

3848

104J/8W

Cubes, Fuzz, Fern, Dave and Bob Mineral Claims

situated 16 air miles west of

Dease Lake

Liard Mining Division

Northern British Columbia

Latitude 58°30' North; Longitude 130°20' West

N.T.S. 104 J/8

on behalf of

TORMEX RESOURCES LTD.

(a wholly owned subsidiary of Tournigan Mining Explorations Ltd.)

Work done between July 4 and August 31, 1972

Report by:

A. Scott, B.Sc.
D. R. Cochrane, P.Eng.,
August 31, 1972,
Delta, B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3848 MAP



Cochrane Consultants Limited
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PART A:

A-1 SUMMARY:

During the months of July and August, 1972, a field crew employed by Cochrane Consultants Ltd. conducted an intensive exploration program on Tormex Resources Ltd. Snow Peak property. The claims are located in and around the main cirque of Snow Peak mountain in the Tanzilla Plateau subdivision of the Stikine Plateau physiographic region of northern B.C. The claims are centered approximately 16 air miles west of the settlement of Dease Lake, B.C. Work included:

- staking 71 full sized mineral claims (contiguous to the original Mack 1-28 claims) and 8 fractional claims
- 29.8 line miles of linecutting
- 19 line miles of geochemical soil sampling (in continuation of a soil sampling survey conducted in 1971)
- 28 line miles of vertical field magnetometer surveying
- surveying of claims and grid

An induced polarization survey was planned and a unit was mobilized to the property in early August. Due to very strong sunspot activity and inclement weather, electrical noise levels were too high to obtain accurate readings and the IP survey was postponed.

This report describes the field, analytical, and data processing procedures employed on the project and discusses the results obtained.

A-2 CONCLUSIONS:

1. The claims and grid were surveyed for position and the base map at the rear of the report is a good geographical representation of the property (see Figure 2).

2. The geochemical soil sampling survey closed off the "strongly anomalous" zones discovered in the 1971 work and outlined a large area of "weakly to very strongly anomalous" copper and molybdenum content in upper "B" horizon soil samples.

3. Copper content varies from 1550 p.p.m. (22S:40E) to 9 p.p.m. (44S:72E). The arithmetic mean is 77 p.p.m. and primary threshold is 100 p.p.m.

4. Molybdenum content varies from a high of 940 p.p.m. (24S:36E) to a low of 1 p.p.m. (28N:8W). The arithmetic mean is 45 p.p.m. and the primary threshold is 66 p.p.m. The Snow Peak soils may be classed as "extremely" Mo rich. Hawkes and Webb (Geochemistry in Mineral Exploration, Harper and Row, N.Y.) for example, report that the average Mo content of soil is 2 p.p.m.



5. Areas of anomalous Cu and Mo in soils are outlined on the Compilation Plan (Figure 12). The anomalies of the two data sets are very nearly coincident and the overall coefficient of correlation is +0.72. The indication is therefore that the two elements originate from a similar geological setting.

6. A brief description of the various geochem anomalies defined on the Compilation Plan (Figure 12) is listed below:

Geochem Anomaly No. 1: has "moderately to very strongly anomalous" Cu and Mo over an area some 3200 feet long by 1600 feet wide. "Weakly to moderately anomalous" Mo continues east by northeast from this main anomaly for an additional 1600 feet.

Geochem Anomaly No. 2: lies some 200 to 600 feet to the northwest of Anomaly No. 1. The "moderately to very strongly anomalous" Cu and Mo zone trends southwesterly and is some 2700 feet long and 1000 feet wide.

Geochem Anomaly No. 3: This anomaly is a "weakly to moderately anomalous" Mo zone that lies to the northeast of anomaly No. 1. It is some 2000 feet long by 1200 feet wide.

Geochem Anomaly No. 4: a small zone of (approx. 600 feet in diameter) "moderately to strongly anomalous" Cu and Mo and is centered around grid co-ordinates 16N:4E.



7. The majority of the soils may be classified as dystric brunisolic alpine type having a thin mineral-organic (A_h) surface horizon underlain by a red brown to brown B/C horizon from which the majority samples were collected. Sample depth in general varied from 5 to 7 inches.

8. Orientation pits excavated for interpretational information indicate residual soils at 48E:40N, 36E:7S, and at 4E:9N and suggest transported soils at 72E:37S and at 16E:48N.

9. The Magnetometer Survey results are at least in part topographically controlled. In particular, the narrow zone of weak to strong high magnetic response (labelled magnetic feature A on the Compilation Plan, Figure 12) coincides with the rim of the cirque. Magnetic feature B may also be topographically induced.

10. The "weak to strong" magnetic low at the extreme south end of the grid area (feature "C" on the Compilation Plan) may represent a change in magnetic susceptibility and by inference, a change in rock type.

11. If an induced polarization survey is conducted in the grid area it would delineate the extent of pyritization and may detect other Cu/Mo zones that lie at depth. Such a survey should

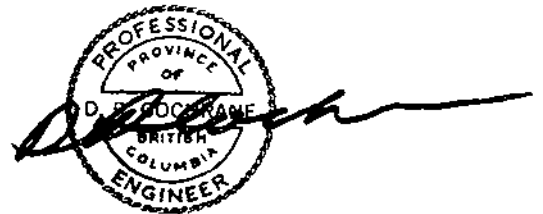
be done in mid summer (to avoid interference from strong winds and storms) and an array and power package that will assure good depth penetration should be selected.

12. Investigation of the bed rock underlying the geochemical soil anomalies is recommended in order to determine the grade and extent of bedrock mineralization.

Respectfully submitted,



A. Scott, B.Sc.



D. R. Cochrane, P.Eng.,
Delta, B.C.



B-1 LOCATION AND ACCESS:

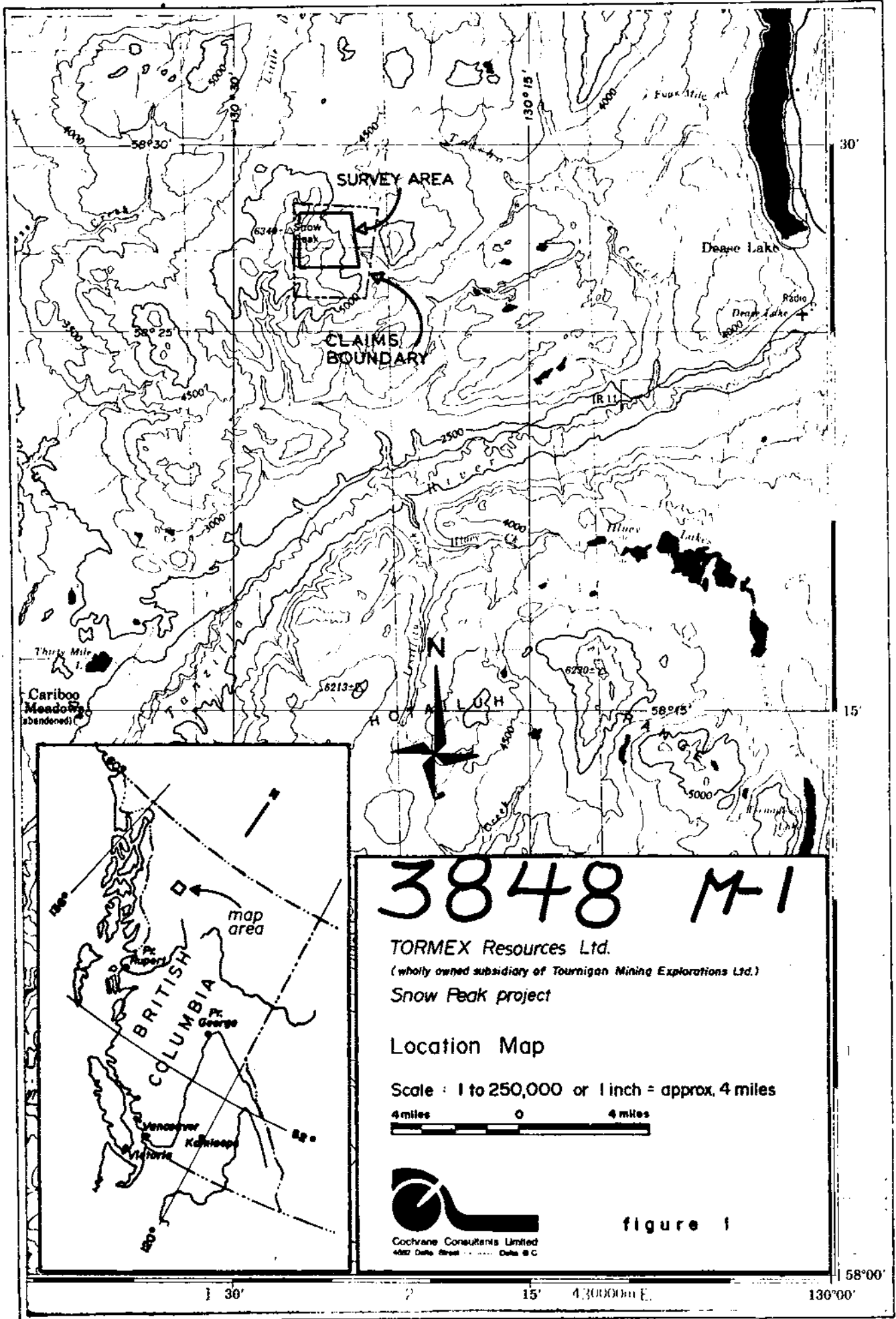
The Mack, Cubes, Fuzz, Fern, Dave and Bob claims are centered some 16 air miles west of the settlement of Dease Lake, B.C. The claims lie within and around the main cirque of Snow Peak mountain, the highest prominence in the Dease Lake area. Access is by an all weather gravel road (the Stewart-Cassiar highway) from Watson Lake, Yukon Territory, or direct by air from Vancouver via Harrison Airways.

Frontier Helicopters maintains a helicopter base at Dease Lake during the summer months and is familiar with the property's location.

The Dease Lake-Telegraph Creek road runs to the south of Snow Peak and at one point is within 8 miles of the center of the claims.

B-2 CLAIMS AND OWNERSHIP:

The Mack, Cubes, Fuzz, Fern, Dave and Bob full size mineral claims and Mack Fractional Mineral Claims are located in the Liard Mining Division. The claims were surveyed as discussed elsewhere in this report and fractions were located where applicable. All the posts were located and the claims have been staked in accordance with the regulations set out in the Mineral Act of the Province of British Columbia.



