

2262

GEOLOGICAL, GEOPHYSICAL
AND GEOCHEMICAL REPORT
on the
KON AND WIN MINERAL CLAIMS
for
CONCORDE EXPLORATIONS LTD.

GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT

ON THE

KON AND WIN MINERAL CLAIMS

FOR

CONCORDE EXPLORATIONS LTD

F. Holcapek

February 22, 1970

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Statistical plot of geochemical data

- 1) all samples combined
- 2) samples north of 30N line
- 3) samples south of 30N line

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NO. 2262 MAP.....

GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL REPORT

ON THE

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CONCORDE EXPLORATIONS LTD

INTRODUCTION

The Kon and Win groups comprise a total of 35 contiguous mineral claims situated 9 miles westerly from Kamloops, British Columbia. Staked in February of 1969, the claims lie adjacent to the southwest edge of the Iron Mask Batholith, an intrusive mass in which numerous copper deposits have been located, and where several companies are currently engaged in exploration.

This report summarizes and evaluates the results of geological, geophysical and geochemical surveys conducted during April - May, 1969.

The geochemical survey was done by personnel of Concorde Explorations, the geophysical and geological surveys were done by personnel of Agilis Exploration Services Ltd. The writer supervised the field work.

LOCATION AND ACCESS

The property lies 7 miles west, southwest of Kamloops in south-central British Columbia. Co-ordinates near the centre of the claim group are $120^{\circ} 34'$ west longitude, $50^{\circ} 39 \frac{1}{2}'$ north latitude.

Access is by Highway 1 from Kamloops to the Cherry Creek Service Station, then along the Ned Roberts Lake branch road to the southeast which traverse the property.

Kamloops lies 268 miles by road from Vancouver from which it can also be reached by regularly scheduled airline services.

PHYSIOGRAPHY

The property lies within an area of low to moderate relief with elevations ranging between approximately 1800 and 2500 feet above sea level. In general, the topography slopes to the northeast.

Summers are hot and dry while winters are cold. Snow is present throughout the winter months.

Most of the area is forested with pine, fir and spruce, although underbrush is generally absent.

Water is available from several small creeks and ponds but may be scarce on parts of the property during much of the year.

PROPERTY

The property consists of the following 35 contiguous mineral claims, held by Concorde Explorations Ltd.

<u>Claim</u>	<u>Record Number</u>
Kon 1 - 10	76136 - 76145
Win 1 - 22	76146 - 76167
Zip 1	76170
Zip 2	79223
Ken 1 - 6	79224 - 79229

HISTORY

Work was conducted on copper deposits within the Iron Mask Batholith prior to the turn of the century, and minor production has been recorded from several properties since then.

Most of the production has come from the Iron Mask and Erin orebodies from which a total of 182,494 tons averaging 1.47% copper plus silver and gold values were milled between 1904 and 1928. West of the main intrusive, and 3 miles northwest of the Kon and Win claims, the Copper King Mine has produced 7460 tons averaging approximately 3% copper and 0.14 ounces gold per ton.

Many companies have conducted exploration in the area in recent years, either on individual properties or in the district as a whole. During 1964 and 1965 Vanco Exploration Ltd carried out geophysical, geological and geochemical surveys and drilling over numerous properties held under option.

A series of aeromagnetic maps covering the region were released in 1968 by the Federal Government.

The exploration program conducted during April-May 1969 consisted of line cutting, geochemical and magnetometer surveys and geological mapping.

REGIONAL GEOLOGY

The Iron Mask Batholith is a north westerly trending intrusive mass, partly overlain by the younger Kamloops-volcanics, and intruding the Nicola volcanics.

Stratigraphy:

Miocene or Later: Kamloops volcanics

Andesites, basalts, rhyolites minor sediment.

Jurassic and Later: Iron Mask intrusions

Picrite-Basalt: A greenish-black dense rock of conspicuously porphyritic appearance. Olivine is serpentinized and crystals range up to 1/5 inch. Altered specimens possess a glassy matrix. This rock type is appreciable magnetic, fresh or altered.

Coarse-grained Batholithic Rocks:

Pyroxenite: (Edith Lake Area) This is a heavy grey-green rock of crystalline appearance and is strongly magnetic. Pyroxene, hornblende and magnetite are the main minerals present. Dioritic and gabbroic rocks rich in pyroxene are present in the same region.

Gabbro & Diorite: They are not separately recognizable except under microscope. The rocks have a variable appearance due to changes in grain size and mafic mineral content. Weathering is dark brown to light grey. The fresh surface is uniformly dark grey green or white and dark speckled. Biotite shows as glistening flakes. The rock is commonly magnetic. An inconsistent banding is developed in places and inclusions are common.

Monzonite: This rock type underlies an area along the north eastern margin of the batholith. The rock is more uniform than diorite and shows a distinct pink color which is due to the feldspars, including orthoclase. The monzonite is in part an alteration product of diorite. It is relatively non-magnetic.

Fine grained Batholithic (Sugarloaf and Cherry Creek Intrusions (?)) Rocks:

These rocks are of dioritic and monzonitic composition and named micro diorite or micromonzonite to distinguish them from their coarser grained counterparts. Microgranodiorite is also present. This variety probably grade into each other. Alteration and recrystallization processes seem to be responsible for the existing differences.

All the rocks are grey, white to pinkish in colour. The mean grain size is 1 mm but a porphyritic tendency is present. A perceptible foliation is common and marked by bladed crystals of pyroxene and hornblende. Inclusions of chloritic rock fragments do not exceed 1 inch in length.

In one location Sugarloaf intrusions cut Cherry Creek intrusions indicating the latter to be younger.

No where was either one found to cut Kamloops volcanics.

Alterations:

While alteration or albitization occurs as unsymmetrical dyke-like bodies with relatively sharp contacts against the less altered diorite no relationship to mineralization could be established in the field.

Pink alteration appears to be due to replacement of pink orthoclase feldspar, it occurs as veins and is strongly persistent. Individual veins contain one or more of the following minerals: calcite, epidote, albite, biotite, magnetite and chalcopryite. Calcite and epidote are the most common and at least a trace of chalcopryite usually accompanies them.

Overlapping of pink and white alteration is evident in several locations.

Picrite basalt in structurally weak zones is altered to a hard uniformly dark green rock in which the altered porphyritic crystals appear as vague rounded black shapes.

At the Larsen workings near the Iron Mask shaft picrite-basalt is converted to a black rock glistening with abundant finely disseminated biotite cut by talcose slips.

Structural Geology:

Evidence concerning the structure is insufficient. The following sequence of intrusion is indicated by field data:

- a) coarser grained rocks
- b) picrite basalts
- c) finer grained rocks - could be equivalent to d) and e)
- d) Sugarloaf microdiorite
- e) Cherry Creek microdiorite

The location of the different intrusions appear to have been controlled by zones of recurring fractures. This zone is partly identified, one through the centre and one along each margin of the batholith. These zones have determined the north-west trend of the intrusive contacts.

No through-going faults have been identified within the batholith. Faulting is chiefly observed along the contacts of batholithic rocks with picrite basalts, this could in part be reactivation of earlier zones.

Post-mineral faulting is probably widespread but no large displacements are evident.

MINERALIZATION

Copper deposits in this area are veins, stockworks, and dissemination of replacement origin and meso-thermal type, chalcopyrite accompanied by pyrite is the principal copper minerals. Gold and silver values are low and appear to decrease with increasing proportion of pyrite. Bornite is important at the Copper King mine of Cherry Bluff.

