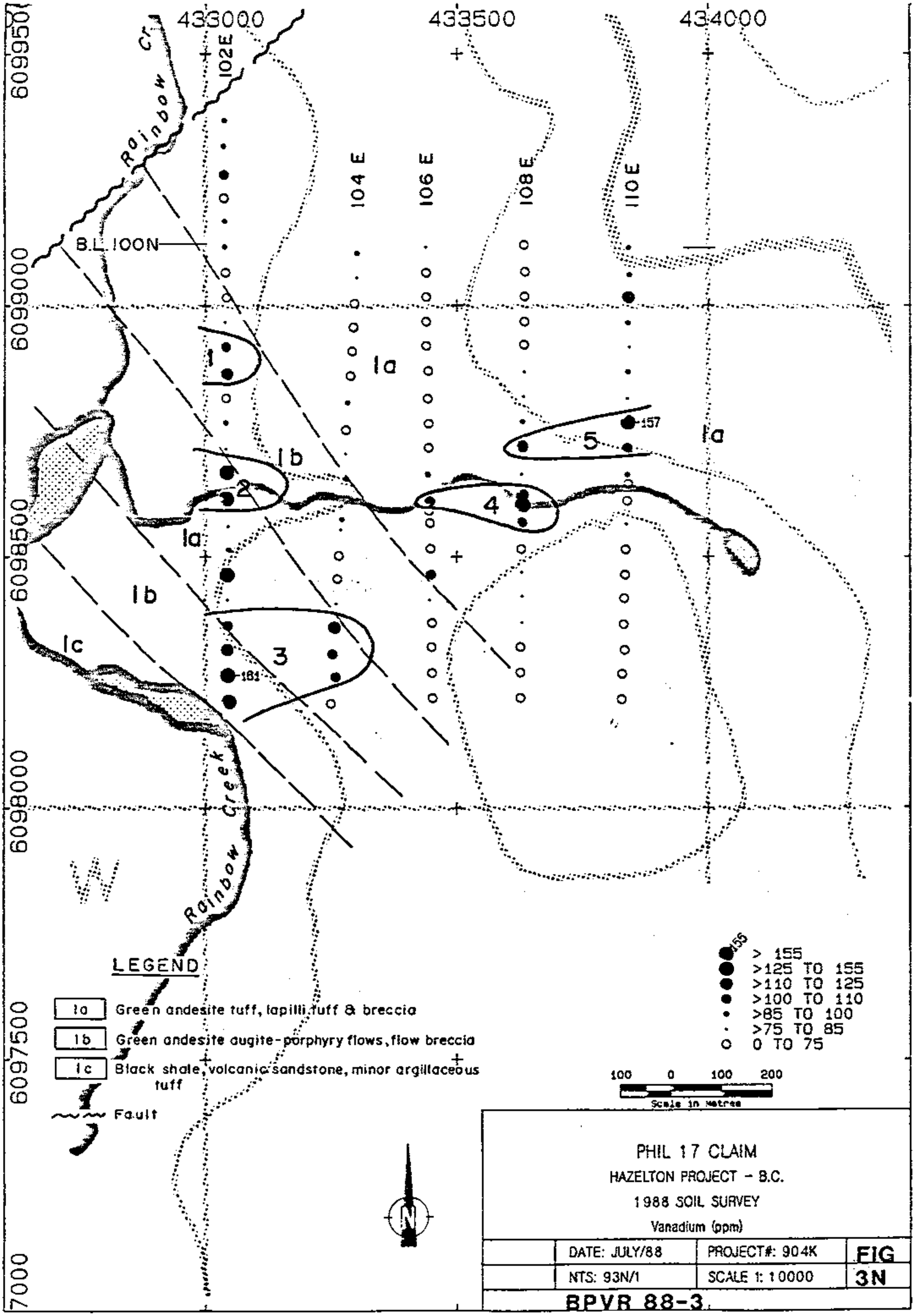

433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. 100N
Rainbow Creek
1a
1b
1c
1
2
3
4
1245
1166
1659
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 1000
>700 TO 1000
>550 TO 700
>400 TO 550
>300 TO 400
>225 TO 300
0 TO 225
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Manganese (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3J
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

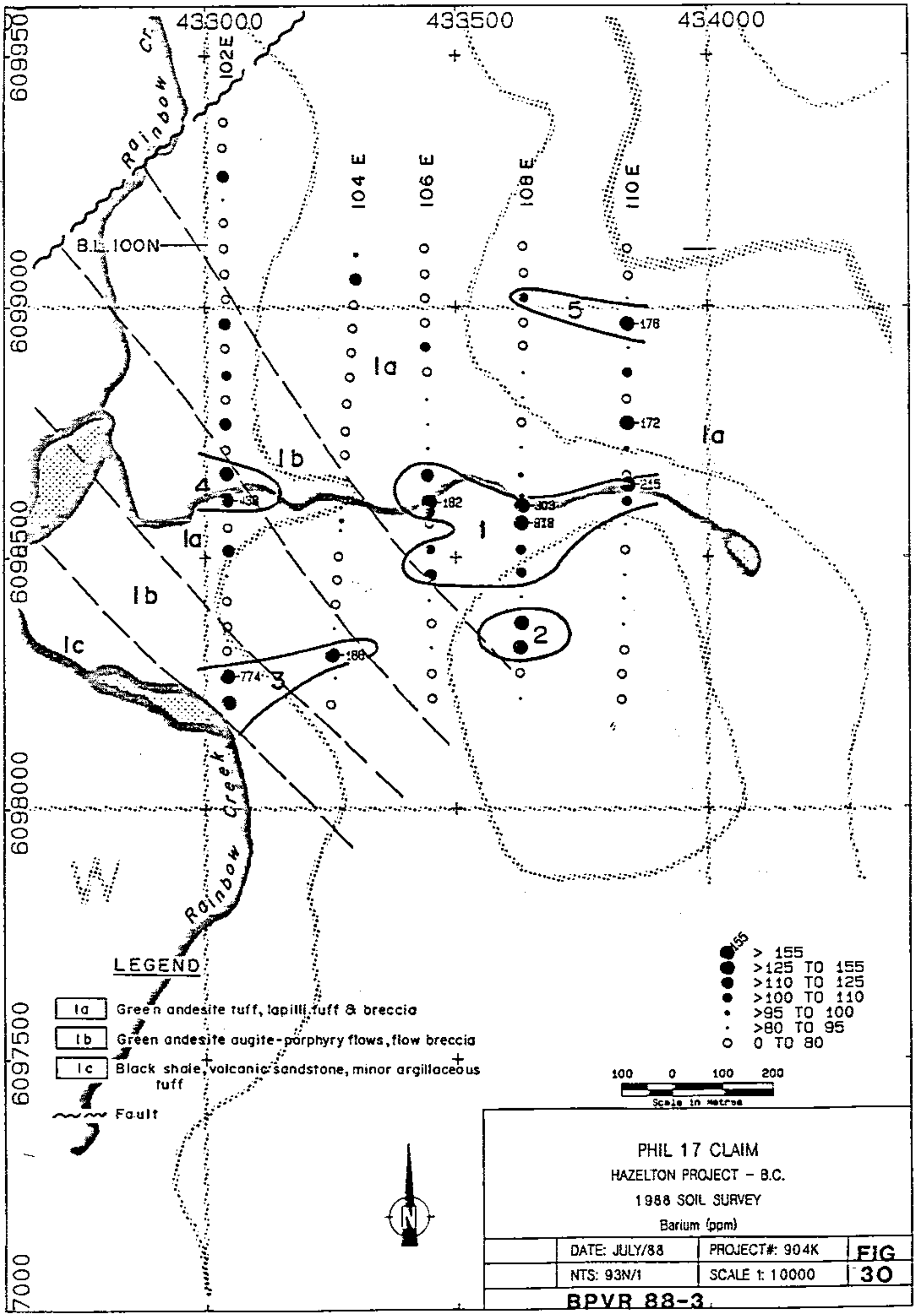

433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
Rainbow Cr.
Rainbow Creek
B.L. 100N
102E
104 E
106 E
108 E
110E
1
2
3
1a
1b
1c
W
25
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 23
>17 TO 23
>14 TO 17
>12 TO 14
>9 TO 12
>7 TO 9
0 TO 7
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Cobalt (ppm)
DATE: JULY/88
PROJECT#: 904K
NTS: 93N/1
SCALE 1: 10000
FIG 3K
BPVR 88-3.

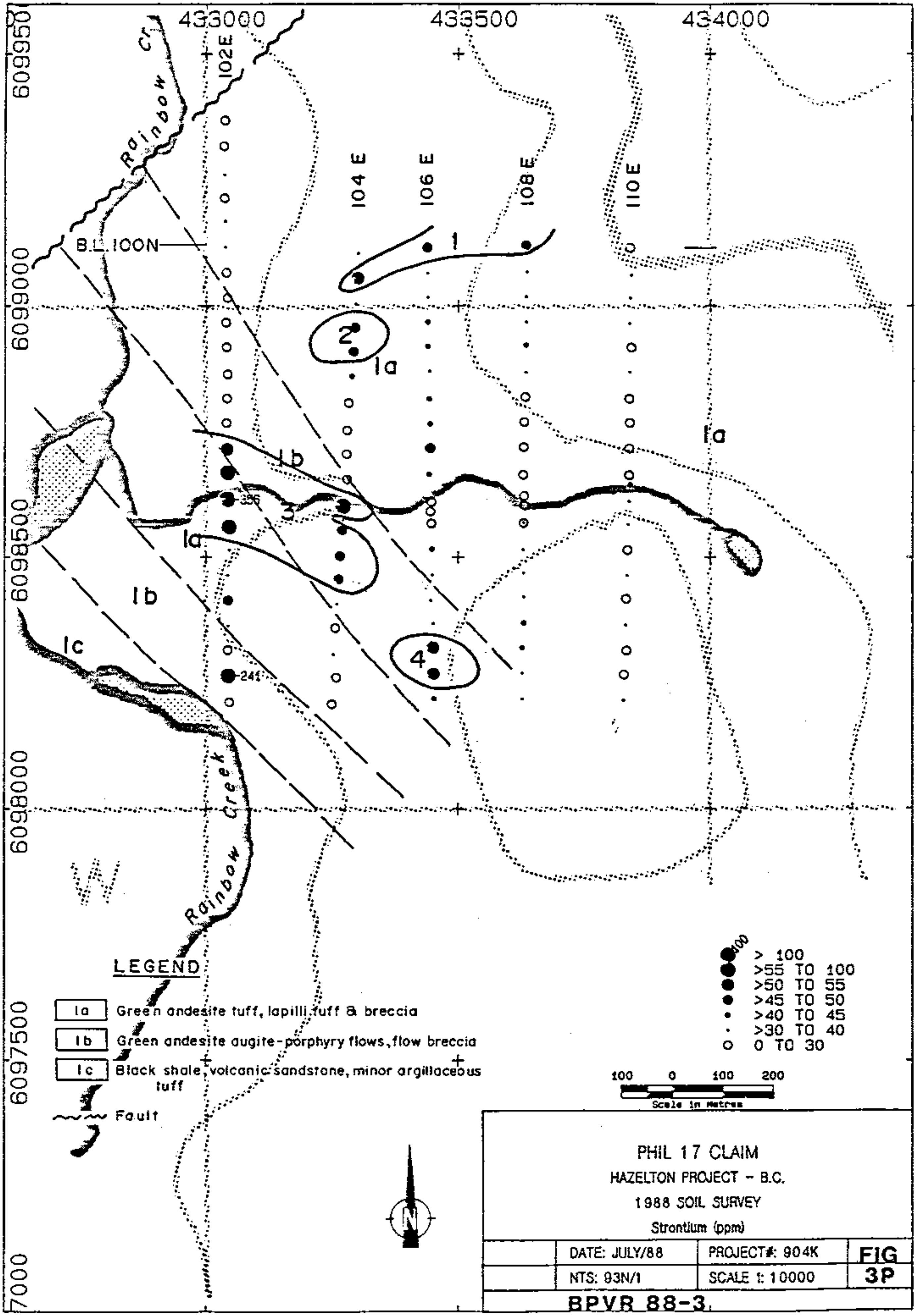


433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
B.L. 100N
Rainbow Cr.
Rainbow Creek
1a
1b
1c
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 32
>27 TO 32
>25 TO 27
>22 TO 25
>16 TO 22
>14 TO 16
0 TO 14
100 0 100 200
Scale in Metres
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Nickel (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3L
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

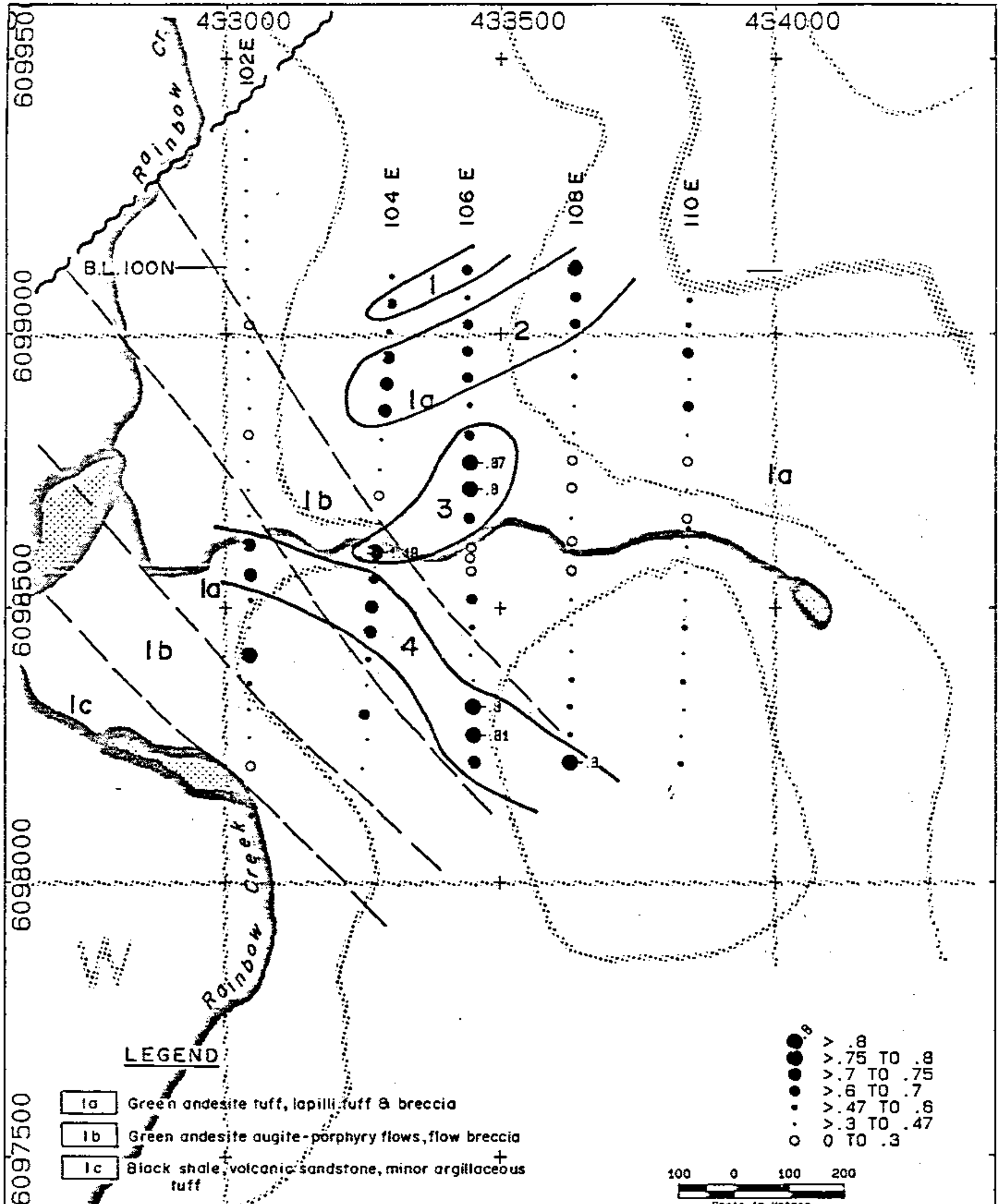

433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
Rainbow Creek
B.L. 100N
1
1a
2
1b
3
173
4
5
1b
1a
1c
50
W
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 50
>45 TO 50
>42 TO 45
>38 TO 42
>35 TO 38
>30 TO 35
0 TO 30
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Chromium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3M
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3


433000
433500
434000
6099500
6099000
6098500
6098000
6097500
7000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
Rainbow Creek
B.L.100N
1a
1b
1c
1
2
3
4
5
181
157
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 155
>125 TO 155
>110 TO 125
>100 TO 110
>85 TO 100
>75 TO 85
0 TO 75
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Vanadium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3N
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

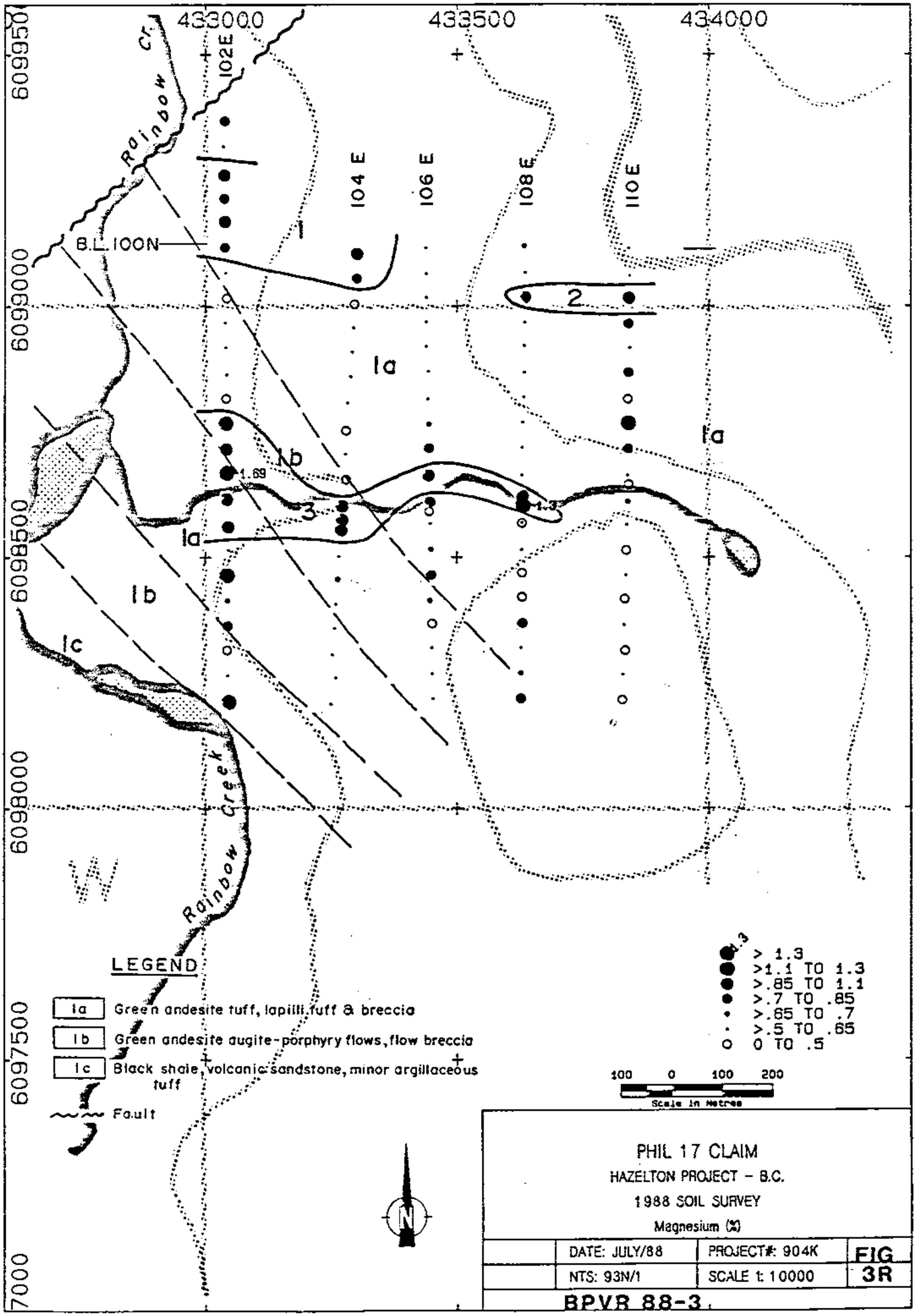

433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110 E
B.L.100N
Rainbow Cr.
Rainbow Creek
1a
1b
1c
1
2
3
4
5
176
172
245
303
378
182
439
774
186
155
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 155
>125 TO 155
>110 TO 125
>100 TO 110
>95 TO 100
>80 TO 95
0 TO 80
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Barium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 30
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

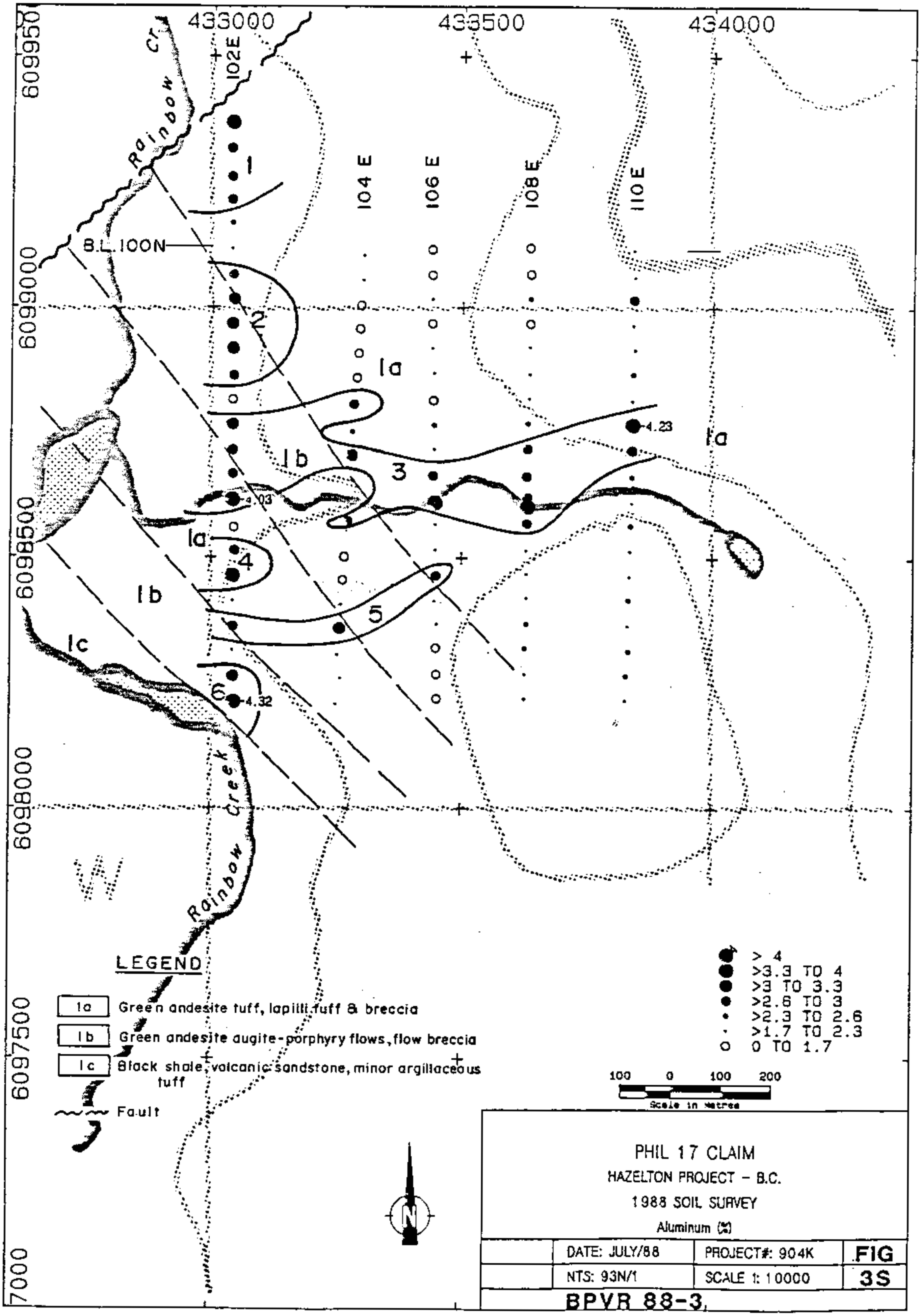


433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
Rainbow Creek
B.L. 100N
1
2
3
4
1a
1b
1c
356
241
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
100
> 100
>55 TO 100
>50 TO 55
>45 TO 50
>40 TO 45
>30 TO 40
0 TO 30
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Strontium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 3P
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM HAZELTON PROJECT - B.C. 1988 SOIL SURVEY Calcium (%)			
	DATE: JULY/88	PROJECT#: 904K	FIG
	NTS: 93N/1	SCALE 1: 10000	3Q
	BPVR 88-3		


433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
Rainbow Creek
B.L. 100N
1
1a
1b
1c
2
3
1.69
1.3
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 1.3
>1.1 TO 1.3
>.85 TO 1.1
>.7 TO .85
>.65 TO .7
>.5 TO .65
0 TO .5
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Magnesium (%)
DATE: JULY/88
PROJECT#: 904K
FIG 3R
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM

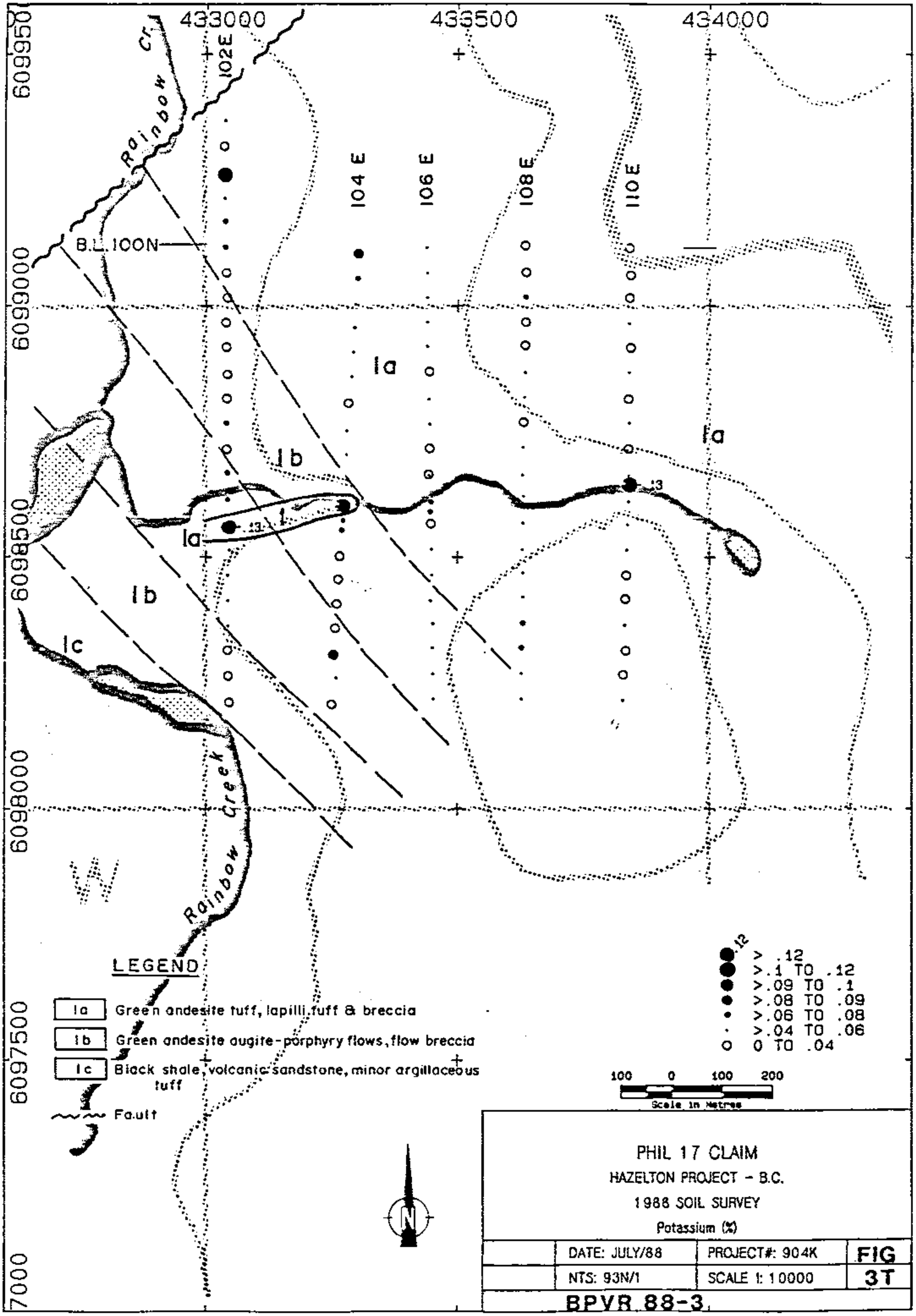
HAZELTON PROJECT - B.C.