58°00'

1 30'

2

15'

4 300000m E.

130°00'

3848 M-1

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Record Numbers have not yet been received for the claims staked this season but information that is at present available is tabulated below.

<u>Claim Name</u>	<u>Record Number</u>	<u>Anniversary Date</u>
Mack No. 1 to 28 incl.	39272 to 39299	August 13
*Mack No. 1 and No. 2 FR		July 28
*Mack No. 29 to 42 incl.		July 28
**Mack No. 3 to 6 FR incl.		August 28
**Mack No. 7 and No. 8 FR		August 28
*Cubes No. 1 to 18 incl.		July 28
*Fuzz No. 1 to 17 incl.		July 28
*Dave No. 1 to 8 incl.		July 28
*Fern No. 1 to 6 incl.		July 28
*Bob No. 1 to 7 incl.		July 28

* registered at Cassiar, B.C. on July 28, 1972

** registered at Vancouver, B.C. on August 28, 1972

B-3 PHYSIOGRAPHY:

Tormex Resources' Snow Peak property lies within and around the main cirque of Snow Peak Mountain. Elevations vary from some 6300 feet at the rim of the cirque to some 4700 feet. Lower elevations have patches of scrub balsam and buckbrush, but the bulk of the claims lie above the tree line.

The rim of the cirque is quite steep having a slope in excess of 30 degrees, but the rest of the grid area has generally moderate slopes on the order of 10 degrees. While patches of snow remain throughout the year, most of the area is snow free in July.



B-4 GEOLOGY:

The property was geologically mapped by Mr. Neil Mistry of Tormex Resources concurrently with the present surveys. The results of his work forms a separate report.

PART C: PROCEDURES

C-1 LINECUTTING:

The baseline and cross line directions were obtained using a silva compass and a 200 foot chain was used to establish distance. The baseline runs north 88 degrees east and the cross lines are at right angles to this baseline. Pickets were numbered and placed at 200 foot intervals throughout the grid. Where trees were present the line was cut and ribbons were tied to maintain a line of sight.

The previous years grid was relocated and repicketed by locating the old soil sample pits.

C-2 SURVEYING:

On the central Mack 1 to 28 claims, the grid baseline and end positions of the grid cross lines were surveyed by running closed transit and slope chain traverses. These traverses were calculated and corrected in the office using standard latitude and departure procedures with the aid of an electronic calculator. Many of the additional claim posts were located by triangulation while these traverses were run.

All other claims were checked for location using a silva compass and topofil's thread.

Figure 2 in the map pocket at the end of the report shows the claims and grid location and the topography.

C-3 SOIL SAMPLING SURVEY:

A geochemical soil sampling survey was conducted on the 19 line miles of new grid. The old grid was soil sampled in the previous years work. Samples were taken from the upper "B" soil horizon, generally within 7 inches of the surface.

In addition, a random sample of 10 samples were taken over the old grid to compare analytic results, and 4 orientation pits were excavated with samples taken at 6 inch intervals to a depth of 3 feet (on the average).

The samples were analyzed for copper and molybdenum by atomic absorption, using hot acid extraction by Vancouver Geochemical Laboratories Ltd.

C-4 MAGNETOMETER SURVEY:

Scintrex MF-1 and MF-2 portable fluxgate magnetometers were utilized on the magnetometer survey. The specifications for these instruments are presented in an Appendix.

A main base station was located near the camp on the first day of the survey, and the magnetometers were latitude adjusted to give a "zero" reading at this station. (This assures that readings will be obtained on the most accurate scales)

The field magnetometer was checked into this station in the morning and at night to determine day to day magnetic changes. In addition, diurnal fluctuations were monitored by a stationary instrument near the camp.

Readings were taken at 200 foot intervals (100 foot intervals in areas of steep magnetic gradient) along all cross lines, and the plotted values represent the drift corrected vertical magnetic field strength minus 55,500 gammas.

A total of 28 line miles of magnetometer surveying was completed on Snow Peak.

C-5 INDUCED POLARIZATION:

An induced polarization survey was to be conducted on the Snow Peak grid. The purpose of the survey was primarily to obtain a picture of the extent of pyritization within the grid area.

It was to be conducted in the Wenner field array with an "a" spacing of 1200 feet on cross lines 1600 feet apart. A Hewitt 200 IP unit with a 3 kilowatt power supply was mobilized to the property on August 1 and during the period August 1 to 10, IP surveying was attempted.

Due to very strong sunspot activity and inclement weather, electrical noise (interference) was too great to obtain accurate readings and the survey was postponed.



C-6 DATA PROCESSING:

The magnetic data was corrected for diurnal and day to day variation in the field using a standard graphic time-drift procedure.

The frequency distribution histograms, and calculation of arithmetic means, standard deviations and coefficient of correlation was from a representative sample of 150 values. A Diehl Sigmatronic calculator was used for the computations.



PART D: Discussion

D-1 SURVEYING RESULTS:

The location of the original Mack 1 to 28 mineral claims, and of the baseline and the end positions of the grid cross lines was established by closed transit and slope chain traverses.

The location of many of the additional claims were determined by triangulation concurrently with these traverses.

All other claims were checked for location using a Silva compass with a tripod and topofil's thread.

The traverses were corrected and plotted in the office using standard latitude and departure procedures. Figure 2 is a base map showing the claims and grid location and a few prominent topographical features.

D-2 GEOCHEMICAL SOIL SAMPLING:

Introduction

A geochemical soil sampling survey was conducted over the new grid on Tormex's Snow Peak property. The soil samples were analyzed for copper and molybdenum and the results are presented in contoured plan form as Figures 8 and 9. The contours from the previous year's soil sampling (lines 0 to 44E, stations 15N to 15S) are included on the plans.



Description of Till

The soil samples were collected from a variety of physiographic settings, including boulder strewn outwash slopes, residual soil to hybrid soil ridges with bedrock outcrops, gravel filled valleys, and scrub brush lowlands. Soil types vary from transported through various hybrids to residual soil. The latter appears to be restricted to the areas of highest elevations and especially along the cirque rim. It is possible that the rim, because of its elevation, was not overridden by ice and therefore may be described as a nunatak.

In general, however, the majority soil may be classified as dystric brunisolic alpine type, with a thin mineral-organic (Ah) surface horizon a few centimeters thick, underlain by a red brown to brown B/C horizon of variable thickness. The soils at Snow Peak were formed predominantly from coarse grained acidic parent material under cool, moderately wet alpine climatic conditions.

Microscopic examination of several of the samples revealed the B/C soil horizon was composed of angular to sub-angular fragments of partially decomposed feldspars and mica, and rounded to subangular fragments of quartz. The matrix is

fine brown clay.

The majority of soil samples were described in the soil sample notes as a dark brown to red brown sandy silt to sandy gravel. The gravels are most common in the cirque valley and at lower elevations. Modification of the soil varieties is occurring rapidly and continuously. The steep slopes of the cirque rim are highly unstable, and there is ample evidence of soil creep, frost heave and areas of summer meltwater outwash. On the southern portion of the grid, the water table is very close to surface and in orientation pit no. 3 the water table was encountered at 24 inches below surface. In the area around 20 to 30 south in the center of the grid area, ground water percolates to surface and forms small outwash silt fans.

In the cirque valley, some areas are believed to be heavily drift covered (possibly several hundred feet) and drift consists almost entirely of sand, gravel and boulders.

Permafrost is probably present below the surface in parts of the valley and a permanent snow bank exists at the head of the cirque.

Thus overburden conditions are complex and therefore a complex dispersion of metals may be expected.

Orientation Pits

A total of five orientation pits were excavated at various points on the grid in order to determine the variation of metal content with depth from surface. These pits and the geochemical results are displayed graphically in Figures No. 3 to 7 inclusive. In pits no. 1 (48E:40N); no. 2 (36E:7S) and no. 5 (4E:9N) metal values in general increased with increasing depth. The coefficients of correlation* of Mo vs depth and Cu versus depth in each of the pits are as follows:

<u>Pit No.</u>	<u>Location</u>	<u>Mo vs Depth</u>	<u>Cu vs Depth</u>
1	48E:40N	+0.597	+ 0.416
2	36E:7S	+0.940	+ 0.846
3	72E:37S	-0.890	- 0.023
4	16E:48N	-0.690	- 0.301
5	4E:9N	+0.25	+ 1.00

A high positive correlation coefficient suggests a hybrid to residual soil mantle with metal values increasing proportionally with depth. The negative correlations suggest transported soil with metal values accumulating in the upper "B" horizon. The maximum metal values in pits no. 3 and 4 occurred within 12 inches of surface.

The geochemical orientation information emphasizes the complexity of overburden conditions and therefore suggests some difficulties in interpretation.

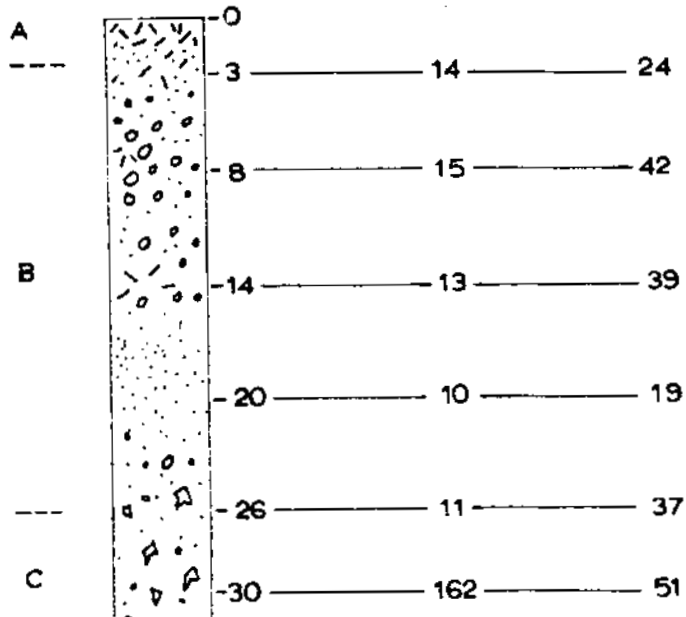
*See Appendix for formulae and explanation



48+00 E , 40+00 N

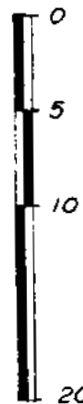
pit number 1

HORIZON LOG DEPTH inches Mo (p.p.m.) Cu (p.p.m.)