The Cherry Creek intrusive phase is closely related to mineralization and the Sugarloaf intrusion are associated with mineralization east of Hughes Lake (Aften), or the Ajax-Monte Carlo, and to a lesser extent on Sugarloaf Hill.

Rock alteration and mineralization are as a rule adjacent to structurally weak masses of picrite basalt and altered tuff. Intense rock alteration is a general guide to the likelihood of strong or widespread mineralization.

In the coarse grained rocks, pink replacement breccia represents structural conditions conducive to mineralization. Monzonite with few pink veins may be host to disseminated sulphides.

Structural conditions undoubtedly play a major role in localization of sulphides (northerly and northeasterly-trending zones).

DETAILED GEOLOGY

The Win and Kon claims are located southwest of the Iron Mask Batholith. Rock exposures are few and usually small in the north and eastern part of the property, but extensive in the southwestern part. In general there is less than 20% outcrop present.

The regional trend of the different rock formations is northwesterly, parallel to the topographical trend and the direction of the last ice movement.

Rock samples were collected in the field, numbered and investigated in the office with a petrographic microscope.

STRATIGRAPHY AND DESCRIPTION OF ROCK TYPES

Miocene or later: Kamloops Volcanics

Basalt: dark brown to black, fine grained with euhedral phenocrysts of plagioclase and clinopyroxene, occasional small vugs present.

Rhyolite: pinkish to brownish weathering, fine grained containing less than 10% mafics which are strongly weathered and cannot be positively identified, whitish weathering due to breakdown of orthoclase present. This rock type outcrops along the northern part of the property and could be in part intrusive.

Basalt: same general appearances as the upper bed, but contains large phenocrysts of clinopyroxene - up to 1/16 of an inch.

Jurassic and Later, Intrusive (Sugarloaf phase?)

Dark to light green well crystallized containing approximately 15% quartz, euhedral plagioclase, up to 10% euhedral augite, less than 1% sugary light green transparent olivine.

Upper Triassic: Nicola Group:

Andesite: fine grained sugary texture containing up to 60% epidote and minor pyroxene.

Andesite: grey to dark green, strongly serpentized and chloritized, pyroxene more abundant, epidote less than 10%.

Andesite: light green to dark containing dark grey fragments, chloritized and serpentinized, but less strongly, up to 30% epidote present.

STRUCTURAL GEOLOGY

Bedding as observed within the Nicola group trends nearly east-west and dips at 60° N. The contact between the Nicola -, and the Kamloops was nowhere observed on the property. The outcrop pattern of the Nicola volcanic as exposed in the southwestern part trends northwesterly which is parallel to the most pronounced shearing direction.

Foliation was observed along most of the shears and can extend up to four feet on either side of the shear. Strike of the foliation is northwesterly and dips are vertical. These attitudes are parallel to the main shearing direction.

The most pronounced jointing direction are N20 to 0E and vertical, or parallel to the bedding.

The rhyolites are in general strongly brecciated and sheared, but outcrops are too small and too weathered to obtain directions.

A strong shear up to 50 feet wide is exposed in the eastern part of the property. It strikes $S40^{\circ}$ W, vertical. This trend is about parallel to the shear exposed on the Afton Mines property to the east in the old workings.

MAGNETOMETER SURVEY

Object: The main purpose of the magnetic survey was to help isolate areas possibly underlain by the favourable intrusions, and shearing.

Instrument: The instrument used was a Sharp MF1 Fluxgate magnetometer. This instrument measures the vertical component of the earth's magnetic field.

This instrument is self-orienting, requires only coarse levelling, and has built-in temperature compensation.

Field Procedures:

Ground control was obtained by lines established on a 400 foot by 200 foot pattern. Stations were marked on the ground by pickets and flagging.

The magnetometer was zeroed for this property and base stations established by taking three readings over a one-half hour time intervals. The readings were averaged and the obtained value used as base reading. Care was taken to read the instrument on the lowest possible scale for maximum sensitivity.

Following this, magnetometer readings were taken at 200 foot intervals on all crosslines with each traverse starting and ending at the same base stations. Elapsed time on these traverses never exceeded one hour.

Tolerable diurnal variation for any traverse was on gamma per minute, and actual variation was always considerably less.

The field data was corrected, plotted and contoured for interpretational purposes.

INTERPRETATION

The magnetometer survey outlined closely the contact between the Nicola volcanics and the area underlain by the Kamloops volcanics with section of possible intrusive. The southwestern part, with Ned Roberts Lake as northern boundary, shows an intensity of less than 600 gammas. This area was mapped as Nicola Group. To the north of the lake the intensity varies drastically from less than 1000 gammas to 2000 gammas. A pronounced northwesterly and northeasterly trend by both high and low anomalous areas is present. Two small outcrops just north of Ned Roberts Lake mapped as intrusive, are associated with a high magnetic reading.

GEOCHEMICAL SURVEY

The geochemical survey was conducted after the geological mapping and magnetometer survey was completed. The main object being to select the area which is most likely underlain by intrusive rocks or the Nicola Group, both are favourable for mineralization in this area. The area underlain by the Nicola Group was rejected since no alteration or sulfides have been found during the mapping, although nearly 80% outcrop is present in this area.

The presence of the young Kamloops volcanics, observed during the mapping, in the eastern section made this area less attractive.

The area north east of Ned Roberts Lake from 48E, 16S following a north westerly trend to the north west corner of the property has been sampled along lines spaced 400 feet apart and at 200 foot stations. In the eastern section of the property every third line was sampled at the same station interval to make sure not to miss a possible target for further work.

FIELD PROCEDURE:

Soil samples were collected with an auger along the grid lines at 200 foot stations and care was taken to sample the residual soil directly underlying the organic soil horizon (B-Horizon). At each sample location information regarding soil type, slope, sample depth and vegetation was recorded and used to interpret the results. A total of 619 samples were taken.

GEOCHEMICAL TESTING

The samples were tested by Chemex Labs Ltd. All samples were tested for copper content by spectrographic analysis and values recorded in parts per million (ppm). Samples were packaged in kraft envelopes then sent to the lab where they were dried in an electric oven and screened to -80 mesh.

INTERPRETATION OF RESULTS

The background value for copper was established by statistical analysis. The copper values were grouped at 10 parts per million (ppm) intervals, the present frequency and accumulated percent frequency were calculated and plotted on arithmetic probability paper. From the plotted data the range of background, mixed zone, and anomalous zone was read. A plot of all samples did not show a clear boundary between mixed zone and anomalous zone. A check on the geology map indicated that the area should be broken into two sections, the boundary was taken along the 30N line. Area 1 encloses all samples taken between line 30N and the northern boundary of the property. Area 2 encloses all samples south of line 30N to the southern boundary.

Area 1: The statistical plot gives a straight line with no change in slope, hence all values fall within one population.

Area 2: The plotted data from Area 2 show two changes of slopes, the first at the 60 ppm mark, and the second at the 90 ppm mark.

Background	up to and including 60 ppm copper
Mixed Zone	from 60 to 90 ppm copper
Anomalous Zone	above 90 ppm copper.

Several areas of anomalous copper values were outlined in Area 2.

