GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE

HENCH CLAIMS

WATSON LAKE MINING DISTRICT

NTS 105-J-3/SW

Lat. 62° 02'

Long. 131° 22'

OWNER & OPERATOR

ST. JOSEPH EXPLORATIONS LTD.

Report By

D.A.R. HENDRY, P. ENG.

May 30, 1979

Covering Field Work Completed August 14-20, 1978

090469

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$ 6,600.00

Ruth Debicki

acting – Resident Geologist or
Resident Mining Engineer June 18/79

Considered as representation work under Section 53 (9) Yukon Quartz Mining Act.

B.R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

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APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG. 61 ° 35 ' " LATITUDE 131 ° 00 ' " LONGITUDE	PROJECT NO. 6261.2 FIGURE NO. 1	SHEET NO. ___ OF ___ N.T.S. 105-J-3

ST. JOSEPH EXPLORATIONS LIMITED

TORONTO, CANADA

HENCH CLAIMS
YUKON

LOCATION MAP

SCALE 1:500,000

Introduction and Summary

The forty-eight Hench Claims were staked July 11, 1978 to cover lead, zinc-silver vein mineralization and anomalous silt samples located 60 km east of Ross River (figure 1).

During August 15-19, 1978, geological and geochemical surveys were conducted on the Hench claims. Soil samples were collected at 50 m intervals along lines 400 m apart. All samples were analysed for copper, lead, zinc and iron. Later selected samples were analysed for silver. Geological mapping and prospecting was done in conjunction with geochemical sampling. Grid stations were chained or measured with topofil, ribboned and tied to a baseline, which was chained along the central claim line.

Geological units comprise Paleozoic sediments and metasediments of the Selwyn Basin, intruded by a large felsic pluton and mafic dykes and capped in the south by allochthonous, mafic, extrusive, klippen remnants.

Conclusions and Recommendations

Geochemical profiles over known mineralization have shown ambiguous results and swamps covering much of the property have made interpretations difficult. It is, however, concluded that anomalies in the south-central and southeast portion of the claims probably represent glacial overburden covered mineralization.

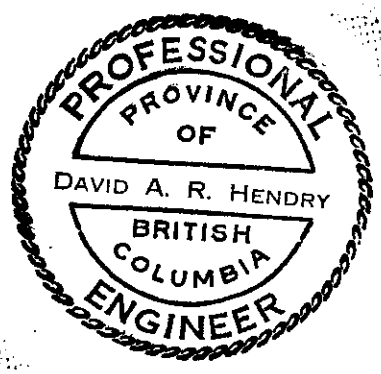
It is recommended that further profile geochem sampling and tighter grid sampling be undertaken to further delineate the present anomalies. It is also recommended that IP, Max-Min and Magnetometer geophysical surveys be conducted over the claims at reconnaissance scale with detailed

testing in the areas of geochemical anomalies.

Respectfully submitted,

D.A.R. Hendry, P. Eng.

May 30, 1979



Location and Access

The Hench claims lie 60 km east of Ross River, Yukon. Access to the claims is gained most conveniently by helicopter from Ross River. Two large rivers, the Pelly and the Ross Rivers separate the claims from the Robert Campbell Highway and the Canol Road, to the south and west respectively. A lake suitable for float plane traffic is located 7 km south of the claims.

Physiography

The claims lie on the Pelly Plateau (Bostock, 1948) between the valleys of the Pelly and Ross Rivers and south of Big Timber Creek. Relief is gentle on the claims with elevations ranging between 1300 m and 1400 m. The plateau drops 350 m to the Ross and Pelly River valleys. Both south and northeast of the claims, isolated mountains rising 450 m above the plateau, dominate the landscape.

The entire plateau was covered by Pleistocene ice, moving generally westward. Drainage on the claims which are located in a broad, gentle saddle, is very poor with much of the claims underlain by wet "nigger-head" swamps. Glacial till where it is dissected appears to be less than 8 m thick, but may be thicker in paleo-depressions. A strong boulder train trends east-west across the northern portion of the claims.

The claims are located slightly below treeline which is at 1400 m. Between swampy areas stunted spruce, willow, alder and black birch vegetation is quite thick.

Outcrops occur only along one gentle creek valley and on the lower slopes of the two mountains. Soils on the property are primarily

developed from glacial till. A post glacial layer of volcanic ash appears intermittently in samples and is generally less than 3 cm thick.

Claims and Ownership

Grant numbers, names and due dates for the Hench claims are summarized below.

Grant No.	Name	Due Date
YA 34550-97	Hench 1-48	August 3, 1979

The 48 Hench claims form a contiguous block. They are owned and operated by St. Joseph Explorations Ltd.

History

The claims were staked on July 11, 1978 and there was no evidence of previous activity.

1978 Programme

During August 15-19, baseline preparation and geological and geochemical surveys were conducted. Soil samples were collected at 50 m intervals on lines 400 m apart. Grid stations were chained or measured with topfil, ribboned and tied to the baseline which was chained along the central claim line. Several grid locations were unsampled because of standing water. A total of 390 soil samples and 11 silt samples were collected. Additionally, 14 soil samples were taken over known mineralization in 4 profiles. All samples were analysed for copper, lead, zinc and iron. Later, selected samples were analysed for silver.

During follow-up traverses prior to staking, 63 soil samples and 32

silt samples were collected in the area of the claims. These were analysed for copper, lead and zinc and the results have been included with this report. The costs for these samples have not been included as they were incurred before staking the claims.

Geological mapping and prospecting of limited outcrops and boulder trains were done in conjunction with geochemical work.

All work was done by St. Joseph Explorations Ltd. personnel, from a base camp positioned on the property by a Hughes 500D helicopter chartered from Terr-Air Ltd. of Ross River, Yukon.

Geologic Setting

The claims lie within the Selwyn Basin tectonic province (Gabrielse 1967). Sediments ranging from Cambro-Ordovician to Devonian attest to two depositional cycles. Older sediments are fine grained, deeper water carbonates, mudstones and phyllite. Those deposited during and after uplift of the Sheldon Arch, in the Silurian, are higher energy, shallow water conglomerates, sandstones, quartzites, shales and limestones.

A large felsic intrusive, possibly of Cretaceous age, north of the property has altered nearby sediments to pelites, phyllites, calc-silicate schist and biotite schist. Diorite dykes also intrude these sediments and metasediments.

South of the claims a large extrusive dioritic and basaltic mass of Tertiary or Quaternary Age (Templeman-Kluit, 1977) has been thrust from the south onto Devonian sediments.

The less than one percent outcrop precludes a stratigraphic dis-

cussion. A table of formation from the property and regional geology follows.

TABLE I

TABLE OF FORMATIONS

PERIOD	GSC* MAP UNIT	PROPERTY** MAP UNIT	LITHOLOGY & MAP SYMBOL WHERE APPROPRIATE
Quaternary or Tertiary	QTvb	Allochthonous Mafic Rocks	diorite; porphyritic and columnar jointed hornblende, plagioclase porphyry.
?	?	Mafic Intrusive	2. diorite; fine grained, dark green. 2a. altered diorite; calcareous pale green diorite.
Cretaceous	Kqm	Felsic Intrusives	quartz monzonite; also porphyritic quartz monzonite & feldspar porphyry.
			1. quartz feldspar porphyry; very coarse grained, blocky green weathering.
Devonian & Silurian	uDMfcg	Conglomerate	chert pebble conglomerate; black & grey chert pebbles in arkosic matrix. Also arkose & mudstone & slate interbeds.
Devonian, Silurian & Ordovician	OSDqc	Phyllite	3. phyllite; calcareous light grey. Quartz and rusty carbonate veining.
		Schist	4. schist; pelitic and micaceous, muscovite, chlorite, chloritoid schist, dark and variably rusty weathering, strong structural grain.

