

ASSESSMENT REPORT

YAHK GROUP

Fort Steele M.D.

NTS 82G/4W

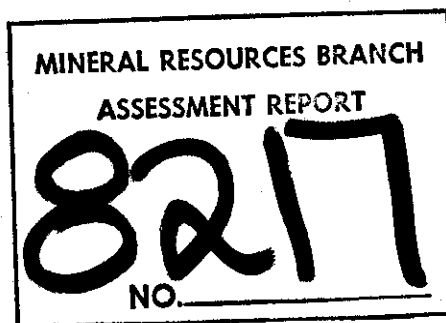
Long.:  $115^{\circ}57'W$ .      Lat.:  $49^{\circ}06'N$ .

Owner: St. Eugene Mining Corporation Ltd.

Operator: St. Eugene Mining Corporation Ltd.

Authors: John R. Wilson and Leslie A. Tihor

Date Submitted: July 25, 1980



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## INTRODUCTION

The Yahk Group of mineral claims consist of the Yahk (18 units) and Alder (20 units). The claims were staked in the summer of 1979.

The property is located approximately 10 km. east of the town of Yahk. It is accessible by road (Cold Creek road passes through the claims and old logging roads leave this main corridor).

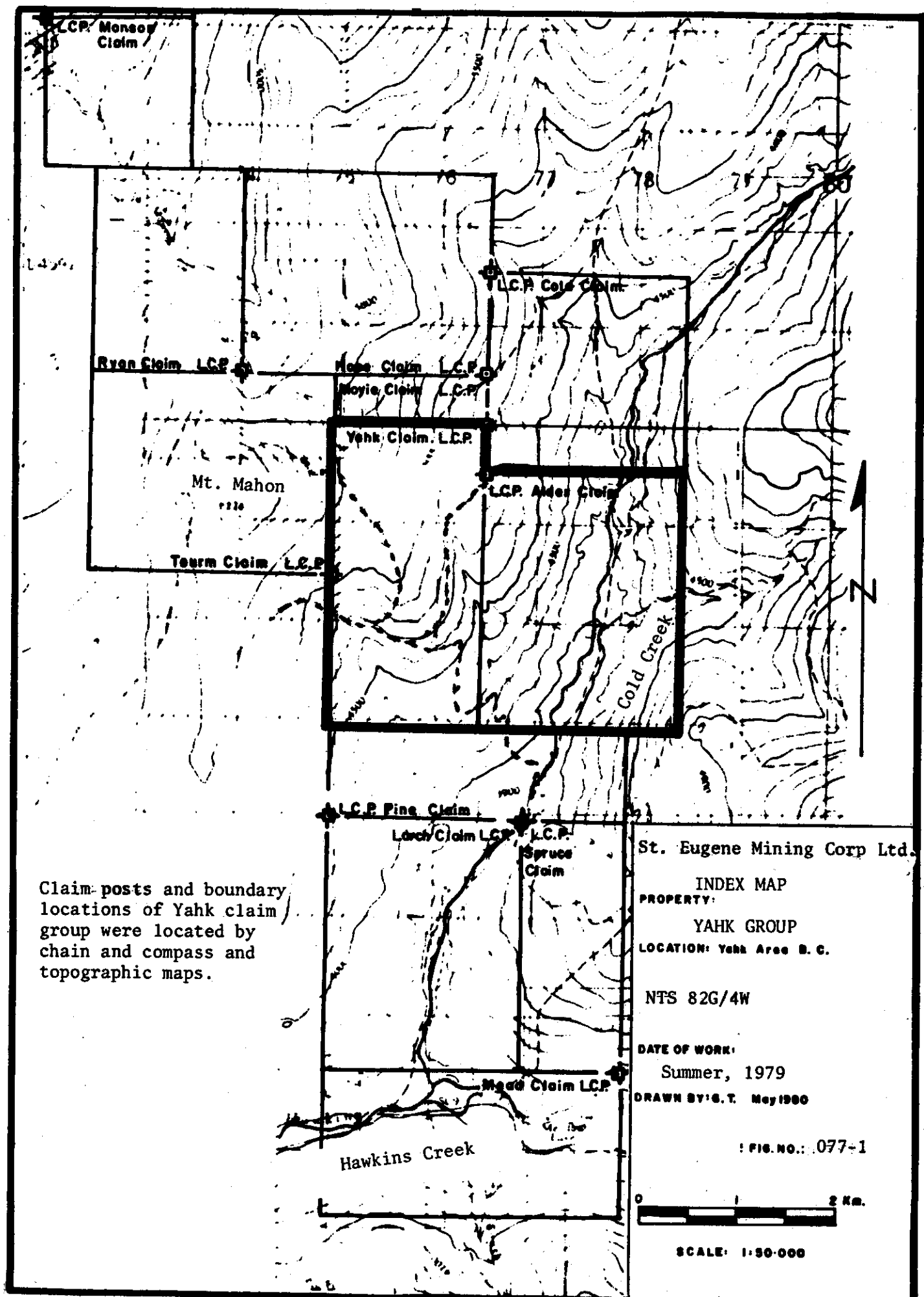
The claims mainly cover part of the western slope of Cold Creek valley from elevation 1677 metres on the side of Mt. Mahon to 1311 metres in the Cold Creek floor.

Work consisted of improving 4.5 km. of old logging road to provide access for diamond drilling and drilling 2 BQ holes for a total of 190 metres.

All drilling was on the Yahk claim. Road work was on the Yahk and Alder and 0.7 km was off the claims. On the Alder claim 3450 metres of grid was marked and soil sampled at 60 metre intervals for a total of 51 samples. 104 other soil samples were taken on contours and down the sides of creeks. On the Yahk claim 9500 metres of grid was flagged and sampled at 60 metre intervals for a total of 177 samples and an additional 60 soil samples were taken along contours and old roads. A total of 237 soil samples was collected.

No encouraging mineralization was seen and economic potential is considered to be low in the areas drilled. Further studies are needed to assess the ground not tested.

The current owner and operator is St. Eugene Mining Corporation Ltd.



Road

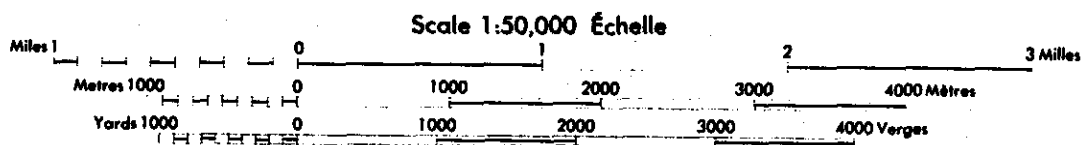


Fig. No 2

## DETAILED DATA

### Road Building

4.5 km. of abandoned logging roads were improved to provide access for the drill and four wheel drive trucks. Work consisted of clearing light brush and small trees from the roadbed. Drill sites were cleared just off the road in thick timber and required falling and bucking of hanging and leaning trees as requested by the B. C. Forest Service. Road width is 3 to 5 metres.

### Diamond Drilling

2 B.Q. holes were drilled for a total of 190 metres. The contractor was D. J. Drilling Company Ltd. The purpose of hole YA-8 was to test an EM-16 anomaly. Hole YA-7 tested a proton mag. anomaly. A water truck was necessary to provide drill water for both holes. (Drill Logs Appendix A.)

Hole YA-7 encountered gabbroic rock from 60 to 85 metres. All other core recovered is from the Aldridge formation and is believed to be all middle Aldridge. The EM-16 anomaly is probably due to thin pyrite laminae and veins.

### Physical Work

A total of 12950 metres of grid was established by hip-chaining and was marked by surveyor's ribbon.

### Geochemical Work

Soil sampling most of the grid at 60 metre intervals produced a total of 225 samples. Soil sampling along contours and down the sides of creeks at 60 metre intervals produced a total of 164 samples. Each sample came from the B-horizon

at depths varying from 5 to 25 cm. but usually at about 15 cm. Mattocks were used to recover the soils which were placed in Kraft paper envelopes and sent to Bondar - Clegg and Co. Ltd. of North Vancouver, B. C. for sample preparation and analysis. The -80 mesh fraction was analyzed by normal geochemical techniques.

Cu, Pb, Zn, Ag, Fe, Mg and Cd were extracted by the hot Aqua Regia and then analyzed by atomic absorption, F was extracted by basic fusion and analyzed by the citrate Buffer - specific ion technique. Background corrections were made for Ag, Cd and Pb.

#### INTERPRETATION OF DATA

The results of analysis of the Yahk soil samples are shown on Figures 4 -12 and are summarized below:

<u>Element</u>	<u>Range ppm</u>	<u>Mode ppm</u>	<u>Threshold ppm</u>
Cu	9 - 54	10 - 20	50
Pb	4 - 49	15 - 20	35
Zn	24 - 405	40 - 50	150
Ag	0.2 - 0.7	0.2	0.8
Cd	0.2	0.2	0.5
Fe(%)	0.88-2.05	I.D.	I.D.
Mg(%)	0.7 - 1.55	I.D.	I.D.
F	300 - 670	I.D.	I.D.

I.D. = insufficient data.

It can be seen that no significantly anomalous values were obtained for Cu, Ag, Cd, Fe, Mg and F. A few samples contained Pb and Zn concentrations above nominal threshold levels determined by visual inspection of frequency diagrams.

These moderately high values occur in the area of more detailed sampling near the centre of the claim and are clearly very limited in extent. More prospecting in the area should be done to try to identify the source of these values.