Anomaly 1 This area of high copper value lies just north of Ned Roberts Lake and follows a northwesterly trend. Highest reading obtained lies on line 16W, 32N, 561 parts per million.

This anomaly follows roughly a magnetic high trending in the same direction. The magnetic high is right adjacent to a low giving a magnetic relief of nearly 1500 gammas.

This is also the area where intrusive units were mapped.

Anomaly 2 This anomaly is not completely defined. It consists of a series of readings above 100 ppm in the eastern section of the property where only every third line was sampled. More geochemical data is needed to outline this anomaly. Magnetic data from this area outlines also a magnetic high, and a coinciding magnetic and geochemical anomaly is indicated. During mapping no intrusives have been found, but most of this part of the property is overburden-covered.

CONCLUSIONS

1. The geological mapping showed that the Kon and Win claims are underlain by the Kamloops Volcanics, the Nicola Group and intrusive rocks belonging to the Sugarloaf Phases (?)
2. The magnetometer survey outlined several north-west and north-east trending highs.

3. The geochemical survey outlined two anomalous areas trending nearly parallel to magnetic highs. The eastern-most anomaly has not been completely outlined.
4. The results obtained by this survey make more work necessary to evaluate the indicated anomalous areas.

RECOMMENDATIONS

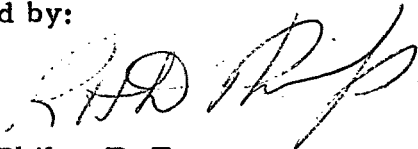
1. Sampling of all lines not sampled in the eastern part of the claim group.
2. Detailed geochemical survey of all outlined anomalous areas.
3. Electro-magnetic survey over geochemical anomalies.
4. If electro-magnetic survey inconclusive an induced polarization survey should be conducted over strongest geochemical anomaly.
5. Trenching or drilling
6. Diamond drilling to test anomalies.

Respectfully submitted,



F. Holcapek, Geologist

Endorsed by:



R. H. D. Philp, P. Eng.,

February 22, 1970

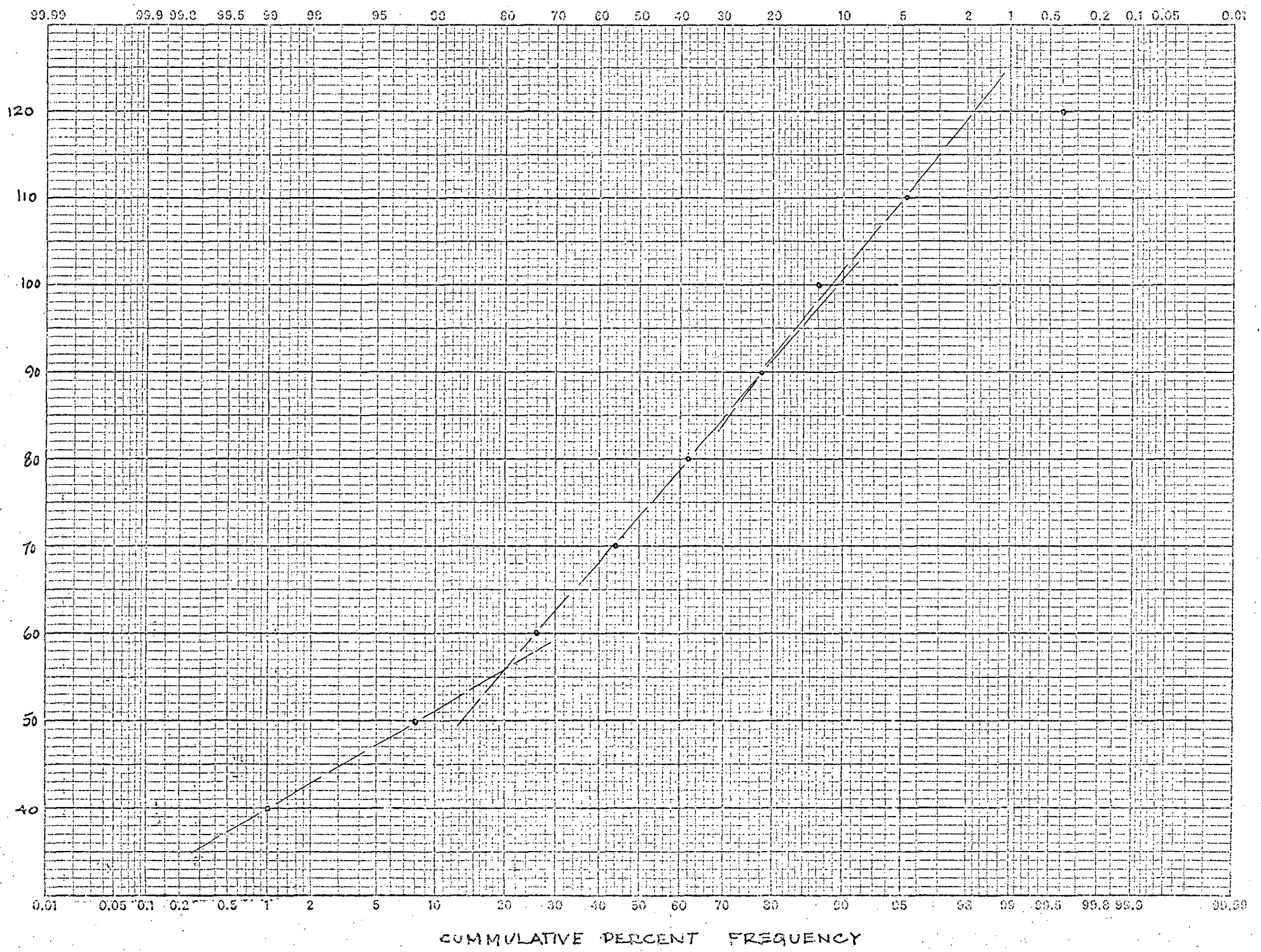
REFERENCES

Minister of Mines, B. C. Ann. Reports 1896, 1930, 1951, 1952, 1955,
1956

Geological Survey, Canada, Mem. 38, 1915, pp. 140 - 141
Mem. 249 (Nicola Map Area), 1948
Econ. Geol. Series No. 3, 1926



