

# 3021

GEOCHEMICAL REPORT

ON THE

JOHN CLAIMS

BEV CLAIMS

MOSH CLAIMS

John 1 - 40

Bev 11 - 40

Mosh 1 - 40

One Mile South of Bucklake, B.C.

Latitude  $49^{\circ} 32' N$ , Longitude  $118^{\circ} 57' W$

By

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STEREOGRAMMETRY LTD.,

P. O. Box 997,

Calgary, Alberta

For

DeKalb Mining Corporation

Calgary, Alberta

Work done between:

September 24 and November 18, 1970

**Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT**

NO. 3021 MAP

## TABLE OF CONTENTS

INTRODUCTION . . . . .		Page 1
Chapter I	THE JOHN CLAIMS . . . . .	2
Chapter II	THE BEV CLAIMS . . . . .	3
Chapter III	THE MOSH CLAIMS . . . . .	3
Chapter IV	HISTORY . . . . .	4
Chapter V	PREPARATION OF THE BASE MAPS . . . . .	4
Chapter VI	GEOCHEMICAL ANALYSIS . . . . .	4
	Soil Sampling . . . . .	4
	Chemical Analysis of the Samples . . . . .	5
Chapter VII	RESULTS OF THE GEOCHEMICAL ANALYSIS . . . . .	5
	John Claims . . . . .	5
	Lead . . . . .	5
	Zinc . . . . .	5
	Nickel . . . . .	7
	Molybdenum . . . . .	7
	Copper . . . . .	8
	Composite Geochemical Map . . . . .	9
Chapter VIII	THE BEV CLAIMS . . . . .	9
	Lead . . . . .	9
	Zinc . . . . .	9
	Nickel . . . . .	10
	Molybdenum . . . . .	10
	Copper . . . . .	10
	Composite Geochemical Map . . . . .	12
Chapter IX	THE MOSH CLAIMS . . . . .	13
	Lead . . . . .	13

Chapter IX Continued

	Zinc . . . . .	Page 13
	Nickel . . . . .	14
	Molybdenum . . . . .	15
	Copper . . . . .	15
	Composite Geochemical Map . . . . .	16
Chapter X	SUMMARY AND RECOMMENDATIONS . . . . .	17
	John Claims . . . . .	17
	Bev Claims . . . . .	18
	Mosh Claims . . . . .	19
	Salaries and Expenses . . . . .	
	John Claims . . . . .	21
	Bev Claims . . . . .	22
	Mosh Claims . . . . .	23
	Soil Sampling Crew Time Sheet . . . . .	
	John Claims . . . . .	24
	Bev Claims . . . . .	25
	Mosh Claims . . . . .	26
	REFERENCES . . . . .	27



MAPS IN POCKET NO. 1

- 1 Mineral Map, Scale: 2 inches = 1 mile
- 2 Photo Mosaic, Scale: 1 inch = 1000 feet

MAPS IN POCKET NO. 2

Geochemical Maps, Scale: 1 inch = 500 feet

3-8 John Claims

9-14 Bev Claims

15-20 Mosh Claims

Lead

Zinc

Nickel

Molybdenum

Copper

Composite Geochemical Map

## INTRODUCTION

The John 1 - 40 claims were located by Mr. Koit Jurgens and Mr. Roland Burke between May 27th and June 2nd, 1970 on behalf of Mr. Ronald A. Buckley, Calgary, Alberta.

The Bev No. 1 - 40 claims were located by Mr. Koit Jurgens and Mr. Roland Burke between May 27th and June 1st on behalf of Mr. Ronald A. Buckley, Calgary, Alberta. The Mosh No. 1 - 40 claims were located by Mr. Koit Jurgens and Mr. Roland Burke between the 24th day of May and the 5th day of June 1970, on behalf of Mr. Ronald A. Buckley, Calgary, Alberta. The John, Bev, and Mosh claims were recorded at Grand Forks, B. C. on the 6th day of June 1970.

The ownership of the John, Bev, and Mosh claims was transferred by Bill of Sale recorded at Greenwood, B. C. on September 14th, 1970 from Mr. Ronald A. Buckley to DeKalb Mining Corporation.

This report was prepared for filing of assessment work on the John, Bev, and Mosh claims and describes the results of a geochemical survey on all three claim blocks.

## Chapter I

### THE JOHN CLAIMS

The John No. 1 - 40 claims (Record Nos. 32790 - 32829) are situated approximately one-half mile south of Buck Lake, to the west of Saint John ridge.

The northeast corner of the John claims joins with the southwest corner of the Buck claims. Immediately adjacent to the east of the John claims are the Bev claims. The John claims are joined towards south by the Del claims.

During the soil sampling survey the claim post, initial post Quis No. 3 and 4 and final post Quis No. 1 and 2 was discovered, located by H. O. Plank, on June 27th, 1970. The north running claim line, lies near the western margin of the John claims, and the Quis claims have partly overstaked the previously located John claims.

The Mineral Claim Map 82E/10W issued by the Dept. of Mines and Petroleum Resources, Victoria, B. C. shows the LS 1 - 6 claims to the southeast of Buck Lake. Neither claim posts nor claim lines were found on the Buck claims, northeast of the John claims, nor were they discovered within the John claims.

To the west of the John claims, Mr. Roland Burke located the Jack No. 1 - 14 claims on behalf of DeKalb Mining Corporation. Accordingly, some of the Jack claims have overstaked the previously located Quis claims. Additional surveying is required to map the relative positions of the John, Quis and Jack claims.

## Chapter II

### THE BEV CLAIMS

The Bev No. 1 - 40 claims (Record Nos. 32648-32687) are situated approximately 1 mile southeast of Buck Lake, and cover Saint John ridge. The outline of the claims is shown on the accompanying Mineral Map 82E/10W and Photo Mosaic (in Pocket No. 1). The Bev claims join toward north with the Buck claims, toward east with the Mosh claims, towards south with the Del claims, and toward west with the John claims.

The Mineral Claim Map 82E/10W of the Dept. of Mines and Petroleum Resources, Victoria, B. C., shows the LS No. 1 - 6 claims to the southeast of Buck Lake, in the northern portion of the Bev claims. One old claim line was located in the northern part of the Bev claims, running E - W. No claim posts have so far been detected along this claim line.

## Chapter III

### THE MOSH CLAIMS

The Mosh 1 - 40 claims (Record Nos. 32688 - 32727) are situated approximately 1 mile southeast of Buck Lake, and cover Mosher ridge, and part of Sago Creek. The Mosh claims are joined to the north by the Buck claims, toward west by the Bev claims, and towards south by the Del claims.

## Chapter IV

### HISTORY

Prospecting in this general area has been carried out since the late 80's of the last century. No old claims, and no previous mining history is known to the writer from the three claim blocks. A number of old shafts and dumps were discovered in the eastern part of the John claims, and the minesite was indicated as Rosemount Mines.

## Chapter V

### PREPARATION OF THE BASE MAPS

A Photo Mosaic was constructed at an approximate scale: 1 inch = 1000 feet. The soil survey lines for the different claim blocks were plotted with different tapes onto the mosaic. The Base Map for the geochemical survey lines was prepared at a scale 1 inch = 500 feet. The Base Maps also show the relative position of the adjacent soil sampling survey and neighbouring claim blocks.

## Chapter VI

### GEOCHEMICAL ANALYSIS

#### Soil Sampling

A Soil Sampling program commenced on September 24th, 1970, locating the lines by compass and chain. The samples were recovered by a specially

Anarchist group. The observation of a number of lineaments in the vicinity of the molybdenum anomalies suggests fracture control.

Copper - The regional background of copper is approximately 5 ppm. Two copper anomalies occur near 175 E - 800 N, with 64 and 72 ppm Cu respectively. The copper is apparently present in a fracture zone, running N - S, near a contact of granite, versus gneisses and amphibolites.

A fairly long copper anomaly extends from 150 N - 500 N, between 0 E and 100 E, with values up to 235 ppm Cu. Most of the samples with relatively high copper readings were taken from dark brown, dark red-brown and medium brown soil. A copper anomaly is located on the east flank of a relatively steep hill, to the north of the old workings of the Rosemount Mine. There is almost a complete lack of rock outcroppings. One small outcropping to the south of the copper anomaly showed marble, and one rock outcropping within the anomaly showed well laminated quartzite of the Anarchist group. The copper concentration can be explained by contact mineralization, possibly in a limestone or marble zone. The granite contact is probably located beneath the sediments. There is presently no indication of granite cropping out at the surface in the near vicinity. The two copper anomalies at 100E, 150 N and 200 N were taken near a small creek, and the copper may have been washed in. The copper leading zone may be approximately 250 feet wide and more than 1500 feet long.

Small copper anomalies occur near the southeast corner of the John claims survey, with moderate values of 39 and 40 ppm Cu. These copper anomalies are immediately adjacent to the very pronounced zinc anomalies,

and quartz phyllites. The portion with the highest zinc values within both John and Del claims is approximately 500 feet wide and 3000 feet long, and also shows some anomalous lead values within the Del claims. The zinc concentration is explained as contact mineralization of a Nelson Granite Intrusive versus a carbonate zone of the Anarchist group. The presence of a number of E - W and N - S trending lineaments may suggest fracture control to mineralization.

Nickel - The regional background of nickel is approximately 5 ppm. There are only widely scattered minor nickel anomalies within the John claims, the highest at 300 E - 725 N, with 63 ppm Ni. The nickel anomaly was located on a small hill, with outcroppings of quartzite of the Anarchist group. The minor increases of nickel generally occur in sediments of the Anarchist group, close to intrusive contacts. The Nickel anomalies are not considered to be of commercial grade.

Molybdenum - The regional background of molybdenum is .5 ppm or less. Only minor molybdenum anomalies were noticed, the highest with 6.5 ppm at 450 E - 700 N. The molybdenum anomaly is located near gneisses, in a contact zone with granite, within an E - W trending lineament. The molybdenum is explained to occur in fractures near an intrusive contact zone, and is not considered to be of commercial grade. Moderate molybdenum anomalies up to 4 ppm were discovered in the vicinity of the line 300 E - 100 N, and are apparently continuous with similar moderate molybdenum anomalies in the Del claims. The molybdenum is apparently moderately concentrated in granites and near the contact zone overlying carbonates and clastic rocks of the

of the stations with anomalous zinc readings is medium brown or dark brown. There are no rock outcroppings within the zinc anomaly. Gneisses, amphibolites, and possibly strongly recrystallized quartz conglomerate, with gneissic texture are located to the west of the zinc anomaly. Some widely scattered outcrops of granite and gneisses were found to the east of the anomaly. Prominent N - S trending lineaments were noticed on the aerial photographs, and appear to border the zinc anomaly toward east. The zinc concentration is explained by contact mineralization, but the host rock is not known.

A cluster of small zinc anomalies is apparent in the southwest corner of the map area. Values up to 250 ppm Zn are located near rock outcroppings of gneiss and fine to medium crystalline marble. The zinc anomalies may indicate some contact mineralization.

The best zinc anomaly is located between 375 E and 550 E - 50 to 150 N, with values up to 850 ppm. The anomaly is located on a ridge and the northern border is marked by a gully. There are no rock outcroppings within the zinc anomaly. Gneisses were noticed to the west and east, siltstones and sandstones with some interbedded pyrite were found immediately north of the anomaly. A prominent E - W trending lineament was noticed on the aerial photograph near the northern border of the zinc anomaly. The zinc concentrations are interpreted as contact mineralization, probably in strongly fractured rock.

The zinc anomaly continues towards south into the Del claims, with readings up to 795 ppm Zn. Outcroppings within the zinc anomaly of the Del claims, shows limestone, skarn and marble in association with silty argillites



constructed shovel, approximately 3 feet long, with a pointed end. The samples were taken as deep as possible, from either the "B" horizon (brown soil) or the "C" horizon. The samples were packaged in brown paper envelopes supplied by T.S.L. Laboratories Ltd., Vancouver, B. C.

#### Chemical Analysis of the Samples

The samples were sent to T.S.L. Laboratories Ltd., Vancouver, B. C. and analysed for lead, zinc, nickel, molybdenum, and copper. The samples were treated by hot aqua regia extraction and the metals determined by atomic absorption. The analysis was supervised by Mr. R. B. Fletcher, T.S.L. Laboratories Ltd.

### Chapter VII

#### RESULTS OF THE GEOCHEMICAL ANALYSIS

##### John Claims

Lead - The regional background of lead lies between 5 and 10 ppm. No anomalous lead anomalies are apparent, though a moderate increase of 41 ppm Pb was discovered at 150 E - 50 N. The anomaly is located in a small southwesterly flowing gully, in the vicinity of some outcroppings of gneiss. The anomaly is not considered to indicate economic concentrations of lead.

Zinc - The regional background of zinc is approximately 10 - 15 ppm. Several relatively large zinc anomalies were discovered indicating some zinc concentrations in bedrock. A fairly continuous zinc anomaly extends from 50 E - 150 E, 750 N - 400 N with values up to 276 ppm. The soil colour of most

indicating minor copper concentrations together with zinc. Similar relationships are noticed on the Del claims.

#### Composite Geochemical Map

The Composite Geochemical Map was prepared by superimposing the contours for lead, zinc, nickel, molybdenum, and copper. The map shows a concentration of anomalies and essentially north-southerly trend near the western border. Zinc is concentrated in the central portions, whereas copper has a tendency to be concentrated at the north and southern end of the main zinc anomaly.

The anomaly in the southeast corner of the map area shows a high concentration of zinc, and here again, copper has a tendency to form small anomalies immediately adjacent to the zinc anomaly.

### Chapter VIII

#### THE BEV CLAIMS

##### Lead

The regional background of lead is approximately 10 ppm. The highest value of lead is 26 ppm, and the area is not considered to carry any lead prospects.

##### Zinc

The regional background of zinc is approximately 20 ppm. A number of relatively small zinc anomalies were discovered within the Bev claims.

The anomaly near 250 E - 500 N carries up to 241 ppm Zn and is located on the east flank of a relatively steep hill with a number of gullies. Rock outcroppings in the vicinity show graywacke, sandstones and quartzites with apparently increasing metamorphism towards east. A number of northerly to northwesterly trending lineaments are noticed on the aerial photographs to occur in the vicinity of the zinc anomaly, suggesting some zinc concentrations in fractures within rocks of the Anarchist group. The zinc anomaly at 50 E - 200 N, with up to 235 ppm Zn is possibly a minor extension of the large zinc anomaly noticed on the John claims.

The other zinc anomalies scattered throughout the area are not considered to indicate any economic concentrations of zinc.

#### Nickel

The regional background of nickel is approximately 5 ppm. The highest value found within the Bev claims is 25 ppm Ni, and no economic nickel concentrations appear to be present within the Bev claims.

#### Molybdenum

The regional background of molybdenum is less than .5 ppm. The highest values of molybdenum are 2.5 ppm Mo, and no economic concentrations of molybdenum can be inferred to be present within the Bev claims.

#### Copper

The regional background of copper is approximately 5 ppm. A number of copper anomalies are noticed to occur within the Bev claims. One moderately anomalous area with up to 36 ppm of copper occurs near 400 E,

between 625 N and 725 N. The copper anomaly is located on a moderately to steeply sloping flank of a hill, west of a small south-flowing creek.