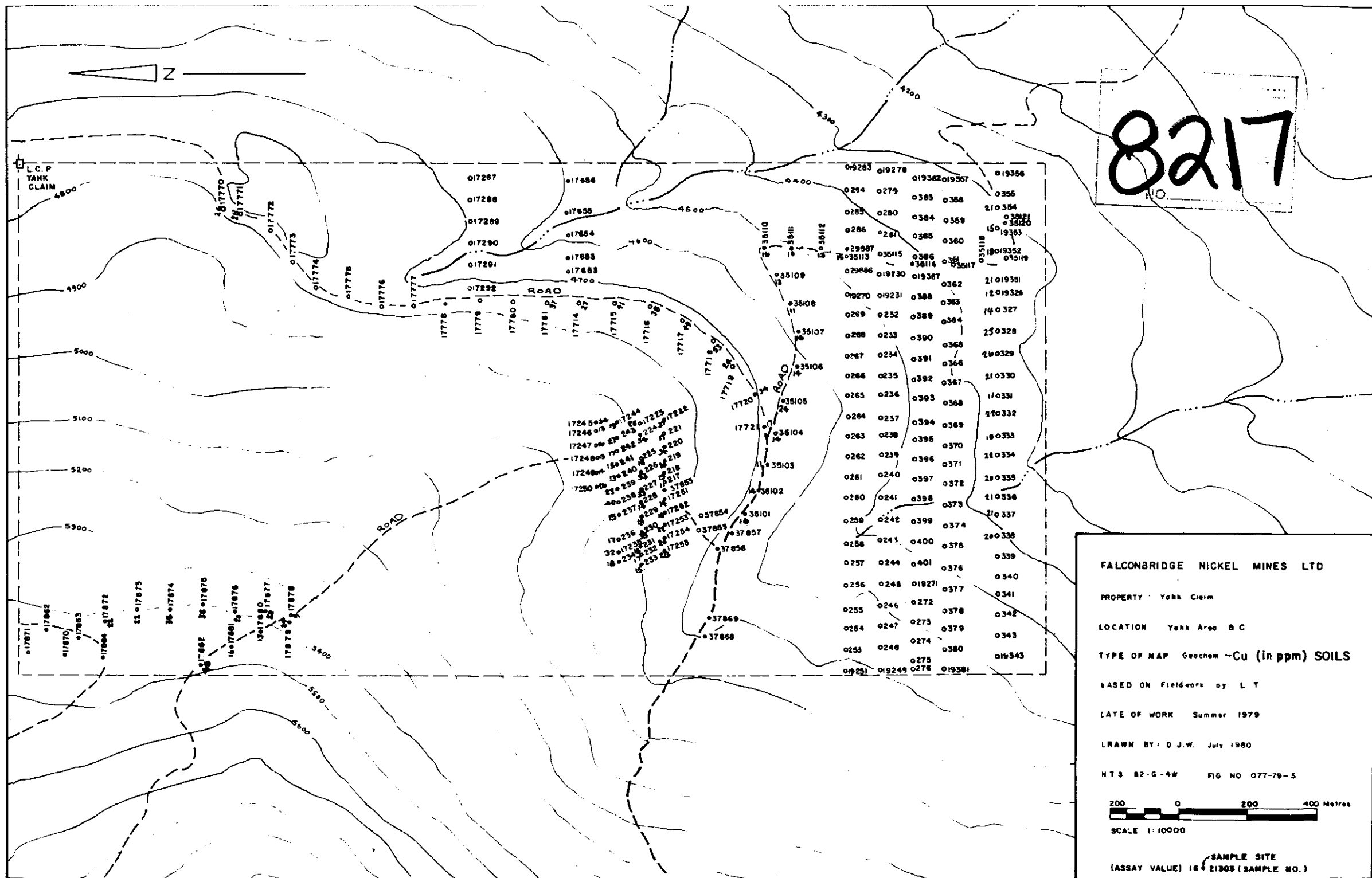
The results of analysis of soil samples from the Alder claim (Figures 13-21) are as follows:

<u>Element</u>	<u>Range ppm</u>	<u>Mode ppm</u>	<u>Threshold ppm</u>
Cu	14 - 198	10 - 20	150
Pb	2 - 30	10 - 15	30
Zn	6 - 200	50 - 60	120
Ag	0.2 - 0.4	0.2	0.8
Cd	0.2	0.2	
Fe%	0.9 - 1.5		
Mg%	0.9 - 1.1		
F	205 - 275		

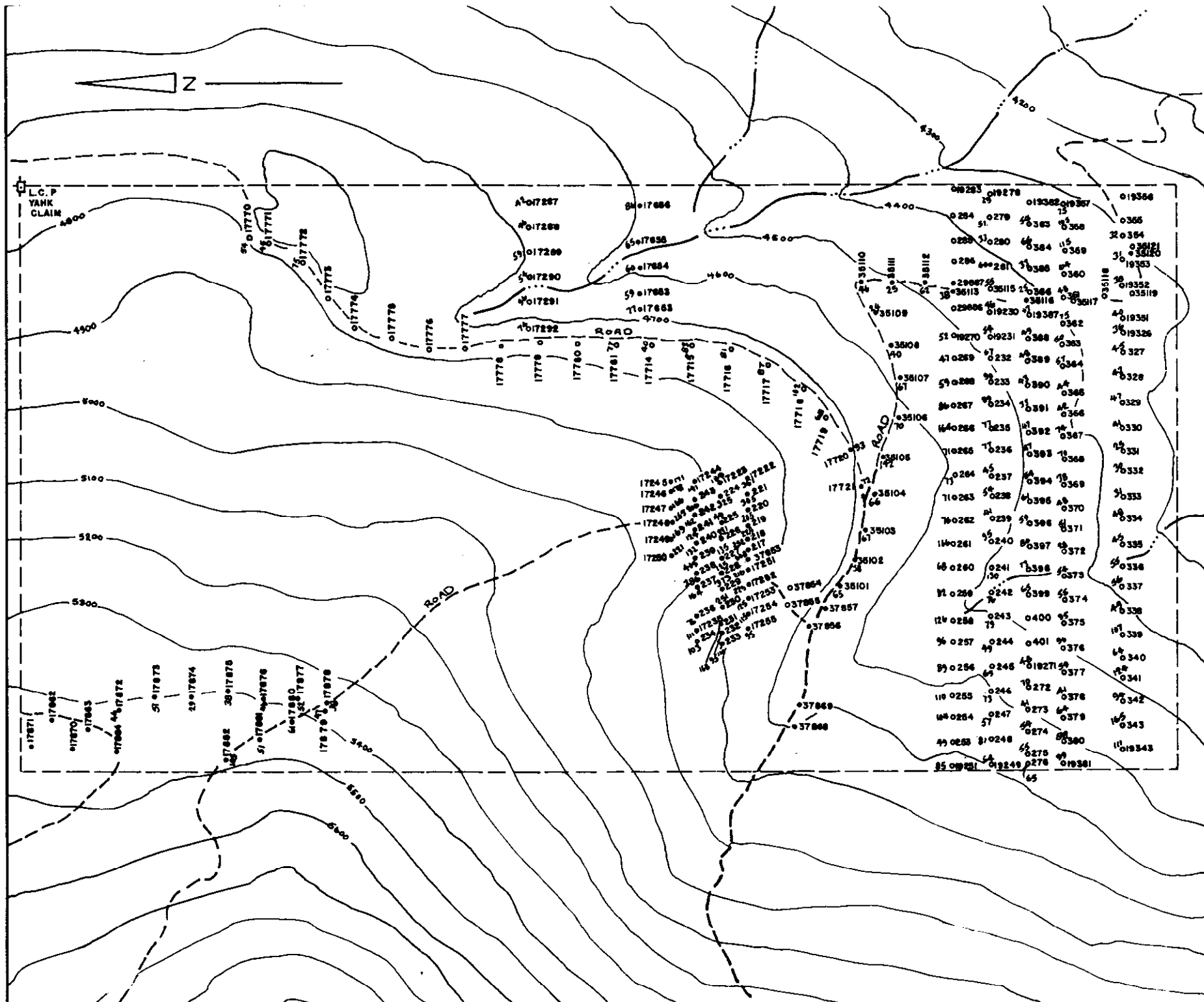
No anomalous values were encountered for Cu, Pb, Ag, Cd, Fe, Mg or F. The weakly anomalous zinc values are not considered to be significant.











8217  
NO.

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: Yank Claim

LOCATION: Yank Area B.C.

TYPE OF MAP Geochem. - Zn (in ppm) SOILS

BASED ON: Fieldwork by L.T.