1988 SOIL SURVEY

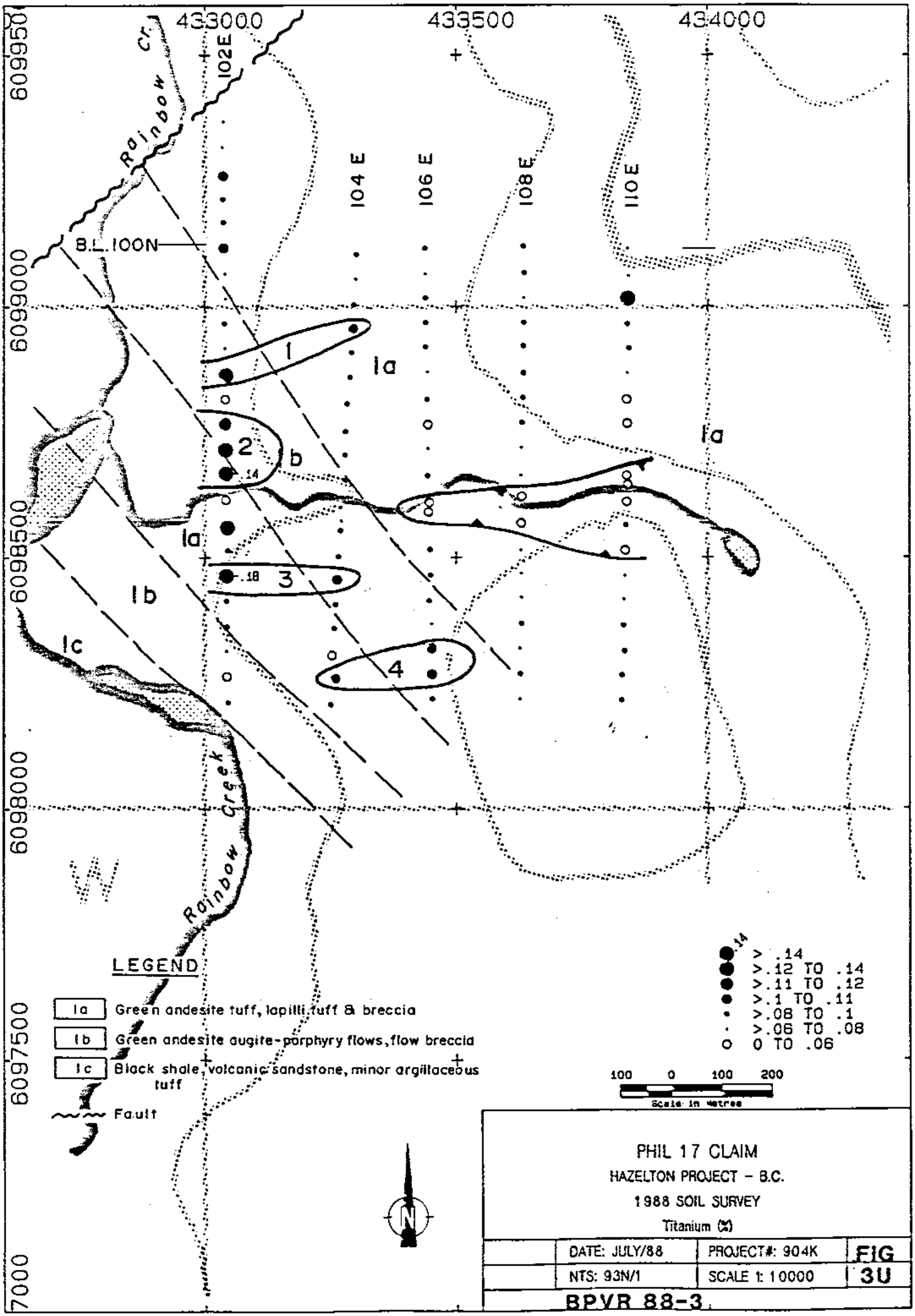
Aluminum (%)

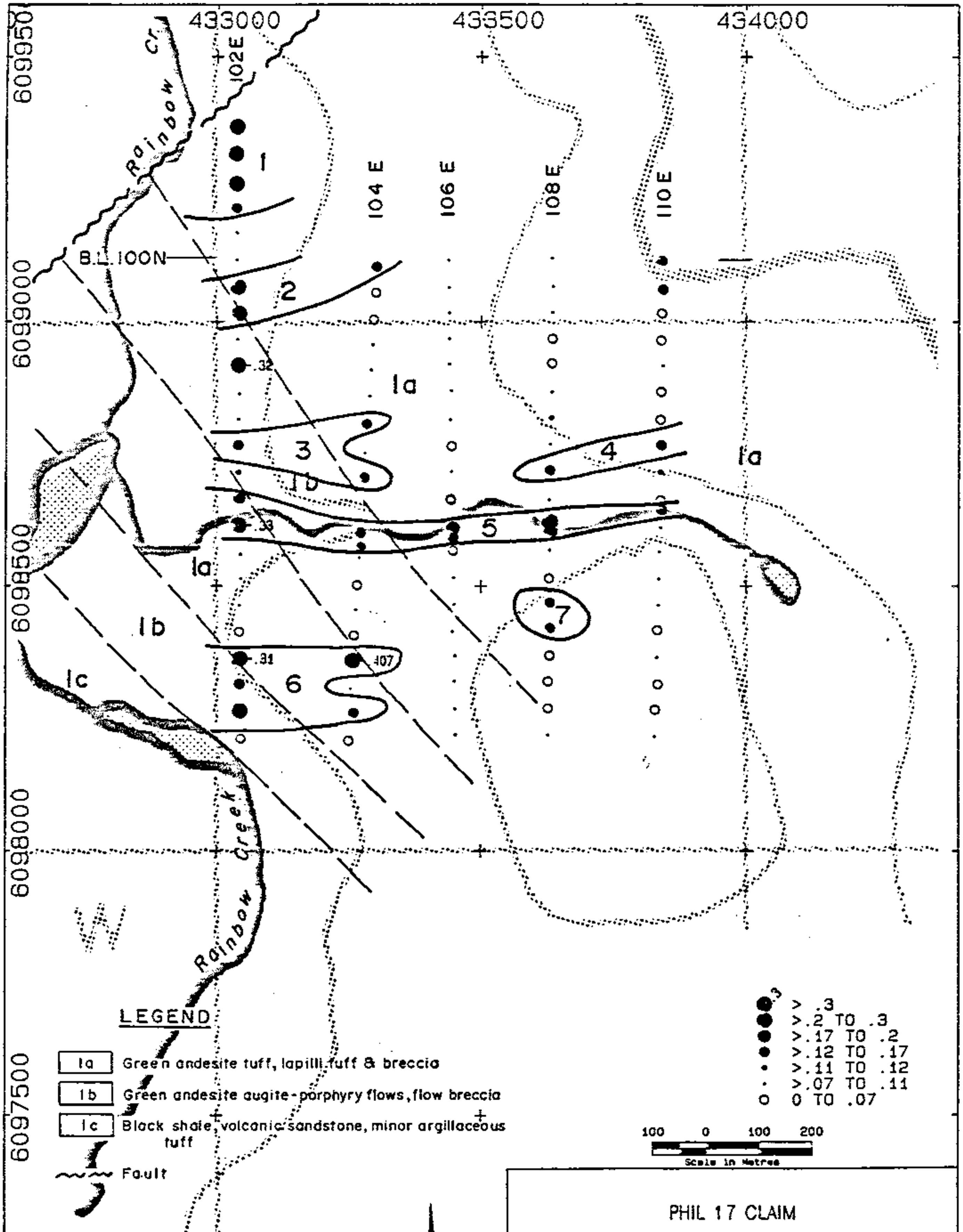
	DATE: JULY/88	PROJECT#: 904K	FIG
	NTS: 93N/1	SCALE 1: 10000	3S

BPVR 88-3



433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> .12
>.1 TO .12
>.09 TO .1
>.08 TO .09
>.06 TO .08
>.04 TO .06
0 TO .04
100 0 100 200
Scale in Metres
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Potassium (%)
DATE: JULY/88
PROJECT#: 904K
FIG 3T
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3


433000
433500
434000
6099500
6099000
6098500
6098000
6097500
6097000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
Rainbow Creek
1a
1b
1c
b
.14
.18
1
2
3
4
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> .14
>.12 TO .14
>.11 TO .12
>.1 TO .11
>.08 TO .1
>.06 TO .08
0 TO .06
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Titanium (%)
DATE: JULY/88
PROJECT#: 904K
FIG 3U
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM

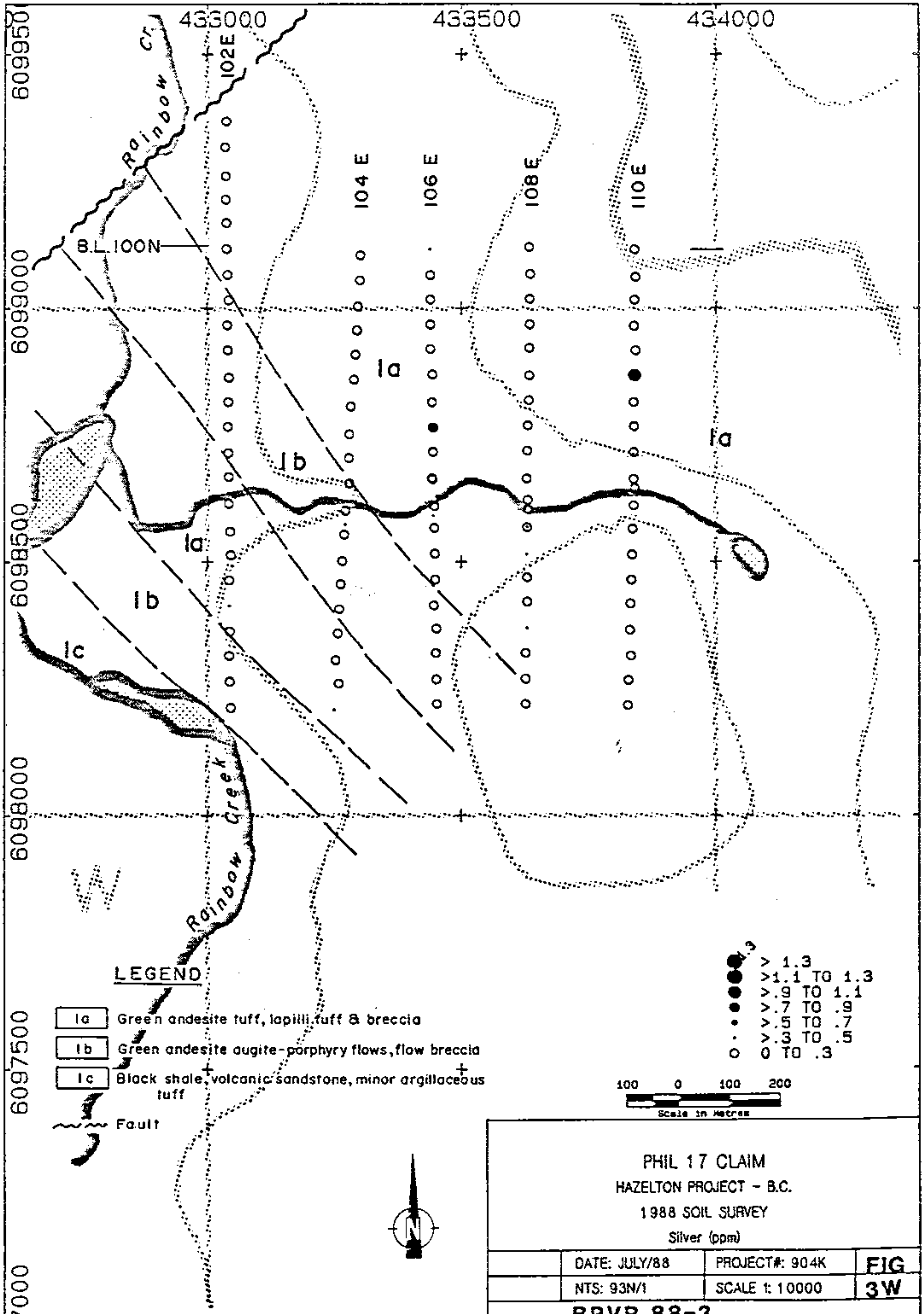
HAZELTON PROJECT - B.C.

1988 SOIL SURVEY

Phosphorus (%)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	3V

BPVR 88-3



PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
Silver (ppm)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	3W

BPVR 88-3

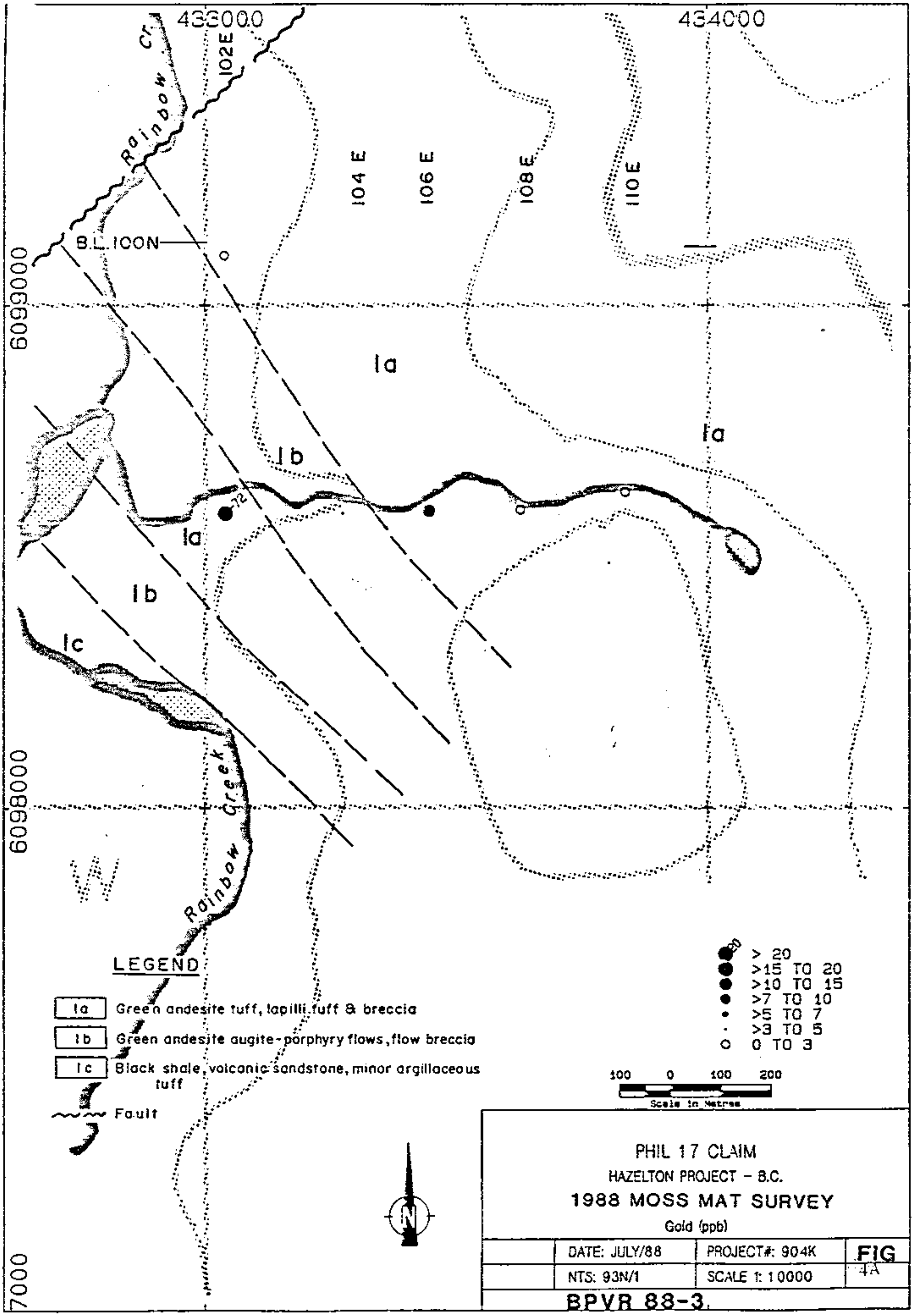
6. Description of Results - Moss Mats

Moss grows on the north facing slopes of boulders in some creeks draining the PHIL 17 claim. Mats of this material promote accumulation of fines travelling in suspension. Sample collection was typically about 5-10 cm above normal channel discharge, reflecting fine accumulation during flood periods.

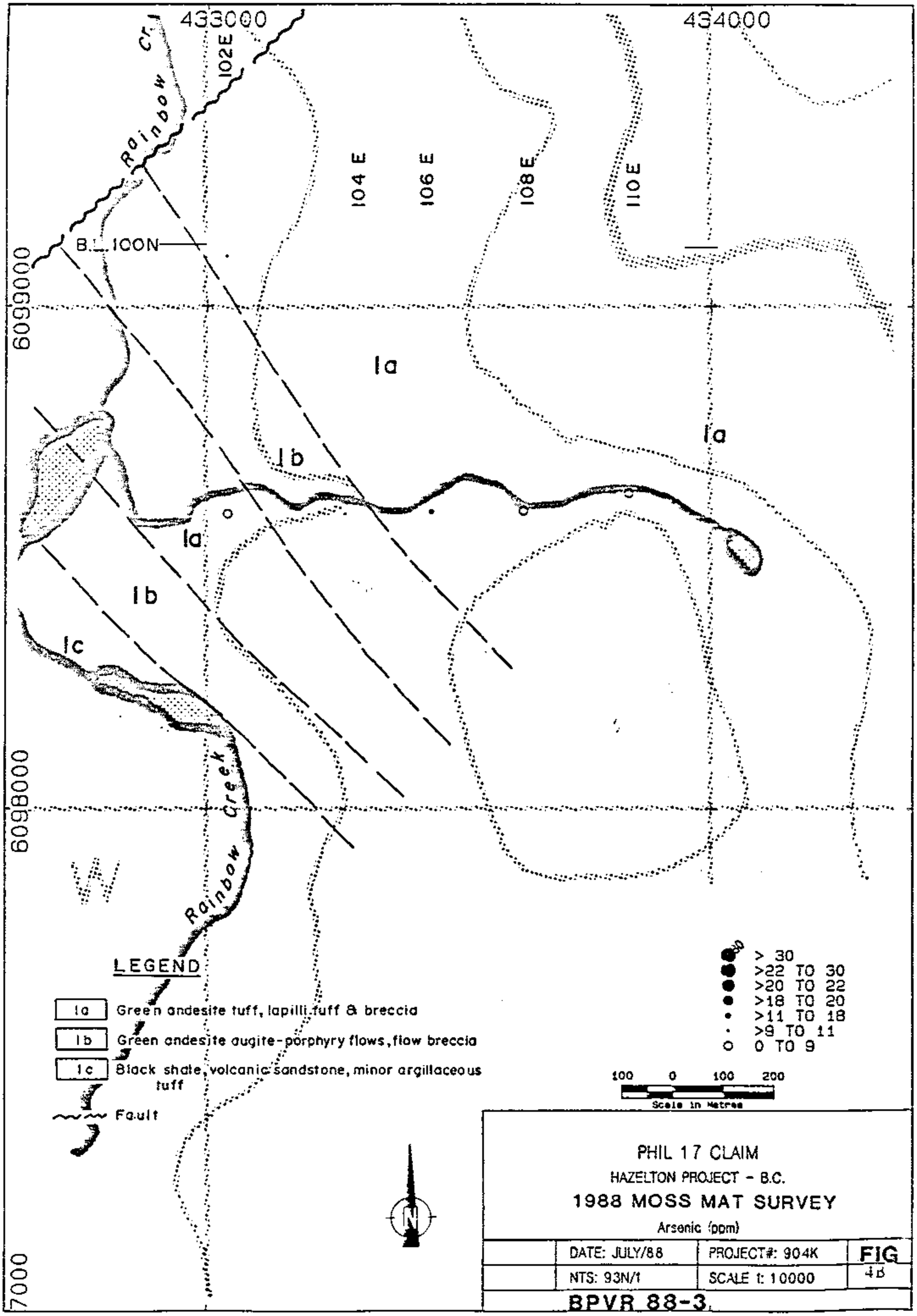
Moss mat data are too few in number, at 6 samples, to merit construction of histograms. Thus, concentration scales for the size coded dots presented on Fig. 4 were made the same as for the stream sediment survey conducted in 1984 (Humphreys, 1984). Data is thus described relative to that work.

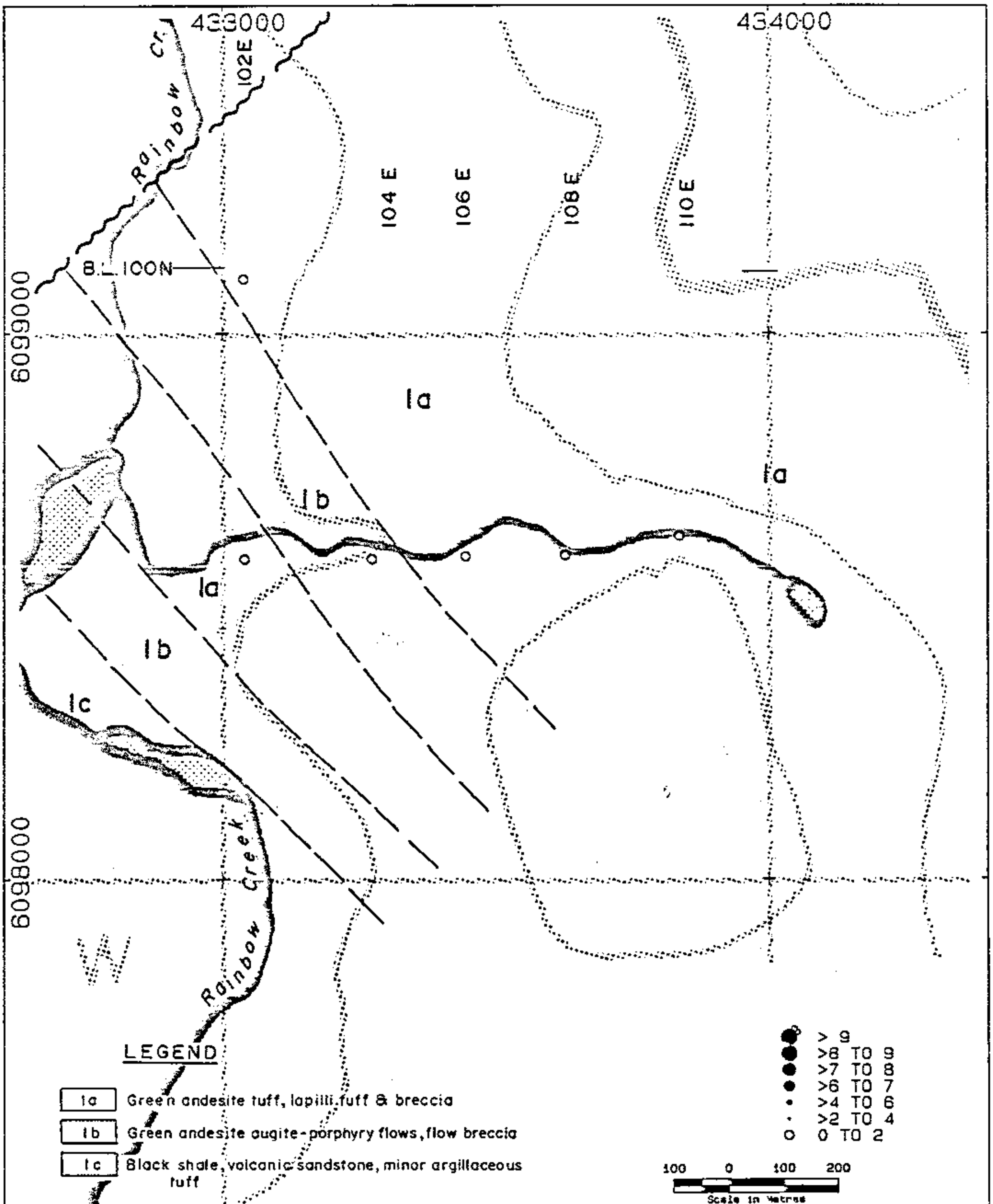
The data suggest Au contents in both media are comparable, with an anomaly noted in the lower reaches of the tributary stream. The high Au values are not accompanied by elevated Ag, As, Sb, Bi Mo, Cu, Pb or Zn contents; in fact concentrations of these elements are lower than in complimentary sediment work (Humphreys, 1984). Fe data are also uniformly low, but Mn contents overlying unit 1a are exceedingly enriched, confirming drainage data. The Mn distribution also shows good downstream decay characteristics, as does Co. Ni, Cr, V, Ba, Sr, Mg, Al, Ti, and P also report values which are uniform but at much lower levels than adjacent stream sediment. By contrast, Ca and K are significantly enriched.

Moss mat sampling represents an experimental procedure. Consequently the significance of these data are uncertain. The distributions appear homogeneous, which is a good finding, and many of the difference may reflect analytical parameters. The Ca and K relationship might be due to organic contaminants (i.e., the moss). Lack of Al enrichment is puzzling as moss mats should contain more fines (i.e., clays), but perhaps this reflects a preponderance of silt sized material in the mats (rather than clays).



433000
434000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. ICON
6099000
6098000
7000
Ia
Ib
Ic
72
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 20
>15 TO 20
>10 TO 15
>7 TO 10
>5 TO 7
>3 TO 5
0 TO 3
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Gold (ppb)
DATE: JULY/88
PROJECT#: 904K
FIG 4A
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3


433000
434000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. 100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 30
>22 TO 30
>20 TO 22
>18 TO 20
>11 TO 18
>9 TO 11
0 TO 9
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Arsenic (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4B
BPVR 88-3



PHIL 17 CLAIM

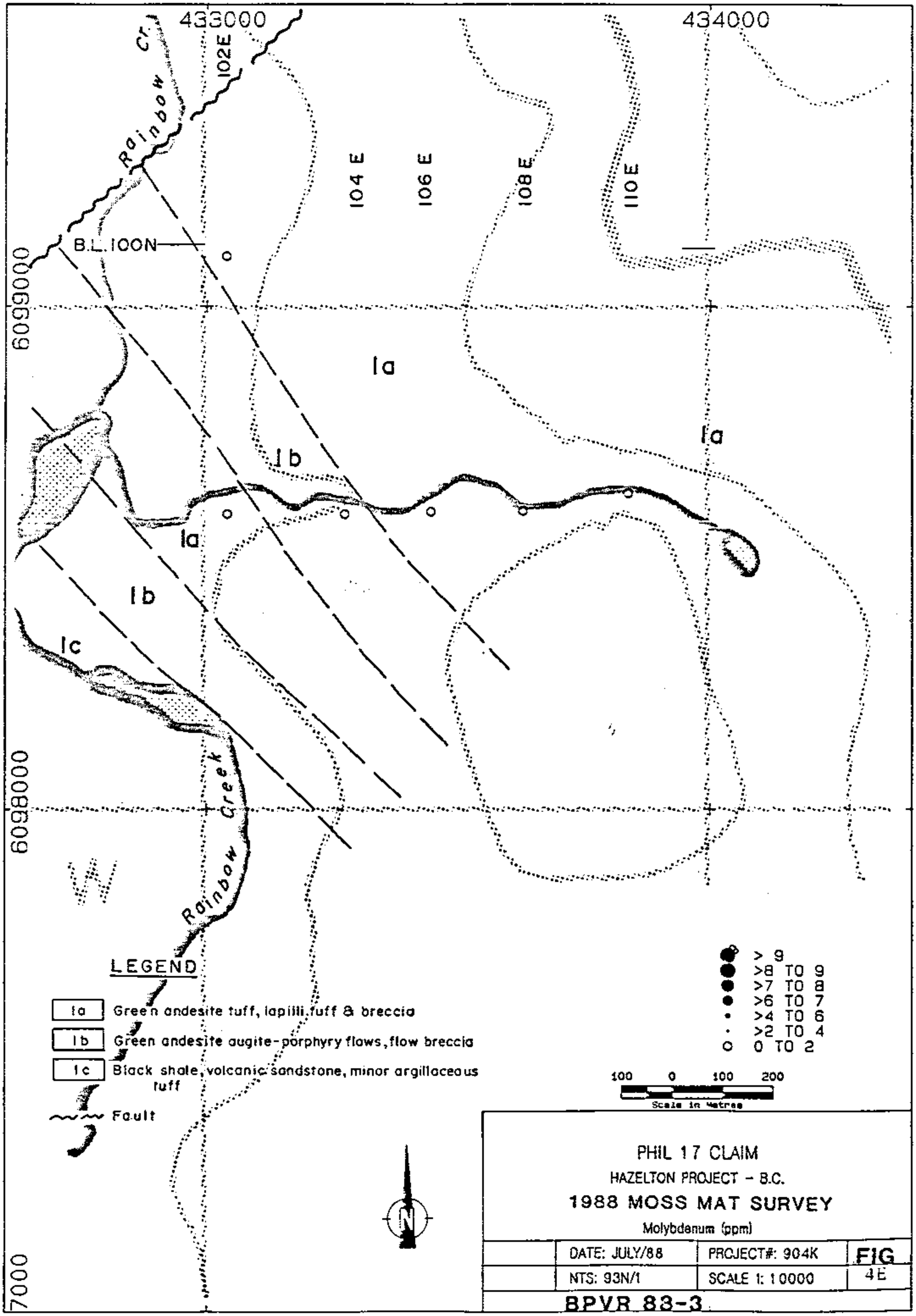
HAZELTON PROJECT - B.C.

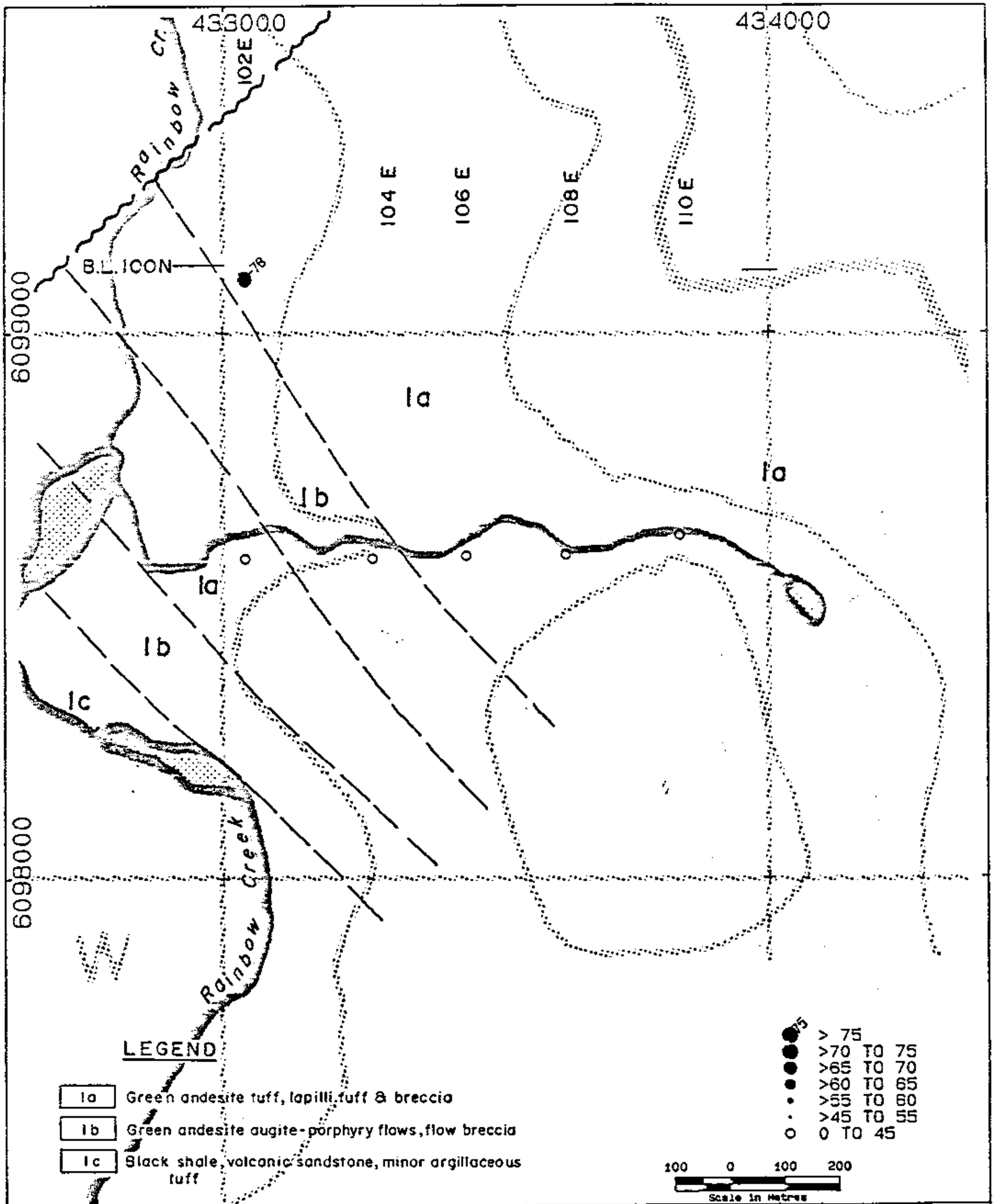
1988 MOSS MAT SURVEY

Bismuth (ppm)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	40

BPVR 88-3


433000
434000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L.100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 9
>8 TO 9
>7 TO 8
>6 TO 7
>4 TO 6
>2 TO 4
0 TO 2
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Molybdenum (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 4E
NTS: 93N/1
SCALE 1: 10000
BPVR 83-3



PHIL 17 CLAIM

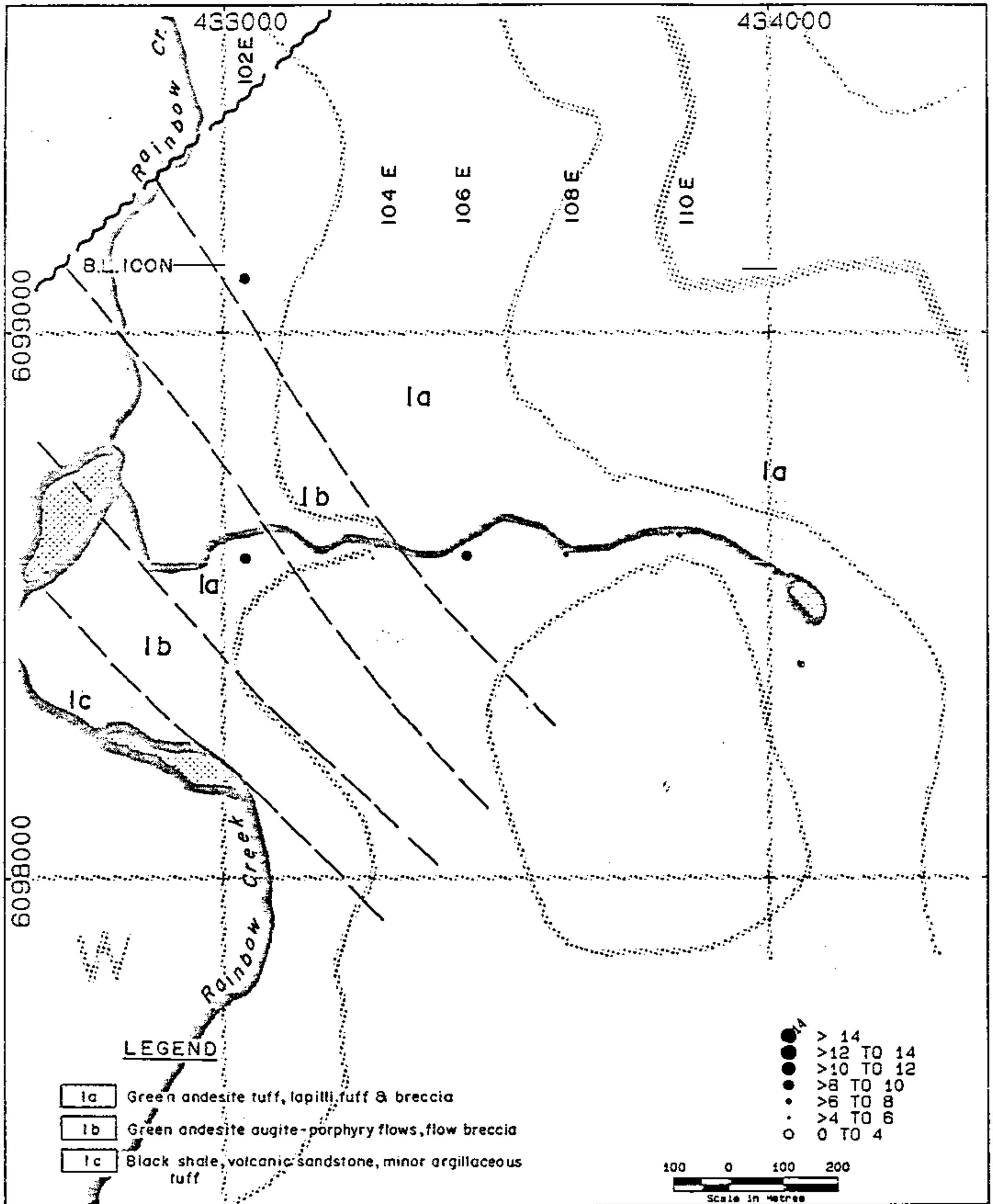
HAZELTON PROJECT – B.C.