Copper occurs immediately west of a prominent vegetal anomaly, as observed on aerial photographs. No rock outcroppings were noticed in the vicinity of the copper anomaly. The photographs suggest relatively dense fracturing in north-northwesterly direction.

An approximately N - S running zone with a number of isolated copper anomalies, with readings up to 102 ppm Cu, was discovered near 300 E, between 0 N and 125 N. The copper anomaly is located on the east slope of a hill, with a number of essentially N - S running gullies. Rock outcroppings to the west of the copper zone consist of graywacke and sandstone of the Anarchist group. A prominent N - S running lineament was observed on the aerial photographs, along the eastern border of the copper anomaly and through the central part of the anomaly at the southern border of the survey. It is presently not apparent whether this copper zone continues into the Del claims, where the copper readings are generally very low, though a number of widely scattered copper anomalies were noticed.

A nearly continuous belt of scattered copper anomalies is apparent between 375 E and 500 E, 0 N to 400 N. One rock sample taken in a creek, with a number of outcroppings near the southern end of the anomaly shows sandstones of the Anarchist group. These sandstones appear to run in a northerly direction, probably along the cupriferous zone. It is presently not apparent whether this copper anomaly continues toward south into the Del claims. The Del claims show a number of moderate copper anomalies, with values up to 42 ppm in a southeasterly direction. The rock outcroppings in the Del claims show likewise

quartzitic sandstones of the Anarchist group. The nature of this copper belt is not presently understood. There is a possibility of a certain layer within the Anarchist group showing some concentrations of copper. Since the copper anomaly roughly follows a south-draining creek, and a number of samples with high readings were taken near the creek, some of the copper may have been washed in from elsewhere.

Since rock outcroppings are very widely scattered, particularly in the central and northern part of the copper anomaly, a fair amount of glacial overburden can be assumed, causing considerable difficulty for soil sampling. The sampling crews reported repeatedly the presence of glacial boulders from within the copper anomaly. Summarizing, we may say, that the Bev claims may have two copper prospects, both in the southern half of the claim block. A third copper prospect may be present in the north-central part, in the vicinity of the vegetal anomaly. Due to early snowfall in October and November, 1970, the soil sampling survey was not completed in the north-central portion of the Bev claims.

#### Composite Geochemical Map

The Composite Geochemical Map was prepared by superimposing the contours of lead, zinc, nickel, molybdenum, and copper. A moderate cluster of anomalies is present in the south-central part of the map area, near 250 E - 50 N, showing zinc to the west and copper to the east. An almost continuous zone of copper, and some zinc, trends in north-northwesterly direction from the southeast corner to near 250 E - 500 N and from there on may swing to the west.

## Chapter IX

### THE MOSH CLAIMS

#### Lead

The regional background of lead is approximately 10 ppm. A number of isolated, small anomalies were discovered to be scattered throughout the claim block. The best anomaly occurs at 1550 E - 150 N, with 71 ppm Pb. The anomaly is located west of the main Beaverdell road, on the east flanks of a hill. Rock outcroppings above the lead anomaly show sandstones and quartzites of the Anarchist group. Limestone was noticed to the northeast of the anomaly. Most of the lead anomalies are in the vicinity of rock outcroppings showing sediments of the Anarchist group. There is presently no indication of an economic concentration of lead within the claim block.

#### Zinc

The regional background of zinc lies between 20 and 30 ppm. A number of good zinc anomalies were noticed, particularly in the southern part of the map area. One moderate zinc anomaly occurs in the northeast corner of the map, with readings up to 154 ppm Zn. The anomaly is located on gently south sloping terrain with no outcroppings in the vicinity. Towards the south are some sandstones of the Anarchist group. The anomaly may possibly extend toward the northwest into the Buck claim group, with some scattered zinc anomalies up to 274 ppm.

The highest concentration of zinc was found near 1400 E, between 400 N and 300 N, with readings up to 1250 ppm Zn. The terrain is flat to

gently rolling and is completely lacking rock outcroppings. To the east are some scattered rock outcroppings of mudstone, siltstone, and sandstone of the Anarchist group. To the west are graywacke, sandstones, mudstones and scattered limestones of the Anarchist group. A prominent N - S trending lineament was observed on the aerial photographs in the immediate vicinity of the high zinc anomaly. The country rock is probably strongly fractured and there is a possibility of zinc mineralization in carbonates. One isolated zinc anomaly at 1200 E - 300 N occurs in the vicinity of graywacke, quartzitic sandstones, and limestones and appears to be associated with a north-running copper anomaly.

A considerable number of moderate zinc anomalies with readings up to 151 ppm Zn are relatively widely spread in the southern part of the map area. Rock outcroppings in the vicinity of these anomalies show sandstones and siltstones of the Anarchist group. The zinc anomalies appear to extend towards south into the Del claims, where several isolated zinc anomalies with up to 153 ppm Zn were found in quartzitic sandstones associated with some limestone.

### Nickel

The regional background of nickel lies near 5 ppm, and no prominent nickel anomalies were discovered within the map area. The highest reading of 47 ppm Ni was noticed in a north-southerly running copper anomaly, immediately to the west of a major zinc anomaly, at the location 1350 E - 350 N. No economic concentration of nickel is inferred to be present within the map area.

### Molybdenum

The regional background of molybdenum is less than .5 ppm. No prominent molybdenum anomalies were noticed within the map area.

### Copper

The regional background of copper is approximately 5 ppm. Two, if not three, apparently more or less continuous copper anomalies may run in approximately north-southerly direction, throughout the entire map area. One copper anomaly with mostly moderate readings between 20 and 40 ppm may run from 1300 E - 600 N to 1200 E - 150 N. The highest reading is 128 ppm Cu. A considerable number of rock outcroppings show graywacke, argillaceous sandstone, with occasional disseminated fine sulphides, siltstone and mudstone, and one outcropping showed limestone, very fine to micro-grained, and laminated. The copper concentration is interpreted to follow a certain stratigraphic horizon of the Anarchist group.

A second, possibly almost continuous zone of anomalous copper readings may extend from 1350 E - 800 N, in a southerly direction to 1450 E - 550 N, and to 1375 E - 150 N. Several of the copper readings are running between 20 and 40 ppm, with a very low background towards east, approximately 5 ppm Cu. A high copper reading is 80 ppm. The copper anomaly runs immediately to the west of a prominent zinc anomaly between 400 N and 300 N. There are usually no rock outcroppings within the copper anomaly, but outcroppings in adjacent areas show mudstone breccia, sandstones, and graywacke of the Anarchist group. The anomaly may be continuous for 8000 feet, within the Mosh claims, and may be up to 500 feet wide. Low-grade copper concentration



in a specific layer of the Anarchist group is herein offered as an explanation for this copper anomaly. The anomaly may extend towards south, near the line 1500 E, to the line 1800 E of the Del claims. The copper anomaly extends for 2500 feet into the Del claims, with readings up to 202 ppm Cu. The entire length of this copper leading horizon can be estimated to exceed 10,000 feet.

Though the concentration of copper is very likely of low grade, the copper deposit may have a very large volume.

An extension of the copper leading horizon within the Anarchist group toward north, into the Buck claims, is apparent. The copper leading horizon seems to swing into a northeasterly direction, however, with copper readings up to 135 ppm. If this correlation proves to be correct, we may add another 5,000 feet to the copper anomaly, then totalling more than 15,000 feet and running through the entire Mosh claim block.

#### Composite Geochemical Map

The Composite Geochemical Map was prepared by superimposing the contours of lead, zinc, nickel, molybdenum and copper. A number of near continuous trends of anomalies runs through the entire claim block. One copper anomaly may be continuous along the 1200 E line, from 150 N to 300 N, copper and zinc both being high at the northern extremity of this anomaly. An almost continuous trend of copper and zinc extends in a generally north-southerly direction from near 1425 E - 0 N to 1325 E - 800 N. Copper and zinc are clearly separated and the densest cluster of metal concentration is apparent between 300 N and 425 N.

Copper, lead and zinc are high at 1550 E - 150 N, on the northeastern part of a more widely spread zinc anomaly.

## Chapter X

### SUMMARY AND RECOMMENDATIONS

A regional soil sampling survey was carried out on the John, Bev, and Mosh claims. In the first sampling survey the lines were run approximately 500 feet apart, and samples were taken in 250 foot intervals. After completion of this first survey, a number of lines were run in between the previously established sample lines, so that part of the area was sampled in a 250 foot grid system. Due to bad weather conditions during October and November, the sampling survey on the Bev claims was not completed. The samples on the Mosh claims were taken in lines 500 feet apart, in 250 foot intervals.

#### John Claims

A zinc anomaly approximately 3,500 feet long and up to 1,000 feet wide was discovered and is interpreted to represent contact mineralization of a Nelson Intrusive to the east, and gneisses, amphibolites and possibly marble in the vicinity of the anomaly. The eastern border of the anomaly, in the vicinity of the contact is marked by two very long, prominent lineaments.

Two isolated copper anomalies occur at the northern end of the zinc anomaly, and the copper may possibly be present in fractures. A copper anomaly, approximately 1500 feet long, occurs as a zone near the southern end

of the zinc anomaly. The copper may be present in a specific layer of the Anarchist group, near outcroppings of quartzites, and possibly limestones and marble.

A prominent zinc anomaly was discovered in the southeastern corner of the John claims and extends towards south into the Del claims. The zinc is interpreted to occur as contact mineralization, probably in limestones and marbles. The northern border of the zinc anomaly may possibly be marked by a major eastward trending lineament. Minor copper anomalies are immediately adjacent to the zinc anomaly. Additional detailed soil sampling and Induced Polarization work is recommended to further evaluate these zinc and copper anomalies.

#### The Bev Claims

A zinc anomaly at 50 E - 200 N, is interpreted to be an extension of the major zinc anomaly, found near the southeast corner of the John claims.

A cluster of four copper anomalies near the line 300 E, between 0 N and 125 N, suggest a possibly continuous zone of copper mineralization in a specific layer of the Anarchist group, associated with a major N - S running lineament. A moderate zinc anomaly is adjacent to the west of the copper zone.

A possibly continuous copper anomaly runs from near 450 E - 0 N, in a northwesterly direction to the station 275 E - 475 N. There, the copper anomaly appears to swing into westerly direction, to the station 50 E - 525 N. The entire length of this copper anomaly is 7,000 feet. The copper appears to be concentrated in a specific layer of the Anarchist group in the vicinity

of sandstones, and quartzites. It is suggested that the copper leading horizon is associated with limestones, and may continue in a southeasterly direction, into the Del claims.

A minor copper anomaly near 400 E - 700 N may continue towards west and additional soil sampling is recommended to complete the geochemical survey on the Bev claims. Detailed soil sampling and Induced Polarization surveys are recommended on the two copper leading horizons.

#### Mosh Claims

Two, or possibly three, apparently continuous copper anomalies run in an essentially north-southerly direction through the entire Mosh claims. The copper anomalies probably follow a specific recessive member of the Anarchist group, in the vicinity of rock outcroppings of sandstone, graywacke, mudstone and possibly limestone. One copper anomaly runs from 150 N to approximately 400 N near the 1200 E line. The copper anomaly coincides with a high zinc anomaly at the station 1200 E - 300 N. Another moderate anomaly is probably continuous through the entire length of the Mosh claims, near the 1400 E line and may extend towards north into the Buck claims and towards south into the Del claims. The entire length of this copper leading horizon within the Anarchist group is at least 8,000 feet, but possibly even 1500 feet. The copper horizon clearly follows a recessive member of the Anarchist group, with outcroppings of sandstones, slate, and mudstones being adjacent. There is a clear separation of copper and zinc, and the highest zinc anomaly may be continuous from 300 N to 400 N, along the 1400 E line, to the east of the copper anomaly. A third, possibly continuous, copper and zinc anomaly

may run along the 1525 line, between 100 N and 400 N. Moderate copper values are associated with moderate zinc values in the southern part of this anomaly. Sandstones, quartzites, and mudstones were noticed in the vicinity.

It is presently not known whether the copper and zinc anomalies occur in the same stratigraphic horizon, structurally repeated, or whether a series of similar layers carry copper and zinc concentrations. Detailed soil sampling and Induced Polarization work is recommended to cover the copper and zinc anomalies along their entire length. This report was prepared to file assessment work on the John, Bev, and Mosh claims for one year.

SALARIES AND EXPENSES

JOHN CLAIMS

- |  |             |
|--|-------------|
| 1. Salaries and expenses for soil sampling crew<br>at \$30.00 for each man per day, 60 days                              | \$ 1,800.00 |
| 2. Professional services by Dr. Peter J. Haman,<br>geological supervision, report writing<br>15 days at \$140.00 per day | 2,100.00    |
| 3. Sample Analysis by T.S.L. Laboratories, Ltd.  | 1,197.40    |
| 4. Expenses for Field Office, accommodation,<br>at \$40.00 per day for 10 days   | 400.00      |
| 5. Rental of 1 Dune Buggy, gas   | 275.23      |

Total \$ 5,772.63

6,575.99  
4,285.56  
16,634.18

SALARIES AND EXPENSES

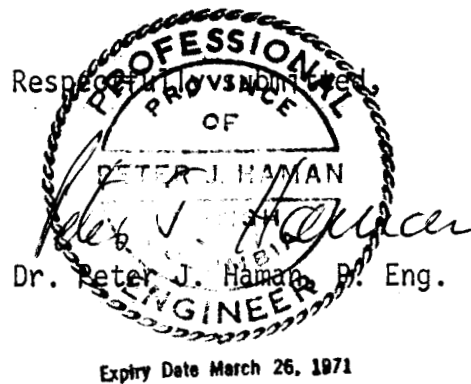
BEV CLAIMS

1.	Salaries and expenses for soil sampling crew at \$30.00 for each man per day, 91 days	\$ 2,730.00
2.	Professional services by Dr. Peter J. Haman, geological supervision, report writing, 10 days at \$140.00 per day	1,400.00
3.	Sample Analysis by T.S.L. Laboratories	720.55
4.	Expenses for Field Office, accommodation, at \$40.00 per day for 10 days	400.00
5.	Rental of 1 Toyota 4-wheel drive, 3 trail bikes	625.44
6.	Road construction	700.00
	Total	<hr/> \$ 6,575.99

SALARIES AND EXPENSES

MOSH CLAIMS

1. Salaries and expenses for soil sampling crew at \$30.00 for each man per day, 45 days	\$ 1,350.00
2. Professional services by Dr. Peter J. Haman, geological supervision, report writing, 10 days at \$140.00 per day	1,400.00
3. Sample Analysis by T.S.L. Laboratories Ltd.	923.06
4. Expenses for Field Office, accommodation at \$40.00 per day for 10 days	400.00
5. Rental of 1 Volkswagen, and gas	212.50
	<hr/>
	\$ 4,285.56



Dated March 12, 1971



JOHN CLAIMS

Soil Sampling Crew Time Sheet

					<u># of men</u>
Sept	24/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	25/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	26/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	27/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	28/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	29/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	30/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
Oct	1/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	2/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	3/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	4/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	5/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	6/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg		3
	20/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg, B. Kowalski		4
	21/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg, B. Kowalski,		
		::	B. Pinkerton		5
	22/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg, B. Kowalski,		
		::	B. Pinkerton		5
	24/70	SS 1 crew:	D. Stoker, R. Engel, B. Soelberg, B. Kowalski,		
		::	B. Pinkerton		5
	31/70	SS 1 crew:	B. Soelberg, B. Pinkerton		2

