

REPORT ON NICKEL, COBALT , COPPER , ZINC SOIL SURVEY

PORTION OF CORNWALL GROUP OF CLAIMS 1 TO 60

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

50* 42 ' N, 121 * 26' W

By G . G. KRAUSE BSc. P. GEOL.

Work dates August - September 1971.

Analytical Work by Crest Laboratories.

3380

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3380 MAP

INTRODUCTION:

A geochemical soil survey for nickel, cobalt, copper, zinc was completed on the Cornwall Group of Mineral Claims in the period August and September, 1971. The claim group is situated 8 miles south-west of Cache Creek. Access is provided in part by a all weather road and in part by a four wheel drive road. The topography is rolling to steep and in part has been previously burned.

General Geology:

The geology is described in the G.S.C. Memoir #262, Ashcroft Map Area, British Columbia by S. Duffel and K.C. McTaggart, 1952. The survey conducted in this report was done in the area of the Limestone-Diorite contact and the fault zones as recommended in the report filed with the Department in 1970.

Soil Collection and Classification:

Soil sampling was completed on a 400 foot grid system over the area of the limestone-diorite contact, and on a T grid down the N8W fault zone and the N30W fault zone as shown on the areal photos. (see map) Sampling interval was 200 feet as measured by chain, and taken by mattock, in the B or C soil horizon. The soils for the most part are residual (C layer) and the overburden is generally less than 3 feet. The soil sampling was done by B. Needham and M. Hayes in conjunction to completing the grid system.

Analytical Treatment of Soil Samples:

The samples were analysed by Crest Laboratories (B.C.) Ltd. and analyst Wolfgang Nickel was the chemical technician under the supervision of Fred Burgess. The analytical work was done as the samples were received August to October 1971. The samples were dried in their respective sample bags at a temperature of 150 deg F., and then sieved to -80 mesh through a stainless steel screen. For nickel, copper, cobalt, zinc gram portions of these screened soils were placed in 25 by 200 millimeter culture tubes and then digested in a mixture of perchloric and nitric acid at 425 deg. F. for a period of 3 hours. The resulting digested samples were then made up to 25 millilitres volume in 10 % perchloric acid. The respective sample solutions were aspirated into a Techtron Atomic Absorption Spectrophotometer model 5 and absorption readings were recorded first for nickel and then for cobalt, copper and zinc. Calibration of the atomic absorption spectrophotometer is effected by preparation and analyses of respective metal standards each day.

Results:

The results obtained were co-ordinated with the results of the previous work (filed with the department 1971) and the statistical behavior remained within the limits as described and charted by the graphs. The general anomalous areas are confirmed, with respect to the previous reconnaissance, detailing of the local areas can now be undertaken, on a 100 foot spacing and the addition of other remote sensing devices employed to possibly locate some exploratory drill sites. (see maps)

CONCLUSIONS AND RECOMMENDATIONS:

(I) The area of the limestone - diorite contact has anomalous nickel-cobalt-copper values, detailing on 100 foot spacing the co-ordinated areas, utilizing a magnetometer survey to define rock type and a EM-16 to show any conductors present.

Respectively submitted,


G.G. KRAUSE B.Sc. P.GEOL.

CERTIFICATE:

I, Gerald G. Krause, of 312- Masters Road, Victoria, B.C., do hereby certify that:

- (1) John O. Rud of Kamloops did personally supervise the work as described in this report, and holds a Masters Degree in Geology from the University of Oregon.
- (2) I am a graduate of the University of Alberta, BSc. Geology, 1952.
- (3) I am a member in good standing of The Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- (4) I have practiced my profession since 1952.

Dated at Victoria, B.C. this 8th day of December, 1971.


G. G. KRAUSE P. GEOL.

- 1) Line Cutting + Sample Loc.
- 2) Soil Geochem for Cu + Zn
- 3) " " " " Ni + Cobalt