* Templeman-Kluit, 1977, Geol. Surv. Can., Open File 486.

** Accompanying geology map, Map No. 2, pocket No. 2

Mineralization

Sphalerite and galena in quartz veins, sometimes containing chalcopyrite, have been found cutting calcareous phyllite, altered porphyritic diorite and calc-silicate schist. Only two occurrences are in outcrop and they have different orientations. At present all veins found are very thin, less than 15 cm., and of high grade (table below).

TABLE II

Table of Assays

Sample No.	Cu %	Pb %	Zn %	Ag oz	Description
R 2104	0.06	18.8	14.8	2.36	15 cm high grade sphalerite and galena vein.
R 2205	0.33	4.60	3.10	4.60	Sphalerite-galena veins in calc silicate chip sample of float.
HR 2220	1.001	0.22	1.18	Tr	13 cm high grade sphalerite and galena vein sampled across 1.2 m of outcrop.
HR 2221	0.12	0.44	2.13	4.71	Same vein as HR2220. Sampled across 30 cm of outcrop.

Structure

Structural interpretations from the limited outcrops on the property are not possible. The pelites and schists in the northeast corner of the claims and forming the boulder train across the north of the claims, show tight intra-layer folding and growth of chlorite, muscovite and biotite parallel with axial planes. Orientations in the calcareous phyllite are variable because of folding and again too few to permit interpretations. Contacts of the dioritic intrusions are not exposed

and it cannot be interpreted whether they are dykes or sills.

Geochemistry

Soil samples on the Hench claims comprise three basic types, as follows:

1. Soils, from plateaux and gentle slopes where drainage is good, are most abundant. They are sandy, yellow-brown to orange-brown. Vegetation is thin; usually buck-brush and caribou moss with a very thin decomposed organic layer. Volcanic ash is very thin. This soil is derived from glacial overburden and often has abundant round glacial boulders.
2. Soils from low areas on the plateaux where drainage is poor, are usually wet, black, decomposed organics. Volcanic ash is seldom found in these samples. Deeper sampling would produce "B" horizon samples but would require augering to a depth of 0.5 m at least.
3. Soils from wide flat flood plains are really silt samples. These are grey clayey to silty samples usually beneath thick organics. Volcanic ash is absent due to stream action.

Sampling by St. Joseph personnel totalled 346 grid samples, 14 profile samples, 44 samples from traverses and 11 silt samples. During collection, samples were coded for the following properties: (1) Wet or dry, (2) sample depth, (3) organic presence in sample, (4) depth of "A" horizon, (5) presence of volcanic ash layer, (6) color, (7) texture, (8) horizon sampled, (9) vegetation types, (10) slope, (11) angularity of rock fragments, (12) presence of frost boils and (13) presence of iron precipitates.

Samples were packaged in standard kraft envelopes and shipped to Bondar Clegg Ltd., in Whitehorse, for drying, screening and analysis. Minus 80 mesh portions were digested in aqua regia and analysed for lead, zinc and copper by Atomic Absorption. In addition, 152 samples were later analysed for silver and 450 for iron.

Histograms and cumulative frequency curves were plotted for each element and values plotted on the accompanying maps 3 to 7.

In four small trenches near a vein assaying 0.06% Cu, 18.8% Pb, 14.8% Zn and 2.36 oz./ton Ag, fourteen profile soil samples were taken. Where possible A_1, B and C horizons were sampled; two C samples were taken where soil was thick. These samples revealed ambiguous results and are summarized below and also on maps 3 to 6.

TABLE III

Soil Geochemistry

(Profile Samples)

	#	A Horizon			B Horizon			C_1 Horizon			C_2 Horizon		
		Cu	Pb	Zn	Cu	Pb	Zn	Cu	Pb	Zn	Cu	Pb	Zn
Directly above min-	1	40	(740)	(425)	43	18	105	(76)	((1700))	(430)	1	10	13
eralization	2	6	6	14	30	26	140	30	18	90	38	19	97
Below min-eralization on slope	3	40	(38)	170	27	(78)	120	2	14	23	15	19	132
Below in swamp	4	(52)	(780)	((500))	3*	11*	28*	--	--	--	--	--	--

* Actually a clay-silt flood plain sample below thick organics; not a good "B" sample.

( ) possibly anomalous
(( )) definitely anomalous

One of the two samples above mineralization was anomalous in the A and C_1 (30 cm) horizons, in Pb & Zn, and C_1 in Cu, but not in B (20 cm) horizon for any element. The sample on the slope below mineralization was possibly anomalous (weakly) in lead in the B & A horizons and background in everything else. In the flood plain at the base of the slope, A horizon was definitely anomalous in Pb and Zn and weakly in copper. The silt and clay below the organics was not anomalous.

The copper cumulative frequency curve (App. II) steepens at approximately 50 and 150 ppm. The projection of background population to 99.9% of the data also occurs at 150 ppm. Values between 50 and 150 ppm copper are considered possibly anomalous and those above 150 ppm definitely anomalous. Two of the four definitely anomalous samples suggest a poorly defined anomaly (Map 3) between 80+00 and 82+00 north on line 88. Silt samples greater than 200 ppm copper and 2 other isolated definitely anomalous copper soils suggest the area north of the base line east of line 88 is sporadically anomalous in copper.

The lead cumulative frequency curve steepens at 38 and 120 ppm and 99.9% of the background values appear to lie below 114 ppm. Samples containing between 38 and 114 ppm lead are considered possibly anomalous and those above 114 ppm, definitely anomalous. The four definitely anomalous samples are isolated single sample anomalies (Map 4). One is also definitely anomalous in zinc and this site will be considered below.

The zinc cumulative frequency curve (App. II) steepens at 210 ppm, 6% of the data lies above this value. The 99.9% projection of background data occurs at 460 ppm. Values between 210 and 460 ppm zinc are con-

sidered possibly anomalous and those above 460 ppm, definitely anomalous. A definite anomaly in zinc (3 samples) (Map 5) strikes roughly east-west through lines 80 & 84 at 76+00N. Sample L80-76N is also strongly anomalous in lead. Other definitely anomalous zinc samples are isolated. Sample L80-80.5N is anomalous in copper and zinc, but not lead. This is in an area of abundant standing water.

The cumulative frequency curve for iron (App. II) shows a multi-population data set, quite difficult to analyse. Possibly anomalous data is taken as those values above the break in slope at 6.5% iron, with definitely anomalous data taken as those values of 10% and higher. Values with less than 0.5% iron are considered to anomalously low, whereas from 2% to 0.5% is possibly anomalously low. The creek cutting across the south east corner (Map 6) has two values of 10% iron, definitely anomalous. The 10% value in the southwest corner does not have any anomalous base metal values nearby.

The break in slope on the silver cumulative frequency curve occurs at 0.32 ppm, with 39% of the data above this value. This may result from only analysing for silver in the portion of the claims thought to be anomalous, even though N=164. The projection of background data to 0.1% falls at 1.1 ppm. Values between 0.32 and 1.1 ppm are considered possibly anomalous and those above 1.1 ppm definitely anomalous. Definite anomalies occur at (Map 7) line 80-75.5 & 76, coincident with a lead and zinc anomaly, line 84-73.5 coincident with zinc, line 88-80.5 coincident with copper and zinc and line 92-94 coincident with possibly anomalous zinc. Single element silver anomalies occur at L80-84, L84-89, 89.5 and 91, and L92-84.

From the erratic geochem values in test profiles it is concluded that the lack of an anomaly does not completely rule out the potential for buried mineralization.

REFERENCES

Bostock, H.S.