---

60

\* SS: Soil Sampling

B E V C L A I M

<u>Soil Sampling Crew Time Sheet</u>				<u># of men</u>
Oct	7/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	8/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	9/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	10/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	10/70	RC	1 crew: R. Snell	1
	11/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	12/70	SS	1 crew: D. Stoker, R. Engel, B. Soelberg	3
	23/70	RC	1 crew: R. Snell, H. Thomas	2
	25/70	SS	2 crews: D. Stoker, B. Pinkerton, R. Engel (1)	
			:: R. Snell, B. Kowalski, K. Timmermans,	
			:: B. Soelberg (2)	7
	26/70	RC	1 crew: R. Snell, H. Thomas	2
	27/70	RC	1 crew: K. Timmermans, H. Thomas	2
	28/70	RC	1 crew: K. Timmermans, H. Thomas	2
	29/70	SS:	1 crew: D. Stoker, B. Pinkerton, R. Engel, B. Kowalski	4
	29/70	RC	1 crew: K. Timmermans, H. Thomas	2
	30/70	SS	2 crews: B. Pinkerton, D. Stoker, R. Engel (1)	
			::: B. Soelberg, B. Kowalski, R. Snell (2)	6
	30/70	RC	1 crew: K. Timmermans, H. Thomas	2
	31/70	SS	1 crew: D. Stoker, R. Engel, B. Kowalski	3
Nov	1/70	RC	1 crew: R. Snell, H. Thomas	2
	1/70	SS	1 crew: R. Engel, D. Stoker, B. Soelberg, B. Kowalski	4
	2/70	RC:	1 crew: K. Timmermans, R. Snell, H. Thomas	3
	2/70	SS	1 crew: R. Engel, D. Stoker, B. Soelberg, B. Kowalski	4
	3/70	SS	1 crew: R. Engel, D. Stoker, B. Soelberg, B. Kowalski	4
	4/70	SS	1 crew: R. Engel, B. Kowalski, M. Soelberg, D. Stoker	4
	4/70	RC	1 crew: R. Snell, H. Thomas	2
	5/70	SS	2 crews: K. Timmermans (1)	
			:: B. Soelberg, R. Engel, D. Stoker (2)	4
	6/70	SS	1 crew: B. Soelberg, R. Engel, D. Stoker, B. Kowalski	4
	6/70	RC	1 crew: H. Thomas, R. Snell	2
	8/70	RC	1 crew: R. Snell, H. Thomas	2
	10/70	RC	1 crew: R. Snell, H. Thomas	2
	11/70	RC	1 crew: R. Snell, H. Thomas	2
	12/70	RC:	1 crew: R. Snell, H. Thomas	2
	13/70	RC	1 crew: R. Snell, H. Thomas	2
	14/70	RC	1 crew: R. Snell, H. Thomas	2
	16/70	RC	1 crew: R. Snell, H. Thomas	2
	18/70	RC	1 crew: R. Snell, H. Thomas	2

\* SS: Soil Sampling

RC: Road Construction

M O S H C L A I M

Soil Sampling Crew Time Sheet

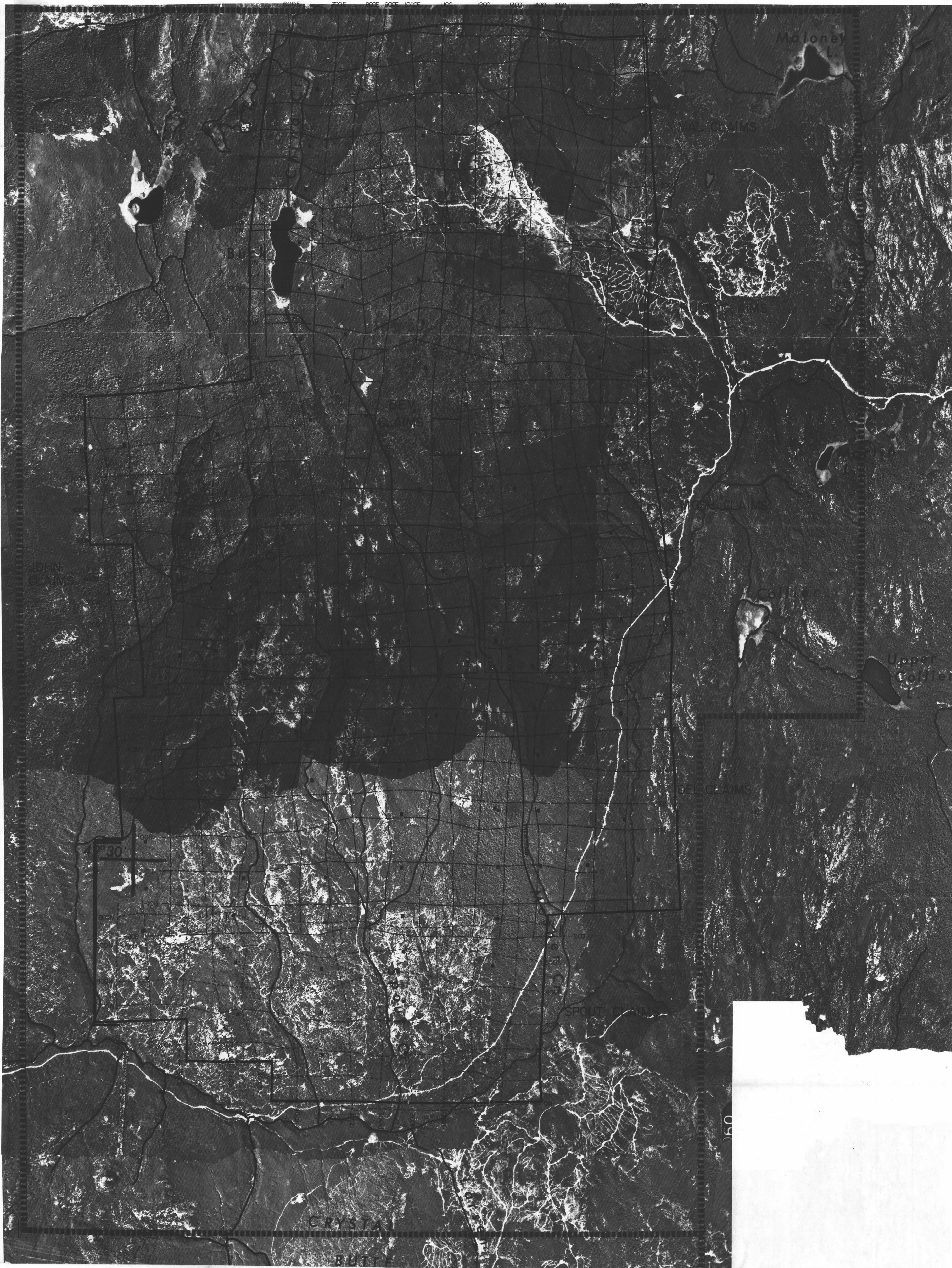
				<u># of men</u>
Sept	29/70	SS 1 crew:	R. Snell, K. Timmermans, F. Madge	3
	30/70	SS 1 crew:	R. Snell, K. Timmermans	2
Oct	1/70	SS 1 crew:	R. Snell, K. Timmermans, B. Rella, R. Subotin, :: F. Madge	5
	2/70	SS 1 crew:	R. Snell, K. Timmermans, B. Rella, F. Madge	4
	4/70	SS 1 crew:	R. Snell, K. Timmermans, B. Rella, R. Subotin, :: F. Madge	5
	5/70	SS 1 crew:	R. Snell, K. Timmermans, B. Rella, R. Subotin, :: F. Madge	5
	7/70	SS 1 crew:	R. Snell, K. Timmermans	2
	8/70	SS 1 crew:	R. Snell, K. Timmermans, R. Subotin, B. Rella	4
	9/70	SS 1 crew:	K. Timmermans, B. Rella	2
	10/70	SS 1 crew:	K. Timmermans, R. Snell	2
	11/70	SS 1 crew:	K. Timmermans, R. Subotin	2
	12/70	SS 1 crew:	R. Snell, R. Subotin, B. Rella	3
	13/70	SS 1 crew:	R. Snell, B. Rella, R. Subotin	3
	18/70	SS 1 crew:	F. Madge, K. Timmermans, R. Snell	3

\* SS: Soil Sampling









MAL, BUCK, JOHN, BEV, MOSH, DEL & SPOUT CLAIMS

- LEGEND**
- GEOCHEMICAL SURVEY LINES
  - SPOUT CLAIMS
  - DEL CLAIMS
  - MOSH CLAIMS
  - BEV CLAIMS
  - JOHN CLAIMS
  - BUCK CLAIMS
  - MAL CLAIMS
  - CLAIM POST
  - CLAIM BORDER

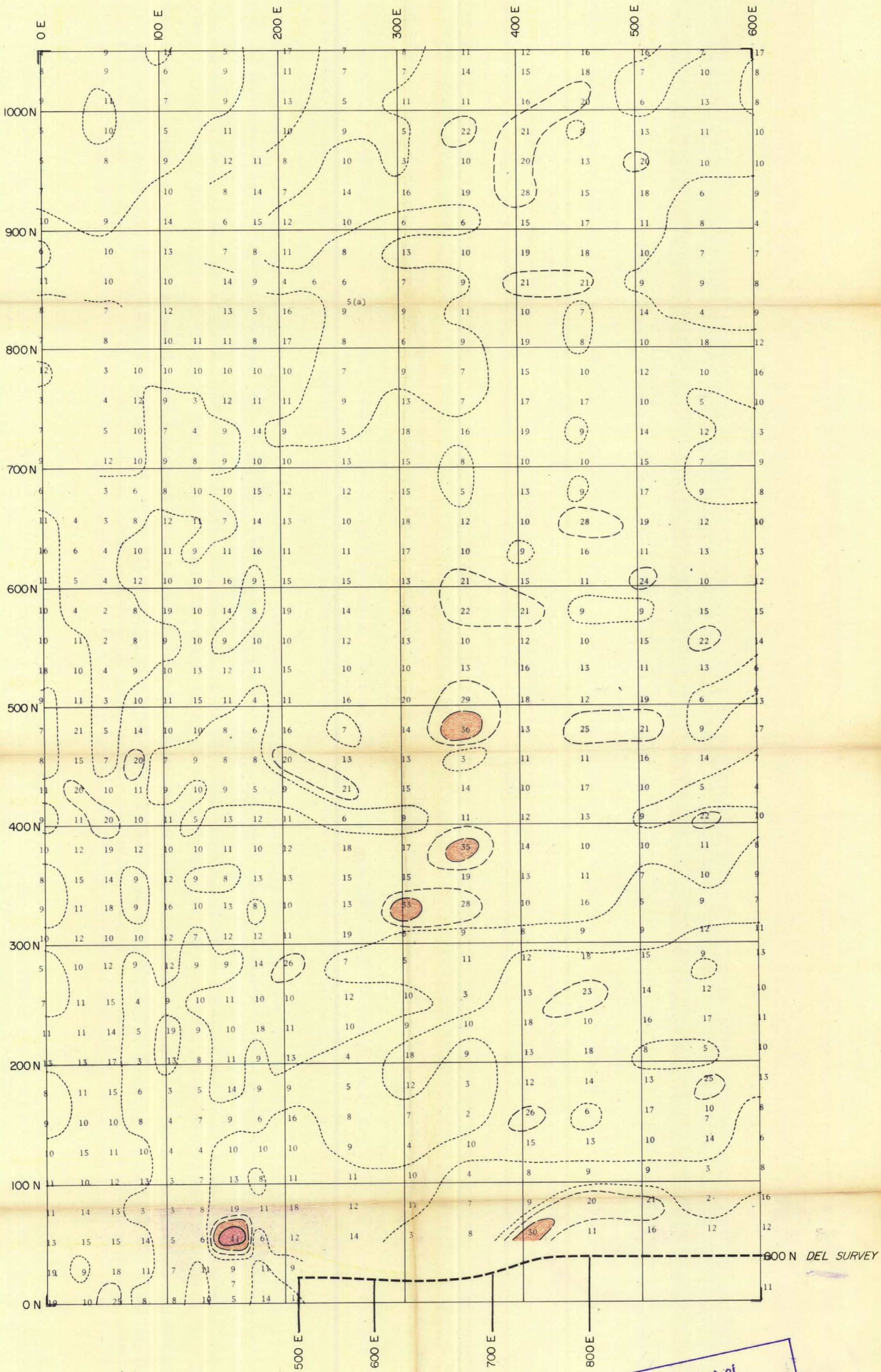
GEOCHEMICAL SURVEY LINES  
 APPROX SCALE: 1 INCH = 1000 FEET

Photo-Mosaic to accompany the geochemical report by Dr. Peter J. Haman, P. Eng., on the John, Bev, and Mosh claims, 1 mile south, and southeast of Buck Lake area, B.C., Greenwood Mining Division.