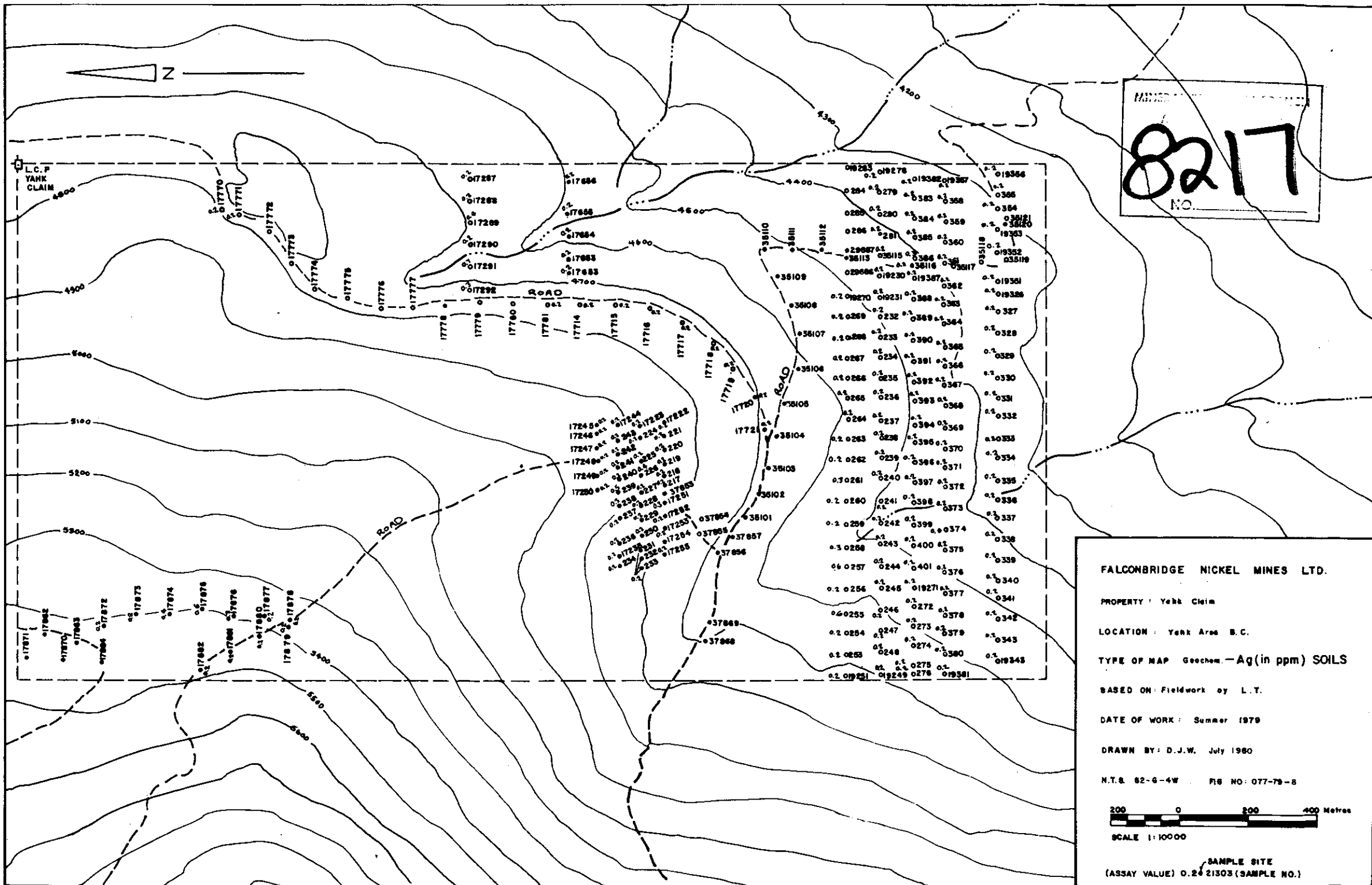
DATE OF WORK: Summer 1979

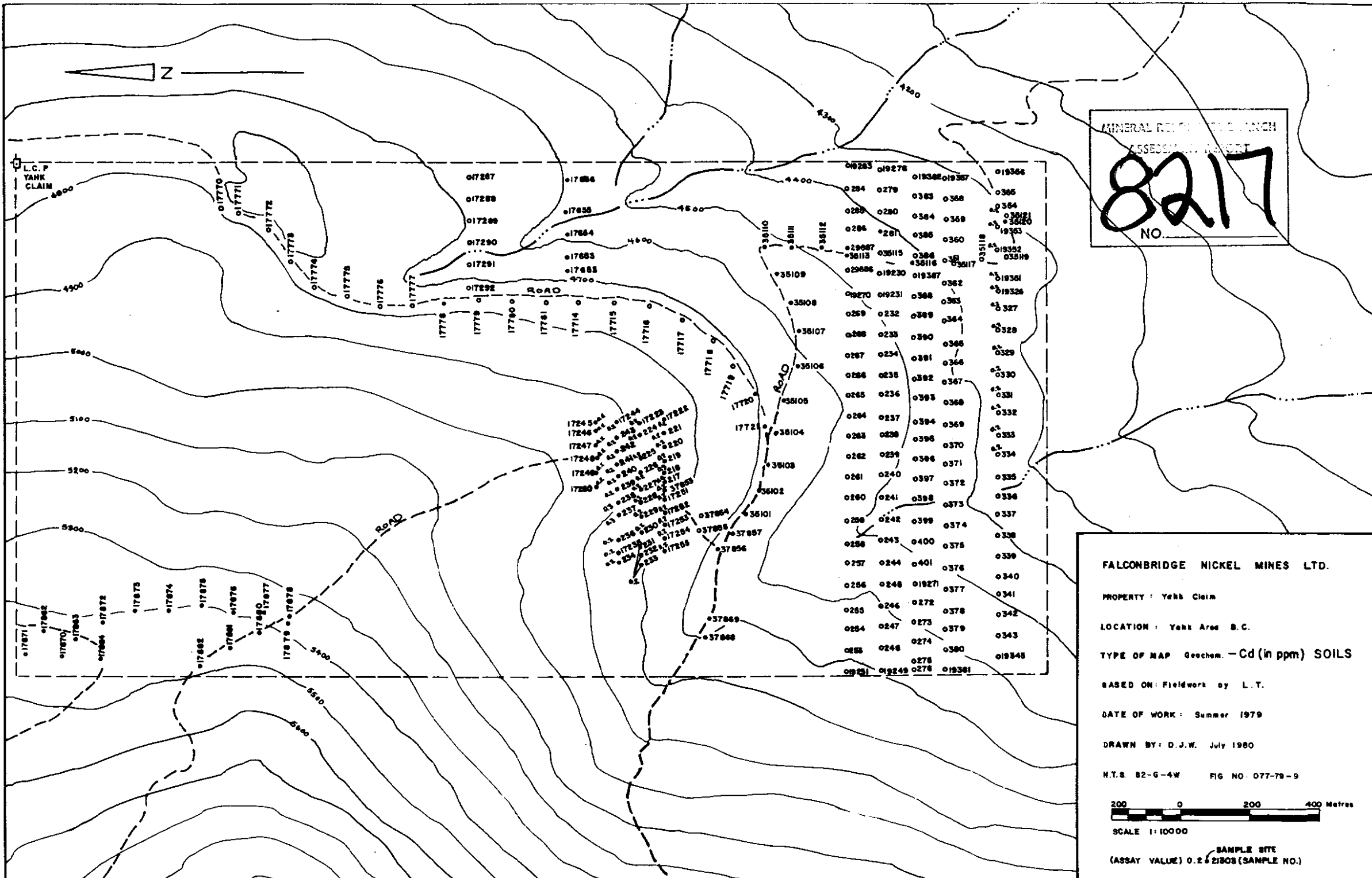
DRAWN BY: D.J.W. July 1980

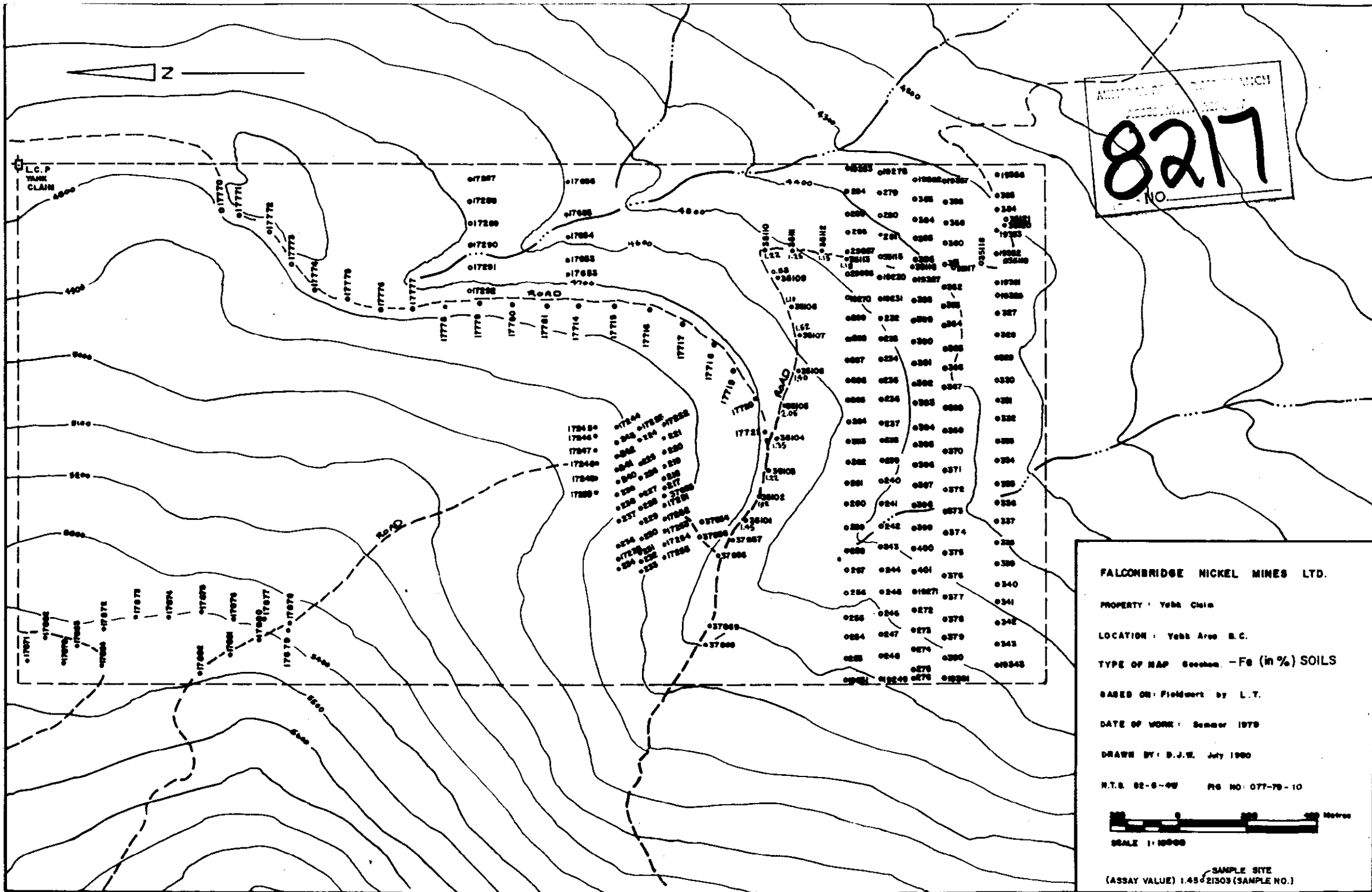
N.T.S. 82-G-4W PB NO. 077-79-7



SAMPLE SITE  
(SAMPLE VALUE) 65 21303 (SAMPLE NO.)







8217  
NO.

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY : Yeba Claim

LOCATION : Yeba Area B.C.

TYPE OF MAP Section - Fe (in %) SOILS

BASED ON: Fieldwork by L.T.

DATE OF WORK : Summer 1978

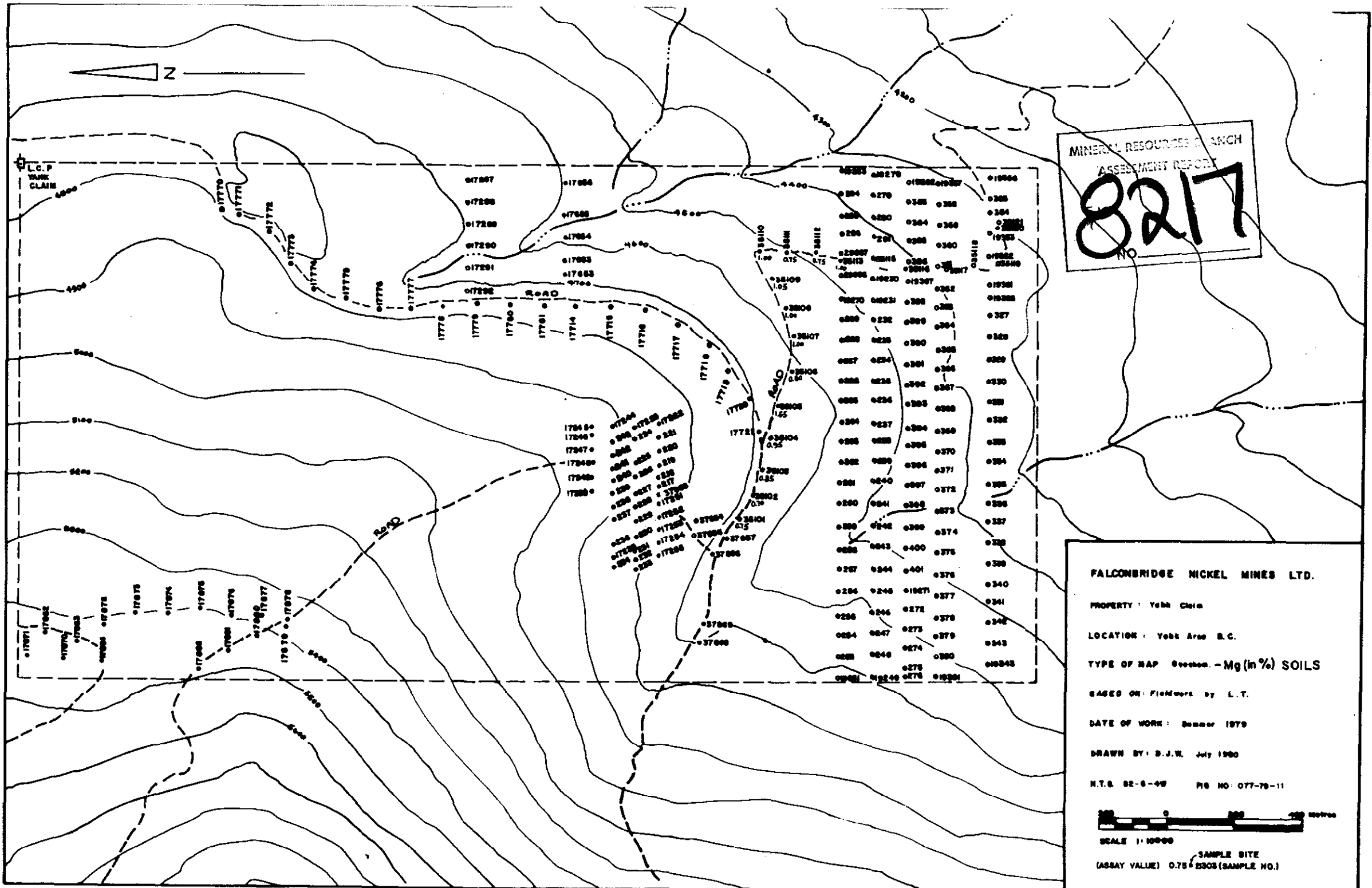
DRAWN BY : D.J.W. July 1980

N.T.S. 82-6-4W PLS NO. 077-79-10



SCALE 1:10000

SAMPLE SITE  
(ASSAY VALUE) 1.45% Ni (SAMPLE NO.)



