UMEX

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# GEOCHEMICAL SOIL SURVEY
# ON THE
# OD 1 - 12 MINERAL CLAIMS

(Record Nos. YA2088 - YA2099)

64°49'N, 139°38'W

N.T.S. 116-B-13

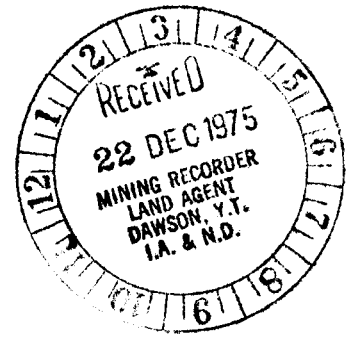
by

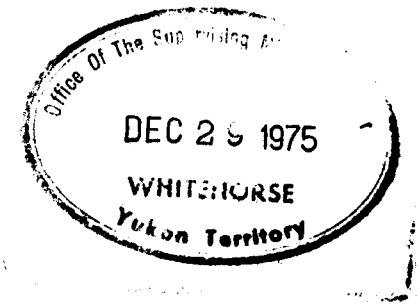
Colin V. Dyson, P.Eng.

Work Done: August 12-16, 1975

Date: October 1975

Owner: Union Miniere Explorations and
Mining Corporation Limited




This report has been examined by the Geological Evaluation Unit and is recommended to be considered as representation work in the amount of $ 1200.00

J.B. Craig

Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

J.H. BAXTER
Supervising Mining Recorder

for Commissioner of Yukon Territory

92256

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# GEOCHEMICAL SOIL SURVEY ON THE OD 1 - 12 MINERAL CLAIMS

## INTRODUCTION

In the period August 12 to August 16, 1975, a geochemical soil survey for total lead, zinc, and copper was completed on the OD 1-12 mineral claims.

The claims are located approximately 28 miles north of Mount Ina and 32 miles west of Caldwell Lake, at latitude and longitude 64°49'N, 139°38'W (Figure 1). They lie within the Dawson Mining Division and cover a northeast facing cirque and valley and ridge where elevations range from 4000 feet to 6000 feet.

Access to the property was by helicopter from a base established at Mile 68 on the Dempster Highway, a distance of approximately 38 miles due east of the claims.

## PROPERTY

The OD 1-4 claims were staked on July 20, the OD 5-6 claims on July 22, and the OD 7-12 claims on July 30, 1975. The claims were all recorded on August 8, 1975 and subsequently transferred to Union Miniere Explorations and Mining Corporation Limited, for whom the geochemical survey was performed. Details of the claims are as follows:

| Claim Name | Record Nos. | Expiry Date |
|---|---|---|
| OD 1 - 12 | YA2088 - YA 2099 | August 8, 1976 |

## GENERAL GEOLOGY

The claims are underlain by a sequence of Proterozoic sedimentary rocks. In sequence from base upwards these rocks are composed of orange weathering, laminated to blacky, stromatolitic dolomite, in part interbedded - in part with black shale, overlain by light-brown, maroon, and mottled brown-maroon shale with occasional pink-white dolomite bands. These units are overlain by dark grey, massive dolomite overlain in turn by more laminated to blacky, orange weathering grey dolomite with minor shale and stromatolitic in part.

## GEOCHEMICAL SOIL SURVEY

FIGURE 1

Location Map, OD Claims

1/250,000

## Methods

In the course of the survey a total of 220 soil samples were collected over 8.4 miles of line, and subsequently analysed for total lead, zinc, and copper. At each sampling site a hole was dug with a mattock and 4-6 ounces of "B" horizon soil - where available - was taken. The sample was placed in a high, wet-strength kraft sample bag and marked appropriately. The writer was in the field on August 12 to organize the survey and to study the general geology on the claims. The soil sampling was performed by Mr. P. Osborne and Mr. R. Tolbert in the period August 12 to August 16, 1975.

