GEOCHEMICAL REPORT

ON A

SOIL GEOCHEMISTRY SURVEY

OVER A PORTION OF THE

DOG CLAIM GROUP

CANNELL CREEK

KAMLOOPS MINING DIVISION

BRITISH COLUMBIA

PROPERTY

: 28 km N35°W of Kamloops, B.C. on Cannell Creek

: 50° 52' North Latitude 120° 34' West Longitude

: N.T.S. 92I/15E

WRITTEN FOR

: TRANS-ARCTIC EXPLORATIONS LTD. 815-850 West Hastings Street Vancouver, B.C., V6C 1E2

SURVEYED BY

: TRANS-ARCTIC EXPLORATIONS LTD. 815-850 West Hastings Street Vancouver, B.C., V6C 1E2

WRITTEN BY

: David C. Mark, Geophysicist GEOTRONICS SURVEYS LT 530-800 West Pender : Vancouver, B.C., V6C

DATED

: October 25, 1988



GEOTRONICS SURVEYS LTD. Engineering & Mining Geophysicists

VANCOUVER, CANADA



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

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GEOTRONICS SURVEYS LTD. --

SUMMARY

Some soil geochemical sampling was done over a portio of the Dog Claim Group owned by Trans-Arctic Explorations Ltd of Vancouver, B.C. from July 14th to 15th, 1988. The claims are located on Cannell Creek, 28 km N35°W of the City of Kamloops. Access is easily gained by vehicle, preferably 4-wheel drive. The terrain consists of mainly gentle to moderate slopes forested with light to moderately dense coniferous trees. The purpose of the survey was to locate possible areas of gold and/or silver mineralization similar to the nearby Allies showing.

The Dog Claims are staked adjacent to the property containing the old Allies showings on which exploration was previously carried out for gold. The mineralization consists of pyrite, chalcopyrite, bornite, and galena within quartz veins. These veins are within dark grey porphyry dykes cutting serpentine of the Cache Creek group. Overlying the Cache Creek rocks on and around the Dog claims are Tertiary volcanics of the Kamloops Group.

The soil samples were dug every 20 m on two lines 20 meters apart, subsequently tested for gold and silver and plotted.

CONCLUSIONS

The silver and gold results are absolutely flat. The survey, however, was carried out over of a very small area, and therefore does not mean there could be gold/silver mineralization elsewhere on the property.

RECOMMENDATIONS

The results from the work done in this report does not change the recommendations from the writer's three previous reports.

- The property should be thoroughly prospected and/or geologically mapped. This will also greatly aid in the interpretation of any geophysics and geochemistry that have been or may be carried out, especially the airborne survey.
- 2. Though a soil geochemistry survey has been done, another one should be considered. On the previous survey the sample was screened to -80 mesh. The total sample picked up should be pulverized and not screened in order to preclude the screening out of coarser gold.
- 3. An induced polarization-resistivity survey should be considered. The purpose of the induced polarization would be to pick up sulphide zones that are hopefully associated with gold mineralization and that of the resistivity to outline alteration zones related to the same mineralization.
- 4. Trenching and diamond drilling of promising targets resulting from the above work.

GEOCHEMICAL REPORT

ON A

SOIL GEOCHEMISTRY SURVEY

OVER A PORTION OF THE

DOG CLAIM GROUP

CANNELL CREEK

RAMLOOPS MINING DIVISION

BRITISH COLUMBIA

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of a soil sample survey carried out over a portion of the Dog Claim Group located on Cannell Creek within the Kamloops M.D. from July 14th to the 15th, 1988.

The work was done by E.A. Dodd and E. Winter, both of whom are of Trans-Arctic Explorations Ltd. A total of 24 soil samples were picked up.

The object of the soil sampling was to locate possible areas of gold and/or silver mineralization similar to the Allies showing on the adjaent property. A similar survey was carried out a year ago over a very small survey area. The results were flat, but since the survey area was so small, it did not indicate that mineralization did not occur on the property. It was therefore recommended to continue the survey.

PROPERTY AND OWNERSHIP

The property consists of three claims totalling 18 units as shown on Map 2 and as described below:

<u>Claim Name</u>	No. Units	Record No.	Expiry Date
Dog 3	4	4119	July 19, 1989
Dog 4	4	6343	Aug. 15, 1989

The expiry dates shown takes into account the surveys under discussion as being accepted for assessment credits.