1988 MOSS MAT SURVEY

Copper (ppm)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	4F

BPVR 88-3



PHIL 17 CLAIM

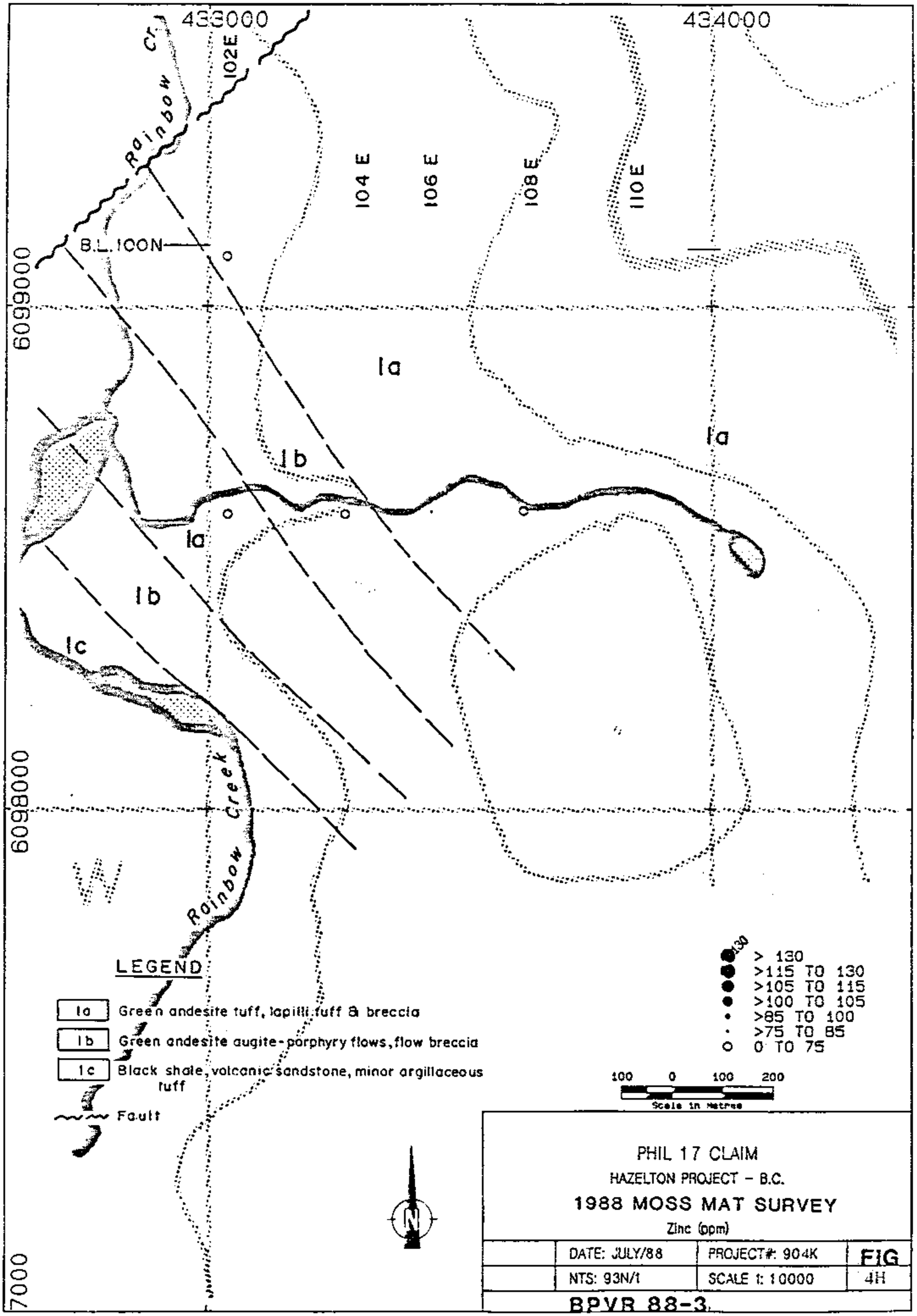
HAZELTON PROJECT - B.C.

1988 MOSS MAT SURVEY

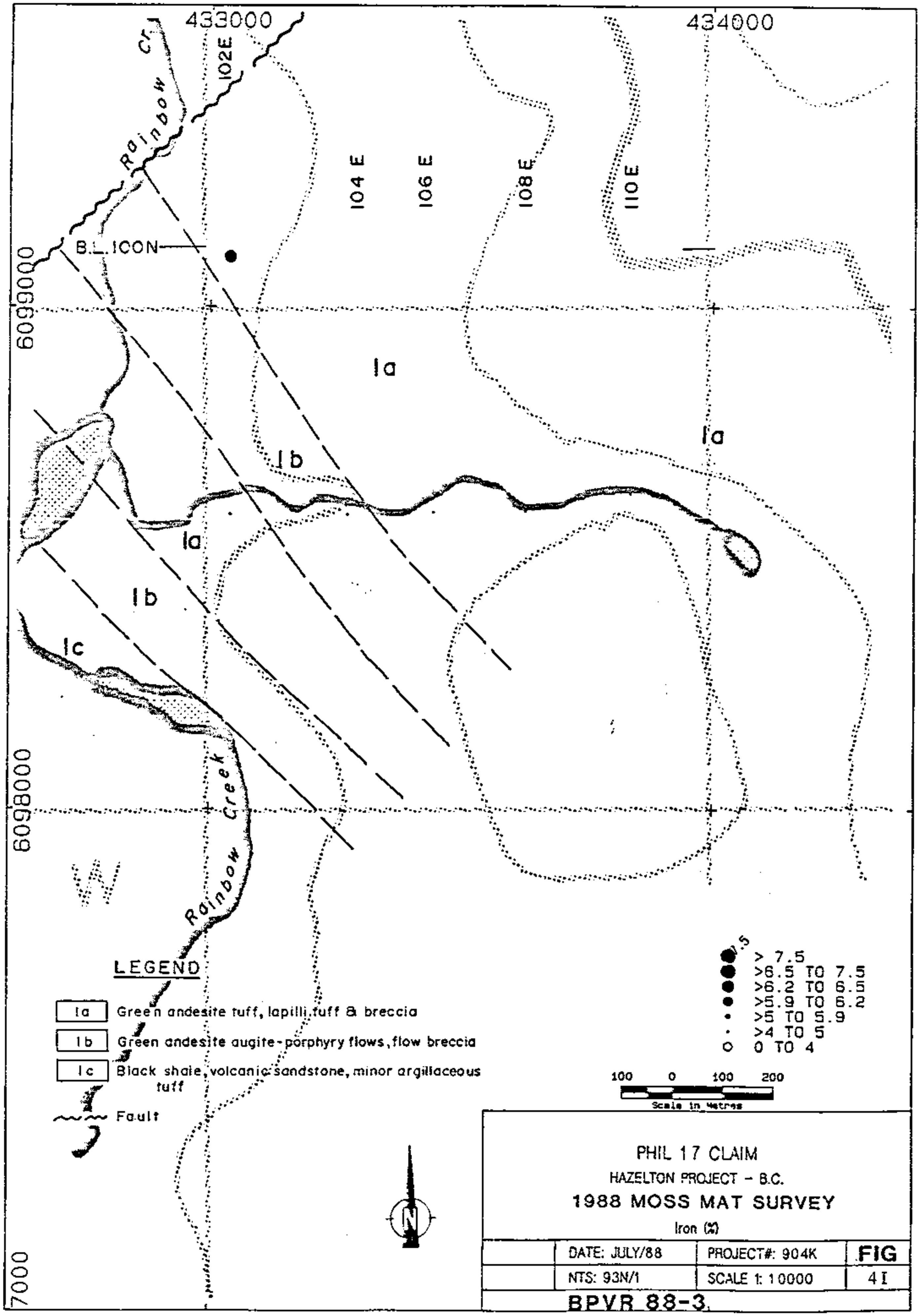
Lead (ppm)

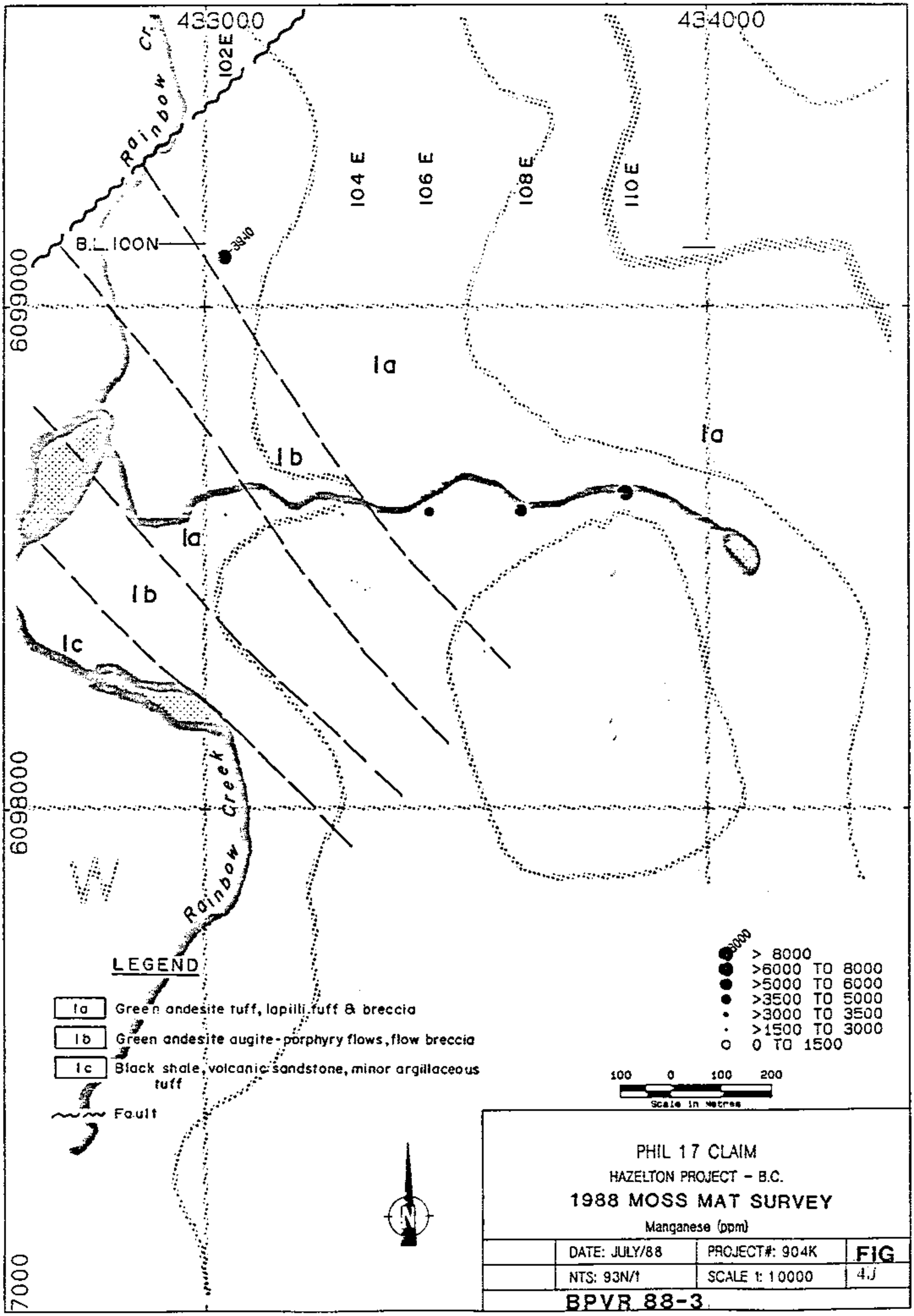
DATE: JULY/88	PROJECT#: 904K	**FIG**
NTS: 93N/1	SCALE 1: 10000	4G

BPVR 88-3

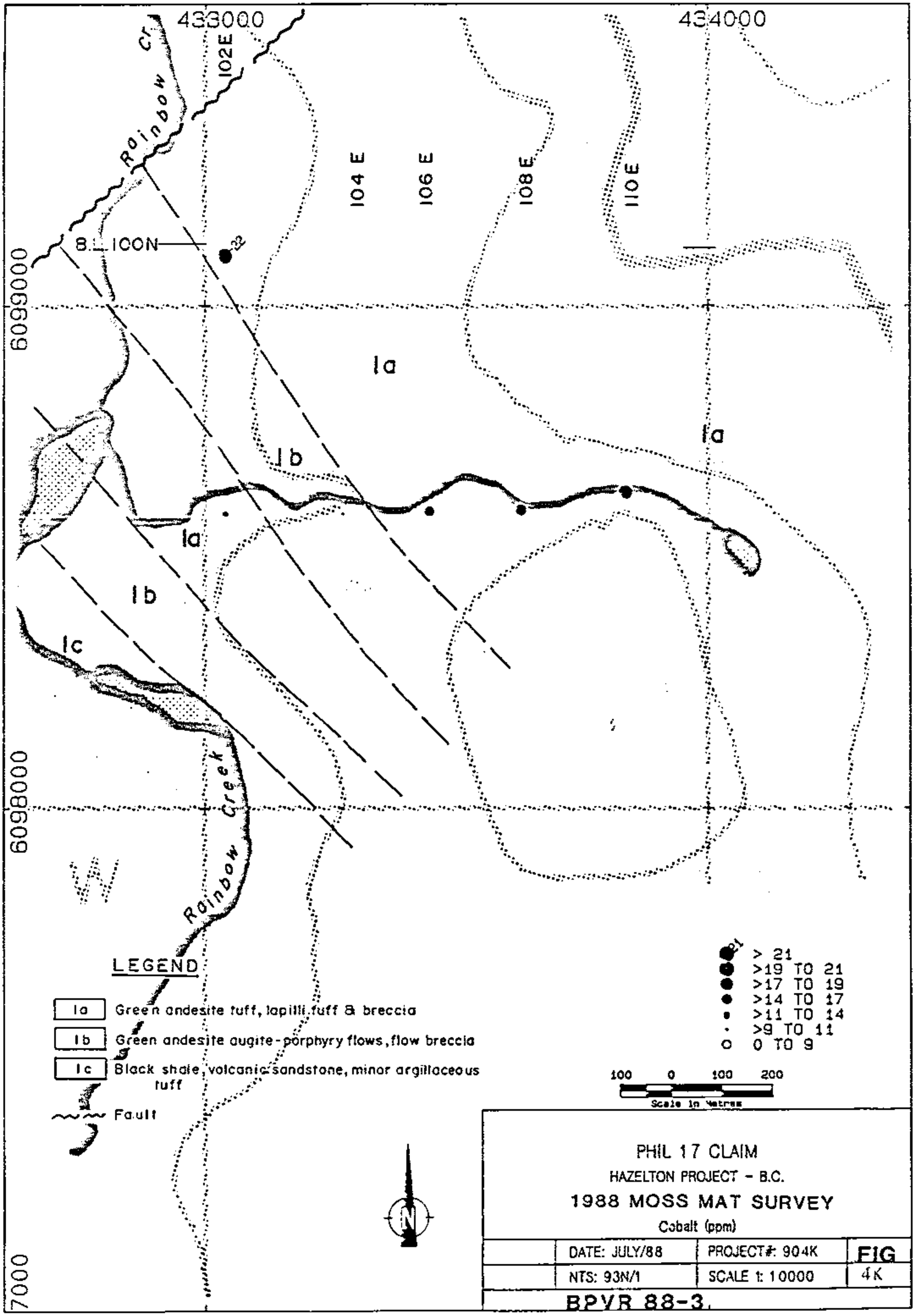


433000
434000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 130
>115 TO 130
>105 TO 115
>100 TO 105
>85 TO 100
>75 TO 85
0 TO 75
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Zinc (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4H
BPVR 88-3

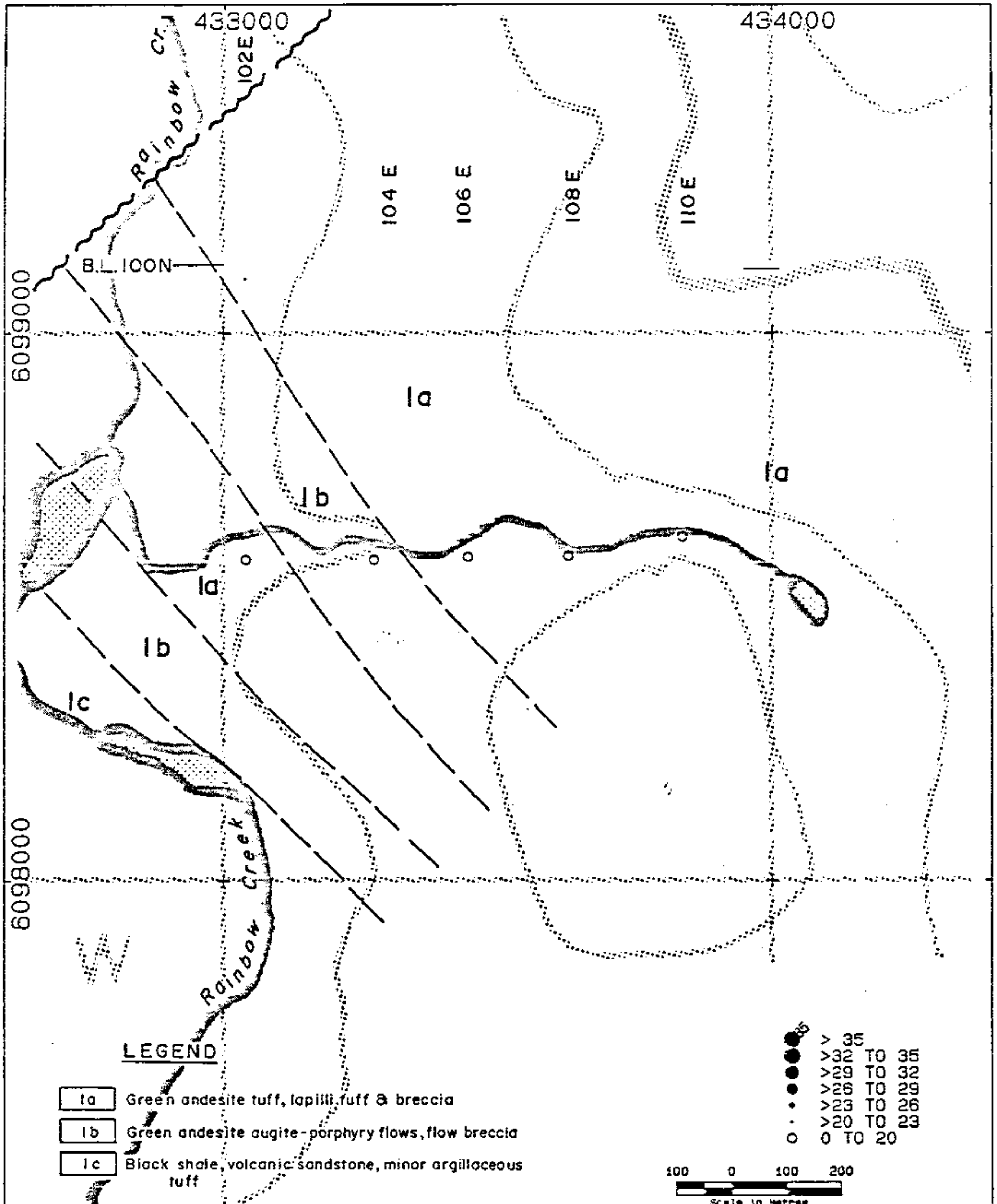

433000
434000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. ICON
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 7.5
>6.5 TO 7.5
>6.2 TO 6.5
>5.9 TO 6.2
>5 TO 5.9
>4 TO 5
0 TO 4
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Iron (%)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4I
BPVR 88-3



433000
434000
Rainbow Cr.
102E
104 E
106 E
108 E
110 E
B.L. ICON
3940
6099000
6098000
7000
1a
1b
1c
W
Rainbow Creek
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
8000
> 8000
>6000 TO 8000
>5000 TO 6000
>3500 TO 5000
>3000 TO 3500
>1500 TO 3000
0 TO 1500
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Manganese (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4.J
BPVR 88-3

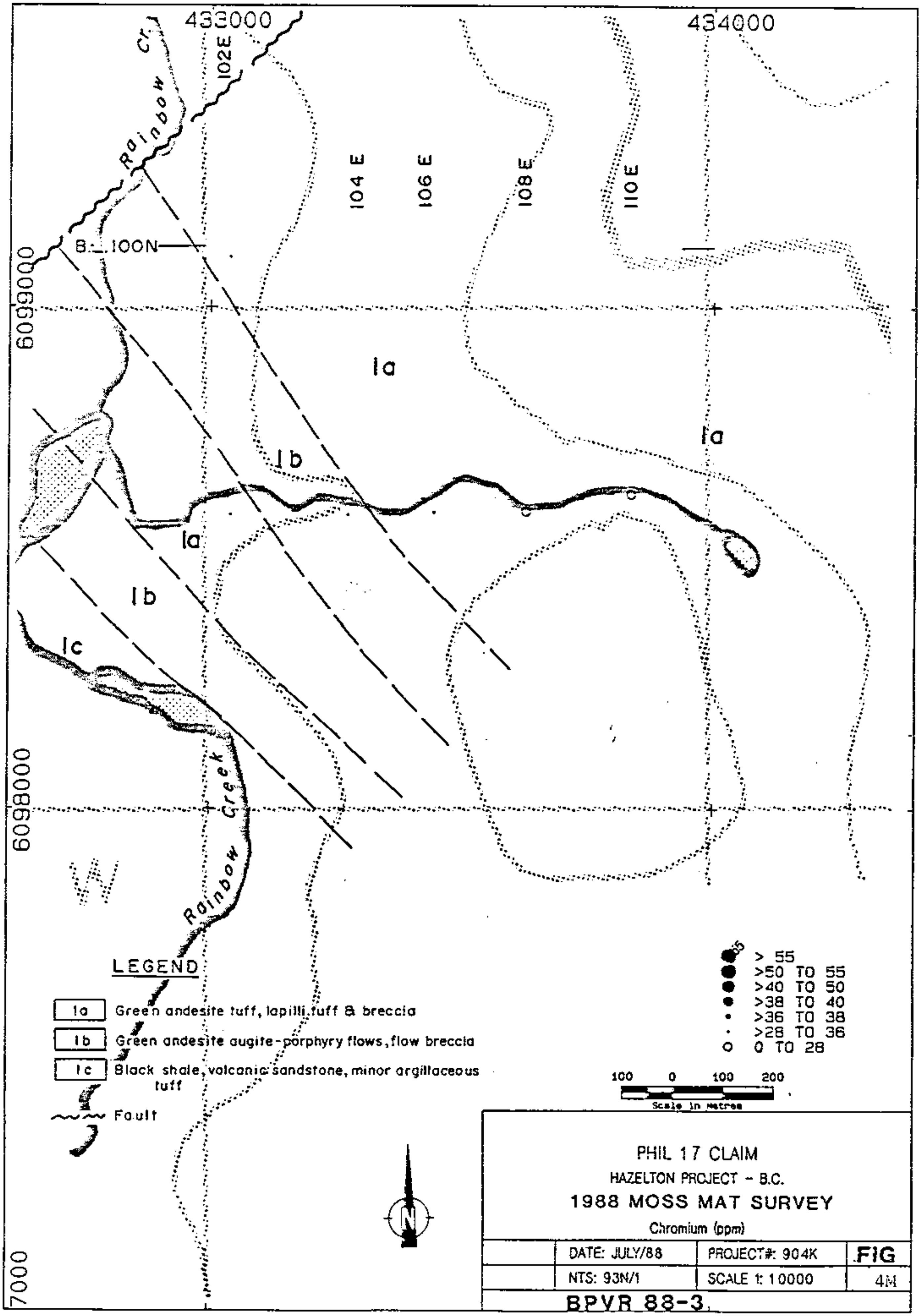


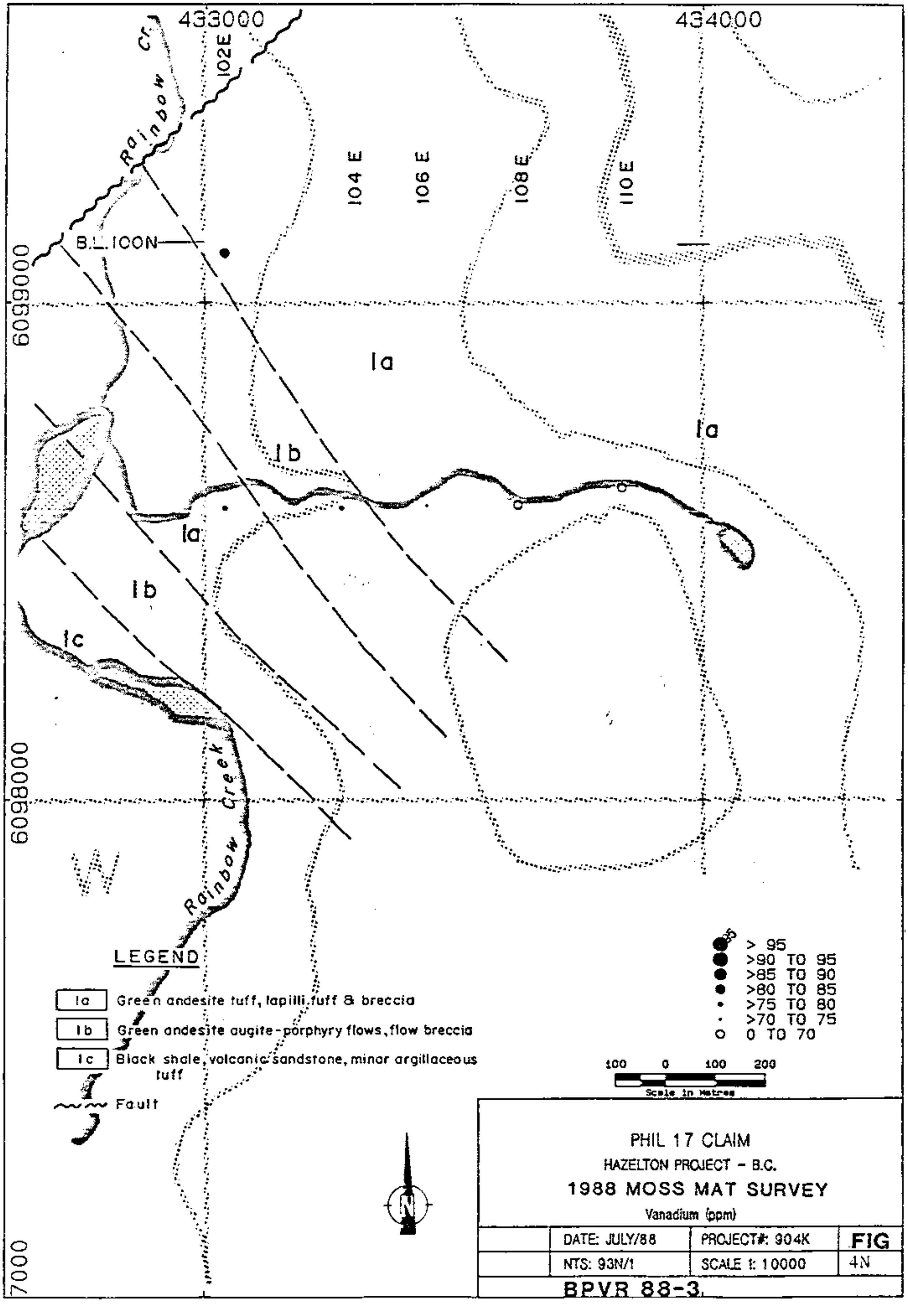
433000
434000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
22
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 21
>19 TO 21
>17 TO 19
>14 TO 17
>11 TO 14
>9 TO 11
0 TO 9
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Cobalt (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 4K
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

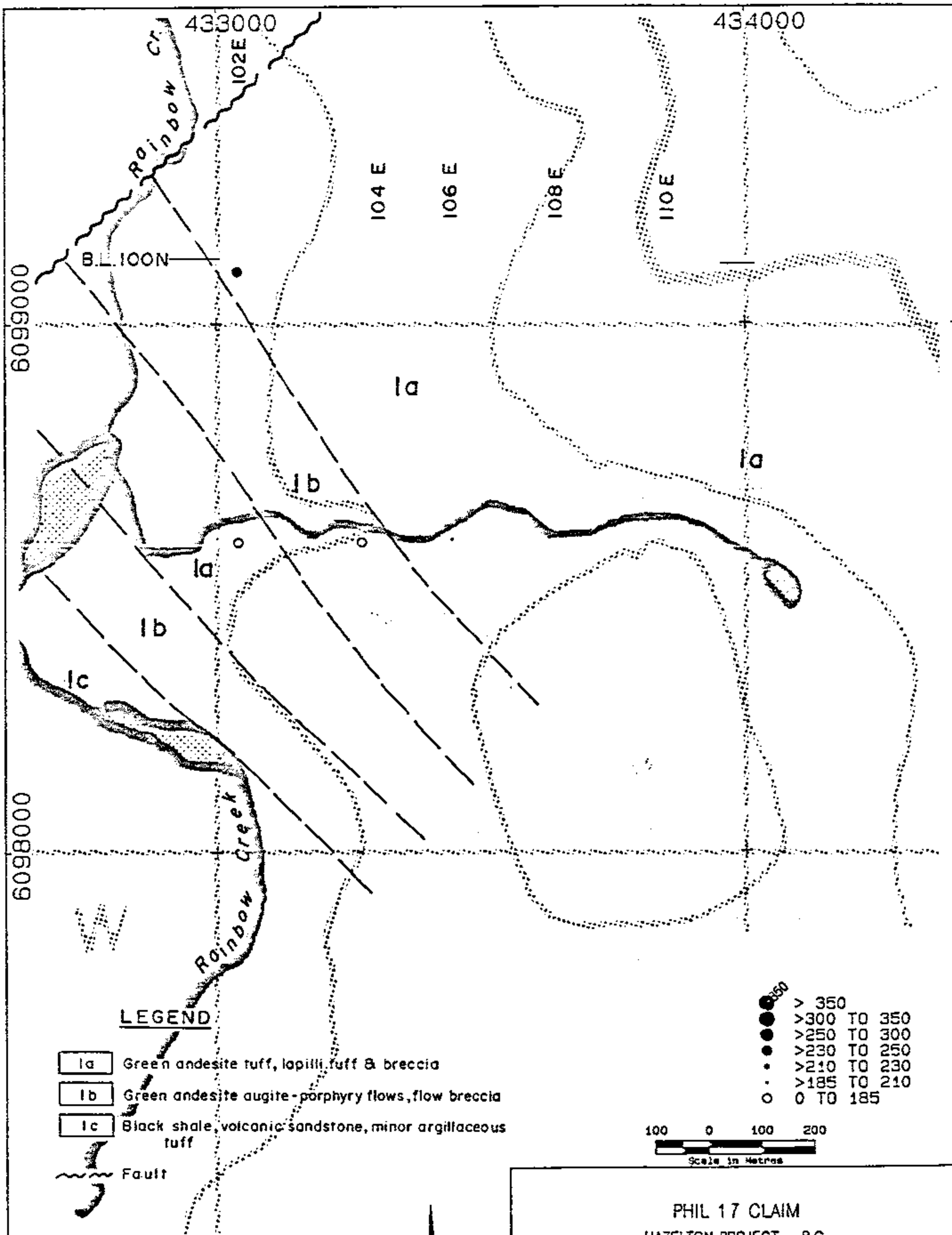


PHIL 17 CLAIM HAZELTON PROJECT - B.C. **1988 MOSS MAT SURVEY** Nickel (ppm)		
DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	4L

BPVR 88-3


433000
434000
Rainbow Cr.
102E
104 E
106 E
108 E
110E
B.L. 100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 55
>50 TO 55
>40 TO 50
>38 TO 40
>36 TO 38
>28 TO 36
0 TO 28
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Chromium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4M
BPVR 88-3


433000
434000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. 100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 95
>90 TO 95
>85 TO 90
>80 TO 85
>75 TO 80
>70 TO 75
0 TO 70
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Vanadium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
4N
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM

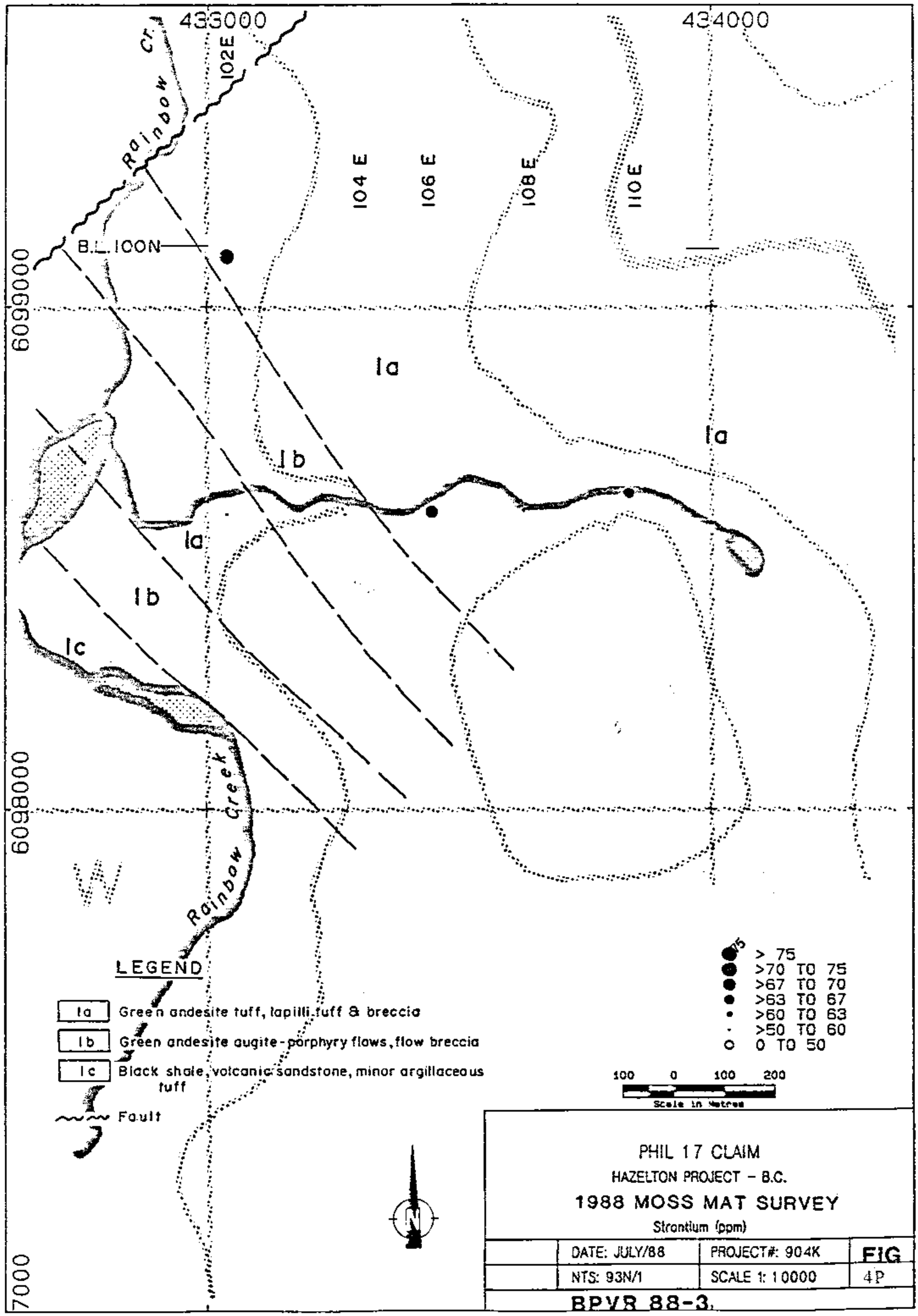
HAZELTON PROJECT - B.C.