KANGE COPPER - PAKIS PEK MILLION



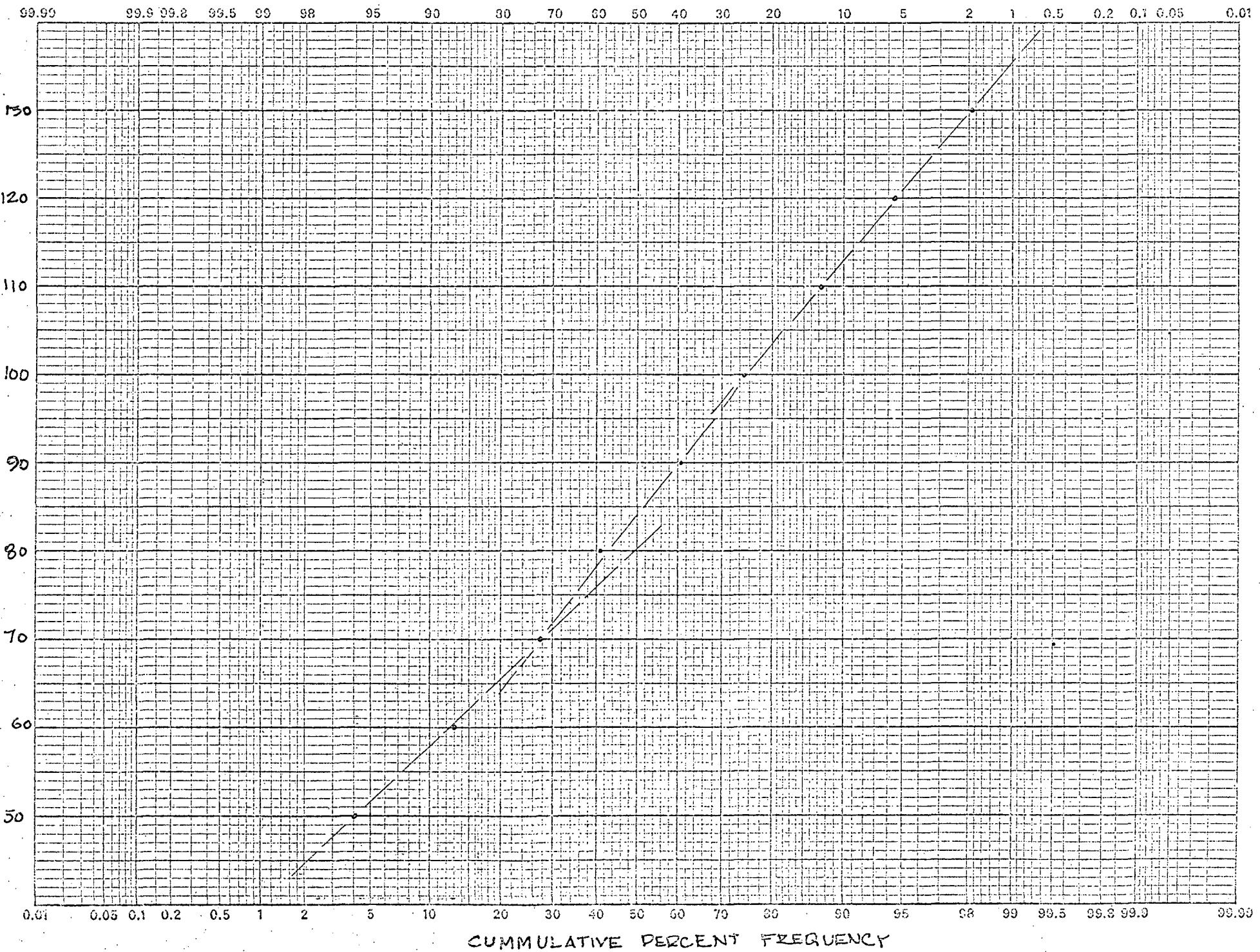
CUMULATIVE PERCENT FREQUENCY

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NO. 2262 MAP.....



RANGE COPPER - PARIS PER MILLION.