The property is owned by Trans-Arctic Explorations Ltd. of Vancouver, British Columbia.

LOCATION AND ACCESS

The property is found 28 km N35°W of the City of Kamloops, B.C. on Cannell Creek located on the Tranquille Plateau.

The geographical coordinates are 50° 52' north latitude and 120° 34' west longitude.

Access to the property is by the Pass Lake dirt road to Pass Lake. This road starts approximately one mile north of the city centre of North Kamloops along the west side of the North Thompson River. From the agricultural research station at Pass Lake, one travels northwesterly for 1 km where one turns west and travels a further 8.5 km northwest to the Allies showing over a logging road.

Pass Lake is accessible by a two-wheel drive vehicle all year around, the road being kept open in winter. A four-wheel drive vehicle is recommended from Pass Lake to the property during summer months and a skidoo during winter months.

PHYSIOGRAPHY

The property lies at the southern end of the Tranquille Plateau which forms part of the physiographic division known as the Thompson Plateau System. The terrain varies from gentle and moderate slopes throughout most of the property to steeper slopes occurring along gullies and creeks. The average elevation is at about 1,200 m a.s.l.

The main water sources would be Cannell Creek and its tributaries which cross the property as well as Sydney Lake located 850 m west of the Dog 5 claim.

The forest cover consists of fir, pine and spruce and varies from closely growing, immature stands to widely spaced, mature stands.

HISTORY OF PREVIOUS WORK

The adjacent property was previously known as the Allies Group upon which work was done in exploration for gold during the 1920's and 1930's. At this time several trenches, shafts and adits were dug out.

The property was staked as the Dog Claims in 1969-70 and in 1973, magnetic, VLF-EM, limited soil sampling and limited geological surveys were carried out. In 1976, further soil sampling

was carried out producing gold-copper anomalies that were subsequently diamond drilled. No mineralization was encountered.

Over Trans-Arctic's property, the only previous work was a combined airborne magnetic and VLF-EM survey carried out in July of 1983, (results in a report by the writer dated October 20, 1983), and a ground magnetic survey with some geological mapping and soil sampling carried out in July of 1986 (results in report by writer dated Oct. 16, 1986). In July of 1987, a very limited soil sampling survey was carried out of the same size and type as is duscussed within this report (results in report by writer dated October 16, 1987).

GEOLOGY

The geological description of the property is taken from Cockfield and Saleken. (See Selected Bibliography.)

Much of the general area is underlain by Tertiary volcanics of the Kamloops Group. These consist of rhyolites, andesites and basalts with associated tuffs, breccias and agglomerates.

Forming a window in the Tertiary volcanics and underlying much of the Dog claims are rocks of the Carboniferous Cache Creek group. This group in this area consists of argillite, quartzite, hornstone, limestone, sheared conglomerate, breccia, greenstone, and serpentine. The units have a northwest trend with varied dips.

Cutting the Cache Creek rocks but not the Kamloops volcanics are light grey and dark grey porphyry dykes (or flows?). The dark grey porphyry is a dense rock with phenocrysts of hornblende andfeldspar.

The mineralization of the Allies prospect occurs as pyrite, chalcopyrite, bornite and galena within quartz veins which occur within the dark grey porphyry dykes (or flows?). Up to 1.42 oz/ton of gold has been assayed with the sulphides.

SURVEY PROCEDURE

The samples were picked up at 20-meter centers on two north-south lines with a separation of 20 m as shown on Map 6. They were dug with a D-handled shovel at about a 15- to 20-cm depth. The horizon sampled was B. Samples were placed in brown, wet-strength, paper bags (gussett bags) with the sample number marked thereon. A total of 24 samples were picked up.

TESTING PROCEDURE

All samples were tested by Chemex Labs Ltd. of North Vancouver, B.C. The sample is first thoroughly dried and then pulverized in a ring pulverizer. It was then rolled on a rolling sheet to homogenize it.

For silver analysis, a measured amount of the pulverized material was put into a test tube with subsequent measured additions of perchloric acid and nitric acid. The mixture was next heated for a certain length of time. The parts per million (ppm) metal was then measured by atomic absorption.