## Grid Control

Several northeasterly trending soil sample lines were established on the claims parallel and sub-parallel to the claim location lines, depending on the topography. A Topofoil chain[1] and compass was used to control distances and direction and to tie in with the existing claim posts. Sample site stations were marked by coloured flagging at 200 foot spacings along the lines, with the station coordinates marked on the appropriate flag by felt pen. The grid was tied into obvious topographic features.

## Analytical Treatment of Soil Samples

The samples were analysed by Acme Analytical Laboratories in Dawson City. The samples were dried in their respective sample bags at a temperature of 120°F and then sieved to -80 mesh through a nylon screen. The prepared samples were digested for 1 - 1½ hours in aqua-regia, bulked with deionized water, and analysed by atomic absorption.

## Results

Statistical plots of cumulative frequency versus concentration have been completed for the lead and zinc results. Figures 2 and 3, respectively.

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[1] The Topofoil chain is a "lost" thread measuring device in which a counter accurately records in feet from 0 to 15,000 feet the length of thread unreeling from the unit when measuring a length or distance covered. The operator attaches the end of the thread to a fixed point, the counter is set at zero and the operator moves on foot carrying the Topofoil chain. As the thread unwinds, the counter records the length. The counter readout is accurate to ±0.2%; on completion of a measurement the counter is reset at zero. The biodegradeable thread is cut and abandoned.

