

25-383-13778

GEOLOGICAL BRANCH
ASSESSMENT REPORT
Assessment Report

Geology and Geochemistry
of the

13,778

TOMMY JACK CREEK PROPERTY

Au 1-4 claims
Record No. 6256-6259

N.T.S. 94 D/4E

Omineca Mining Division
British Columbia

Latitude 56 deg. 08 min. N
Longitude 127 deg. 36.5 min. W

Report by: Delbert E. Myers, Jr.
Project Geologist

Work Performed: 27-30 August 1984
Submitted: May 1985

Claims owned by: Joyce Warren
Box 662
Smithers, B.C.

Operated by: Noranda Exploration Co., Ltd. (NPL)
#3A-1750 Quinn St.,
Prince George, B.C.

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SUMMARY

Geological mapping and soil, rock, and silt sampling were done on Ag-Pb-Zn-Au-As showings on Tommy Jack Creek.

Quartz veins and a sulfide lense are mineralized with pyrite, sphalerite, galena, arsenopyrite, and ruby silver. Grades as high as 0.46 opt Au or 82 opt Ag were obtained from grab samples.

Ag, Pb, Zn, and As soil geochemical anomalies extend SSE from the showings for at least 1200 m.

Further work consisting of additional prospecting and geology and soil geochemical sampling is recommended.

INTRODUCTION

Purpose:

The purpose of this work was to determine the nature of mineralization on the Tommy Jack Creek property and to begin investigating the extent and nature of the soil geochemical anomaly there.

Location and Access:

The Tommy Jack property is located 95 km N of Hazelton, B.C. (Figure 1). The property lies on Tommy Jack Creek about 800 m upstream from its confluence with the Sicintine River at an elevation of about 800 m (2600 ft).

Access to the property is by helicopter from Smithers. Alternately, float planes have landed at Sicintine Lake or wheeled planes can land on the gravel runway at the N end of Bear Lake. A helicopter trip to the property is still necessary from these two points.

We traveled to the property via the Bear Lake airstrip and left directly by helicopter to Smithers.

Property:

The property consists of four two-post claims as follows:

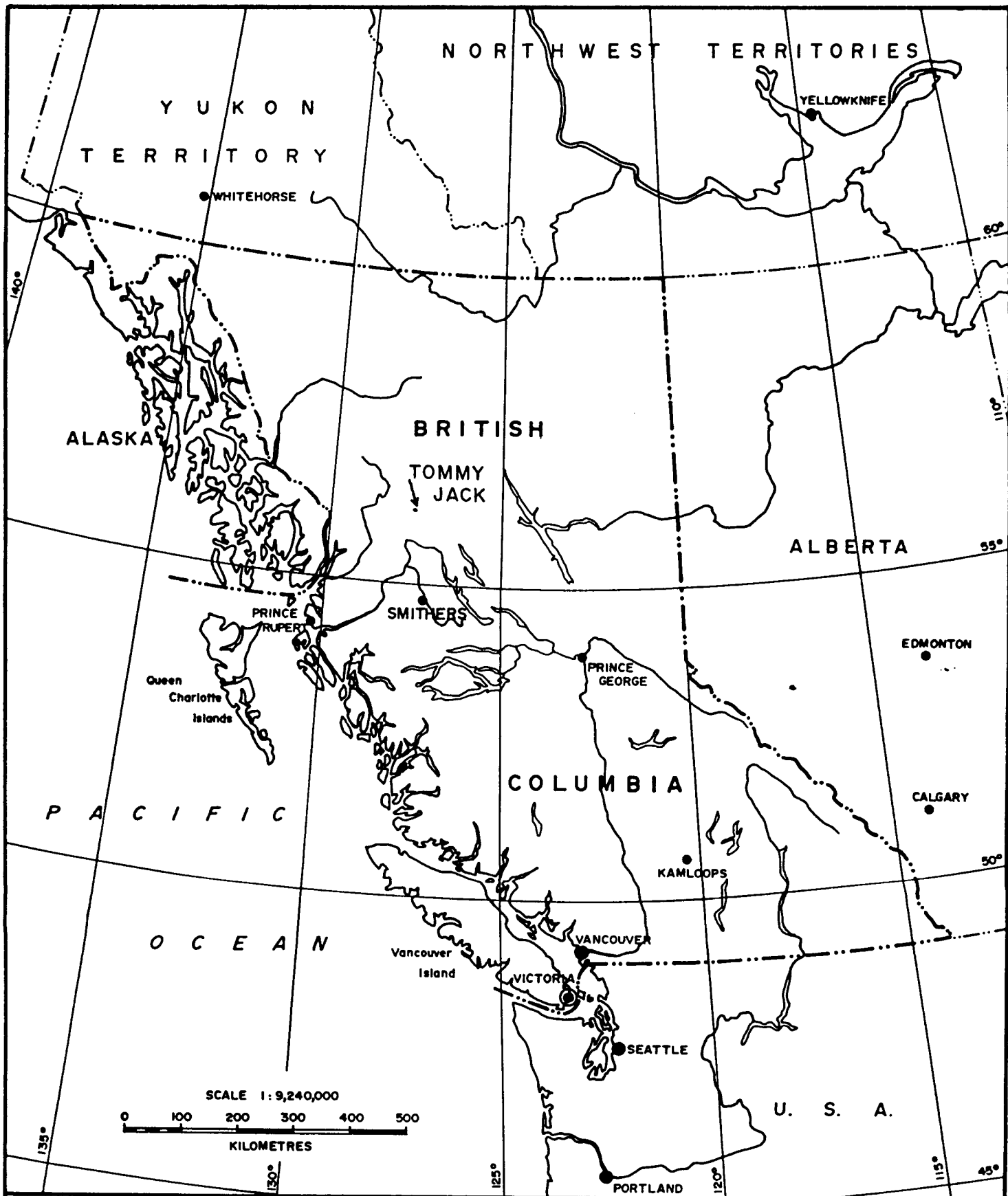
<u>Name</u>	<u>Record #</u>	<u>Units</u>	<u>Record Date</u>
Au 1	6256	1	12 June 1984
Au 2	6257	1	"
Au 3	6258	1	"
Au 4	6259	1	"

These claims are owned by Joyce Warren of Smithers, B.C. Noranda Exploration holds an option on these claims and on the overlapping Tom Claim. These claims are shown on Figure 2.

This report covers only work on the Au 1-4 claims. The Tom claim was not staked until 22 October 1984.

