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REPORT ON
GEOLOGY, MINERALIZATION AND GEOCHEMISTRY

DTS 1-24 MINERAL CLAIMS

MAYO MINING DIVISION - YUKON TERRITORY

located at

Latitude: 65°33'

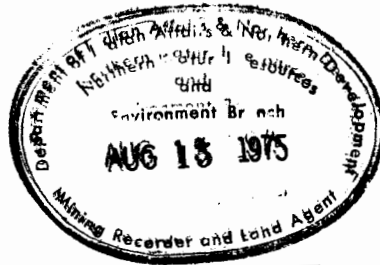
Longitude: 134°18'

NTS 106E/9

9 August, 1975

R.J. Cathro

Consulting Engineer



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Lat. 65°33'

Long. 134°18'

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R.J. Cathro

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

\$ 2400.00

J. B. Craig

Resident Geologist or
~~Resident Mining Engineer~~

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

B. E. Baxter
B. E. BAXTER

Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

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INTRODUCTION

The DTS claims cover a lead, zinc and copper showing discovered in August, 1974, through regional exploration funded by Ogilvie Joint Venture (Standard Oil Company of B.C. Ltd., Marietta Resources International Limited, Aquitaine Co. of Canada Limited and Messrs. L & H Clay) and managed by Archer, Cathro and Associates Ltd. Minor regional geological mapping and soil sampling was conducted in 1974. The main area of interest was explored with grid soil sampling and geological mapping in July, 1975, by geologists R. Dennett, J. Dickinson, D. Eaton, T. Bremner, U. Schmidt and M. Phillips under supervision of the writer.

PROPERTY, LOCATION AND ACCESS

The DTS property consists of 24 contiguous mineral claims recorded in the Mayo Mining District as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
DT's 1-24	Y96140-Y96163	20 Aug, 1975

The property is located on the western side of Noisy Creek at approximately Latitude 65°33' North and Longitude 134°18' West. Access is by helicopter from a camp situated at Kiwi Lake which lies some 25 miles to the southwest. The Kiwi Lake camp is supplied by float plane from Mayo which is 120 airmiles to the south. The location of the claims relative to Noisy Creek is illustrated on Figure D1 in the pocket.

GEOLOGY AND MINERALIZATION

Minor brown sphalerite with traces of galena and chalcopyrite occur as fracture fillings in an intensely brecciated and dolomitized lower Cambrian carbonate arkose. Cambrian sediments in this area lie unconformably over orange weathering Proterozoic platy dolomite. The showing is found in lightly timbered subdued terrain north of the Wernecke Mountains and is best exposed in a bedrock

cut along the west side of Noisy Creek. Its formational history appears to be deposition of cross-bedded arkosic limestone followed by normal primary and tertiary dolomitization to a zebra texture. Tectonic activity along strong north trending regional faulting (informally called the Noisy Creek Fault system by workers in the area) has produced at least three periods of brecciation. The first was recemented by sparry dolomite, the second by siderite with minor sphalerite and traces of galena and the third by quartz with traces of chalcopyrite. Strong fracturing and shearing in the outcrop may represent fairly recent movement on the fault system. The brecciated dolomite which outcrops along Noisy Creek is weakly mineralized along a length of 1600 feet. Two chip samples from the best area averaged 0.35% zinc.

GEOCHEMISTRY

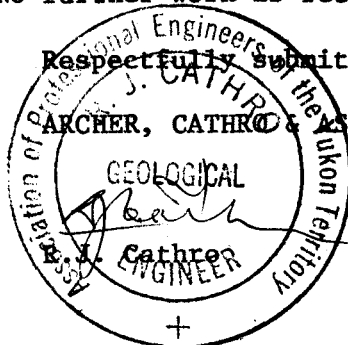
A tie-line was cut 1200 feet west from the corner of the posts of the DTS 17-20 claims. From the end point of the tie-line, which was marked 0 North and 0 West, a north striking baseline was established from 2400 feet North to 2400 feet South. The baseline and tieline were well flagged and picketed with three foot lath pickets at 100 foot intervals, each marked with the appropriate coordinate relative to the starting point. Soil sampling was done at 200 foot intervals on west striking lines 400 feet apart. Sample points were located by pace and compass and sample pits were marked by red flagging with the sample pit coordinates and sample bag number printed on the flagging with a black felt marker pen. These numbers will remain legible for a minimum of four years. Soil samples were obtained from a B + C horizon by digging a shallow hole with a grub hoe. Samples were collected in prenumbered kraft sample bags and shipped to Chemex Labs Ltd, North Vancouver, B.C. Here, they were dried, screened to minus 80 mesh, digested in nitric-perchloric acid and analysed for lead, zinc and copper by atomic absorption spectrometry.