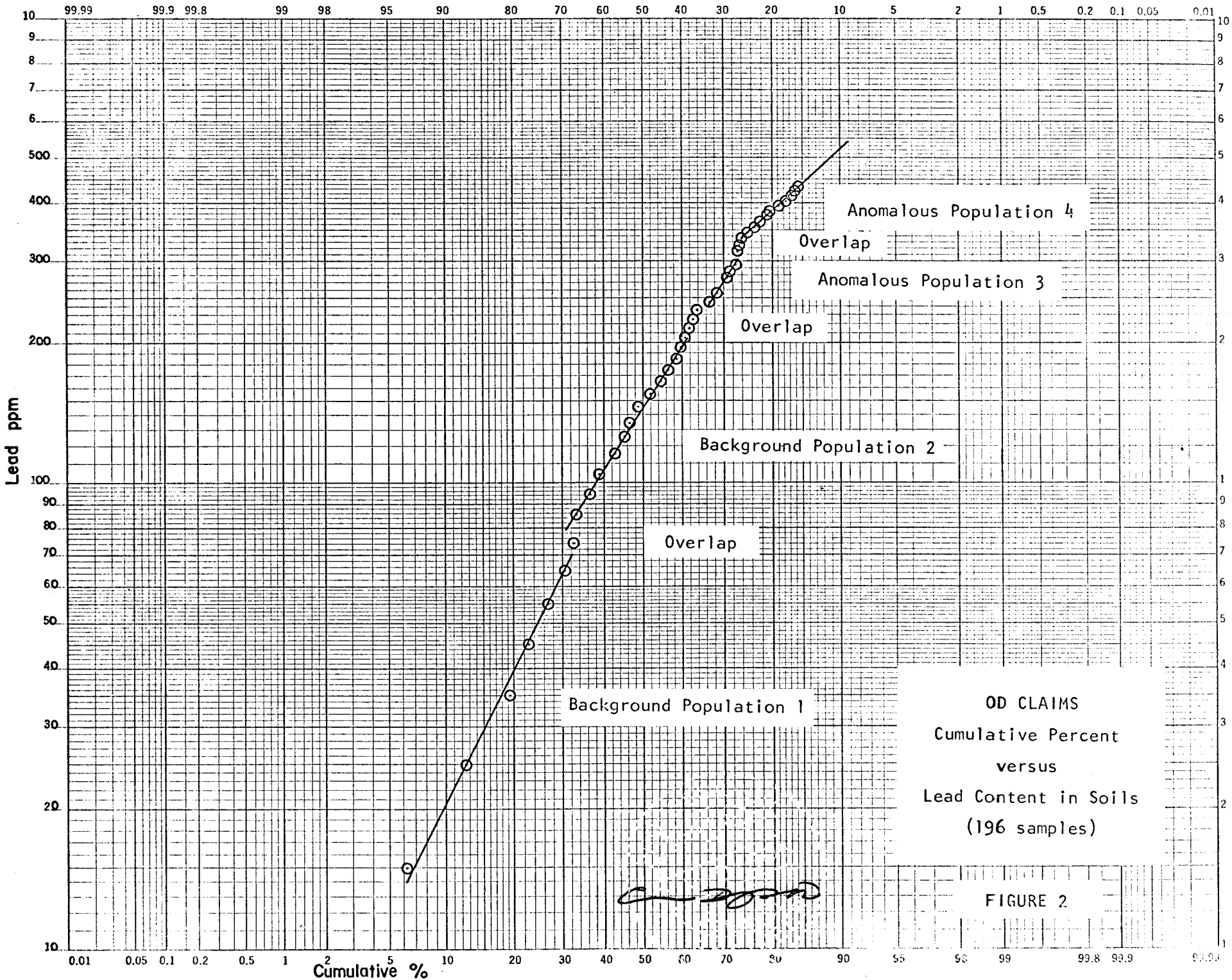
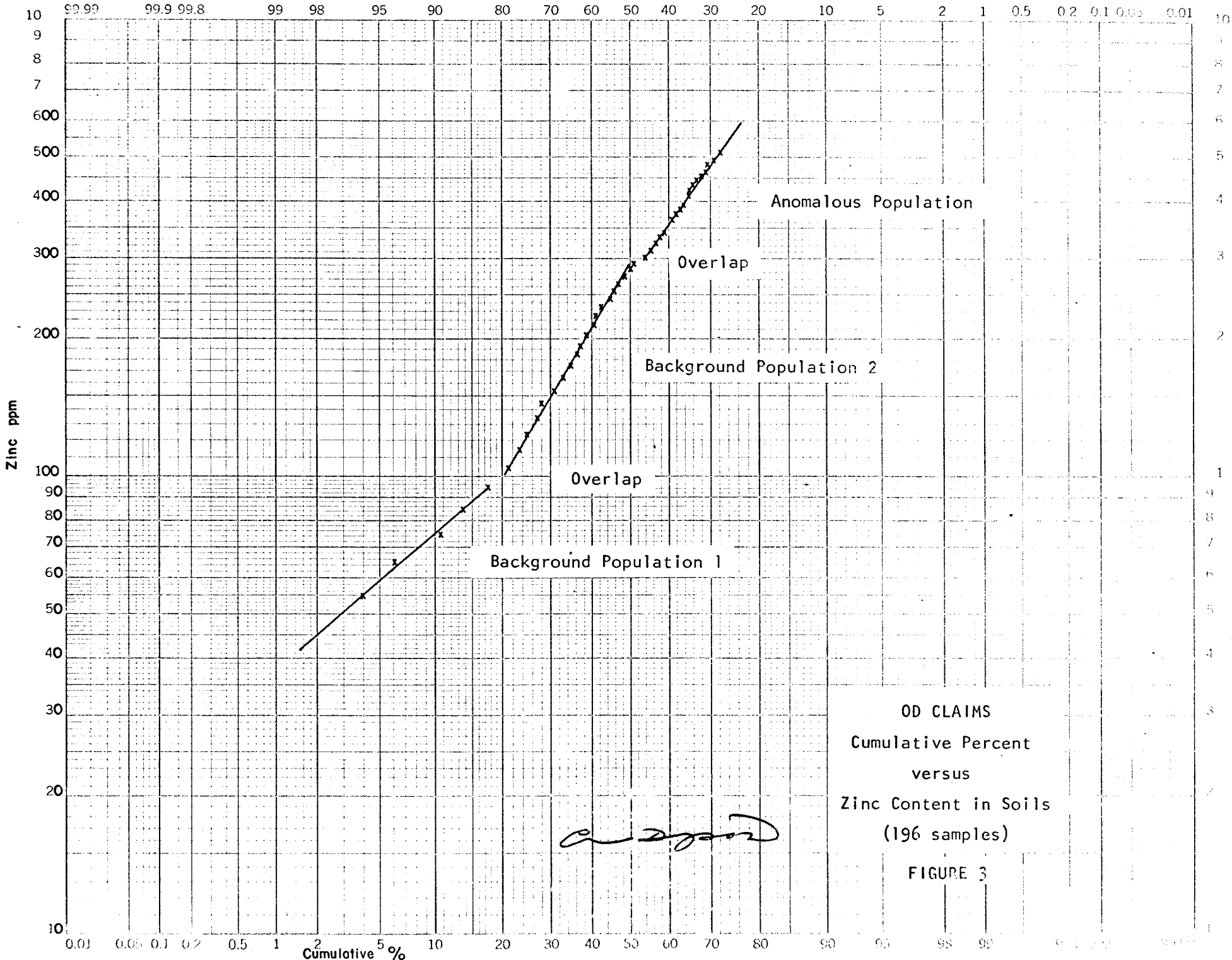