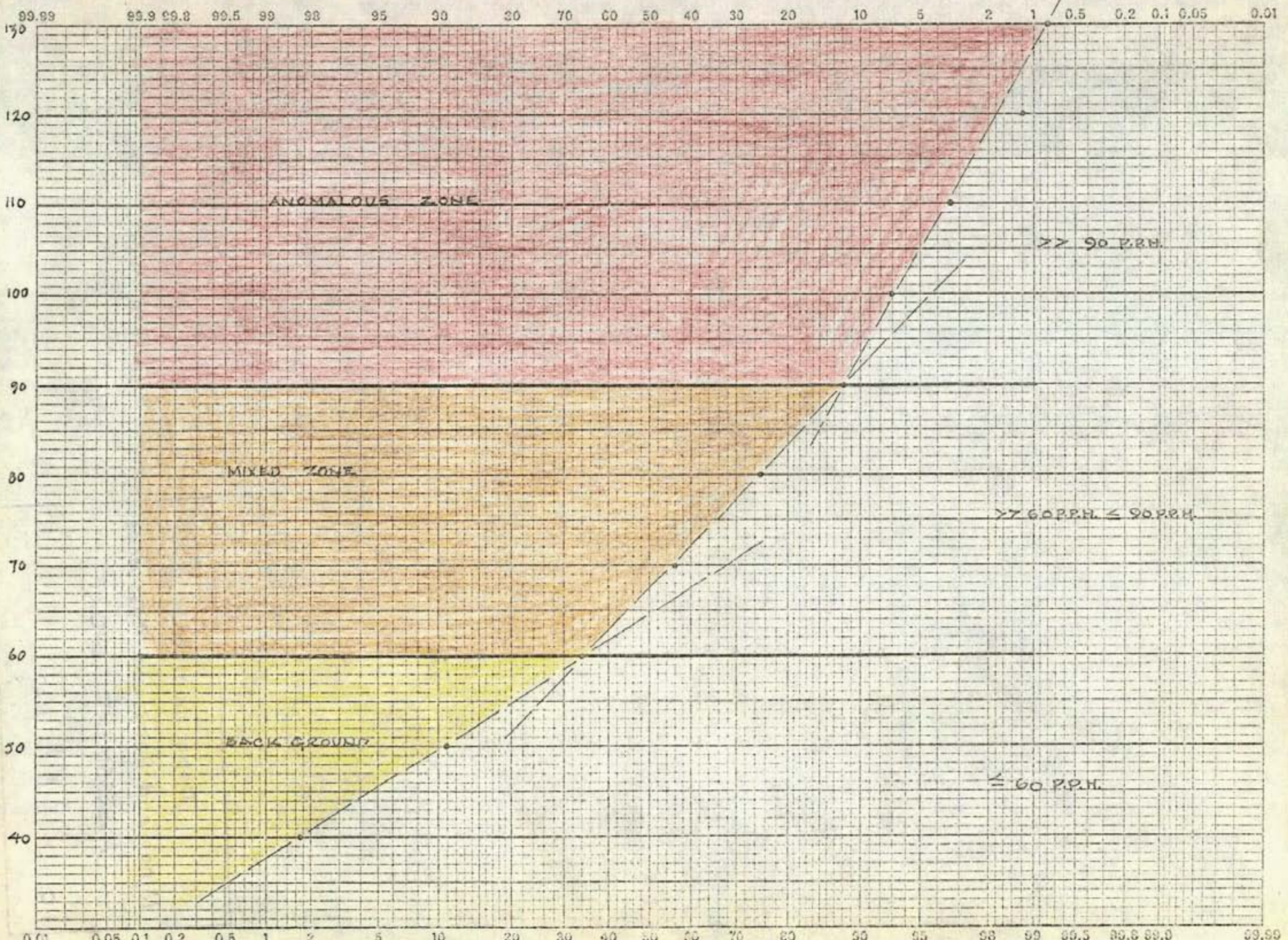


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NO. 2262 MAP



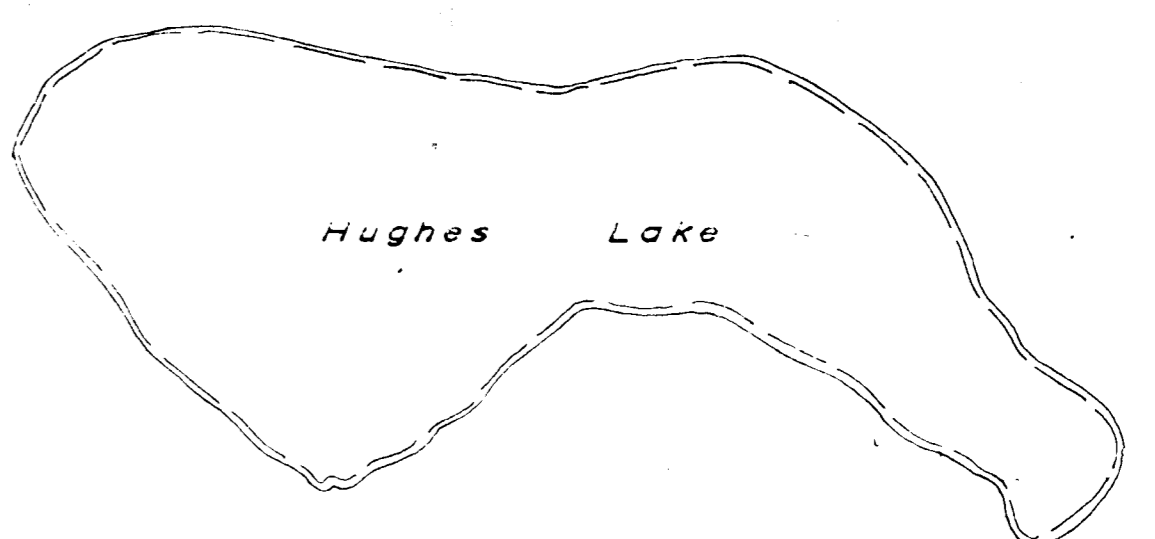
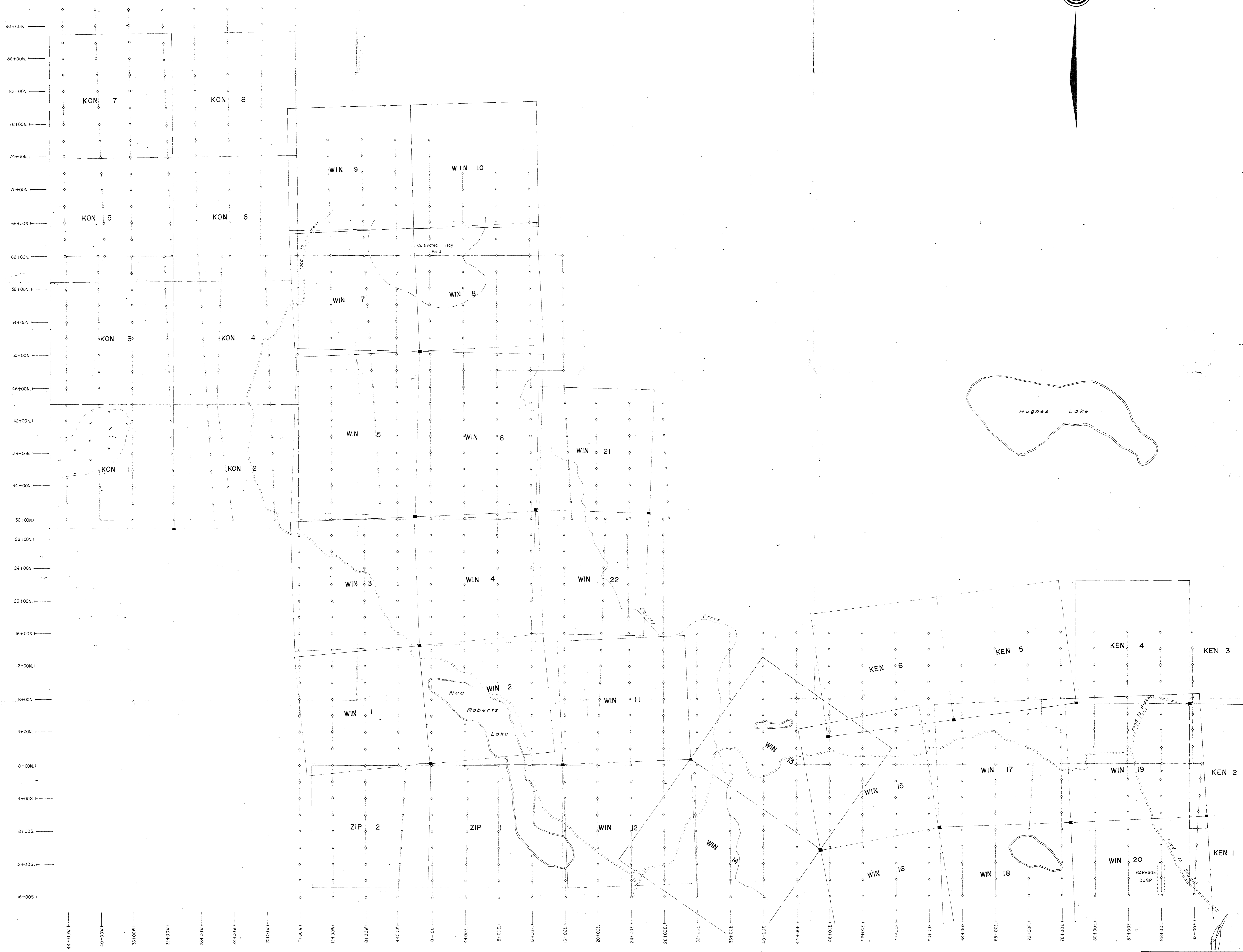
Range Copper in P.P.M.



CUMMULATIVE PERCENT FREQUENCY

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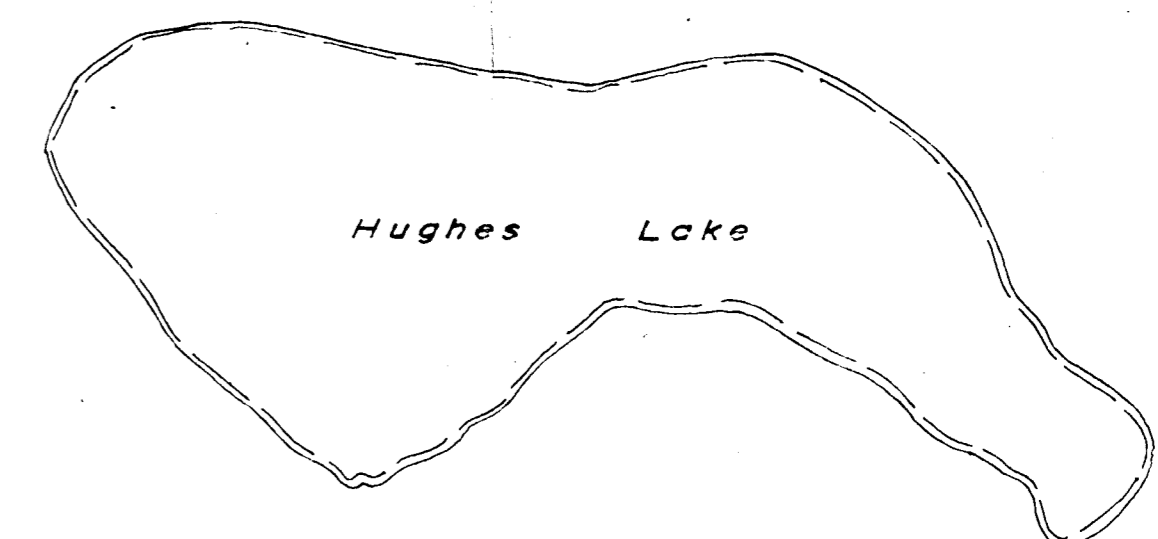
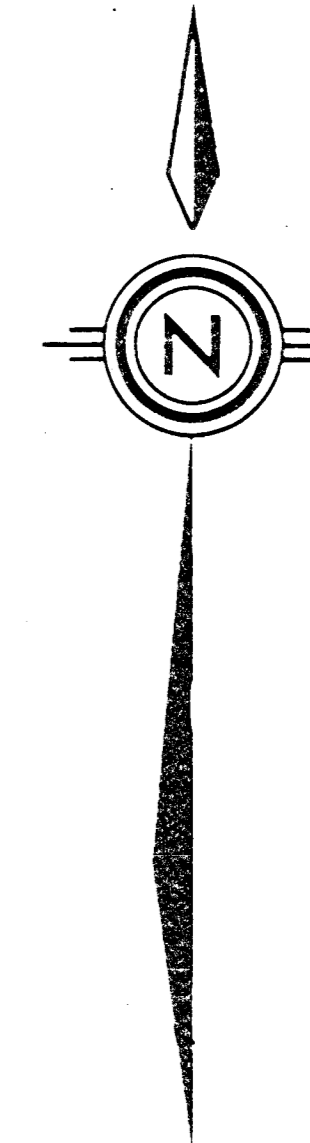