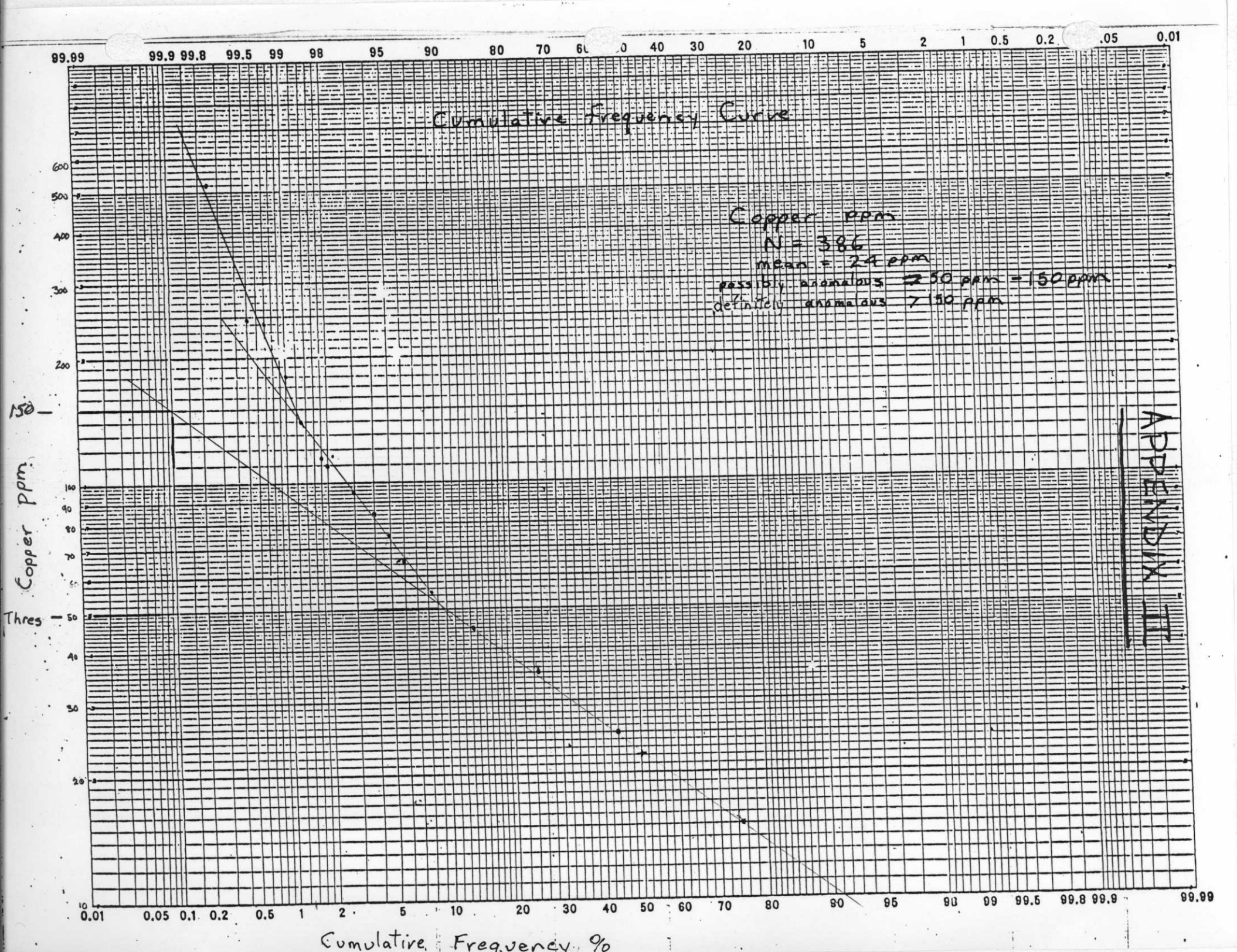
1948: Physiography of the Canadian Cordillera with special reference to the area north of the fifty-fifth parallel; Geol. Surv. Can., Mem. 247.

Gabrielse, H.

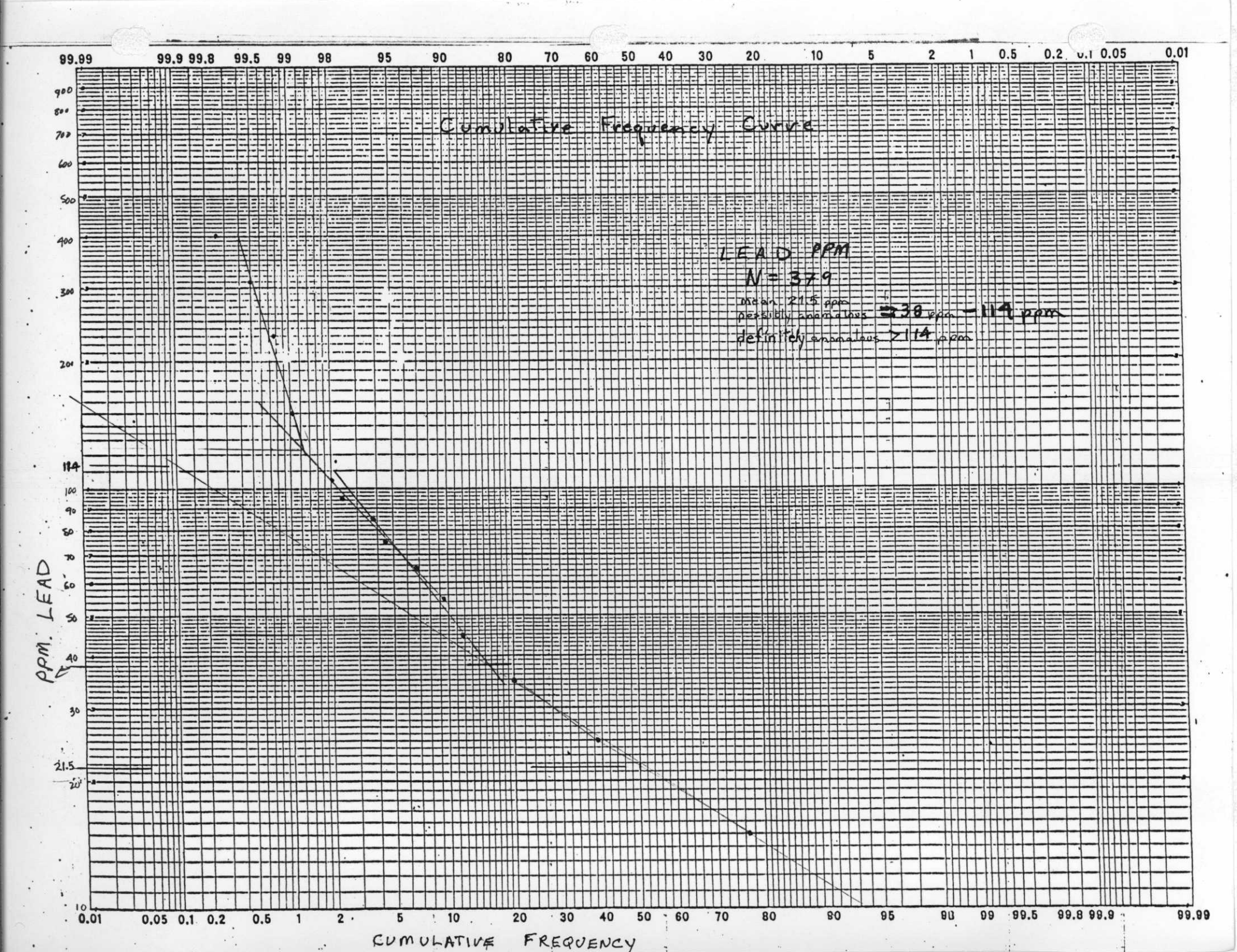
1967: Tectonic Evolution of the Canada Cordillera; Can. J. Earth Sci., v.4, pp. 271-298.