Dated March 12, 1977  
 Signed Peter J. Haman

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO 3021 MAP #2



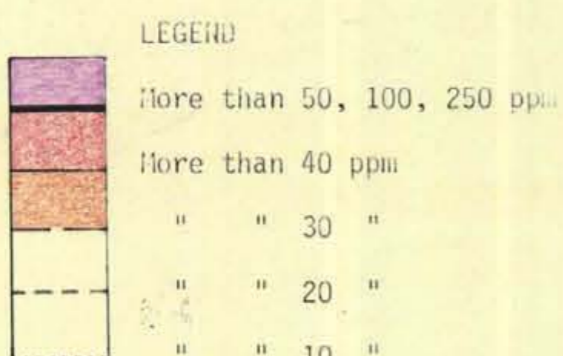


### JOHN CLAIMS

Scale: 1 Inch = 500 Feet

### GEOCHEMICAL MAP

ppm LEAD



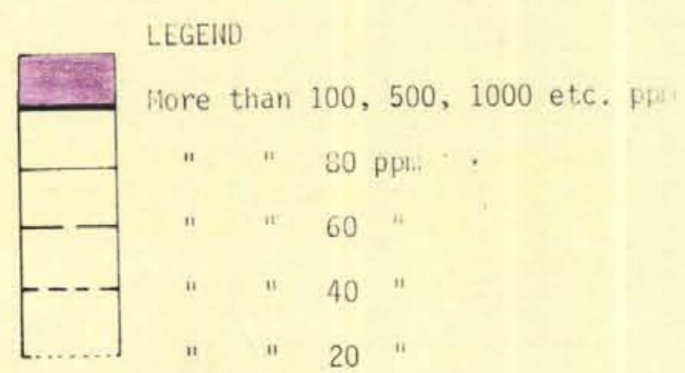
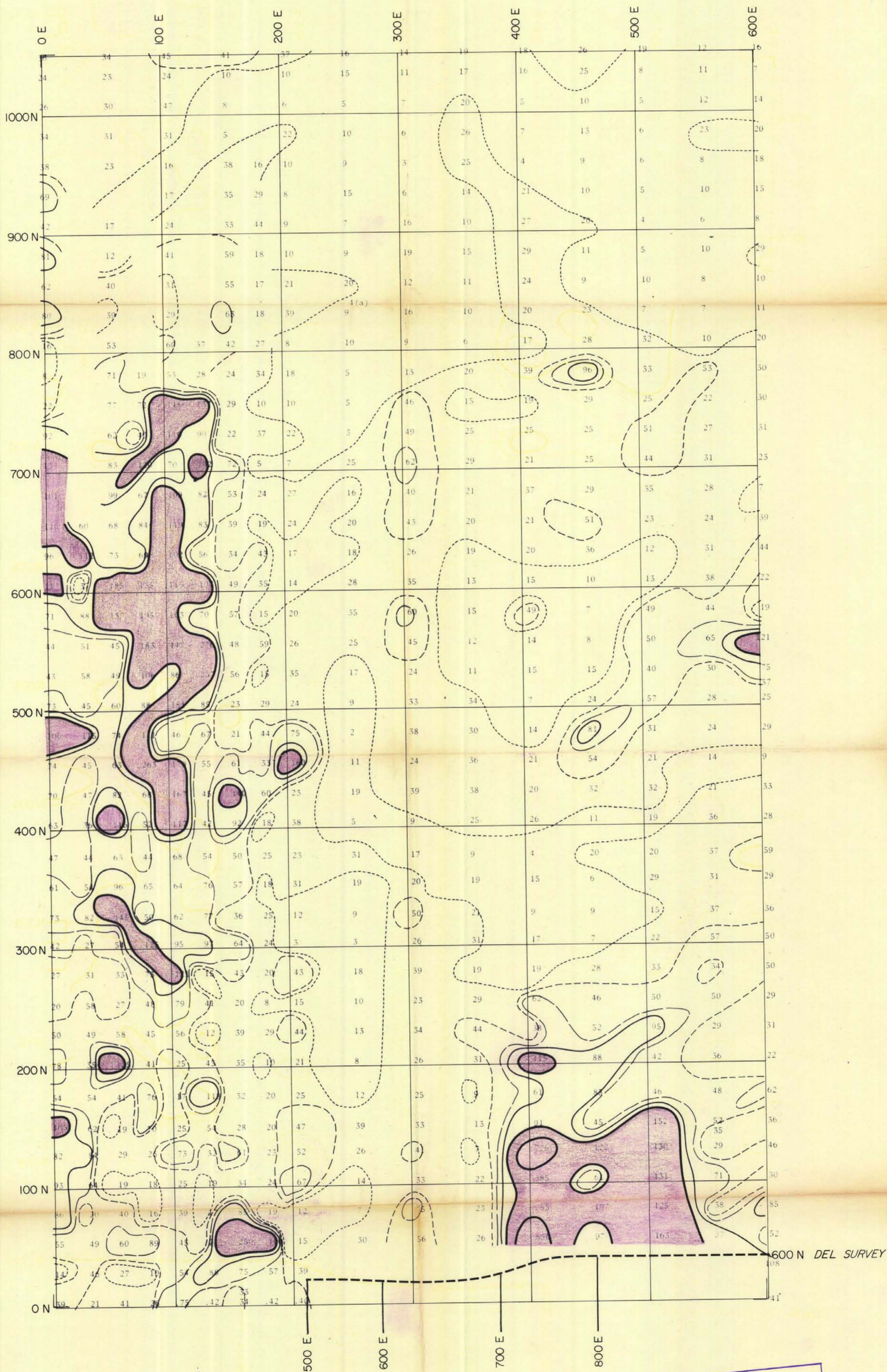
Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 3021 MAP #3

Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the John claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971

Signed Peter J. Haman





### JOHN CLAIMS

Scale: 1 Inch = 500 Feet

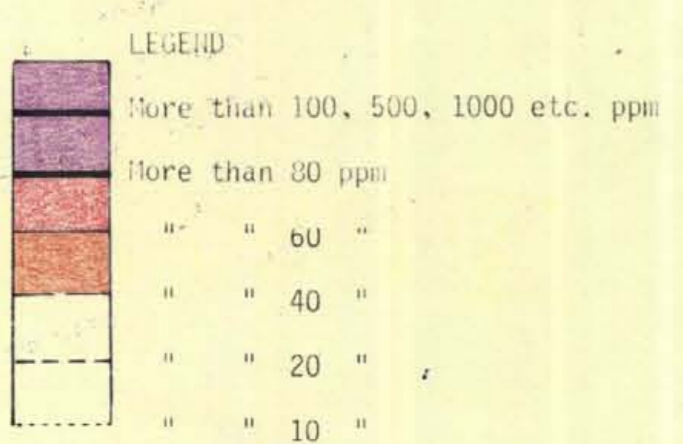
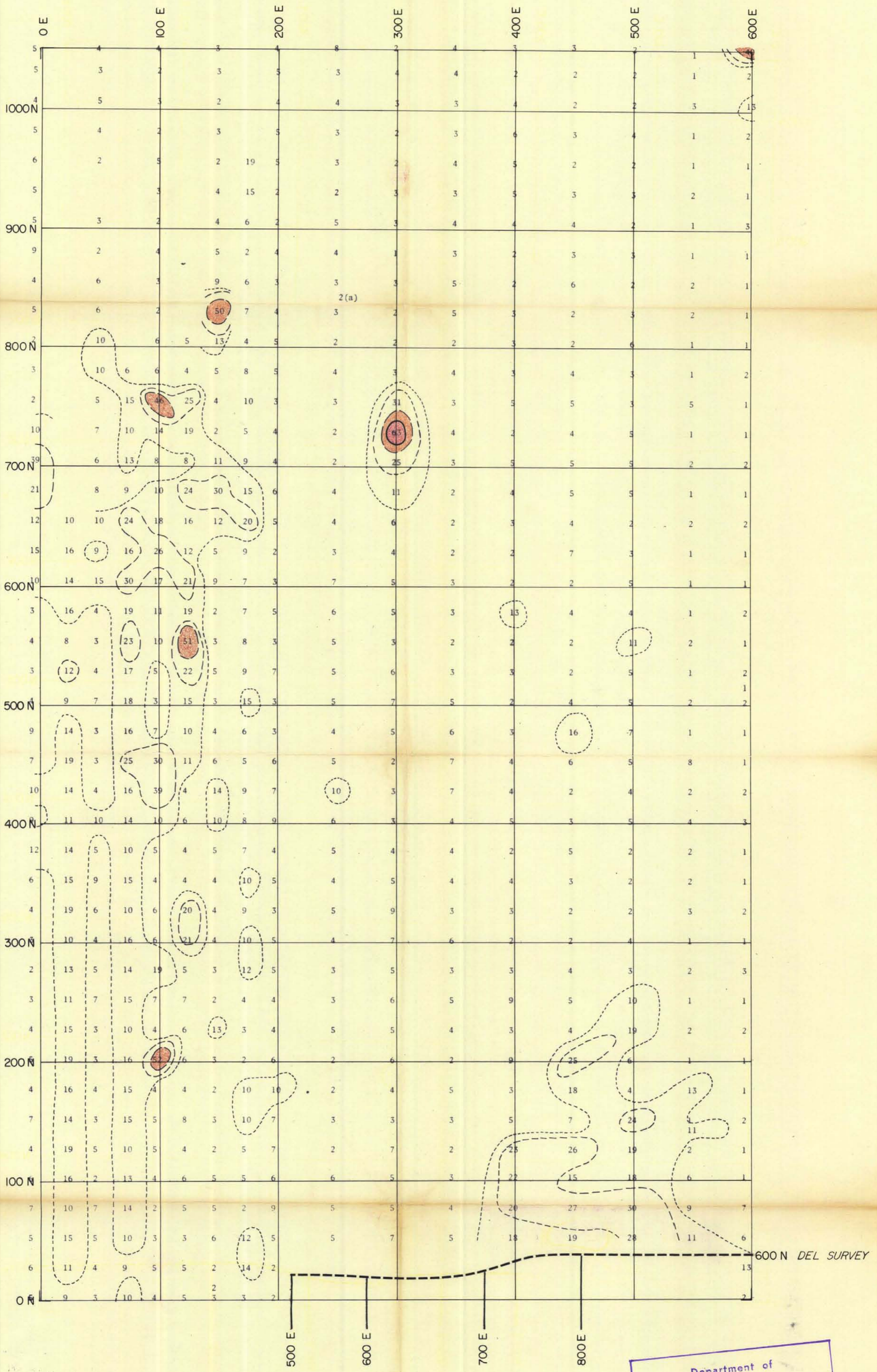
GEOCHEMICAL MAP  
ppm ZINC

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #4

Geochemical Map to accompany the geochemical report  
by Dr. P. J. Haman, P. Eng., on the John claims,  
1 mile south of Buck Lake, B.C., Greenwood Mining  
Division

Dated March 12, 1971  
Signed Peter J. Haman





### JOHN CLAIMS

Scale: 1 Inch = 500 Feet

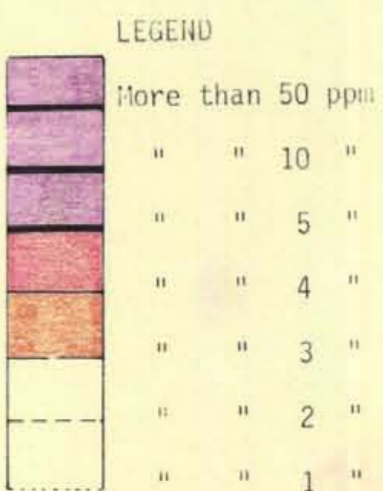
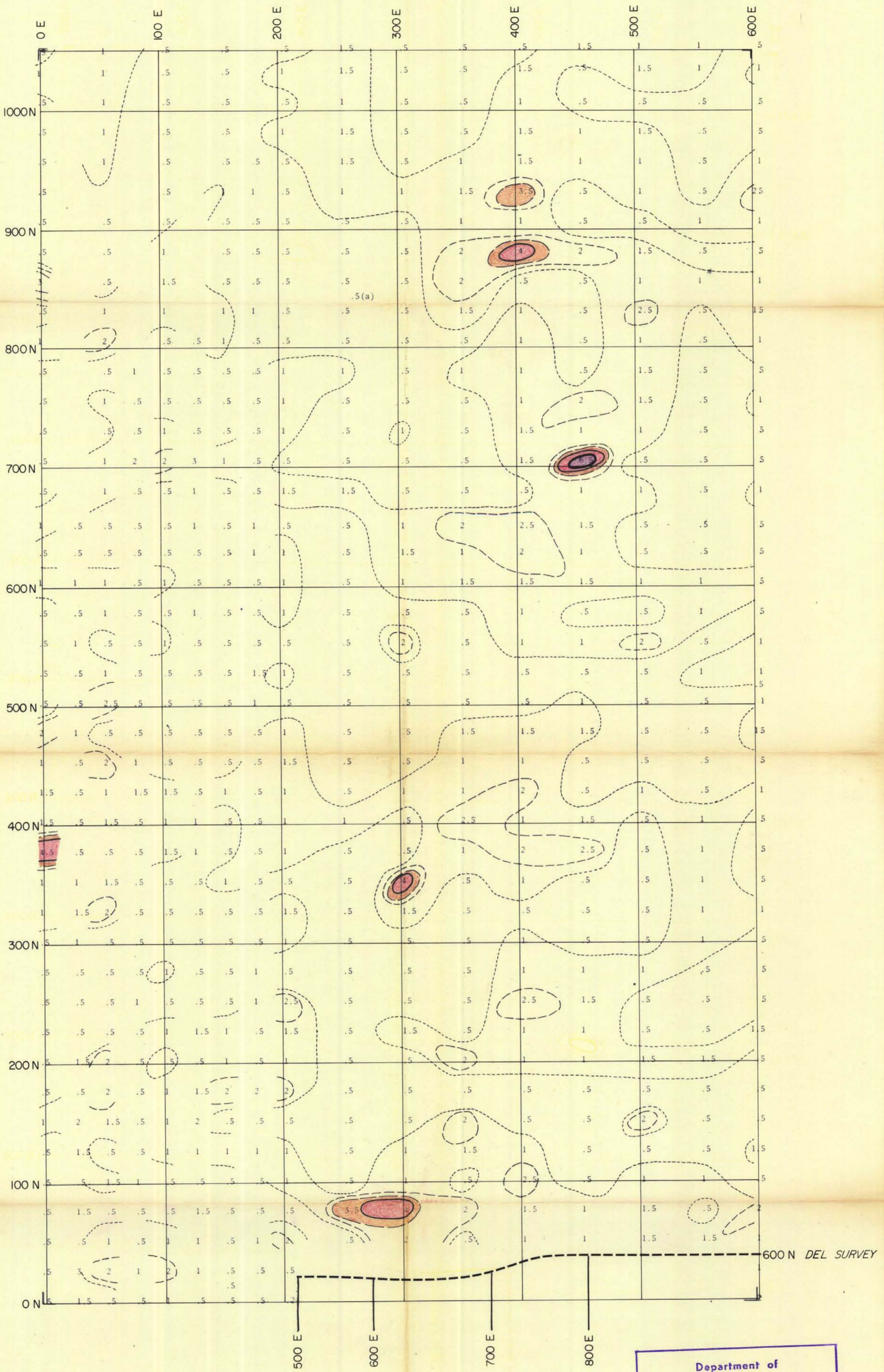
GEOCHEMICAL MAP  
ppm NICKEL

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #5

Geochemical Map to accompany the geochemical report  
by Dr. P. J. Haman, P. Eng., on the John claims,  
1 mile south of Buck Lake, B.C., Greenwood Mining  
Division