# FALCONBRIDGE NICKEL MINES LTD.

PROPERTY : Yabik Claim

LOCATION : Yabik Area B.C.

TYPE OF MAP : Section - Mg (in %) SOILS

BASED ON : Fieldwork by L.T.

DATE OF WORK : Summer 1979

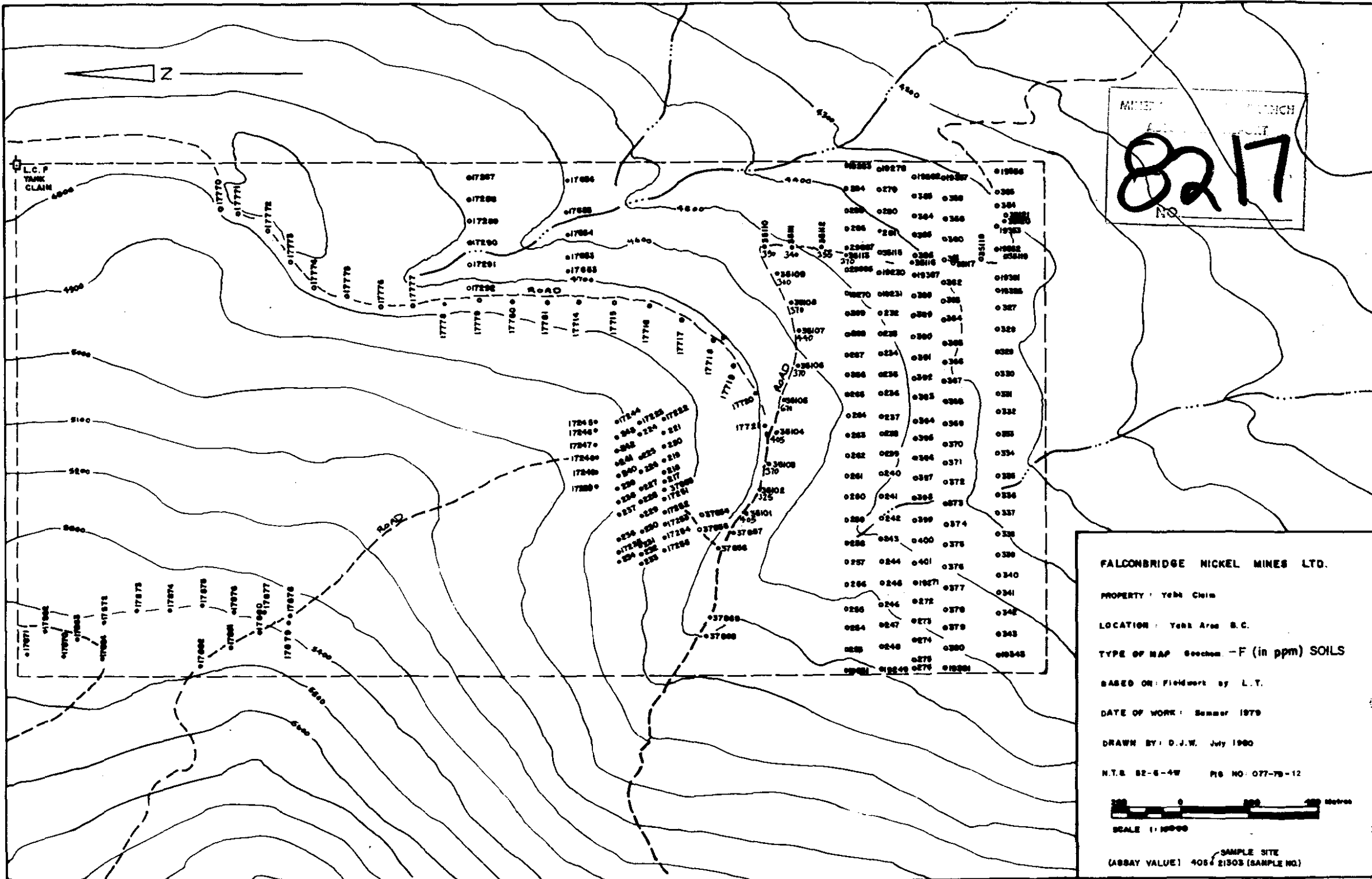
DRAWN BY : D.J.W. July 1980

N.T.S. 82-6-48 P.6 NO: 077-79-11



SAMPLE SITE  
(ASSAY VALUE) 0.75-2303 (SAMPLE NO.)





MINES  
FALCONBRIDGE  
8217  
NO

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY : Yabik Claim  
LOCATION : Yabik Area B.C.  
TYPE OF MAP : Geochem - F (in ppm) SOILS  
BASED ON: Fieldwork by L.T.