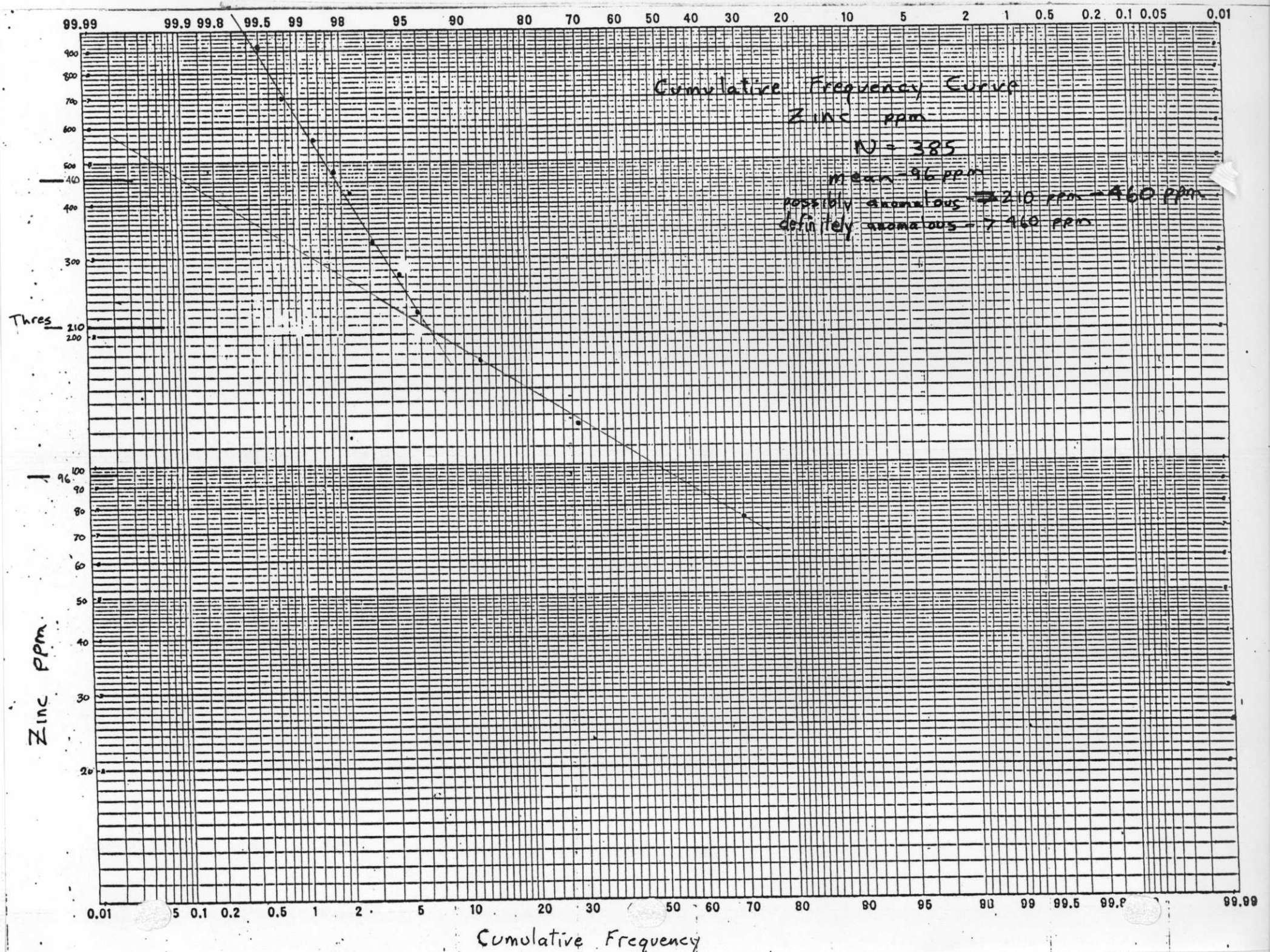
Templeman-Kluit, D.J.

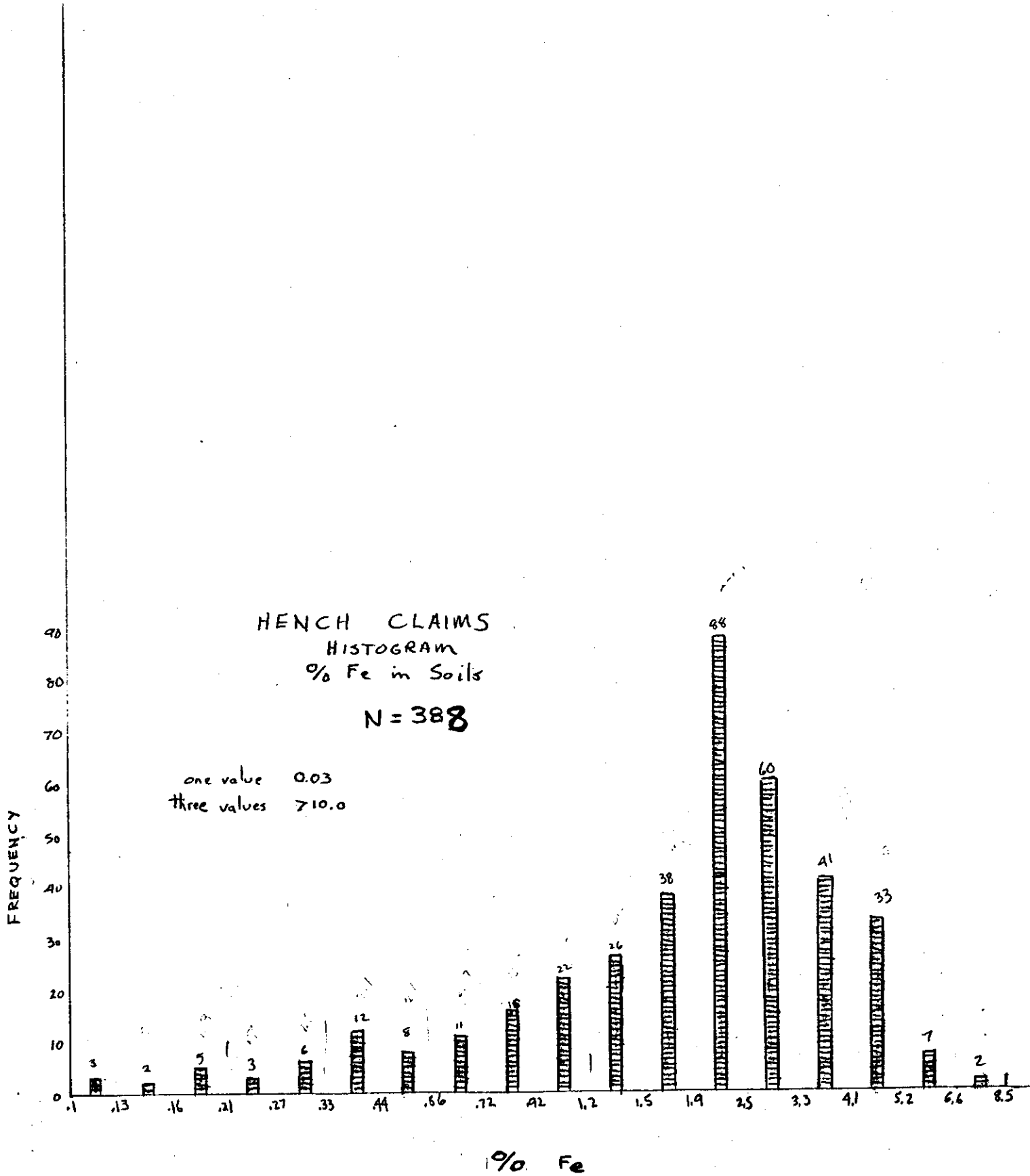
1977: Quiet Lake and Finlayson Lake map-area, Yukon Territories; Geol. Surv. Can., Open File 486.