Dated March 12, 1971  
Signed Peter J. Haman





JOHN CLAIMS

Scale: 1 Inch = 500 Feet

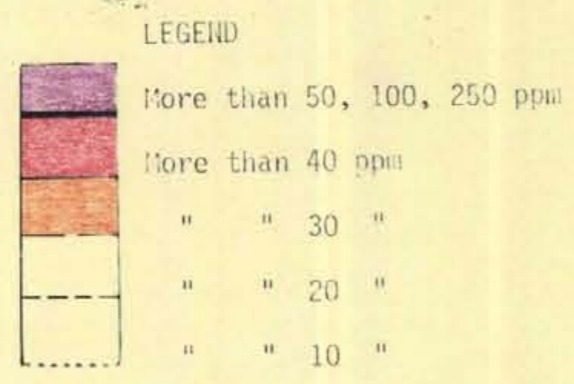
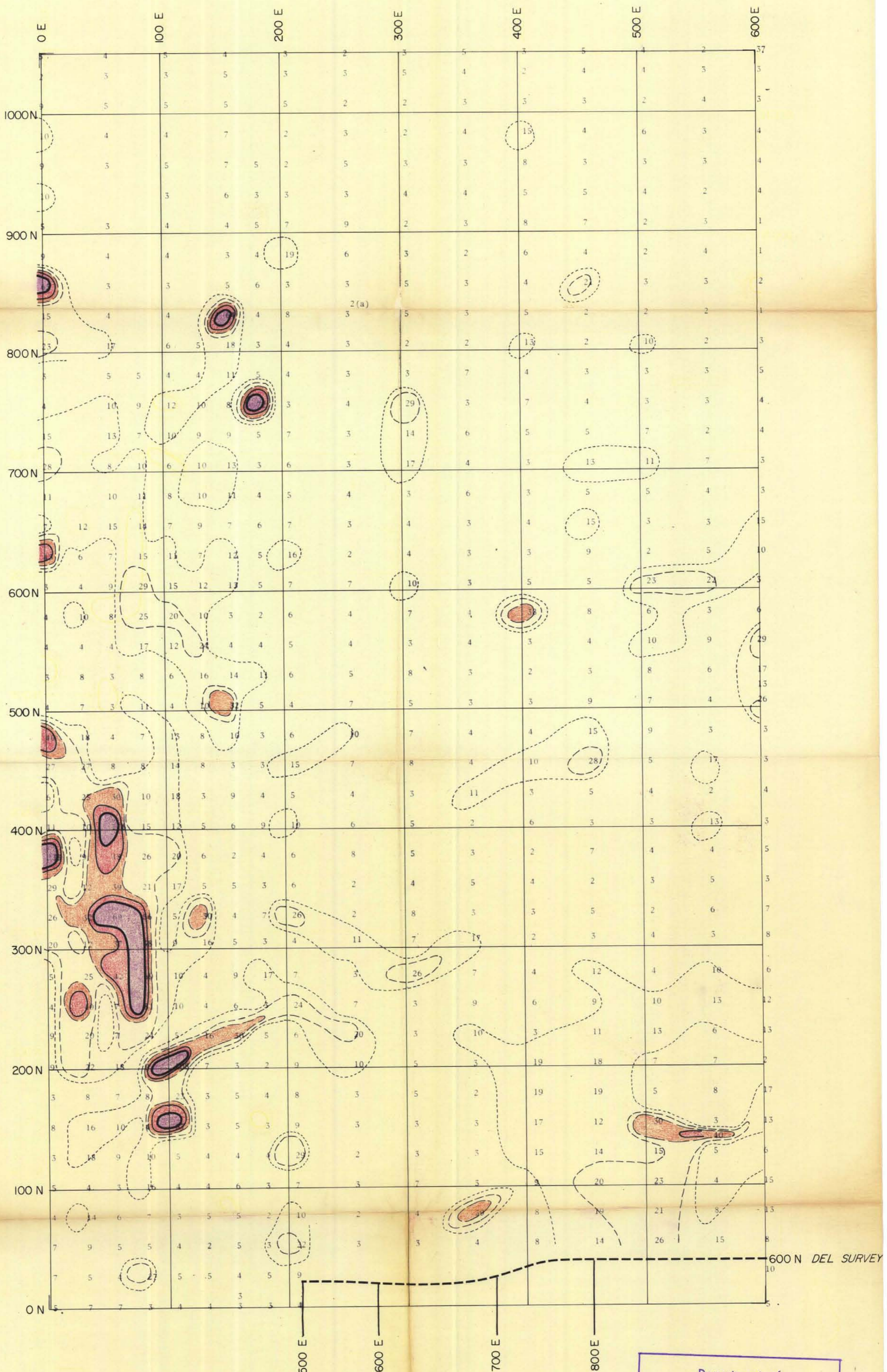
GEOCHEMICAL MAP  
ppm MOLYBDENUM

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP *46*

Geochemical Map to accompany the geochemical report  
by Dr. P. J. Haman, P. Eng., on the John claims,  
1 mile south of Buck Lake, B.C., Greenwood Mining  
Division

Dated *March 12, 1971*  
Signed *Peter J. Haman*





### JOHN CLAIMS

Scale: 1 Inch = 500 Feet

### GEOCHEMICAL MAP

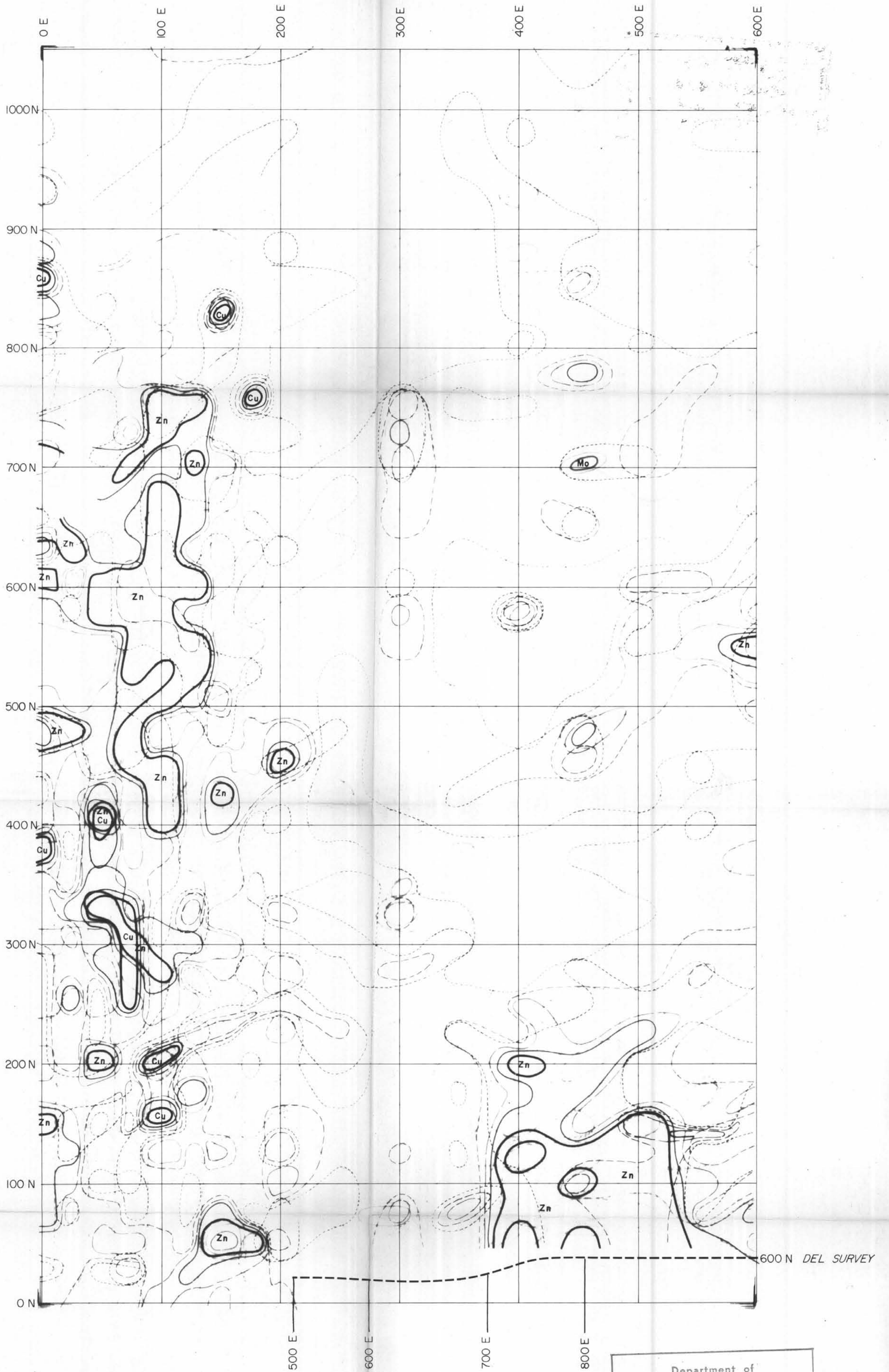
ppm COPPER

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #7

Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the John claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971  
Signed Peter J. Haman





JOHN CLAIMS

Scale: 1 Inch = 500 Feet

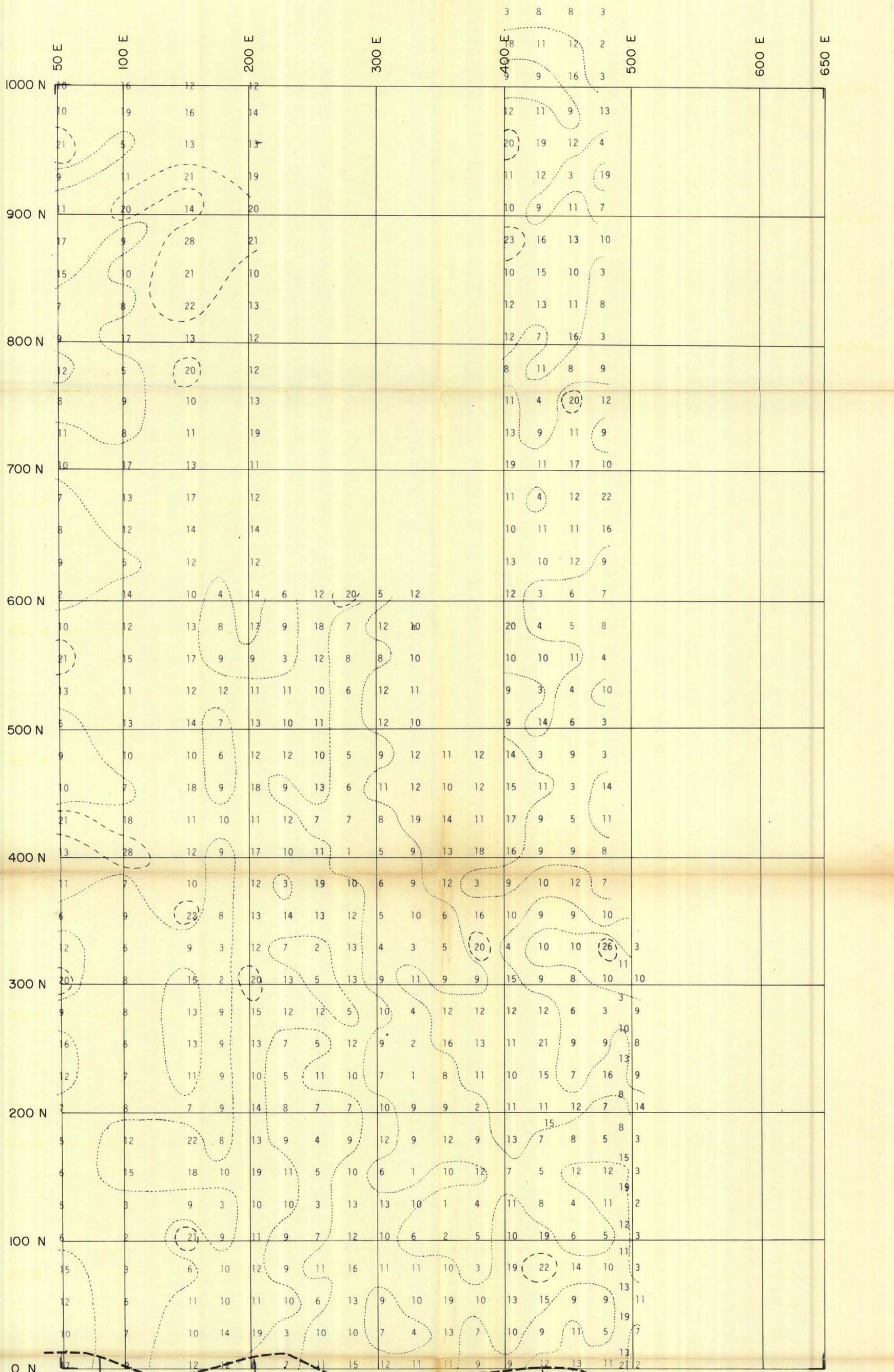
COMPOSITE GEOCHEMICAL MAP

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #8

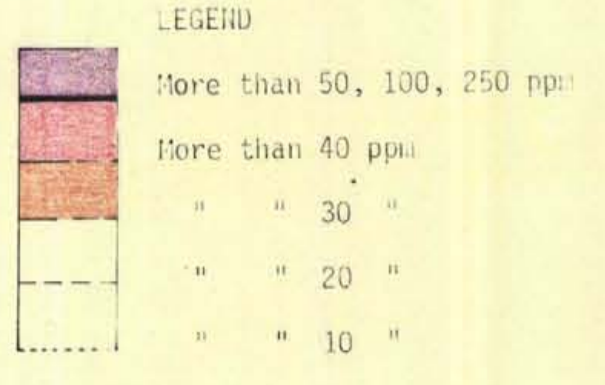
Composite Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the John claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971  
Signed Peter J. Haman





**BEV CLAIMS**  
 Scale: 1 Inch = 500 Feet  
**GEOCHEMICAL MAP**



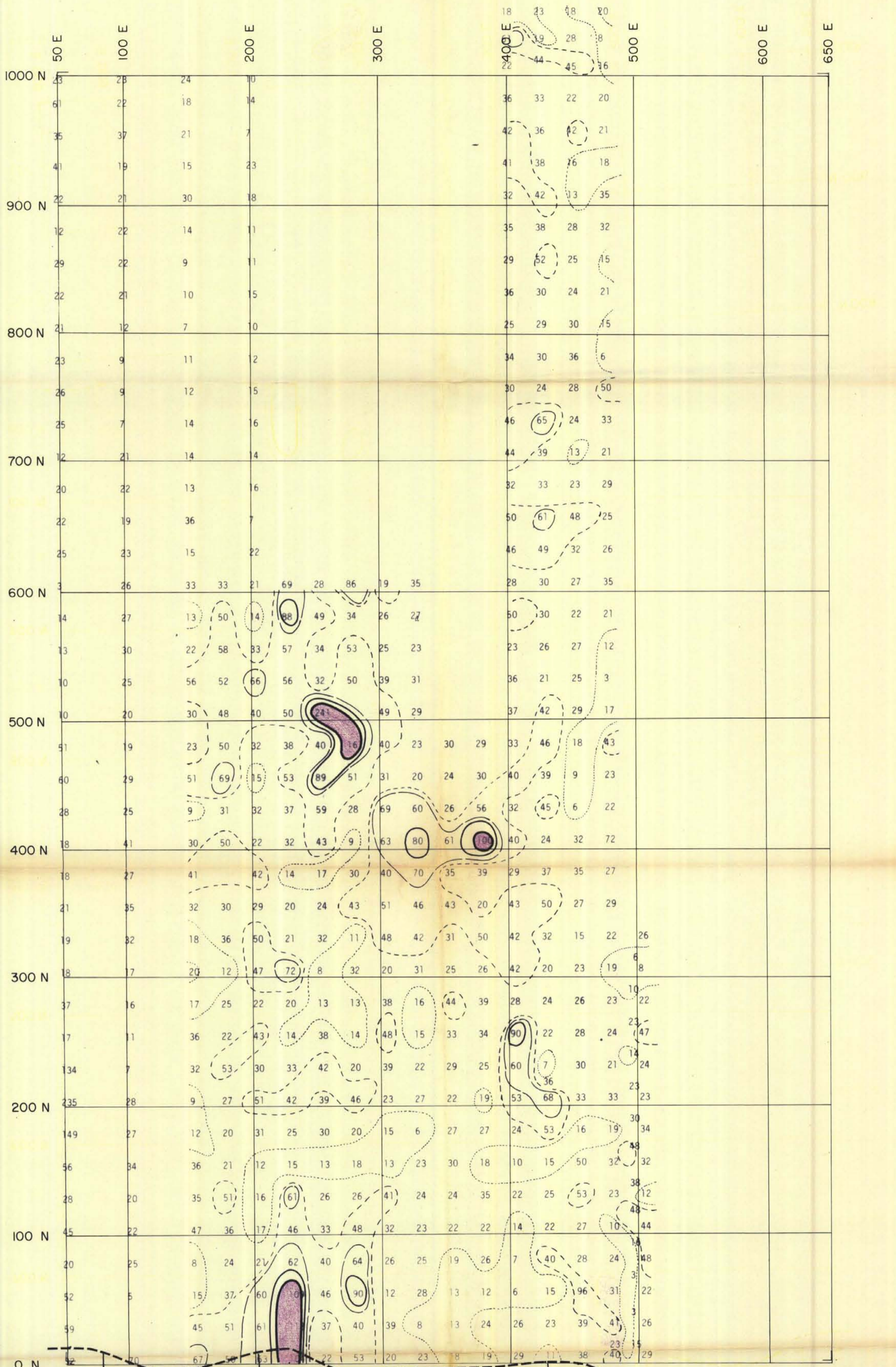
ppm LEAD

Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971  
 Signed Peter J. Haman

Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 NO. 3021 MAP #9





BEV CLAIMS

Scale: 1 Inch = 500 Feet

GEOCHEMICAL MAP

LEGEND

	More than 100, 500, 1000 etc. ppm
	" " 80 ppm
	" " 60 "
	" " 40 "
	" " 20 "

ppm ZINC

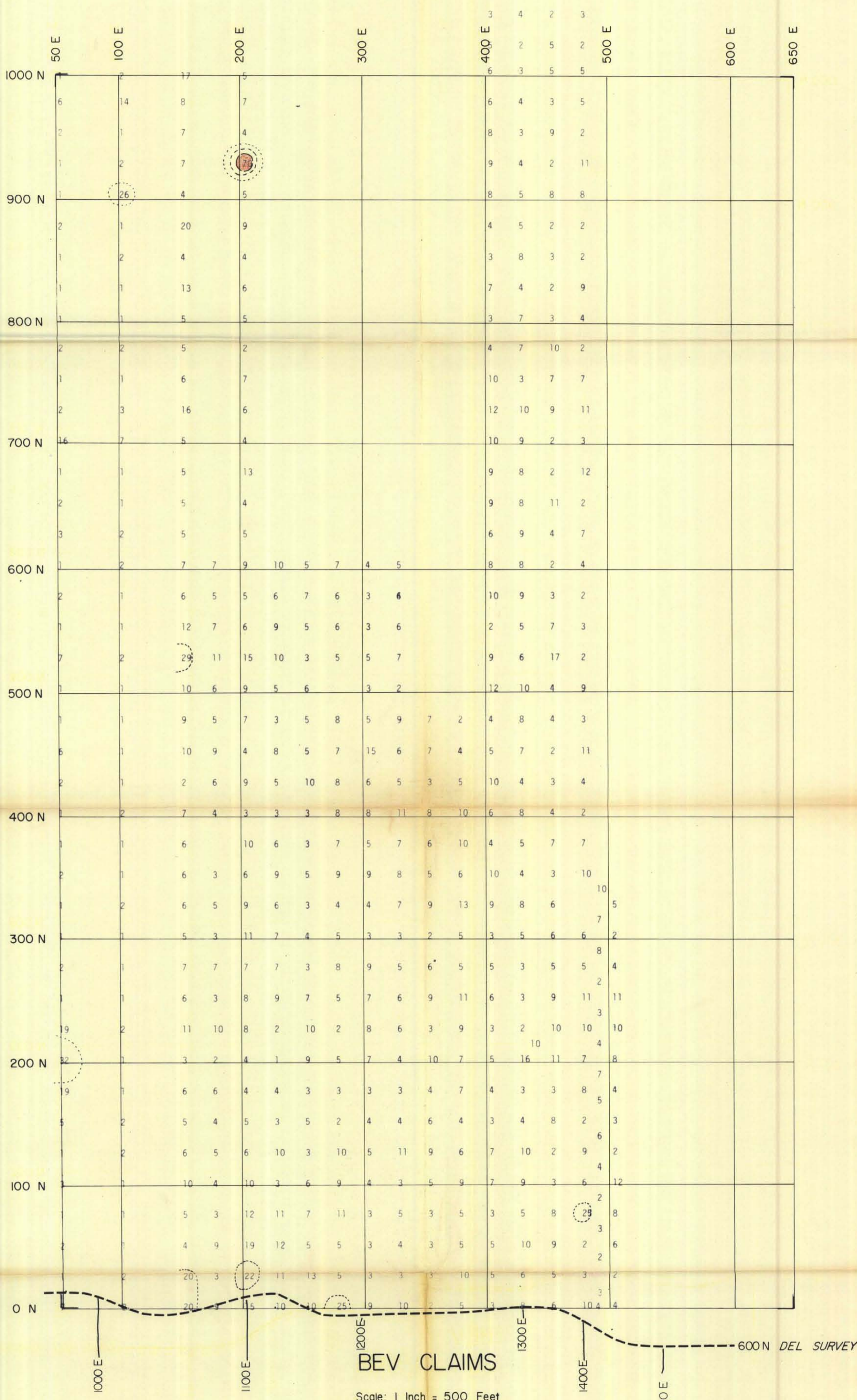
Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971

Signed Peter J. Haman

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #10





LEGEND

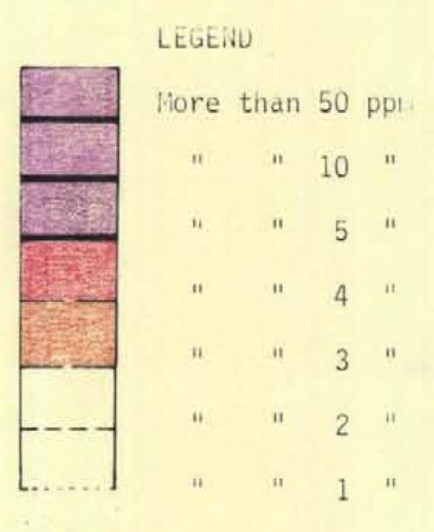
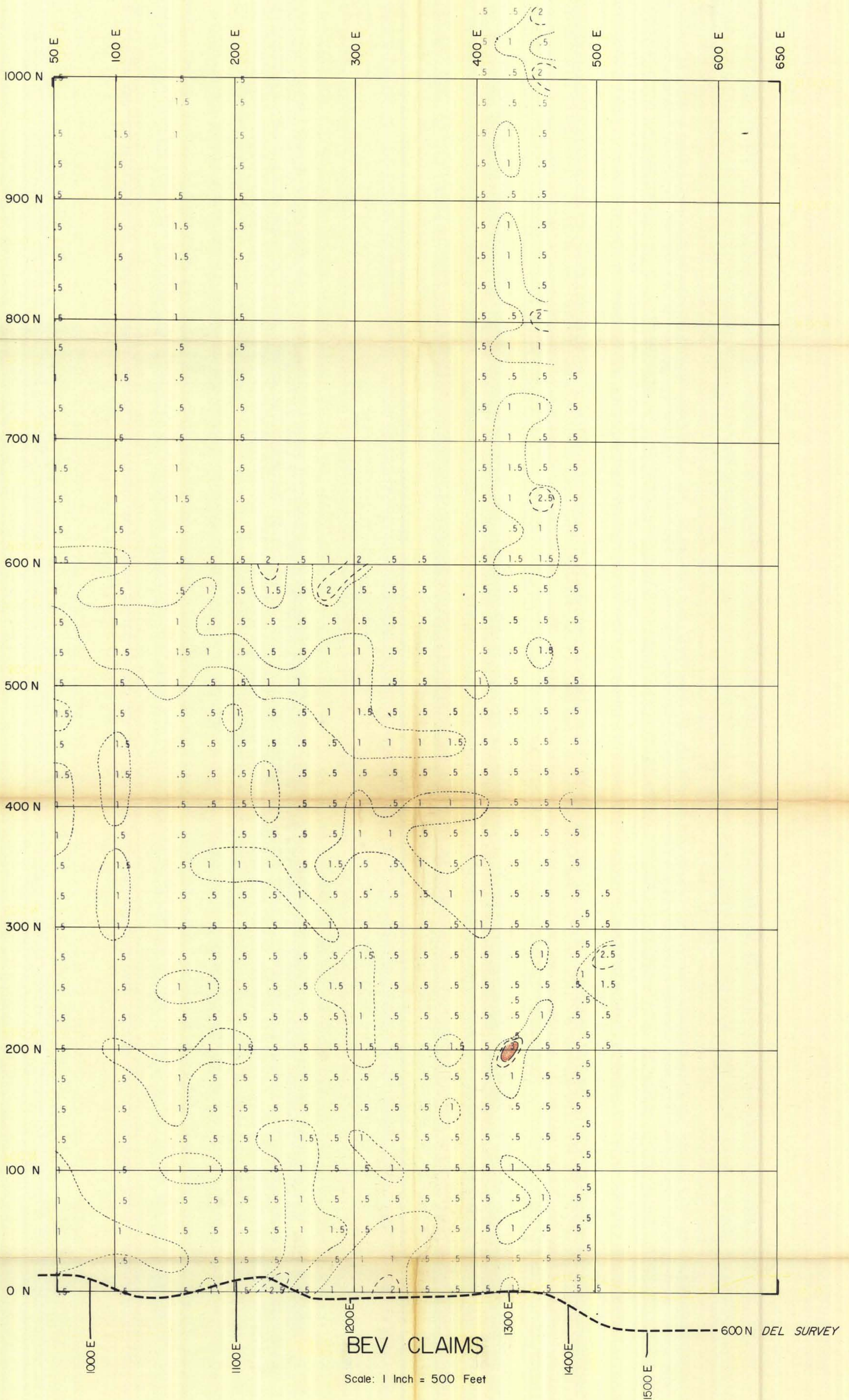
	More than 100, 500, 1000 etc. ppm
	" " 80 ppm
	" " 60 "
	" " 40 "
	" " 20 "

Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971  
Signed Peter J. Haman

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #11



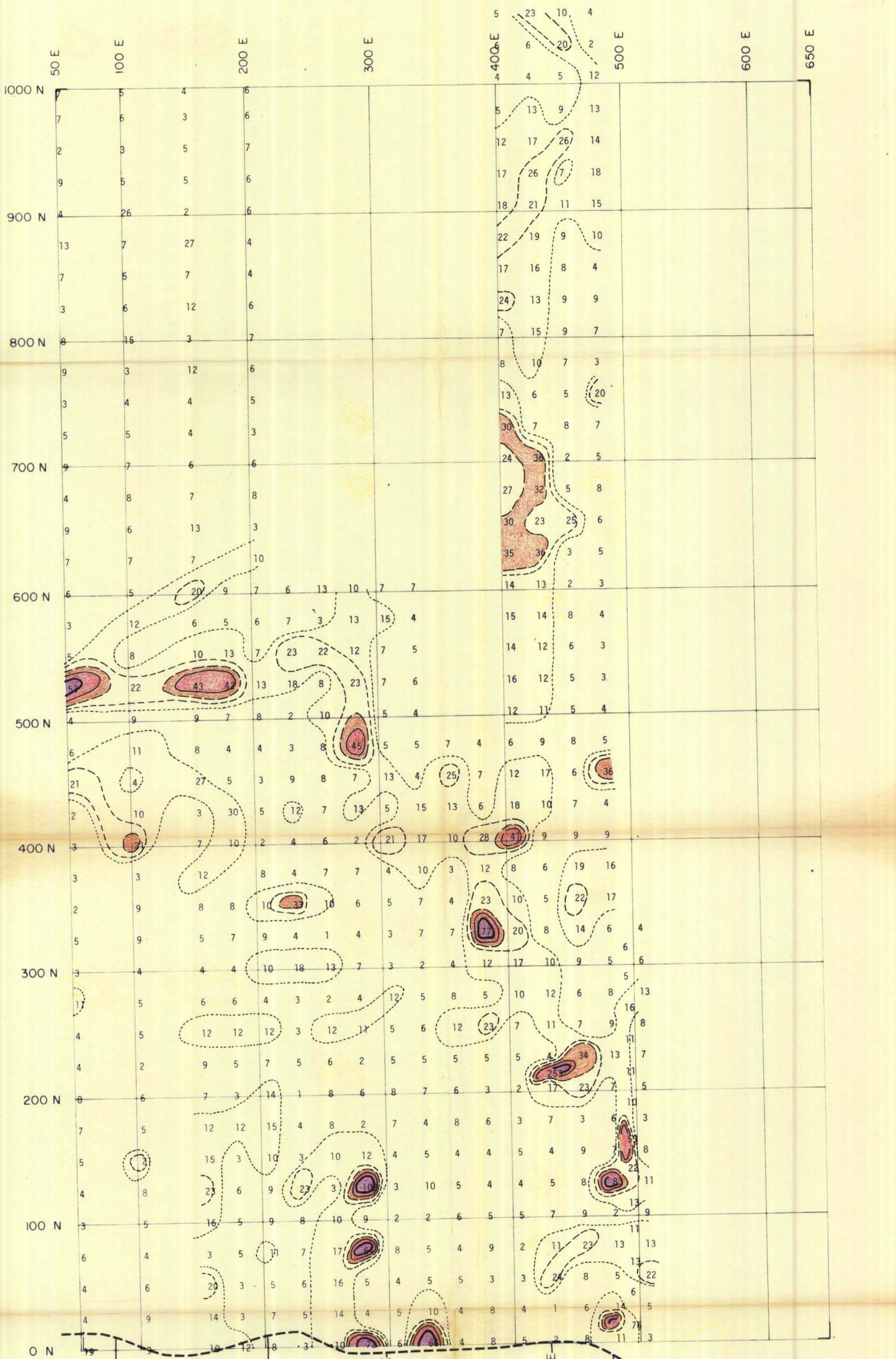


Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971  
 Signed Peter J. Haman

