

3116

GEOPHYSICAL AND GEOCHEMICAL REPORT
T.N. GROUP, SKUHUN CREEK
4 MILES N.E. OF DOT, B.C.
50°121'
FOR
CROYDON MINES LTD. (N.P.L.)
MAY 21 - JUNE 30, 1971

921/6E

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| Department of | |
| Mines and Petroleum Resources | |
| ASSESSMENT REPORT | |
| NO. 3116 | MAP |

by: J. W. Hogan, P.Eng.

July 7, 1971

L. J. Manning & Associates Ltd.
610 - 890 West Pender Street,
Vancouver, B. C.

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INTRODUCTION

The following report is on a geophysical and geochemical soil survey over the T.N. and Tan claims, Skuhun Creek area, Highland Valley, B. C.

GENERAL GEOLOGY & TOPOGRAPHY

The property is underlain by the Hybrid Quartz Diorite Phase of the Guichon Batholith. The east boundary of the property is underlain by the Chataway Granodiorite phase of the Guichon.

The central part of the property is relatively flat, with steep north facing slopes to the north end of the property.

GEOPHYSICAL SURVEY

Magnetometer Survey Techniques:-

A Geotronics Survey Model G110 Vertical Force Fluxgate Magnetometer was used for the ground survey. This instrument has a readability of 20 gammas.

Stations were read at 100' intervals on a 400' line spacing. Established base stations were regularly read for diurnal variations and the necessary corrections were made.

Compilation of Survey Data:-

The survey readings were corrected for diurnal changes as determined by baseline checks. Data were contoured on a 500 gamma interval. This was determined to be the most useful contour interval to show up gross magnetic features.

Summary and Conclusions:-

The north-south trending magnetic depression at 0-12W is coincident with a topographic linear which reflects the contact of the hybrid diorite and Chataway Granodiorite phases of the Guichon Batholith.

The local high and low magnetic relief over most of the survey probably relates to magnetite concentrations in the diorite.

GEOCHEMICAL SURVEY

Sampled Soil Horizon:-

Soils were taken from the 'B' Horizon at depths of from 4" - 8" below surface.

Sampling Procedure:-

Samples were taken on a line grid basis. This grid was at a 400' line interval on 200' stations. A shovel was used to reach the 'B' Horizon where a 30-40 gram sample was placed in standard 4" x 9" soil sample envelopes. Drainage slopes and swamps were noted.

Samples were partially air-dried and then shipped to Bondar-Clegg, North Vancouver, B. C.

Sample Preparation and Laboratory Analysis:-

Bondar-Clegg treated the samples in the following manner:

- Drying
- Visual determination of soil horizon and organic content
- Sieve to -80 Mesh Fraction
- Hot extraction by HNO₃-HCl
- Atomic absorption analysis for copper parts per million

Summary and Conclusions:-

The Laboratory determination of organic content of samples eliminated the spurious anomalies resulting from incorrect sampling of the 'A' Horizon. The results of these organic samples are shown on the enclosed plan but the analysis were not used for determining threshold values.

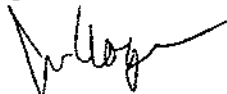
Contour samples were in a drainage area with visible malachite staining and were not used for calculating the median.

Threshold values were taken as double the median.

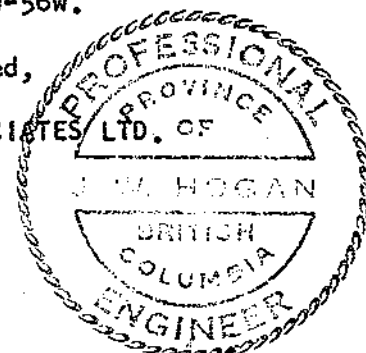
The only significant anomalous area is that located by the contour samples mentioned above which probable represents dispersion in part from visible chalcopyrite bedrock mineralization centered between 16N-28N at 42W-56W.