Previous Work:

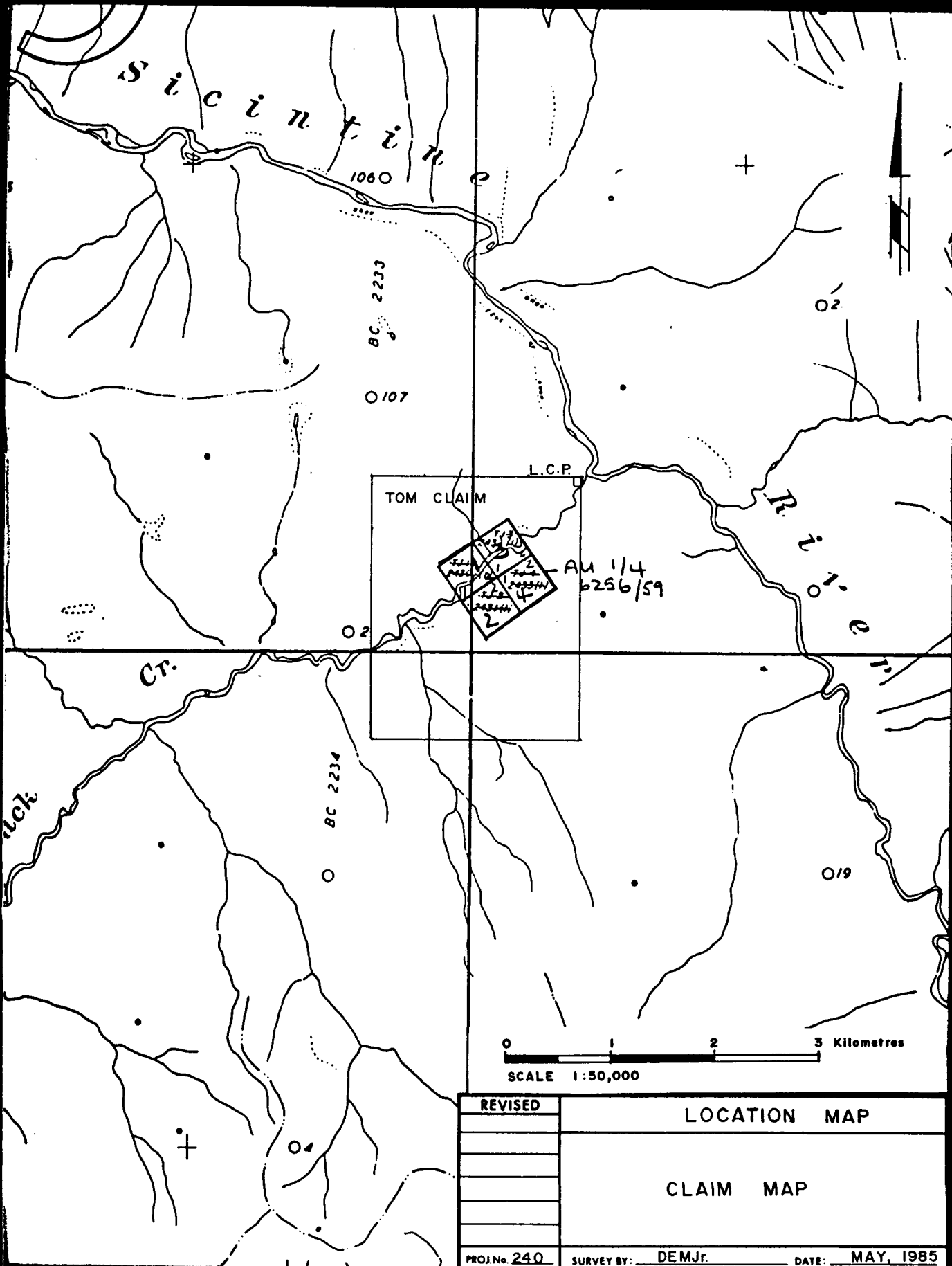
The only work published on the Tommy Jack property was done by Canex Aerial Exploration in 1963. Canex did soil geochemistry over a 4800 X 5400 ft. (1463 X 1646 m) area and



Del M...
 May 85

Fig. 1

noranda	
NORANDA EXPLORATION COMPANY LTD. Office: Prince George, B.C.	
MAP TITLE	LOCATION MAP
PROJECT TITLE	TOMMY JACK PROPERTY
PROJECT NO. 240	SCALE 1 : 9,240,000



REVISED	LOCATION MAP	
	CLAIM MAP	
PROJ. No. 240	SURVEY BY: DEMJr.	DATE: MAY, 1985
N.T.S. 94D/4E	DRAWN BY: S.K.B.	SCALE: 1:50,000
DWG. No.	NORANDA EXPLORATION	
FIG 2	OFFICE: PRINCE GEORGE, B.C.	

Del Mar May 85

found extensive Ag, Pb, and As anomalies. Additional soil sampling was done in 1964 which extended the anomalous area south. Some trenching was done in 1964 and four short holes were diamond drilled near the camp on Tommy Jack Creek. Results of the trenching and diamond drilling are not available.

There is no record of any work being done on the property since 1964.

Regional Geology:

The property lies near the eastern limit of preserved Bower Basin rocks. It is underlain by Bowser Basin clastic sediments (Jurassic and Cretaceous) which are mainly flat lying or gently dipping. About 10-15 km south of the property, these sediments are intruded by Early Tertiary intrusives (quartz monzonite, granodiorite, and quartz diorite) of the Atna Range. There are no 1:250,000 or 1:1,000,000 scale geology maps for the area.

WORK UNDERTAKEN

The work reported here was done from the 27th to the 30th of August, 1984. Six man-days of work were done on the claims (Appendices 1 and 2).

The showings at the abandoned Canex camp on Tommy Jack Creek and another showing about 350 m downstream were examined. A compass and topofil map was prepared (Figure 3). Eight samples of mineralization and four samples of host rocks were taken. These samples were assayed by Rossbacher Laboratory Ltd. of Vancouver for Au, Ag, Pb, Zn, and As and analysed by the Noranda Geochemical Laboratory of Vancouver for Au, Ag, Cu, Pb, Zn, Mo, and As respectively.

A baseline was flagged and blazed from the campsite for 1200 m at an azimuth of 150 degrees. B-horizon soil samples were taken at 100 m intervals along this line, except for the first 100 m which was sampled at 25 m intervals. Several cross lines were sampled at 10 or 20 m intervals. In all 45 soil samples were taken on the Au 1-4 claims (Figures 4 and 5).

Soils were dug with a prospectors hammer-mattock to a depth of 15 to 60 cm. Most samples were taken at 20-30 cm depth, below the organic rich horizons.

Two silt samples were also taken from the claims. These soil and silt samples were analysed by the Noranda Geochemical Lab in Vancouver for Au, Ag, Cu, Pb, Zn, Mo, and As for the soils, plus Ni for the silts. The Noranda analytical methods are described in Appendix 4.

RESULTS

Geology:

Bedrock exposures along a 500 m length of Tommy Jack Creek were examined and sampled (Figures 3 to 5). The rocks consist of a series of interbedded claystones, siltstones, and sandstones, with individual beds up to 1 m thick. An orangish brown stain which is probably due to Fe carbonate alteration is common in the coarser grained sediments. These rocks are grey colored on fresh surfaces. The very fine grained clastic sediments are dark grey to black in color on fresh and weathered surfaces.