Figures D2 ^{to} and D4 in the pocket illustrate contoured lead, zinc and copper soil values in parts-per-million (ppm) using thresholds of 45 ppm for copper, 50 ppm for lead and 200 ppm for zinc. The above-threshold lead and zinc values define an anomalous area 2000 feet in length and up to 1400 feet in width. There are three well defined strongly anomalous centres within this area. The first, at 200 North and 900 East, has zinc values ranging from 3520 to over 4000 ppm and lead from 540 to 1096 ppm. The second, at 200 South and 100 West, has zinc values ranging from 1280 to over 4000 ppm and lead from 106 to 300 ppm. The third, at 800 South and 700 East, has zinc values from 1320 to over 4000 ppm and lead values from 139 to 338 ppm. Above threshold copper values are found more or less coincident with the lead and zinc anomalies but strongly anomalous centres are not present.

CONCLUSIONS AND RECOMMENDATIONS

The DT's claims cover an area of brecciated lower Cambrian dolomite that is weakly mineralized with sphalerite, galena and chalcopyrite. A chip sample from an outcrop 300 feet long assayed 0.35% zinc. Soil sampling indicates that the mineralized breccia extends for 2000 feet along the west bank of Noisy Creek and has a width of up to 1400 feet. The zinc soil values suggest that several smaller areas in excess of 0.35% zinc exist. However, none of these are likely to exceed 1 per cent. No further work is recommended.

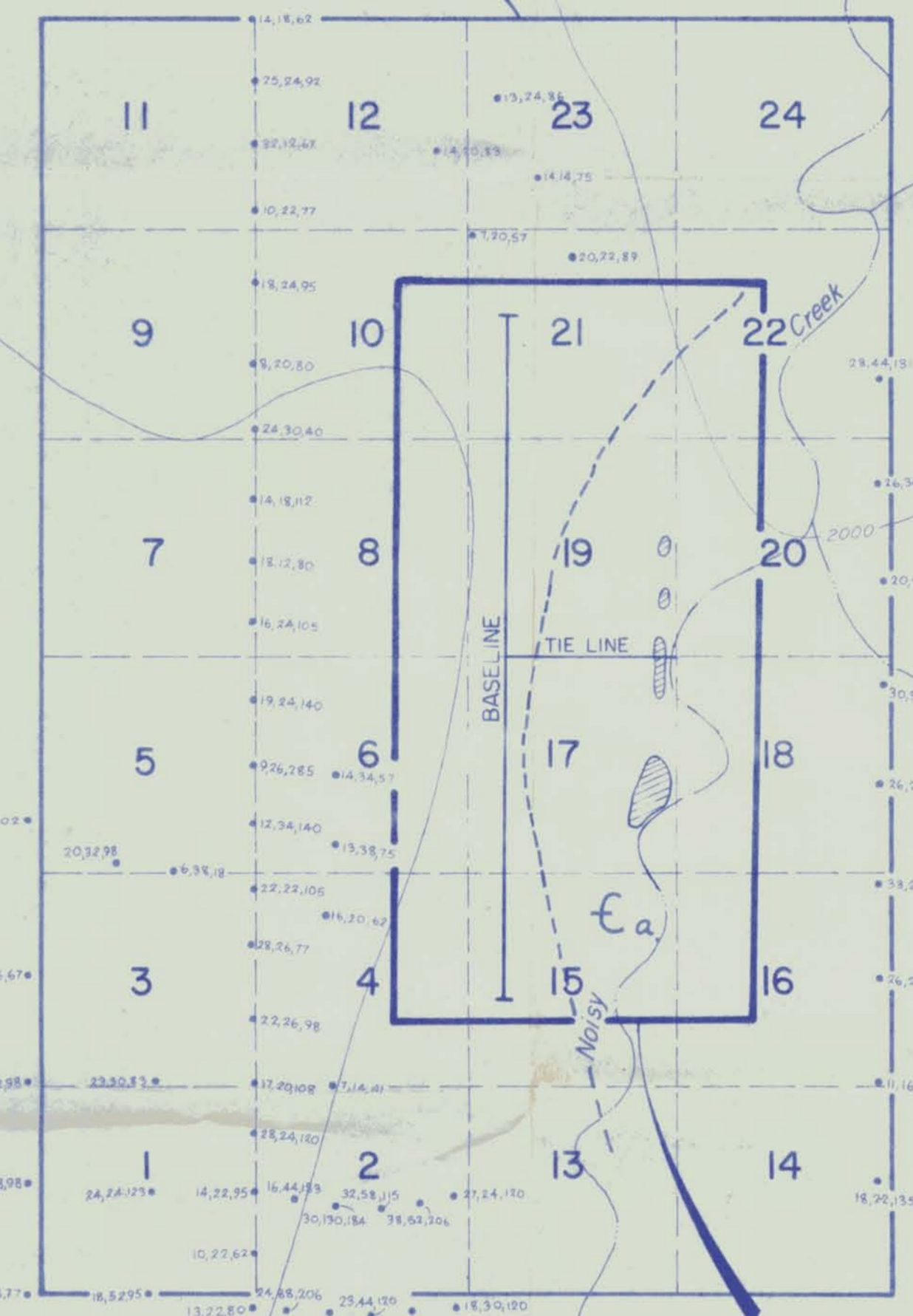
Respectfully submitted,
J. CATHRO & ASSOCIATES LTD.