DATE OF WORK : Summer 1979

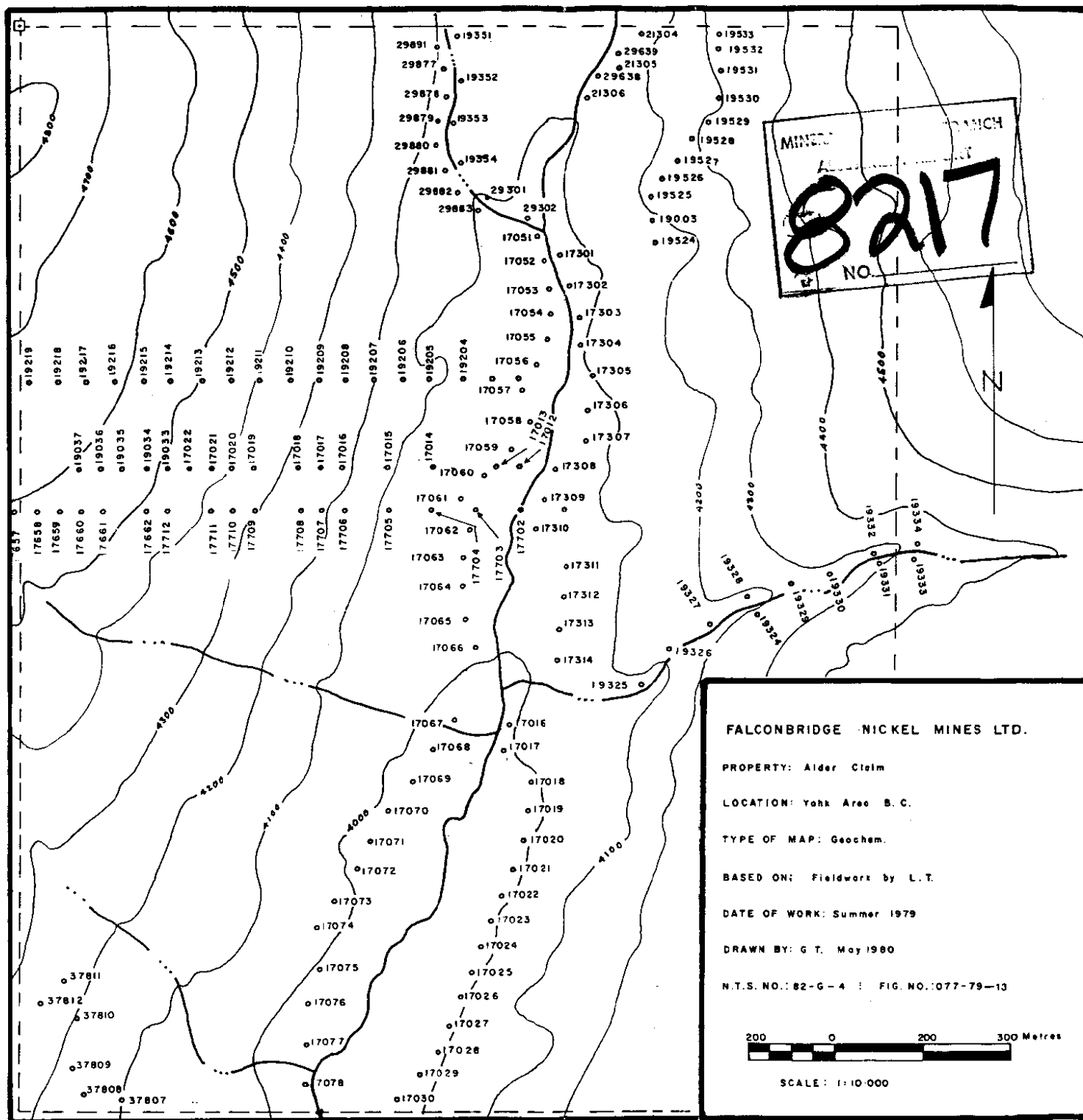
DRAWN BY : D.J.W. July 1980

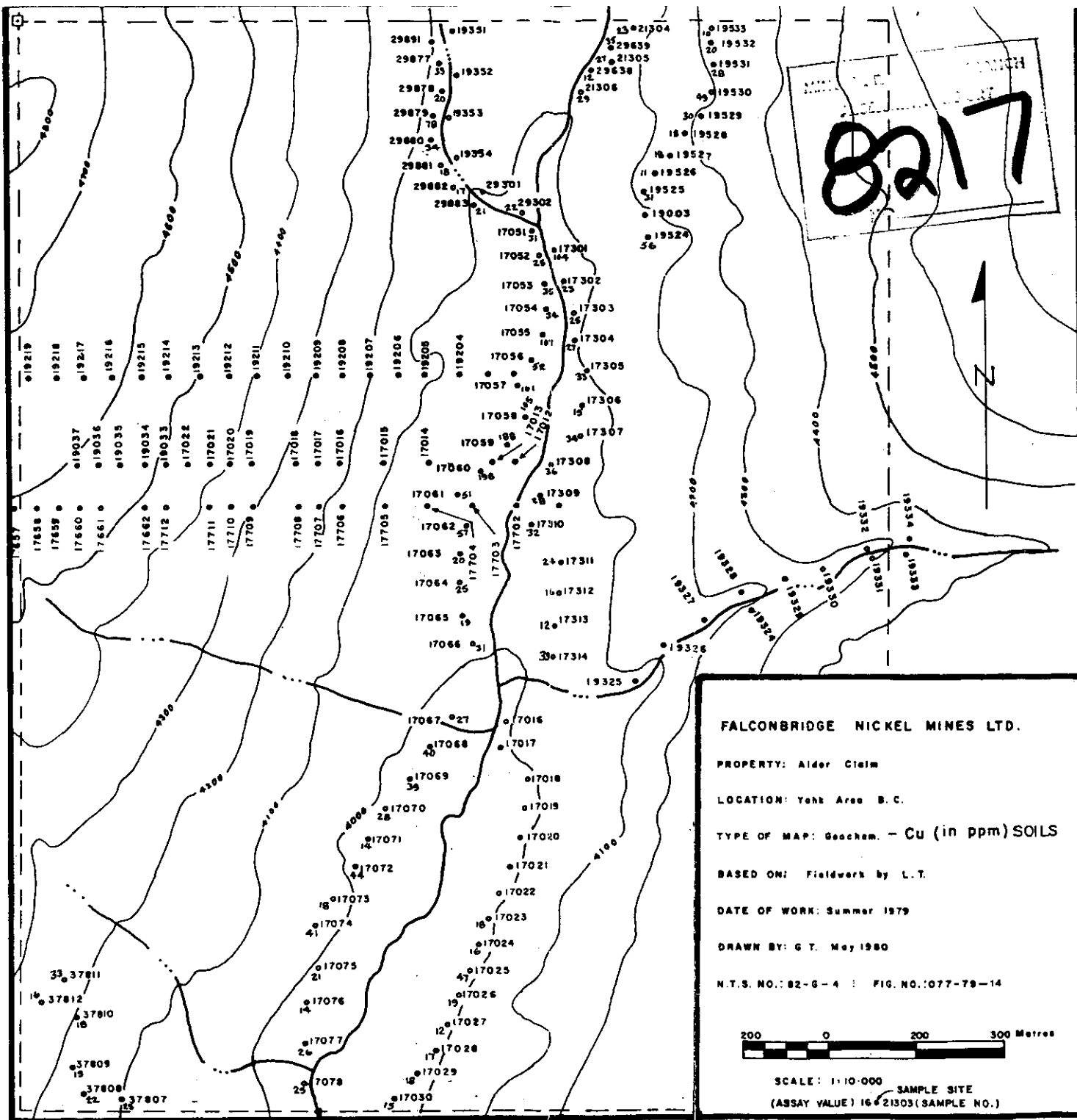
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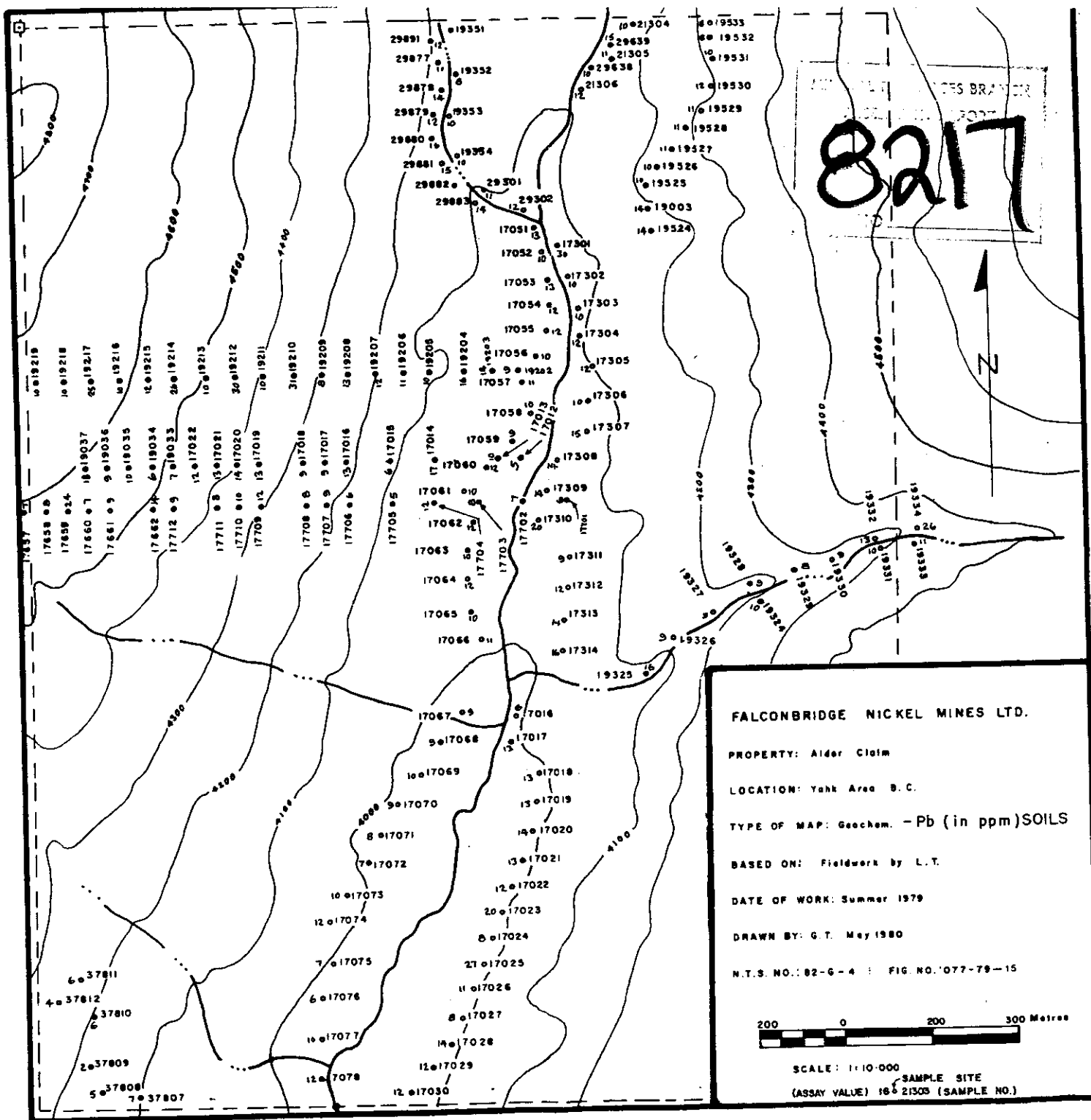


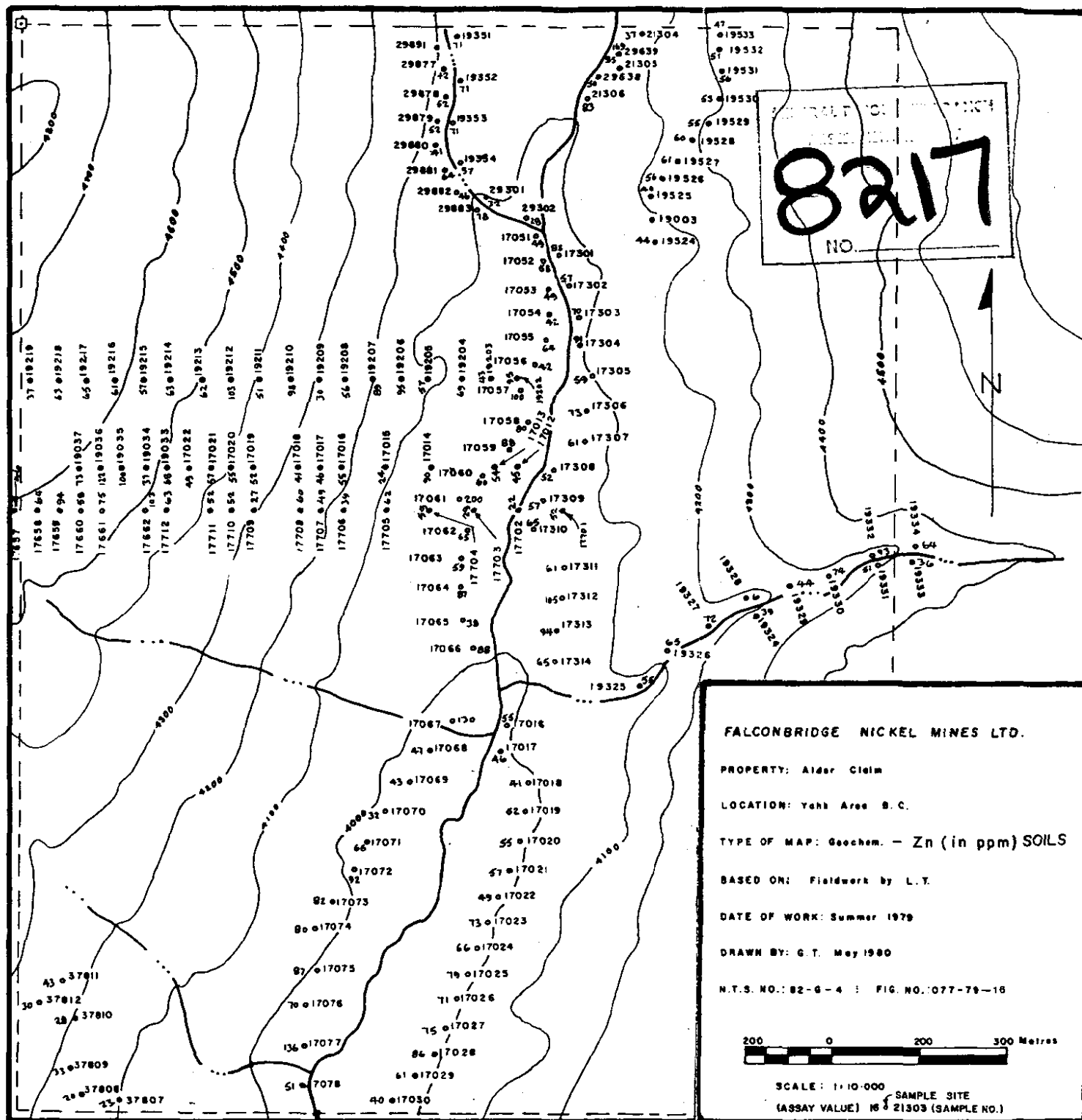
SCALE 1:100,000

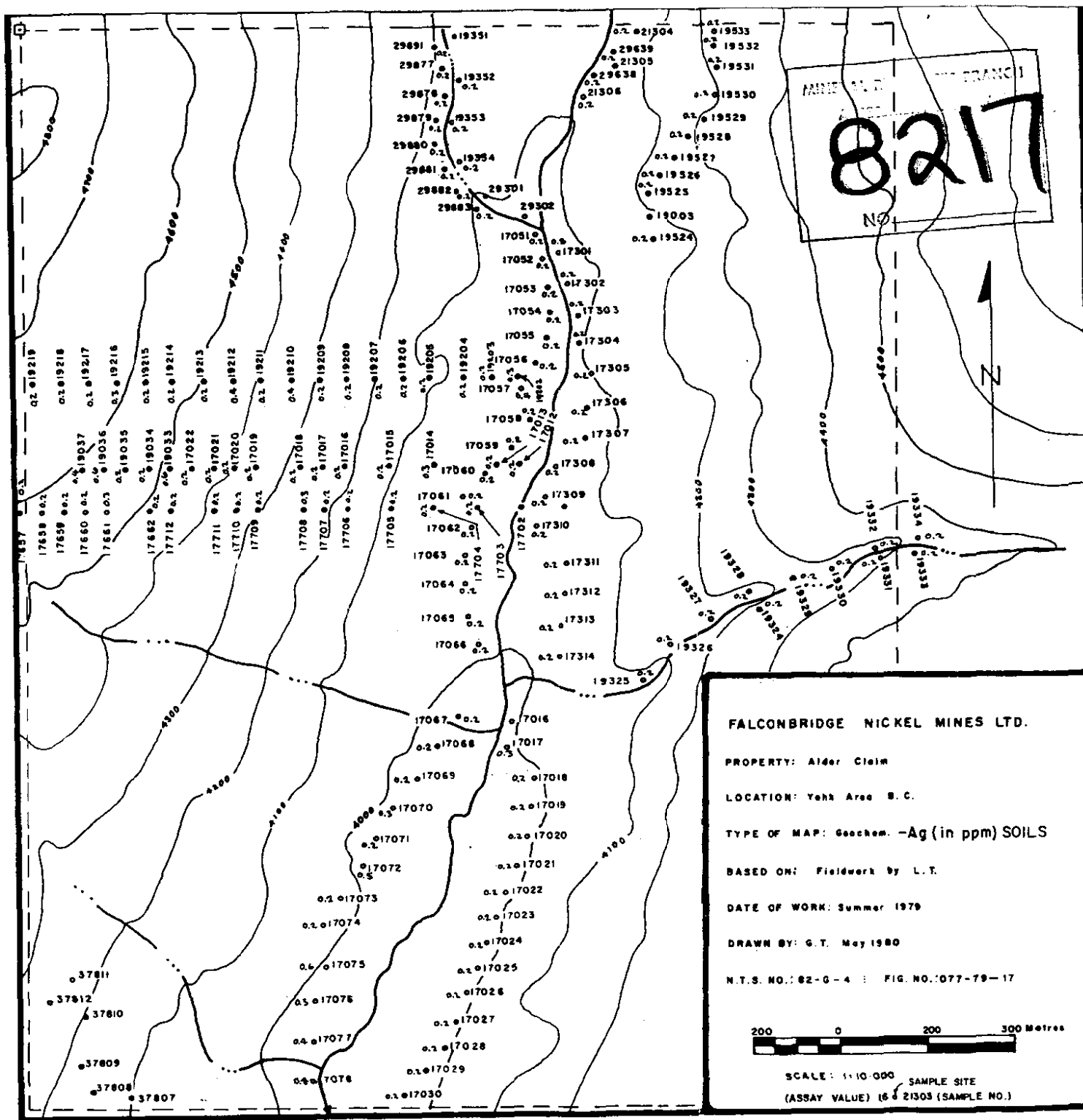
SAMPLE SITE  
(ASSAY VALUE) 4054 21503 (SAMPLE NO.)