These results are plotted on Map 6A at a scale of 1:2,000.

For the gold analysis, 10 grams of the sample was then fireassayed with standard techniques. 2 mg of silver was then added to collect the gold. The lead button from the fire assay was then cupelled and the silver-gold prill was dissolved in aqua regia. It was next analyzed by the atomic absorption technique to a detection limit of 5 parts per billion (ppb).

The results were plotted on Map 6B at a scale of 1:2,000.

DISCUSSION OF RESULTS

As can be seen by examining the results for silver and gold on Maps 6A and 6B, respectively, they are absolutely flat. All the gold values are less than 5 ppb, and all the silver values 0.1 ppm, except for one which is 0.2 ppm. In other words, the soil sampling has indicated no areas of gold and silver mineralization within the survey area. However, since the survey area is very small, this does not preclude silver/gold mineralization from occurring elsewhere on the property.

Respectfully submitted, GEOTRONIOS SURVEYS LTD.

David G. Mark, Geophysicist

October 25, 1988 48/G434

SELECTED BIBLIOGRAPHY

- Aeromagnetic Map, Tranquille River, British Columbia, Geol. Surv. of Can., Map 5220G Sheet 92I/15, 1968. Vol. 73, No. 818, June 1980, P. 68-69.
- B.C. Minister of Mines, Annual Reports: 1924, p.147; 1931, p.107; 1932, p.145; 1933, p.193; 1934, p.D26. Bull No. 1, 1932, p.67.
- Carr, J.M., Deposits Associated with the Eastern Part of the Iron Mask Batholith near Kamloops, Annual Report of the Minister of Mines of British Columbia, pp.47-69, 1956.
- Cockfield, W.E., Geology and Mineral Deposits of Nicola Map Area B.C., G.S.C. Memoir 249, 1948.
- Mark, David G., Geophysical Report on a Ground Magnetic and VLF-EM Survey and the Government Aeromagnetic Survey, Dog
 Claim Group, Cannell Creek, Kamloops M.D., B.C. for Bon
 Val Mines Ltd. (N.P.L.) Geotronics Surveys Ltd. March
 31, 1973.
- Mark, David G., Geophysical Report on a Soil Geochemistry Survey, Cannell Claim Cannell Creek, Kamloops M.D., B.C. for Yamoto Industries Ltd., Geotronics Surveys Ltd. August 23, 1976.
- Mark, David G., Geophysical Report on a Airborne Magnetic and

 VLF-EM Surveys Over the Dog Claim Group, Cannell Creek,

 Kamloops M.D., B.C., for Stryder Explorations,

 Geotronics Surveys Ltd., October 20, 1983.
- Mark, David G., Geophysical Report on a Ground Magnetic Survey

 (with some geological mapping and soil sampling) Over
 the Dog Claim Group, Cannell Creek, Kamloops M.D.,
 B.C., October 16, 1986.

- Mark, David G., Geochemical Report on a Soil Geochemistry Survey over a Portion of the Dog Claim Group, Cannell Creek, Kamloops M.D., B.C., October 16, 1987.
- Matthews, W.H., <u>Geology of the Iron Mask Batholith</u>; unpublished thesis for the degree of Master of Science, University of British Columbia, about 1942.
- Parker, R.H., Examination of Government Aeromagnetic Survey, South Oak Mines Ltd., Dog Claim Group, Geotronics Surveys Ltd., January 1970.
- Preto, V.A.G., Geology of the Eastern Part of the Iron Mark Batholith, Report of the Minister of Mines and Petroleum Resources, 1967.
- B.C., South Oak Mines Ltd. (N.P.L.) Geotronics Surveys Ltd., February 1970.
- Sookochoff, Laurence, <u>Geological Evaluation Report on the Cannell Creek Property, Kamloops, M.D., B.C.</u> for Yamoto Industries Ltd. T.R. Tough & Associates Ltd., January 13, 1976.
- Sookochoff, Laurence, Geological Report on the Cannell Creek

 Property, Kamloops, M.D. for Yamoto Industries Ltd.

 (N.P.L.) January 25, 1978.

GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of Geotronics Surveys Ltd., with offices located at #530-800 West Pender Street, Vancouver, British Columbia.