Mo av. = 37.5
 Mo σ = 56.0
 r: Mo vs. depth = 0.597

Cu av. = 35.3
 Cu σ = 11.8
 r: Cu vs. depth = 0.416



Vertical Scale :
 1/10" = 1"

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LEGEND for SOIL LOGS:

- Organic
- Clay
- Sand & Silt
- Gravel
- Sandy gravel
- Rock fragments
- Cobbles

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 Explorations Ltd.)

Snow Peak Project
 Dease Lake, B.C.
 Liard Mining Division

ORIENTATION PIT

No. 1

figure 3



Cochrane Consultants Limited
 1880 Lakeshore Drive, Vancouver, B.C.

36+00 E , 7+00 S

pit number **2**

HORIZON	LOG	DEPTH inches	Mo (p.p.m)	Cu (p.p.m.)
		0		
A		2	88	199
B		7	88	259
		12	320	520
		18	390	680
C(?)		28	475	600

Mo av. = 272.2

Mo σ = 176.9

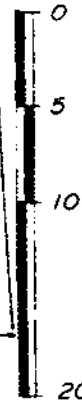
r: Mo vs. depth = 0.941

Cu av. = 451.6

Cu σ = 211.9

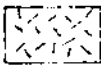


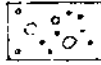
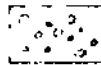
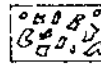
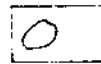
r: Cu vs. depth = 0.846

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Vertical
Scale:
1/10" = 1"

LEGEND for SOIL LOGS:

-  Organic
-  Clay
-  Sand / Silt
-  Gravel
-  Sandy gravel
-  Rock fragments
-  Cobbles

Tormex Resources Ltd.

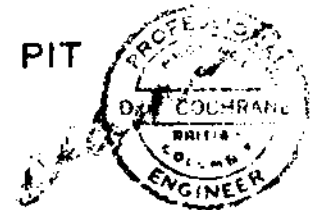
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Explorations Ltd.)

Snow Peak Project
Dease Lake, B.C.
Liard Mining Division

ORIENTATION PIT

No. : 2

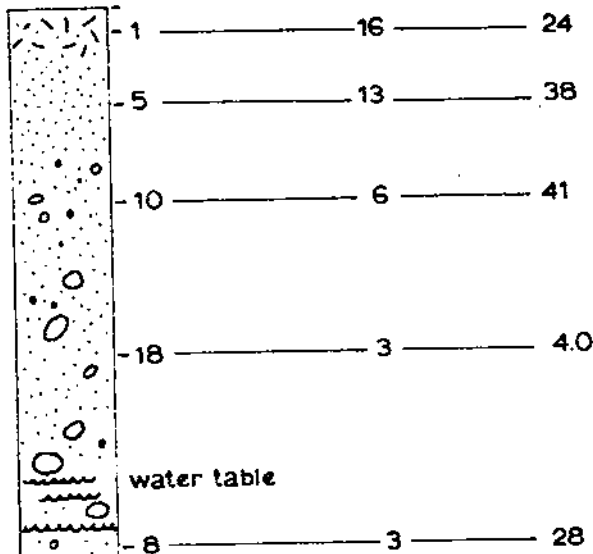
figure 4



72+00E , 37+00 N

pit number **3**

HORIZON	LOG	DEPTH inches	Mo (p.p.m.)	Cu (p.p.m.)
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Mo av. = 8.2

Mo σ = 6.0

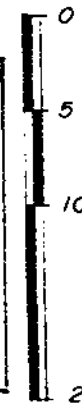
r: Mo vs. depth = - 0.89

Cu av. = 34.2

Cu σ = 7.7

r: Cu vs. depth = 0.023

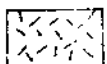

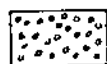
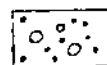
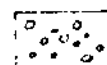
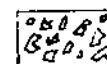
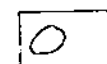
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NO. **3848** MAP **#4**



Vertical
Scale:
1/10" = 1"

20 inches

LEGEND for SOIL LOGS:

-  Organic
-  Clay
-  Sand / Silt
-  Gravel
-  Sandy gravel
-  Rock fragments
-  Cobbles

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Snow Peak Project
Dease Lake, B.C.
Liard Mining Division

ORIENTATION PIT

No : 3

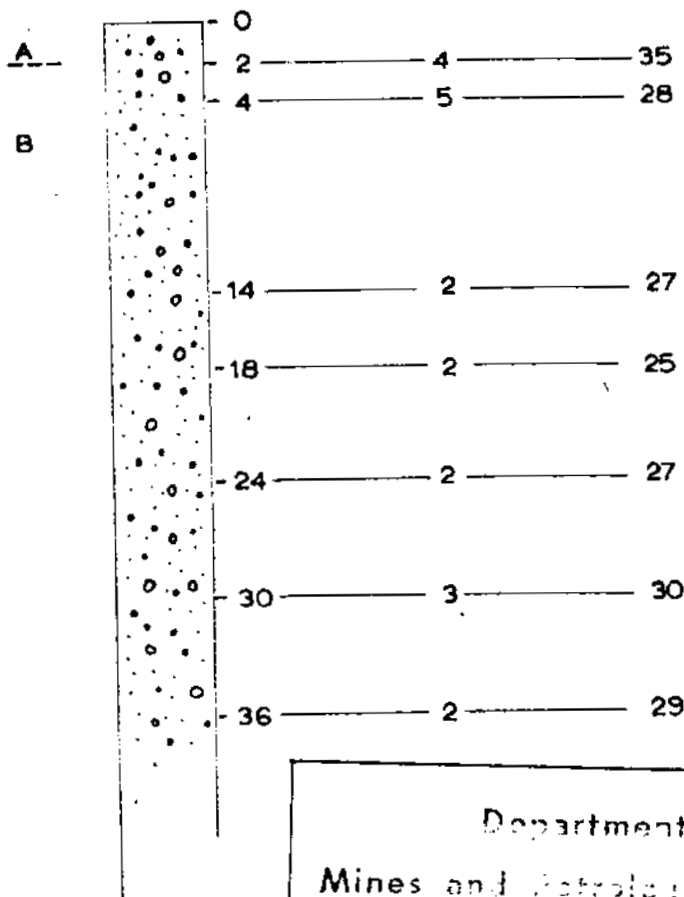
figure 5



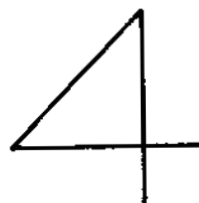
Handwritten signature

16.00E , 48.00N

HORIZON LOG DEPTH Mo (p.p.m.) Cu (p.p.m.)
inches

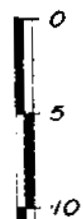


pit number



Mo av. = 2.9
Mo σ = 1.22
 r : Mo vs. depth = -0.69

Cu av. = 28.7
Cu σ = 3.2
 r : Cu vs. depth = -0.30



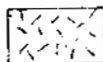
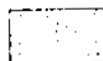
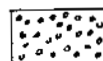
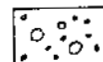
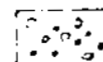
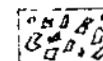

Vertical Scale:
1/10" = 1"

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. **3848** MAP **#5**

LEGEND for SOIL LOGS

-  Organic
-  Clay
-  Sand / Silt
-  Gravel
-  Sandy gravel
-  Rock fragments
-  Cobbles

Tormex Resources Ltd.

(a wholly owned subsidiary of Tournagan Mining
Explorations Ltd.)

Snow Peak Project

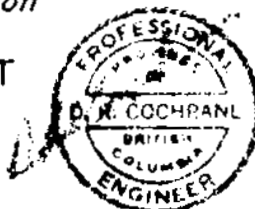
Dease Lake, B.C.

Liard Mining Division

ORIENTATION PIT

No : 4

figure 6

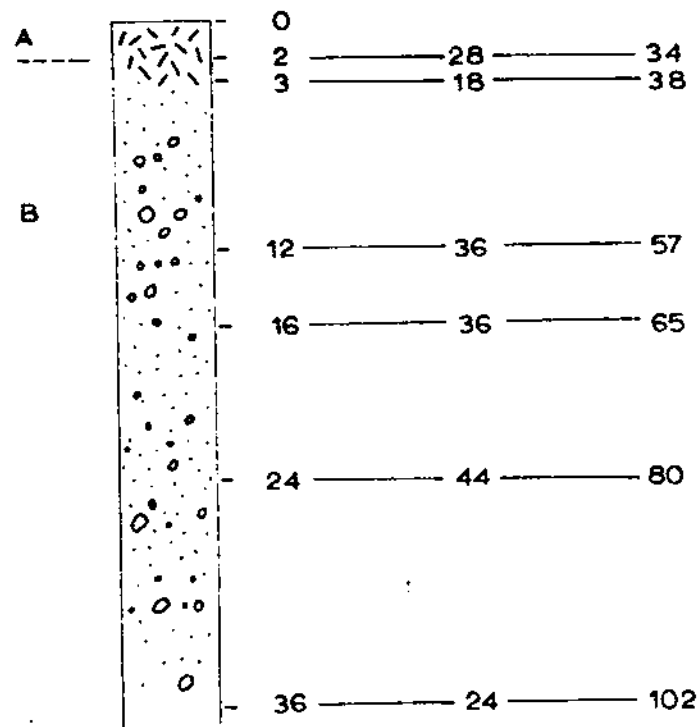


Tormex Resources Ltd.

4.00 E , 9.00 N

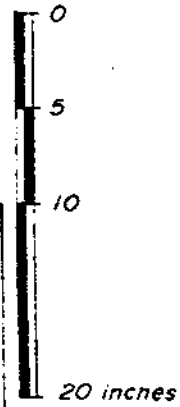
HORIZON LOG DEPTH Mo (p.p.m.) Cu (p.p.m.)

pit number 5



Mo av. = 31.0
 Mo σ = 9.4
 r: Mo vs. depth = 0.25

 Cu av. = 62.67
 Cu σ = 25.75
 r: Cu vs. depth = +1.00



Department of
 Mines and Technical Resources
 ANALYTICAL REPORT
 3848 M.P. #6

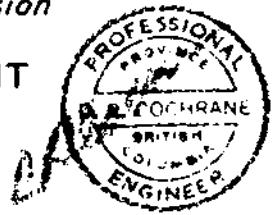
LEGEND for SOIL LOG

- Organic
- Clay
- Sand / Silt
- Gravel
- Sandy gravel
- Rock fragments
- Cobbles

Tormex Resources Ltd.
 (a wholly owned subsidiary of Tournagan Mining
 Explorations Ltd.)