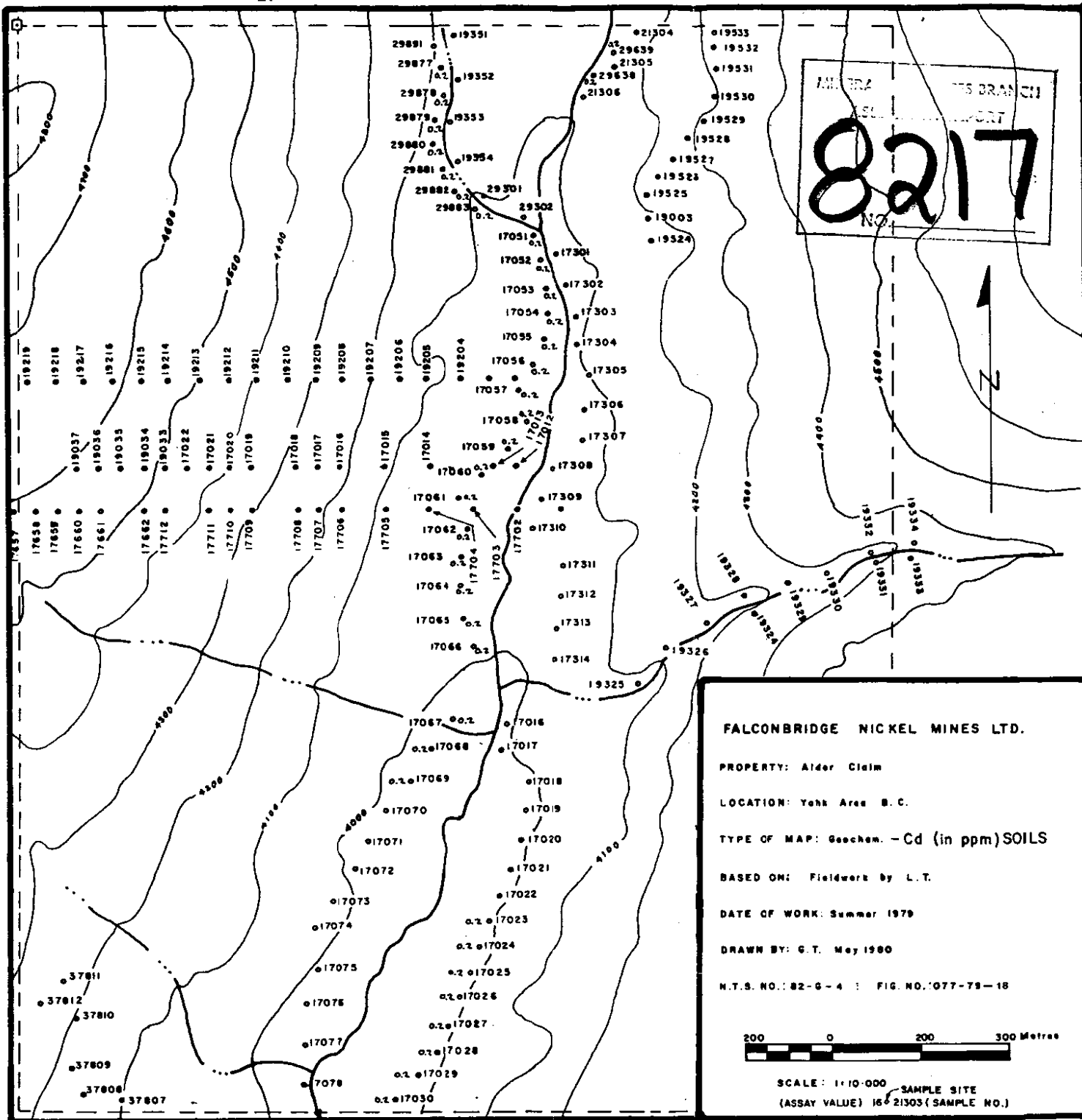






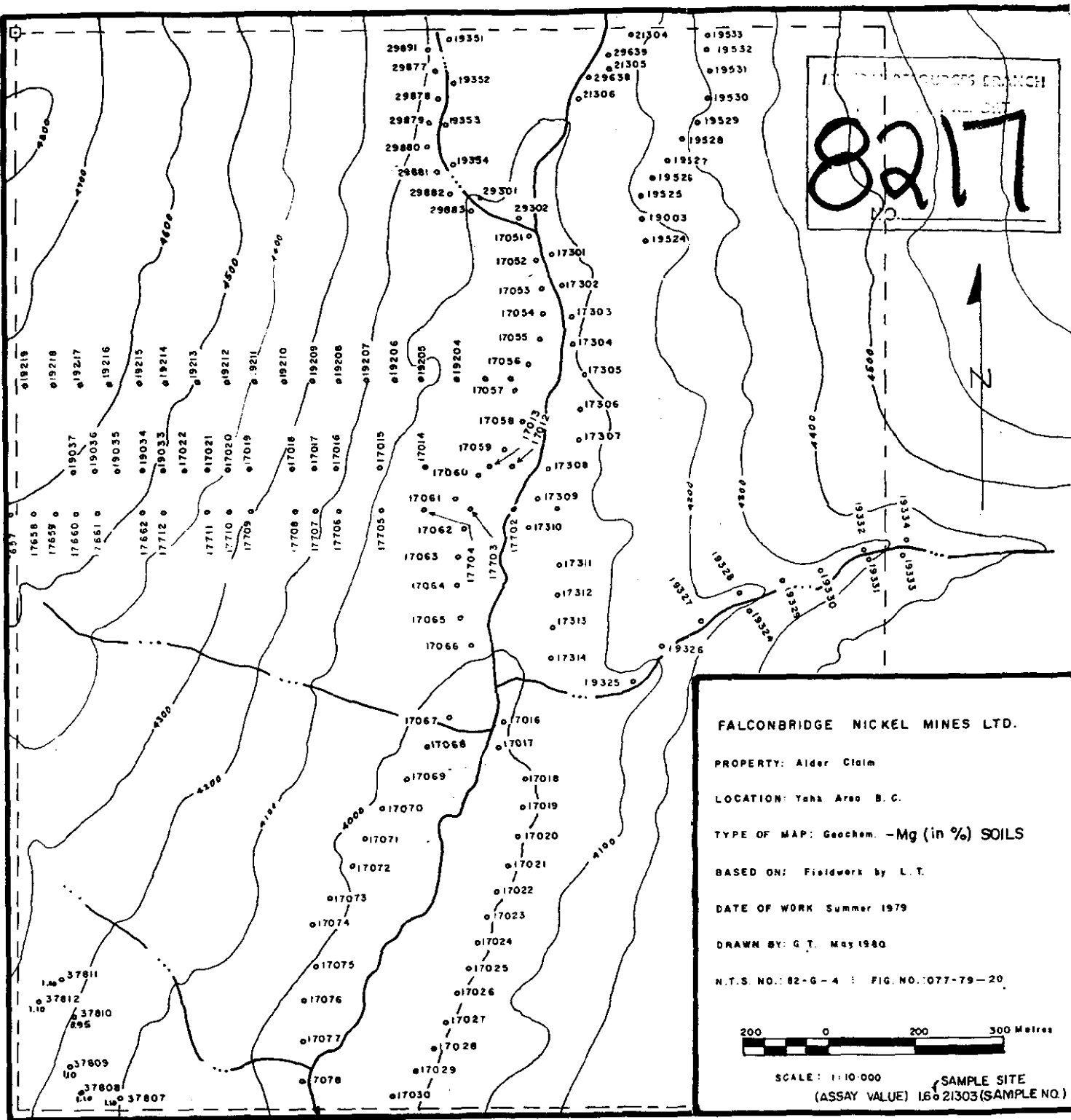


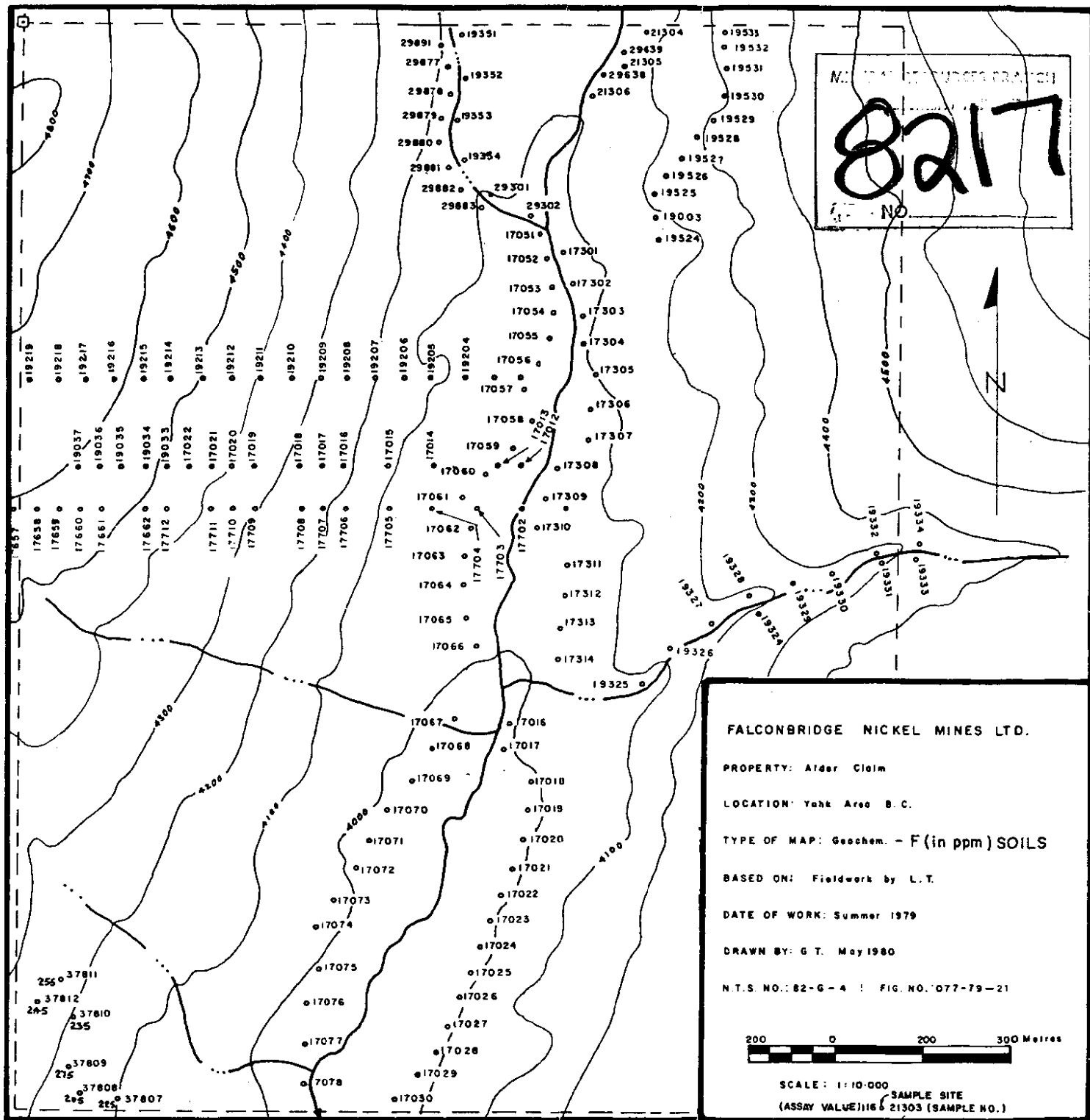












STATEMENT OF COSTSDRILLING COSTS

Mobilizing and demobilizing drill (including labour and travel)		1484.80
Drilling 190 metres at \$48.85/metre (November 7-11, 1979)		9281.78
Room & Board for drillers (20 man days at \$36.93/day/man) (November 7-11, 1979)		738.60
Drill fuel, grease, oil, etc.		93.30
Mobilizing and demobilizing D-7 cat		54.40
Road clearing (D-7 cat) 4 hours @ \$36.75/hour (November 3, 1979)		147.00
Moving drill and clearing drill sites with D-7 cat 25 hours @ 36.75/hour (Nov 3, 7, 9, 1979)		918.75
Use of water truck 29 hours @ \$21/hour (November 7, 8, 9, 1979)		609.00
Logging core: 1 man, 4 days at \$80/day wages (November 22 to 25, 1979)		320.00
Room & board for core logger 4 days at \$15/day (November 22 - 25, 1979)		60.00
Slash disposal at drill site: (November 23 - 28, 1979)		
1 man \$100.00/day wages (6 days)	600.00	
1 man \$70.00/day wages (6 days)	420.00	
1 man \$50.00/day wages (6 days)	300.00	
Truck rental 6 days @ \$25/day	150.00	
18 man days room & board @ \$30.93/ day (Nov 23-28, 1979)	556.74	2026.74
		<hr/>
		\$15,734.37

GEOCHEM WORK ON ALDER CLAIM

5 man-days total soil sampling and marking grid (2-3 men) using hip chains (parts of Sept 8, 9, 10, 12, 13) @ \$40/day wages	200.00
5 man-days food and accommodation (see above) @ \$15/day	75.00
5 days truck rental @ \$20/day	100.00
155 soil samples analyzed for Zn @ \$1.50/sample	232.50
137 soil samples analyzed for Pb @ \$0.65/sample	89.05
121 soil samples analyzed for Cu @ \$0.65/sample	78.65
127 soil samples analyzed for Ag @ \$0.65/sample	82.55
39 soil samples analyzed for Cd @ \$0.65/sample	25.35
6 soil samples analyzed for Fe @ \$0.65/sample	3.90
6 soil samples analyzed for Mg @ \$5.00/sample	30.00
6 soil samples analyzed for F @ \$3.75/sample	22.50
155 soil samples prepared for analysis @ \$0.45/sample	69.75
Background correction @ 15¢/element	89.55

GEOCHEM WORK ON YAHK CLAIM

6 man-days soil sampling and marking grid using hip chains (parts of Aug. 15, 16, 17, 19, 28, September 8, and 9) at \$40/day wages	240.00
6 man-days food and accommodation (see above) @ \$15/day	90.00
6 man-days truck rental @ \$20/day	120.00
89 soil samples analyzed for Cu @ \$0.65/sample	57.85
197 soil samples analyzed for Pb @ \$0.65/sample	128.05
201 soil samples analyzed for Zn @ \$0.65/sample	130.65
193 soil samples analyzed for Ag @ \$0.65/sample	125.45

53 soil samples analyzed for Cd @ \$0.65/sample	34.45
13 soil samples analyzed for Fe @ \$0.65/sample	8.45
13 soil samples analyzed for Mg @ \$5.00/sample	65.00
13 soil samples analyzed for F @ \$3.75/sample	48.75
225 samples prepared for analysis @ \$0.45/sample	101.25
443 Background corrections for Ag, Cd, Pb @ 15¢/ sample	<u>66.45</u>
TOTAL GEOCHEM	2315.15
Report writing, typing, drafting, assembly	450.00

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Total Expenses	\$18,499.52
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St. Eugene Mining Corporation Ltd. (N.P.L.)

ROOM 700

1112 WEST PENDER STREET

TELEPHONE: 682-6242

TELEX: 04-5938

VANCOUVER 1, B. C., CANADA

July 22, 1980

The Chief Mining Recorder  
Fort Steele Mining Division  
Victoria, B. C.

Dear Sir:

John R. Wilson graduated from the University of B. C. in 1972 with a BSc (honours geology) and has worked for the Falconbridge Nickel Mines group of companies since graduation as an exploration geologist.

The project was supervised by Leslie A. Tihor, project geologist, a PhD candidate at McMaster University (geology).

Yours sincerely,

John R. Wilson

JRW:ik

APPENDIX A

Drill Logs for DH YA7 & 8

NORTH 49° 6' 30"West 115° 58' 25"STARTED Nov 7/79COMPLETED Nov 8/79ELEV. 1646 m.LENGTH 90.5 mBEARING WestDIP - 75°

BQ core

FALCONBRIDGE  
DIAMOND DRILL RECORD

PROPERTY

YAHK

PURPOSE To test protonmag anomaly.HOLE No. YA-7CLAIM Yahk

SECTION \_\_\_\_\_

OFFSET \_\_\_\_\_

LOGGED BY L.A.Tihor

PLOTTED \_\_\_\_\_

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.					
0 - 9.14 m.	Overburden - casing removed after drilling completed.								