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 3021 MAP #12



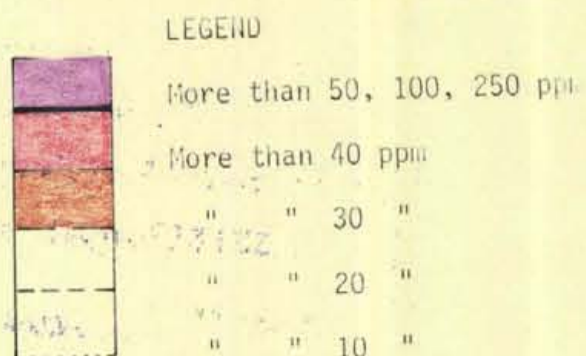


**BEV CLAIMS**

Scale: 1 Inch = 500 Feet

**GEOCHEMICAL MAP**

ppm COPPER



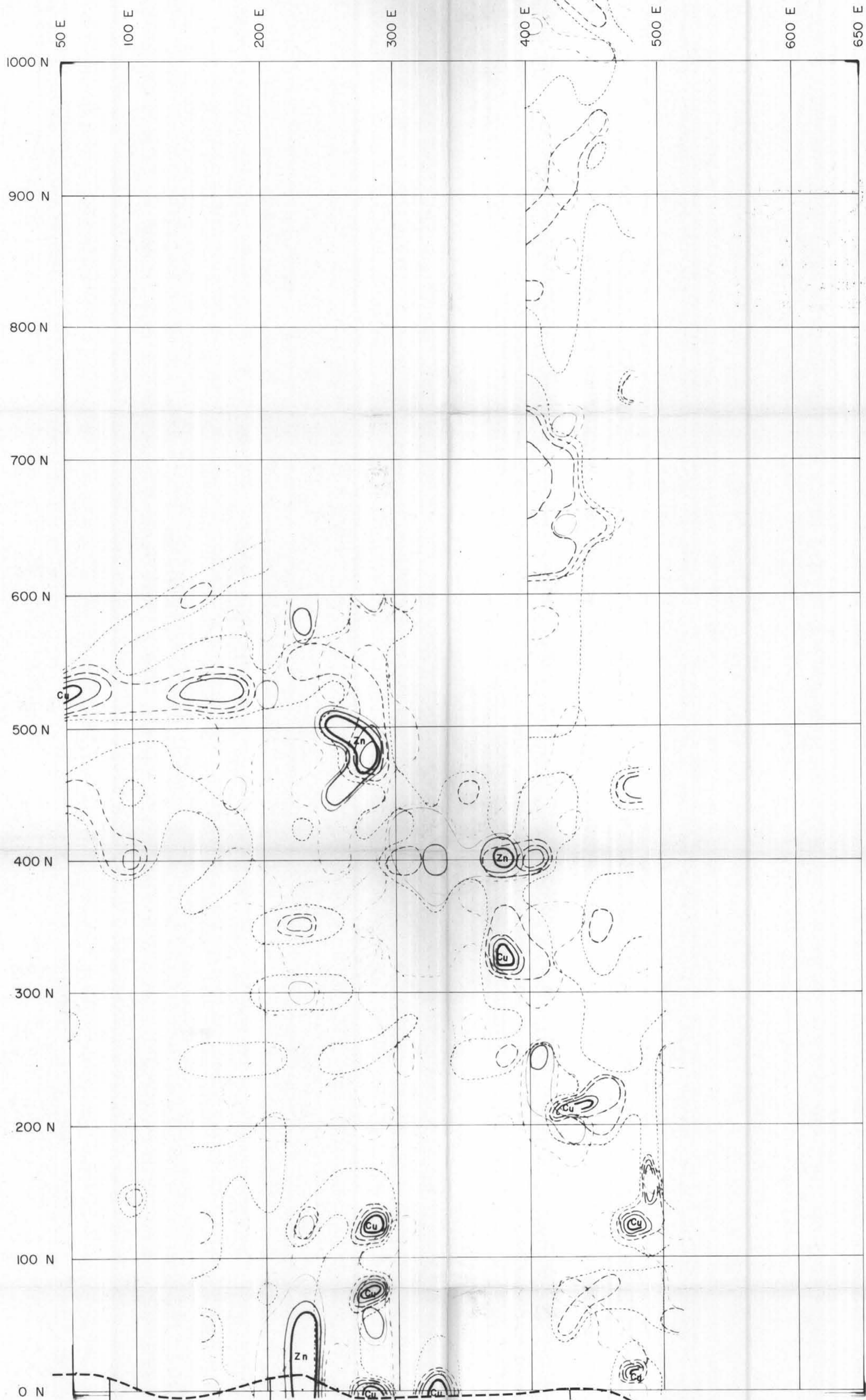
Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971

Signed Peter J. Haman

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #13





**BEV CLAIMS**

Scale: 1 Inch = 500 Feet

COMPOSITE GEOCHEMICAL MAP

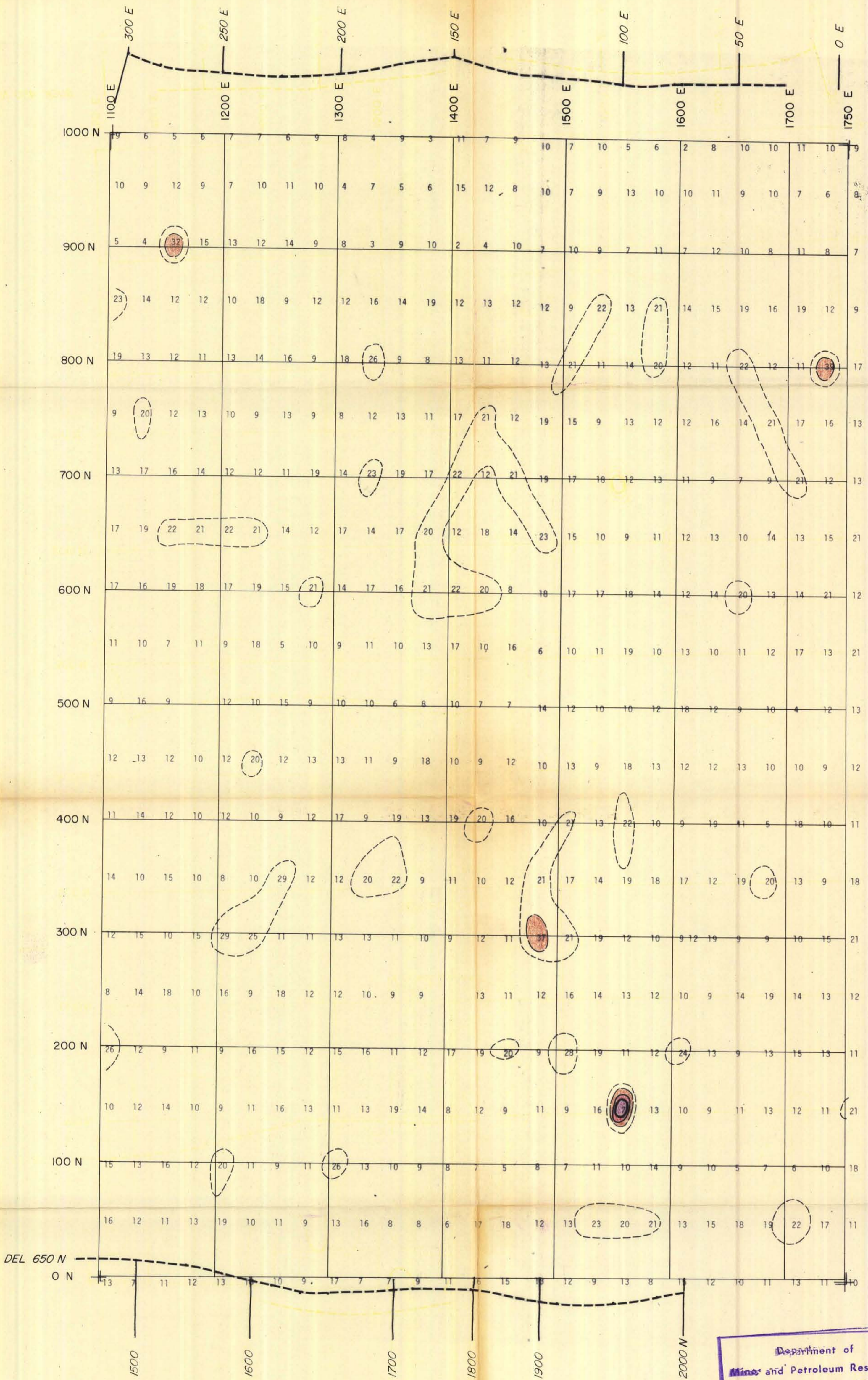
600 N DEL SURVEY  
 Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 3021 MAP #14

Composite Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Bev claims, 1 mile south of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971

Signed Peter J. Haman





### MOSH CLAIMS

Scale: 1 Inch = 500 Feet

### GEOCHEMICAL MAP

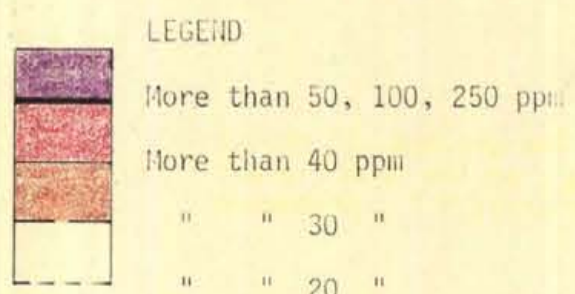
ppm LEAD

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 3021 MAP #15

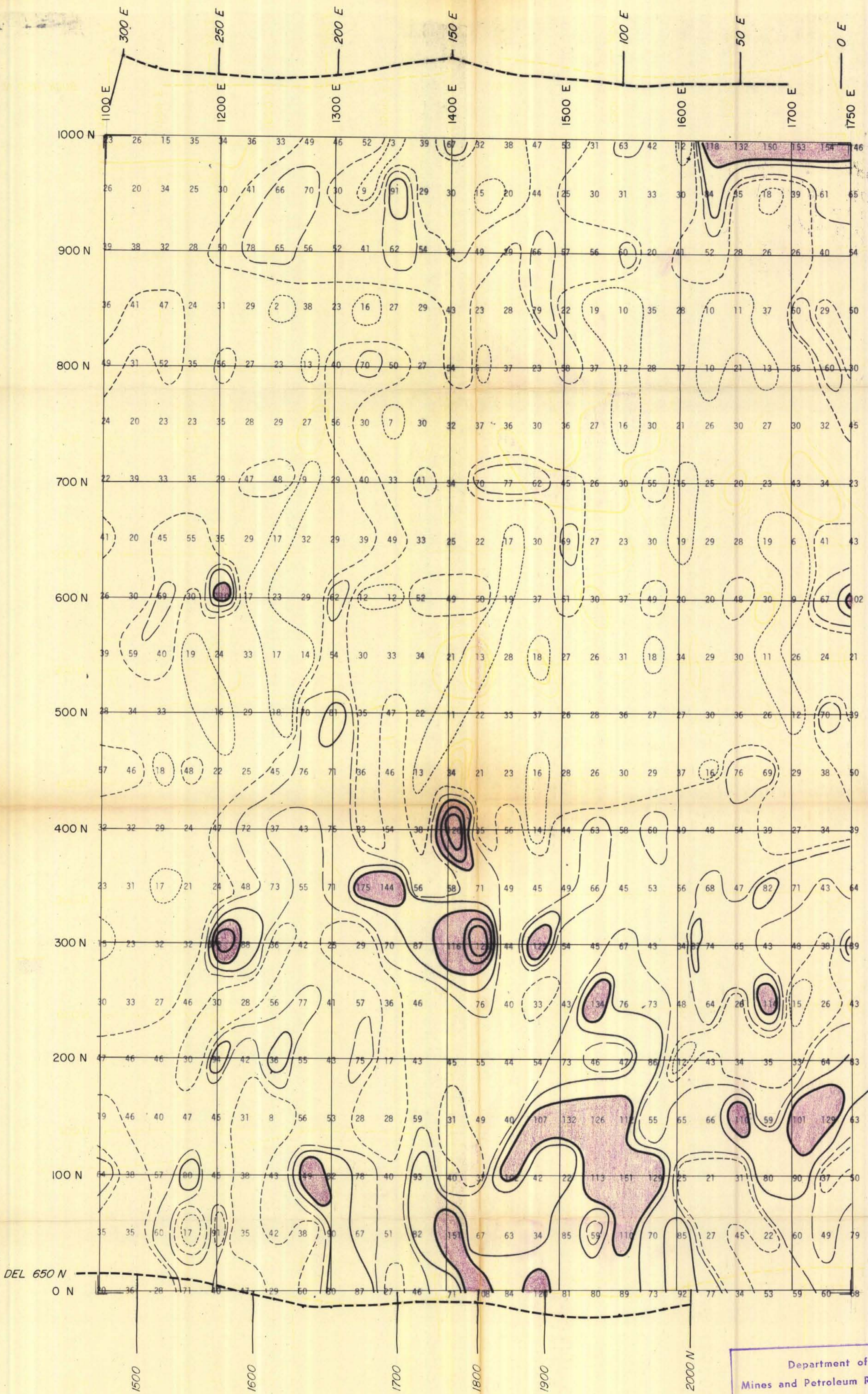
Geochemical Map to accompany the geochemical report  
 by Dr. Peter J. Haman, P. Eng., on the Mosh claims,  
 1 mile southeast of Buck Lake area, B.C., Greenwood  
 Mining Division.

Dated- March 12, 1971

Signed Peter J. Haman







Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #16

### MOSH CLAIMS

Scale: 1 Inch = 500 Feet

### GEOCHEMICAL MAP

ppm ZINC

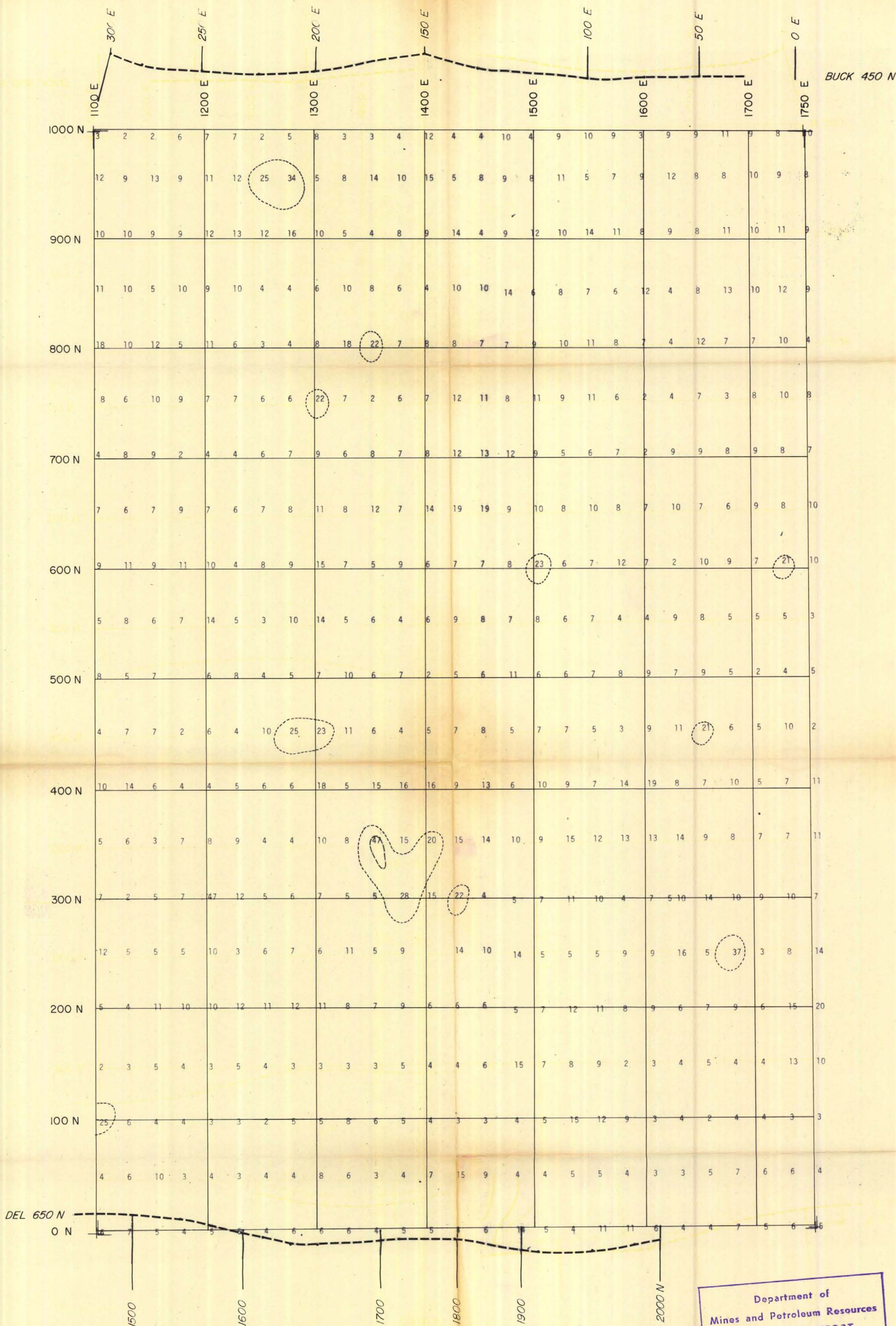
Geochemical Map to accompany the geochemical report by Dr. Peter J. Haman, P. Eng., on the Mosh claims, 1 mile southeast of Buck Lake area, B.C., Greenwood Mining Division.