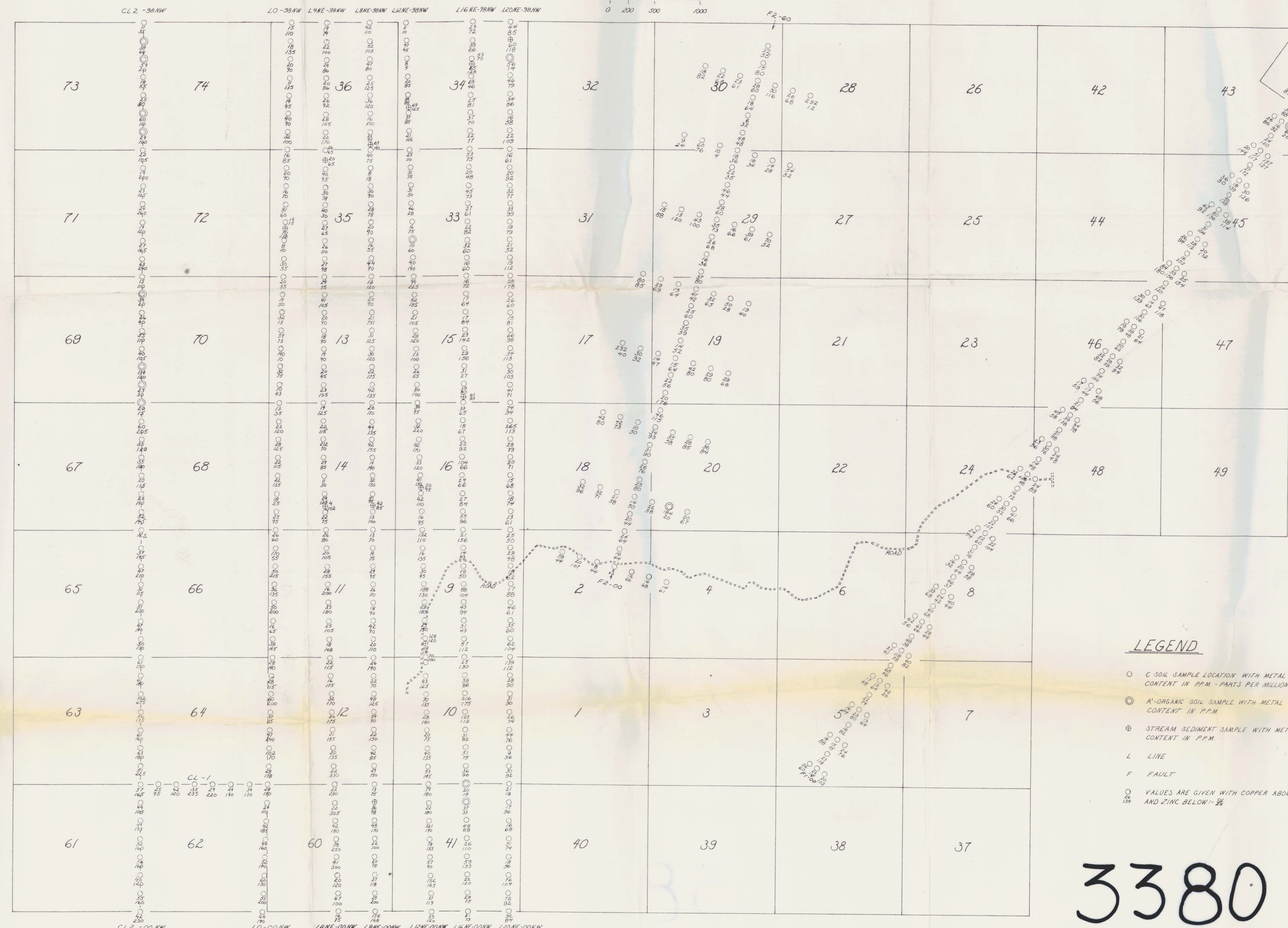
CORNWALL 1-74 MINERAL CLAIM GROUP
 KAMLOOPS MINING DISTRICT
 CACHE CREEK AREA
 B.C.

Department of
 Mines and Petroleum Resources
 ACCESSMENT REPORT
 NO. 3380 M.D. #2

SOIL GEOCHEMICAL SURVEY FOR COPPER AND ZINC



SCALE 1:500



- LEGEND**
- C SOIL SAMPLE LOCATION WITH METAL CONTENT IN P.P.M. - PARTS PER MILLION
 - ⊙ A-ORGANIC SOIL SAMPLE WITH METAL CONTENT IN P.P.M.
 - ⊗ STREAM SEDIMENT SAMPLE WITH METAL CONTENT IN P.P.M.
 - L LINE
 - F FAULT
 - VALUES ARE GIVEN WITH COPPER ABOVE AND ZINC BELOW - $\frac{Cu}{Zn}$