9.14 - 12.80	Mainly grey quartzite beds 0.46 to 1.07 m thick with dark grey interbeds up to 0.27 m thick.								
12.80 - 16.25	Silty grey argillite, typically lensoid bedded - micro-crossbedding common - rare dark parallel laminae - minor interbeds quartzwacke - trace pyrite.								
16.25 - 16.43	Quartzite.								
16.43 - 17.62	Argillaceous siltstone with narrow argillite interbeds.								
17.62 - 20.30	Grey silty argillite with some siltstone interbeds - trace pyrite.								
20.30 - 27.13	Quartzite beds up to 0.76 m thick with argillite interbeds up to 0.24 m thick								
27.13 - 33.19	Irregularly interbedded argillite, siltstone and quartzite in that order of abundance - beds generally less than 0.18 m thick - trace pyrite.								
33.19 - 60.05	Irregularly interbedded quartzwacke, siltstone, argillite. Bedding is generally lensoid, discontinuous - crossbedding common; occasional, but rare parallel lamellar bedding - subtle purple and green colour casts alternating - load casts absent - common creamy-white interbeds (carbonate ?) - common bleaching								





NORTH 49° 05' 35"  
West 115° 58' 15"  
ELEV. 1433 m.  
BEARING Vertical  
DIP - 90°

STARTED Nov 9/79  
COMPLETED Nov 10/79  
LENGTH 100.3 m.  
BQ core

# FALCONBRIDGE DIAMOND DRILL RECORD

PROPERTY  
YAHK

PURPOSE To test EM-16  
anomaly

HOLE No. YA-8  
CLAIM Yahk

LOGGED BY L. A. Tihor

SECTION \_\_\_\_\_  
OFFSET \_\_\_\_\_  
PLOTTED \_\_\_\_\_

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.					
0 - 39.62 m.	Overburden - casing removed after completion of hole.								
39.62 - 41.21	Parallel laminated silty argillite; 5% pyrite sub-parallel to bedding with minor cross-cutting veinlets up to 12% pyrite over 0.15 m .								
41.21 - 44.35	Mainly quartzwacke in beds up to 0.4 m thick separated by frequent thin beds argillite - minor fracture-filling pyrite.								
44.35 - 45.51	Silty argillite with lesser amounts interbedded quartzwacke - trace pyrite.								
45.51 - 47.15	Siltstone with lesser amounts argillite - tiny veinlets pyrite concentrated in harder silty beds, perhaps the basal portion of crudely graded argillite - siltstone beds.								
47.15 - 50.44	Parallel-bedded argillite with minor siltstone - pyrite veinlets concentrated in harder, siltstone portions.								
50.44 - 51.57	Quartzite with minor argillite interbeds.								
51.57 - 54.10	Silty argillite with minor quartzwacke interbeds.								
54.10 - 57.55	Quartzitic beds with minor argillite interbeds.								
57.55 - 60.14	Massive quartzite (marker horizon ?).								
60.14 - 63.92	Interbedded thin beds quartzwacke and argillite.								

V-11.

FOOTAGE	DESCRIPTION	SAMPLE	FOOTAGE	C.L.					
	both averaging 0.24 m thick - @ 61.87 first appearance of pronounced, persistent flaser bedding in argillite								
63.92 - 64.89	First appearance of varved-looking rock - parallel bedding, creamy white and dark grey fine grained siliceous alternating - may be in part cherty.								
64.89 - 66.17	Mainly argillite with interbedded siltstone becoming more siliceous near base and taking on a more varved appearance near base.								
66.17 - 66.75	Quartzite.								
66.75 - 67.97	Repeated beds of silty argillite averaging 0.2 m thick with siltstone bases.								
67.97 - 68.12	"Varved" siliceous fine-grained rock.								
68.12 - 68.28	Quartzwacke.								
68.28 - 82.91	Irregularly interbedded argillite, siltstone, quartzwacke and quartzite - beds vary greatly in thickness. Generally argillite is dominant at top of section and quartzite at bottom - where bedding is apparent it is lensoid and highly variable in dip.								
82.91 - 88.09	Mainly argillite with minor siliceous portions, particularly near bottom - bedding is rarely parallel.								
88.09 - 100.28	Fine-grained quartzwacke and quartzite with minor argillite near top. The rock is much harder than it looks.								
	END								

ADDENDUM

Assessment Report - Yahk Group  
Fort Steele M. D.      NTS 82G/4W  
July 25, 1980

1. General Geology

Outcrops are scarce in the claims area. Bedrock geology consists of Aldridge formation sedimentary rocks of the Lower Purcell Supergroup and minor gabbroic sills and dykes.