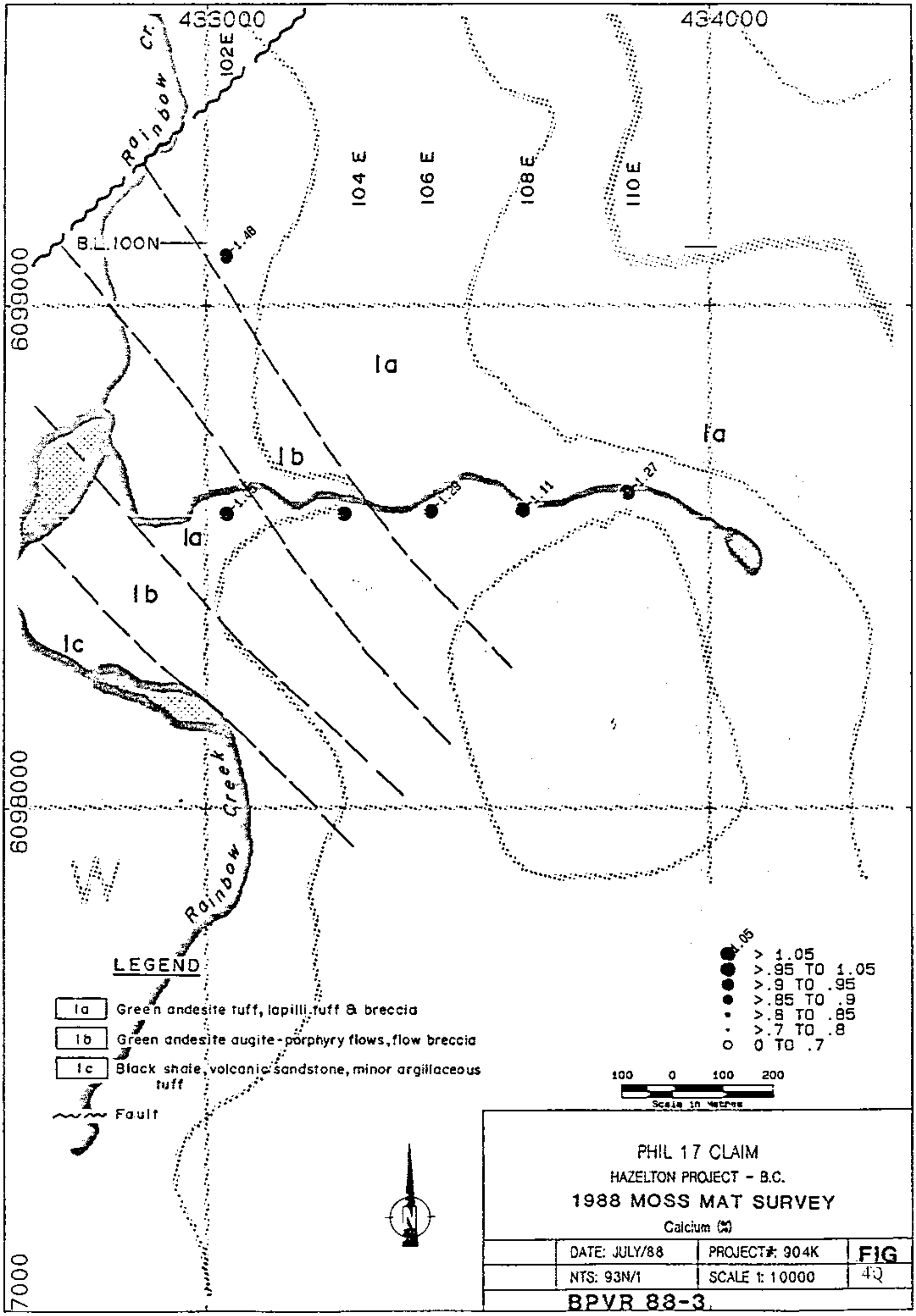
1988 MOSS MAT SURVEY

Barium (ppm)

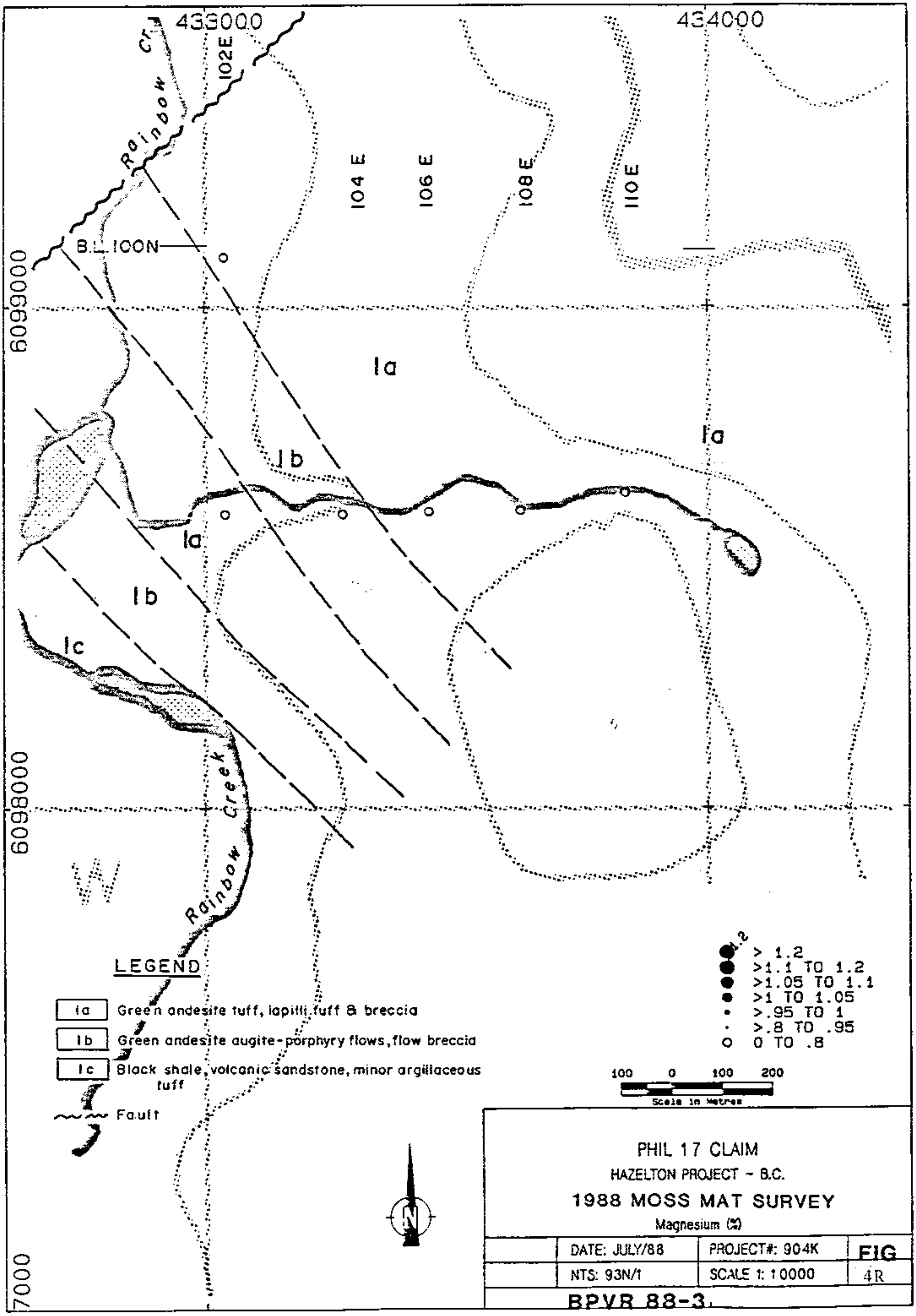
	DATE: JULY/88	PROJECT#: 904K	FIG
	NTS: 93N/1	SCALE 1: 10000	40

BPVR 88-3

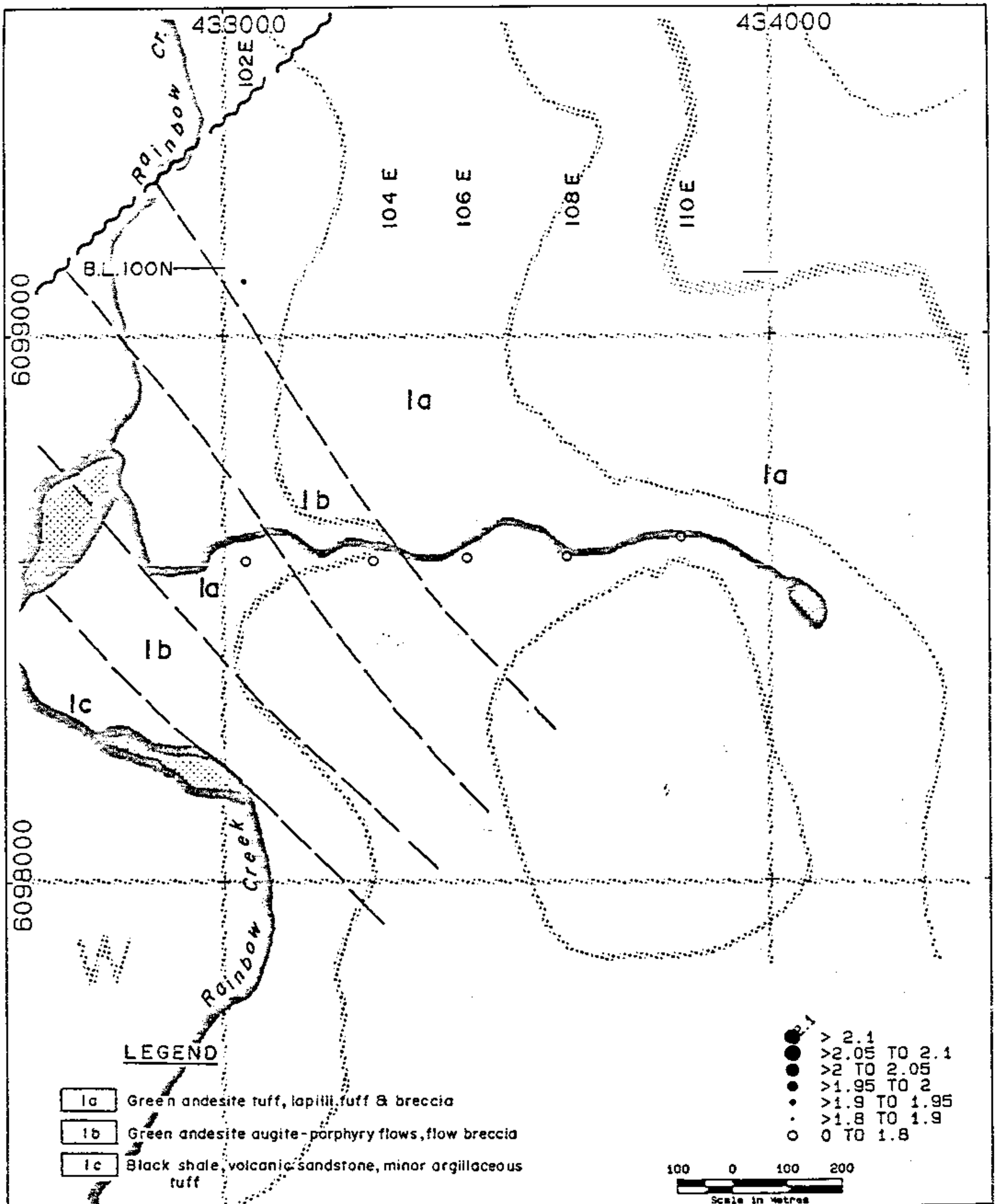

433000
434000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L.100N
6099000
6098000
7000
la
lb
lc
Rainbow Creek
LEGEND
la Green andesite tuff, lapilli tuff & breccia
lb Green andesite augite-porphyry flows, flow breccia
lc Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 75
>70 TO 75
>67 TO 70
>63 TO 67
>60 TO 63
>50 TO 60
0 TO 50
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Strontium (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4P
BPVR 88-3.



433000
434000
Rainbow Cr.
102E
104 E
106 E
108 E
110 E
B.L. 100N
6099000
6098000
7000
1.46
1a
1b
1c
1.27
1.11
1.28
Rainbow Creek
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
1.05
> 1.05
>.95 TO 1.05
>.9 TO .95
>.85 TO .9
>.8 TO .85
>.7 TO .8
0 TO .7
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Calcium (%)
DATE: JULY/88
PROJECT#: 904K
FIG 4Q
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



433000
434000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
B.L. 100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 1.2
>1.1 TO 1.2
>1.05 TO 1.1
>1 TO 1.05
>.95 TO 1
>.8 TO .95
0 TO .8
100 0 100 200
Scale in Metres
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Magnesium (%)
DATE: JULY/88
PROJECT#: 904K
FIG
NTS: 93N/1
SCALE 1: 10000
4R
BPVR 88-3



PHIL 17 CLAIM

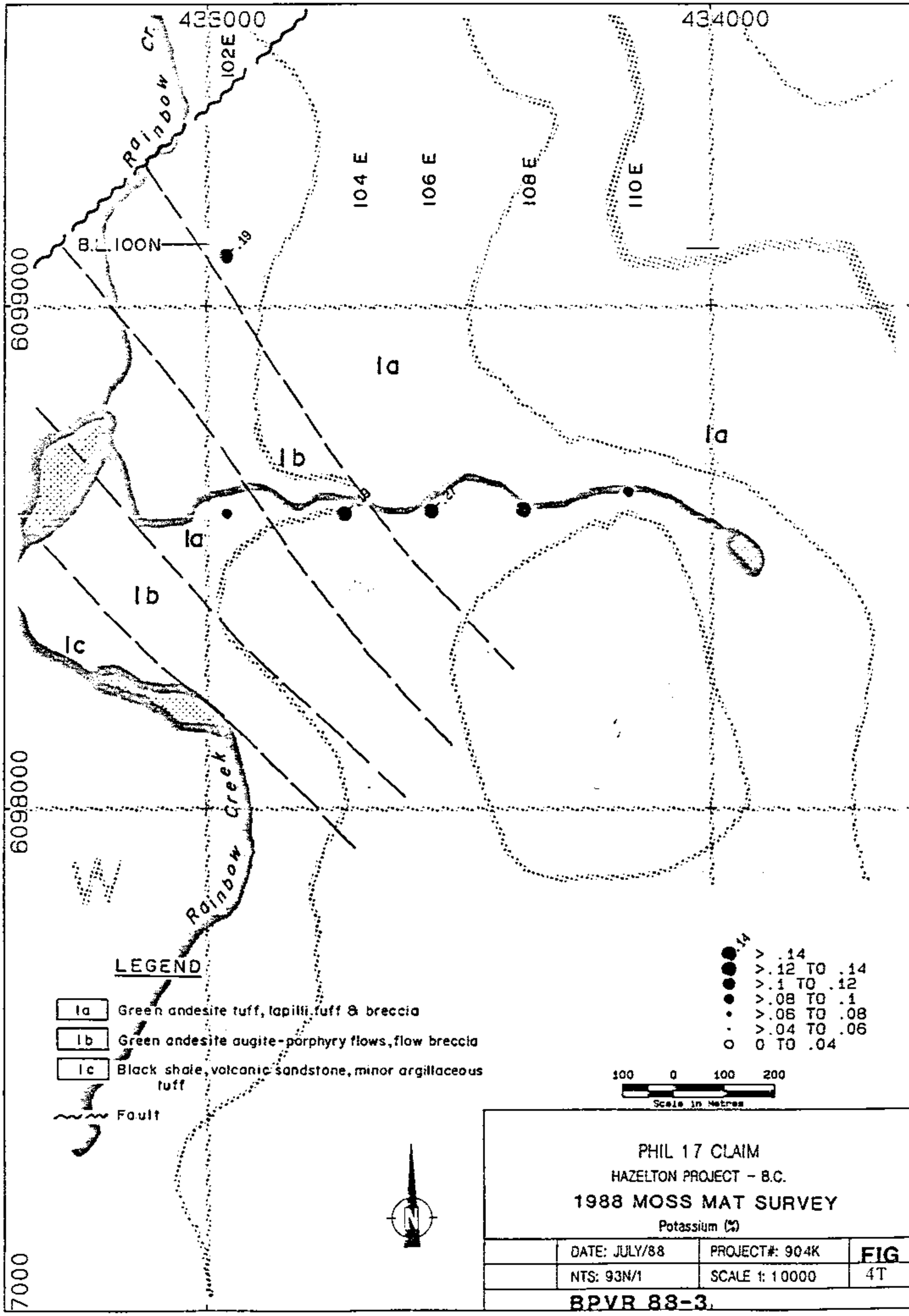
HAZELTON PROJECT - B.C.

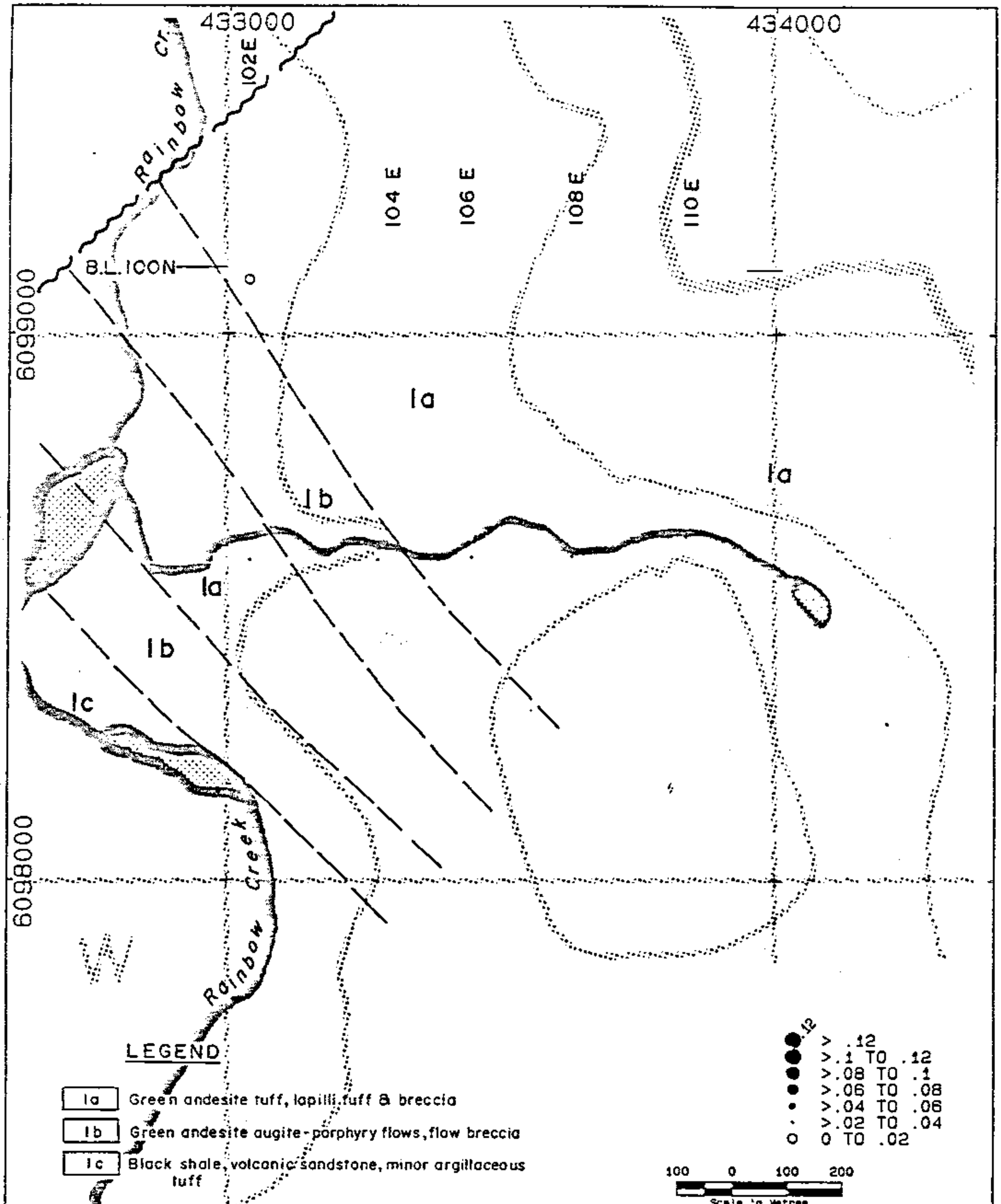
1988 MOSS MAT SURVEY

Aluminum (%)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	4S

BPVR 88-3


433000
434000
Rainbow Cr.
102E
104 E
106 E
108 E
110E
B.L.100N
6099000
6098000
7000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> .14
>.12 TO .14
>.1 TO .12
>.08 TO .1
>.06 TO .08
>.04 TO .06
0 TO .04
100 0 100 200
Scale in Metres
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Potassium (%)
DATE: JULY/88
PROJECT#: 904K
FIG 4T
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



PHIL 17 CLAIM

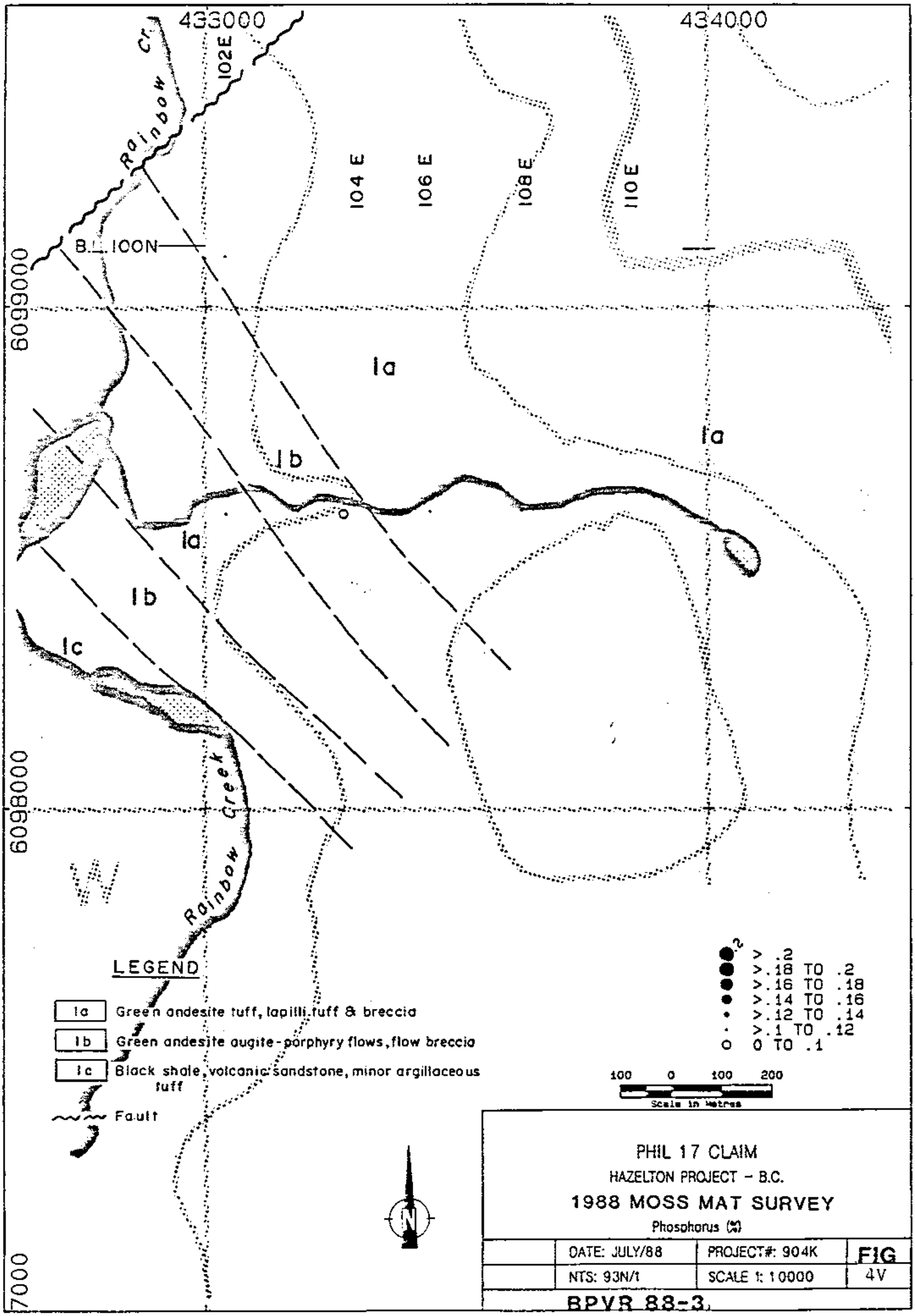
HAZELTON PROJECT - B.C.

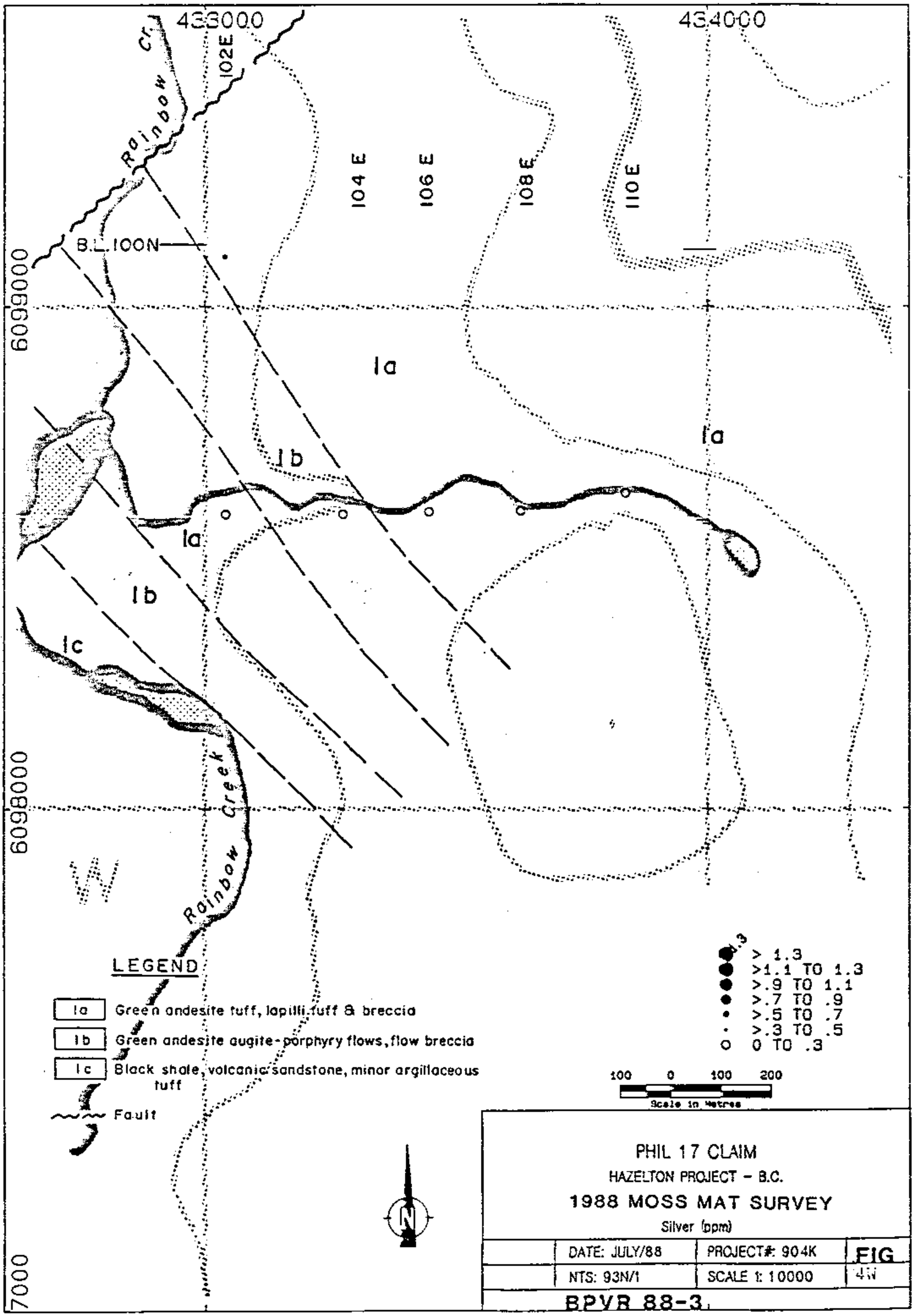
1988 MOSS MAT SURVEY

Titanium (%)

DATE: JULY/88	PROJECT#: 904K	FIG
NTS: 93N/1	SCALE 1: 10000	4U

BPVR 88-3.


433000
434000
6099000
6098000
7000
102E
104 E
106 E
108 E
110 E
Rainbow Cr.
Rainbow Creek
B.L. 100N
1a
1b
1c
LEGEND
1a Green andesite tuff, lapilli tuff & breccia
1b Green andesite augite-porphyry flows, flow breccia
1c Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> .2
>.18 TO .2
>.16 TO .18
>.14 TO .16
>.12 TO .14
>.1 TO .12
0 TO .1
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Phosphorus (%)
DATE: JULY/88
PROJECT#: 904K
FIG 4V
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3



433000
434000
102E
104 E
106 E
108 E
110E
Rainbow Cr.
B.L. 100N
6099000
6098000
6097000
Ia
Ib
Ic
Rainbow Creek
LEGEND
Ia Green andesite tuff, lapilli tuff & breccia
Ib Green andesite augite-porphyry flows, flow breccia
Ic Black shale, volcanic sandstone, minor argillaceous tuff
Fault
> 1.3
>1.1 TO 1.3
>.9 TO 1.1
>.7 TO .9
>.5 TO .7
>.3 TO .5
0 TO .3
100 0 100 200
Scale in Metres
N
PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 MOSS MAT SURVEY
Silver (ppm)
DATE: JULY/88
PROJECT#: 904K
FIG 4W
NTS: 93N/1
SCALE 1: 10000
BPVR 88-3

7. Discussion of Results - Soils and Moss Mats

The PHIL-17-RAIN property soil program in 1988 was conducted to fulfill assessment requirements and test a 2X background Sb anomaly along the eastern half of the tributary valley. Cu and As anomalies were also documented along the western portion of the creek. Au anomalies had not been defined in this area of claims prior to this study but, in view of the potential role of these elements as pathfinders for Au, this followup program was undertaken. An orientation moss mat survey was also undertaken.

The soil grid is reconnaissance at a 50 m X 200 m density, and therefore it is difficult to be definitive concerning trends running from one line to the next. With this in mind, several samples containing outstanding Au values lie along the westernmost line, including 2 values close to 1 gm Au. The Au anomalies appear periferally associated with high As and Sb as well as Cu concentrations. Other elements exhibiting a positive correlation with the largest and highest contrast Au zones, in the southwest, include Pb, Zn, Fe, Ni, Cr, V, Ba, Al and P, either in a direct or periferal relationship. The moss mat survey indicates Au as being introduced along the western portion of the tributary creek.

The east-west trending tributary of Rainbow Creek is reflected by accumulation of many elements, including As, Cu, Pb, Zn, Fe, Mn, Co, Ba, Mg, Al, K and P. Ti levels are generally depleted in this zone. These distributions probably reflect a residual soil or talus soil environment developed on local bedrock which has a higher background metal content than the glacial deposits on plateau regions away from the creek. Except for their prominence on maps not exhibiting topography, the east-west "anomalies" are not considered worthy of followup. Moss mat results appear lower than corresponding stream sediment data from 1984 (Humphreys, 1984), but they are homogeneous. Too few samples of moss mat were collected to carry the interpretation further.

In the landscape-topography section, it was noted that portions of the overburden, at any elevation, could comprise outwash as well as till. It is possible that negative results over eastern sampling may be due to adverse overburden conditions for soil sampling rather than being due to a lack of mineral potential of underlying bedrock. The problem is also likely to be encountered along Rainbow Creek in the west where continued sampling is warranted.

The preliminary evaluation has confirmed the reconnaissance anomalies which stimulated the work and give creedance to the BCDM RGS anomalies which were initially responsible for ground acquisition. Continued followup is recommended.

8. Discussion of Results - Rocks

Sample results from the seven collected grab samples revealed only elevated values in a few elements.

Sample 705005 contained 24 ppm Mo, 13 ppm As and 7 ppb Au. This is a sample of a pyrrhotite-bearing augite flow breccia (unit 1a), very near the assumed contact with andesitic fragmental rocks (unit 1b).

Sample 705011 is a sample of pyritic fracture zone within a very fine-grained siliceous tuff (unit 1b). This sample contained only an elevated Mo content (13 ppm).

CONCLUSIONS AND RECOMMENDATIONS

Although sulphide-bearing volcanics are present within the claim group, no economic mineralization has been found to-date.