K&E PROBABILITY 46 8040
X 2 LOG CYCLES MADE IN U.S.A.
KEUFFEL & ESSER CO.
Lead ppm
Cumulative %
Anomalous Population 4
Overlap
Anomalous Population 3
Overlap
Background Population 2
Overlap
Background Population 1
OD CLAIMS
Cumulative Percent
versus
Lead Content in Soils
(196 samples)

FIGURE 2

K+E PROBABILITY X 2 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 8040




OD CLAIMS
Cumulative Percent
versus
Zinc Content in Soils
(196 samples)

FIGURE 3

Statistical analysis of the lead results (Figure 2) defines at least four populations of 10-70 ppm, 80-210 ppm, and +330 ppm lead, the 70-80 ppm, 210-240 ppm, and 300-330 ppm ranges are zones of overlap. Anomalous lead values are considered to be those of the 240-300 ppm and +330 ppm populations and their zones of overlap.

Statistical analysis of the zinc results (Figure 3) defines three populations of 50-100 ppm, 100-300 ppm, and +300 ppm zinc. Anomalous zinc values are considered to be those of the +300 ppm population.

Qualitative examination of the copper values indicates that no significant anomalous patterns are present (Figure 6).

The lead results define five varying sized, northwesterly trending soil anomalies (Figure 4). The largest (No. 1) extending for some 4000 feet with an average width of approximately 1500 feet. The abrupt cut-off of anomalies 1, 2, 3, and 4 at a creek suggest a possible structural control in this area. It can be postulated that anomalies 3 and 4 represent fault-offset portions of soil anomalies 1 and 2.

The zinc results define four northwesterly trending soil anomalies (Figure 5). The largest anomaly (No. 1) extends over an area of approximately 5000 feet by 3000 feet. Again the abrupt termination of anomalies 1, 3, and 4 at the creek suggest a structural control. Again it can be postulated that anomalies 3 and 4 are faulted offsets of the southeastern portion of anomaly 1.

The lead and zinc soil anomalies are, in effect, coincident anomalies, with extremely good correlation between the relative values.

The copper results show no defined anomalous pattern (Figure 6).