I further certify:

- 1. That I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
- I have been practising my profession for the past 20 years and have been active in the mining industry for the past 23 years.
- 3. This report is compiled from data obtained from soil sampling survey carried out by Trans-Arctic Exploration Ltd., under the supervision of E.A. Dodd during July 14th to 15th, 1987.
- I have no direct or indirect interest in any of the properties mentioned within this report, nor in Trans-Arctic Explorations Ltd, nor do I expect to receive any interest as a result of writing this report.

Geophysicist

1980

48/G434

AFFIDAVIT OF EXPENSES

Soil sampling over a portion of the Dog 4 mineral claim, located in the Kamloops Mining Division, of B.C.

Crew chief, 1.5 days @ \$125/day	\$	187.50
Assistant, 1.5 days @ \$100/day		150.00
One 4X4 3/4 ton truck, 1.5 days @ \$90/day		135.00
Accommodation, 1.5 days @ \$50/day each man		150.00
Lab costs for sample analysis		258.00
Report and drafting		500.00
TOTAL	\$1	,280.50

Respectfully submitted, TRANS-ARCTIC EXPLORATIONS LTD.

E. Winter

Office Manager

48/G434



Chemex Labs Ltd

Analytical Chemists • Geochemists • Registered Assayers
112 BROOKSBANK AVE , NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V73-1C1

PHONE (604) 984-0221

To:TRANS ARCTIC EXPLORATIONS LTD.
ATTN: RICHARD SIMPSON
815 - 850 W. HASTINGS ST.
VANCOUVER, B.C.
V6C 1E2

Project : Comments: **Page No. :1 Tot. Pages:1 Date :19-SEP-88 Invoice #:I-8823334 P.O. # :NONE