Bedding orientations measured include (from W to E):

172 deg. / 60 deg. W
24 deg. / 20 deg. W
126 deg. / 50 deg. SW
8 deg. / 48 deg. E

Additional measurements were not taken where the strata were flatter dipping. The overall impression is of gently dipping sediments. Clearly, these are some steeper dipping areas with NW to N strikes due to folding or faulting. It is even possible that the camp may lie near the axis of an anticlinal structure.

Fault orientations measured include (from W to E):

136 deg. / 76 deg. NE
355 deg. / 68 deg. E (slickensides @ 60 deg. S on fault plane)
164 deg. / 50 deg. W
125 deg. / steep

The measured faults are steeply dipping and range from WNW to N in strike.

Quartz and carbonate vein orientations measured are (from upstream to downstream):

150 deg. / 80 deg. NE
103 deg. / 10 deg. N
137 deg. / 28 deg. SW
18 deg. / 80 deg. E
123 deg. / 75 deg. NE

These veins seem to have a variety of orientations, most of the veins are narrow (less than 1 m thick) although thicker veins or parts of veins are seen (up to 2.4 m). The chip sampled veins ranged in thickness from 0.15 m to 2.4 m thick.

Analyses are shown on Figure 3. Sample descriptions and analyses are given in Appendix 5.

Some high grade quartz veins were sampled. Individual samples run as high as 0.46 opt Au or 82 opt Ag. The veins are mineralized with pyrite, sphalerite, galena, arsenopyrite, and ruby silver. The veins are compact and some are banded. They parallel or crosscut the host strata. Sulfide percentages in the veins can run to 67% locally.

A massive sulfide lense about 4 X 0.3 m outcrops downstream from the camp on what is now the Tom claim. It consists of coarse grain, greenish sphalerite and coarse grain galena hosted in dark grey siltstone. It grades 51 opt Ag, 25% Pb, and 35% Zn (#12034). It is conformable to the enclosing sediments.

Four samples of host rocks were taken from within 150 m of the camp. One of these samples (#12040) had some rusty carbonate and quartz veinlets. It is more strongly mineralized with Au and As than the three unveined samples. All four samples (#12037 to 12040), however, are anomalous in Ag (2.6 to 5.0 ppm) and Pb (102 to 2800 ppm) (see Figure 3 and Appendix 5).

In summary, the known mineralization at Tommy Jack Creek consists of narrow to medium width (0.15 to 2.4 m) quartz veins containing significant Au, Ag, Pb, Zn, and As values hosted in clastic sediments some of which are significantly enriched in Ag, Pb, and in Zn and As to a lesser extent.

Soil Sampling:

The results of B-horizon soil sampling are shown on Figures 4 and 5. Forty-five samples were taken on the Au 1-4 claims. The lowest and highest values obtained are listed below for all 53 soil samples taken in the area:

<u>Element</u>	<u>Lowest Concentration</u> (ppm)	<u>Highest Concentration</u> (ppm)
Au	.010	.010
Ag	0.2	4.2
Cu	6	86
Pb	2	120
Zn	18	600
Mo	< 2	< 2
As	4	360

On the basis of previous experience, the Au, Cu, and Mo values should not be considered anomalous. Ag, Pb, Zn, and As

concentrations greater than 2.0, 50, 250, and 100 ppm respectively, are considered anomalous. The values are indicated with large dots on Figures 4 and 5 because the data are too limited to contour.

Silver

Seven B-horizon soil samples are anomalous (Ag greater than or equal to 2.0 ppm) in silver. These lie near the baseline from 9767 N to 9000 N.

Arsenic

Four B-horizon soil samples are anomalous (As greater than or equal to 100 ppm) in arsenic. These samples lie near the baseline from 9900 N to 8800 N. Their spatial distribution is similar to that for Ag anomalies.

Zinc

Seven B-horizon soil samples are anomalous (Zn greater than or equal to 250 ppm) in zinc. These all are located at the lower (northern) end of the baseline from 9600 N north.

Lead

Three B-horizon soil samples are anomalous (Pb greater than or equal to 50 ppm) in lead. These are all found at the north end of the baseline from 9900 N.

Information in Tompson (1964) suggests that Pb, Ag, and As soil geochemical anomalies cover an area some 1200 meters wide striking NNW for over 1500 meters. The sampling done here confirms that such soil geochemical anomalies are valid. This sampling does not indicate the extent of the soil anomalies.

Some attention should be paid in further work to soil profiles. Two samples were taken at site 9645 N, 10020 E. The first, referred to as Sample A is a light brown soil consisting of two parts sand and 8 parts fines taken at depth of 25 cm. Sample B was taken at 35 cm depth and is a red brown soil consisting of 3 parts sand and seven parts fines. The analyses were as follows:

Sample	Au	Ag	Cu	Pb	Zn	Mo	As	(ppm)
A	10	0.4	6	2	18	<2	22	
B	10	0.6	14	4	66	<2	140	

Note the significantly higher concentrations of Cu, Zn, and As in the deeper, darker soil. It is not known if the light brown soil (A) is a partially leached soil layer or a volcanic ash-rich horizon. It did not occur at all sites. Some soil samples were of this horizon and some were of the red brown B horizon. Future sampling should avoid this inconsistency.

Two additional samples were taken in old soil holes of Tompson (1964) located on his Line 3S at 2100 ft. E and 2200 ft. E. These were taken before our baseline was marked and have not been located relative to the baseline. The locations of Tompson's lines are shown on Figures 4 and 5 where found along our baseline. The analyses of the soils is as follows:

Sample	Au	Ag	Cu	Pb	Zn	Mo	As	(ppm)
3S, 21E (1985)	0.010	1.4	18	4	62	<2	56	
(1964)		3.0		<15			<20	
5S, 22E (1985)	0.010	1.2	60	60	400	<2	130	
(1964)		6.0		<15			150	

The values for 1964 were taken from plates in Thompson (1964). The 1985 and 1964 results do not compare well for Ag and Pb, but compare better for As. Additional comparisons should be made in future sampling programs. This is not easy because it is difficult to find the 1964 soil holes.

The 1985 results indicate strong Ag, Pb, Zn, and As soil geochemical anomalies and the 1964 results confirm this. The exact comparison of results is of interest, but current work should be directed to finding the source of the soil anomalies.

Silt Sampling:

Two samples of silt were taken and are plotted on Figures 4 and 5. The first (#12035) is active silt from the south shore of Tommy Jack Creek below camp. It is not anomalous in any element analysed. The second (#12036) is a mucky silt from a trickle of water at 9767N, 9996E - more like an "enriched" soil. It is anomalous in Ag (3.6 ppm) and Zn (600 ppm). Nearby soils are anomalous in Zn.

CONCLUSIONS AND RECOMMENDATIONS

Small showings of high grade quartz vein and massive sulfide mineralization are exposed at two locations along Tommy Jack Creek. Significant Au, Ag, Pb, Zn, and As values have been obtained. Little or no outcrop exists elsewhere on the claim.

Soil sampling done in 1963 and 1964 for Canex Aerial Exploration suggests extensive Ag, Pb, and As soil geochemical anomalies extending SSE from the showings.