Cumulative Frequency Curve
Copper ppm
N = 386
mean = 24 ppm
possibly anomalous ≥ 50 ppm - 150 ppm
definitely anomalous > 150 ppm
150
Thres
Copper ppm.
Cumulative Frequency %
99.99 99.9 99.8 99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 .05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.5 99.8 99.9 99.99
600 500 400 300 200 150 100 90 80 70 60 50 40 30 20 10

APPENDIX II


Cumulative Frequency Curve
LEAD PPM
N = 379
mean 21.5 ppm
possibly anomalous ≥38 ppm - 114 ppm
definitely anomalous >114 ppm
PPM. LEAD
CUMULATIVE FREQUENCY
99.99 99.9 99.8 99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
900 800 700 600 500 400 300 200 114 100 90 80 70 60 50 40 30 21.5 20 10
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.5 99.8 99.9 99.99


Cumulative Frequency Curve
Zinc ppm
N = 385
mean = 96 ppm
possibly anomalous → 210 ppm - 460 ppm
definitely anomalous → 460 ppm
Thres
210
460
96
Zinc ppm
Cumulative Frequency
99.99
99.9
99.8
99.5
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.5
0.2
0.1
0.05
0.01


HENCH CLAIMS
HISTOGRAM
% Fe in Soils
N = 388
one value 0.03
three values >10.0
FREQUENCY
% Fe
0
10
20
30
40
50
60
70
80
90
.1
.13
.16
.21
.27
.33
.44
.66
.72
.92
1.2
1.5
1.9
2.5
3.3
4.1
5.2
6.6
8.5
3
2
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88
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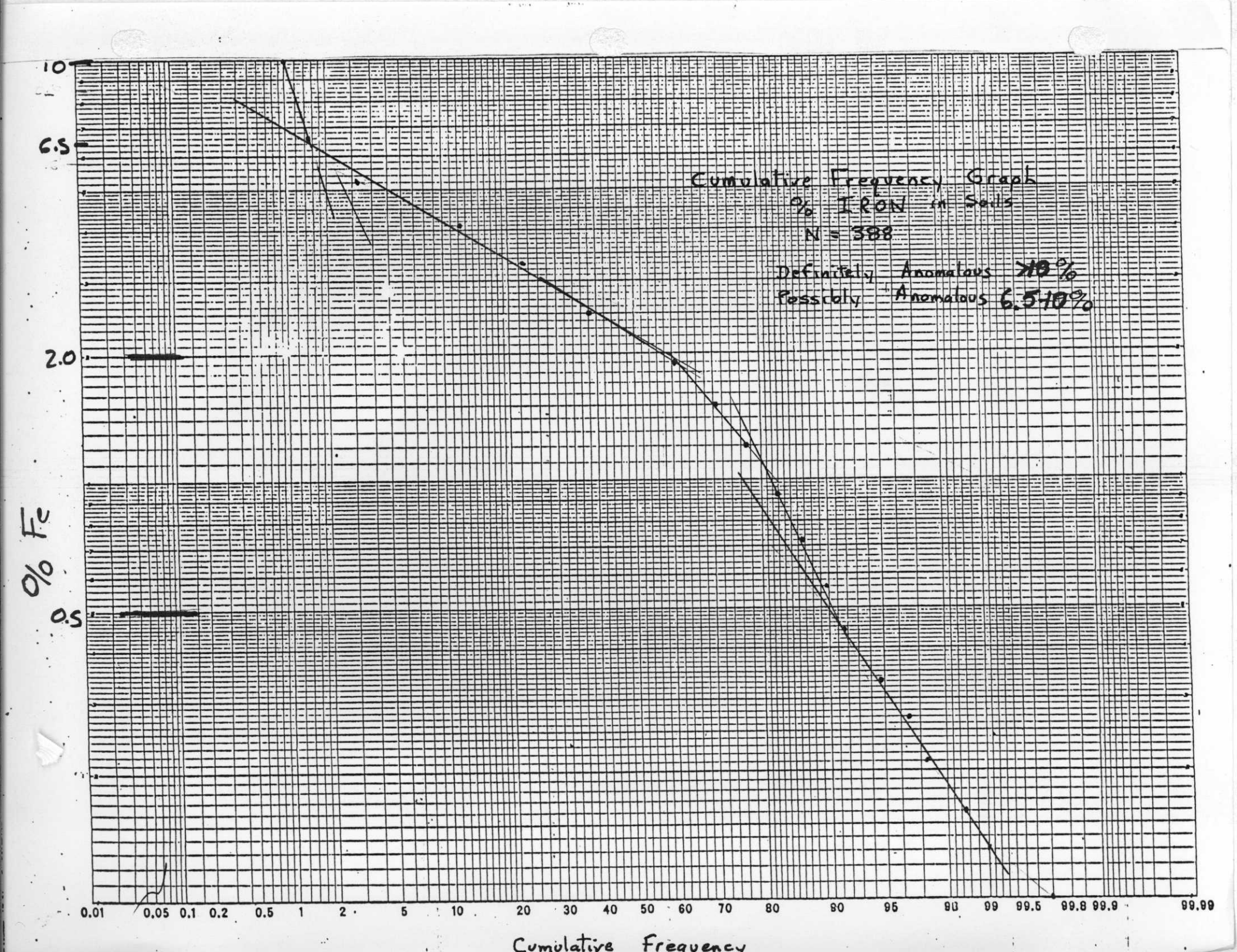
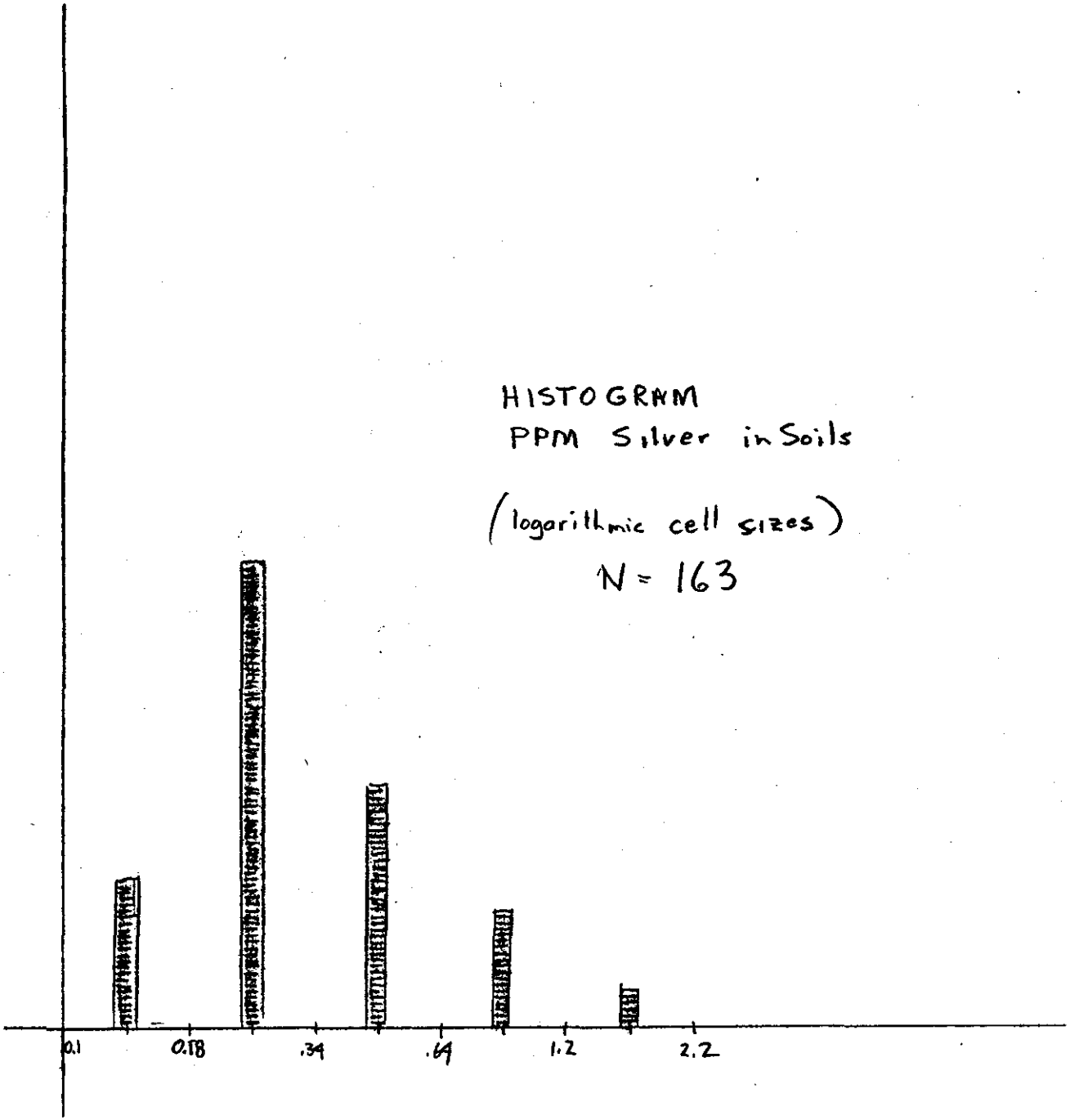
7
2
1