CERTIFICATE OF ANALYSIS A8823334

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PHONE (604) 984-0221

To: TRANS ARCTIC EXPLORATIONS LTD. ATTN: RICHARD SIMPSON

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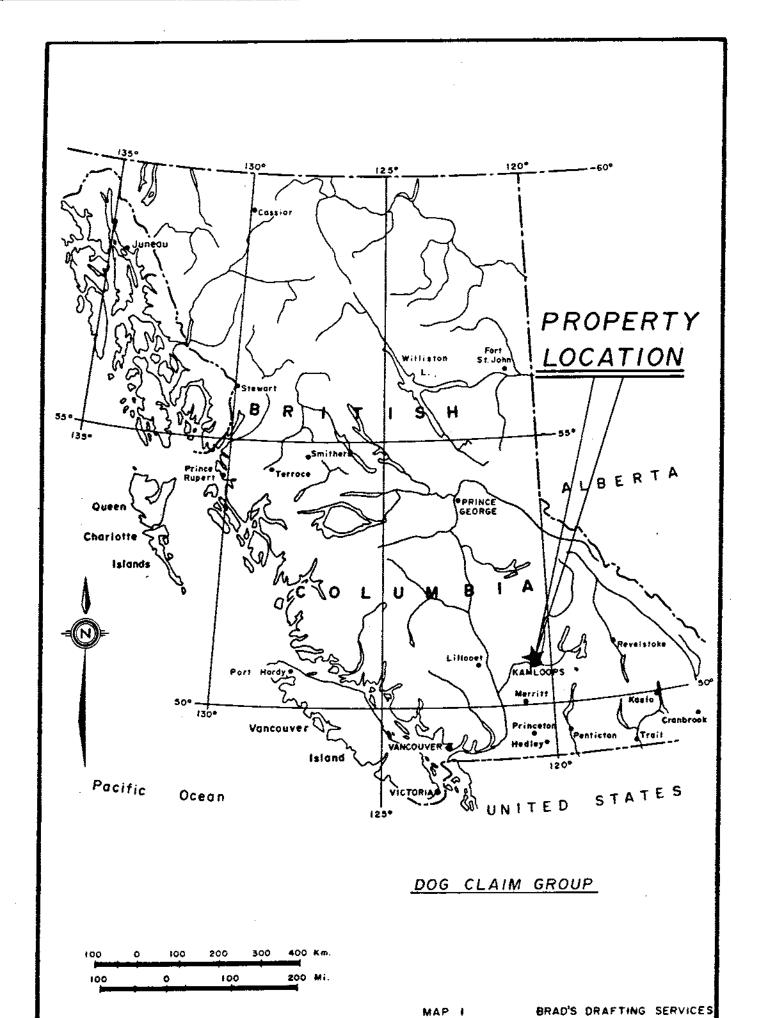
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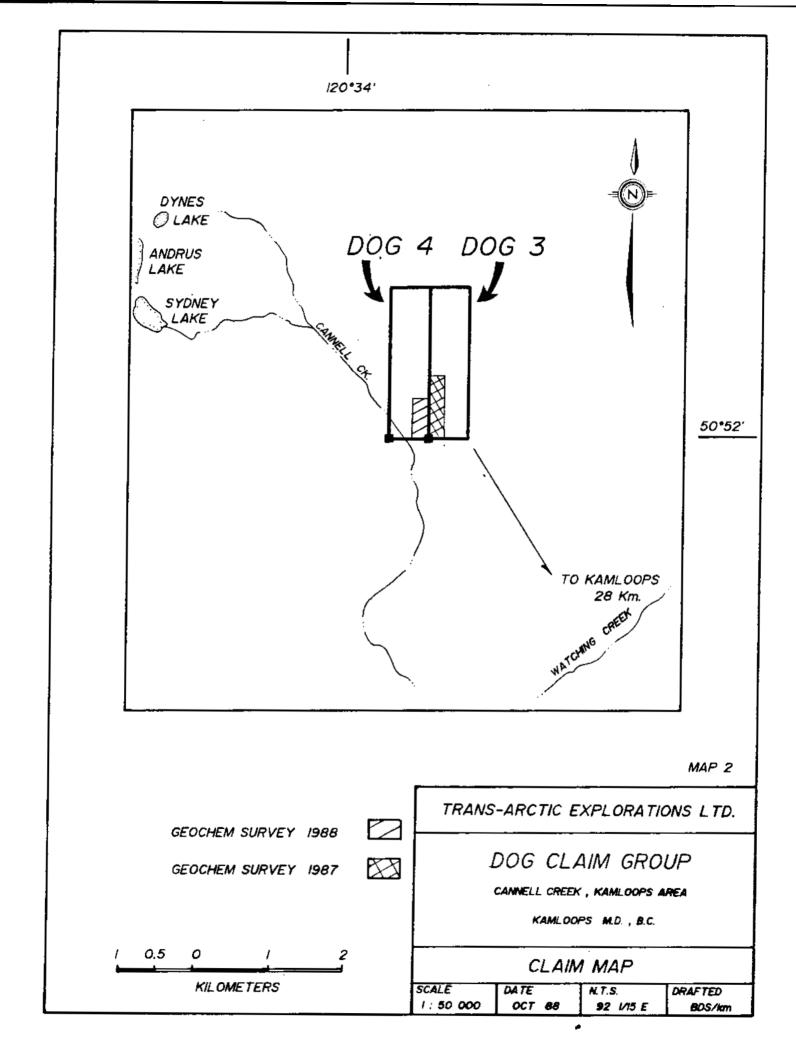