Snow Peak Project
 Dease Lake, B.C.
 Liard Mining Division

ORIENTATION PIT
 No : 5
 figure 7



Geochemical Check Analysis between new and old grid

Some 28 samples were selected throughout the new grid area to be analyzed by Crest Laboratories, who did the analysis on the old grid area, to compare to the results of Vangeochem who did this years analysis. The Crest results are indicated on the respective plans in brackets.

The purpose of the following statistical analysis was to determine the compatability of the two data groups for contouring purposes. The results are discussed below.

Copper Analytical Results Comparison

The following statistical data was obtained:

coefficient of correlation = +1.00 indicating perfect linear correlation

coefficients for regression line

$$a = 1.05$$

$$b = -3.7$$

$$\text{i.e. } Cu_{(\text{Crest})} = 1.05 Cu_{(\text{Vangeochem})} - 3.7 \text{ (p.p.m.)}$$

Vangeochem sample group arithmetic mean = 102 p.p.m.

Vangeochem sample standard deviation = 88 p.p.m.

Crest sample group arithmetic mean = 107 p.p.m.

Crest sample group standard deviation = 89 p.p.m.

Agreement between the two sets of results for copper analysis is excellent and no adjustment is necessary for contouring of the two data sets together.

Molybdenum Analytical Results Comparison

The following statistical results were calculated:

coefficient of correlation = +0.99 indicating nearly perfect
linear correlation

coefficients for regression line

$$a = 1.26$$

$$b = 6.43$$

$$\text{i.e. Mo}_{(\text{Crest})} = 1.26 \text{ Mo}_{(\text{Vangeochem})} + 6.43 \text{ (p.p.m.)}$$

Vangeochem sample group arithmetic mean = 53 p.p.m.

Vangeochem sample group standard deviation = 76 p.p.m.

Crest sample group arithmetic mean = 73 p.p.m.

Crest sample group standard deviation = 97 p.p.m.

While correlation of the two data groups is excellent (indicating highs agree with highs and lows agree with lows), the Crest results are somewhat higher than the Vangeochem results and the new grid results have been adjusted using the above regression line, for contouring purposes.

Copper Results

Results are presented in Figure 8 in the map pocket at the rear of the report and the insert figure shows the relative frequency distribution of the copper values. The results vary from a high of 1550 p.p.m. at 22S, line 40E to a low of 9 p.p.m. at 44S, line 72E.

The arithmetic mean is 77 p.p.m., the standard deviation is 106 p.p.m. and threshold is set at 100 p.p.m. The primary mode of the histogram is in the 0 to 50 p.p.m. class which encompasses 66 percent of the values and the distribution is skewed very strongly to the right.

The following categories of copper soil content are herein defined:

less than 100 p.p.m.	background
100 - 200 p.p.m.	weakly anomalous
200 - 300 p.p.m.	anomalous
greater than 300 p.p.m.	strongly anomalous

The geochemical copper plan shows two very strongly anomalous copper zones centered in the south-central grid area. The two zones trend west by southwest and are some 200 to 600 feet apart (along the rim of the cirque). The smaller anomalous zone lies entirely within the "old grid area" and is some 3200 feet long and 800 feet wide. The larger anomalous zone lies in and around the southeast corner of the "old grid area". It is irregular in shape but averages some 3200 feet by 2400 feet in length and width respectively.

A smaller anomalous copper zone is some 400 feet wide by 800 feet long and is centered around 16N:4E.



Molybdenum Results

The molybdenum values are plotted and contoured in Figure 9, located in the map pocket at the end of this report. The contours from the previous year's grid are also shown in Figure 9. The inset diagram shows the relative frequency distribution of molybdenum values.

Molybdenum values vary from a high of 940 p.p.m. at 24S, line 36E to a low of 1 p.p.m. at 28N, line 8W. The arithmetic mean is 45 p.p.m., the standard deviation is 89 p.p.m. and threshold is set at 66 p.p.m.

The primary mode of the histogram lies in the 0 - 24 p.p.m. class, encompassing 63 percent of the values, and the secondary mode is in the greater than 200 p.p.m. class which contains 5 percent of the values. The distribution is skewed strongly to the right.

The following categories of molybdenum in soils are herein defined:

less than 66 p.p.m.	background
66 - 170 p.p.m.	weakly to moderately anomalous
greater than 170 p.p.m.	strongly anomalous

Three main anomalous zones are evident on the molybdenum contour plan (Figure 9). The main zone of above background response



(greater than 90 p.p.m. on old grid and greater than 66 p.p.m. on the new grid) is some 4800 feet long (from lines 24E to 72E) and averages some 1600 feet in width (from approximately station 10S to 24S). West of line 48E this zone is primarily "strongly anomalous" and east of line 48S it is primarily "weakly to moderately anomalous".

Two other large anomalous zones lie adjacent to this main zone. The higher amplitude "strongly anomalous" one is entirely in the "old grid area" (along the baseline between lines 8E and 28E) and is some 2000 feet long by 800 feet wide.

The other "weakly to moderately anomalous" one, is entirely in the "new grid" area (north of the baseline between lines 48E and 64E) and is some 2000 by 1200 feet.

The coefficient of correlation between Mo and Cu values is +0.72 indicating a common source for the metals.

D-3 MAGNETOMETER SURVEY RESULTS:

The magnetometer survey results are plotted on Figure 10 and Figure 11 (both in map pocket at rear of report). 55,500 gammas should be added to the plotted values in Figure 10 to obtain the total vertical magnetic field at any given station. Included in Figure 10 is a relative frequency histogram showing

the frequency distribution of magnetic values over the Snow Peak grid.

The maximum value is 2015 gammas at 6N, line 40E and the minimum is -1120 gammas at 46S, line 24E. The arithmetic mean and standard deviation were calculated from a random sample of 103 values and found to be 375 gammas and 460 gammas respectively. The frequency histogram shows a bimodal distribution of magnetic values. The primary mode lies in the 250 to 499 gamma class and encompasses 31 percent of the values. The secondary mode lies in the -500 to -750 class and encompasses 4 percent of the values.

These two "magnetic families" may in fact indicate that two distinct rock types (or phases) underlie the survey area.

The boundary between the two families (and possibly 2 rock units) is close to the -375 gamma level.

Statistically, the following magnetic categories can be defined:

-100 to 800 gammas	background
-100 to -500	weak magnetic low
less than -500	strong magnetic low
800 to 1300	weak magnetic high
greater than 1300	strong magnetic high


A narrow "ridge" of weak-strong high magnetic response trends southwest across the contour plan from 18N, line 48E to 24S, line 8W. This feature is coincident with the cirque rim and it is interpreted as being caused by that topographical feature.

The zone of high magnetic response in the extreme northwest section of the grid (feature "B") may also be topographically induced.

A "weak to strong" magnetic low lies in the extreme south of the survey area. It is labelled feature "C" on the Compilation Plan. It is separated from the "background" response areas to the north by a steep gradient of some 1000 gammas over 400 feet, and then, apparently the magnetic relief flattens out. It may represent a change in magnetic susceptibility in this area and therefore by inference a change in rock type.

Magnetic response in the remainder of the survey area is quite complex. However, an overall west by southwest isomagnetic pattern is moderately apparent, and this may reflect a dominant structural (fracture pattern?) trend.

Respectfully submitted,



D. R. Cochrane, P.Eng.
August 31, 1972.



A. Scott, B.Sc.
Delta, B.C.



APPENDIX I

Certificates

NAME: COCHRANE, Donald Robert
Education: B.A.Sc. - U. of T., M.Sc. (Eng.) - Queen's University
Professional P.Eng. of B.C., Ontario, and Saskatchewan. Member of
Associations: of C.I.M.M., G.A.C., M.A.C., - Geological Engineer
Experience: Engaged in the profession since 1969 while employed with
Noranda Exploration Co. Ltd., Quebec Cartier Mines Ltd.,
and Meridian Exploration Syndicate

NAME: SCOTT, Alan R.
Education: B.Sc. - Geophysics, U.B.C.
Experience: Two summers - crew member and operator with Geo-X Surveys
Ltd. Employed with Cochrane Consultants Ltd. for 3 years
- Geophysicist
Professional Member of S.E.G.
Associations:

NAME: GRIFFITH, David
Education: B.A. (English), Queen's, 1970
Experience: 1 Field Season, general experience in mining exploration
Employed with Cochrane Consultants Ltd. for 2 years -
Chief Operator

NAME: PARADIS, Robert
Age: 24
Experience: Seigel Associates Ltd. - Employed with Cochrane Consultants
Ltd. since spring, 1972

NAME: ESTACAILLE, Norman
Age: 25
Education: Grade 12 Diploma
Experience: One-half year exploration with Huntec. Employed with
Cochrane Consultants Ltd. for 2 field seasons

NAME: RAINCOCK, Larry
Age: 25
Experience: Employed with Cochrane Consultants Ltd.

NAME: ROSSIER, Jean-Claude
Education: Secondary and Vocational School - Architectural Drafting
Degree
Experience: Since 1965 - General Drafting Experience
Geophysical Drafting, Seigel Associates - 1969 - 1972
Employed with Cochrane Consultants Ltd. since spring, 1972

NAME: COCHRANE, Bruce
Education: Ontario College of Art Diploma
Experience: Two field seasons - Geo-X Surveys Ltd. Employed with
Cochrane Consultants Ltd. since spring, 1972

APPENDIX II
Survey Details

PROPERTY: SNOW PEAK GRID MINING DIVISION: Liard

SPONSOR: Tormex Resources Ltd.

LOCATION: 16 air miles west of the settlement of Dease Lake, B.C.

SURVEY: 28 line miles of vertical field magnetometer
19 line miles of geochemical soil sampling
staking 71 additional full sized claims and 8 fractions
surveying original Mack 1 to 28 and grid
29.8 line miles linecutting

SURVEY MAN DAYS: 178

STANDBY-MOBILIZATION DAYS: 22

DATA PROCESSING & REPORT PREPARATION MAN DAYS: 11½

DRAFTING MAN DAYS: 18½

DATA PROCESSING & REPORT PREPARATION:

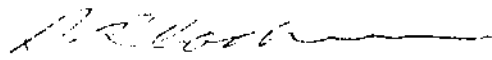
A. Scott, B.Sc., Geophysics, U.B.C.
D. R. Cochrane, M.Sc., P.Eng., U. of T., Queen's

FIELD CREW:

D. Griffith, Party Chief
N. Estacaille
L. Raincock
E. Dennis
B. Paradis
R. Hatt, cook

DRAFTING: Jean-Claude Rossier
Bruce Cochrane

COCHRANE CONSULTANTS LTD.