RJC:st



DT'S 1-24 CLAIMS



See figs. D2 to D4

NOISY CREEK FAULT SYSTEM

€

€

1€

1€

PC dol

PC sh

LEGEND

- Soil in ppm Cu, Pb, Zn
- x Silt
- ~ Probable fault
- Defined contact
- - - Assumed contact
- ▨ Mineralized outcrop

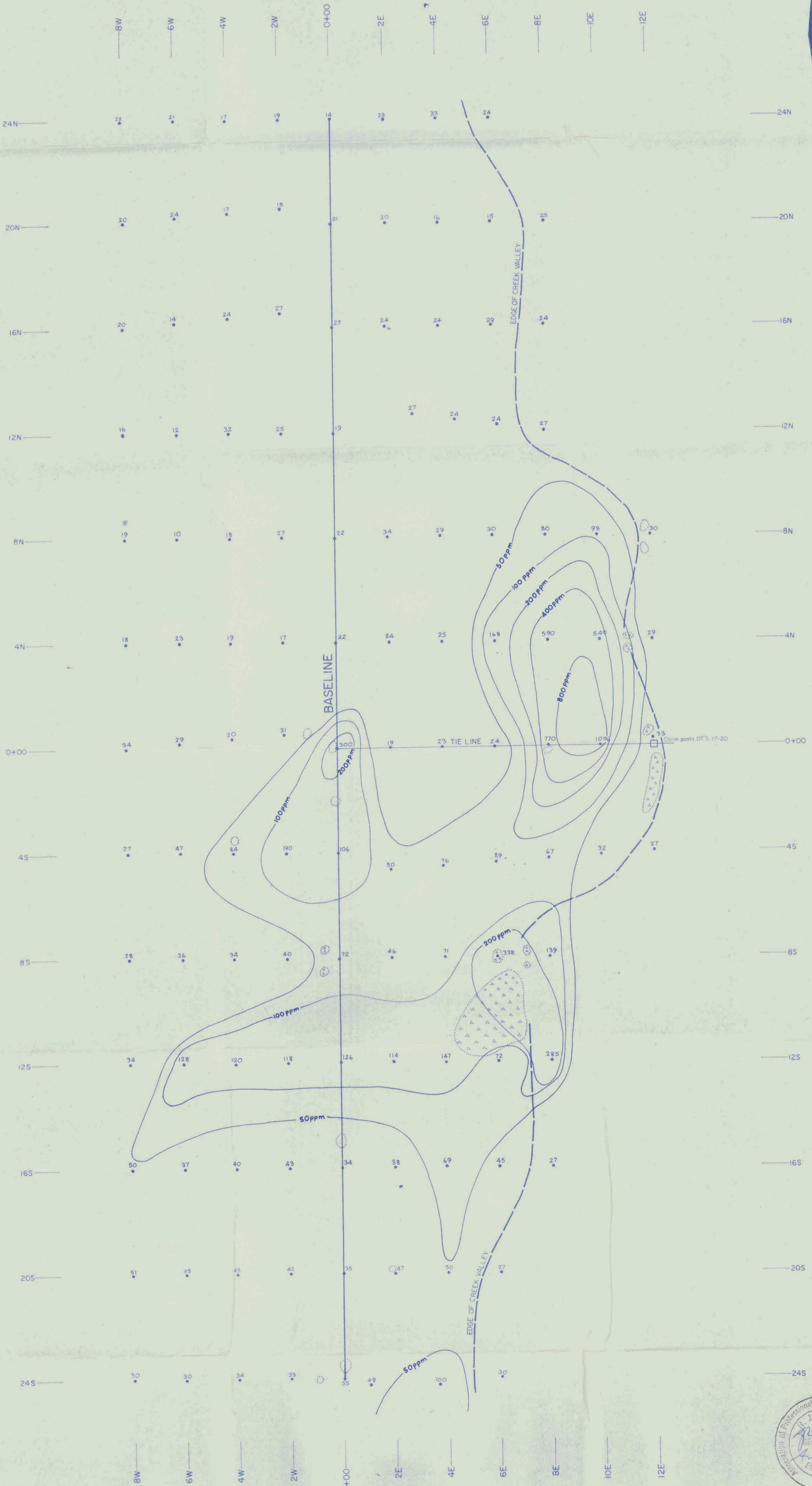
NOTE - Analysis at Chemax Labs by atomic absorption spectrometry of a nitric-perchloric extraction

GEOLOGY

- PALEOZOIC CAMBRIAN**
 - € Grey and white cemented, cross bedded dolomite, all intensely brecciated and heavily silicified along Noisy Creek
- lower Cambrian**
 - 1€ Reddish, rusty weathering, grey to reddish, fine to medium grained, sugary textured calcic
- PROTEROZOIC**
 - PC dol Orange weathering, gully dolomite with trace beds of silicified and quartzite
 - PC sh Black shales, silt and argillites



FIG D1
 ARCHER, CATHRO & ASSOCIATES LTD
**1974 RECONNAISSANCE
 GEOLOGY & GEOCHEMISTRY**
 DT'S 1-24 CLAIMS
 OGILVIE JOINT VENTURE
 SCALE IN FEET
 0 1000 2000 3000