B horizon soil sampling described herein confirms that Ag, Pb, Zn, and As soil geochemical anomalies are present in the same general area but the extent and coincidence with previous anomalies is not known.

Further work to define and test the soil geochemical anomalies is recommended. Additional prospecting and rock sampling should be done to locate and define more mineralization and test for lithochemical anomalies which may be a useful guide to mineralization.

Trenching or drilling of soil geochemical or lithochemical anomalies would be the next step. •

REFERENCES

- Tompson, W.D., 1964. Soil Geochemistry Report, Assessment Report #574 for BCMEMPR, Victoria, B.C.

APPENDIX 1

SUMMARY OF PERSONNEL - TOMMY JACK CREEK PROPERTY

<u>Name, Address</u>	<u>Position</u>	<u>Dates of Field Work</u>
Del Myers 3A-1750 Quinn St. Prince George, B.C. V2N 1X3	Project Geologist	27-30 August 1984
Lorne Warren Box 662, Smithers, B.C. V0J 2N0	Prospector	27-30 August 1984

APPENDIX 2

STATEMENT OF COSTS

PROJECT - TOMMY JACK

August 1984

Geology and Geochemistry

a. Wages:

No. of Days -	6 man-days	
Rate per Day -	\$150	
Dates -	27 - 30 Aug. 1984	
Total Wages -	6 X \$150	\$ 900

b. Food and Accomodation:

No. of Days -	6 man-days	
Rate per Day -	\$17	
Dates -	27 - 30 Aug. 1984	
Total Cost -	6 X \$17	\$ 102

c. Transportation:

27 Aug. 84, Central Mountain Airways, Cessna 206	- \$ 363	
Glacier Helicopters, Bell 206	- \$ 327	
30 Aug. 84, Glacier Helicopters, Bell 206	- \$ 877	\$ 1567

d. Analyses: \$ 732

e. Cost of Preparation of Report:

Author	\$ 150	
Drafting	\$ 86	
Typing	\$ 86	\$ 322

TOTAL COST \$ 3623

UNIT COSTS -- TOMMY JACK

Unit Costs for Geology:

No. of Days	-	3 man-days	
No. of Units	-	3 man-days	
Unit Costs	-	\$ 569.833	
Total Cost	-	3 X \$ 569.833	\$ 1709.50

Unit Costs for Geochemistry:

No. of Days	-	3 man-days	
No. of Units	-	51 geochemical analyses	
Unit Costs	-	\$ 37.5196	
Total Cost	-	51 X \$37.5196	\$ 1913.50

TOTAL COST: \$ 3623.00

DETAILS OF ANALYTICAL COSTS -- TOMMY JACK

8 rocks	assay for Au/Ag/Pb/Zn/As @ \$33.00	\$ 264.00
4 rocks	geochem for Au/Ag/Cu/Pb/Zn/Mo/As @ \$11.00	\$ 44.00
2 silts	geochem for Au/Ag/Cu/Pb/Zn/Mo/Ni/Ag @ \$9.60	\$ 19.00
45 soils	geochem for Au/Ag/Cu/Pb/Zn/Mo/As @ \$9.00	\$ 405.00
59 samples	TOTAL	\$ 732.00

APPENDIX 3

STATEMENT OF QUALIFICATIONS

I, Delbert E. Myers, Jr., of the City of Prince George, Province of British Columbia, hereby certify that:

1. I am a graduate of Pennsylvania State University with a Bachelor of Science degree in Geological Sciences (1970) and of the University of Toronto with a Master of Science degree in Geochemistry (1973).
2. I have practiced the profession of geology continuously since graduation.
3. I have been employed as a geologist by Noranda Exploration Company, Limited since June 1980.
4. I am a founding member of the Association of Professional Engineers, Geologists, and Geophysicists of the N.W.T. and a Fellow of the Geological Association of Canada.
5. The information contained in this report is based on published and unpublished reports on Dome Mountain and Mount McKendrick and surrounding area, and on work done by me or under my supervision in August 1984.
6. I have no interest, direct or indirect, in the property other than owning 200 shares of Noranda Inc..

Dated at Prince George, B.C., this 2nd Day of May, 1985.



Delbert E. Myers, Jr.
Project Geologist
Noranda Exploration Company, Limited
(No Personal Liability)

MAR 27 1984

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver.

Preparation of Samples

Sediments and soils are dried at approximately 80°C and sieved with a 80 mesh nylon screen. The -80 mesh (0.18 mm) fraction is used for geochemical analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples * from constant volume), are analysed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples

Decomposition of a 0.200 g sample is done with concentrated perchloric and nitric acid (3:1), digested for 5 hours at reflux temperature. Pulps of rock or core are weighed out at 0.4 g and chemical quantities are doubled relative to the above noted method for digestion.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn can be determined directly from the digest (dissolution) with a conventional atomic absorption spectrometric procedure. A Varian-Techtron, Model AA-5 or Model AA-475 is used to measure elemental concentrations.

Elements Requiring Specific Decomposition Method:

Antimony - Sb: 0.2 g sample is attacked with 3.3 ml of 6% tartaric acid, 1.5 ml conc. hydrochloric acid and 0.5 ml of conc. nitric acid, then heated in a water bath for 3 hours at 95°C. Sb is determined directly from the dissolution with an AA-475 equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.3 g sample is digested with 1.5 ml of perchloric 70% and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL is used to *measure* arsenic content in the digest.

Barium - Ba: 0.1 g sample digested overnight with conc. perchloric, nitric and hydrofluoric acid; Potassium chloride added to prevent ionization. Atomic absorption using a nitrous oxide-acetylene flame determines Ba from the aqueous solution.

Bismuth - Bi: 0.2 g - 0.3 g is digested with 2.0 ml of perchloric 70% and 1.0 ml of conc. nitric acid. Bismuth is determined directly from the digest with an AA-475 complete with EDL.

Gold - Au: 10.0 g sample is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with MIBK from the aqueous solution. AA is used to determine Au.

Magnesium - Mg: 0.05 - 0.10 g sample is digested with 4 ml perchloric/nitric acid (3:1). An aliquot is taken to reduce the concentration to within the

range of atomic absorption. The AA-475 with the use of a nitrous oxide flame determines Mg from the aqueous solution.

Tungsten - W: 1.0 g sample sintered with a carbonate flux and thereafter leached with water. The leachate is treated with potassium thiocyanate. The yellow tungsten thiocyanate is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with standards to measure tungsten concentration.

Uranium - U: An aliquot from a perchloric-nitric decomposition, usually from the multi-element digestion, is buffered. The aqueous solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

* N.B. If additional elemental determinations are required on panned samples, state this at the time of sample submission. Requests after gold determinations would be futile.