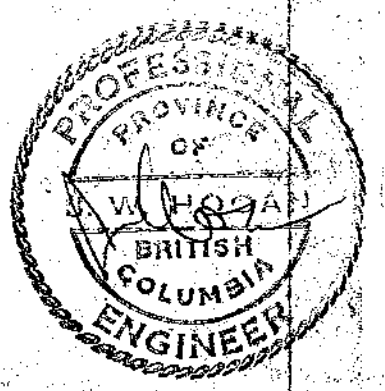
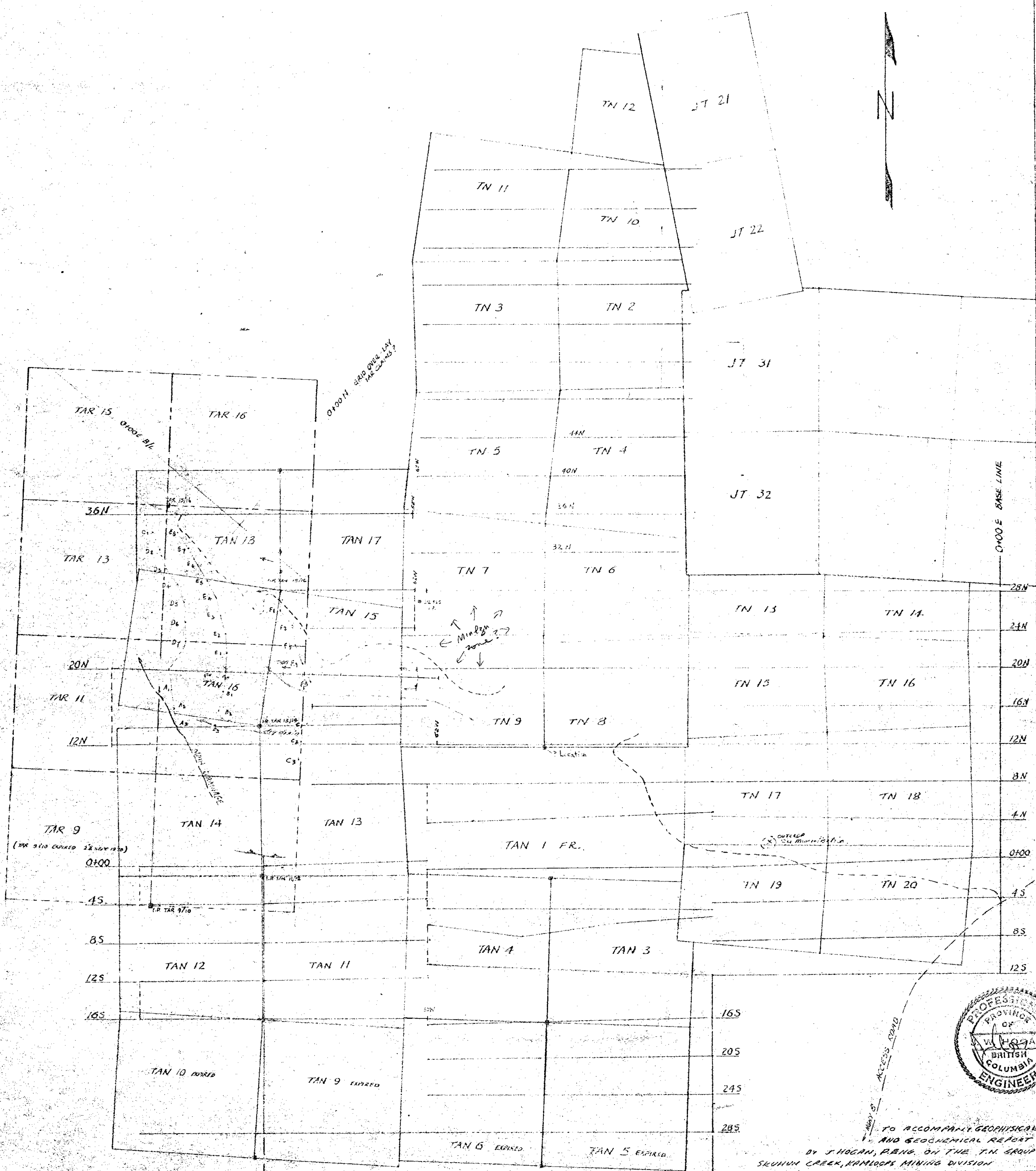
Respectfully submitted,