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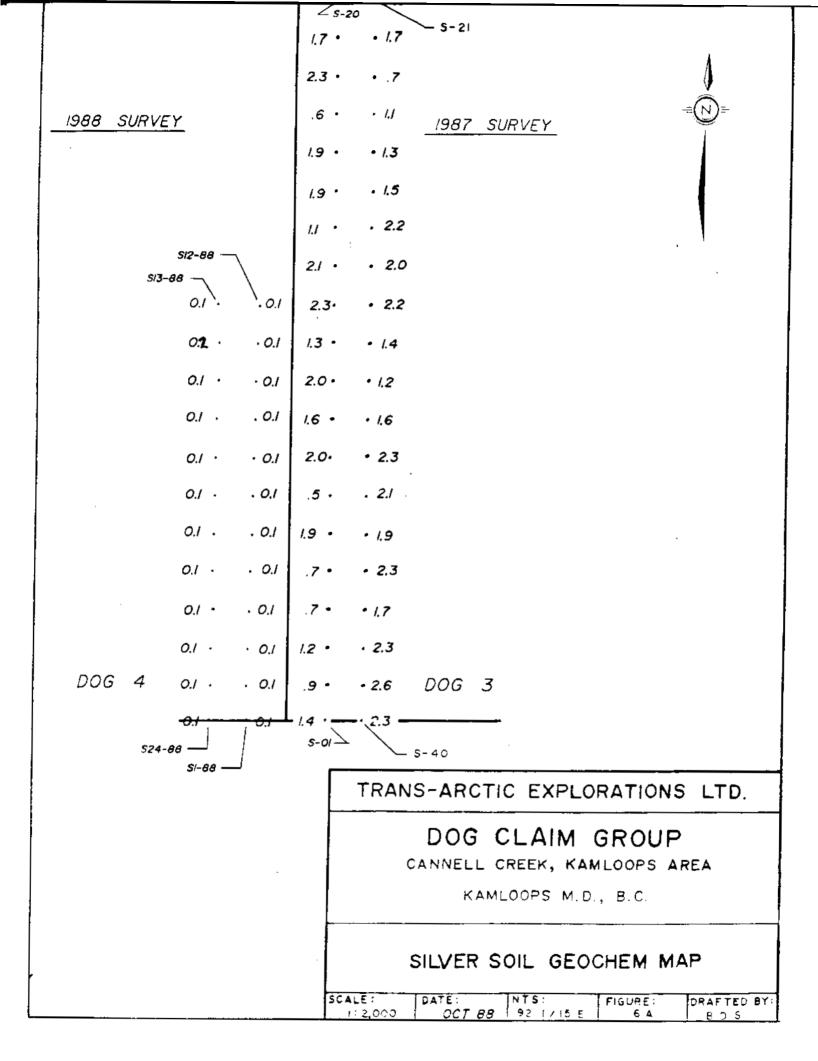
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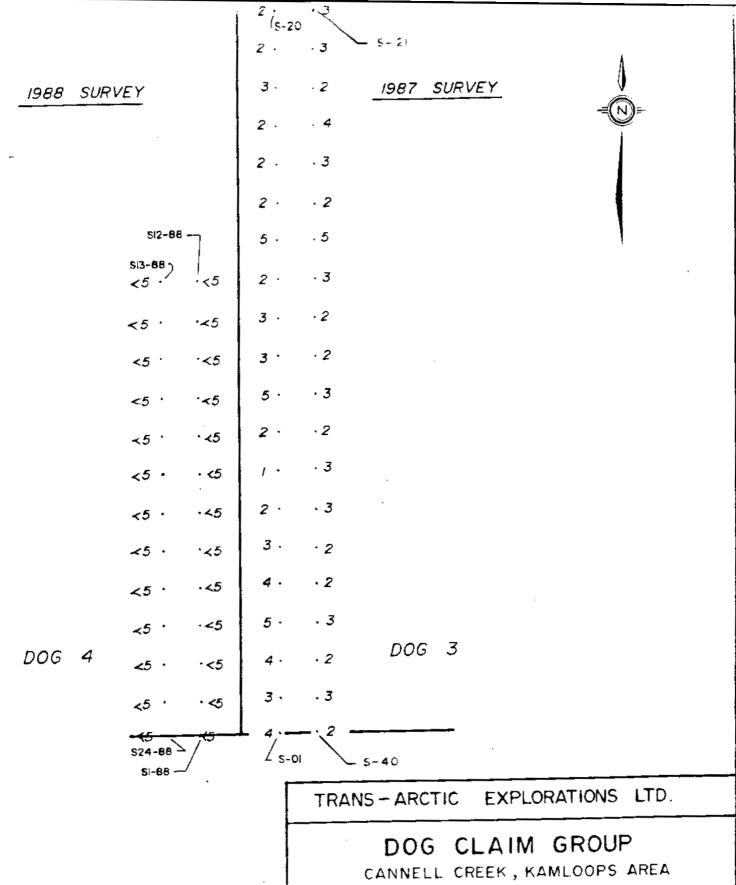
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MAP I







DOG CLAIM GROUP CANNELL CREEK, KAMLOOPS AREA KAMLOOPS MC . 50

GOLD SOIL GEOCHEM MAP								
1:2000	OCT 68	92 15 E	FIGURE 6B	B.D.S.				