LOWEST VALUES REPORTED IN PPM

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01
Cd - 0.2	Mo - 1	Sb - 1	W - 2
Co - 1	Ni - 1	As - 1	U - 0.1
Cu - 1	Pb - 1	Ba - 10	
Fe - 100	V - 10	Bi - 1	

EJvL/ie
March 14, 1984

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY Tommy Jack Creek, Au-4 claims

N.T.S. 94 D 4E

DATE 28 Aug. 1984

SAMPLE REPORT

p. 1 of 2

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH	ASSAYS					SAMPLED BY
				Au	Ag	Pb	Zn	As	
	Main showing - upstream from camp			opt	opt	%	%	%	
12027	quartz vein and sediments with common carbonate, sphalerite, galena, pyrite, about 67% sulfides	chip V	1.5m	.034	14.00	3.48	10.60	.08	DEM JR
12026	quartz vein with pyrite, sphalerite, galena, also siltstone, ~ 10% sulfides overall	chip V	2.4m	.028	2.34	0.18	0.38	.02	"
12028	from talus below 12027 banded quartz vein with 10% PY, 1% sphalerite, 1% ASPY	rock grab		.466 .490	480	0.96	0.18	.64	"
12029	do, mottled quartz vein with 10% pyrite, 3% sphalerite, + galena	"	"	.390 .390	7.20	3.24	1.48	.38	"
12030	do massive, coarse grained weathered sphalerite, pyrite, galena	"	"	.015	82.00	9.10	46.4	.06	"
12031	quartz vein with pyrite, sphalerite, galena, arsenopyrite needles	"	"	.060	17.20	1.34	3.06	1.84	"
12032	shale and siltstone, gray/black with quartz-pyrite-galena-sphalerite veinlets,	chip V	0.6m	.112	10.20	3.46	1.36	1.28	"
12033	quartz vein with py, gal, sph, ruby silver? ~10% sulfides	chip	0.15m	.204	36.00	1.86	2.76	4.98	"

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : NORANDA EXPLORATION LTD.
1050 DAVIE STREET
VANCOUVER, B.C.
PROJECT No.: 40 8409-035

*TOMMY JACK CO.
DM*

CERTIFICATE No.: 84389 - 1
INVOICE No.: 4423
DATE ANALYSED: SEPT. 12. 1984
FILE NAME: NOR389

PRE		oz/t	oz/t	%	%	%
FIX	SAMPLE NAME	Au	Ag	Pb	Zn	As
A	12026	0.028	2.34	0.18	0.38	0.82
A	12027	0.034	14.80	3.48	10.60	0.08
A	12028	0.460	4.80	0.96	0.18	0.64
A	12029	0.390	7.20	3.24	1.48	0.38
A	12030	0.015	82.00	9.10	46.40	0.06
A	12031	0.060	17.20	1.34	3.06	1.84
A	12032	0.112	10.20	3.46	1.36	1.28
A	12033	0.204	36.00	1.86	2.76	4.98
A	12034	0.002	51.00	25.20	35.00	0.10

CERTIFIED BY :

J. Rossbach

11/7/84

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

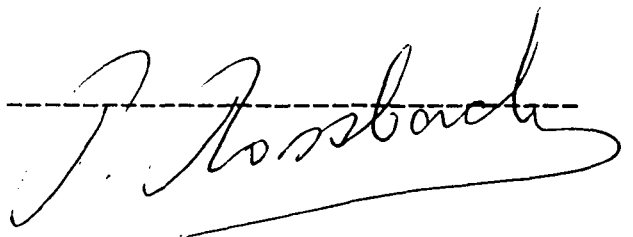
TO : NORANDA EXPLORATION LTD.
1050 DAVIE STREET
VANCOUVER, B.C.
PROJECT No.: 40 8409-35