L. J. MANNING & ASSOCIATES LTD.



J. W. Hogan, P.Eng.



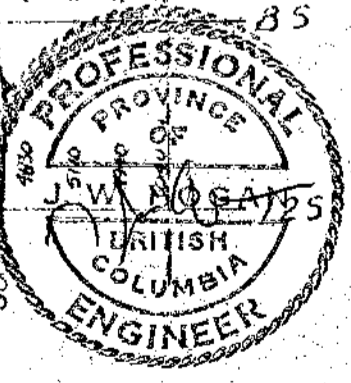


CLAIM POST
ROAD - CUT TRAIL
SOIL SAMPLE LINE ON CONTOUR

3116 M-1

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3116 MAP

CROYDON MINES LTD. NPL
TN GROUP
GEOCHEM - GEOPHYSICAL SURVEY CONTROL
SQUAM CREEK AREA - NISHLAND VALLEY
LAT. 50° 17' N LONG. 121° 02' W
SCALE: 1 INCH = 600 FEET
JUNE 1971 JOHN E. WHITE
DRAWING NO. 2



3116 M-2

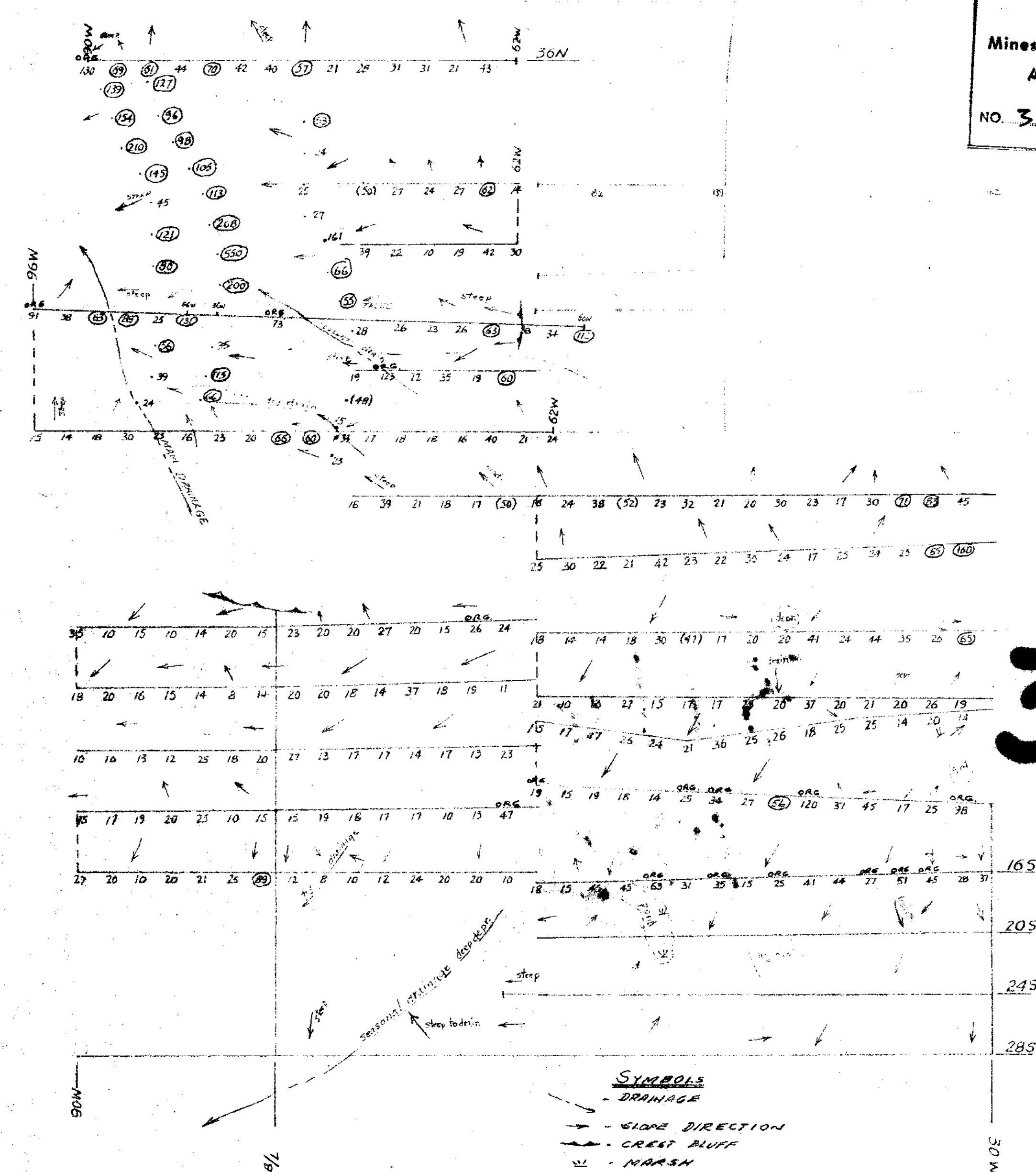
TO ACCOMPANY GEOPHYSICAL AND GEOCHEMICAL REPORT BY J. HOGAN, P. ENG. ON THE TN GROUP SKUWUN CREEK, KAMLOOPS MINING DIVISION. DATED JULY 7/71