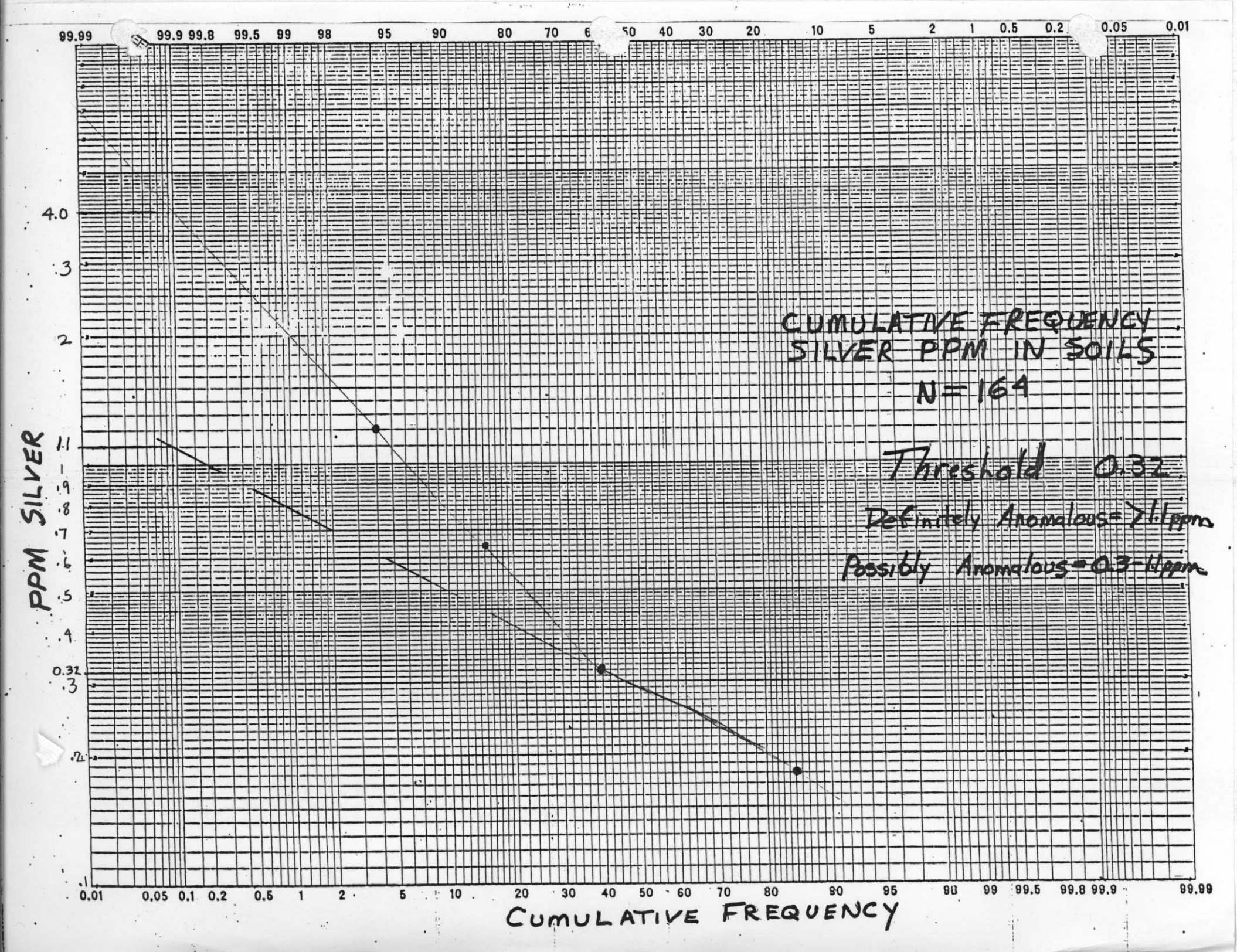

Cumulative Frequency Graph
% IRON in Soils
N = 388
Definitely Anomalous >10%
Possibly Anomalous 6.5-10%
10
6.5
2.0
0.5
% Fe
0.01
0.05
0.1
0.2
0.5
1
2
5
10
20
30
40
50
60
70
80
90
95
98
99
99.5
99.8
99.9
99.99
Cumulative Frequency

HISTOGRAM
PPM Silver in Soils

(logarithmic cell sizes)

N = 163




CUMULATIVE FREQUENCY
SILVER PPM IN SOILS
N=164
Threshold 0.32
Definitely Anomalous = 1.1 ppm
Possibly Anomalous = 0.3-1.1 ppm
PPM SILVER
CUMULATIVE FREQUENCY
99.99 99.9 99.8 99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.5 99.8 99.9 99.99
4.0
3
2
1.1
1
.9
.8
.7
.6
.5
.4
0.32
.3
.2
.1

LINE 64 | LINE 68 | LINE 72 | LINE 76 | LINE 80 | LINE 84 | LINE 88 | LINE 92 | LINE 96 | LINE 98

CLAIM BOUNDARY

93 N – 92 N – 91 N – 90 N – 89 N – 88 N – 87 N – 86 N – 85 N – 84 N – 83 N – 82 N – 81 N – BASE LINE 80 N – 79 N – 78 N – 77 N – 76 N – 75 N – 74 N – 73 N – 72 N – 71 N

