87-176-15988
3/88

GEOLOGICAL, GEOCHEMICAL REPORT

ON THE

TODD CREEK PROPERTY

(TOC 1 - 12 CLAIMS)

N.T.S. 104 A/04W,05W

SKEENA MINING DIVISION

Situated at Coordinates: 56° ~~16' 40" N~~ 13.5'
129° 46.5' W

Owner/Operator: NORANDA EXPLORATION COMPANY, LIMITED
(NO PERSONAL LIABILITY)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,988

By: Robert J. Baerg

March, 1987

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LIST OF FIGURES

SUMMARY:

The Todd Creek copper-gold property is located on the eastern flank of the Coast Range mountains approximately 45 km north northeast of Stewart, B. C. Mineralization, consisting of copper-gold bearing quartz and sulphide veins were first discovered by Newmont in 1959. Noranda staked the area of the showings in 1986 and has subsequently confirmed the presence of the copper-gold mineralization. To date, there are three main areas of interest:

1. the South Zone, where a mineralized zone cuts a feldspar porphyry intrusive. Chip sampling on this zone has delineated an area 3m wide by 270m long, averaging 0.119 oz/T Au.

2. the Mid Zone, where a package of variably altered felsic volcanics is mineralized with pyrite and minor malachite and where local quartz-pyrite breccia cobbles have returned gold values to 26,400 ppb, and,

3. the North Zone, where quartz breccia veins cut chloritic andesitic agglomerate. The best value from the North Zone veins during this current program, was 0.153 oz/T Au across 3m.

Further work is recommended on these three areas as well as reconnaissance work for the remainder of the property.

INTRODUCTION:

The Todd Creek property is situated on the eastern side of the Coast Range Mountains of British Columbia, within the Skeena Mining Division. The property was staked to cover several Cu-Au occurrences which were originally discovered by Newmont Mining Corp. in 1959. 1986 fieldwork included resampling and mapping the showings and regional mapping, silt and rock sampling.

HISTORY:

The South and North Zone showings on the property were originally discovered in 1959 by prospector's Ole Olsen and Fred Hasselberg, Jr., in the employ of Newmont Mining Corporation. Newmont conducted a limited trenching and drilling program on the zones in 1960 with inconclusive results.