3380
 M-2

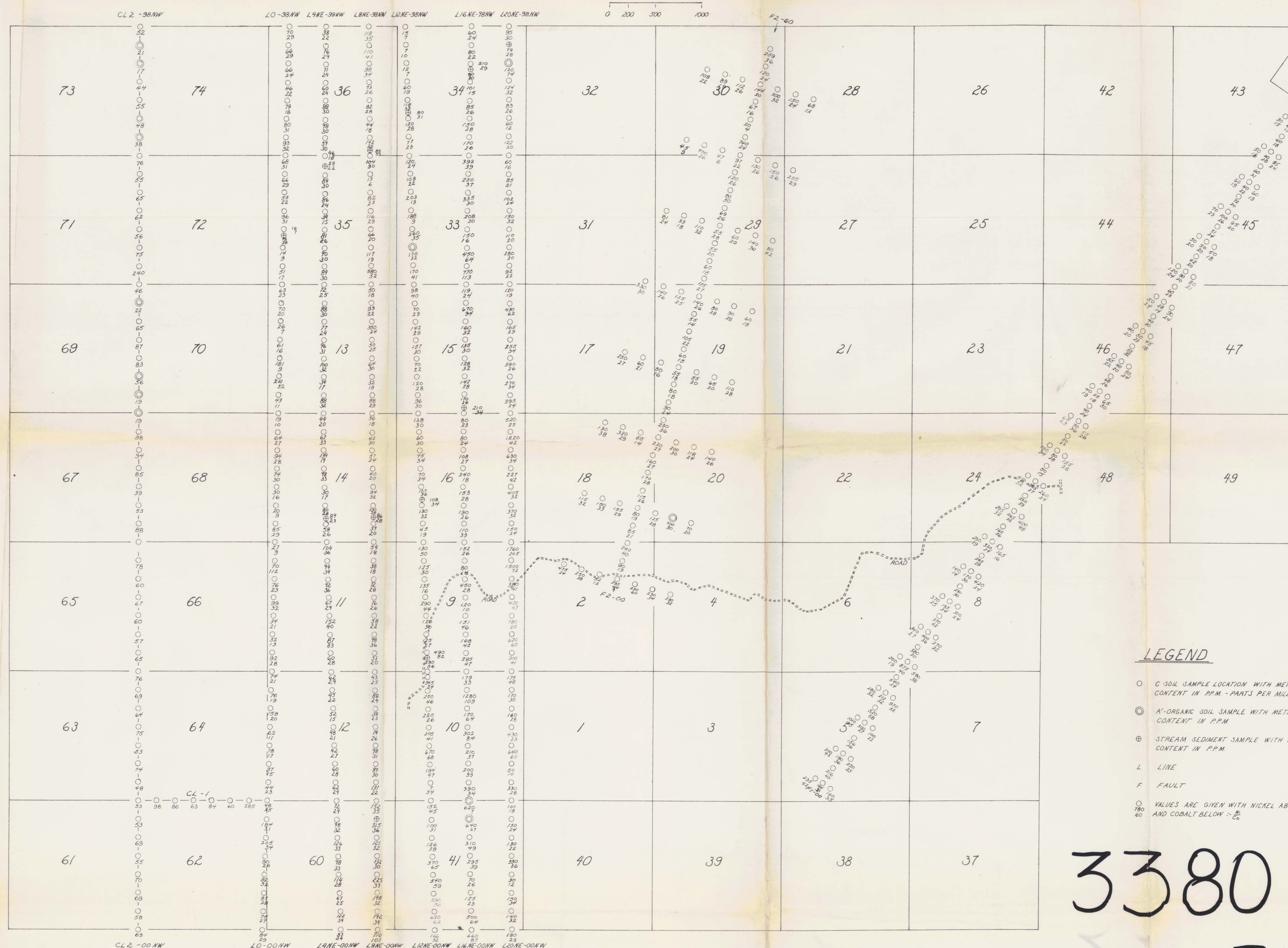
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CORNWALL 1-74 MINERAL CLAIM GROUP
KAMLOOPS MINING DISTRICT
CACHE CREEK AREA
B.C.

