KLONDIKE EXPLORATIONS LTD.

GEOCHEMICAL REPORT

DARK CLAIM GROUP

Whitehorse Mining District

Yukon Territory

62° 34' N. Lat.; 137° 13' W. Long.

by

G.H. Rayner, P.Eng.

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 $ 4900.00

Resident Geologist or
~~Resident Mining Engineer~~

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

Commissioner of Yukon Territory

January 16, 1974

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INTRODUCTION

Interest in the copper potential of the Minto District has been increasing in recent years. During the 1971 season, the partnership of Silver Standard and Asarco staked the Minto Claim Group as a result of a regional geochemical stream sediment sampling program. Work on the Minto Group in that year disclosed widespread copper mineralization in schistose phases of granodiorite on the southern portion of the property. No body of ore grade material was developed in this area at that time as grade was found to be very erratic and continuity between mineral zones appeared to be lacking.

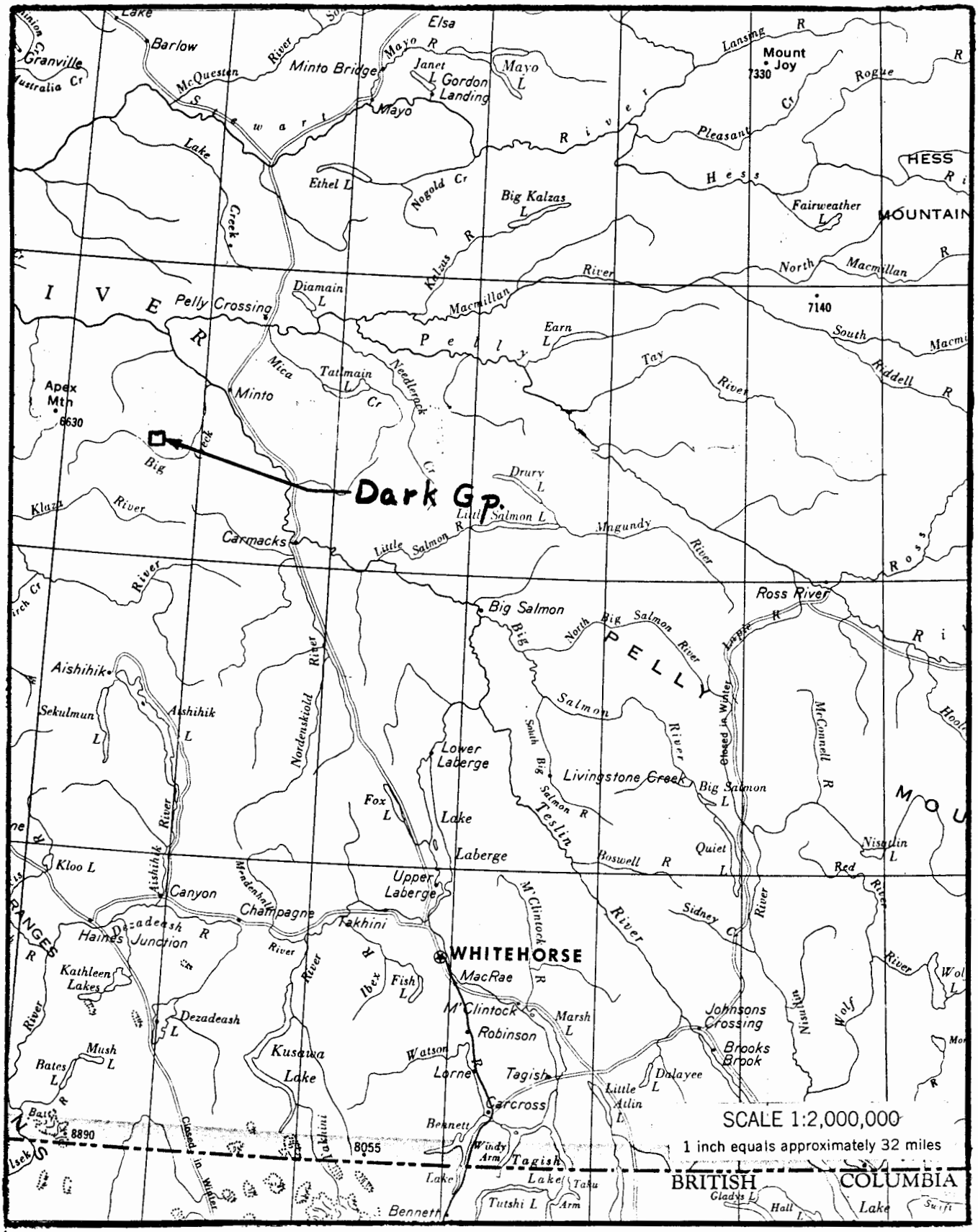
Mineralization was subsequently discovered on the DEF Claim Group adjoining the Minto Group on the north. This ground was held by a partnership consisting of United Keno Hill Mines, Falconbridge Nickel Mines and Canadian Superior Exploration.