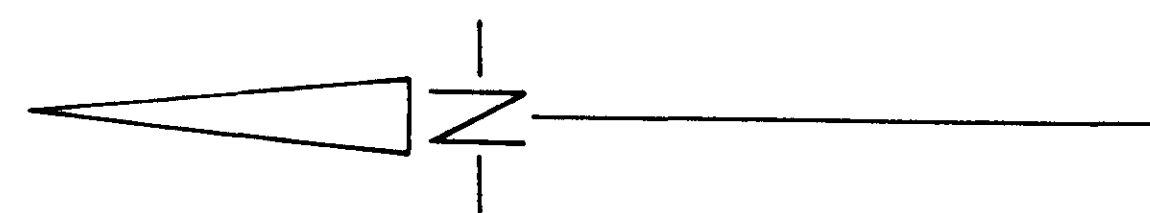
The Aldridge formation rocks are grey quartzites, wackes, siltstones and argillites. Beds may be graded, massive, or laminated.

All bedding attitudes indicate a gentle (about  $10^{\circ}$ ) easterly dip.

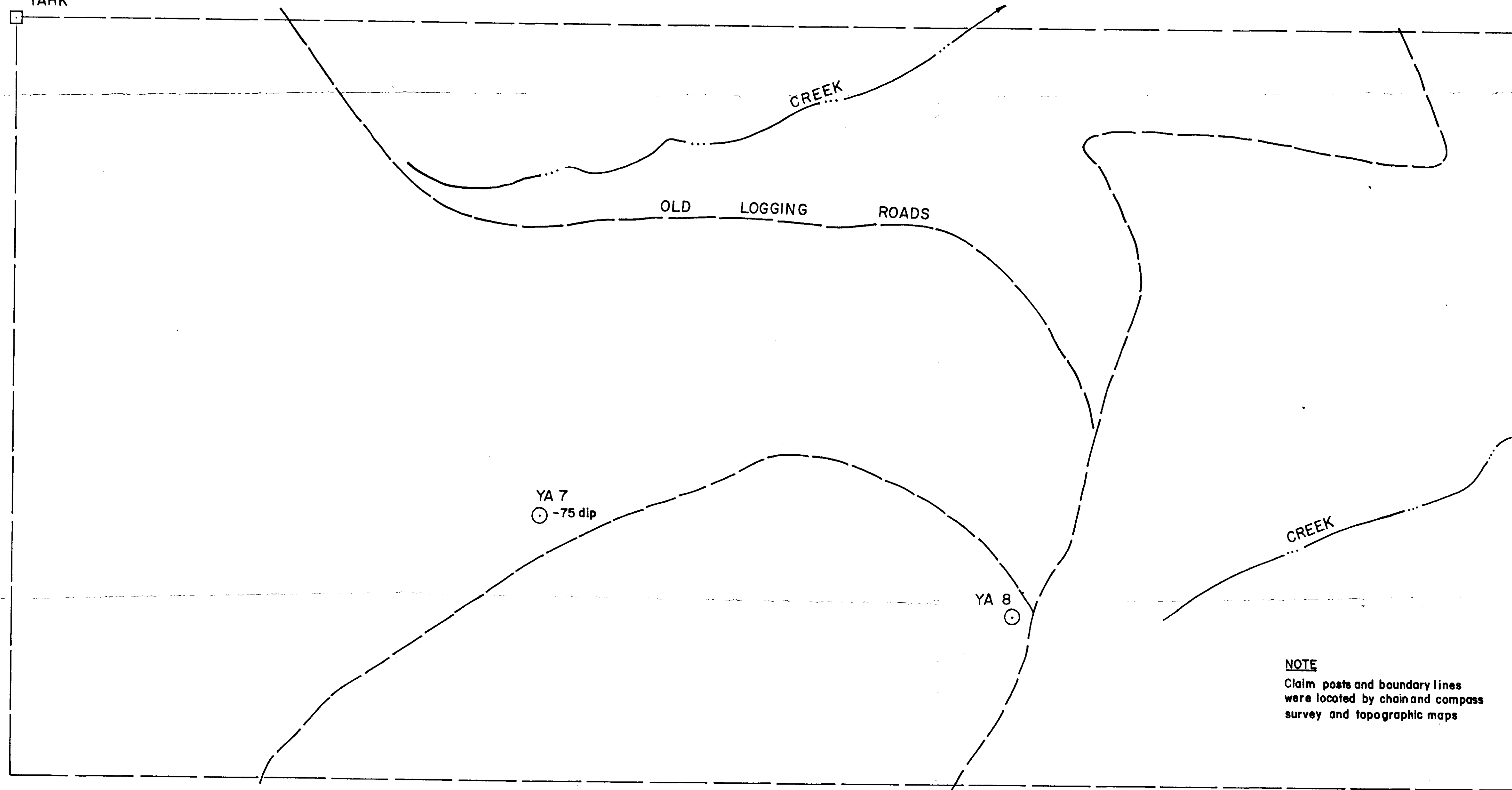
2. All drill core is stored in a building on St. Eugene Mining Corp. Ltd. property at the south end of Moyie Lake.

A handwritten signature in dark ink, appearing to read "John R. Wilson". The signature is fluid and cursive, with the first name "John" and last name "Wilson" clearly distinguishable.

John R. Wilson



L.C.P.  
YAHK



**LEGEND**

- CREEK
- - - ROAD
- DRILL HOLE

ST. EUGENE MINING CORPORATION LTD.

PROPERTY: YAHK CLAIM PN. 077

LOCATION: YAHK AREA B.C.

TYPE OF MAP: DRILL HOLE LOCATIONS

WORKING PLACE:

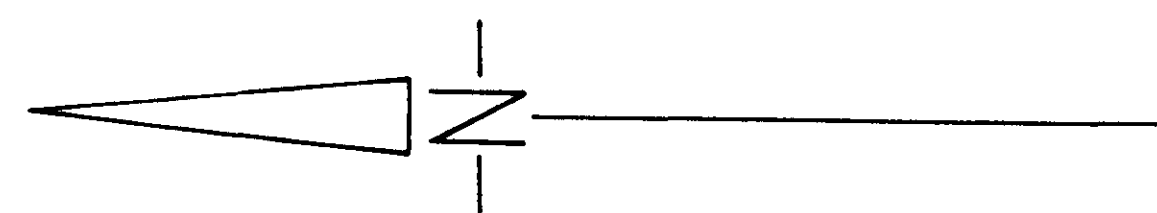
BASED ON:

DATE OF WORK: SUMMER 1979 MAP REF. NO.: FIG. NO.:

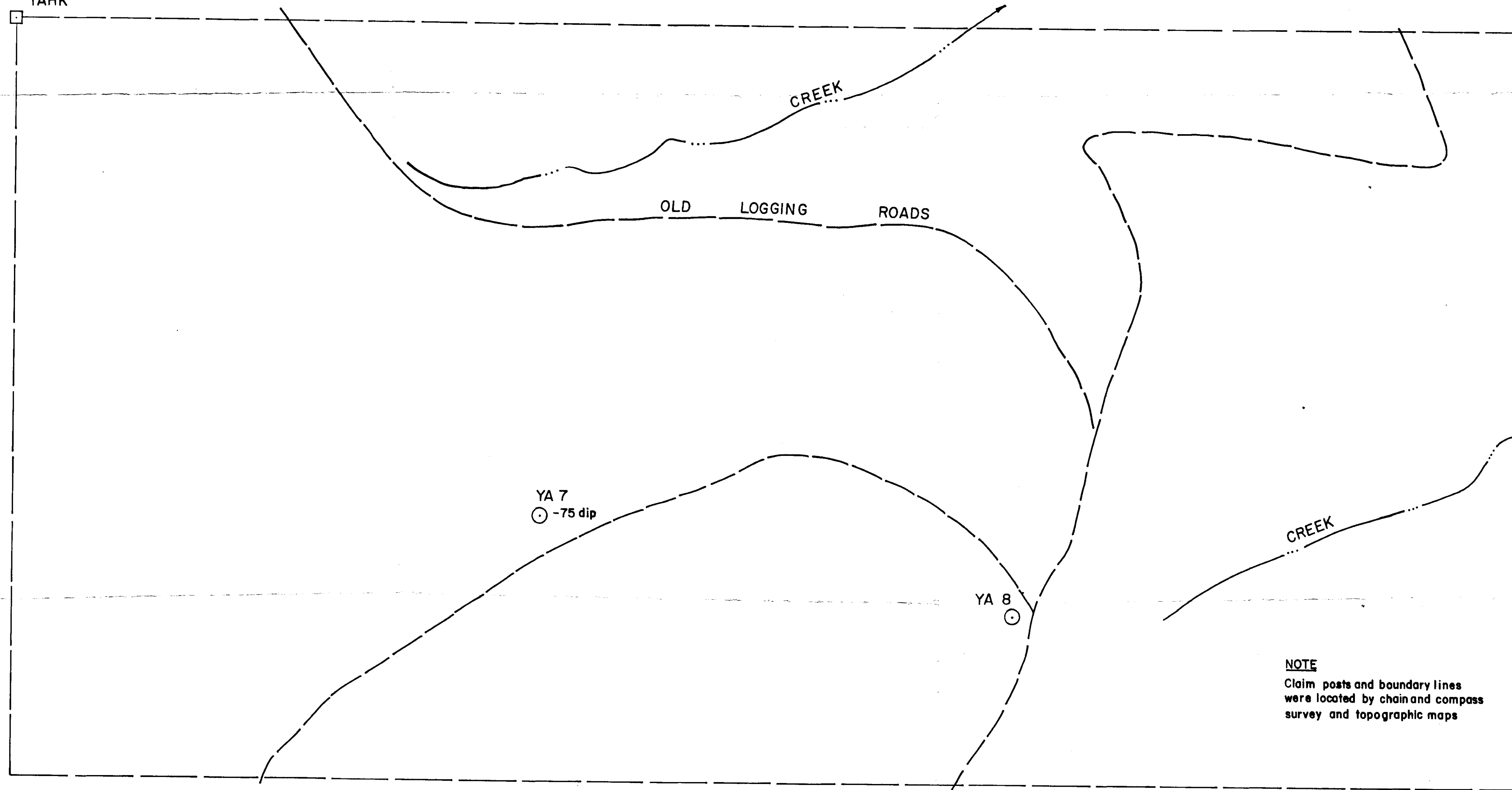
DRAWN BY: DJW

DATE: JULY 6/80 N.T.S. NO.: 826/4W 3

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8217**  
FIG. NO.



L.C.P.  
YAHK



**LEGEND**

- CREEK
- - - ROAD
- DRILL HOLE

ST. EUGENE MINING CORPORATION LTD.

PROPERTY: YAHK CLAIM PN. 077

LOCATION: YAHK AREA B.C.

TYPE OF MAP: DRILL HOLE LOCATIONS

WORKING PLACE:

BASED ON:

DATE OF WORK: SUMMER 1979 MAP REF. NO.: FIG. NO.:

DRAWN BY: DJW

DATE: JULY 6/80

N.T.S. NO.: 826/4W

3

MINERAL RESOURCES BRANCH  
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8217  
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