Dated- March 12, 1971

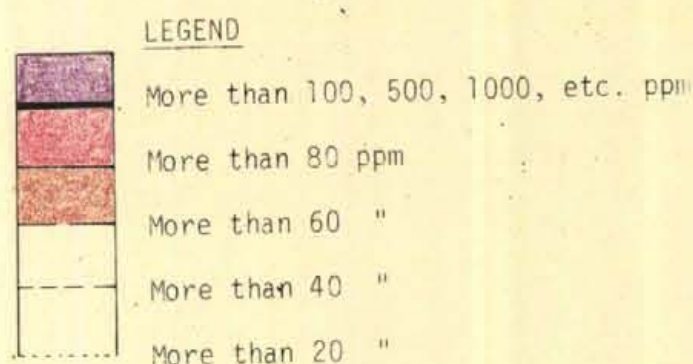
Signed Peter J. Haman

- LEGEND
- More than 100, 500, 1000 etc. ppm
  - More than 80 ppm
  - More than 60 ppm
  - More than 40 ppm
  - More than 20 ppm





MOSH CLAIMS



Scale: 1 Inch = 500 Feet

GEOCHEMICAL MAP

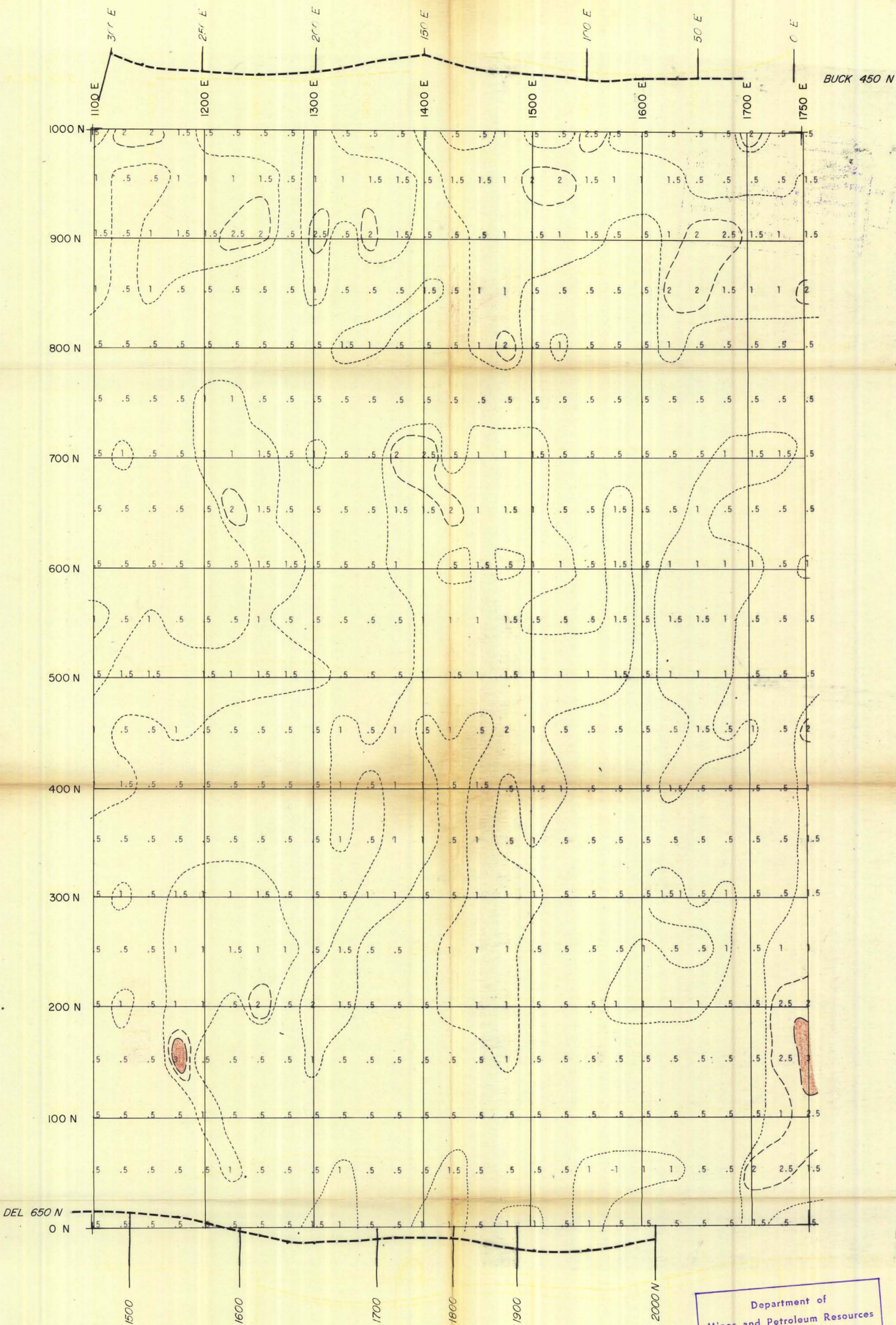
ppm NICKEL

Geochemical Map to accompany the geochemical report by Dr. Peter J. Haman, P. Eng., on the Mosh claims, 1 mile southeast of Buck Lake area, B.C., Greenwood Mining Division.

Dated- March 12, 1971  
 Signed Peter J. Haman

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 3021 MAP #17





LEGEND

[Dark Purple Box]	More than 50 ppm
[Purple Box]	" " 10 "
[Reddish Purple Box]	" " 5 "
[Red Box]	" " 4 "
[Orange Box]	" " 3 "
[Light Orange Box]	" " 2 "
[White Box]	" " 1 "

### MOSH CLAIMS

Scale: 1 Inch = 500 Feet

#### GEOCHEMICAL MAP

ppm MOLYBDENUM

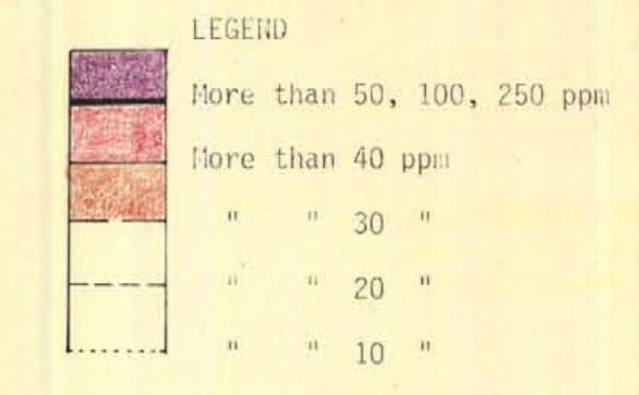
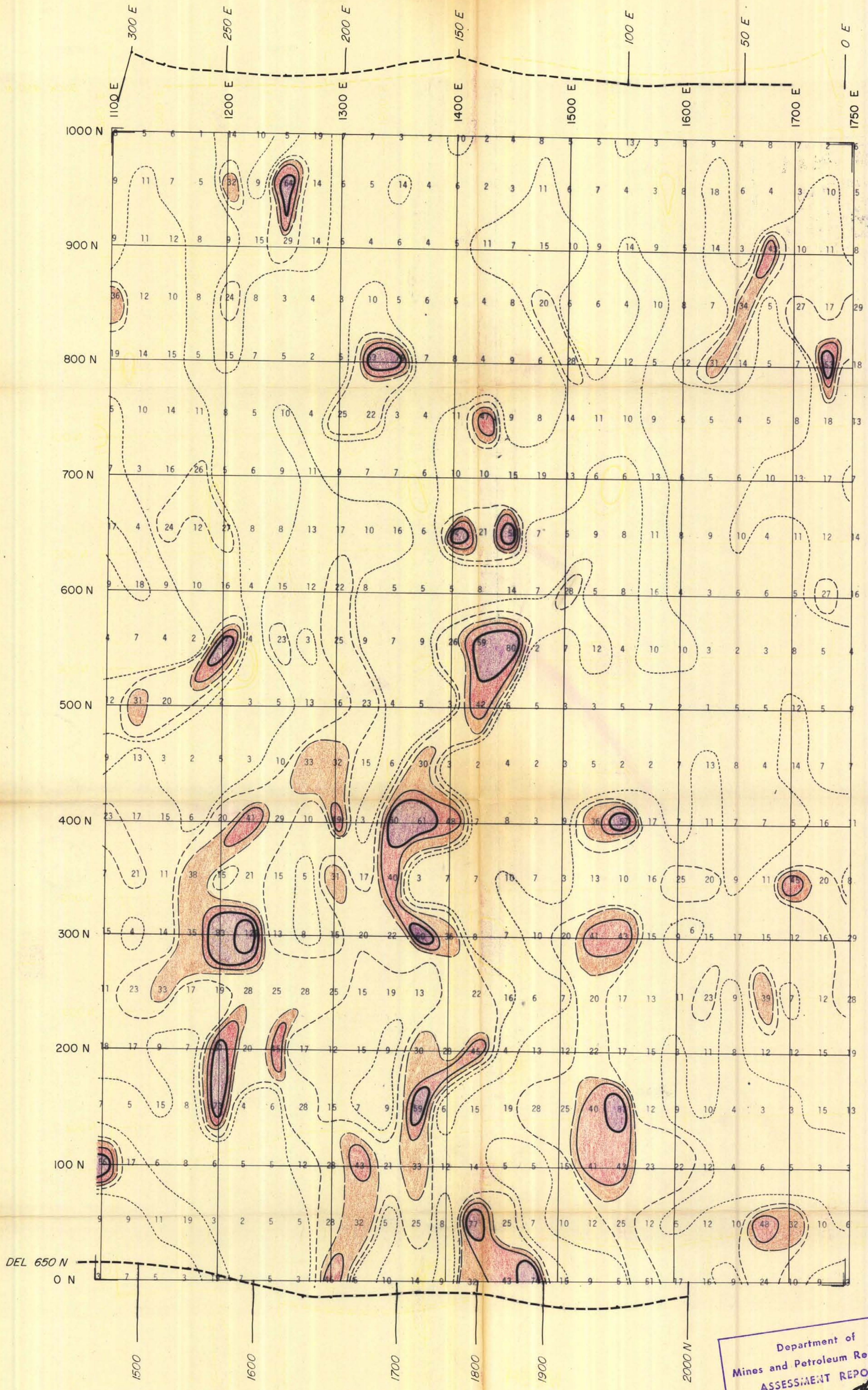
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #18

Geochemical Map to accompany the geochemical report  
by Dr. Peter J. Haman, P. Eng., on the Mosh claims,  
1 mile southeast of Buck Lake area, B.C., Greenwood  
Mining Division.

Dated- March 12, 1971  
Signed Peter J. Haman



BUCK 450 N



### MOSH CLAIMS

Scale: 1 Inch = 500 Feet

### GEOCHEMICAL MAP

ppm COPPER

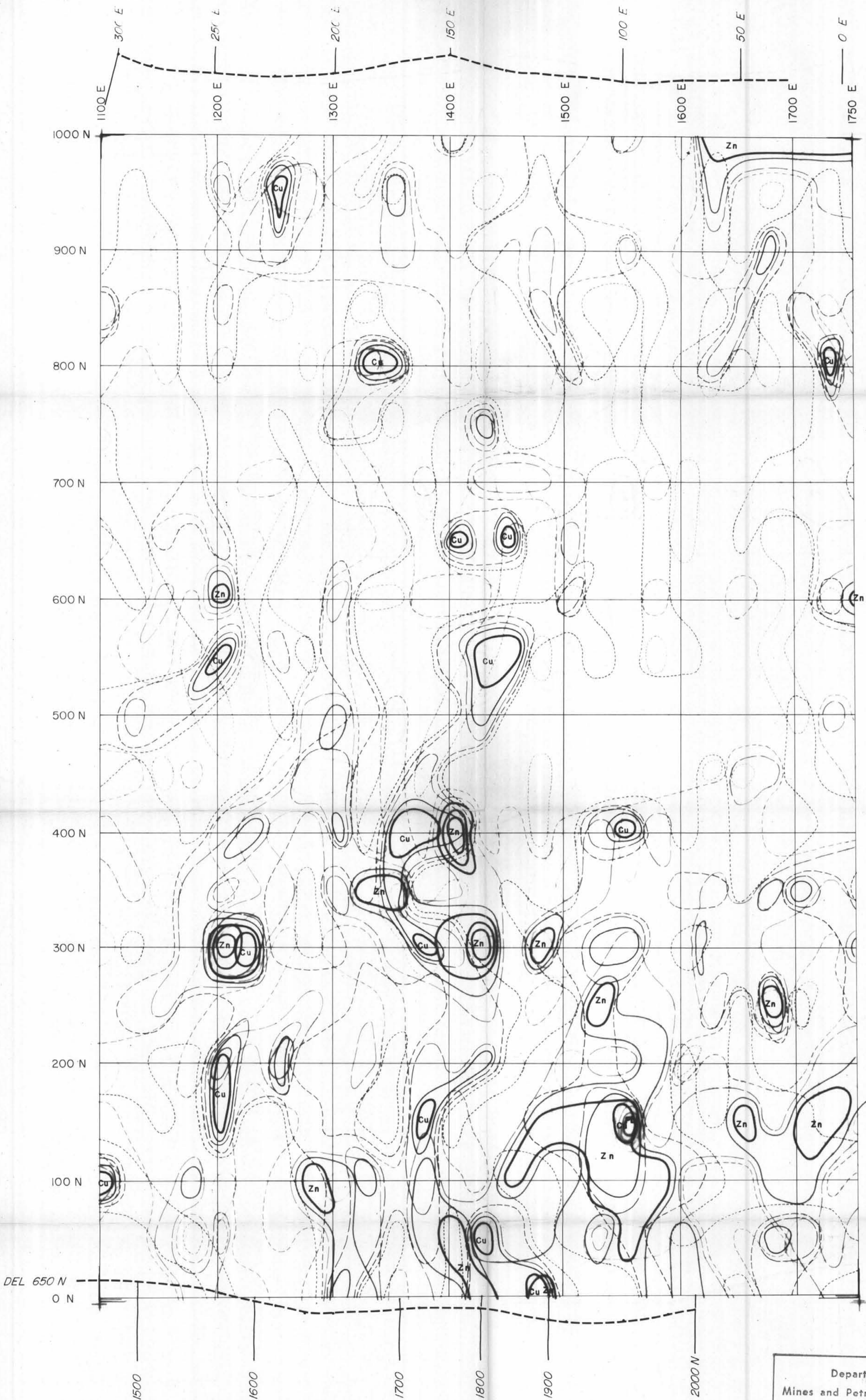
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #19

Geochemical Map to accompany the geochemical report  
by Dr. Peter J. Haman, P. Eng., on the Mosh claims,  
1 mile southeast of Buck Lake area, B.C., Greenwood  
Mining Division.

Dated- March 12, 1971

Signed Peter J. Haman





### MOSH CLAIMS

Scale: 1 Inch = 500 Feet

COMPOSITE GEOCHEMICAL MAP

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3021 MAP #20

Composite Geochemical Map to accompany the geochemical report by Dr. P. J. Haman, P. Eng., on the Mosh claims, 1 mile southeast of Buck Lake, B.C., Greenwood Mining Division

Dated March 12, 1971

Signed Peter J. Haman