D. R. Cochrane, President

APPENDIX III

Cost Breakdown

Surface exploration program on Snow Peak, Liard M.D.
as discussed in "Survey Details" by contract between Tormex
Resources Ltd. (client) and Cochrane Consultants Ltd., and dated
July, 1972.

A. Work deemed applicable to Assessment Credits

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. 29.8 line miles of linecutting at
\$135.00/line mile | \$ 4,023.00 |
| 2. 28.0 line miles of a fluxgate
magnetometer survey @ \$182.00/line mi. | 5,096.00 |
| 3. 19.0 line miles of a geochemical soil
sampling survey including orientation
and analysis of samples for Cu and Mo
@ \$319.00/line mile | 6,061.00 |
| 4. Survey and tie in of Mack No. 1 to 28
(inclusive) claims @ \$55.00/claim | <u>1,540.00</u> |

Declared before me at the City TOTAL \$ 16,720.00
of Vancouver, in the
Province of British Columbia, this 26
day of September 1972, A.D.

Jan Jones
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia

Sub - mining Recorder

D. R. Cochrane
D. R. Cochrane, P.Eng.

APPENDIX V

Statistical Methods

Calculations were done with the aid of a preprogrammed Diehl electronic calculator using a representative sample of some 150 values (approximately every 4th data point for geochemical values).

The appropriate formulae are listed below:

$$(\bar{x}) \text{ arithmetic mean} = \frac{1}{n} \sum_{i=1}^n x_i$$

$$(s) \text{ standard deviation} = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2}$$

$$(r) \text{ coefficient of correlation} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}$$

where if: $r = +1.0$ indicates perfect positive correlation

$r = 0.0$ indicates wholly imperfect correlation

$r = -1.0$ indicates perfect inverse correlation

linear regression coefficients (a & b)

$$y = ax + b \quad \text{where: } a = \frac{\sum x_i y_i - \bar{y} \sum x_i}{\sum x_i^2 - \bar{x} \sum x_i}$$

$$b = \bar{y} - a\bar{x}$$

**SPECIFICATIONS OF
FLUXGATE MAGNETOMETER
MODEL MF-2**

	RANGES	SENSITIVITY
Standard:	Plus or minus 1,000 gammas f.sc. 3,000 gammas f.sc. 10,000 gammas f.sc. 30,000 gammas f.sc. 100,000 gammas f.sc.	20 gammas/div. 50 gammas/div. 200 gammas/div. 500 gammas/div. 2000 gammas/div.
Optional:	100 gammas f.sc. 300 gammas f.sc.	2 gammas/div. 5 gammas/div.
Meter:	Taut-band suspension 100 gamma scale 2.1" long — 50 div. 300 gamma scale 1.9" long — 60 div.	
Accuracy:	1000 to 10,000 gamma ranges $\pm 0.5\%$ of full scale.	
Operating Temperature:	—40°C to +40°C —40°F to +100°F	
Temperature Coefficient:	Less than 1 gamma per °C ($\frac{1}{2}$ gamma/°F)	
Noise Level:	Less than 1 gamma P-P	
Bucking Adjustments: (Latitude)	—20,000 to +80,000 gammas 9 steps of 10,000 gammas plus fine control of 0 - 10,000 gammas by ten turn potentiometer. Reversible for southern hemisphere.	
Recording Output:	Optional.	
Electrical Response:	D.C. to 0.3 cps (3db down) on 1000 gamma range with meter in circuit. D.C. to 20 cps with meter network shorted for recording purposes.	
Connector:	Cannon KO2-16-10SN for plug Cannon KO3-16-10-PN and cover KO6-16-3.	
Batteries:	Internal 3 x 6V-1 amp/hr. Sealed Lead Acid rechargeable Centralab GC 6101; recharge time 8 Hrs.	
Consumption:	60 milliamperes — GC6101 batteries are rated for 16 hours continuous use.	
Dimensions:	6 $\frac{1}{4}$ " x 2 $\frac{3}{4}$ " x 10" Instrument. 161 mm x 71 mm x 254 mm	
Weights:	5 lb. 8 oz. — 2.5 kg.	
Battery Charger:	6" x 2 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " 155 mm x 64 mm x 64 mm 110V - 220V 50/60 Hz supply or 28 - 42V D.C. supply Automatic charge rate and cutoff preset for Centralab GC6101 batteries.	



SCINTREX LIMITED

79 Martin Ross Avenue, Downsview, Ontario, Canada

PLEASE NOTE OUR NEW ADDRESS

222 Snidercroft Rd., Concord, Ontario.

**SPECIFICATIONS OF
FLUXGATE MAGNETOMETER
MODEL MF-1**

Ranges:	Plus or minus — 1,000 gammas f. sc. 3,000 " 10,000 " 30,000 " 100,000 "
	Sensitivity 20 gammas/div. 50 " 200 " 500 " 2,000 "
Meter:	Taut-band suspension 1000 gammas scale 1 7/8" long — 50 div. 3000 gammas scale 1 11/16" long — 60 div.
Accuracy:	1000 to 10,000 gamma ranges \pm 0.5% of full scale 30,000 and 100,000 gamma ranges \pm 1% of full scale
Operating Temperature:	—40°C to +40°C —40°F to +100°F
Temperature Stability:	Less than 2 gammas per °C (1 gamma /°F)
Noise Level:	Total 1 gamma P-P
Long Term Stability:	\pm 1 gamma for 24 hours at constant temperature
Bucking Adjustments: (Latitude)	10,000 to 75,000 gammas by 9 steps of approximately 8,000 gammas and fine control by 10 turn potentiometer. Convertible for southern hemisphere or \pm 30,000 gammas equatorial.
Recording Output:	1.7 ma per persted for 1000 to 100,000 gamma ranges with maximum termination of 15,000 ohms.
Response:	DC to 5 cps (3db down)
Connector:	Amphenol 91-MC3F1
Batteries:	12 x 1.5V-flashlight batteries "C" cell type) (AC Power supply available)
Consumption:	50 milliamperes
Dimensions:	Instrument — 6 1/2" x 3 1/2" x 12 1/2" 165 x 90 x 320 mm Battery pack — 4" x 2" x 7" 100 x 50 x 180 mm Shipping Container — 10" dia x 16" 254 mm dia. x 410 mm
Weights:	Instrument — 5 lbs. 12 oz. 2.6 kg. Battery Pack — 2 lbs. 4 oz. 1.0 kg. Shipping — 13 lbs. 6.0 kg.

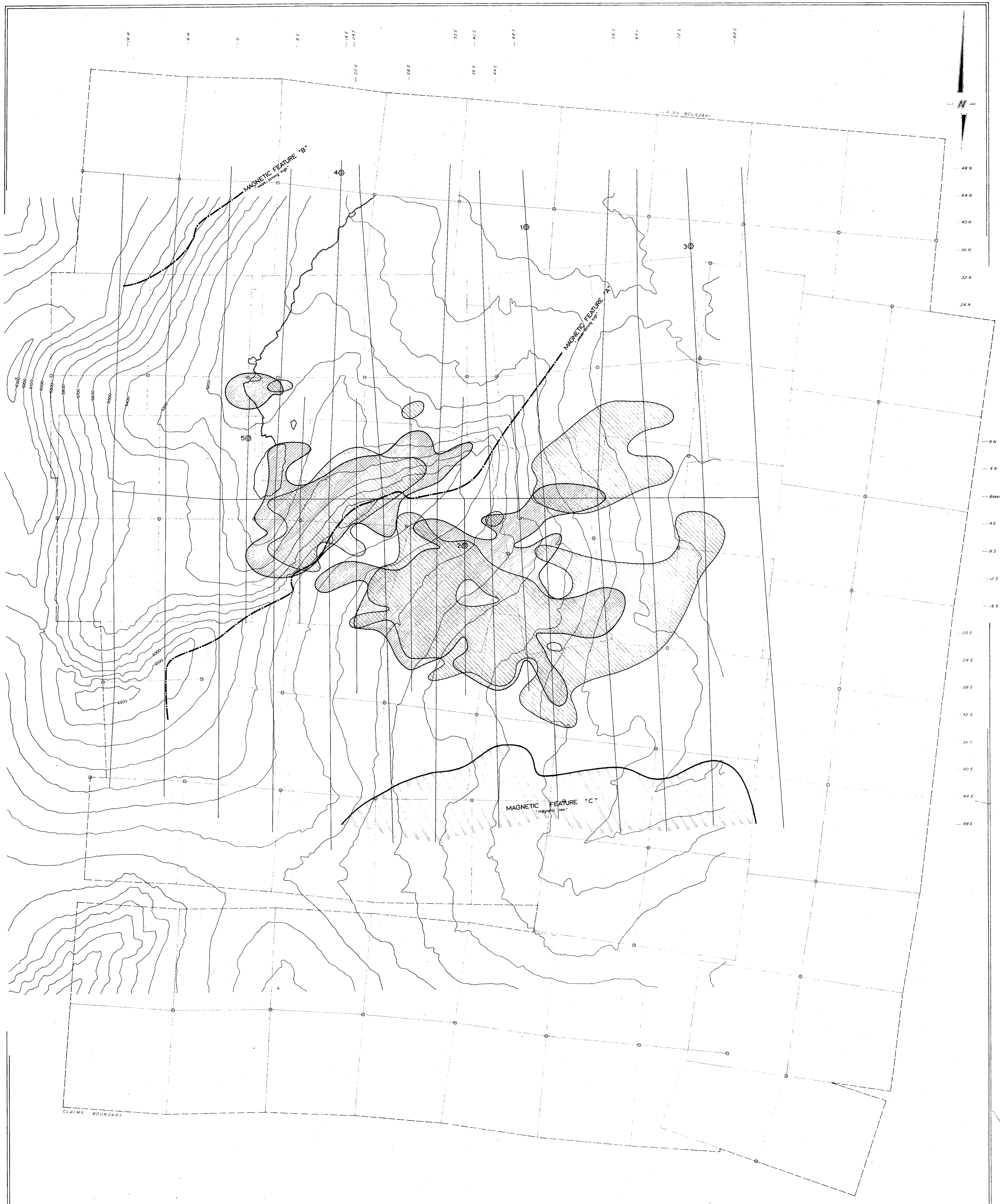


SCINTREX LIMITED






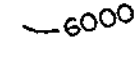
79 Martin Ross Avenue, Downsview, Ontario, Canada