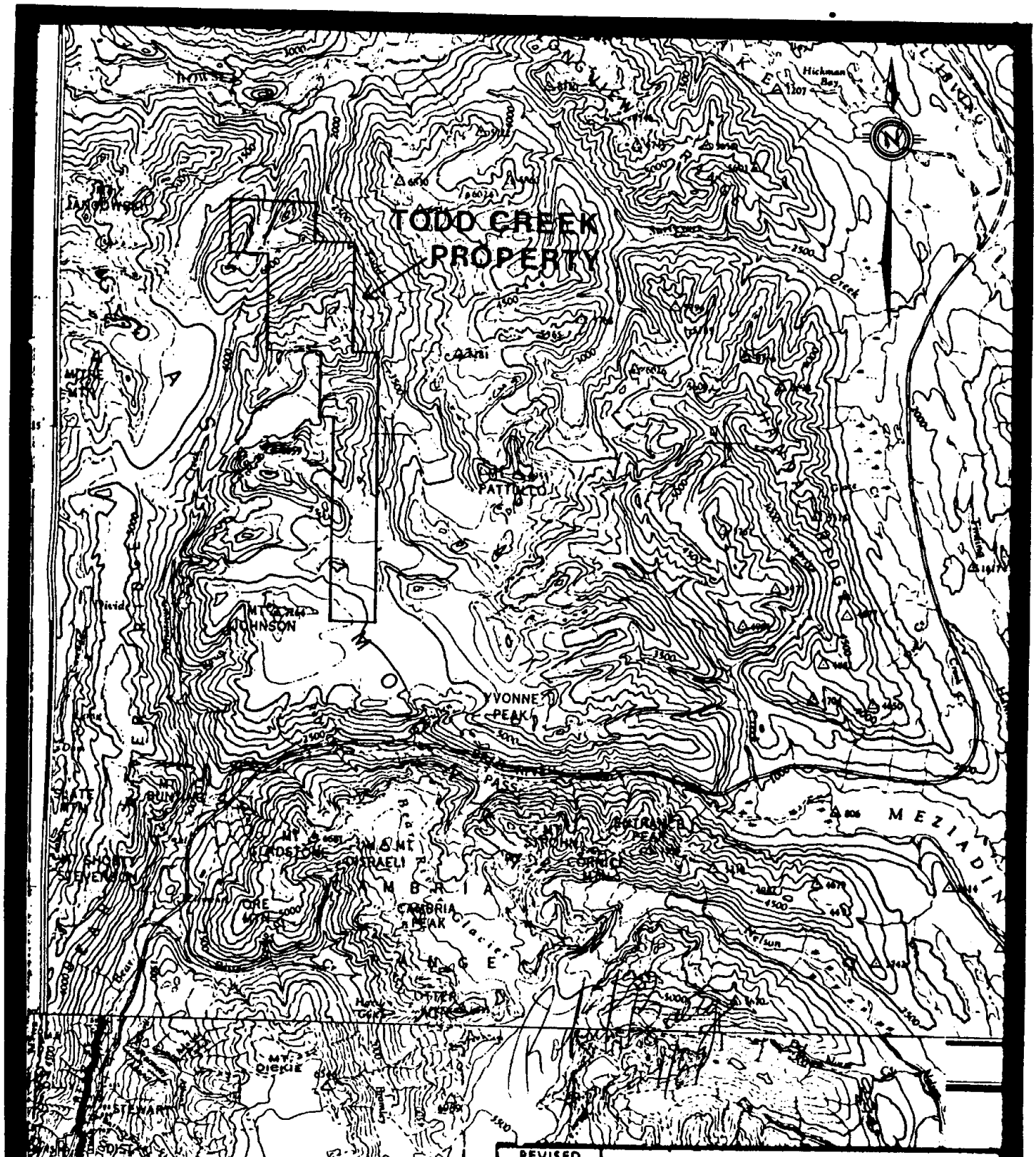
On the South Zone, a zone of chalcopyrite-pyrite stringers and hematitic quartz breccias, Newmont drilled 5 randomly spotted packsack drill holes.

In 1969, the South Zone showing was staked for Kerr Addison Mines by Wilf Christians. Kerr Addison, who recorded no work on the property, subsequently transferred title to Christians, who in turn sold the claims to C.S. Powney. During 1970-72, several trenches were blasted and sampled. In 1981, J.R. Woodcock Consultants staked the North Zone and a large altered area further north. From 1981 to 1984, Woodcock and Riocanex conducted extensive geological and geochemical programs on their claims. In 1985, Woodcock dropped everything except two units, which they currently hold.

In 1986, Noranda Exploration Company Limited staked the TOC 1-10 to cover the known showings. The TOC 11 and 12 were added later in 1986.

LOCATION AND ACCESS:

The Todd Creek property is located in the Skeena Mining Division, approximately 45 km NNE of Stewart, B. C. (Figure #1) Highway #37A to Stewart passes 10 km to the south of the property. The property covers most of the western side of the Todd Creek valley and portions of Todd Creek glacier. Access to the property is via helicopter from Stewart, B. C.



REVISED	TODD CREEK
	Location Map
PROJ No. 281	SURVEY BY: RB DATE: JAN 1987
N.T.S. 104A	DRAWN BY: RB SCALE: 1:250,000
DWG. No. 1	NORANDA EXPLORATION
	OFFICE: Prince George

PHYSIOGRAPHY & VEGETATION:

The property lies on the eastern flank of the Coast Range Mountains. Relief in the area is great, from 2900 feet in the valley bottom to 6800 feet on the highest summit. Todd Creek glacier and several valley glaciers occupy portions of TOC 11 and 12. The sides of the valley have extensive areas of bedrock exposure which commonly forms steep rock faces and cliffs. The valley bottom has a thick cover of glacial outwash material. Vegetation on the property consists of young willow, poplar and alder in the valley bottom, grading up slope into local stands of fir, hemlock and spruce and higher up into alpine meadows and bare rock.