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NO. 2262 MAP #1

Legend
■ Claim post
▲ Swamp

2262

AGILIS EXPLORATION SERVICES LTD.
CONCORDE EXPLORATIONS LTD.
KON & WIN GROUP
Base Map
DRAWN BY: K.H.K. SCALE: 1" = 4000'
CHECKED BY: R.P.P. DATE: July 1993

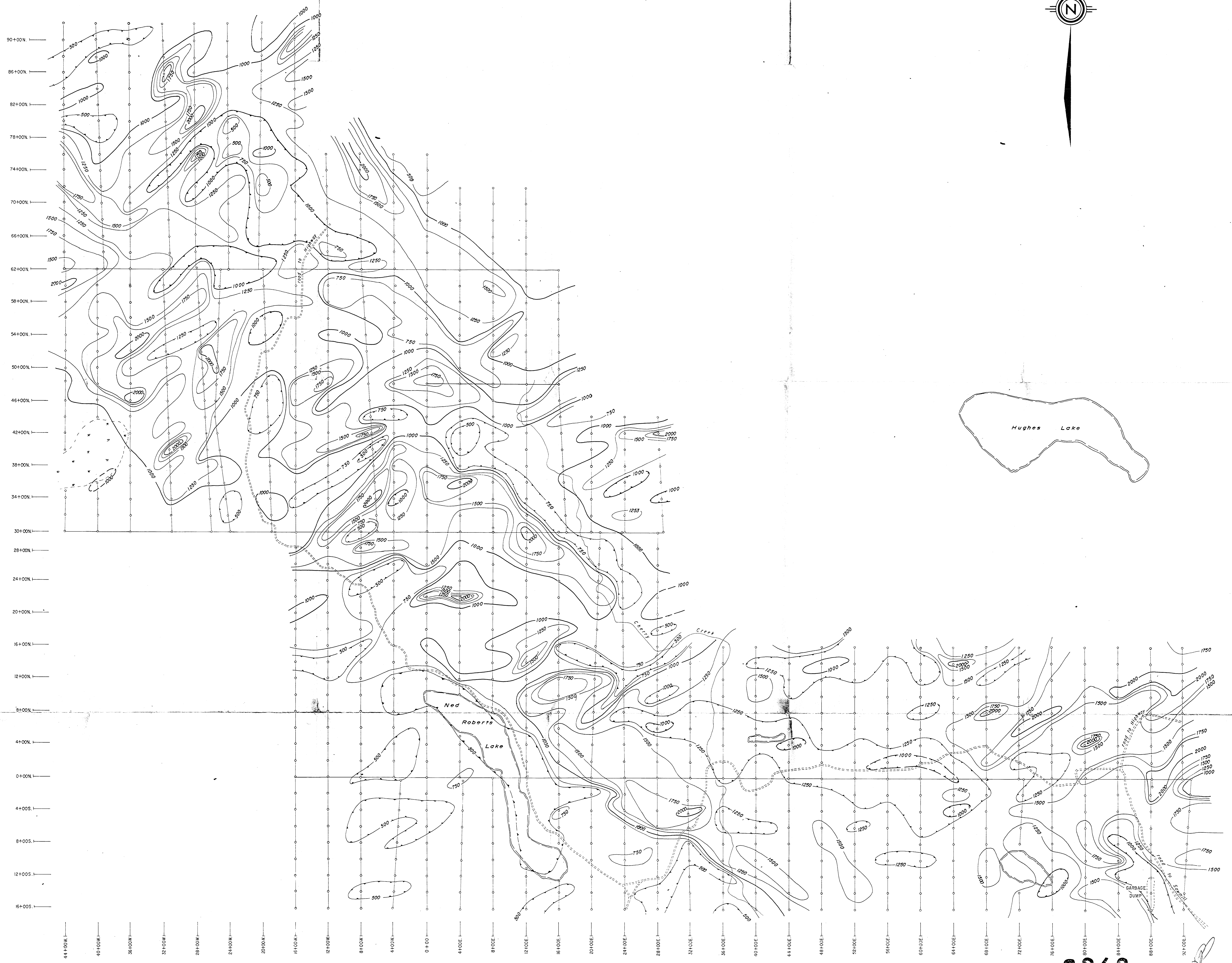
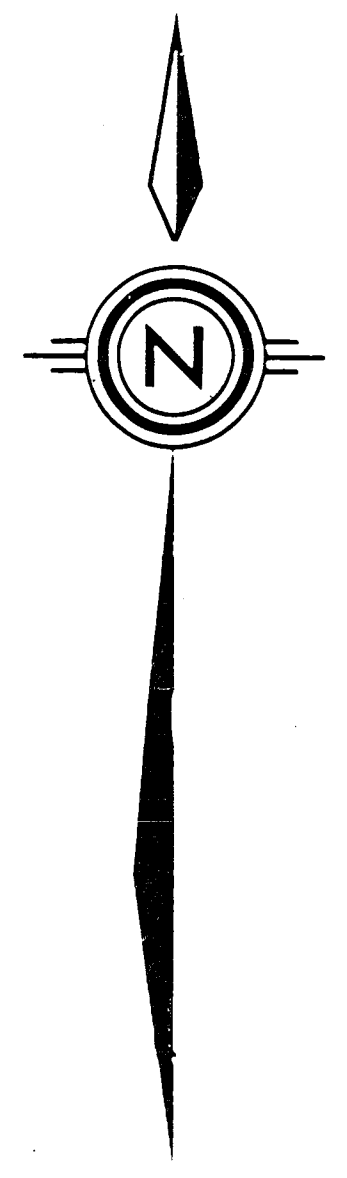


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Legend **2262**

11370 — MAGNETOMETER VALUE (in gammas)

AGILIS EXPLORATION SERVICES LTD.
 CONCORDE EXPLORATIONS LTD.
 KON & WIN GROUP
 Magnetometer Survey
 DRAWN BY: V.C. SCALE: 1" = 400 METERS
 CHECKED BY: R.P. DATE: May 1965