PLEASE NOTE OUR NEW ADDRESS

222 Snidercroft Rd., Concord, Ontario.



Legend

-  MAGNETIC HIGH
-  MAGNETIC LOW
-  AREA OF COPPER GEOCHEM RESULTS HIGHER THAN 100 ppm
-  AREA OF MOLYBDENUM GEOCHEM RESULTS HIGHER THAN 30 ppm (1971) or 66 ppm (1972)
-  5000 100' TOPOGRAPHIC CONTOUR INTERVAL
-  PIT LOCATION

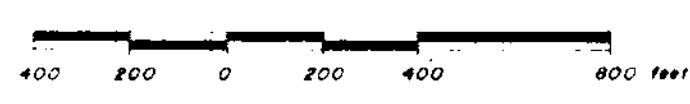
Tormex Resources Ltd

100% owned subsidiary of Tournigan Mining Explorations Ltd.
 Snow Peak Project Dease Lake, B.C.
 Liard Mining Division

Department of
 Mines and Technical Resources
 ANNUAL REPORT
 NO 3848 MAP #12

COMPILATION PLAN

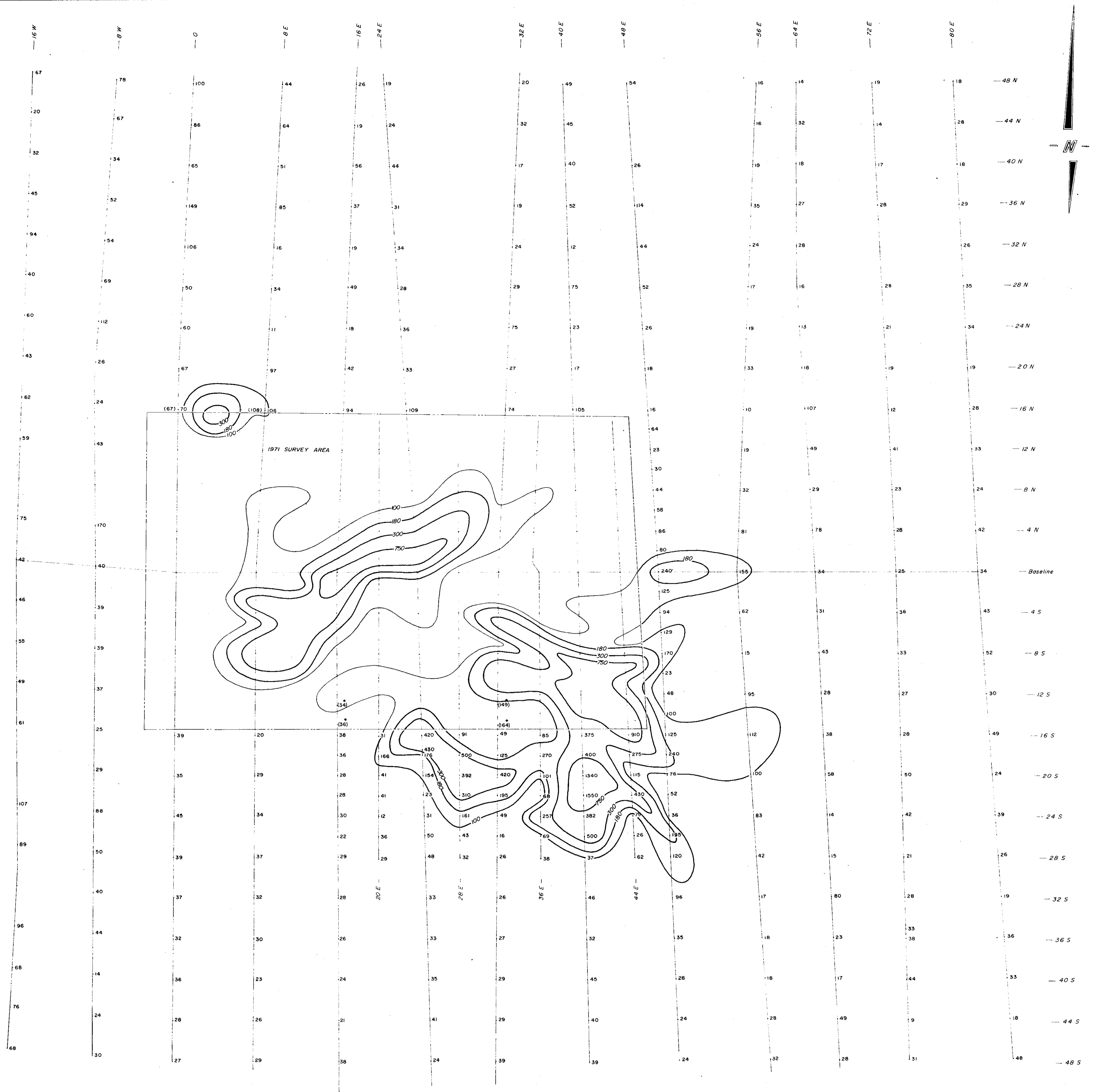
horizontal scale
 1" = 400'



to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972

Figure 12





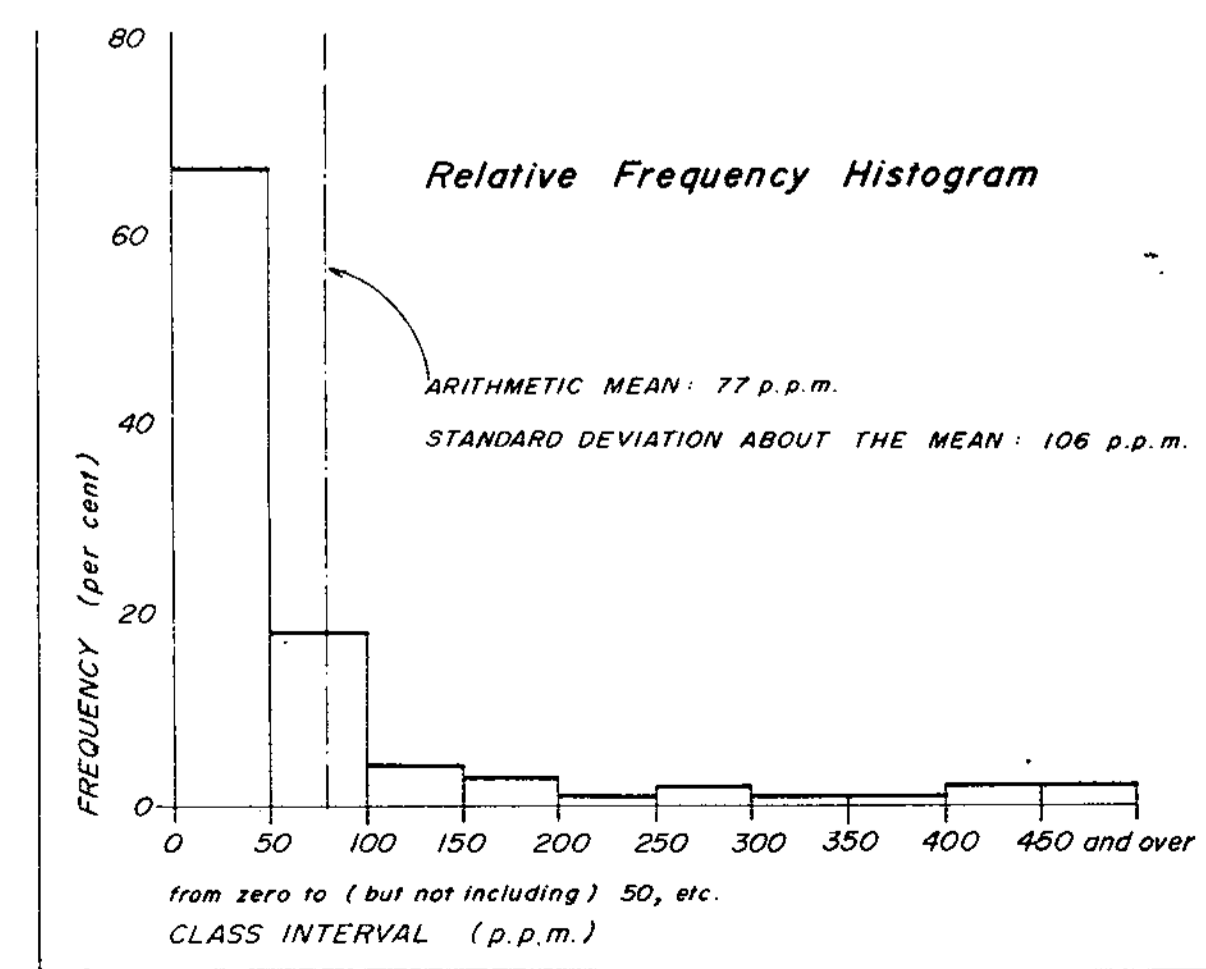
Legend:

All readings in cu parts per million.

(34) Samples taken within 1971 survey area

(5) Check samples

Contour Interval — 100
 — 180
 — 300
 — 750



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 Liard Mining Division

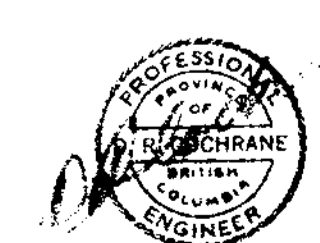
Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3848 MAP #8

GEOCHEMICAL PLAN - COPPER (p.p.m.)