Preliminary sampling has indicated that a potential source for the geochemically anomalous gold values may be present within the claim group. The gold appears to be associated with peripheral, elevated As, Sb and Cu values.

The most prominent gold soil anomaly corresponds to a pyrrhotite-bearing augite flow breccia which contains elevated Au and As values. This also corresponds to an assumed contact between andesitic flow and fragmental rocks which should be investigated further.

The lack of outcrops on the property indicates the need for additional soil sampling in order to investigate mineral potential throughout the claim group. This program would involve a line spacing of 100 metres, west of L106E to the Rain 1 claim west boundary, and extension of lines to the north and south boundaries of the claim group. Soil samples should be collected at 50 metre intervals along the lines.

The soil grid and the acquisition of recent airphotography will help with control for geologic mapping and rock sampling which should cover the entire claim group.

Respectfully submitted,

Rex Pegg

Rex Pegg, BASc., P.Eng.

BIBLIOGRAPHY

Humphreys, N., 1984 : Summary Report on the 1984 Geological and Geochemical Exploration Activities - Phil 17 Claim.

APPENDIX I: Geochemical Analytical Procedures

Geochemical Analytical Procedures

The geochemical samples were shipped to Acme Analytical Laboratories Ltd. of Vancouver for analysis.

all the rock, soil and moss mat samples were analyzed for the thirty element I.C.P. package (Mo,Cu,Pb,Zn,Ag,Ni,Co,Mn,Fe,As,U,Au,Th,Sr,Cd, Sb,Bi,V,Ca,P,La,Cr,Mg,Ba,Ti,B,Al,Na,K,W) and gold.

The Acme methods are as follows:

a) **I.C.P. Package:** a 0.500 gram sample is digested with 3 ml. 3-1-2 ($HCL-HNO_3-H_2O$) at 95° for one hour and is diluted to 10 ml. with water. This leach is partial for Mn,Fe,Ca,P,Cr,Mg,Ba,Ti,B,Al,Na,K and W. The Au detection limit is 3 ppm.

b) **Geochemical Au:** 10.0 gram sample ignited, hot aqua regia leached, MIBK extraction and analyzed by Atomic Absorption.

APPENDIX II: List of Geochemical Data - Soils and Moss Mats

GENERAL

1-2 SAMPLE TYPE

10. Stream sediment
11. Stream water
12. Drainage ditch sediment
18. Heavy mineral concentrate
20. Seepage (spring) sediment
21. Seepage (spring) water
30. Lake sediment - lake center
31. Lake water
32. Lake sediment-near shore
40. Bog-upper 100 cm
41. Bog-stagnant water
42. Bog-below 100 cm
43. Bog-organic material at mineral horizon interface
44. Bog-mineral horizon
50. Soil-top of the B horizon (or top of the C horizon if B horizon absent)

1-2 SAMPLE TYPE Cont.

51. Soil-other horizons (organic-rich samples or when 2 samples taken at same hole)
52. Frost boil or seepage boil
54. Groundwater sample
55. Deep overburden sample
58. Heavy mineral concentrate
60. Talus fines
63. Talus blocks-hand sample
64. Talus blocks-chips
68. Heavy mineral concentrate
70. Biogeochemical sample
75. Radon
80. Bedrock hand specimen
81. Bedrock chips ± hand sample
82. Float hand specimen
83. Float chips ± hand sample
84. Drill core specimens

1-2 SAMPLE TYPE Cont.

85. Channel sample/split core
86. Drill chips
87. Drill sludge
88. Heavy mineral concentrate
*89. High grade sample
*90. Special sample-specify
99. Standard sample

*Clearly label if high grade.

Special Note
For keypunchers benefit, 7's should be crossed ‡ and O's (letter) should be slashed Ø

3-4 YEAR

5-7 PROJECT NUMBER

8 PROJECT IDENTIFICATION

Blank-reconnaissance
A.B.C. etc. - properties, anomalies. (List 6)

9 DUPLICATE SAMPLES

Label duplicates as 1,2, etc. (collect 1 duplicate pair in 30)

10-12 SAMPLER IDENTIFICATION
(10-11) (List 7)

13-15 SAMPLE NUMBER
(12-15)

19-24 EAST COORDINATE

25-31 NORTH COORDINATE

34-38 NTS MAP SHEET NUMBER

Example: record 92F/3 as 92F03

STREAM SEDIMENTS

40 SAMPLE ENVRIONMENT

1. Side of creek
4. Middle of stream
9. Composite across stream
A. Soil

41 WATER MURKINESS

Blank-clear
1. Murky (report findings in note section)

42 PRECIPITATE

Blank-none
1. Record colour (report presence of precipitate in immediate vicinity in stream bed. If heavy precipitate, sample separately as sample type 90)

43 OVERBURDEN TRANSPORT

L. Local
E. Extensive
U. Unknown
M. Mixed local & extensive

45 OVERBURDEN ORIGIN

1. Till-angular boulders
2. Outwash-sandy, rounded boulders
3. Lake sediment-sand/silt
4. Alluvium-stream deposit
5. Peat-bog
6. Colluvium*

45 OVERBURDEN ORIGIN Cont.

7. Lake sediment-clay
8. Talus
9. Residual
C. Boulder field*
D. Gravel*
E. Soil*

*use only if former origin cannot be identified

46 BEDROCK

M. Mineralized
P. Present within 100m upslope
D. Present within 100m down-slope
B. Underlies sample site
G. Gossan
F. Fe surface stains
R. Radioactivity

47-48 pH

49 SAMPLE TEXTURE

Ø. Organic-decomposed
1. Clay
2. Silt and fine sand
3. Sand
4. Gravel
6. Cemented
7. Precipitate
8. Twigs or undecomposed organic matter

50-52 AVERAGE WIDTH OF STREAM-M
Decimal point in col 51 (or col 52 if stream > 10m wide)

53-55 AVERAGE DEPTH OF STREAM-CM

56 STREAM VELOCITY

1. Dry
2. Stagnant
3. Slow
4. Moderate
5. Fast
6. Turbulent

57 INDICATE AS TRIBUTARY

R. Stream enters on the right looking down main stream
L. Stream enters on left looking down main stream

58-60 LOCAL BEDROCK COMPOSITION

Estimate-use Lists 1-4

61-66 COLOUR

Munsell notation or abbreviation

67 CONTAMINATION

Blank - none
C - culvert
F - farming
G - garbage
H - house
I - industry
L - logging
M - mine
R - road
T - trench
Ø - other - spec.

68 ORGANIC FRACTION *(Complete where sediment composition is unusual)

2. Large amount of undecomposed leaves, twigs, etc.
4. Large amount of well-decomposed vegetation
5. Moss
7. Sediment grains coated in organic matter
8. Lake sediment ooze.

69 MINERAL FRACTION *(Complete where composition is unusual)

3. Notable content of mafic minerals, resistates
4. Very high content of mafics, resistates

71 SCINTILLOMETER NUMBER

72-75 GAMMA COUNT AT SAMPLE DEPTH

(make note if landscape is affecting gamma count)

76 ROCK

*Star if bedrock is influencing scint count

77-78 APPROXIMATE SLOPE ANGLE

79-80 APPROXIMATE SLOPE DIRECTION

SOILS

40 SITE TOPOGRAPHY

1. Hill top
2. Gentle slope
3. Steep slope > 20°
4. Base of slope
5. Valley floor
6. Depression
7. Level
8. Rolling
9. Bog

41 SAMPLE ENVIRONMENT

1. Tundra-hummocky
2. Tundra-dry
3. Tundra-swampy
4. Grassland, meadows
5. Peat mounds
6. Bog in depression
7. Forest-coniferous
8. Forest-deciduous
9. Forest-mixed
A. Alder or willows
B. Cultivated land
C. Desert, semi-arid
D. Barren
E. Talus fan
F. Bank soil-stream
G. Bank soil-lake
H. Road cut

42 SITE DRAINAGE

1. Dry
2. Moist
3. Wet
4. Saturated

43 OVERBURDEN TRANSPORT

L. Local
E. Extensive
U. Unknown
M. Mixed

44 WATER MOVEMENT

S. Seepage

45 OVERBURDEN ORIGIN

1. Till-angular boulders
2. Outwash-sandy, rounded boulders
3. Lake sediment-sand/silt
4. Alluvium-stream deposit
5. Peat-bog
6. Colluvium
7. Lake sediment-clay
8. Talus
9. Residual
A. Frost boils*
B. Seepage boils*
C. Boulder field*
D. Gravel*

* Use only if former origin cannot be identified.

46 BEDROCK

M. Mineralized
P. Present within 100m up-slope
D. Present within 100m down-slope
B. Underlies sample site
G. Gossan
F. Fe surface stains
R. Radioactivity

47-48 pH

49 SAMPLE TEXTURE

Ø. Organic muck
1. Fibrous, peaty organic matter
2. Very sandy
3. Sandy
4. Sand-silt
5. Sand-silt-clay
6. Silt
7. Silt-clay
8. Clay
9. Gravel

50-51 THICKNESS OF SOIL SAMPLE INTERVAL-CM

52-54 BOTTOM OF SOIL SAMPLE INTERVAL-CM

55-56 SOIL HORIZON

LH. Leaf, humus layer, undecomposed vegetation lying on the ground surface (do not sample)
AH. Dark grey to black, organic-rich mineral horizon usually no deeper than 15cm from the surface (do not sample)
AE. Grey to white (occassionally brown) leached mineral horizon near ground surface, usually sandy; accompanied by BF or BT horizon at depth (do not sample)
BH. Black, organic-rich mineral horizon at depths greater than 15cm (do not sample)
BF. Red-brown, iron-rich horizon
BT. Brown, clay-rich horizon
BG. Horizon which is water-saturated most of the year, identified by red brown mottles
BM. Brown horizon which is only slightly different in appearance from underlying parent material
C1.C2.C3. etc. Parent material for soil
CA. White calcium carbonate precipitate in C horizon
Ø1.Ø2.Ø3. etc. Bog sample at various depths
TF. Talus fines

57 SOIL TYPE

C. Chernozem-prairie soil usually under grassland or meadow, thick AH > 10cm, CA horizon at depth
S. Solonetz-saline soil, high content of NaCl

57 SOIL TYPE Cont.

L. Luvisol-BT horizon diagnostic
P. Podzol-BF horizon diagnostic
B. Brunisol-BM horizon is only B horizon of profile
R. Regosol-little or no soil development. No B soil horizon, only LH (maybe) and C horizon
G. Gleysol-BG horizon diagnostic
Ø. Organic soil-bog vegetation-no mineral matter

58-60 LOCAL BEDROCK COMPOSITION
Estimate-use Lists 1-4

61-66 COLOUR
Munsell notation or abbrevation

67 CONTAMINATION

Blank - none
C - culvert
F - farming
G - garbage
H - house
I - industry
L - logging
M - mine
R - road
T - trench
Ø - other - spec.

68-69 % COARSE FRAGMENTS

70 SHAPE OF COARSE FRAGMENTS
A. Angular
R. Rounded
S. Subrounded
M. Mixed above types

71 SCINTILLOMETER NUMBER

72-75 GAMMA COUNT AT SAMPLE SITE
Scint reading at ground level over hole

76 ROCK
*Star if bedrock is influencing scint counts

77-78 APPROXIMATE SLOPE ANGLE

79-80 APPROXIMATE SLOPE DIRECTION

LIST 1

1-- INTRUSIVE ROCKS

-1- QUARTZ RICH
--1 Granite
--2 Quartz Monzonite
--3 Granodiorite
--4 Quartz diorite

-2- INTERMEDIATE
--1 Syenite
--2 Monzonite
--3 Diorite
--4 Gabbro

-3- FELDSPATHOID RICH
--1 Nepheline Syenite
--2 Nepheline Monzonite

-40 ULTRABASIC

-50 CARBONATITES

-6- SPECIAL TYPES
--1 Pegmatite
--2 Aplite
--3 Lamprophyre
--4 Trap
--5 Felsite
--6 Intrusion Breccia
--7 Diabase

LIST 2

2-- VOLCANIC ROCKS

-0- UNDIFFERENTIATED

-1- BASALT

-2- ANDESITE

-3- DACITE

-4- RHYOLITE

-5- QUARTZ LATITE

-6- LATITE

-7- TRACHYTE

-8- PHONOLITE

-9- NEPHELINE LATITE
--1 Fine grained flows
--2 Prophyritic flows
--3 Crystal tuffs
--4 Ash tuffs
--5 Lapilli tuffs
--6 Agglomerate
--7 Lapilli breccia
--8 Block breccia
--9 Turbidite

LIST 3

3-- SEDIMENTARY ROCKS

-1- ARENACEOUS
--1 Siltstone
--2 Mudstone
--3 Greywake
--4 Sandstone
--5 Quartzite
--6 Conglomerate

-2- ARGILLACEOUS
--1 Shale
--2 Argillite

-3- CALCAREOUS
--1 Limestone
--2 Dolomite

-4- CHEMICAL PRECIPITATE
--1 Chert
--2 Marble
--3 Iron Formation

LIST 4

4-- METAMORPHIC ROCKS

-10 FINE GRAINED CONTACT

-2- PHANERITIC
--1 Meta quartzite
--2 Marble
--3 Soapstone
--4 Hornfels
--5 Serpentine
--6 Skarn
--7 Amphibolite
--8 Eclogite

-3- MECHANICAL
--1 Mylonite
--2 Flaser
--3 Augen
--4 Ultramylonite

-40 SLATE

-50 PHYLLITE

-60 SCHIST

-7- GNEISS •
-8- MIGMATITE •
--1 *Granite
--2 Monzonite
--3 Granodiorite
--4 Conglomerate
--5 Sandstone
--6 Augen
--7 Granulite
--8 Quartz diorite
--9 Diorite
--0 Amphibolite

LAKE SEDIMENTS

40 TOPOGRAPHY-SETTING OF LAKE ON LANDSCAPE

1. Cirque basin
2. Gentle slope
3. Steep slope > 20°
4. Footslope
5. Valley floor
6.
7. Level
8. Rolling
9. Major bog

41 DRAINAGE BASIN ENVIRONMENT

1. Tundra-arctic
2. Tundra-alpine
3. Grassland, pasture, meadows
4. Bog, swamp
5. Forest-coniferous
6. Forest-deciduous
7. Forest-mixed
8. Cultivated land
9. Semi arid to desert

42 LAKE TYPE

L - Oligotrophic
E - Eutrophic
D - Dystrophic
Ø - Other - specify

43 OVERBURDEN TRANSPORT

L. Local E. Extensive-thin
T. Extensive-thick

44 WATERSHED AREA

1. Low 0-1 km^2
2. Moderate 1-3 km^2
3. Relatively large 3-10 km^2
4. Very large > 10 km^2

45 PREDOMINANT GLACIAL OVERBURDEN

1. Till
2. Outwash sand
3. Lacustrine sand
4. Alluvium
5. Peat
6. Colluvium
7. Lacustrine clay
8. Talus
9. Residual
U. Unknown

46 FLUSHING RATE

1. None
2. Low
3. Moderate
4. High

47-48 pH

49 TEXTURE

1. Nearshore sands/gravels
2. Deltaic sands/gravels
3. Woody
4. Well decomposed vegetation (bog)
5. Algae
6. Ooze
7. Clay
8. Silt/sand
9. Pre-lake deposits

50-52 MAXIMUM LAKE LENGTH IN METRES - 10

53-55 MAXIMUM LAKE WIDTH IN METRES - 10

56-57 LAKE DEPTH AT POINT OF SAMPLING-METRES

58-60 LOCAL BEDROCK COMPOSITION-PRIMARY UNIT

Estimate - use lists 1-4

61-66 COLOUR

Munsell notation or abbreviation

67 CONTAMINATION

Blank - none L - logging
C - culvert M - mine
F - farming R - road
G - garbage T - trench
H - house Ø - other - spec.
I - industry

68 LAKESHORE CHARACTER

B. Boggy
S. Sandy
R. Rocky
M. Mixed boggy and sandy/rocky

69 NUMBER OF MAJOR INFLOW STREAMS

Blank - none
1. 1
2. 2
3. 3
4. 4-10
5. > 10

70 PROXIMITY OF SAMPLE SITE TO MAJOR INFLOW STREAMS

1. 0-50m
2. 51-100m
3. 101-250m
4. 251-500m
5. > 500m

71 SAMPLE HOMOGENEITY

H. Homogenous
L. Layered
T. Turbidite
Ø. Other - specify

72 SEDIMENT CONSISTENCY

S. Soupy
F. Firm
Ø. Other

73 ISLANDS

Blank-none
1. Low density
2. Moderate density
3. High density

74 PRECIPITATE

F. Fe oxides-red brown
M. Mn oxides-black
C. Calcium-carbonate -white
Ø. Other - specify

75 FEATURE

1. Fe concretions
2. Mn concretions
3. Fe+Mn concretions
4. Shell fragments
5. Other - specify

76 SEDIMENT ODOUR

Blank-none
H. Hydrogen sulphide
F. Fishy
Ø. Other - specify

78-80 LOCAL BEDROCK COMPOSITION

Secondary Unit
Estimate-use lists 1-4

INFORMATION RECORDED ON SITE

INFORMATION NOTED ON SITE IF UNUSUAL

ROCK CHIP SAMPLES

37 SELECTIVE LITHOGEOCHEMICAL SAMPLE

Blank - representative sample
A. Altered zone - specify alteration minerals in col 77-80
C. Carbonate vein
G. Gossan zone
I. Iron stained (rusty) zone
M. Mineralized zone
Q. Quartz vein
R. Radioactive zone
S. Shear zone
Ø. Other - specify

40 OUTCROP TOPOGRAPHY

1. Rugged ridge
2. Recessive ridge
3. Steep slope (> 20°)
4. Shallow slope
5. Cirque headwall
6. Cirque floor
7. Valley floor
8. Flat land
9. Creek-channel
A. Nickpoint
Ø. Other

41 OUTCROP EXPOSURE

1. Continuous-well
2. Continuous-poor
3. Intermittent-well
4. Intermittent-poor
5. Isolated-well
6. Isolated-poor
7. Float
8.

43 WEATHERING

1. Frost heaved
2. Mechanical-plants
3. Sheeting(exfoliation)
4. Chemical disintegration
5. Mechanical disintegration (grus)
6. Leached
Ø. Other

44 CHEMICAL WEATHERING

1. Fresh 3. Weathered
2. Normal 4. Decomposed

45 SURFACE COATING OR STAINS

1. Gossan-mineralized
2. Gossan-barren
3. Primary ore minerals
4. Secondary ore minerals
5. Iron and manganese
6. Iron
7. Manganese
8. Calcium carbonate
9. Malachite/azurite
Ø. Other

46-48 WEATHERED SURFACE COLOUR

L.-light M.-medium D.-dark

OR - Orange BR - Brown
RE - Red BK - Black
YE - Yellow GY - Grey
PI - Pink WH - White
BL - Blue RB - Red Brown
PU - Purple ØB - Orange Brown
GR - Green

49 TEXTURE #1

A - Aphanitic
F - fine grained
M - medium grained
C - coarse grained
E - equigranular
P - porphyritic
V - vesicular
B - brecciated
S - massive
G - glassy

50 TEXTURE #2

Use same coding as for col. 49

51 FRACTURE INTENSITY

1. Massive
2. Widely spaced
3. Moderately spaced
4. Closely spaced
5. Shattered

52 VEINING INTENSITY

1. Massive
2. Widely spaced
3. Moderately spaced
4. Closely spaced
5. Very closely spaced

54-56 FRESH SURFACE COLOUR

- Use same codes as for columns 47-49

57 FORMATION NAME

- Use a list describing local lithological units

58-62 LOCAL BEDROCK COMPOSITION

- Use list 1-4 detailed on the rock coding form

64-65 ORE ELEMENT #1

Use chemical element symbol

66-67 ORE ELEMENT #2

Use chemical element symbol

68-69 ORE ELEMENT #3

Use chemical element symbol

70-71 ORE ELEMENT #4

Use chemical element symbol

73 PROMINENT OUTCROP FEATURE #1

1. Bedding
2. Banding
3. Foliation
4. Shearing
5. Faulting
6. Veining
7. Diking
8. Contact zone
9. Alteration
A. Crossbedding
B. Fold axis
C. Greenschist meta
D. Amphibolite meta
E. Contact meta

74 PROMINENT OUTCROP FEATURE #2

Use same codings as for col 73

75 PROMINENT OUTCROP FEATURE #3

Use same coding as for col 73

77 ALTERATION MINERAL #1

A. Albite/Anorthite
B. Secondary biotite
C. Carbonate
E. Epidote
G. Gypsum/anhydrite
I. Illite
K. Kaolinite
L. Chlorite
M. Montmorillonite
P. Potash feldspar
Q. Quartz/silica
S. Sericite
T. Tourmaline
Z. Zeolites
Ø. Other-specify in notes

78 ALTERATION MINERAL #2

Use list for col 77

79 ALTERATION MINERAL #3

Use list for col 77

80 ALTERATION MINERAL #4

Use list for col 77

SELECTION # 1

SAMPLE TYPE(S)	50/19
BEDROCK TYPE(S)	ALL
SOIL HORIZON(S)	ALL
SAMPLE TEXTURE(S)	ALL
OVERBURDEN ORIGIN(S)	ALL
LABORATORY-SIZE FRACTION-EXTRACTION(S)	ALL
PAIR STATUS	ALL

REC#		SMPL# UTM-E UTM-N									MO	CU	PB	ZN	NI	U	MN	FE	AG
869	5088904K	996002A8A4338416099115	93N01	271U	1	510	35BFP	MOB	15M	10W	1	22	10	75	13	5	223	4.33	.1
870	5088904K	996003A8A4338436099061	93N01	271U	1	510	30BMB	MOLYE	15S	8W	1	29	10	33	20	5	227	4.03	.1
871	5088904K	996004A8A4338416099015	93N01	371U	6	510	25BFP	MRBOL	20A	30S	1	48	11	61	19	5	372	4.82	.1
872	5088904K	996005A8A4338406098965	93N01	472U	1	510	30BMB	LOL	15S	5S	1	52	11	70	25	5	869	4.38	.2
873	5088904K	996006A8A4338436098917	93N01	272U	1	510	30BFP	MOB	10S	5SW	1	36	11	59	20	5	233	3.95	.1
874	5088904K	996007A8A4338406098868	93N01	271U	1	510	35BFP	MRBOL	30S	35W	1	74	10	84	23	5	441	3.85	1
875	5088904K	996008A8A4338396098815	93N01	272L	1	510	30BFP	MRB	40M	5S	1	15	8	55	9	5	155	3.06	.2
876	5088904K	996009A8A4338406098767	93N01	272L	9B	510	30BFP	MBR	70A	5W	1	43	11	216	12	5	349	7.19	.2
877	5088904K	996010A8A4338376098716	93N01	271L	1	510	30BFP	MOB	30S	5S	1	45	13	50	33	5	260	4.78	.1
878	5088904K	996011A8A4338376098663	93N01	372L	9P	510	30BFP	MRBOB	50A	40SW	1	90	11	71	19	5	382	5.79	.3
879	5088904K	996012A8A4338416098645	93N01	471L	8	510	40BFP	MRB	50A	30SW	1	116	18	122	24	5	1659	7.23	.3
880	5088904K	996014A8A4339376098611	93N01	472U	1	510	30BMB	MOL	25S	20NE	4	79	14	64	33	5	796	4.59	.2
881	5088904K	996015A8A4339376098565	93N01	272U	1	510	30BFP	MRBOB	10S	15NE	1	41	11	52	19	5	276	4.16	.1
882	5088904K	996016A8A4338366098514	93N01	272U	1	510	40BFP	MRBMOL	20S	1N	1	34	8	51	13	5	192	2.54	.1
883	5088904K	996017A8A4338356098464	93N01	272U	1	510	35BFP	MRBMOL	25S	2N	1	26	8	50	14	5	203	2.78	.1
884	5088904K	996018A8A4338336098417	93N01	272U	1	510	45BMB	LOL	15S	1S	1	28	10	39	12	5	172	2.15	.1
885	5088904K	996019A8A4338326098365	93N01	273U	1	410	40BFP	MRB	15S	1N	1	34	9	39	20	5	251	2.65	.2
886	5088904K	996020A8A4338346098314	93N01	272U	1	510	30BFP	MRB	10S	1N	1	22	11	39	11	5	177	2.78	.1
887	5088904K	996021A8A4338296098266	93N01	273U	1	510	35BMB	LOLMBR	10S	1N	1	25	10	37	13	5	193	2.43	.1
888	5088904K	996022A8A4338286098216	93N01	273U	1	510	45RGB	LBYMRB	30S	1N	1	29	7	29	14	5	179	2.02	.1
889	5088904K	996023A8A4336276098219	93N01	272U	1	510	60BMB	MOL	15S	3W	1	45	8	44	29	5	339	3	.2
890	5088904K	996024A8A4336276098269	93N01	272U	1	510	30BFP	MBR	20S	3W	1	29	9	70	17	5	378	3.11	.1
891	5088904K	996025A8A4336276098320	93N01	272U	1	510	30BFP	MBR	10S	2W	1	43	10	86	22	5	691	3.67	.3
892	5088904K	996026A8A4336306098369	93N01	272U	1	510	40BFP	MBR	10S	4NW	1	53	11	61	31	5	543	4.18	.4
893	5088904K	996027A8A4336306098421	93N01	272U	1	510	35BFP	MOB	15S	4NW	1	23	9	71	12	5	359	3.39	.3
894	5088904K	996028A8A4336306098469	93N01	272L	1	510	30BFP	MRB	25S	4NW	1	31	10	62	12	5	253	4.13	.3
895	5088904K	996029A8A4336296098515	93N01	272L	1	510	30BFP	MRB	25S	4NW	1	41	11	101	15	5	344	3.45	.4
896	5088904K	996030A8A4336306098569	93N01	372L	8F	510	40BFF	DRB	50A	35N	1	89	14	105	15	5	919	6.98	.4
897	5088904K	996031A8A4336306098568	93N01	372L	8F	510	40BFP	DRB	50A	35N	1	72	12	89	11	5	543	5.99	.1
898	5088904K	996033A8A4336326098603	93N01	472L	6	510	35BFP	DRB	10M	30S	1	34	17	156	10	5	4166	7.94	.2
899	5088904K	996034A8A4336316098622	93N01	371U	6	510	30BFP	MOBDRB	10S	25S	1	42	12	73	22	5	467	6.23	.1
900	5088904K	996035A8A4336296098664	93N01	272U	1	510	30BFP	MRB	20S	3W	1	33	11	60	18	5	202	4.33	.2
901	5088904K	996036A8A4336306098719	93N01	272U	1	510	30BFP	MRB	25S	2S	1	33	11	117	18	5	241	5.75	.2
902	5088904K	996037A8A4336316098769	93N01	272U	1	510	30BFP	MRB	20S	6W	1	27	10	62	18	5	254	4.48	.1
903	5088904K	996038A8A4336336098819	93N01	272U	1	510	30BFP	MOB	10S	3W	1	29	7	78	18	5	352	4.32	.1
904	5088904K	996039A8A4336346098868	93N01	272U	1	510	30BFP	MOB	20S	3W	1	25	9	97	15	5	263	3.79	.3
905	5088904K	996040A8A4336346098922	93N01	272U	1	510	40BMB	MBRLOL	20S	3W	1	29	8	39	15	5	291	2.87	.1
906	5088904K	996041A8A4336356098968	93N01	272U	1	510	35BFP	MBR	20S	3W	1	23	7	34	13	5	206	2.75	.2
907	5088904K	996042A8A4336356099013	93N01	472U	S1	510	50BMB	MOLBR	40S	2W	1	42	12	60	23	5	446	3.55	.2

908	5089904K	9960438BA4336366099067	93N01	272U	1	510	50BFP	MRBOL	20S	2N 1	30	7	28	16	5	238	2.59	.1
909	5089904K	996044ABA4336346099120	93N01	272U	1	510	45BGS	MRBMOL	10S	4N 1	26	8	33	15	5	343	2.95	.1
910	5089904K	996045ABA4330336099117	93N01	271U	1	510	25BFP	MOB	30S	35N 1	53	11	54	26	5	323	4.05	.2
911	5089904K	996046ABA4330386099168	93N01	272U	1	510	30BMB	MOLYE	25S	25N 1	85	13	65	22	5	342	4.64	.2
912	5089904K	996047ABA4330376099214	93N01	472U	1	510	30BFP	MBR	30R	15N 1	47	10	115	24	5	307	4.02	.1
913	5089904K	996048ABA4330376099260	93N01	272U	1	510	30BFP	MBR	30S	5N 1	43	12	102	26	5	416	4.26	.2
914	5089904K	996049ABA4330366099317	93N01	172U	1	510	30BFP	MBRYE	20S	5S 1	38	14	96	21	5	266	4.7	.2
915	5089904K	996050ABA4330356099363	93N01	271U	1	410	30BFP	MOBOL	30S	5SN1	55	13	81	31	5	384	5.01	.2
916	5089904K	996051ABA4334356099116	93N01	271U	1	510	45BGG	MRBLOL	20S	3N 1	23	7	32	13	5	219	2.28	.4
917	5089904K	996052ABA4334396099065	93N01	272E	2	410	45BFP	MOB	10S	4N 1	40	7	38	20	5	277	2.91	.3
918	5089904K	996053ABA4334396099017	93N01	272U	1	510	50BMB	LOBOL	10S	4N 1	34	6	30	15	5	243	2.42	.2
919	5089904K	996054ABA4334396098968	93N01	272U	1	510	45BMB	MOL	10S	5N 1	43	4	31	17	5	265	2.44	.2
920	5089904K	996055ABA4334376098920	93N01	272U	1	510	45BGG	MRBLOL	15S	5N 1	35	7	35	19	5	269	2.59	.1
921	5089904K	996056ABA4334436098870	93N01	472U	1	510	40BFP	MRBOB	10S	5N 1	31	8	32	16	5	235	3	.2
922	5089904K	996057ABA4334426098615	93N01	472US1		510	60BFP	MRBMOL	20S	5N 1	37	7	38	20	5	334	2.9	.1
923	5089904K	996058ABA4334446098765	93N01	472US1		510	75BFP	MRB	20S	4N 1	68	11	74	25	5	336	4	.9
924	5089904K	996059ABA4334446098717	93N01	272U	1	510	35BMB	MOL	30S	3N 1	42	8	52	23	5	311	3.08	.2
925	5089904K	996060ABA4334426098665	93N01	272E	2	410	35BFP	MRB	60S	2N 1	48	9	59	21	5	500	4.39	.1
926	5089904K	996061ABA4334436098663	93N01	272E	2	410	30BMB	MBR	60S	2N 1	50	10	56	21	5	431	3.31	.2
927	5089904K	996062ABA4334476098610	93N01	472L	6	510	50BFP	DRB	10S	30S 2	55	13	120	13	5	771	6.34	.1
928	5089904K	996064ABA4334456098591	93N01	472L	9P	510	60BMB	MOBR	50N	30N 1	63	10	89	11	5	1245	5.02	.5
929	5089904K	996065ABA4334476098567	93N01	272U	1D	510	25BFP	MBR	20N	40N 1	32	10	47	17	5	227	3.38	.1
930	5089904K	996066ABA4334486098516	93N01	272U	1	510	35BGG	MRBLOL	20S	3N 1	37	8	43	19	5	268	3.19	.1
931	5089904K	996067ABA4334496098465	93N01	272U	1	410	35BFP	MOB	40S	3N 1	45	11	72	26	5	307	5.14	.2
932	5089904K	996068ABA4334466098414	93N01	272U	1	510	30BGG	MBRMOL	5S	3N 1	34	10	74	17	5	359	3.69	.3
933	5089904K	996069ABA4334516098368	93N01	272U	1	510	25BFP	MBR	5S	3N 1	33	8	46	14	3	249	3.52	.1
934	5089904K	996070ABA4334506098320	93N01	272L	1	510	50BMB	LOL	15S	6N 1	32	7	34	19	5	329	2.83	.2
935	5089904K	996071ABA4334516098268	93N01	272L	1	510	40BMB	LOL	10S	3NN1	27	7	31	17	5	314	2.64	.2
936	5089904K	996072ABA4334526098219	93N01	272U	1	510	40BMB	LOL	40S	2N 1	25	4	29	15	5	286	2.34	.2
937	5089904K	996073ABA4332506098209	93N01	272U	1	510	30BFP	MBR	10S	3SN1	43	6	60	16	5	341	2.72	.5
938	5089904K	996074ABA4332596095160	93N01	472U	2	510	30BFP	MOB	20S	5N 1	33	11	102	17	5	289	5.03	.3
939	5089904K	996075ABA4332536095306	93N01	4A2LS9		510	70BGG	DRBMGY	40A	1N 13	39	11	60	14	5	804	8.5	.3
940	5089904K	996076ABA4332576098259	93N01	272U	1	510	30BFP	MOB	15S	4SN1	36	14	95	20	5	257	5.75	.1
941	5089904K	996077ABA4332606098407	93N01	272U	1	510	30BFP	MRBMBR	10S	2N 1	37	11	38	18	5	243	3.32	.1
942	5089904K	996078ABA4332636098456	93N01	272L	1	510	40BMB	MOL	15S	2N 1	34	9	37	18	5	400	2.86	.1
943	5089904K	996079ABA4332666098502	93N01	272L	1	510	35BGG	MOLMRB	20S	4NN1	17	5	39	12	5	279	2.32	.1
944	5089904K	996080ABA4332736098554	93N01	372L	1	510	60BFP	MOB	25N	20N 1	53	11	62	20	5	529	4.26	.2
945	5089904K	996081ABA4332726098574	93N01	472M	1	510	35BFP	MOBORB	30M	15N 1	61	12	80	20	5	658	5.09	.4
946	5089904K	996082ABA4332726099601	93N01	472U	1	510	70BMB	MOLBR	50S	10SN1	71	11	52	20	5	615	4.36	.3
947	5089904K	996084ABA4332806098655	93N01	372U	1	510	30BFP	MOB	30S	25SN1	26	9	56	15	5	196	3.93	.1
948	5089904K	996085ABA4332796098705	93N01	272U	2	410	30BFP	MOBYE	10S	3N 1	34	12	93	24	5	269	3.94	.1
949	5089904K	996086ABA4332206098752	93N01	272U	1	510	30BFP	MOB	15S	15N 1	27	10	71	15	5	237	3.16	.1
950	5089904K	996087ABA4332836098807	93N01	271U	1	410	30BFP	MOB	10S	3NN1	31	11	59	17	5	241	4.16	.1
951	5089904K	996088ABA4332896098860	93N01	272U	1	510	50BMB	MOL	10S	2N 1	34	6	33	16	5	311	2.35	.1
952	5089904K	996089ABA4332976098909	93N01	272U	1	510	45BMB	LOL	10S	2N 1	25	5	29	16	5	287	2.32	.1
953	5089904K	996090ABA4332956098957	93N01	472U	1	510	45BMB	LOL	15S	3N 1	18	5	32	13	5	250	2.19	.1
954	5089904K	996091ABA4332956098957	93N01	472U	1	510	50BMB	LOL	15S	3N 1	19	3	26	12	5	243	2.05	.1
955	5089904K	996092ABA4332976099004	93N01	272E	1	510	60BFP	MOB	10S	10N 1	26	7	31	12	5	201	2.37	.2
956	5089904K	996093ABA4333016099055	93N01	272L	1	510	50BMB	LOL	5S	15N 1	59	11	57	20	5	769	3.36	.2
957	5089904K	996094ABA4333026099104	93N01	372U	1	510	25BFP	MOB	50S	25N 1	62	8	52	21	5	309	3.82	.1
958	5089904K	996096ABA4333046099066	93N01	271E	2	4 5	20BFP	MOB	5S	1N 1	45	9	56	19	5	223	3.61	.1