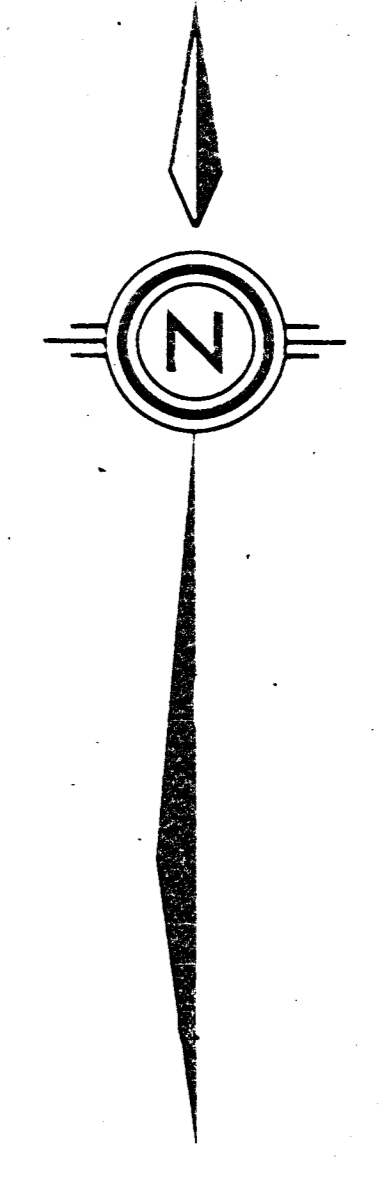


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LEGEND
1500 MAGNETOMETER CONTOUR (values in gammas)

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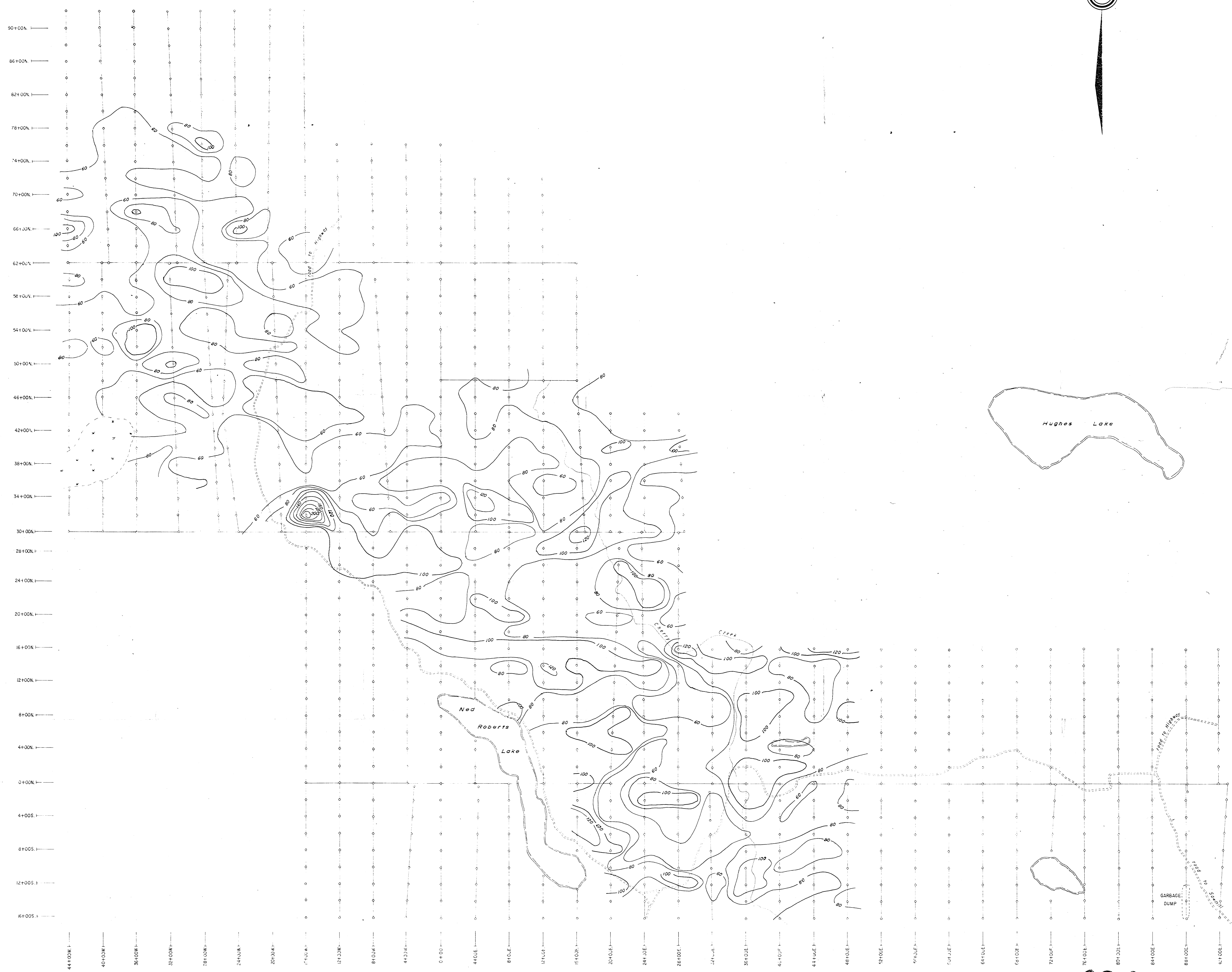
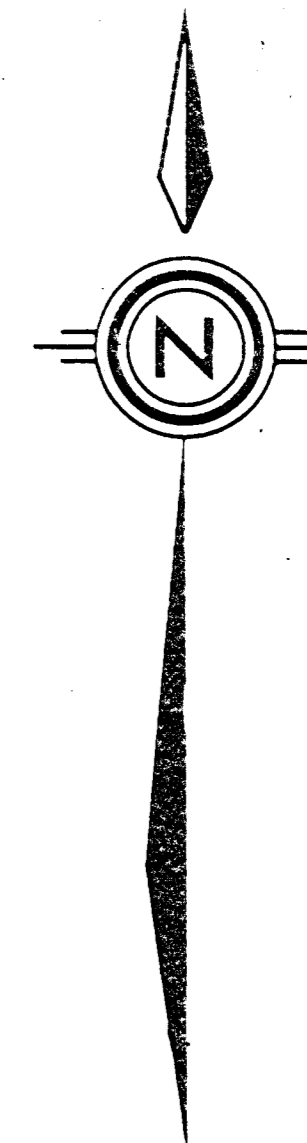
AGILIS EXPLORATION SERVICES LTD.
CONCORDE EXPLORATIONS LTD.
KON & WIN GROUP
Magnetometer Survey
CONTOUR MAP
DRAWN BY: K. K. SCALE: 1" = 400 Feet
CHECKED BY: R. P. DATE: May, 1963



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NO. 2262, MAP #4

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LEGEND
Copper Value (in ppm)

AGLIS EXPLORATION SERVICES LTD.
CONCORDE EXPLORATIONS
KON & WILSON GROUP
Geochemical Survey
DRAWN BY: K. G. SCALE: 1:50,000
CHECKED BY: R. P. DATE: 1/11/68