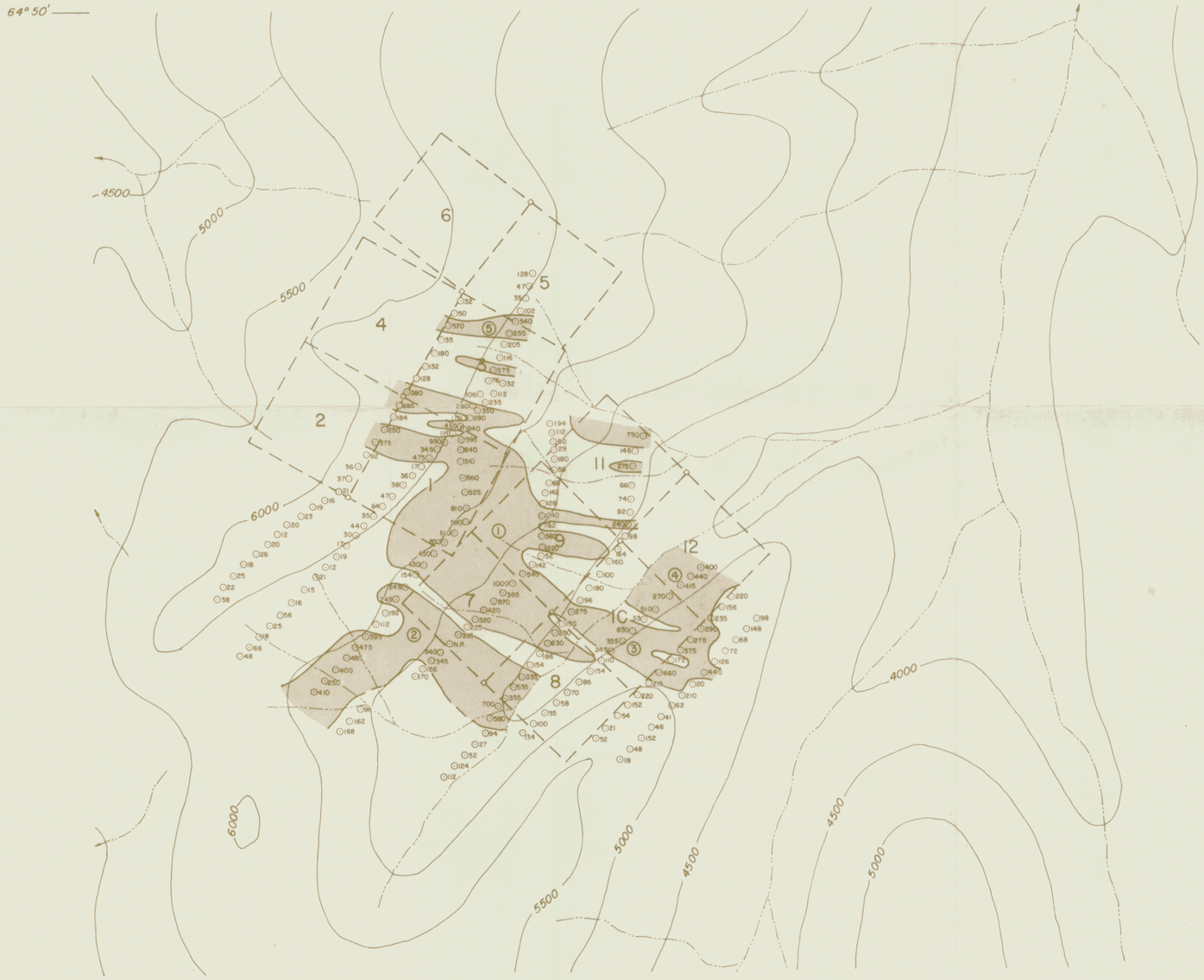
## CONCLUSIONS AND RECOMMENDATIONS

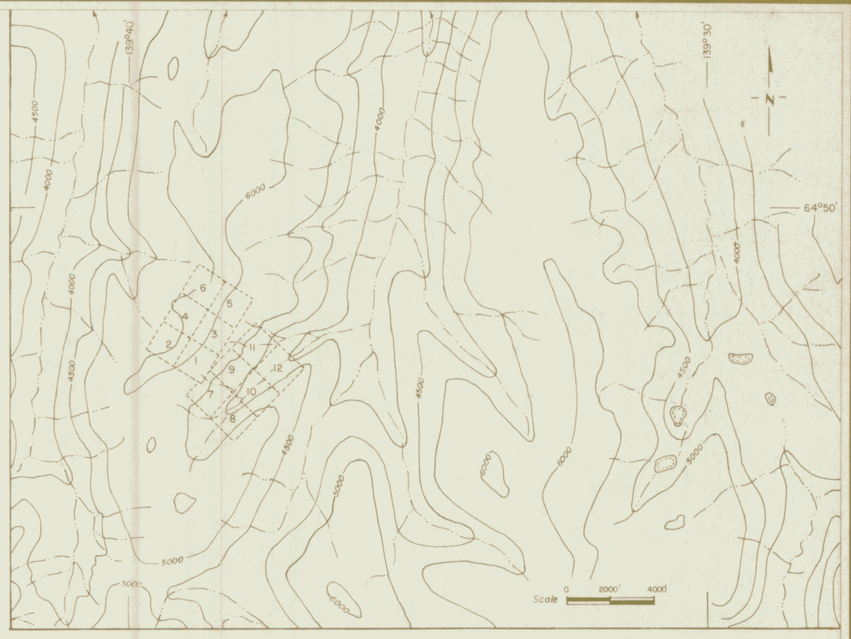
1) A geochemical soil survey performed on the OD 1-12 mineral claims outlines several well-defined, coincident lead/zinc geochemical anomalies.

2) Further work is recommended on these claims, directed towards locating a source to explain these anomalies.

3) Additional soil sampling is recommended to "close" off some of the anomalies.

C.V. Dyson, P.Eng.




## LEGEND

- Stream
- ⊙ Soil sample (Pb in ppm)
- Contoured at 240ppm.
- N.R. - No results.
- ③ Numbered anomalies

Figure No. 4

# OD CLAIMS (1-12)
## 1975
## Pb SOIL GEOCHEMISTRY

N.T.S. 116B/13

Scale : 1:12,000
0 1000' 2000'

UMEX CORPORATION LTD.

DRAWN BY : H. Holm
DATE : November 5, 1975
SURVEYED BY : R. Tolbert, P. Osborne

DWG. No.

To accompany a report by Colin V. Dyson, P.Eng., entitled "Geochemical Soil Survey on the OD 1-12 Mineral Claims, Dawson Mining Division, Y.T.", dated October 1975.