959	5088904K	996097A8A4330426099016	93N01	271E 2	5 5 30BFP	MOB	80S	1W 1	26	11	87	16	5	245	4.37	.3
960	5088904K	996095A8A4330376098967	93N01	272U 1	510 40BFP	MOB	605	2NW 1	31	9	95	17	5	242	4.79	.1
961	5088904K	996099A8A4330406098918	93N01	271E 2	4 5 35BFP	MOB	80S	2W 1	33	11	77	18	5	284	5.15	.1
962	5088904K	996100A8A4330435098854	93N01	271E 2	410 35BFP	MOB	70S	3W 1	40	9	82	18	5	251	5.93	.1
963	5088904K	996101A8A4330416098816	93N01	272U 1	510 35BFP	MOB	60S	6W 2	66	2	46	13	5	180	2.62	.1
964	5088904K	996102A8A4330406098767	93N01	272U 1	510 35BFP	MOB	50S	6W 2	82	10	102	22	5	350	4.51	.1
965	5088904K	996103A8A4330416098715	93N01	272L 9P	510 35BFP	MYB	50A	6W 1	93	9	94	24	5	324	3.94	.1
966	5088904K	996104A8A4330426098668	93N01	272L 9B	510 40BFP	MBP	90A	5W 1	60	12	178	59	5	665	7.33	.3
967	5088904K	996105A8A4330426098615	93N01	472L 9P	510 70BFP	MBBOFB	99A	30S 1	210	23	164	24	5	2511	10.99	.3
968	5088904K	996107A8A4330456098560	93N01	372L 1	510 30BMP	MOL	15S	25NW1	73	9	52	22	5	681	3.58	.1
969	5088904K	996108A8A4330466098514	93N01	272U 1	510 35BFP	MBS	40S	4NW2	48	11	63	25	5	283	4.57	.2
970	5088904K	996109A8A4330436098464	93N01	272E 2	410 35BFP	MOB	60S	5W 1	67	9	73	22	5	400	5.67	.1
971	5088904K	996110A8A4330436098414	93N01	272L 1	5 3 40BFP	MOB	90A	3NW1	211	10	49	38	5	635	3.59	.5
972	5088904K	996111A8A4330446098363	93N01	271E 2	310 40BFP	MRB	50S	2W 1	47	13	95	25	5	326	5.03	.1
973	5088904K	996112A8A4330436098315	93N01	272L 9B	510 30BFP	MOB	95A	55W1	22	10	83	15	5	192	4.7	.2
974	5088904K	996113A8A4330446098264	93N01	172L 9B	510 30BFP	MOB	90A	1NE3	37	13	117	12	5	270	6.83	.2
975	5088904K	996114A8A4330466098212	93N01	272L 9B	510 35BFP	MOB	80A	3S 2	119	17	113	26	5	416	8.09	.2
976	1988904K	996013A8A4333076099628	93N01	M L 3	21.0 55	MOBR		2W 1	36	8	77	18	5	6266	4.33	.3
977	1988904K	996033A8A4333276098573	93N01	M L 3P	21.0 65	MOBR		3W 1	39	8	74	18	5	5913	4.72	.2
978	1988904K	996063A8A4333446098571	93N01	M L 3P	21.0 65	DBR		3W 1	40	9	80	19	5	4172	4.91	.2
979	1988904K	996082A8A4332756098536	93N01	M L 6	20.5 65	DBR		3W 1	37	6	66	19	5	1848	4.23	.1
980	1988904K	996095A8A4330376099099	93N01	M U 1	20 435	DBR		5W 1	78	9	65	22	5	8940	6.3	.6
981	1988904K	996106A8A4330416098526	93N01	M L 8P	21.0 65	DBR		3W 1	43	9	72	19	5	1719	4.2	.1
982	5088904K	996115A8A3300796113108	93N02	371L 9B	510 25BFP	MOB	90A	30W 1	73	15	52	30	5	461	8.16	.3

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REC#	SMPL#	ID	AU	AUT	AS	HG	SE	SN	W	F	TH	CD	BI	V	BA	SR	SI	AL	CA	MG	NA	K	CET	CRT	TI
869	996002	7	3	0	2		2		1		1	1	2	90	75	27		2.06	.39	.53	.01	.04			.08
870	996003	8	5	0	3		2		2		1	1	3	97	53	32		1.72	.54	.56	.01	.03			.08
871	996004	13	1	0	3		2		1		1	1	2	121	93	34		2.37	.52	.91	.01	.04			.13
872	996005	11	29	0	4		2		1		2	1	2	95	176	34		2.18	.64	.77	.02	.05			.09
873	996006	8	6	0	5		2		1		2	1	2	85	93	29		2.1	.4	.63	.01	.04			.09
874	996007	12	3	0	5		2		1		2	1	2	91	102	38		2.37	.69	.73	.01	.06			.08
875	996008	5	1	0	2		2		1		1	1	2	77	79	25		1.99	.35	.33	.01	.04			.06
876	996009	13	1	0	2		2		1		2	1	2	157	172	20		4.23	.27	1.12	.01	.06			.02
877	996010	13	3	0	6		2		2		2	1	2	102	99	30		2.96	.39	.81	.02	.04			.08
878	996011	16	1	0	17		2		1		2	1	2	89	79	26		2.39	.26	.54	.01	.06			.02
879	996012	25	1	0	52		2		1		1	1	2	54	215	43		2.03	.52	.21	.01	.13			.01
880	996014	19	50	0	22		3		1		1	1	2	55	105	34		1.75	.43	.66	.01	.05			.05
881	996015	8	3	0	3		2		2		1	1	2	79	91	34		2.47	.46	.61	.01	.06			.09
882	996016	5	12	0	2		2		2		1	1	2	47	63	28		2.06	.41	.45	.01	.05			.05
883	996017	5	1	0	4		2		1		2	1	2	59	85	34		2.19	.48	.55	.01	.04			.07
884	996018	5	1	0	2		2		1		2	1	2	52	87	30		2.39	.38	.48	.02	.04			.08
885	996019	6	1	0	2		2		2		1	1	2	60	84	33		2.18	.58	.67	.02	.05			.09
886	996020	5	4	0	2		2		2		1	1	2	63	78	30		2.38	.35	.49	.01	.04			.09
887	996021	5	59	0	3		2		1		1	1	2	67	74	29		2.53	.36	.57	.01	.03			.09
888	996022	5	3	0	2		2		1		2	1	2	47	58	31		1.92	.5	.5	.02	.05			.09
889	996023	9	1	0	2		2		1		1	1	2	65	93	37		1.83	.8	.78	.01	.05			.08
890	996024	8	3	0	2		2		1		1	1	2	68	76	38		1.88	.58	.68	.01	.05			.09
891	996025	11	1	0	2		2		1		1	1	2	70	134	44		2.45	.55	.65	.02	.07			.08
892	996026	15	13	0	4		2		1		1	1	2	80	130	44		2.54	.59	.82	.01	.08			.09
893	996027	7	10	0	3		2		1		2	1	2	80	85	31		2.01	.4	.5	.01	.06			.07
894	996028	6	1	0	8		2		1		1	1	2	83	101	33		2.04	.4	.49	.01	.06			.07

895	996029	7	4	0	3	2	1	1	1	2	71	107	32	2.16	.35	.57	.01	.06	.07
896	996030	19	4	0	20	2	1	1	1	2	91	216	36	2.91	.24	.61	.01	.06	.01
897	996031	13	1	0	16	2	1	1	1	2	109	272	29	2.44	.2	.42	.01	.05	.01
898	996033	21	1	0	4	2	1	1	1	2	133	303	29	3.48	.59	1.3	.01	.05	.08
899	996034	16	1	0	9	2	1	1	1	2	113	100	20	2.34	.3	1.06	.02	.05	.04
900	996035	16	1	0	5	2	1	2	1	2	85	98	26	2.78	.35	.51	.03	.05	.07
901	996036	10	1	0	9	2	1	2	1	2	116	92	20	2.8	.26	.58	.01	.05	.07
902	996037	3	3	0	4	2	2	2	1	2	92	80	24	2.55	.3	.55	.01	.04	.09
903	996038	3	8	0	5	2	1	2	1	2	85	88	25	2.22	.34	.59	.01	.05	.09
904	996039	7	10	0	6	3	1	2	1	2	77	85	32	2.02	.46	.52	.01	.05	.09
905	996040	7	6	0	5	2	1	1	1	2	68	76	41	1.91	.56	.57	.01	.04	.09
906	996041	5	1	0	3	2	1	1	1	3	70	61	35	1.51	.46	.51	.01	.04	.09
907	996042	10	3	0	5	3	1	1	1	2	75	104	39	2.1	.67	.88	.02	.07	.08
908	996043	6	7	0	3	2	1	1	1	2	60	56	39	1.47	.67	.58	.01	.03	.09
909	996044	8	1	0	2	2	1	1	1	2	75	63	46	1.57	.76	.67	.02	.04	.09
910	996045	11	1	0	3	3	1	1	1	2	92	72	31	2.2	.44	.81	.01	.07	.11
911	996046	13	8	0	12	2	1	1	1	2	95	78	32	2.58	.37	1.08	.01	.08	.09
912	996047	13	1	0	5	3	1	3	1	2	72	95	20	2.85	.32	.75	.01	.06	.1
913	996048	15	3	0	4	2	1	1	1	2	108	111	31	2.88	.46	1.04	.01	.11	.11
914	996049	9	1	0	3	2	1	2	1	2	95	76	22	2.99	.33	.63	.01	.04	.08
915	996050	15	92	0	3	2	1	1	1	3	99	77	25	3.67	.34	.82	.01	.06	.07
916	996051	5	9	0	3	3	1	1	1	2	76	78	50	1.49	.68	.57	.01	.05	.09
917	996052	7	1	0	3	3	1	1	1	2	65	67	38	1.56	.58	.64	.01	.05	.08
918	996053	6	13	0	4	2	1	1	1	2	61	64	40	1.95	.63	.56	.01	.05	.09
919	996054	6	1	0	2	2	1	1	1	2	62	69	42	1.65	.68	.58	.02	.06	.09
920	996055	7	1	0	2	2	1	1	1	3	62	101	43	1.85	.62	.61	.01	.05	.09
921	996056	6	1	0	2	2	1	1	1	2	65	67	38	1.88	.59	.54	.02	.04	.08
922	996057	7	1	0	2	2	2	1	1	2	70	81	42	1.49	.7	.63	.01	.06	.09
923	996058	10	5	0	10	2	1	1	1	2	68	89	42	2.52	.87	.66	.02	.06	.05
924	996059	3	1	0	4	2	1	1	1	2	65	85	47	2	.8	.81	.03	.04	.08
925	996060	15	1	0	2	2	1	1	1	2	97	121	42	2.73	.63	.8	.02	.04	.08
926	996061	11	1	0	4	3	1	1	1	2	88	112	39	2.6	.61	.95	.01	.05	.1
927	996062	16	93	0	10	4	1	1	1	2	105	182	16	3.4	.25	.72	.01	.07	.01
928	996064	14	3	0	14	2	1	1	1	2	72	124	28	1.97	.19	.36	.01	.08	.01
929	996065	7	1	0	2	2	1	1	1	2	65	75	27	2.07	.29	.58	.01	.03	.07
930	996066	8	4	0	2	2	1	1	1	2	71	108	44	2.22	.64	.66	.01	.05	.1
931	996067	11	1	0	7	3	1	1	1	2	108	122	37	2.96	.49	.84	.03	.05	.1
932	996068	8	10	0	2	2	1	1	1	2	80	90	33	2.16	.43	.66	.01	.05	.09
933	996069	6	1	0	2	2	1	1	1	2	72	79	34	2.13	.44	.5	.02	.05	.08
934	996070	8	6	0	3	3	2	1	1	2	69	87	52	1.52	.8	.62	.01	.06	.11
935	996071	7	1	0	2	2	1	1	1	2	67	63	52	1.23	.81	.58	.02	.06	.11
936	996072	6	8	0	2	2	2	1	1	2	60	58	44	1.15	.75	.55	.01	.05	.1
937	996073	8	6	0	2	2	1	1	1	3	62	80	30	2.04	.43	.56	.01	.04	.1
938	996074	3	8	0	2	2	1	1	1	2	107	81	28	2.22	.39	.63	.02	.05	.11
939	996075	19	5	0	22	2	1	1	1	2	109	186	40	2.03	.68	.58	.01	.09	.03
940	996076	8	1	0	9	2	1	2	1	2	115	83	23	3.25	.37	.63	.01	.04	.09
941	996077	7	3	0	8	3	1	1	1	2	81	69	35	2.23	.5	.62	.01	.04	.1
942	996078	8	125	0	5	2	1	1	1	2	72	74	47	1.35	.74	.67	.01	.04	.11
943	996079	6	6	0	5	3	1	1	1	2	61	66	48	1.31	.75	.64	.01	.03	.1
944	996080	13	1	0	12	2	1	1	1	2	85	91	50	2.13	.66	.96	.01	.07	.1
945	996081	14	1	0	9	2	1	1	1	2	92	99	39	2.73	.45	.89	.01	.08	.08

946	996083	12	7	0	5	2	1	1	1	2	84	89	62	2.1	1.19	1	.01	.11	.08
947	996084	7	1	0	6	2	1	1	1	2	98	84	30	2.08	.34	.49	.01	.05	.1
948	996085	10	1	0	9	2	1	2	1	2	84	67	23	3.04	.29	.54	.01	.05	.09
949	996086	5	1	0	4	2	1	2	1	2	68	67	26	2.49	.32	.46	.01	.05	.09
950	996087	7	1	0	5	2	1	1	1	2	93	73	28	2.74	.44	.58	.01	.04	.09
951	996088	6	1	0	4	2	1	1	1	2	53	72	45	1.27	.72	.6	.01	.05	.09
952	996089	6	5	0	3	2	1	1	1	2	59	65	46	1.16	.74	.57	.01	.05	.1
953	996090	6	1	0	6	3	1	1	1	2	58	51	46	1.2	.7	.6	.01	.05	.11
954	996091	5	1	0	7	2	1	1	1	2	54	50	48	1.13	.73	.55	.01	.05	.1
955	996092	5	15	0	4	2	1	1	1	2	68	72	40	1.57	.56	.49	.01	.05	.09
956	996093	13	1	0	7	2	1	1	1	2	80	123	55	2.13	.7	.83	.01	.07	.08
957	996094	10	3	0	12	2	1	1	1	2	86	99	37	2.01	.54	.89	.01	.09	.1
958	996096	8	5	0	10	3	1	1	1	2	75	67	23	2.97	.32	.57	.01	.02	.07
959	996097	6	1	0	6	2	1	2	1	3	75	66	16	3.36	.21	.46	.01	.03	.07
960	996098	9	73	0	6	2	1	1	1	2	83	123	24	3.1	.33	.59	.01	.04	.09
961	996099	9	1	0	8	3	1	1	1	2	104	75	24	3.1	.35	.62	.01	.04	.07
962	996100	9	915	0	7	2	1	2	1	2	121	102	25	2.94	.34	.63	.01	.03	.13
963	996101	5	1	0	3	2	1	1	1	3	37	56	14	1.32	.15	.43	.01	.04	.05
964	996102	13	1	0	5	2	1	1	1	2	100	118	25	3.26	.4	1.25	.02	.08	.12
965	996103	11	3	0	5	2	1	2	1	2	78	58	55	2.78	.38	.98	.01	.04	.13
966	996104	21	1	0	10	3	1	1	1	2	151	152	97	2.63	.43	1.69	.01	.07	.14
967	996105	66	1	0	435	16	1	1	1	2	150	438	356	4.03	.74	1.08	.01	.08	.05
968	996107	15	8	0	11	2	1	1	1	2	85	79	62	1.57	.71	.92	.01	.13	.13
969	996108	12	1	0	10	2	1	1	1	2	93	112	35	2.68	.51	.63	.01	.05	.09
970	996109	17	1	0	5	2	1	1	1	2	133	87	32	3.39	.43	1.23	.01	.05	.18
971	996110	10	8	0	9	2	1	1	1	2	77	66	50	1.78	.76	.68	.01	.05	.09
972	996111	12	1010	0	6	2	1	1	1	2	108	77	34	2.78	.55	.76	.01	.05	.09
973	996112	7	260	0	18	2	1	2	1	2	113	78	25	2.25	.32	.43	.02	.03	.07
974	996113	11	1	0	51	3	1	1	1	2	161	774	241	3.16	.39	.6	.01	.03	.04
975	996114	24	1	0	78	4	1	2	1	2	136	143	26	4.32	.22	1.12	.01	.04	.09
976	996013	18	2	0	7	2	1	2	1	2	69	203	64	1.49	1.27	.49	.01	.1	.04
977	996032	17	3	0	6	2	1	2	1	2	64	203	59	1.4	1.11	.52	.02	.13	.03
978	996063	15	11	0	12	2	1	2	1	2	72	201	68	1.52	1.29	.58	.01	.27	.03
979	996082	11	4	0	10	2	1	2	1	2	76	138	54	1.32	.97	.58	.01	.19	.04
980	996095	22	3	0	11	2	1	2	1	2	83	233	72	1.94	1.48	.44	.01	.19	.02
981	996106	12	72	0	8	2	1	1	1	2	76	136	57	1.45	1.05	.61	.01	.09	.04
982	996115	14	1	0	14	2	2	1	1	2	233	99	18	4.09	.57	2.51	.02	.3	.31

REC#	SMPL#	P	LA	PH	B	CR	AES	AES	GRIDE	GRIDN
869	996002	.157	6		3	30			11000E	10000N
870	996003	.153	6		3	32			11000E	9950N
871	996004	.033	4		5	26			11000E	9900N
872	996005	.042	9		5	50			11000E	9850N
873	996006	.093	6		9	39			11000E	9800N
874	996007	.035	17		5	40			11000E	9750N
875	996008	.052	6		3	26			11000E	9700N
876	996009	.164	5		2	24			11000E	9650N
877	996010	.111	6		4	49			11000E	9600N
878	996011	.045	9		4	24			11000E	9550N
879	996012	.16	11		2	12			11000E	9525N
880	996014	.095	12		3	31			11000E	9500N
881	996015	.075	6		4	36			11000E	9450N

882	996016	.073	8	6	24	11000E 9400N
883	996017	.037	8	5	26	11000E 9350N
884	996018	.048	9	3	26	11000E 9300N
885	996019	.103	7	9	28	11000E 9250N
886	996020	.036	8	5	28	11000E 9200N
887	996021	.029	6	4	23	11000E 9150N
888	996022	.05	7	3	25	11000E 9100N
889	996023	.034	7	5	37	10800E 9100N
890	996024	.043	7	7	32	10800E 9150N
891	996025	.07	11	6	36	10800E 9200N
892	996026	.067	9	4	40	10800E 9250N
893	996027	.158	7	4	31	10800E 9300N
894	996028	.151	6	5	29	10800E 9350N
895	996029	.069	10	3	30	10800E 9400N
896	996030	.095	7	5	20	10800E 9450N
897	996031	.086	6	2	18	10800E 9450N
898	996033	.174	10	2	14	10800E 9485N
899	996034	.232	5	5	43	10800E 9500N
900	996035	.093	6	4	36	10800E 9550N
901	996036	.127	7	3	38	10800E 9600N
902	996037	.11	6	2	39	10800E 9650N
903	996038	.111	6	7	40	10800E 9700N
904	996039	.096	8	6	34	10800E 9750N
905	996040	.069	8	6	28	10800E 9600N
906	996041	.06	6	8	27	10800E 9850N
907	996042	.075	9	5	36	10800E 9900N
908	996043	.083	7	9	28	10800E 9950N
909	996044	.087	6	5	28	10800E10000N
910	996045	.083	6	4	38	10200E10000N
911	996046	.097	6	3	35	10200E10050N
912	996047	.143	10	5	39	10200E10100N
913	996048	.213	6	4	44	10200E10150N
914	996049	.219	7	9	41	10200E10200N
915	996050	.291	5	3	47	10200E10250N
916	996051	.087	7	6	26	10600E10000N
917	996052	.092	8	5	29	10600E 9950N
918	996053	.093	8	9	25	10600E 9900N
919	996054	.094	9	3	27	10600E 9850N
920	996055	.088	8	15	28	10600E 9800N
921	996056	.091	8	7	30	10600E 9750N
922	996057	.1	8	11	31	10600E 9700N
923	996058	.061	16	5	45	10600E 9650N
924	996059	.08	7	4	34	10600E 9600N
925	996060	.066	7	8	35	10600E 9550N
926	996061	.045	6	5	35	10600E 9550N
927	996062	.136	8	4	19	10600E 9500N
928	996064	.199	7	7	24	10600E 9470N
929	996065	.055	8	9	28	10600E 9450N
930	996066	.091	7	7	29	10600E 9400N
931	996067	.086	5	4	46	10600E 9350N
932	996068	.054	3	8	33	10600E 9300N

933	996069	.09	8	3	31	10600E 9250N
934	996070	.073	8	6	30	10600E 9200N
935	996071	.095	9	6	29	10600E 9150N
936	996072	.097	8	7	25	10600E 9100N
937	996073	.038	8	5	30	10400E 9100N
938	996074	.149	6	7	40	10400E 9150N
939	996075	.101	9	4	26	10400E 9200N
940	996076	.107	7	3	46	10400E 9250N
941	996077	.069	9	2	34	10400E 9300N
942	996078	.075	8	16	31	10400E 9350N
943	996079	.058	6	11	24	10400E 9400N
944	996080	.081	7	8	39	10400E 9450N
945	996081	.138	7	6	41	10400E 9475N
946	996083	.14	9	8	43	10400E 9500N
947	996084	.092	5	4	34	10400E 9500N
948	996085	.12	6	5	41	10400E 9600N
949	996086	.105	6	6	32	10400E 9650N
950	996087	.152	6	5	39	10400E 9700N
951	996088	.086	10	6	27	10400E 9750N
952	996089	.094	8	3	25	10400E 9800N
953	996090	.074	7	4	24	10400E 9850N
954	996091	.08	7	12	22	10400E 9850N
955	996092	.055	6	8	26	10400E 9900N
956	996093	.062	8	4	39	10400E 9950N
957	996094	.124	6	10	31	10400E10000N
958	996096	.231	4	6	35	10200E 9950N
959	996097	.24	6	4	37	10200E 9900N
960	996098	.103	6	3	38	10200E 9850N
961	996099	.32	6	6	42	10200E 9800N
962	996100	.096	6	6	42	10200E 9750N
963	996101	.038	3	2	19	10200E 9700N
964	996102	.152	5	5	38	10200E 9650N
965	996103	.114	6	10	33	10200E 9600N
966	996104	.19	5	8	173	10200E 9550N
967	996105	.33	4	2	32	10200E 9500N
968	996107	.107	9	6	33	10200E 9450N
969	996108	.073	3	9	39	10200E 9400N
970	996109	.099	4	3	41	10200E 9350N
971	996110	.054	15	9	44	10200E 9300N
972	996111	.31	6	5	45	10200E 9250N
973	996112	.129	7	8	33	10200E 9200
974	996113	.274	6	6	24	10200E 9150
975	996114	.07	7	4	32	10200E 9100
976	996017	.106	9	9	27	11000E 9520N
977	996072	.103	8	9	25	10800E 9475N
978	996067	.116	9	4	30	10600E 9475N
979	996082	.097	7	5	31	10400E 9485N
980	996095	.115	13	5	30	10200E [illegible]
981	996106	.103	7	7	33	[illegible]
982	996115	.055	6	4	39	[illegible]

APPENDIX III: Method of Histogram Interpretation

RULES FOR CHOICE OF SIZE CODING OR CONTOURING INTERVALS

(1) Examine both arithmetic and logarithmic histograms for each geochemical survey. Choose the histogram which most closely approximates a normal (or lognormal) distribution. If several populations are present on the histogram, subjectively divide the data into a series of (overlapping ?) normal or lognormal distributions. Always avoid interpreting histograms which are strongly skewed. Portions of arithmetic or logarithmic histograms may be chosen over specific metal concentration intervals, if this allows for the best portrayal of the data in graphitical form.

(2) Choose, as two of the coding intervals, points which represent between 90% and 95%, and 95% and 97.5% of the data; two different numbers. These choices highlight from 1 in 10 to 1 in 20 samples which are considered slightly anomalous and definately anomalous, respectively. These limits are optimistic in that the two categories are defined to be anomalous regardless of the distribution of values on the remainder of the histogram. A rigorous statistical approach would suggest that only values above the 97.5 percentile should be considered anomalous. Choice of any of the above percentiles is entirely subjective and meant to highlight the highest values of the survey.

(3) Divide the remaining portion of the histogram into recognizable populations. The dividing point of each of these populations is chosen as a coding interval. Artifacts introduced as a consequence of detection limit considerations are ignored. These artificial breaks in the histogram can be recognized by referring to the laboratory reports and scanning data results.

(4) For each population, choose one or two numbers which correspond to the 90% and 95% cumulative frequencies for that population (1 in 10 and 1 in 20 samples for that population). These will also be used to represent anomalous conditions for each population. Coding intervals can be no closer than 2X the detection limit for each element being considered.

(5) A maximum of six numbers can be chosen to plot symbol maps. This number is dictated by the ability to present data in graphical form with sufficiently different symbol sizes for them to be easily distinguishable, particularly if maps are to be reduced. The seven defined concentration classes are normally sufficient to represent geochemical data on a map. More intervals can be chosen if data are to be contoured. Avoid choosing arithmetic intervals without considering rules (1) and (4).

(6) Maps plotted using the preceeding instructions might result in two areas being distinguished from each other by a relatively uniform density of symbol sizes, yet only poor contrast anomalies are indicated. Difference between the two areas, A and B, might be due to underlying geology, overburden character, soils etc. Whatever the cause, the data are not well displayed. If the underlying control distinguishing A and B can be recognized, the data can be divided and re-interpreted following steps (1) to (5). Two sets of maps can be drawn, or both sets of interpreted data can be plotted on a single map. For such superimposed geochemical maps, symbol sizes lose their absolute meaning but assume a more important stance, that of reflecting anomalous conditions regardless of the underlying control. To illustrate, consider the case where A and B are areas underlain by very different geology. Anomalous conditions for low background rock types might be concentrations which are much lower than average values for the high background rock types. Nevertheless, anomalies defined in each area are considered significant. Reliance on absolute concentrations can be misleading in such cases.

APPENDIX IV: Field Personnel

R. Pegg	– Project Geologist	July 7,8,12
S. Hoffman	– Senior Geochemist	July 7,8,12
V. Malo	– Geological Assistant	July 7,8,12

APPENDIX V: Statement of Qualifications

I, Rex Pegg of 700-890 West Pender Street, in the City of Vancouver, in the Province of British Columiba, DO HEREBY CERTIFY:

1. That I am an exploration geologist employed by BP Minerals Limited, which has its office located at 700-890 West Pender Street, Vancouver, B.C. V6C 1K5.

2. That I am a graduate of the University of Toronto, located in Toronto, Ontario, where I obtained a Bachelor of Applied Science degree in Geological Engineering (Exploration Option) in 1976.

3. That I am a Registerd Member, in good standing, of the Association of Professional Engineers of British Columbia.

4. That I have practised my profession as a geologist for the past twelve years.

5. That I have supervised the geological and geochemical field work.

Rex S. Pegg, BASC., P.Eng.

Dated this 18th day of July 1988.

Statement of Qualifications - S. J. Hoffman

BSc 1969 - McGill University (Hons., Geology and Chemistry)

MSc 1972 - The University of British Columbia (Geochemistry)

PhD 1976 - The University of British Columbia (Geochemistry)

1. He has worked continuously for BP Minerals Limited since 1976, as an exploration geochemist.

2. He collected and/or supervised the collection of the soil and moss mat samples.

3. He has interpreted the soil and moss mat sample results.

APPENDIX VI: Rock Sample Descriptions

COLLECTORS: R.P.

BP SL CO

ROCK SAMPLES

RAIN PROJECT — SURFACE [✓] UNDERGROUND [ ]

DATE: July 7, 1988

SAMPLE NUMBER	LOCATION NOTES	REP. SAMPLE NUMBER	SAMPLE TYPE (LENGTH) GRAB	CHIP	CHANNEL	CORE	FLOAT	ROCK TYPE	SAMPLE DESCRIPTION	MAP SHEET
705005	near W. border of Phil 17 (near Cl. Post 1N)		✓					Augite (± Hornbl) Flow Breccia	up to 5% Po (dissem), tr. CPy + Py polylithic	93N/1E
705006	near W. border of Phil 17		✓					Andesitic Fragmental	<<1% Py blebs; abund. plag pheros + frags	"
705007	near W. border of Phil 17		✓					Hornbld-Augite Tuff Breccia	<1-5% diss. Po; polylithic	"
705008	near W. border of Phil 17		✓					Hornbld-Augite-Plag. Flow	<1-2% Po, tr. CPy; minor v.f.g. green patches	"

COLLECTORS: R.P.