CLAIM STATISTICS:

The Todd Creek property consists of 12 modified grid claims (Figure #2), as listed below:

NAME	UNITS	RECORD #	EXPIRY DATE
TOC 1	20	5303	April 9, 1987
TOC 2	20	5304	April 9, 1987
TOC 3	20	5305	April 9, 1988
TOC 4	20	5306	April 9, 1988
TOC 5	20	5307	April 9, 1988
TOC 6	20	5308	April 9, 1988
TOC 7	18	5309	April 9, 1988
TOC 8	18	5310	April 9, 1988
TOC 9	20	5311	April 9, 1988
TOC 10	20	5312	April 9, 1988
TOC 11	20	5518	Sept 17, 1988
TOC 12	16	5577	Oct. 28, 1988
	232		

REGIONAL GEOLOGY:

The area has been mapped as being largely underlain by Lower Jurassic age Unuk River Formation volcanics and clastic sediments which are cut by numerous Jurassic and Tertiary age intrusive bodies ranging in size from narrow dykes and sills to large plutons.

PROPERTY GEOLOGY:

South Zone

Geology - The South Zone is underlain by a siliceous Feldspar Porphyry intrusive (?) which is exposed over an area 500m x 950m. The intrusive body is bounded to the west and north by dark green-grey andesite flows and agglomerate and to the south and east by glacial till. The western contact was not observed in outcrop,

REVISED	TODD CREEK
	REGIONAL GEOLOGY

PROJ. No. 281 SURVEY BY: RB DATE: Feb/87

N.T.S. 104A/4, 5 DRAWN BY: TG SCALE: 1:100,000

DWG. No. 3

NORANDA EXPLORATION

OFFICE: Prince George

(After Grove, 1986)

but is presumed to be a fault, while the northern contact is a sharply defined E-W trending, north dipping fault. The feldspar porphyry is pervasively altered; alteration ranging from quartz-pyrite, to quartz-sericite-pyrite, chlorite and iron-carbonate-quartz-sericite. The western 2/3 of the exposed porphyry body is predominantly quartz-pyrite altered and has a rusty yellow-brown weathered surface and is pale brown on a fresh surface. To the east, the porphyry is locally chloritic and proximal to the mineralized zone there is increased sericite alteration and locally iron-carbonate alteration. (Figure #7)

Mineralization - The mineralization, which consists of chalcopyrite, pyrite, specular hematite and malachite, is hosted in a 5 to 15m wide north-northeast trending, steeply west dipping fracture zone, which cuts the eastern flank of the exposed feldspar porphyry body. This zone has been traced for at least 900m. Mineralization occurs along the southern 425m and the northern 100m of the exposed portions of the zone. There are two types of mineralization within the fracture system:

1. massive pyrite-chalcopyrite stringers and veins from less than 1cm to 10cm wide, and,

2. a zone of quartz-hematite-chalcopyrite stringers and breccia veins to 3m wide.

The two types of mineralization also form two distinctly separate zones; the pyrite-chalcopyrite veins form the hanging wall and the quartz veins, the footwall. Geochemically, the two zones are also distinct; the pyrite-chalcopyrite veins generally having distinctly higher Mo, Cu and As values and lower Au values than the quartz breccia veins.

Prospecting to the west of the above mentioned zone revealed several local, narrow, quartz-chalcopyrite veins. These do not appear to have much significance. As well, silt samples collected in the western area did not define any new anomalous areas.

Mid Zone

Geology - The Mid Zone lies in the northwest corner of TOC 10. (Figure #6) Only a small portion of this area has been reconnaissance mapped and prospected. The area is underlain by a north-south trending sequence of interbedded andesite flows and agglomerate, feldspar porphyry flows and tuff and rhyolite flows, tuff and breccia. The rhyolite unit is locally intensely quartz-sericite-pyrite altered. As well, a large gossan which has not yet been explored, is located several hundred meters to the north.

Mineralization - Mineralization consists predominantly of east-west to northwest trending quartz-pyrite +/- chalcopyrite veins. The veins range from 1cm to 6m wide and 1m to 108m long. No significant precious metal values have been obtained from these veins. As well, there are local small zones and widespread large boulders of pyritic rhyolite breccia. This unit commonly contains

10-20% coarse grained pyrite with trace amounts of malachite. No significant precious metals were obtained from these rocks.

Silt samples collected from creeks draining the gossan to the north were slightly anomalous in Cu, As, Co, Fe and Au.