- BASE STATION
- MAGNETIC READING AT STATION ON GRID LINE
- = TOTAL COUNT 56520 GAUSS
- 500 — MAGNETIC CONTOUR 500 GAUSS INT.
- — — LOW MAGNETIC - DEPRESSION

| | |
|--|---------------|
| CROYDON MINES LTD. NPL | |
| TN GROUP MAGNETIC SURVEY | |
| SKUWUN CREEK AREA - KAMLOOPS VALLEY N. LAT. 50° 17' W. LONG. 121° 04' | |
| SCALE: 1 INCH = 400 FEET | |
| JUNE 1971 | JOHN E. WHITE |
| DRAWING NO. 100 | |



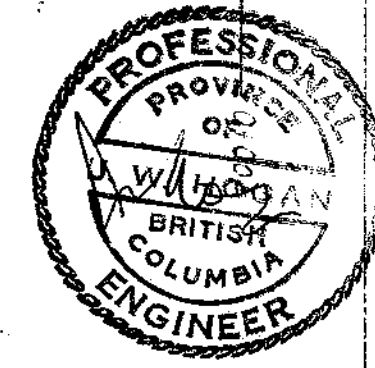
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0400E BASE LINE

28N
24N
20N
16N
12N
8N
4N
0100
45
85
125
165
205
245
285

- SYMBOLS**
- DRAINAGE
 - SLOPE DIRECTION
 - CREST BLUFF
 - MARSH
- GEOCHEMICAL SYMBOLS**
- 16 - GEOCHEMICAL SOIL SAMPLE - COPPER - PARTS PER MILLION
CONTOUR SAMPLES (NOT USED IN THRESHOLD CALCULATIONS)
 - ORG. - HIGHER THAN NORMAL ORGANICS IN SAMPLE
 - (32) - THRESHOLD - 2X BACKGROUND - 52 P.P.M. RANGE - 47-52
 - (70) - ANOMALOUS - + 52 P.P.M.



TO ACCOMPANY GEOPHYSICAL & GEOCHEMICAL REPORT BY J. HOGAN, P.E.N.G. ON THE T.N. GROUP - SKUMUN CREEK, KAMLOOPS MINING DIVISION DATED - JULY 1971

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|---|---------------|
| CROYDON MINES LTD. NPL | |
| TAN CLAIMS GEOCHEMICAL SURVEY | |
| SKUMUN CREEK AREA - HIGHLAND VALLEY N. LAT. 50° 17' W. LONG. 121° 4' | |
| SCALE - 1 INCH = 600 FEET | |
| JUNE 1971 | JOHN E. WHITE |
| DRAWING NO. 3 | |