1 YA-34550
2 YA-34551
3 YA-34552
4 YA-34553
5 YA-34554
6 YA-34555
7 YA-34556
8 YA-34557
9 YA-34558
10 YA-34559
11 YA-34560
12 YA-34561
13 YA-34562
14 YA-34563
15 YA-34564
16 YA-34565
17 YA-34566
18 YA-34567
19 YA-34568
20 YA-34569
21 YA-34570
22 YA-34571
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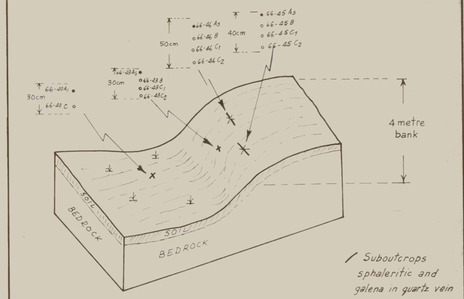
37 YA-34586
38 YA-34587
39 YA-34588
40 YA-34589
41 YA-34590
42 YA-34591
43 YA-34592
44 YA-34593
45 YA-34594
46 YA-34595
47 YA-34596
48 YA-34597

CLAIM BOUNDARY

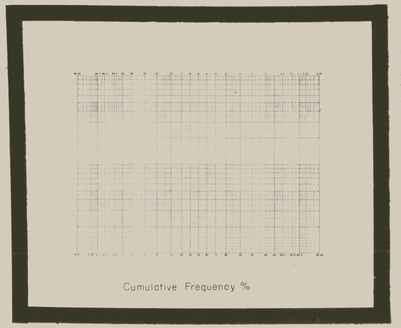
CLAIM BOUNDARY

BASE LINE 80N

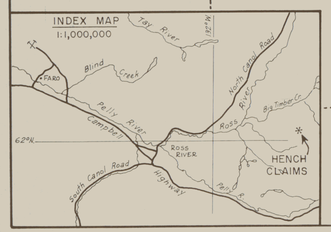
SCALE
0 100 200 300 400 metres



ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION (NOT TO SCALE



17 Claim number
YA-34581 Tag number
Silt sample
Soil sample; 'A' horizon; 'B' horizon
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beaver dam



PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA DAVID A. R. HENDRY

To accompany a report by D.A.R. Hendry Dated November 1978

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

HENCH CLAIM, Yukon Territory
CLAIM & SAMPLE LOCATION MAP

SCALE 1:5,000

APPROX LAT & LONG OF LOWER RT COR OF DWG.
62 ° 02' 12" LATITUDE
131 ° 21' 24" LONGITUDE

PROJECT NO. 6261-2
MAP NO. 1
SHEET NO. ___ OF ___
NTS 105J-3


LEGEND
4 Schist — pelitic and micaceous, muscovite, chlorite, chloritoid schist dark and variably rusty weathering tightly folded with attendant strong axial plane cleavage
3 Phyllite — variously limy phyllite and phyllitic limestone grey weathering, thinly bedded
2 Diorite — dark green, finely porphyritic in feldspar
2a altered diorite
1 Quartz Feldspar Porphyry — coarse grained, bloky, olive green weathering, apparently unmineralized
Quartz vein (only veins larger than one meter thick)
Outcrop
Float (only areas of monolithologic float reported)
Sphalerite and galena quartz vein
Mineralized float
Compositional layering
Axial plane or phyllitic cleavage
Minor fold axis
Vein orientation
25/30/2·6/7·1 — gm/tonne Ag/%Cu/%Pb/%Zn
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beave dam
CLAIM BOUNDARY
BASE LINE 80N
LINE 64
LINE 68
LINE 72
LINE 76
LINE 80
LINE 84
LINE 88
LINE 92
LINE 96
LINE 98
INDEX MAP
1:1,000,000
HENCH CLAIMS
ROSS RIVER
Pelly River
Tay River
Blind Creek
SCALE
0 100 200 300 400 metres
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA DAVID A. R. HENDRY
D Hendry
To accompany a report by D.A.R. Hendry
Dated November 1978
ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA
HENCH CLAIM, Yukon Territory
GEOLOGY
SCALE: 1:5,000
APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.
62° 02' 12" LATITUDE
131° 21' 24" LONGITUDE
PROJECT NO. 6261·2
MAP NO. 2
SHEET NO. OF
N.T.S. 105 J-3

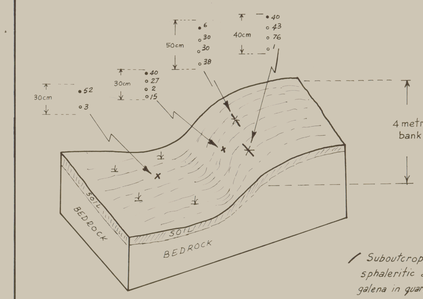
LINE 64 | LINE 68 | LINE 72 | LINE 76 | LINE 80 | LINE 84 | LINE 88 | LINE 92 | LINE 96 | LINE 98

CLAIM BOUNDARY

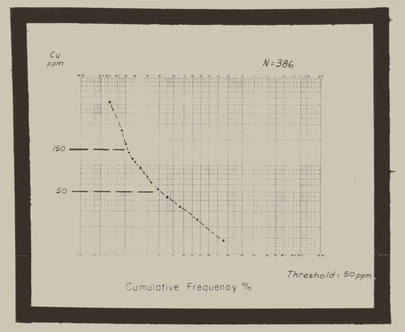
93 N – 92 N – 91 N – 90 N – 89 N – 88 N – 87 N – 86 N – 85 N – 84 N – 83 N – 82 N – 81 N – BASE LINE 80 N – 79N – 78 N – 77N – 76N – 75N – 74N – 73N – 72N – 71N

CLAIM BOUNDARY

CLAIM BOUNDARY



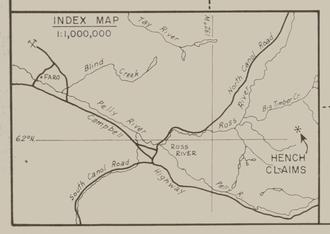
ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION (NOT TO SCALE



Possibly anomalous 50 - 150 ppm.
Definitely anomalous > 150 ppm.

BASE LINE

INDEX MAP
1:1,000,000



× 41 Silt sample

Soil sample; 'A' horizon; 'B' horizon

Base line

Claim post

Projected claim post location

Claim line

Creek

Intermittent drainage

Lake, swamp

Beaver dam

SCALE
0 100 200 300 400 metres

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DAVID A. R. HENDRY

To accompany a report by D.A.R. Hendry
Dated November 1978

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

HENCH CLAIM, Yukon Territory

COPPER

SCALE 1:5,000

APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.
62 ° 02 ' 12 " = LATITUDE
131 ° 21 ' 24 " = LONGITUDE

PROJECT NO. 6261-2

MAP NO. 3

SHEET NO. ___ OF ___

N.T.S. 105J-3

— LINE 64 — LINE 68 — LINE 72 — LINE 76 — LINE 80 — LINE 84 — LINE 88 — LINE 92 — LINE 96 — LINE 98

CLAIM BOUNDARY

CLAIM BOUNDARY

93 N — 92 N — 91 N — 90 N — 89 N — 88 N — 87 N — 86 N — 85 N — 84 N — 83 N — 82 N — 81 N —

BASE LINE 80 N

79N — 78 N — 77N — 76N — 75N — 74N — 73N — 72N — 71 N —

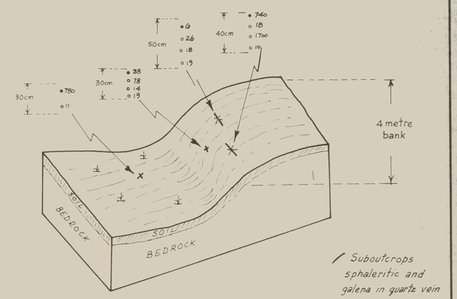
80N BASE LINE

— 93N — 92 N — 91 N — 90 N — 89 N — 88 N — 87 N — 86 N — 85 N — 84 N — 83 N — 82 N — 81 N — 79N — 78N — 77N — 76N — 75N — 74N — 73N — 72N — 71N