BP SELCO

ROCK SAMPLES

RAIN PROJECT – SURFACE ✓ UNDERGROUND ☐

DATE: July 8, 1988

SAMPLE NUMBER	LOCATION NOTES	REP. SAMPLE NUMBER	SAMPLE TYPE (LENGTH) GRAB	CHIP	CHANNEL	CORE	FLOAT	ROCK TYPE	SAMPLE DESCRIPTION	MAP SHEET
705009	10m N. of B/L 104+50E		✓					Lapilli Tuff	1% v.f.g. diss. Po; black colour; polylithic	93N/1E
705010	near trib. of main cK.		✓					And. Tuff	brecciated; minor - mod. carb f.f.	"
705011	N. bank of main creek.		✓					And Tuff?	1-5 % Py (f.f. ± diss); siliceous, v.f.g., well fract.; > minor carb f.f.; minor jarosite	"

APPENDIX VII: Rock Sample Results

ACME ANALYTICAL LABORATORIES LTD.   852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6   PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK   AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 12 1988   DATE REPORT MAILED: July 16/88   ASSAYER. C. Leong ..D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

BP RESOURCES PROJECT-10200   File # 88-2629

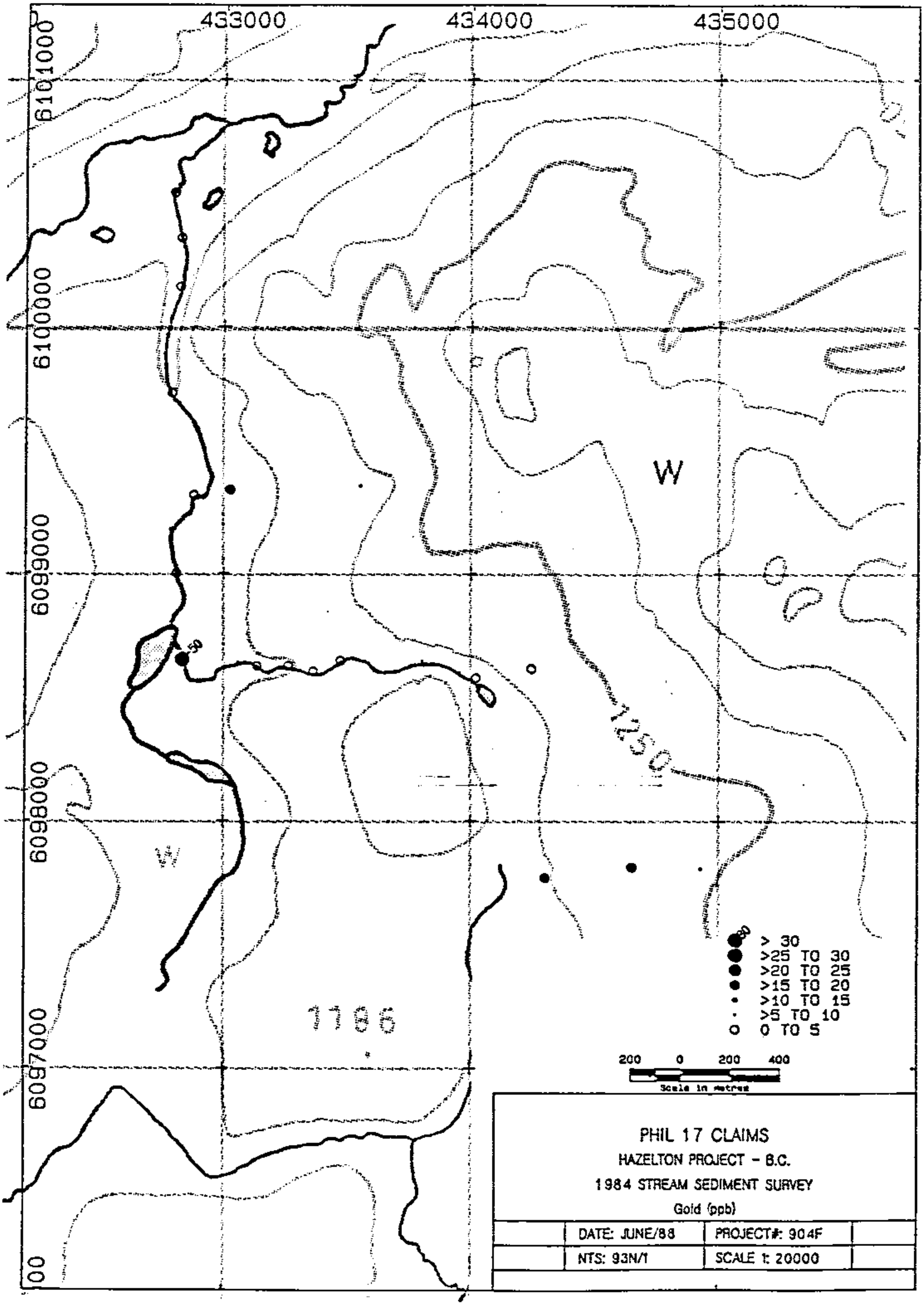
SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
705005	10	133	14	60	.1	35	15	612	4.37	33	5	ND	3	53	1	2	3	133	2.52	.061	4	31	1.56	14	.12	7	2.44	.01	.05	3	7
705006	1	160	11	67	.3	1	19	925	5.39	2	5	ND	1	161	1	2	2	105	1.34	.179	6	9	1.11	76	.17	12	2.21	.01	.03	1	2
705007	3	138	10	67	.2	69	30	620	4.00	2	5	ND	1	66	3	2	2	100	2.02	.077	4	42	2.09	36	.20	8	2.55	.05	.07	2	1
705008	1	170	10	58	.1	11	13	560	3.93	2	5	ND	1	47	1	2	3	120	1.72	.612	3	16	1.45	156	.25	13	2.20	.07	.23	1	1
705009	1	95	65	60	.3	15	20	653	5.69	2	5	ND	2	43	1	3	2	135	3.33	.102	5	23	1.15	17	.20	13	5.20	.12	.03	1	4
705010	1	67	12	63	.3	13	17	913	5.99	3	5	ND	2	101	1	2	2	111	3.65	.112	9	33	1.53	69	.27	66	3.41	.11	.06	5	2
705011	13	325	2	43	.2	23	30	673	4.63	4	5	ND	1	110	1	3	3	103	1.79	.062	6	30	1.63	33	-.01	6	1.33	.01	.06	2	5

APPENDIX VIII: Statement of Expenditures

1.	Geochemical Analysis:	
i)	7 rock samples (sample prep., I.C.P. and Au analysis @ $14.17/sample)	= $ 99.19
ii)	108 soil samples + 6 moss mats (sample prep., I.C.P. and Au analysis @ $10.85/sample)	= $1,236.90
	Total Geochemical Analysis Cost:	= **$1,336.09**
2.	Helicopter:	
	(Bell 206) 4 hrs. @ $564/hr.	= $2,256.00
3.	Computer Processing	
	Moss mat/soil data @ $2/sample	= $ 228.00
4.	Airfares:	
	(Vancouver to Prince George, return)	= $ 393.20
5.	Taxi:	
	(Vancouver to airport)	= $ 12.00
6.	4 x 4 Vehicle:	
	(includes fuel) 3 days @ $99/day	= $ 297.00
7.	Wages:	
i)	R. Pegg (project geologist) 5 days @ $240/day (July 7,8,12,15,18)	= $1,200.00
ii)	S. Hoffman (senior geochemist) 6 days @ $300/day (June 17, July 7,8,12,15,18)	= $1,800.00
iii)	V. Malo (geological assistant) 3 days @ $61.60/day (July 7,8,12)	= $ 184.80
	Total Wages:	= **$3,184.80**
8.	Room and Board:	
	9 man-days @ $55/man-day	= $ 495.00
9.	Report (drafting, typing, copying, etc.)	= $ 500.00
	TOTAL EXPENDITURES:	= **$8,702.09**

APPENDIX IX: Re-Interpretation of the 1984 Geochemical Data

The 1984 data defined 2 zones, anomalous in one or more of Au, Cu, Zn, Ag, Co, weak As, Sb, Ba, Al, Sr, Mg and Cr. Levels of Mn are regionally outstanding in a geological role, rather than due to bad sampling. Please see the attached sketches.



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434000
435000
6101000
6100000
6099000
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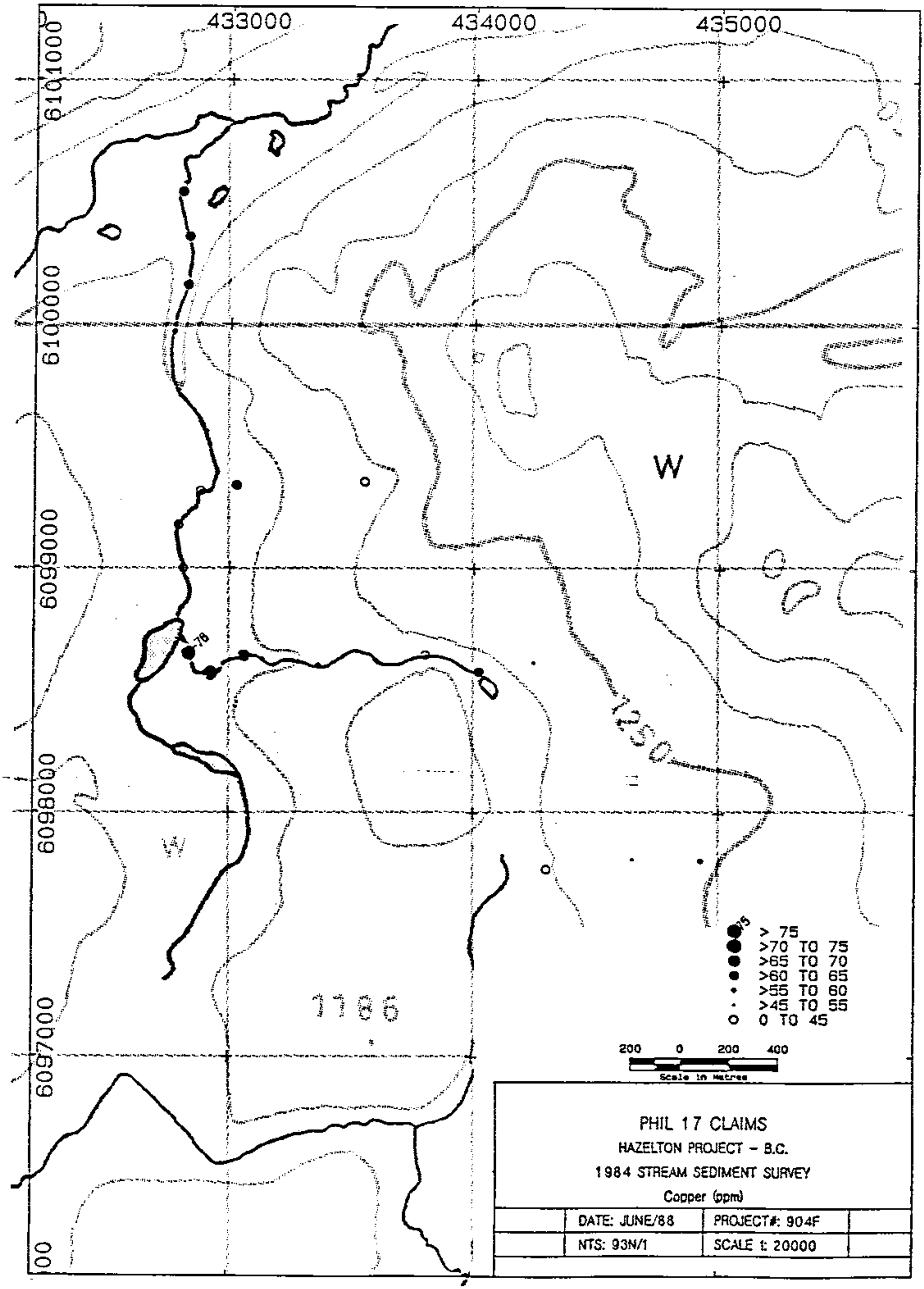
6097000
W
1250
> 30
>25 TO 30
>20 TO 25
>15 TO 20
>10 TO 15
>5 TO 10
0 TO 5
200 0 200 400
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Gold (ppb)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000



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W
1250
1186
78
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>70 TO 75
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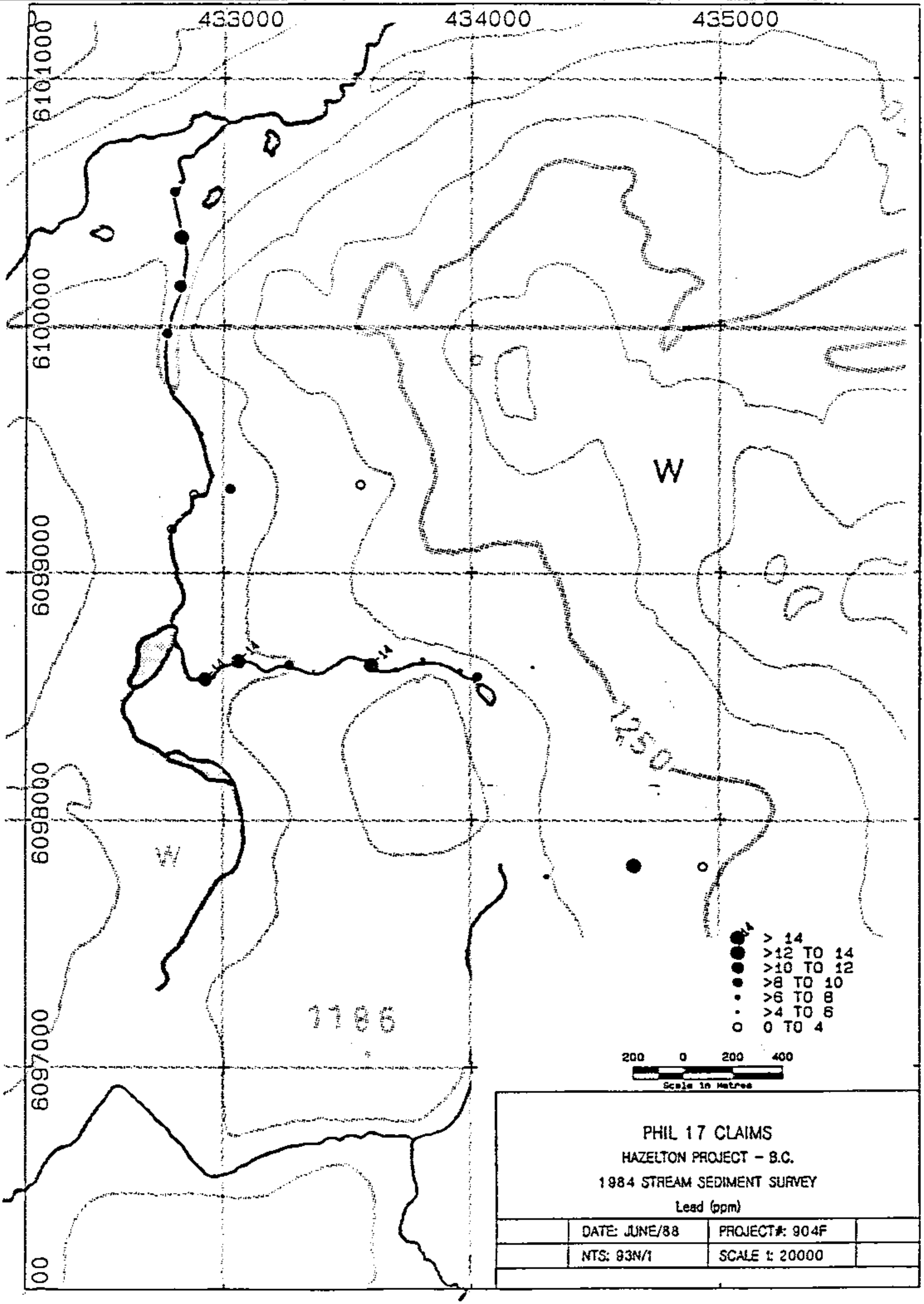
>60 TO 65
>55 TO 60
>45 TO 55
0 TO 45
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Copper (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000



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1186
> 14
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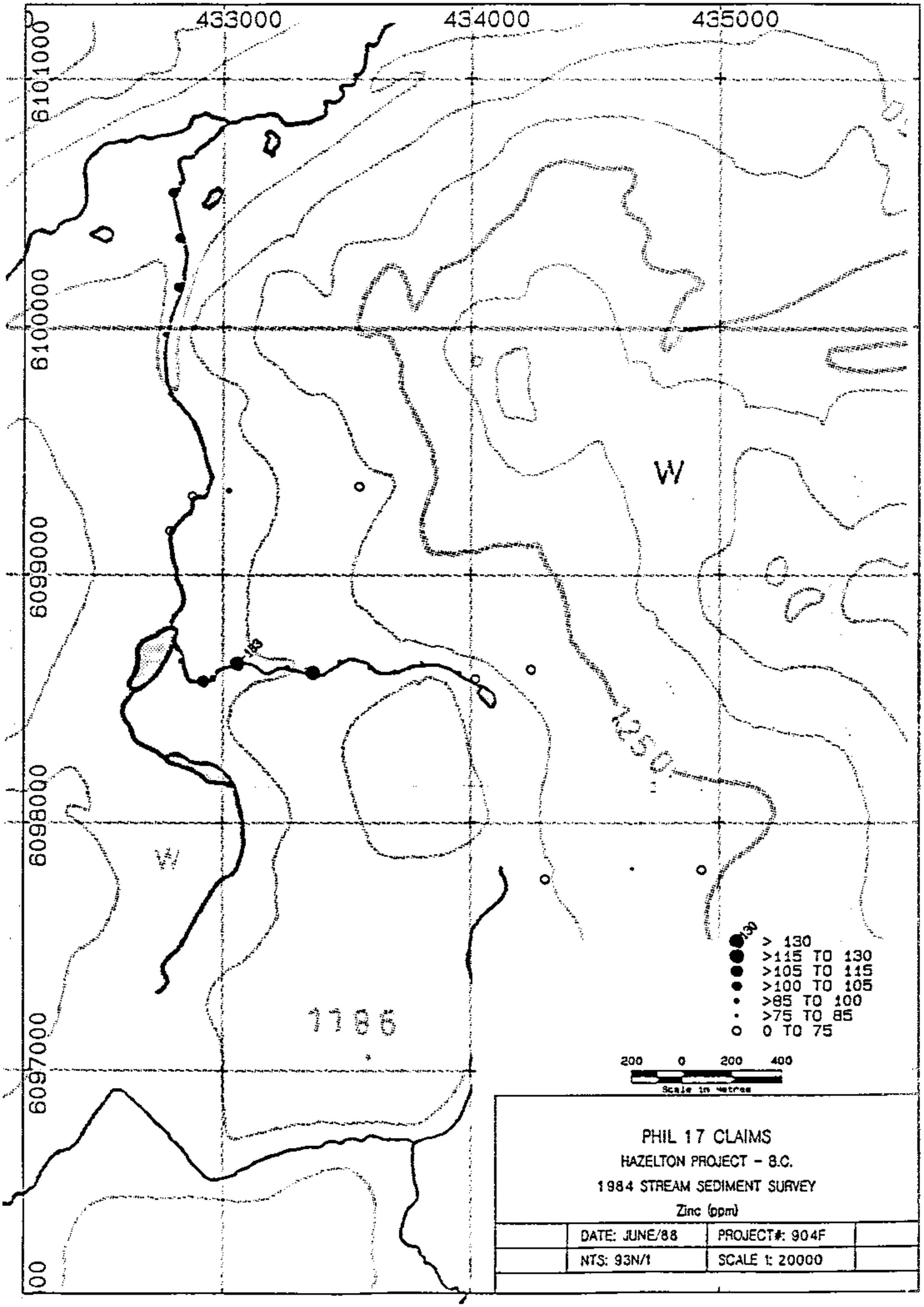
>8 TO 10
>6 TO 8
>4 TO 6
0 TO 4
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Lead (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000



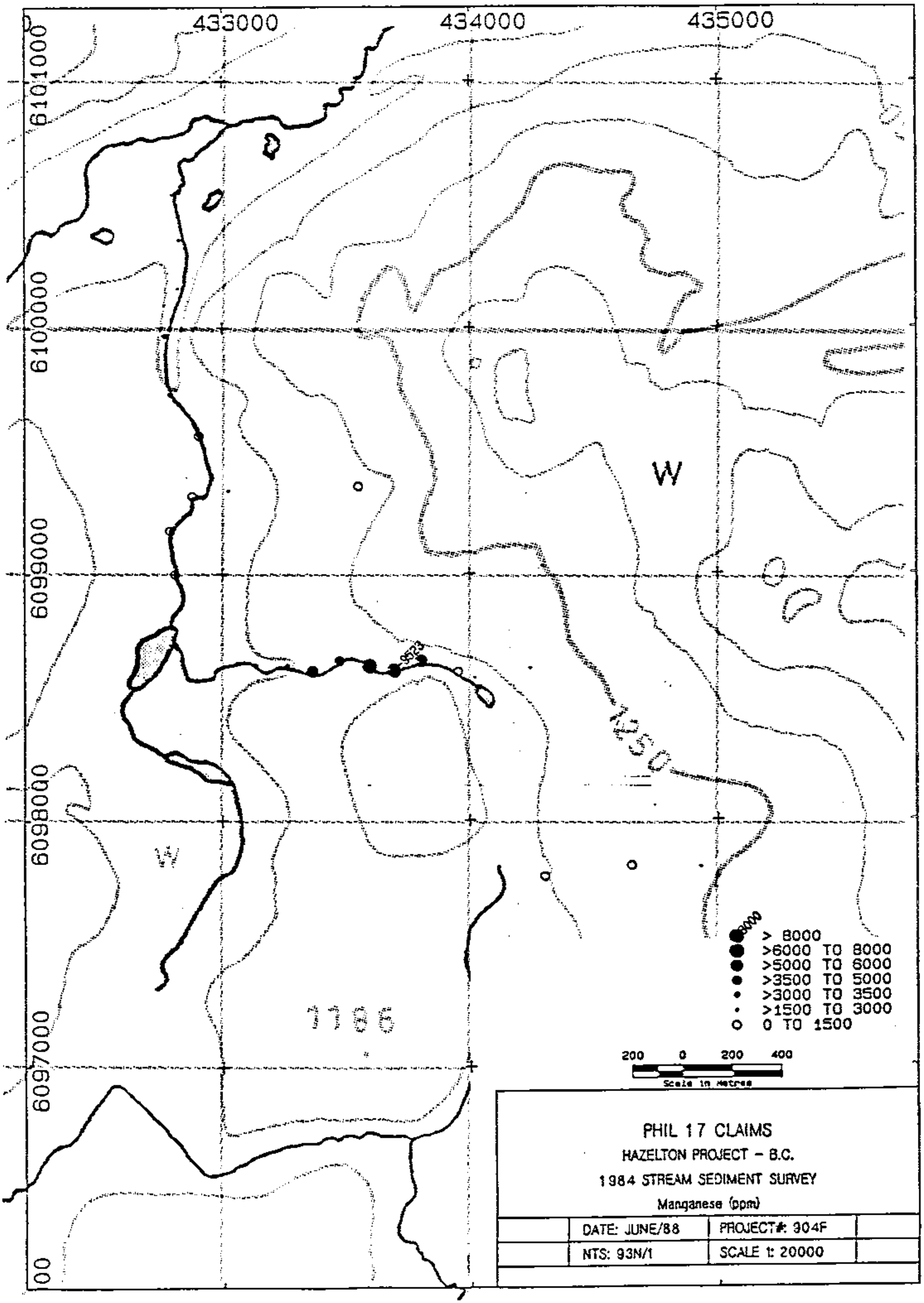
PHIL 17 CLAIMS

HAZELTON PROJECT - B.C.

1984 STREAM SEDIMENT SURVEY

Zinc (ppm)

DATE: JUNE/88	PROJECT#: 904F
NTS: 93N/1	SCALE 1: 20000



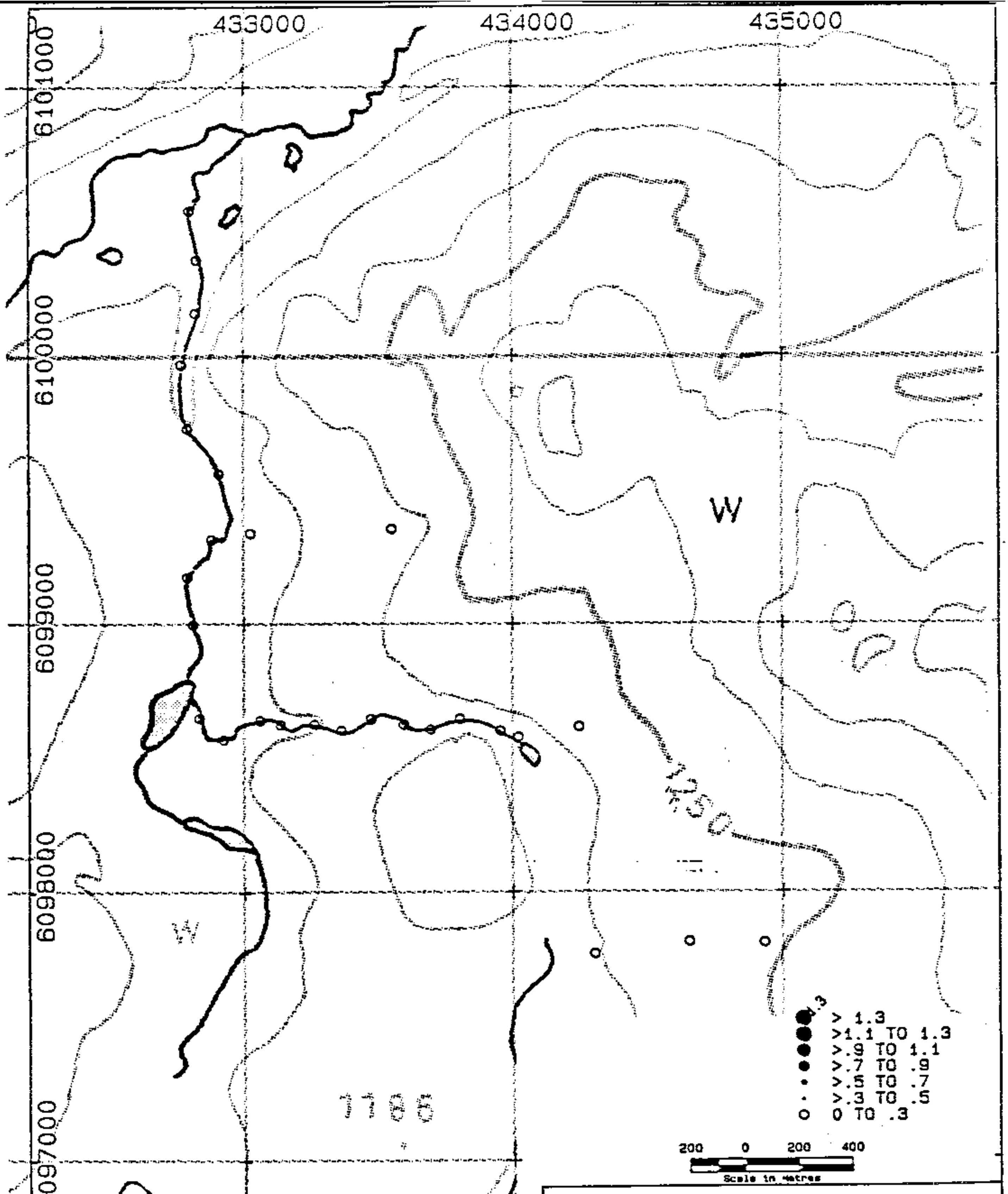
PHIL 17 CLAIMS

HAZELTON PROJECT – B.C.

1984 STREAM SEDIMENT SURVEY

Manganese (ppm)

DATE: JUNE/88	PROJECT#: 904F
NTS: 93N/1	SCALE 1: 20000



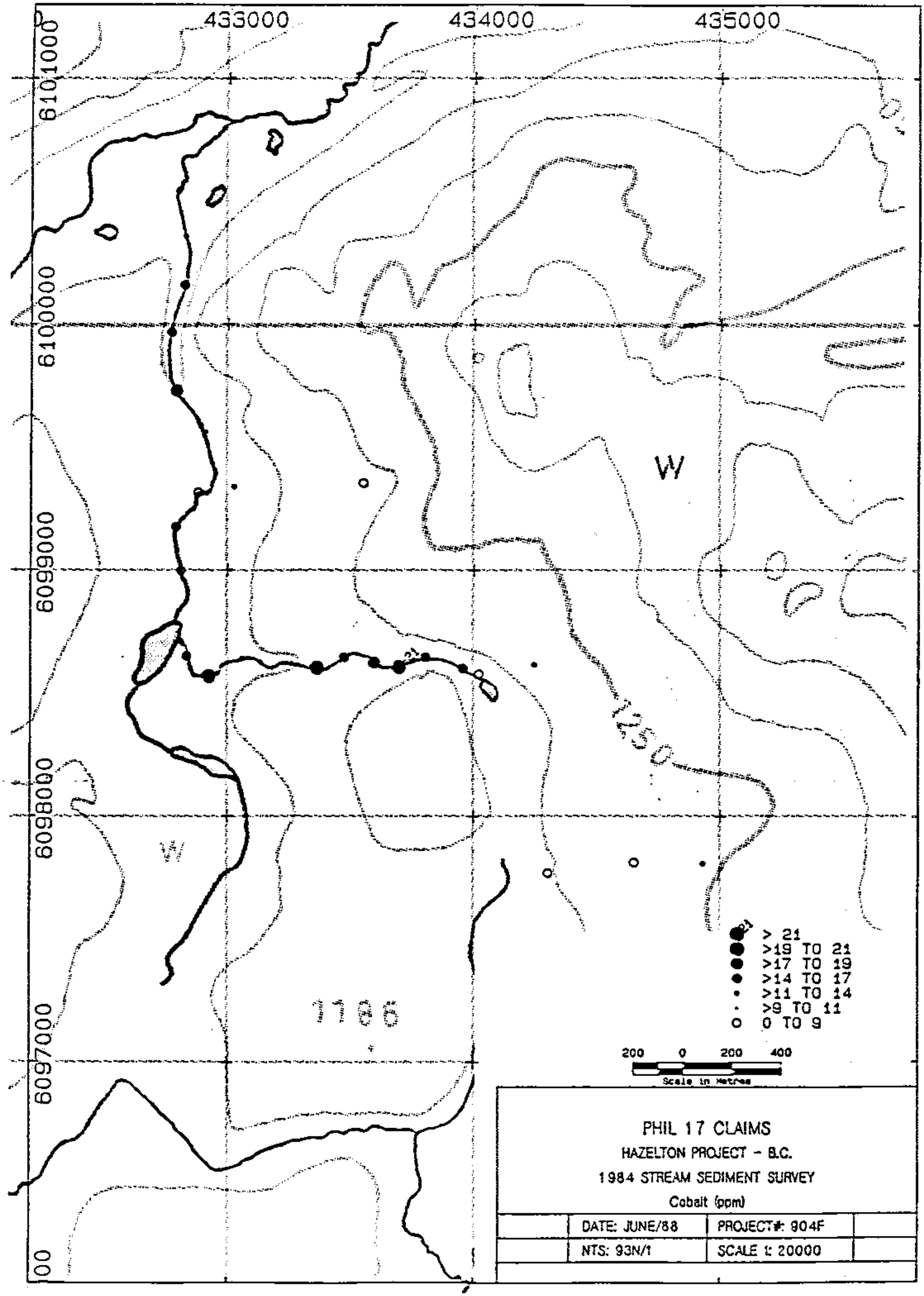
PHIL 17 CLAIMS

HAZELTON PROJECT - B.C.