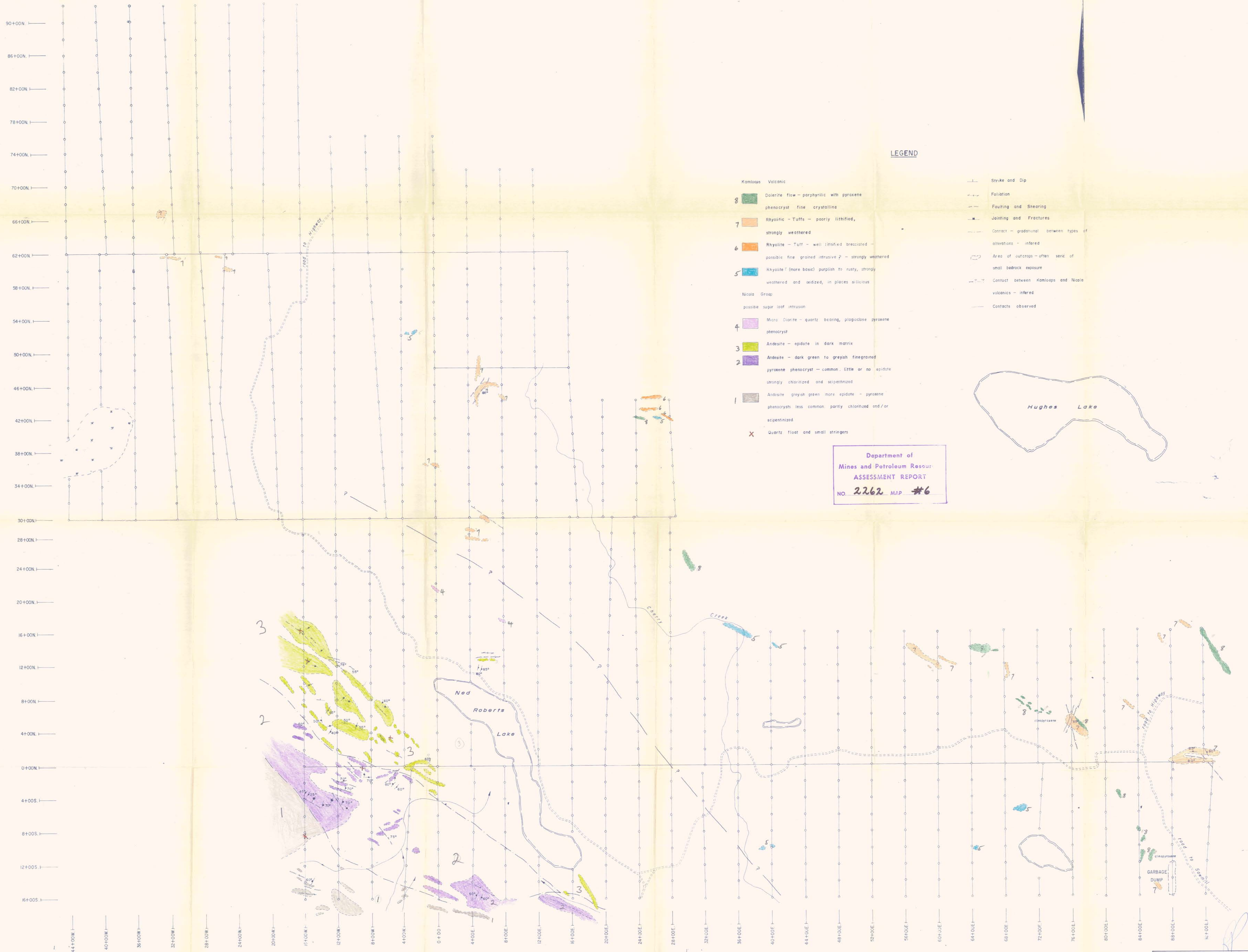
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LEGEND

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80 COPPER CONTOUR. Interval at 20ppm.

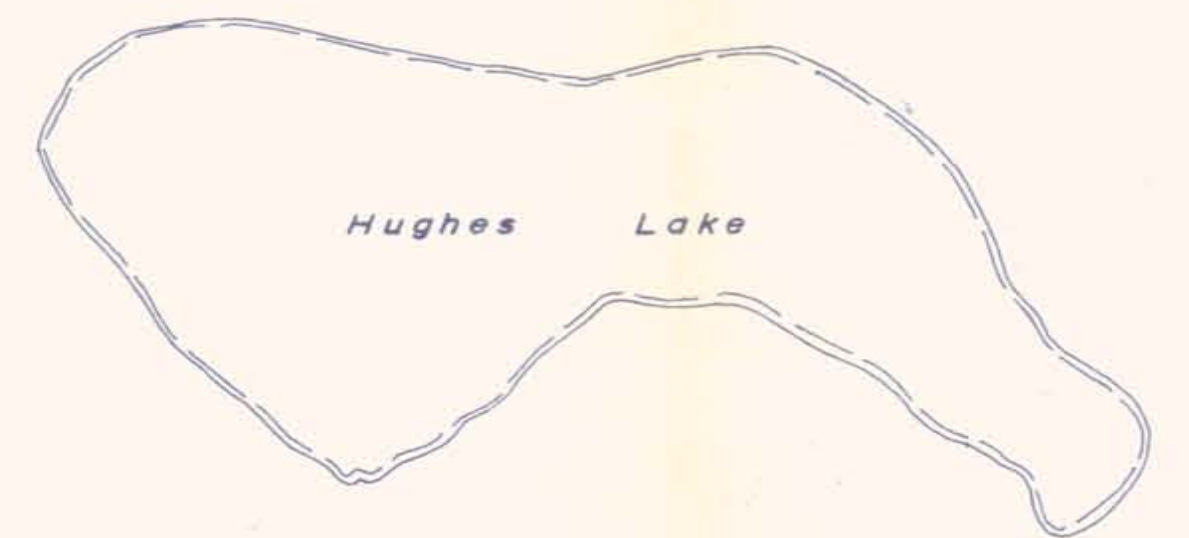
AGLIS EXPLORATION SERVICES LTD
CONCORDE EXPLORATIONS LTD
KON & WIN GROUP
Geochemical Survey
CONTOUR MAP
DRAWN BY: K. K. SCALE: 1" = 400 feet
CHECKED BY: R. P. DATE: May 1969



LEGEND

- Komloops Volcanic**
 - 8 Diorite flow - porphyritic with pyroxene phenocryst fine crystalline
 - 7 Rhyolite - Tuffs - poorly lithified, strongly weathered
 - 6 Rhyolite - Tuff - well lithified brecciated - possible fine grained intrusive? - strongly weathered
 - 5 Rhyolite? (more basic) purplish to rusty, strongly weathered and oxidized, in places siliceous
 - Nicola Group**
 - possible sugar loaf intrusion
 - 4 Micro Diorite - quartz bearing, plagioclase pyroxene phenocryst
 - 3 Andesite - epidote in dark matrix
 - 2 Andesite - dark green to grayish finegrained pyroxene phenocryst - common, little or no epidote strongly chloritized and scapolitized
 - 1 Andesite grayish green more epidote - pyroxene phenocrysts less common, partly chloritized and/or scapolitized
 - X Quartz float and small stringers
- Strike and Dip
 - Foliation
 - Faulting and Shearing
 - Jointing and Fractures
 - Contact - gradational between types of alterations - inferred
 - Area of outcrops - often series of small bedrock exposures
 - Contact between Komloops and Nicola volcanics - inferred
 - Contacts observed

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NO. 2262 MAP #6



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