Diamond drilling in the border area between the DEF and Minto Groups in the 1973 season indicated the existence of several million tons of good grade copper in a flat lying deposit straddling the boundary.

Similar copper mineralization occurs in a similar geological environment on the Williams Creek property of the Dawson Range Joint Venture Group, 30 miles to the south.

Klondike Explorations' Dark Group of 40 claims was staked in April of 1972 adjoining the south boundary of the Minto Group of Silver Standard - Asarco.

YHA



LOCATION MAP

LOCATION AND ACCESS

The Dark Claim Group lies about 7 miles southwest of the Yukon River at a point nearly due west of the Minto Airstrip.

The specific loation is : 62 degrees, 34 minutes North latitude; 137 degrees, 13 minutes West longitude. The settlement of Carmacks lies about 35 miles to the southeast and Whitehorse lies about 140 miles to the southeast.

On a local scale, the claims lie on the north side of Dark Creek. Elevations vary up to 3400 feet with a total relief on the property of about 1000 feet.

Access to the general area is good and is improving. As noted above, the Minto Airstrip on the Klondike Highway lies a few miles to the east to provide a base for helicopter or fixed-wing aircraft. The partnership of Silver Standard - Asarco has constructed an airstrip less than 2 miles to the northeast of the Dark Claims. This strip is suitable for small aircraft and has been used extensively by the various companies working in the area during the 1973 season.

During the late fall of 1973, Silver Standard - Asarco built an access road from the Minto claims to connect with the Klondike Highway at Carmacks. This road in future will substantially reduce the cost of work on the Dark Group and other properties in the area.

HHR

PROPERTY

The Dark Group consists of 40 claims (Dark 1-40) of which 28 claims (Dark 5-20 and Dark 29-40) are the subject of this report.

The claims are in the Whitehorse Mining District and are shown on claim sheet 115-I-11. The Grant Numbers and recording dates are as follows:

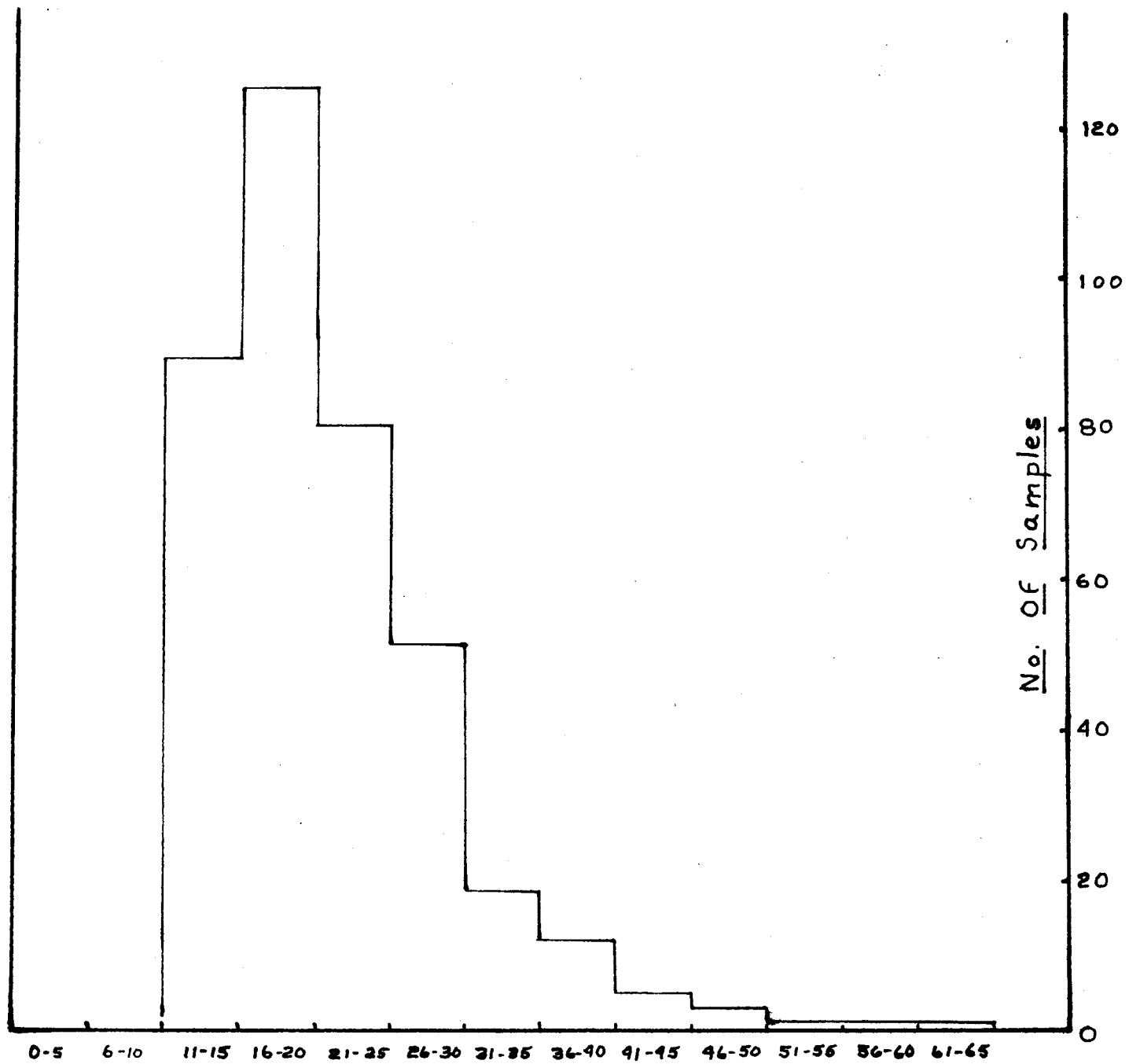
Claims	Grant Numbers	Recording Date
Dark 5 - 16	Y 66143 - 154	April 12, 1972
Dark 17 - 20	Y 66244 - 247	May 10, 1972
Dark 29 - 40	Y 66258 - 267	May 10, 1972

No investigation of title was made by the winter.

GENERAL GEOLOGY

The significant mineral deposits presently being investigated in the district are found in schistose phases of Mesozoic, probably Jurassic, intrusive rocks of generally granodioritic composition. These rocks crop out on the Minto Claim Group and extensively through the district to the northwest and southeast.

On the 1-inch-to-4-mile scale geological map accompanying G.S.C. Memoir #189, the area of the Dark Claim Group is shown underlain by tertiary volcanics of the Carmacks Group. These volcanics are post-mineral in age thus the exploration potential of the properties lies either beneath the volcanics or in windows



Histogram Plot

Copper In Soils

through them exposing the favourable granodiorite. The volcanics can be expected to be fairly thin near the north edge of the Dark Group since they are absent a short distance to the north on the Minto Group. The possible thickness of volcanic cover on the rest of the Dark claims is unknown. It could be quite variable depending on the pre-volcanic topography.

Volcanic rubble and float were widely noted by the soil samplers during the course of the survey and no granitic rocks were seen.

GEOCHEMICAL SURVEY

The geochemical survey was carried out during the first half of October 1973. Samples were collected on grid lines 400 feet apart with a 400 foot sample spacing on the lines.

The base point for the grid was the set of claim posts; Initial Posts Dark 17 and 18 and Final Posts Dark 15 and 16. A base line was run east and west through this point and north-south cross lines were set off at 400 foot intervals. Control throughout was by Topophil Chaix chainage instruments.