1984 STREAM SEDIMENT SURVEY

Silver (ppm)

DATE: JUNE/88	PROJECT#: 904F
NTS: 93N/1	SCALE 1: 20000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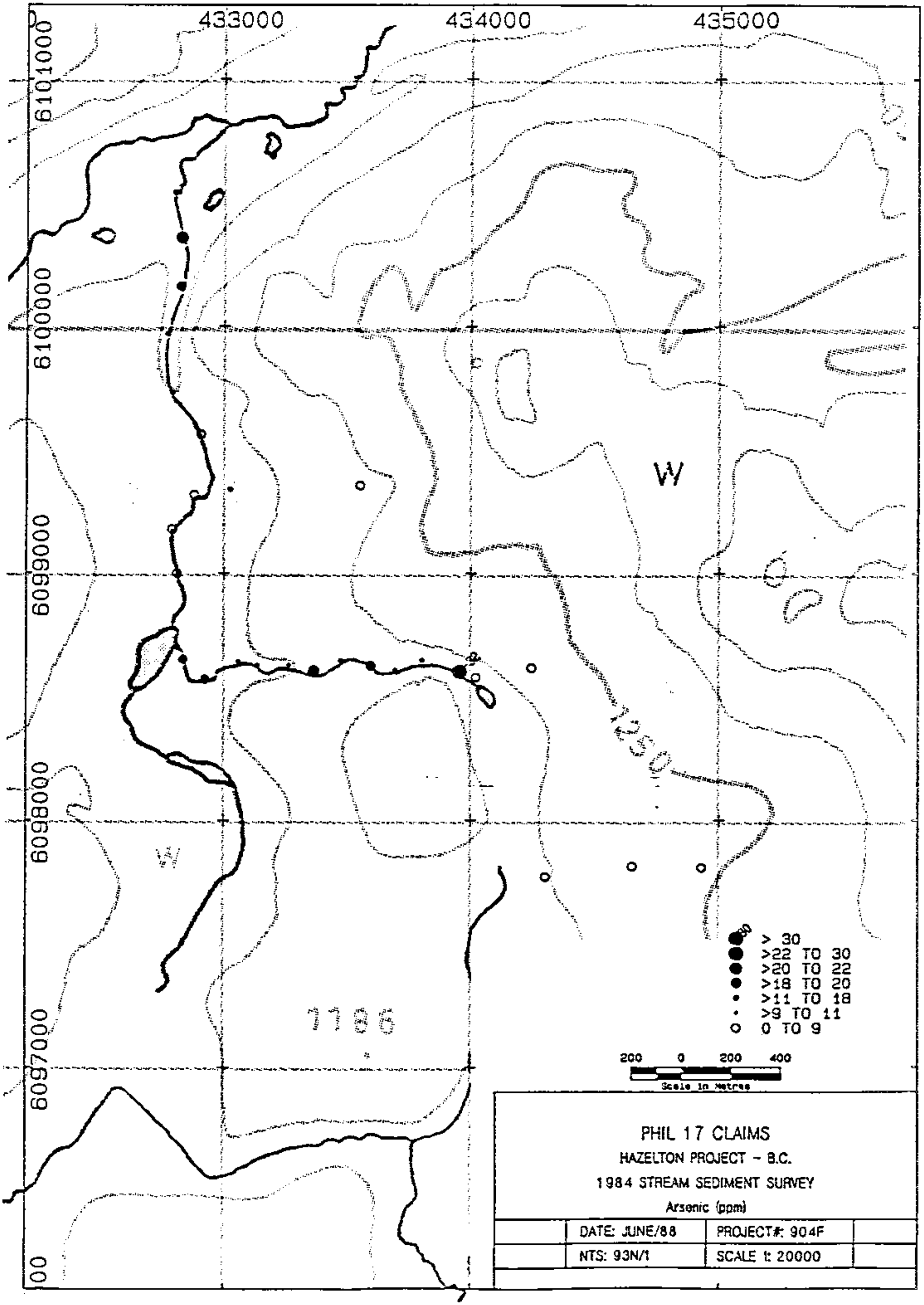
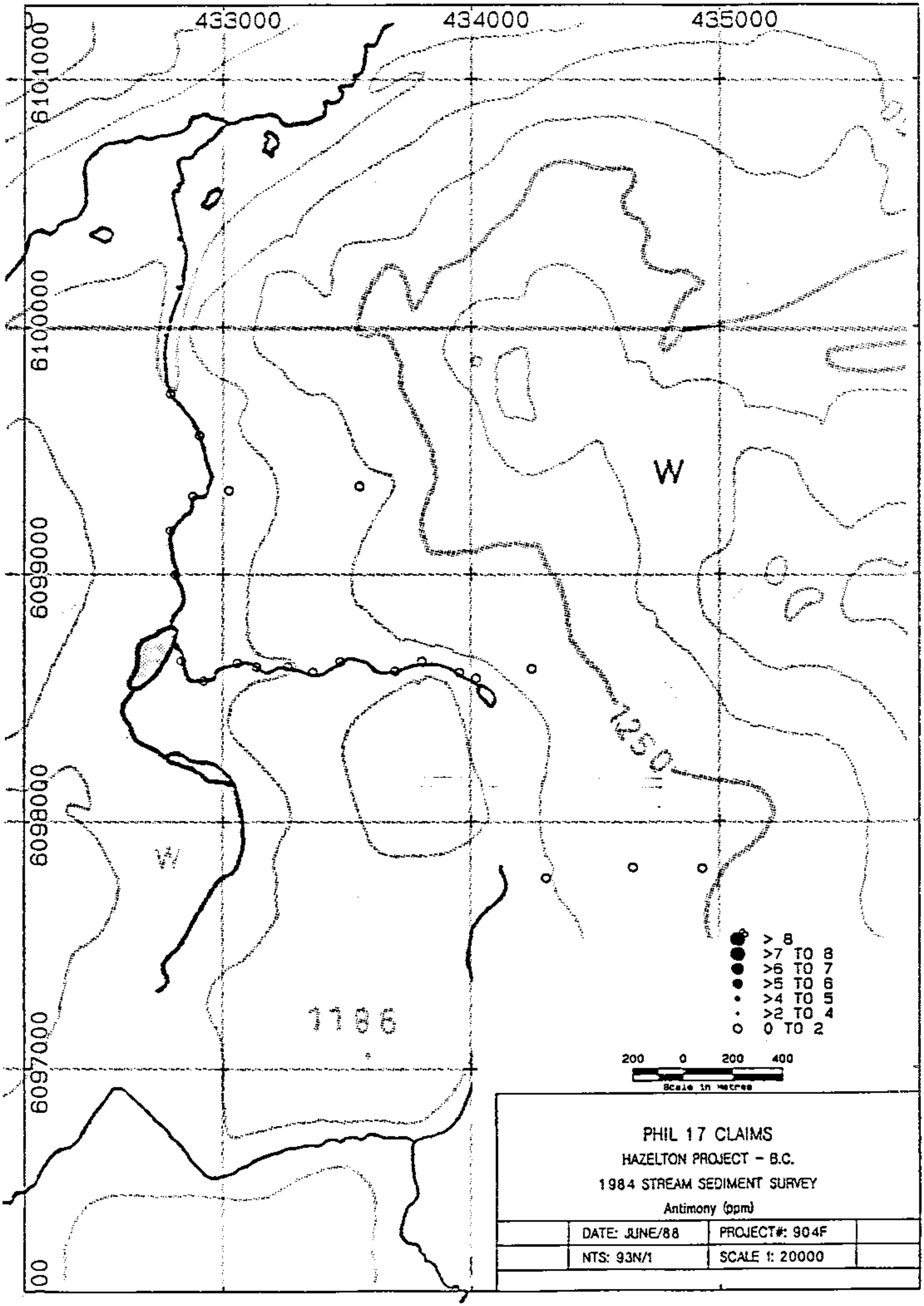
W
1250
1186
> 21
>19 TO 21
>17 TO 19
>14 TO 17
>11 TO 14
>9 TO 11
0 TO 9
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Cobalt (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000


433000
434000
435000
6101000
6100000
6099000
6098000
6097000
W
W
1250
1186
> 30
>22 TO 30
>20 TO 22
>18 TO 20
>11 TO 18
>9 TO 11
0 TO 9
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Arsenic (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000



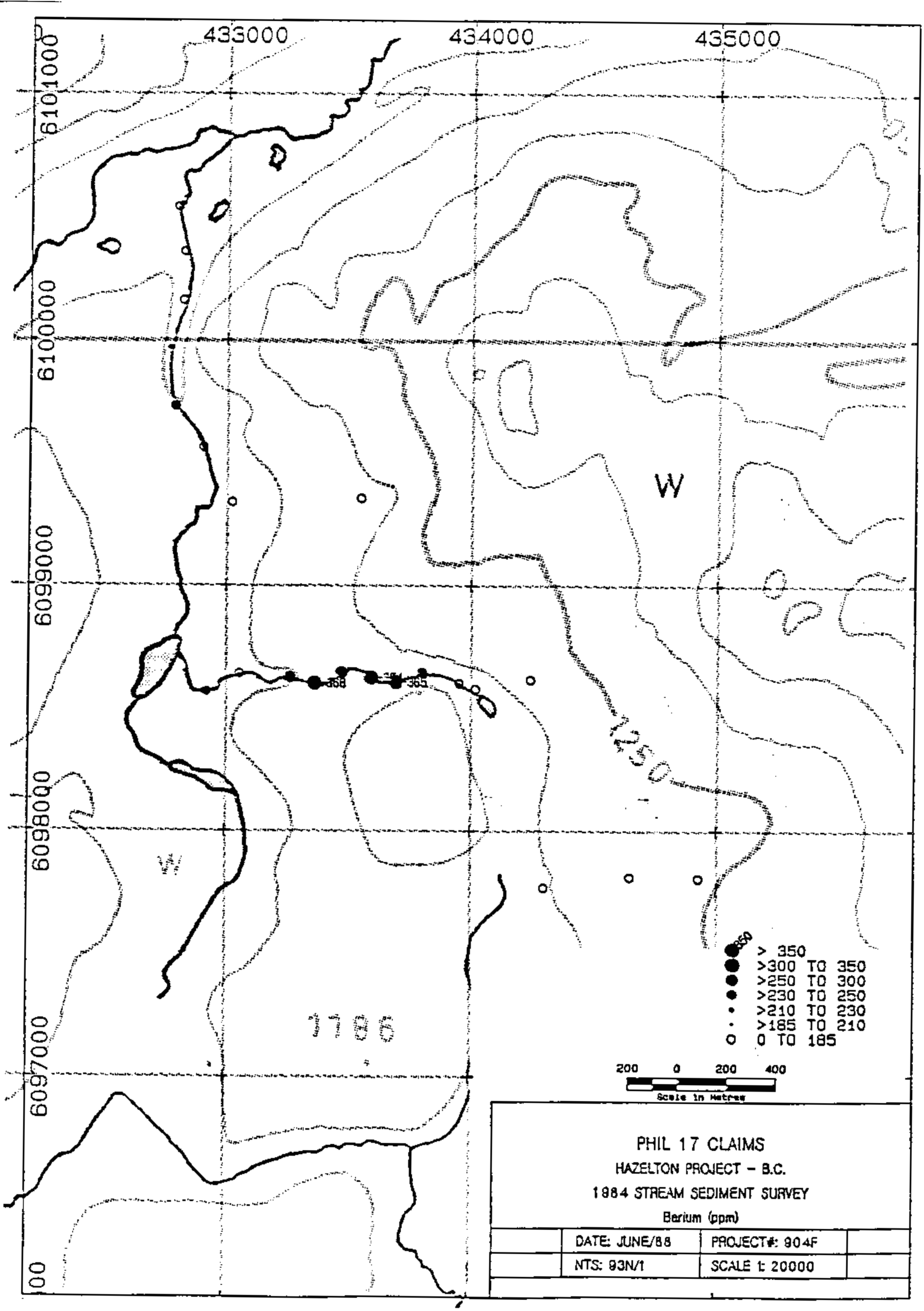
PHIL 17 CLAIMS

HAZELTON PROJECT - B.C.

1984 STREAM SEDIMENT SURVEY

Antimony (ppm)

DATE: JUNE/88	PROJECT#: 904F	
NTS: 93N/1	SCALE 1: 20000	



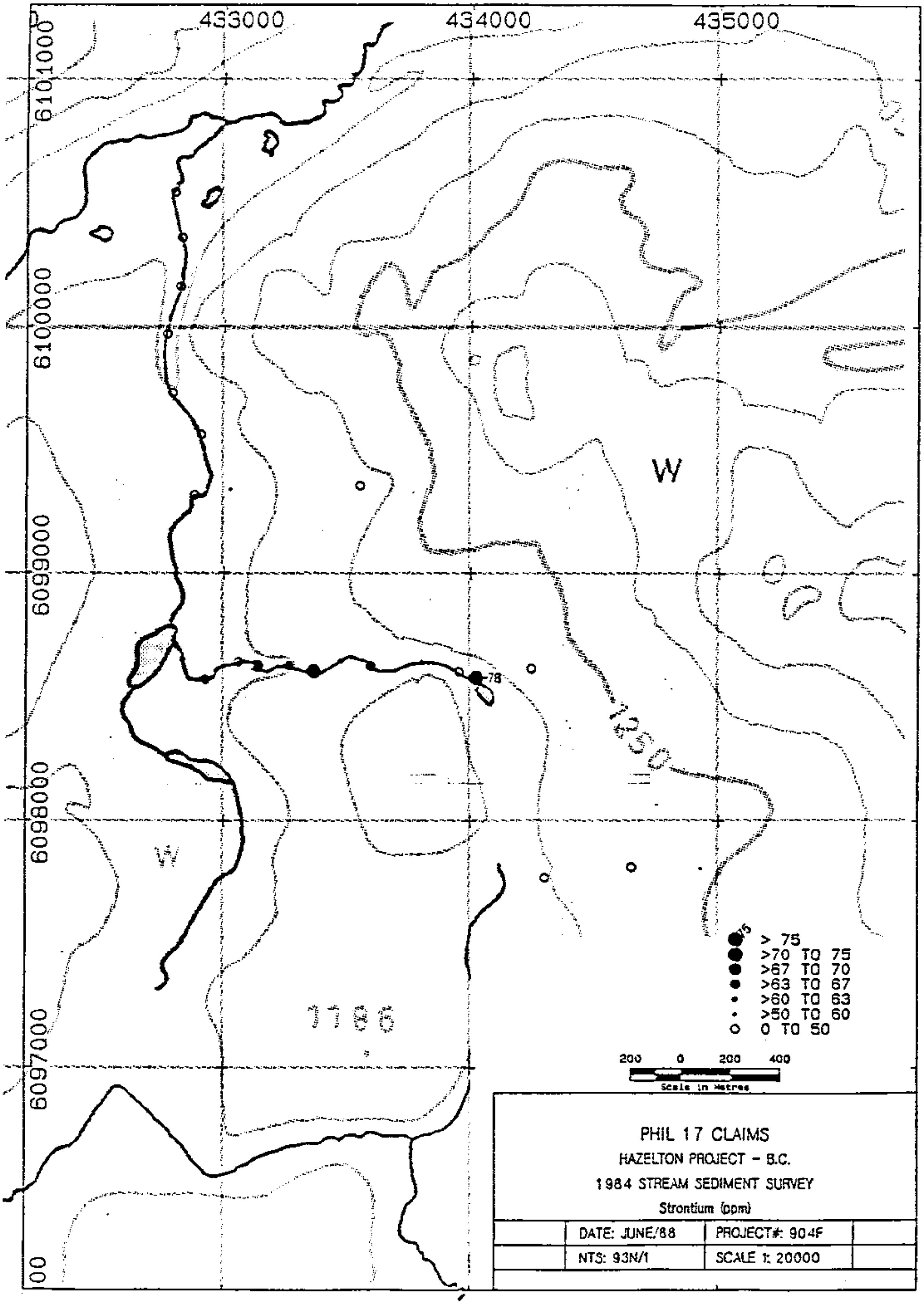
PHIL 17 CLAIMS

HAZELTON PROJECT – B.C.

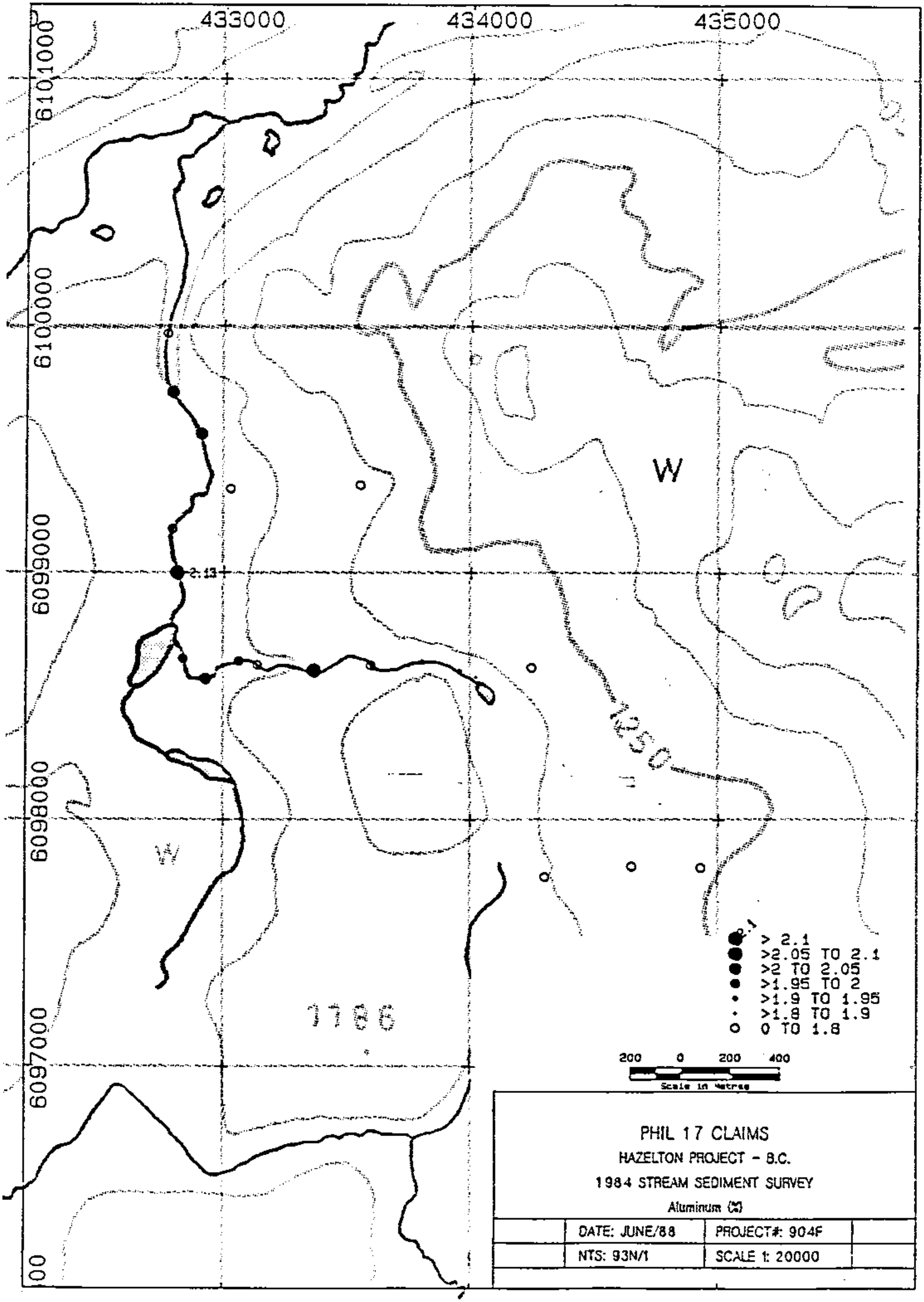
1984 STREAM SEDIMENT SURVEY

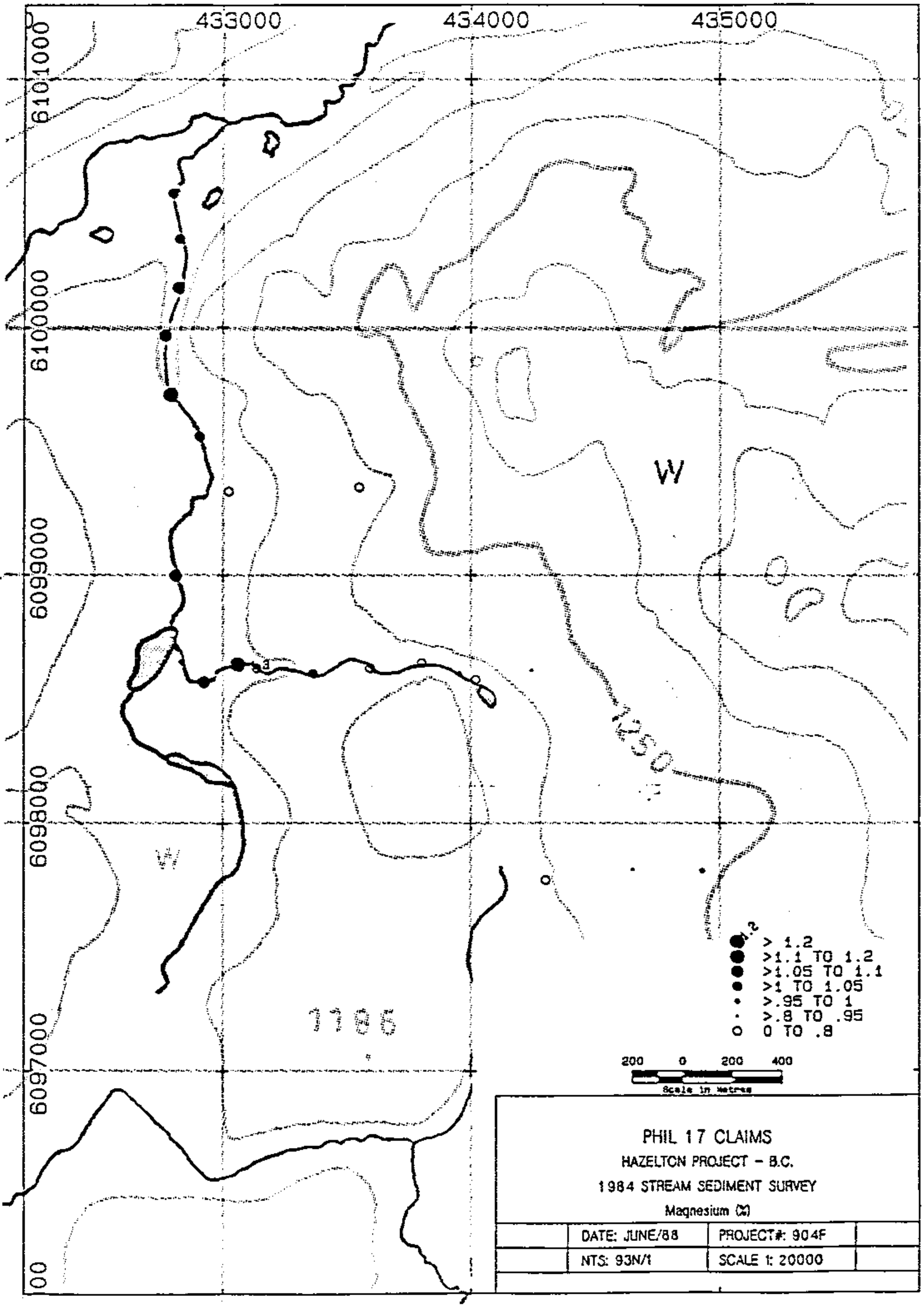
Barium (ppm)

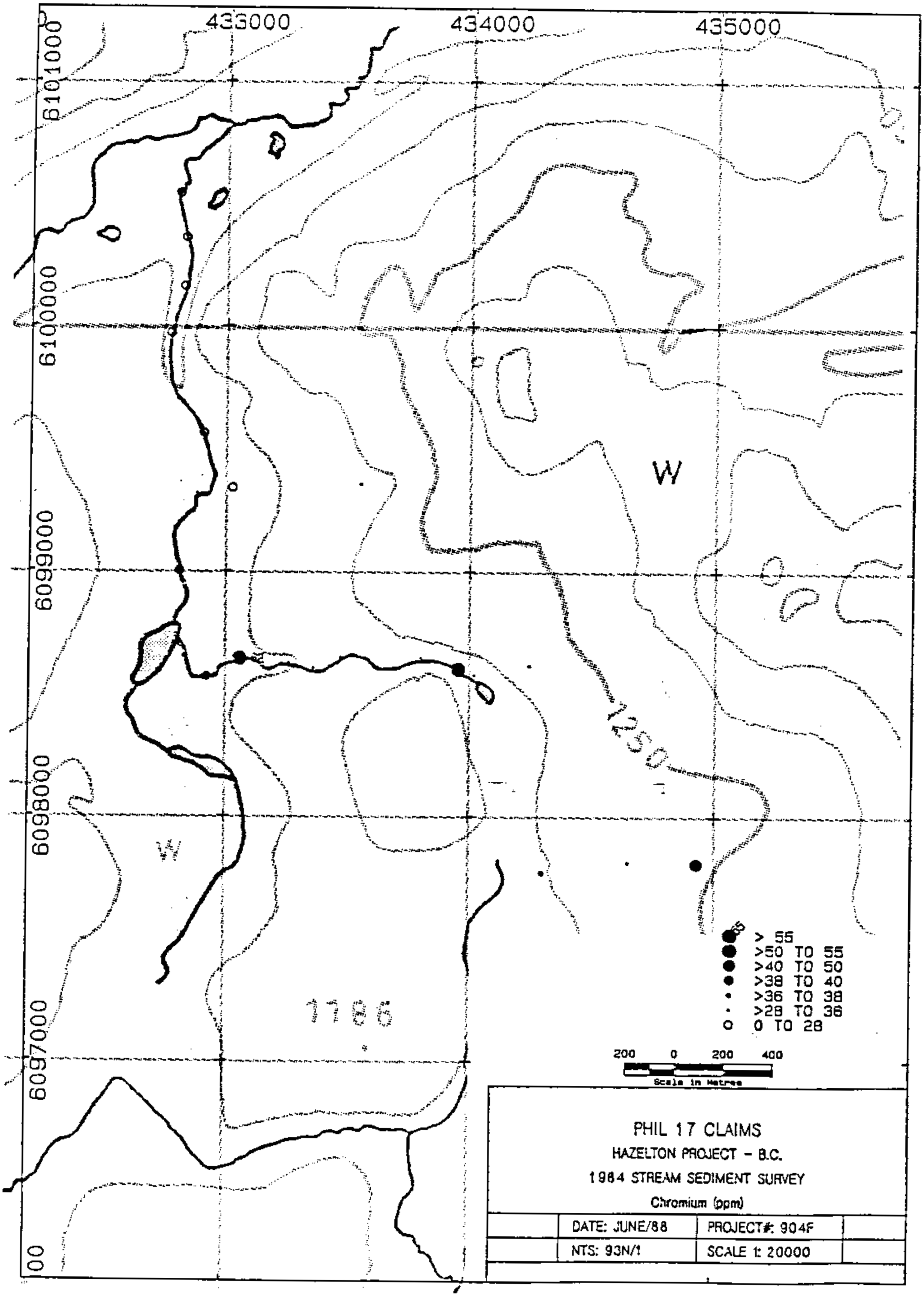
DATE: JUNE/88	PROJECT#: 904F
NTS: 93N/1	SCALE 1: 20000

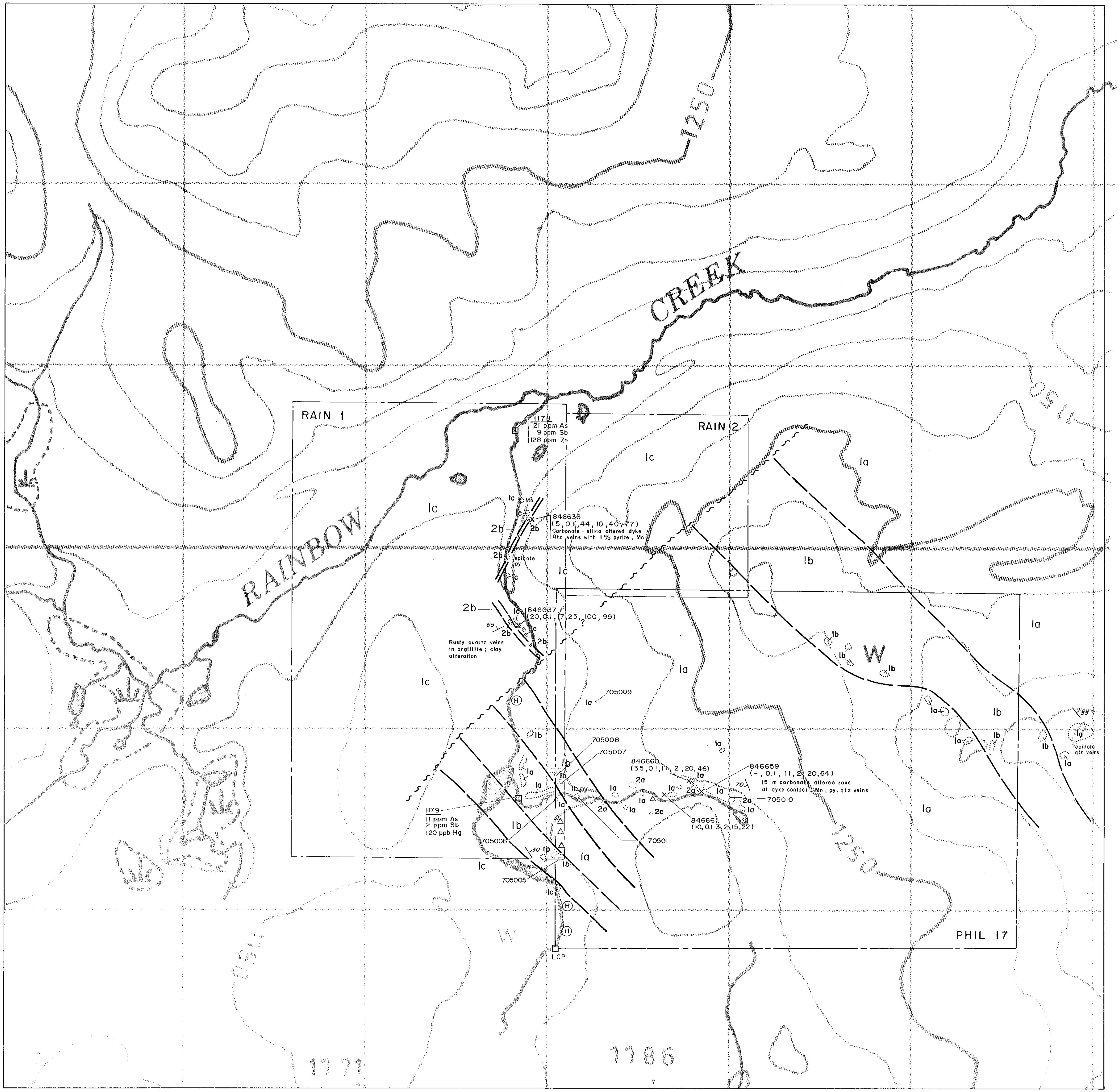


433000
434000
435000
6101000
6100000
6099000
6098000
6097000
W
1250
1186
78
75
> 75
>70 TO 75
>67 TO 70
>63 TO 67
>60 TO 63
>50 TO 60
0 TO 50
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Strontium (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000


433000
434000
435000
6101000
6100000
6099000
6098000
6097000
W
W
2.13
1786
1250
> 2.1
>2.05 TO 2.1
>2 TO 2.05
>1.95 TO 2
>1.9 TO 1.95
>1.8 TO 1.9
0 TO 1.8
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Aluminum (%)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000


433000
434000
435000
6101000
6100000
6099000
6098000
6097000
W
W
> 1.2
>1.1 TO 1.2
>1.05 TO 1.1
>1 TO 1.05
>.95 TO 1
>.8 TO .95
0 TO .8
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Magnesium (%)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000


433000
434000
435000
6101000
6100000
6099000
6098000
6097000
W
W
1250
1186
> 55
>50 TO 55
>40 TO 50
>38 TO 40
>36 TO 38
>28 TO 36
0 TO 28
200 0 200 400
Scale in Metres
PHIL 17 CLAIMS
HAZELTON PROJECT - B.C.
1984 STREAM SEDIMENT SURVEY
Chromium (ppm)
DATE: JUNE/88
PROJECT#: 904F
NTS: 93N/1
SCALE 1: 20000



N

<u>LEGEND</u>

JURASSIC (?)

[2] <u>INTRUSIVE ROCKS</u>

2a. Leucocratic Feldspar Porphyry Dykes
2b. Hornblende (augite) Diorite Dykes

TRIASSIC

[1] <u>TAKLA GROUP</u>

1a. Green Andesite Tuff, Lapilli Tuff & Breccia
1b. Green Andesite Augite-Porphyry Flows, Flow Breccia
1c. Black Shale, Volcanic Sandstone, Minor Argillaceous Tuff

△	Float
	Outcrop
	Geological Contact
50	Bedding
	Fault
x 846660 (10,0.1,11,2,20,64)	Rock Chip Sample Location with Results: (Au ppb, Ag ppm, As ppm, Sb ppm, Hg ppb, Cu ppm)
□ 1179	Government Survey Stream Sediment Anomaly
(H)	Helicopter Landing Spot
705005	1988 Rock Sample location
	Claim boundary taken from Gov't Claim Map

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,860

GEOLOGY BY: N. HUMPHREYS, 1984
R. PEGG, 1988

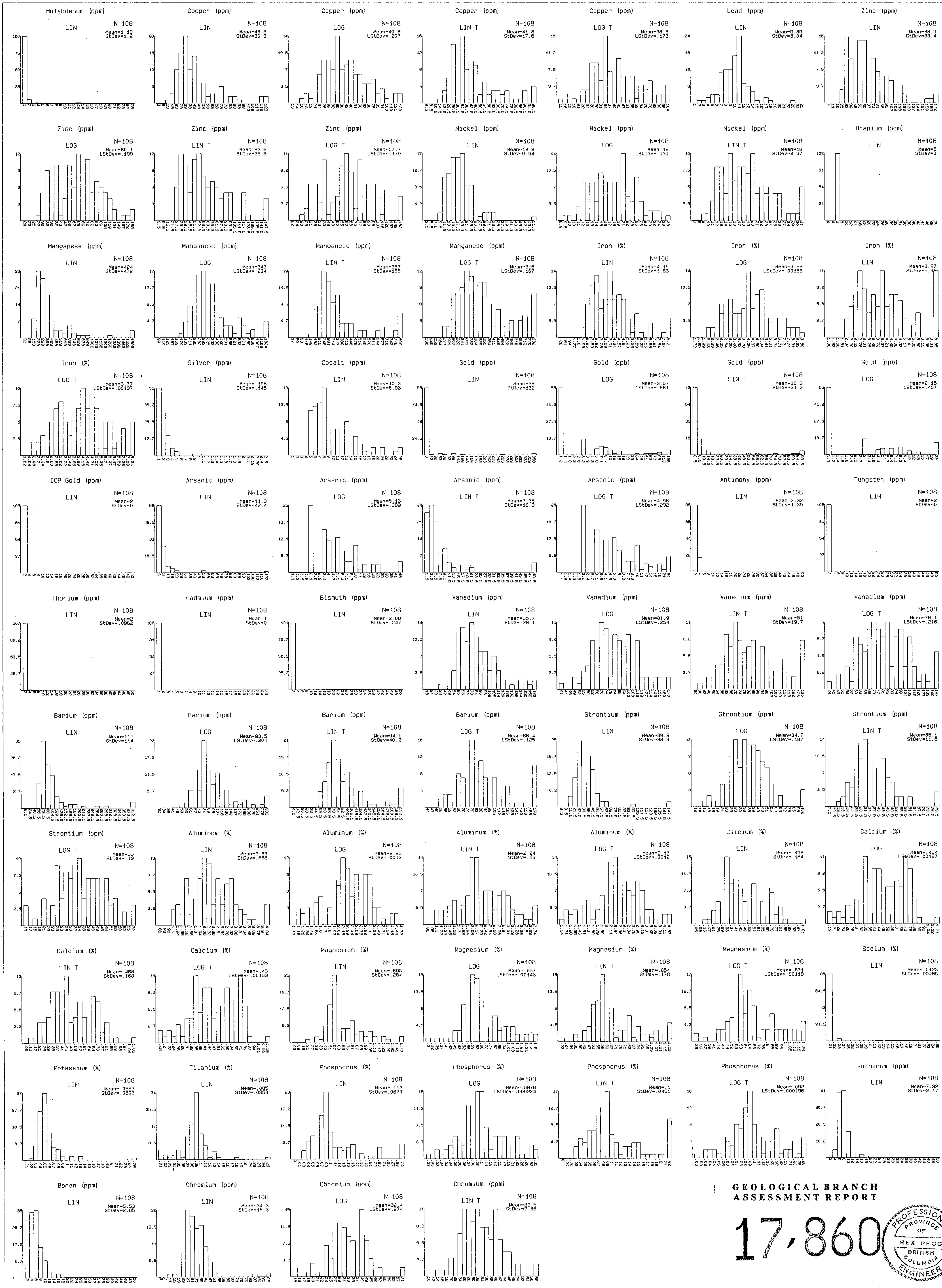
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
REX PEGG
RP

METRES
200 0 200 400 600 800

BP Resources Canada Limited
MINING DIVISION

RAIN PROPERTY
GEOLOGY

SCALE: 1 : 10,000		DRAWN BY: R. PEGG		PLAN 1
DATE: JULY '88	REV.:	DRAFTED BY: CHONG		
N.T.S. 93N/1E	PROJ.:		REPORT: BPVR 88-3	



GEOLOGICAL BRANCH ASSESSMENT REPORT

17,860

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
REX PEGG

DISTRIBUTION HISTOGRAMS

LIN = LINEAR
LOG = LOGARITHMIC
LINT= TRUNCATED LINEAR
LOGT= TRUNCATED LOGARITHMIC

SAMPLE SELECTION CRITERIA:

SAMPLE TYPE	50
PROPERTY CODE	K
LSE CODE	ALL
OB ORIGIN	ALL
SAMPLE TEXTURE	ALL
SOIL HORIZON	ALL
BEDROCK GEOLOGY	ALL
NORTH LIMIT	NONE
SOUTH LIMIT	NONE
EAST LIMIT	NONE
WEST LIMIT	NONE

PHIL 17 CLAIM
HAZELTON PROJECT - B.C.
1988 SOIL SURVEY
HISTOGRAMS

DATE: JULY/88	PROJECT#: 904K
NTS: 93N/1	PLAN 2

[redacted]