*TOMMY JACK Ltd.
D-21*

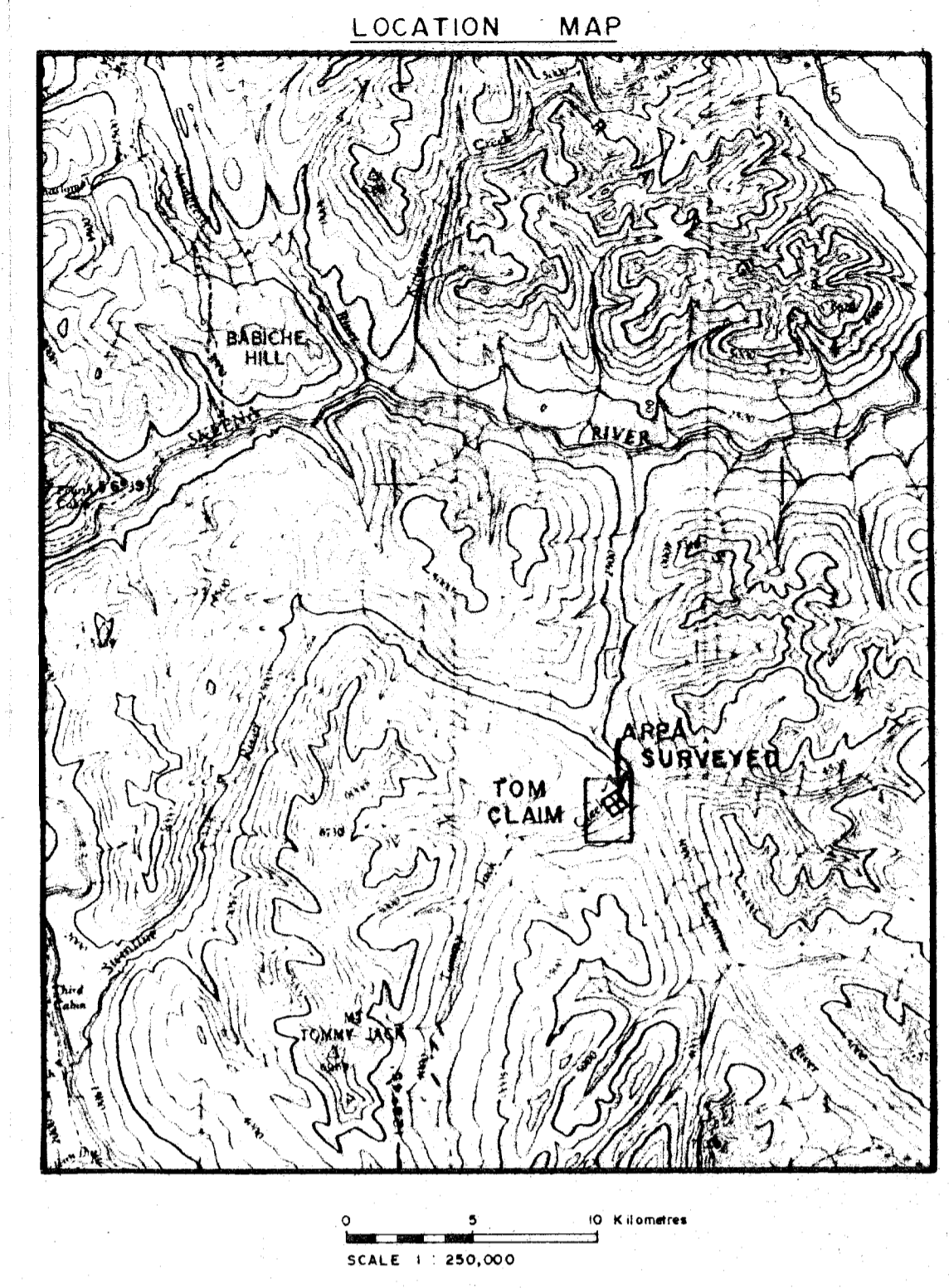
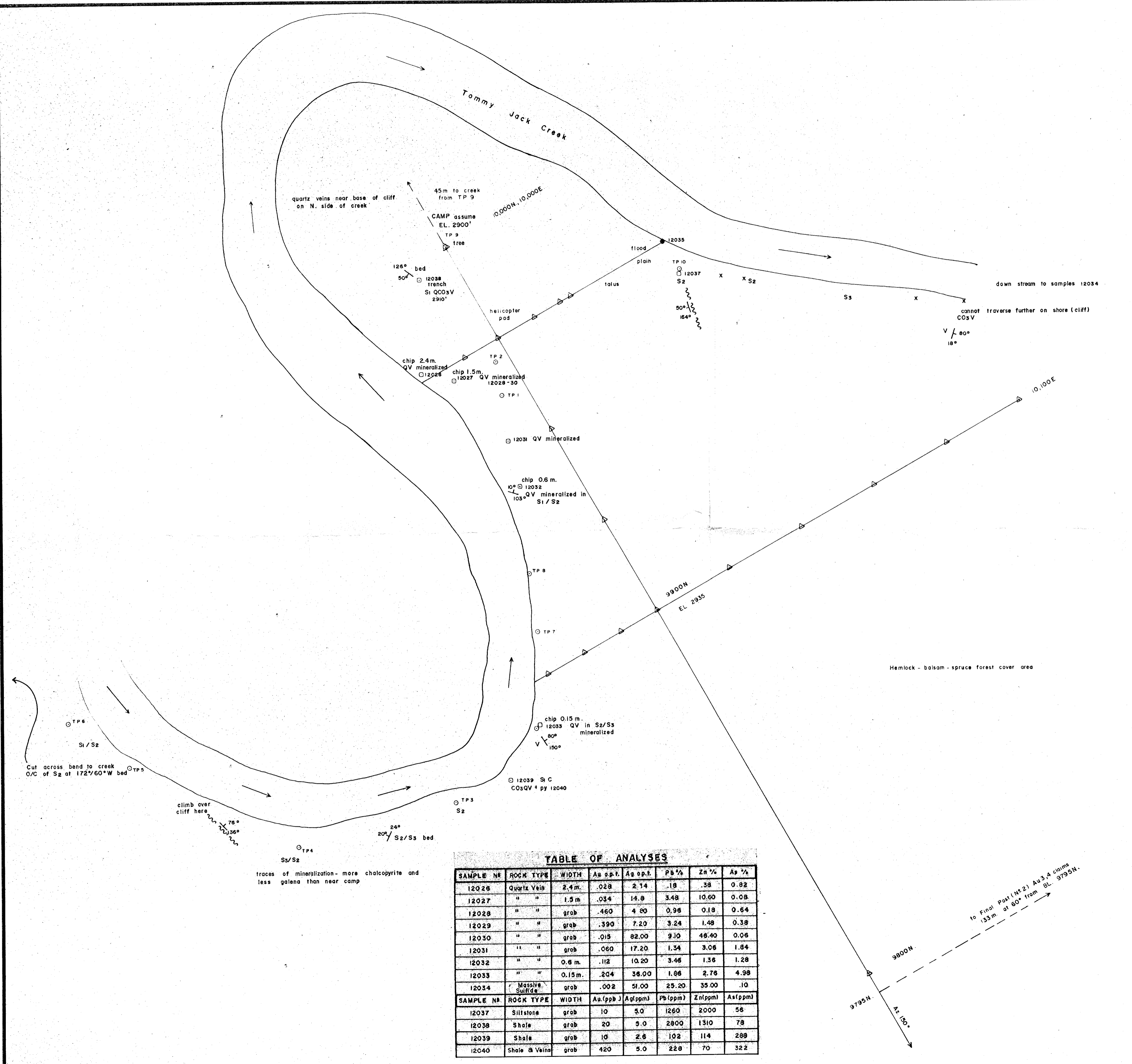
CERTIFICATE No.: 84390 - 1
INVOICE No.: 4433
DATE ANALYSED: SEPT. 19, 1984
FILE NAME: NOR390

PRE		PPM	PPM	PPM	PPM	PPM	PPB	PPM
FIX	SAMPLE NAME	Mo	Cu	Ag	Zn	Pb	Au	As
A	12037	2	32	5.0	2000	1260	10	56
A	12038	2	166	5.0	1310	2800	20	78
A	12039	1	78	2.6	114	102	10	288
A	12040	1	26	5.0	70	228	420	322

CERTIFIED BY :



21/9/84



LEGEND

ROCK TYPES

- S1 Claystone
- S2 Siltstone
- S3 Sandstone
- CO3 Carbonate
- Q Quartz
- V Vein
- py pyrite

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,778

SYMBOLS

- Tie-point (TP), topofil and compass survey
- Rock sample
- x Outcrop
- △ Soil sample
- Silt sample
- ↘ 80° Strike and dip of bedding, vein, or fault
- ↘ 18°
- ~ Fault