Soil samples were collected from the 'B' soil horizon where possible. Where this was not available, an organic layer was usually present and was collected.

At some sites a thin layer of volcanic ash was penetrated to reach the normal soil profile.

The samples were prepared and analyzed by Vancouver Geochemical Laboratories Ltd., Vancouver, B.C. according to proceedures outlined in Appendix 'A'.

The names and addresses of the persons involved in the work, as required in Section 53 (4)(a)(xvi) of the Yukon Quartz Mining Act, are as follows:

Charlie Ollie	Ross River, Y.T.
John Graham	c/o Capitol Hotel, Whitehorse, Y.T.
Merle Cloutier	711 - 475 Howe Street, Vancouver 1, B.C.

GEOCHEMICAL DISCUSSION

A total of 387 samples were analyzed for copper only and the results were plotted on a histogram (following page 3). The resulting curve showed a lognormal or 'skew' form common to plots of metal values in soils. The curve decays uniformly with no inflection points toward the higher end to indicate a significant population of anomalous values.

Where no natural threshold or anomalous points are seen in a curve of this type, it is common to arbitrarily consider

the upper $2\frac{1}{2}$ percent of the values as being anomalous. Following this procedure in this instance we find that 7 values of 45 ppm., or higher, fall in the anomalous grouping. All of these are isolated 'spot' highs of little significance individually and forming no meaningful pattern.

In addition, 3 of these highs represent organic samples. Such organic material, particularly where it is in contact with moving water, is commonly enriched in metals and cannot be readily compared with normal 'B' horizon soil.

CONCLUSIONS

No significant anomalous areas were indicated by the survey.

RECOMMENDATIONS

No recommendations arise from the geochemical results. However, it is recommended that the claims be retained in view of the proximity of important mineralization on the Minto Group to the north and the possibility that the claims may be underlain by favourable granitic rocks beneath volcanic or unconsolidated cover.

To further evaluate the potential, the property should be geologically mapped and a ground magnetometer survey should be carried out to outline areas where the Tertiary volcanics are thin or absent.

Respectfully submitted,

Gerald H. Rayner

Gerald H. Rayner, P.Eng.

CERTIFICATE

I, GERALD H. RAYNER, of 626 Duchess Avenue, West Vancouver, B.C., DO HEREBY CERTIFY:-

1. That I am a graduate of the University of British Columbia with a B.Sc. in Geology.

2. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers of British Columbia and have been since 1972.

3. That I have practiced my profession since 1960.

4. That I have not personally examined the property that is the subject of this report but that I have worked on other contiguous properties in the area.

5. That I have no interest, direct or indirect, in the properties or securities of Klondike Explorations Ltd., nor do I expect to receive any such interest.

Gerald H Rayner P. Eng

GHR

Appendix A

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 604-988-2172

January 11, 1974

TO: Klondike Exploration Ltd.
P. O. Box 4244
Whitehorse, Y. T.

FROM: Mrs. Ena Agarwal, Chemist
Vangeochem Lab Ltd.
1521 Pemberton Avenue
North Vancouver, B. C.

SUBJECT: Analytical procedure used to determine acid soluble Cu in geochemical samples.

1. Method of Sample Preparation

(a) Geochemical rock, soil, or silt samples were received in the laboratory in 8" x 13" plastic sample bags, or in $4\frac{1}{2}$" x 9" cotton mailing bags, or in wet-strength $3\frac{1}{2}$ x $6\frac{1}{2}$ Kraft paper bags.

(b) The wet samples were dried in a ventilated oven.

(c) The dried soil and silt samples were sifted by using a shaking machine using an 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

2. Methods of Digestion

(a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.

(b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).

(c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

(a) Copper analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA5 with copper hollow cathode lamp. The digested samples were aspirated directly into an air and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

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4. The analyses were supervised or determined by Mrs. Ena Agarwal or Mr. Laurie Nicol and their laboratory staff.

E Agarwal

Ena Agarwal, Chemist, Provincial Assayer

VANGEOCHEM LAB LTD.