## LEGEND

- Stream
- ⊙ Soil sample (Zn in ppm)
- Contoured at 300 ppm.
- N.R. No results.
- ③ Numbered anomalies.

Figure No. 5

# OD CLAIMS (1-12)
## 1975
## Zn SOIL GEOCHEMISTRY

N.T.S. 116B/13

Scale : 1:12,000
0 1000' 2000'

UMEX CORPORATION LTD.

DRAWN BY : H. Holm
DATE : November 5, 1975
SURVEYED BY : R. Tolbert, P. Osborne

DWG. No.

To accompany a report by Colin V. Dyson, P.Eng., entitled "Geochemical Soil Survey on the OD 1-12 Mineral Claims, Dawson Mining Division, Y.T.", dated October 1975.

## LEGEND

- Stream
- Soil sample (Cu in ppm)
- Contoured at 100 ppm.
- N.R. – No results.

Figure No. 6

# OD CLAIMS (1-12)
## 1975
## Cu SOIL GEOCHEMISTRY

N.T.S. 116B/13

Scale: 1:12,000 (0 1000' 2000')

UMEX CORPORATION LTD.

DRAWN BY: H. Holm
DATE: November 5, 1975
SURVEYED BY: R. Tolbert, P. Osborne

DWG. No.

To accompany a report by Colin V. Dyson, P.Eng., entitled "Geochemical Soil Survey on the OD 1-12 Mineral Claims, Dawson Mining Division, Y.T.", dated October 1975.