Note: Used 26° E. declination
Hemlock - balsam - spruce forest cover area

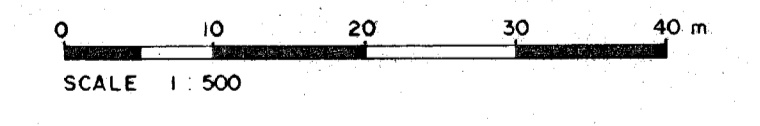
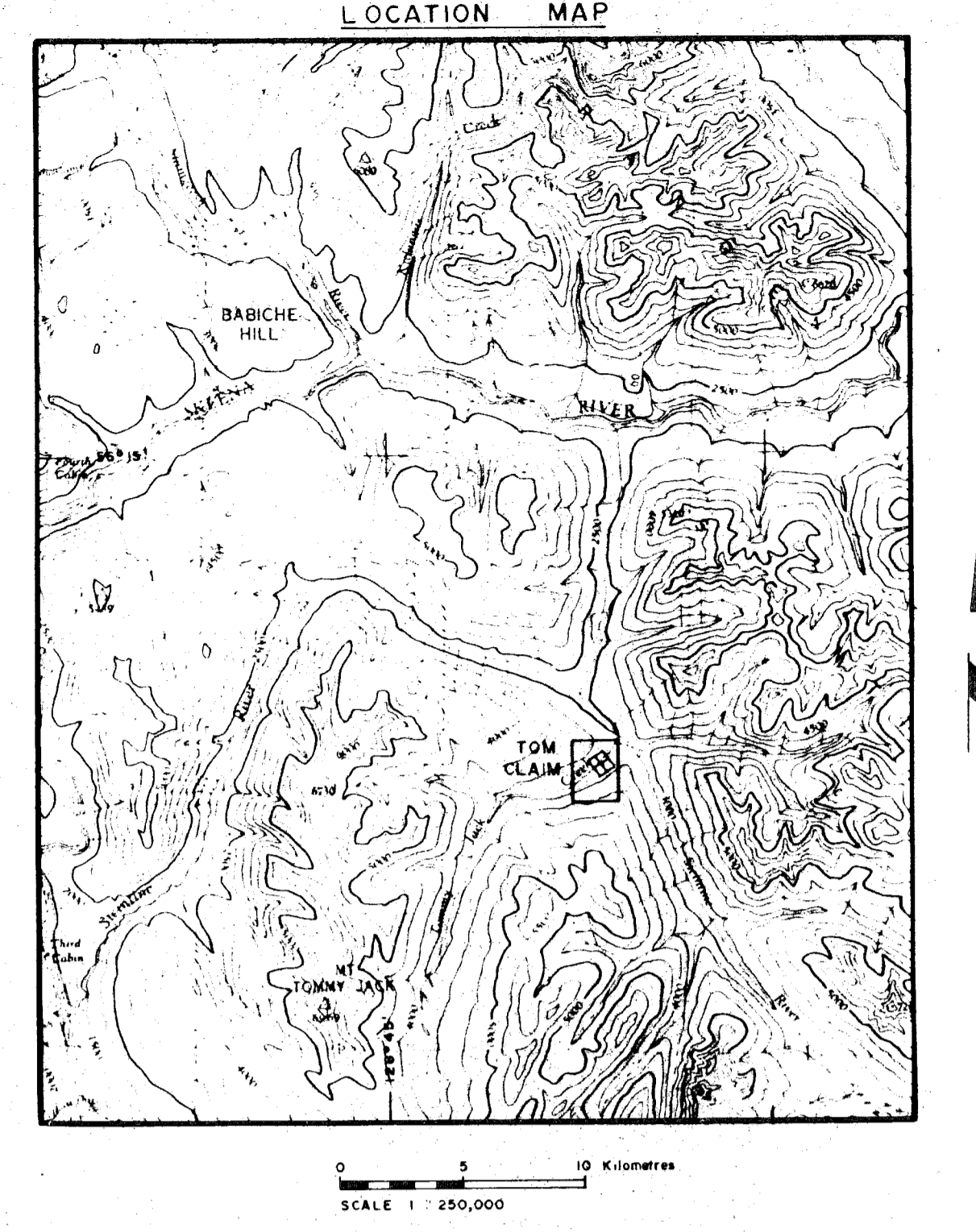


TABLE OF ANALYSES

SAMPLE NO	ROCK TYPE	WIDTH	Au o.p.t.	Ag o.p.t.	Pb %	Zn %	As %
12026	Quartz Vein	2.4 m.	.028	2.14	.18	.38	0.82
12027	" "	1.5 m.	.034	14.8	3.48	10.60	0.08
12028	" "	grab	.460	4.80	0.96	0.18	0.64
12029	" "	grab	.390	7.20	3.24	1.48	0.38
12030	" "	grab	.015	82.00	9.10	46.40	0.06
12031	" "	grab	.060	17.20	1.34	3.06	1.84
12032	" "	0.6 m.	.112	10.20	3.48	1.36	1.28
12033	" "	0.15 m.	.204	36.00	1.86	2.76	4.98
12034	Massive Sulfide	grab	.002	51.00	25.20	35.00	.10
SAMPLE NO	ROCK TYPE	WIDTH	Au (ppm)	Ag (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)
12037	Siltstone	grab	10	5.0	1260	2000	56
12038	Shale	grab	20	5.0	2800	1310	78
12039	Shale	grab	10	2.6	102	114	289
12040	Shale & Veins	grab	420	5.0	228	70	322

Del. Name May 85

REVISED	TOMMY JACK CREEK PROPERTY	
NOV., 84		
	1984 ROCK SAMPLE LOCATIONS	
PROJ. No. 40	SURVEY BY: DEMJR.	DATE: Sept. 1984
N.T.S. 940/4E	DRAWN BY: S.K.B.	SCALE: 1 : 500
DWG. No.	NORANDA EXPLORATION	
Fig. 3	OFFICE: PRINCE GEORGE, B.C.	

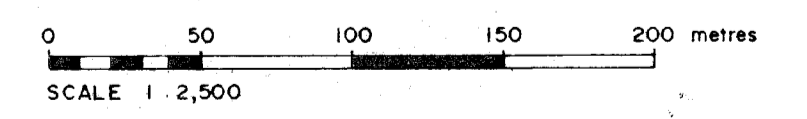


LEGEND

- Grid lines and sample sites
- Silt sample site
- Claim post and claim boundary
- 36/140/14/42 B⁺ Horizon soil sample
Cu/Zn/Pb/Mo in ppm.
- 12035 ○ 14/300/10/42 Cu/Zn/Pb/Mo in ppm.
- 12034 ● Rock sample site
- Anomalous samples