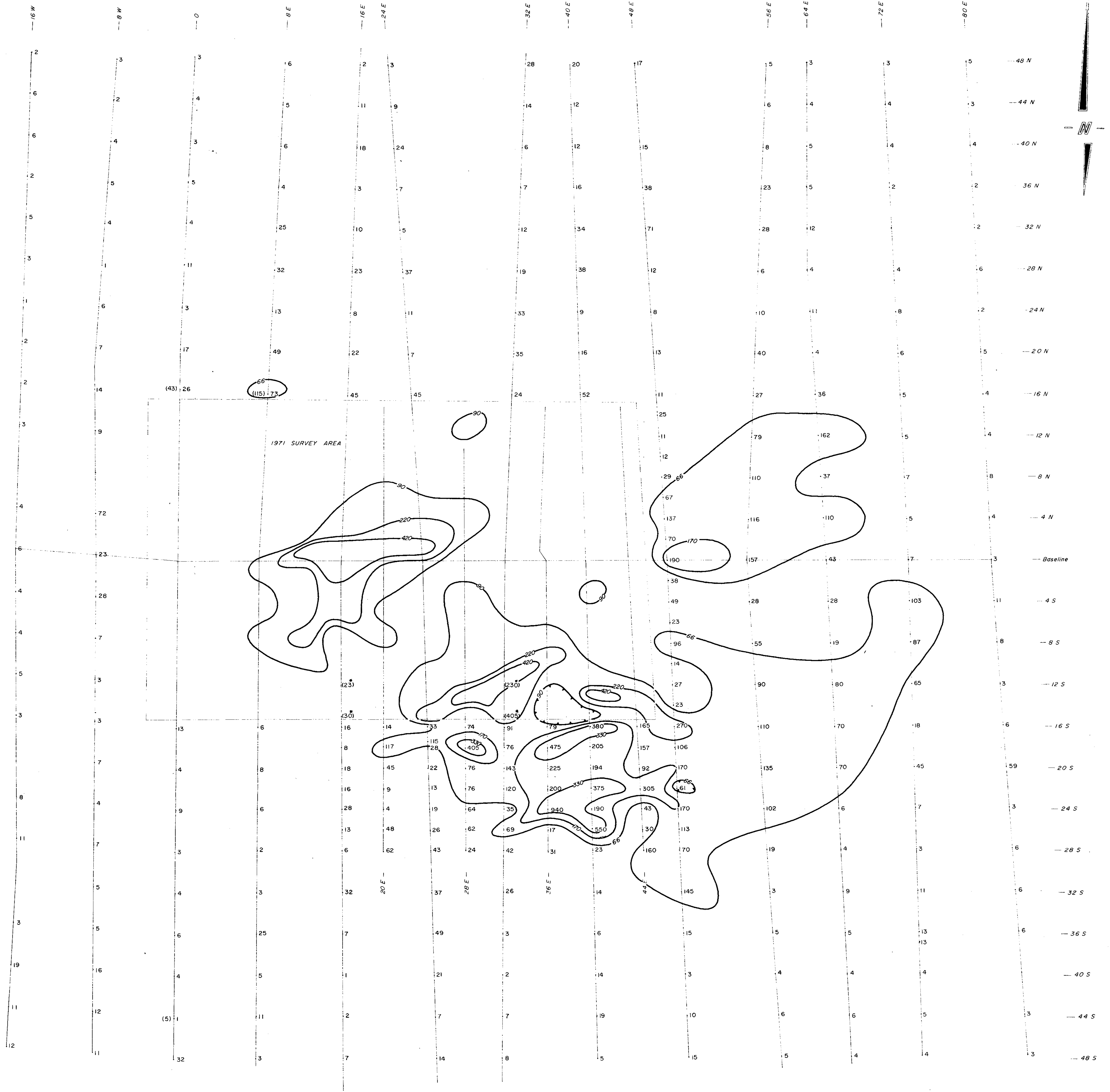
horizontal scale:
 1" = 400'

to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972.

figure 8



[Handwritten signature]



Legend:

All readings in parts per million.

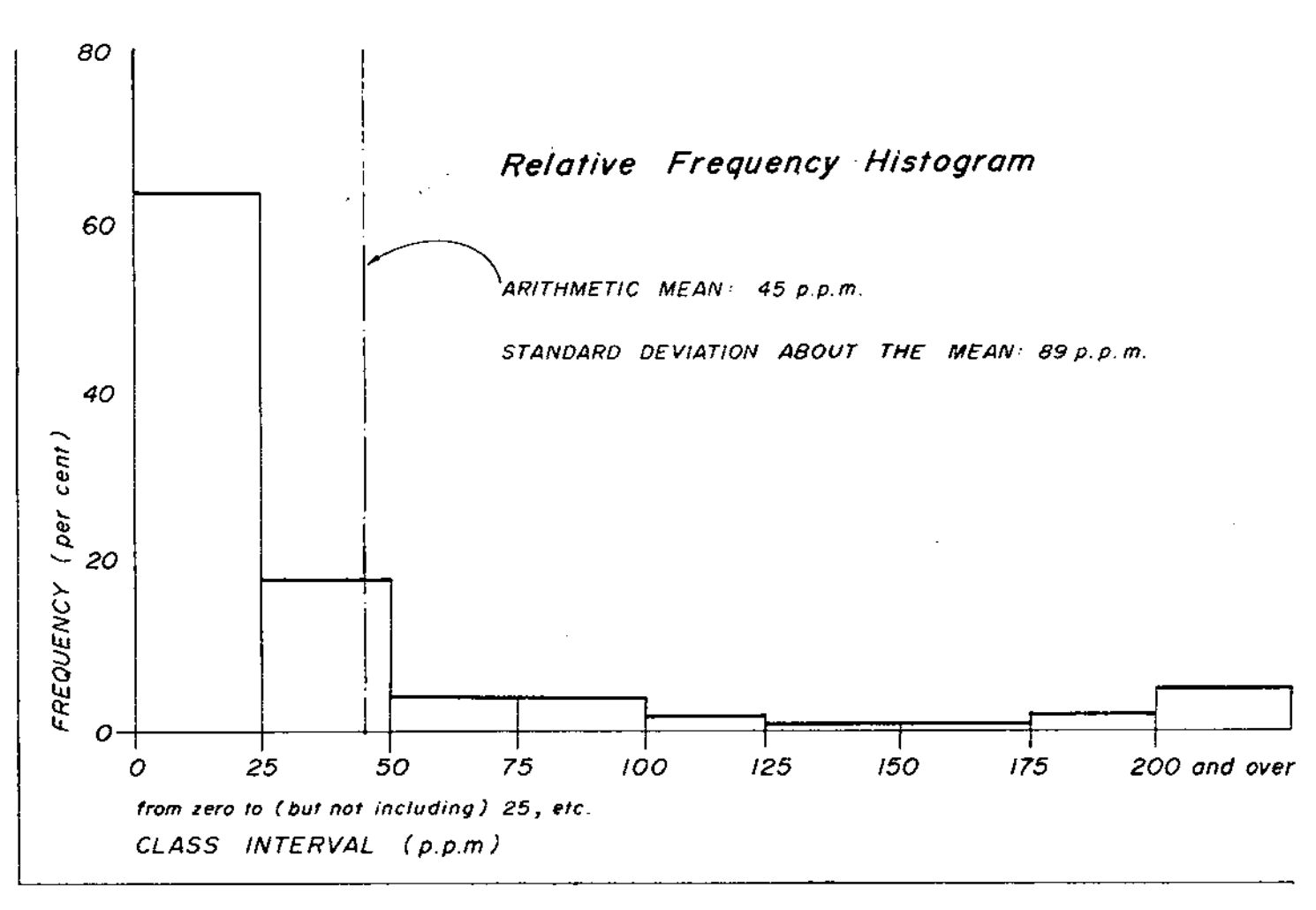
(23) Samples taken within 1971 survey area.

(15) Check samples.

Contour Interval:

— 66	— 90
— 170	— 220
— 330	— 420

new grid



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Department of
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GEOCHEMICAL PLAN - MOLYBDENUM (p.p.m.)

horizontal scale:
 1" = 400'

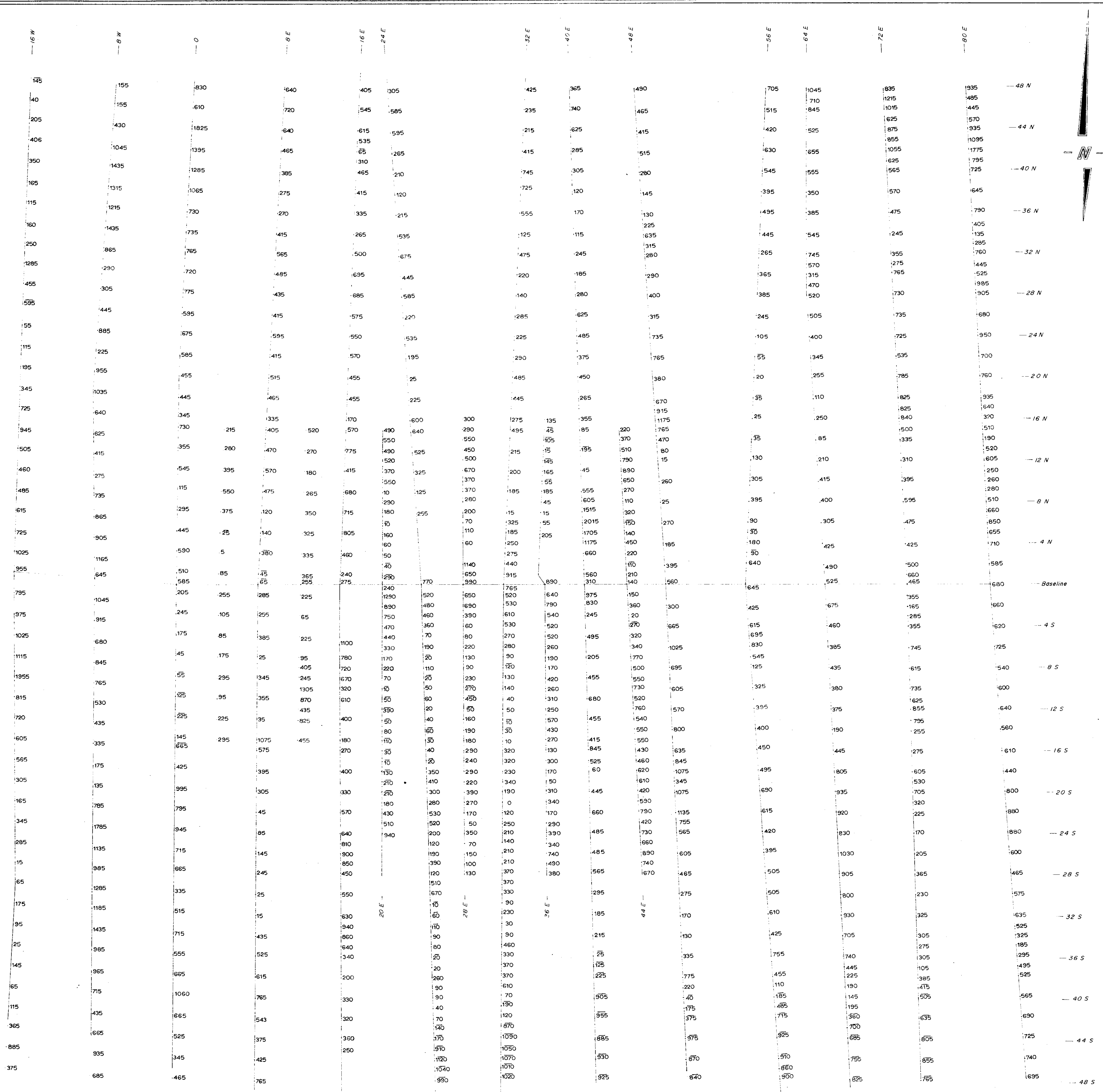
to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972.

figure 9

Cochrane Consultants Limited
 4902 Delta Street - Delta B.C.