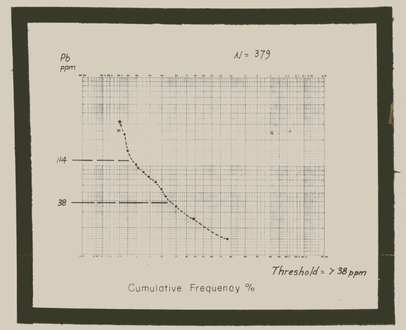
See inset

CLAIM BOUNDARY

SCALE
0 100 200 300 400 metres

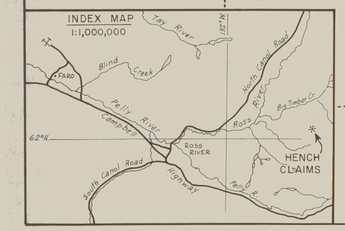


ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION
(NOT TO SCALE



Definitely anomalous > 114 ppm

× Silt sample
• ○ Soil sample; 'A' horizon; 'B' horizon
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beaver dam



To accompany a report by D.A.R. Hendry
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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DAVID A. R. HENDRY

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

HENCH CLAIM, Yukon Territory

LEAD

SCALE 1:5,000

APPROX. LAT. & LONG. OF LOWER RT COR. OF DWG. 62 ° 02' 12" LATITUDE, 131 ° 21' 24" LONGITUDE	PROJECT NO. 6261-2	SHEET NO. ___ OF ___
	MAP NO. 4	NTS 105J-3

CLAIM BOUNDARY
BASE LINE 80N
LINE 64
LINE 68
LINE 72
LINE 76
LINE 80
LINE 84
LINE 88
LINE 92
LINE 96
LINE 98
ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION (NOT TO SCALE)
4 metre bank
SOIL
BEDROCK
Subcrops sphaleritic and galena in quartz vein
Zinc ppm
N = 385
Cumulative Frequency %
Threshold = 210 ppm
Possibly anomalous: 210 - 460 ppm
Definitely anomalous: > 460 ppm
Silt sample
Soil sample; 'A' horizon; 'B' horizon
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beaver dam
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DAVID A. R. HENDRY
To accompany a report by D.A.R. Hendry
Dated November 1978
INDEX MAP
1:1,000,000
Tay River
Blind Creek
Pelly River
FARO
Campbell Highway
ROSS RIVER
HENCH CLAIMS
North Canol Road
South Canol Road
Big Timber Cr.
SCALE
0 100 200 300 400 metres
ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA
HENCH CLAIM, Yukon Territory
ZINC
SCALE: 1:5,000
APPROX. LAT & LONG OF LOWER RT. COR. OF DWG.
62° 02' 12" LATITUDE
131° 21' 24" LONGITUDE
PROJECT NO. 6261-2
MAP NO. 5
SHEET NO. ___ OF ___
N.T.S. 105J-3

LINE 64 | LINE 68 | LINE 72 | LINE 76 | LINE 80 | LINE 84 | LINE 88 | LINE 92 | LINE 96 | LINE 98

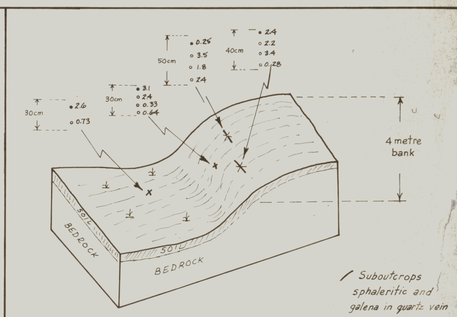
93 N — 92 N — 91 N — 90 N — 89 N — 88 N — 87 N — 86 N — 85 N — 84 N — 83 N — 82 N — 81 N — BASE LINE 80 N — 79N — 78 N — 77N — 76N — 75N — 74N — 73N — 72N — 71N —

CLAIM BOUNDARY

CLAIM BOUNDARY

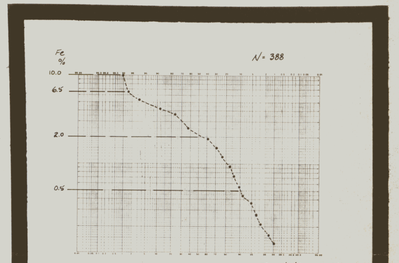
CLAIM BOUNDARY

see inset



Subcrops sphaleritic and galena in quartz vein

ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION (NOT TO SCALE

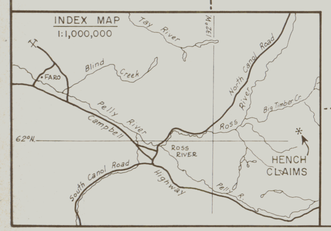


Multipopulation data set but may be generalized to 3 main populations:
1. low background : < 2.0 %
2. background : 0.5 - 10.0 %
3. anomalous data : > 6.5 %

possibly anomalous : 6.5 - 10.0 %
definitely anomalous : > 10.0 %

possible drainage sample : 0.5 - 2.0 %
definitely drainage sample : < 0.5 %

× Silt sample
• ○ Soil sample; 'A' horizon; 'B' horizon
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beaver dam



SCALE
0 100 200 300 400 metres

D. Hendry

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DAVID A. R. HENDRY

To accompany a report by D.A.R. Hendry
Dated November 1978

ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA

HENCH CLAIM, Yukon Territory

IRON

SCALE: 1:5,000

APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.
62 ° 02 ' 12 " LATITUDE
131 ° 21 ' 24 " LONGITUDE

PROJECT NO. 6261-2
MAP NO. 6
SHEET NO. 6 of
N.T.S. 105J-3.


LINE 64
LINE 68
LINE 72
LINE 76
LINE 80
LINE 84
LINE 88
LINE 92
LINE 96
LINE 98
CLAIM BOUNDARY
CLAIM BOUNDARY
C L A I M B O U N D A R Y
93 N
92 N
91 N
90 N
89 N
88 N
87 N
86 N
85 N
84 N
83 N
82 N
81 N
BASE LINE 80 N
79 N
78 N
77 N
76 N
75 N
74 N
73 N
72 N
71 N
BASE LINE
4 metre bank
50cm
40cm
30cm
30cm
SOIL
BEDROCK
SOIL
BEDROCK
Suboutcrops sphaleritic and galena in quartz vein
ISOMETRIC PROJECTION, SHOWING SOIL SAMPLING OVER MINERALIZATION (NOT TO SCALE
N = 164
Ag ppm
4.0
1.1
0.32
Threshold = 0.32 ppm
Cumulative Frequency %
Definitely Anomalous >1.1 ppm
Possibly Anomalous 0.32-1.1 ppm
L ,IS Less than, insufficient sample
0.3 0.3 PPM AG
Silt sample
Soil sample; 'A' horizon; 'B' horizon
Base line
Claim post
Projected claim post location
Claim line
Creek
Intermittent drainage
Lake, swamp
Beaver dam
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DAVID A. R. HENDRY
To accompany a report by D.A.R. Hendry
Dated November 1978
INDEX MAP
1:1,000,000
HENCH CLAIMS
SCALE
0 100 200 300 400 metres
ST. JOSEPH EXPLORATIONS LIMITED
TORONTO, CANADA
HENCH CLAIM, Yukon Territory
SILVER
SCALE 1:5,000
APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.
62 ° 02' 12" LATITUDE
131 ° 21' 24" LONGITUDE
PROJECT NO. 6261·2
MAP NO. 7
SHEET NO. OF
N.T.S. 105 J-3