LEGEND

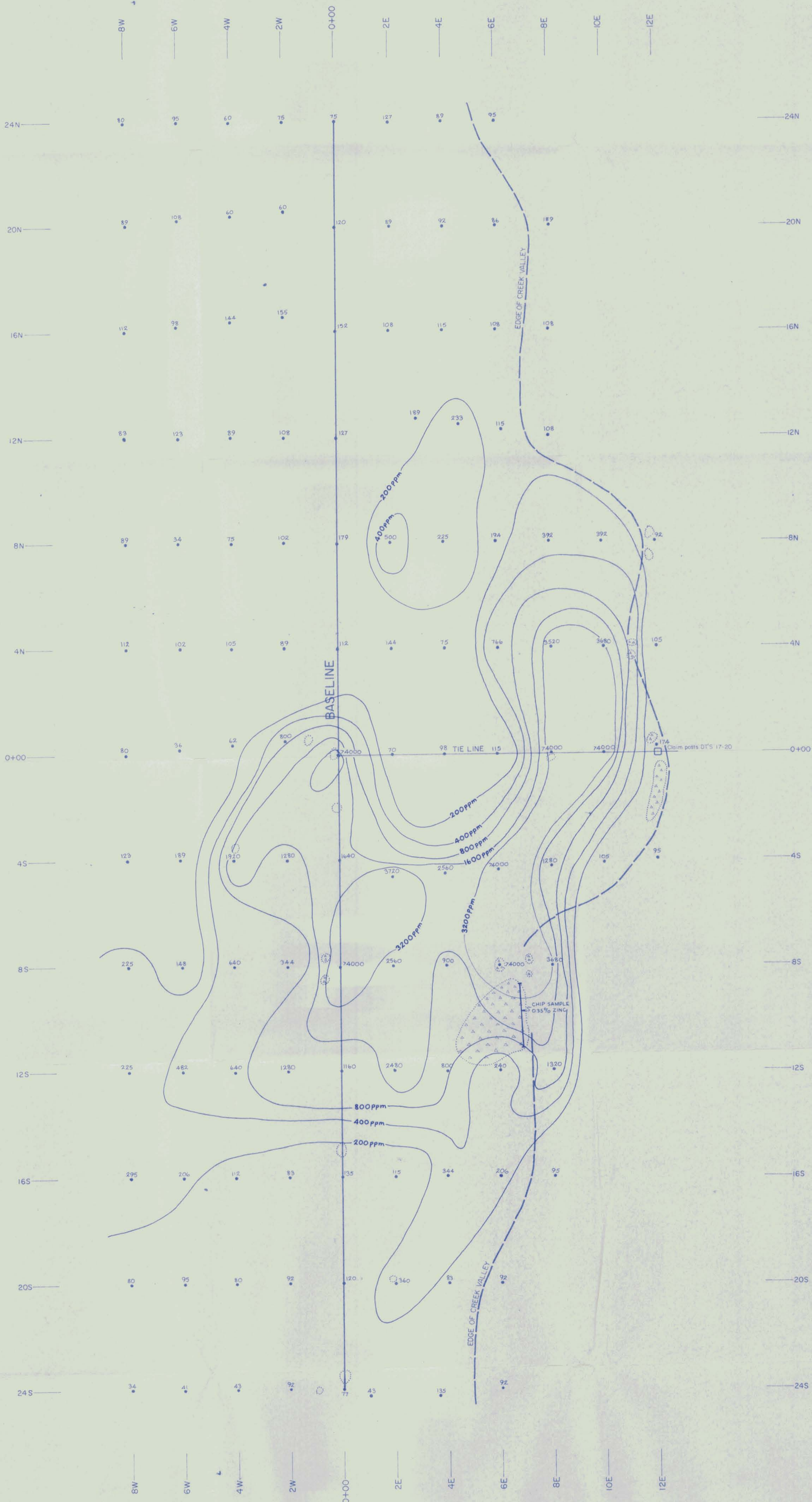
- Soil value in ppm
- Outcrop Cambrian Dolomite
- ▲ Brecciation

NOTE - Analysis at Chemex Labs by atomic absorption spectrometry of a nitric-perchloric extraction.



FIG. D2
 ARCHER, CATHRO & ASSOCIATES LTD
LEAD GEOCHEMISTRY
 1975 GRID SAMPLING
 DT'S 1-24 CLAIMS
 OGILVIE JOINT VENTURE





LEGEND

- 83 Soil value in ppm
- Outcrop Cambrian Dolomite
- △ Brecciation

NOTE - Analysis at Chemex Labs by atomic absorption spectrometry of a nitric-perchloric extraction.

FIG. D3

ARCHER, CATHRO & ASSOCIATES LTD.