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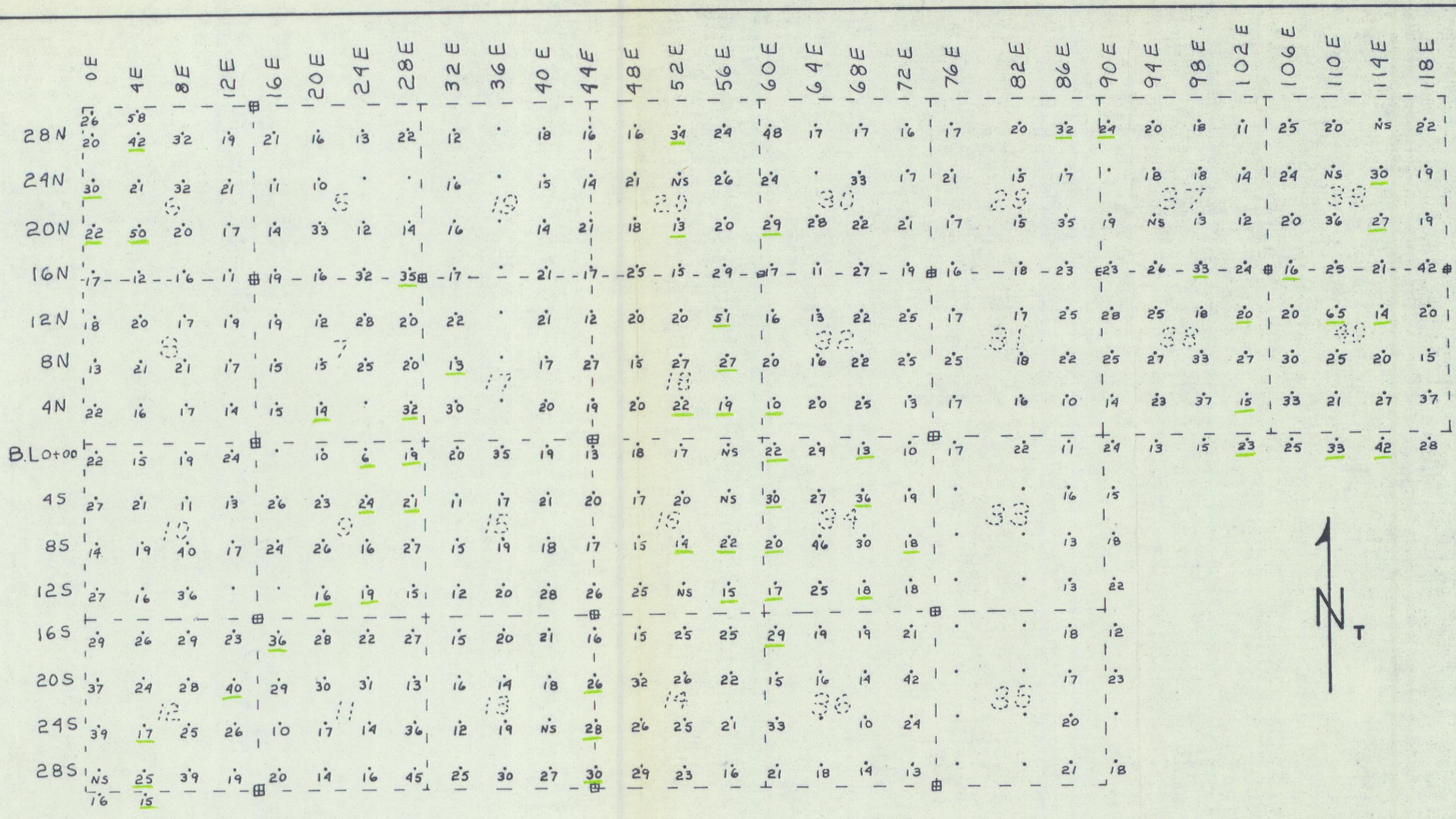

LEGEND

16 Geochemical Soil Site and Value

\- - - Claim Boundry

⊞ Claim Post

12 Organic Sample

KLONDIKE EXPL'N. LTD.

Soil Geochemistry

Dark Claim Group

Scale 0 500' 1000'

Whitehorse Min. Dist.
Yukon Terr.

G.H. Rayner, P.Eng.
Jan. 10, 1974