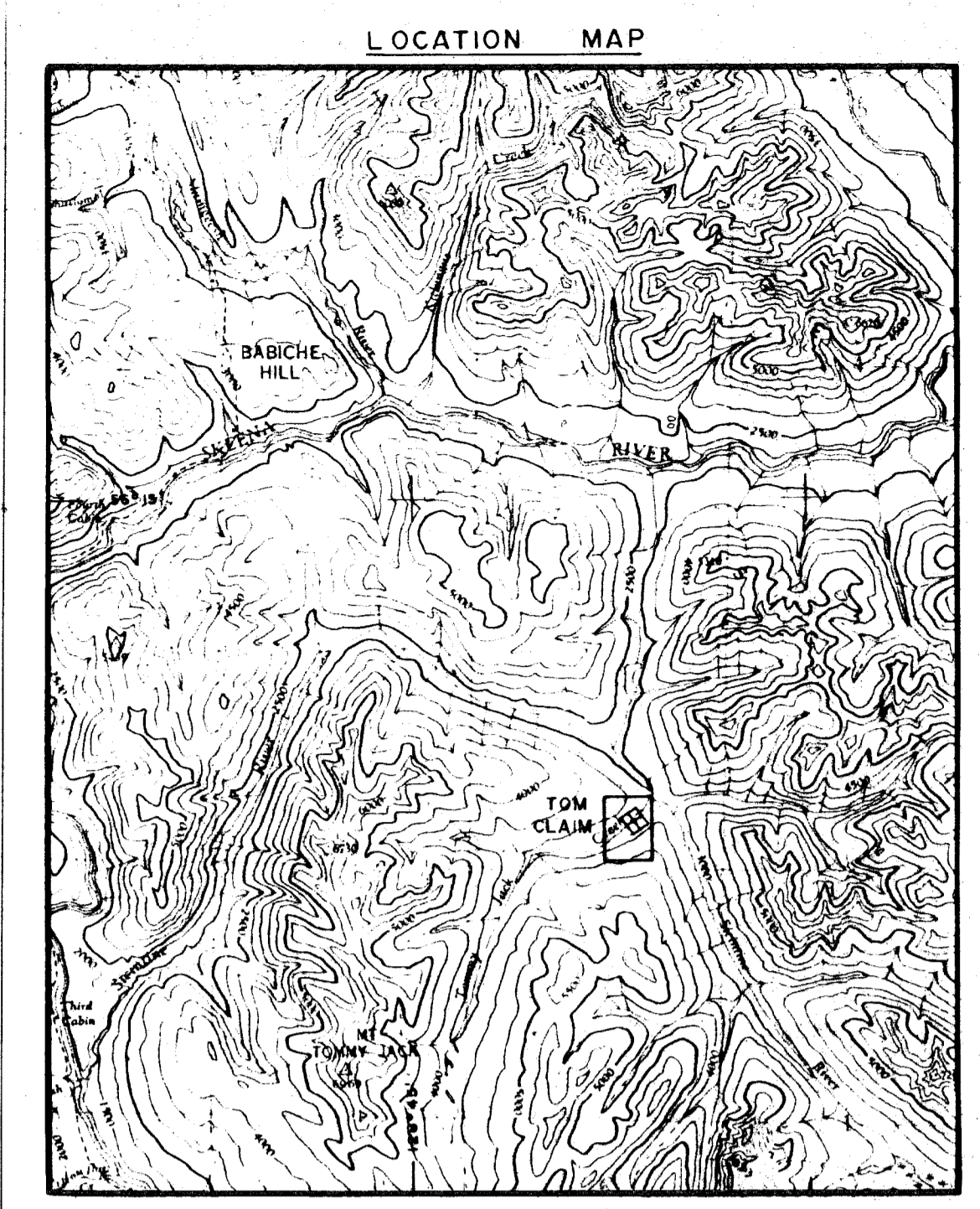
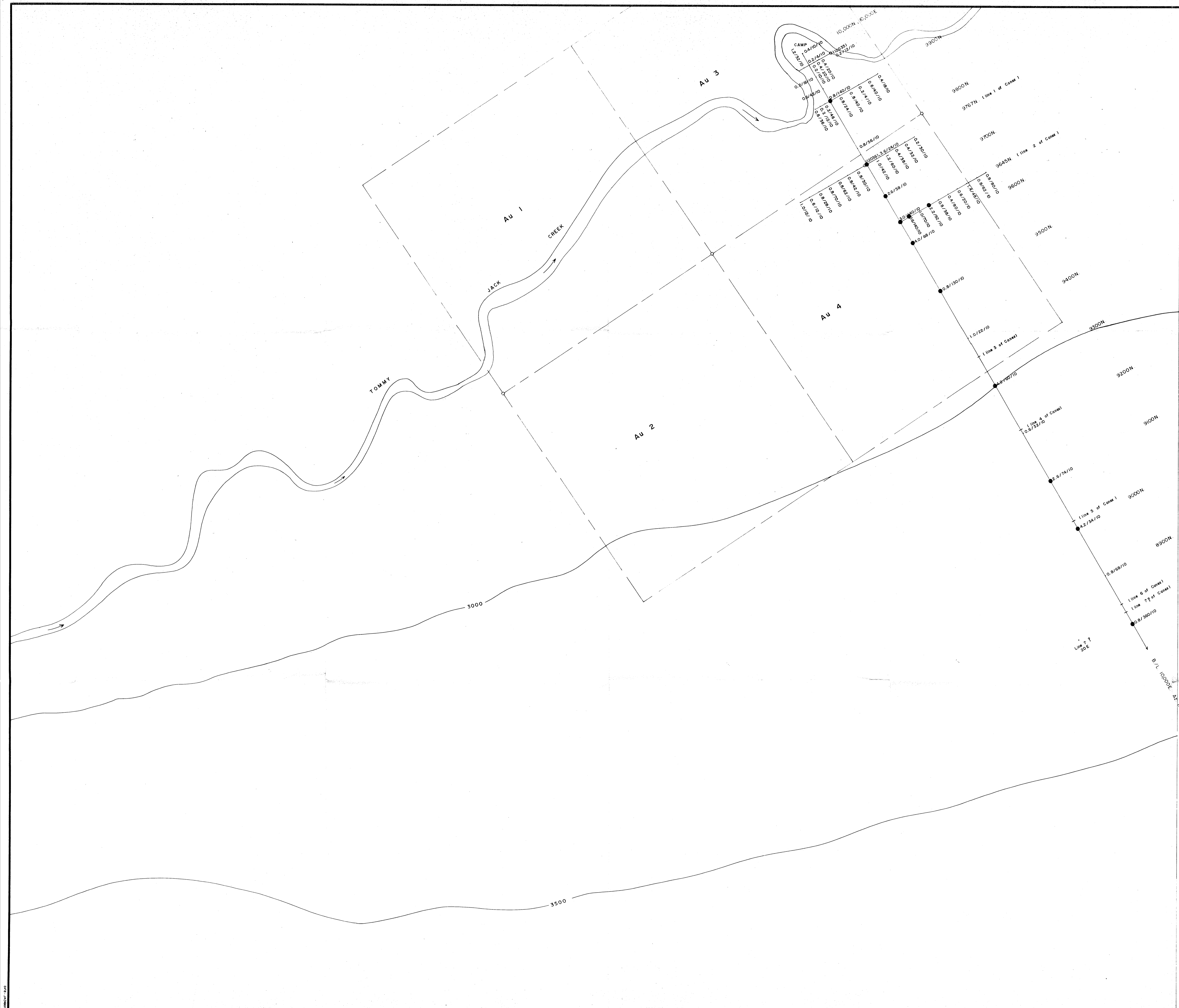
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,778



REVISED	TOMMY JACK CREEK PROPERTY	
MAY 1, 1985	SILT AND SOIL GEOCHEMISTRY Cu/Zn/Pb/Mo in ppm.	
PROJ. No.	SURVEY BY: DEMAR	DATE: NOV. 1984
N.T.S. 340/4E	DRAWN BY: S.K.B.	SCALE: 1:2500
DWG No.	NORANDA EXPLORATION	
Fig. 4	OFFICE: PRINCE GEORGE, B.C.	

Del Mar May 05



0 50 100 200 metres
SCALE 1:250,000

LEGEND

- Grid lines and sample sites
- Silt sample site
- Claim post and claim boundary
- 40/88/10 B⁺ Horizon soil sample Ag/As(ppm) / Au(ppb)
- 12035 02/12/10 Ag/As(ppm) / Au(ppb)
- Anomalous sample

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,778

0 50 100 150 200 metres
SCALE 1:2,500

REVISED MAY 1, 1985	TOMMY JACK CREEK PROPERTY	
	SILT AND SOIL GEOCHEMISTRY Ag / As(ppm) / Au(ppb)	
PROJ. No.	SURVEY BY: DEM-2	DATE: NOV. 1984
NTS. 240/4E	DRAWN BY: S.K.B.	SCALE: 1:2500
DWG. No.	NORANDA EXPLORATION	
Fig. 5	OFFICE: PRINCE GEORGE, B.C.	