D.R. COCHRANE
 PROFESSIONAL ENGINEER

Handwritten signature



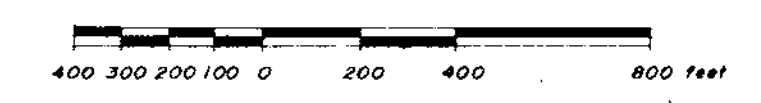
Legend
Values in gammas

Tormex Resources Ltd
(a wholly owned subsidiary of Tournigan Mining Explorations Ltd.)
Snow Peak Project Dease Lake, B.C.
Liard Mining Division

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3848 MAP #10

MAGNETOMETER VALUES

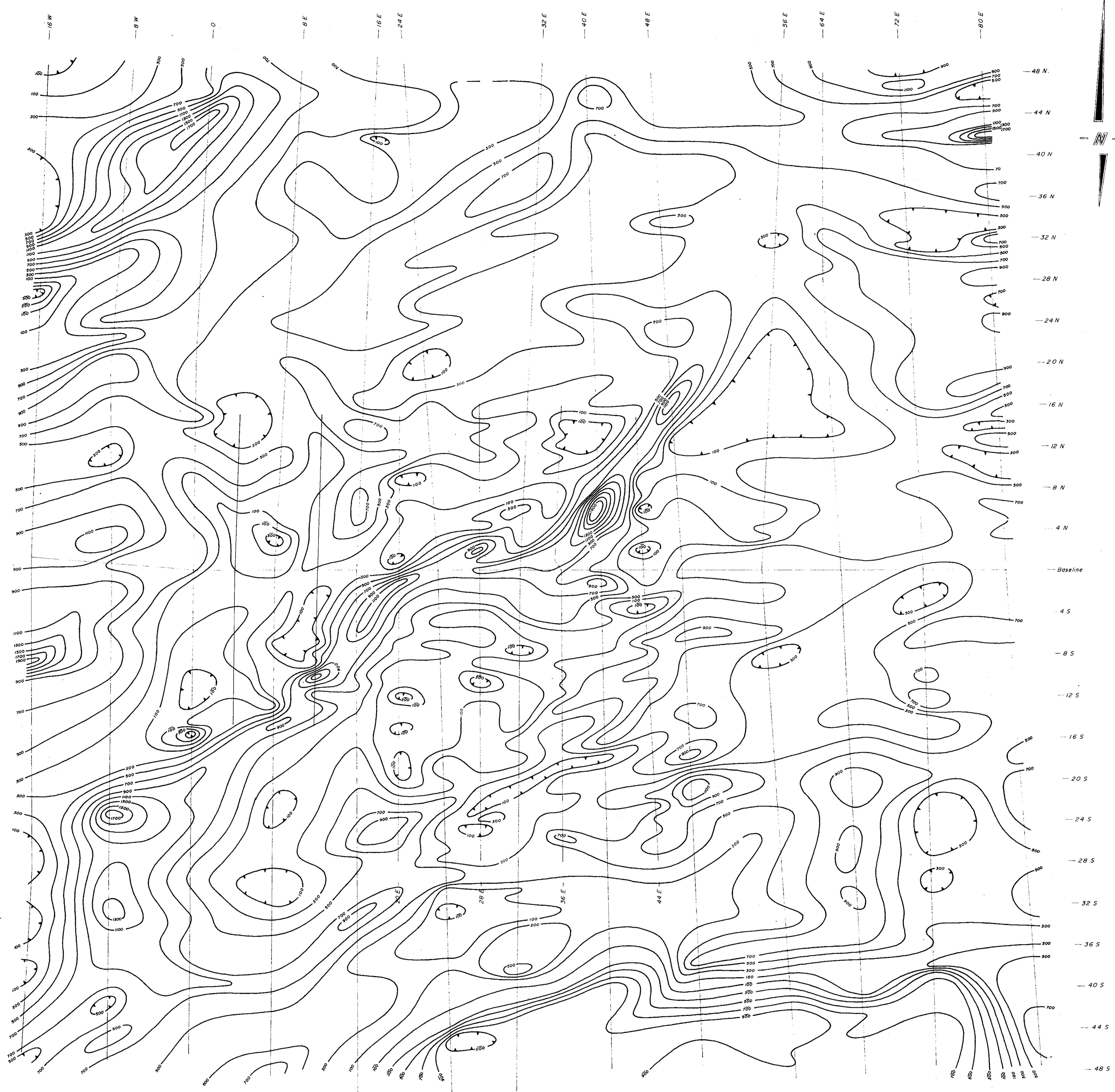
horizontal scale:
1" = 400'



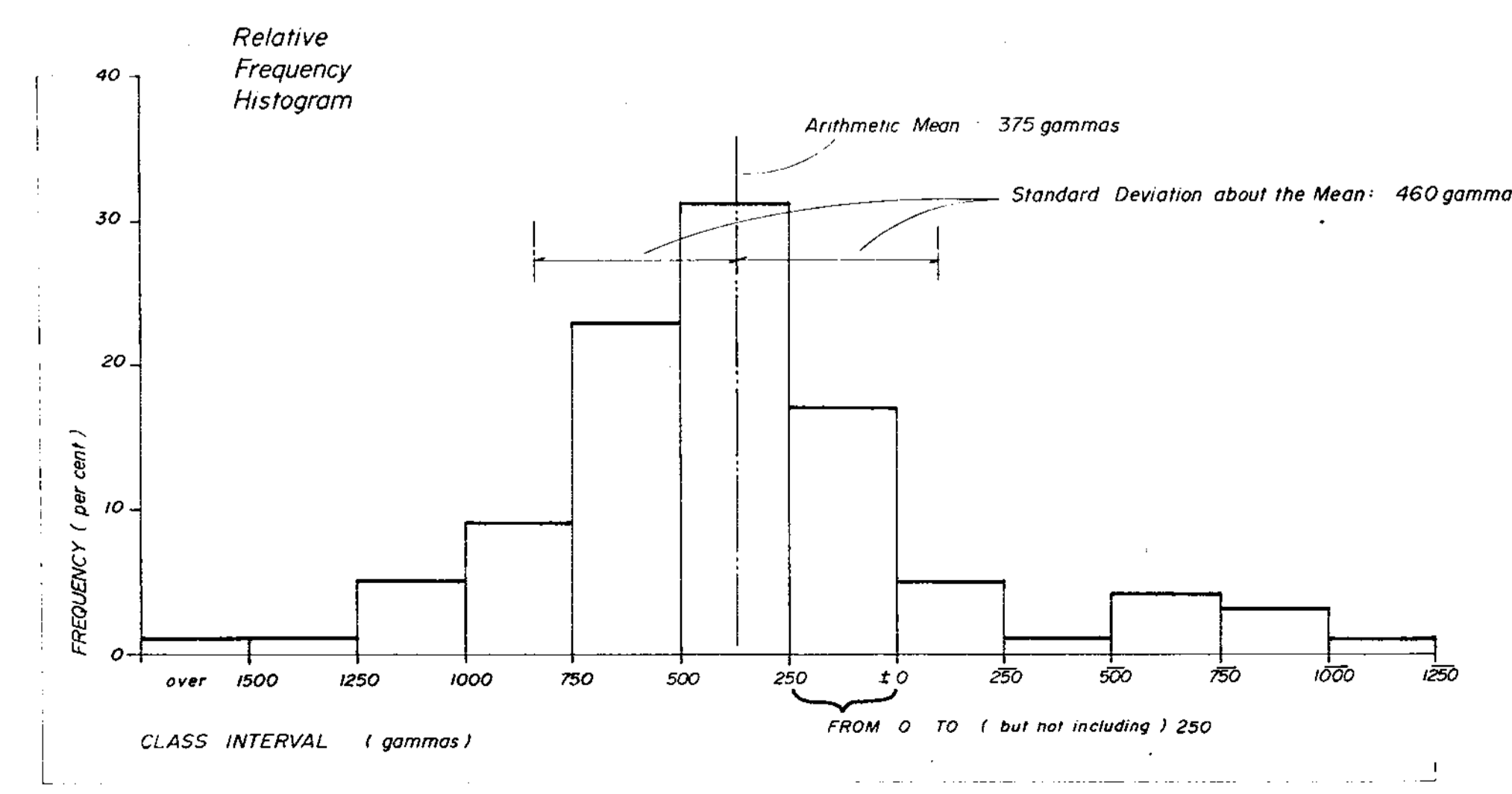
to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972.

figure 10






Legend:
 200 200 gamma contour interval
 500 500 gamma contour interval

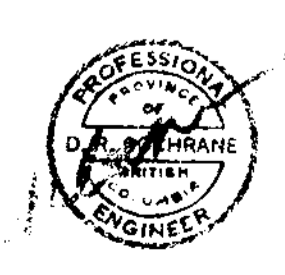


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 Snow Peak Project Dease Lake, B.C.
 Liard Mining Division

Department of
 Mines and Petroleum Resources
 A REGIONAL REPORT
 NO. 3848 MAP #11

ISOMAGNETIC CONTOUR PLAN
 horizontal scale: 1" = 400'
 to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972.

figure 11

 Cochrane Consultants Limited
 4882 Delta Street - Delta B.C.





Legend
 100 feet TOPOGRAPHIC CONTOUR INTERVAL

3848 M-7

Tormex Resources Ltd
 (a wholly owned subsidiary of Tournigan Mining Explorations Ltd.)
 Snow Peak Project Dease Lake, B.C.
 Liard Mining Division

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3848 MAP #7

GRID, CLAIMS and TOPOGRAPHY

horizontal scale:
 1" = 400'

to accompany a report by A. Scott, B.Sc., and D.R. Cochrane, P.Eng., dated August 31, 1972

Figure 2