SOIL GEOCHEMICAL SURVEY FOR NICKEL AND COBALT



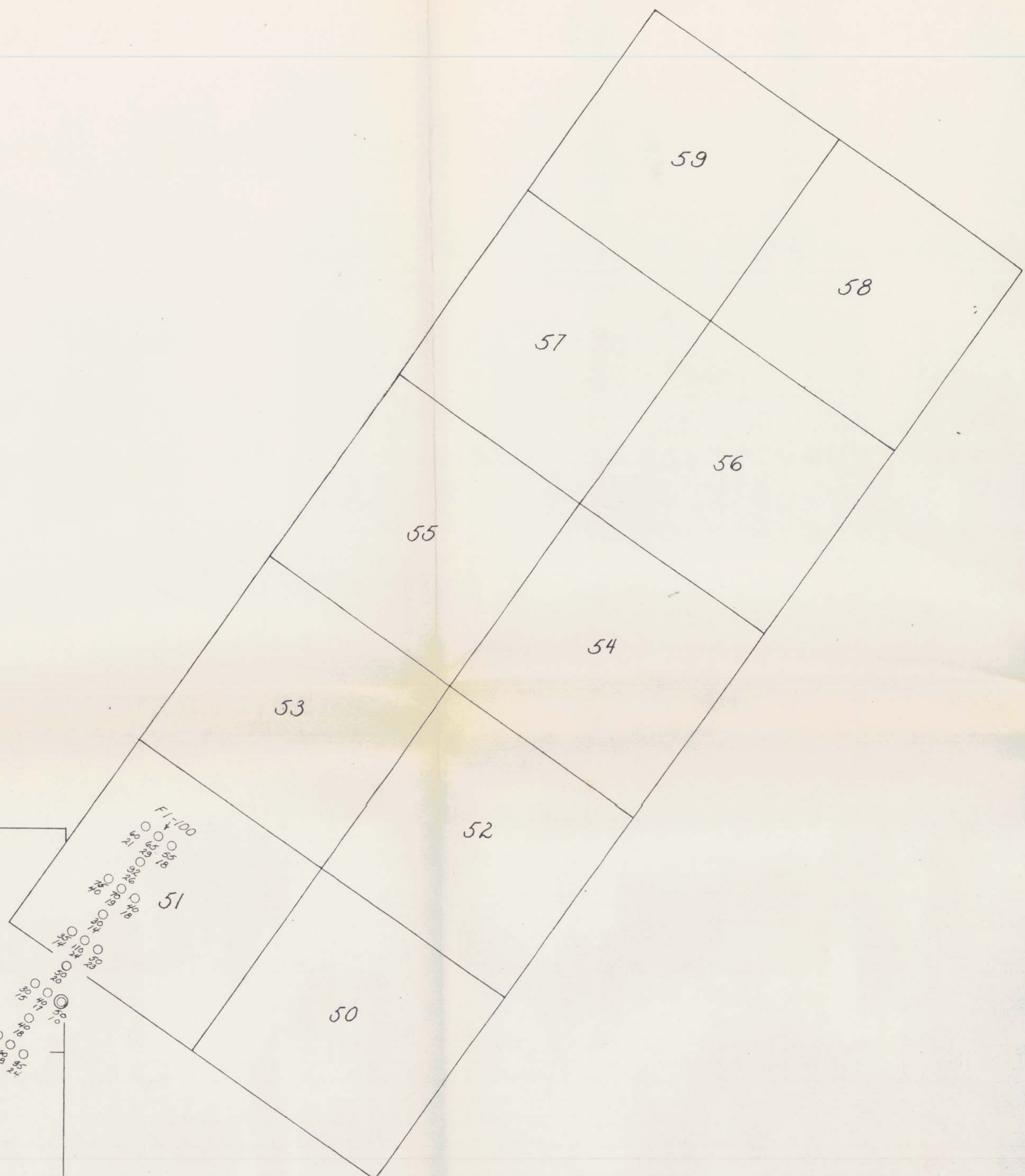
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LEGEND

- C SOIL SAMPLE LOCATION WITH METAL CONTENT IN PPM - PARTS PER MILLION
- ⊙ A-OILY SOIL SAMPLE WITH METAL CONTENT IN PPM
- ⊖ STREAM SEDIMENT SAMPLE WITH METAL CONTENT IN PPM
- L LINE
- F FAULT
- VALUES ARE GIVEN WITH NICKEL ABOVE AND COBALT BELOW

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M-3



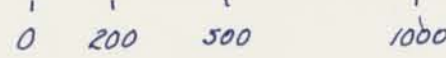
CORNWALL MINERAL CLAIM GROUP
 KAMLOOPS MINING DISTRICT
 CACHE CREEK AREA
 B.C.

Department of
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 ASSESSMENT REPORT
 NO. 3380 MAP #1

LINE CUTTING AND SAMPLE LOCATIONS FOR GEOCHEMICAL SURVEY



SCALE :- 1=500



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by JOHN O. RUD M. Sc. GEOL.
 NOV. 10, 1971

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 11/57
 216
 68
 284