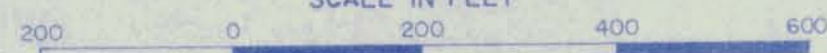
ZINC GEOCHEMISTRY

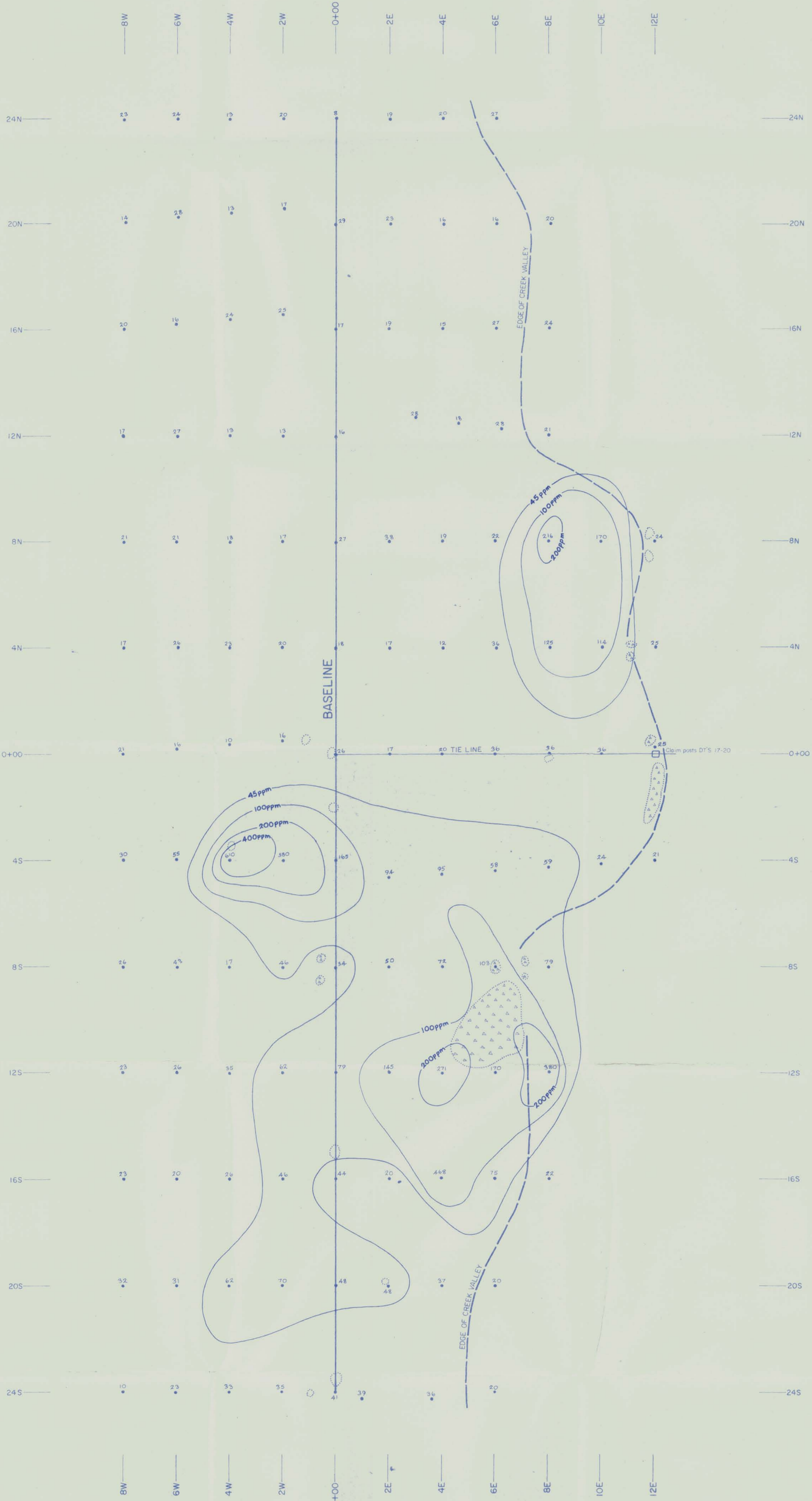
1975 GRID SAMPLING

DT'S 1-24 CLAIMS

OGILVIE JOINT VENTURE

SCALE IN FEET





LEGEND

- Soil value in ppm
- Outcrop Cambrian Dolomite
- ▲ Brecciation

NOTE - Analysis at Chemex Labs by atomic absorption spectrometry of a nitric-perchloric extraction.

FIG. D4

ARCHER, CATHRO & ASSOCIATES LTD

COPPER GEOCHEMISTRY
 1975 GRID SAMPLING
 DT'S 1-24 CLAIMS
 OGILVIE JOINT VENTURE

SCALE IN FEET