North Zone

Geology - Reconnaissance mapping and prospecting has been completed over only a limited area. Rock units identified are mainly andesitic agglomerates and flows and feldspar porphyry. The feldspar porphyry at the eastern end of TOC 8 appears to be an intrusive. The feldspar porphyry mapped in central TOC 8 and 9, however, is difficult to ascertain as to whether it is intrusive or is a flow rock. Detailed mapping of this area is required before any conclusions can be made. The feldspar porphyries and the andesitic volcanics to the west have been locally altered; predominantly to either quartz-sericite-pyrite or iron-carbonate-quartz-sericite. A broad north-south trending zone of patchy to pervasive alteration occurs in the north-central portion of TOC 9 and parts of TOC 8. This zone is on strike with the gossan north of the Mid Zone, which in turn appears to be continuous with the Mid Zone. As well, local areas in the andesitic agglomerates are weakly sericite altered and foliated and contain up to 10% disseminated pyrite.

Mineralization - Mineralization observed to date occurs in two areas:

1. the east-southeast portion of TOC 8, and

2. south-central TOC 8 and northwest TOC 9.

The eastern mineralization consists mainly of north-northwest trending, 1 to 100cm wide hematitic quartz-chalcopyrite veins and vein breccias. These veins constitute what Newmont called the "A" and "B" zones. The 1986 work focused on the north side of Fall Creek on the "A" zone, where Newmont reported their best values and drilling results. Resampling of Newmont's trenches did not repeat their values. The best value obtained was 0.153 oz/T Au across 3m. The veins are hosted by dark green, chloritic, andesitic agglomerate. The agglomerate in the footwall (?) has been intensely iron-carbonate-quartz altered in a zone parallel to the veins and from 10-15m wide. The mineralized veins do not extend into this altered zone. The veins range in width from .3 to 1m wide and vary from a dense zone of vuggy quartz stringers in Trench 4 to wider massive quartz breccia veins in Trenches 2 and 1. The breccia veins are commonly dark grey-green due to the presence of abundant chlorite and fine grained hematite. Chalcopyrite +/- pyrite and hematite occurs as disseminated grains and irregular blebs between breccia fragments.

The "B" zone consists of veins similar to the "A" zone, but they are generally narrower, discontinuous, more widely spaced and lower grade.

As well, a 1-2m wide northwest trending barite-quartz-galena vein was observed to cut the feldspar porphyry to the east. Minor silver values are associated with the galena.

The other area of interest is located south of Fall Creek and along and east of Ice Creek. Mineralization in this area to date consists of float material, three small Cu-Au occurrences and wide spread disseminated pyrite. Five main types of mineral float have been identified in this area:

1. massive coarse grained pyrite,
2. massive, coarse pyrite with chalcopyrite,
3. chalcopyrite in an altered porphyry,
4. bornite in quartz veins within altered diorite, and,
5. disseminated pyrite-hematite-chalcopyrite in quartz-carbonate breccia.

Table I lists Cu-Au analyses for the respective float samples.

TABLE I - FLOAT SAMPLES

SAMPLE #	TYPE	Cu (ppm)	Cu (%)	Au (ppb)	Au (oz/T)
55481	1	682	-	830	-
55482	4	3,298	-	6	-
55487	1	19	-	3	-
55488	2	-	4.45	-	.648
55491	5	1,387	-	26,400	-
55494	5	2,880	-	4,150	-
55496	3	-	6.29	-	.001
15221	5	-	0.02	-	.128
15222	3	-	0.66	-	.009
15224	2	-	1.70	-	.152
15225	5	-	.74	-	.004
15230	5	-	.73	-	.001
15231	3	-	5.76	-	.008

As mentioned, three small showings were located. The first one consisted of a 6m long x 0.5m wide pod of semi-massive to massive pyrite with 2-3% chalcopyrite. The pod is hosted by quartz-chlorite-pyrite altered feldspar porphyry and has a northwest trend.

The other two showings are similar, narrow chalcopyrite veins in 1-2m wide discontinuous, north-northwest trending shear zones, hosted by quartz-sericite-pyrite altered feldspar porphyry. The longest zone is only 25m long. Table II lists the Cu-Au values associated with the respective showings.

TABLE II - SHOWING SAMPLES

SAMPLE #	SHOWING #	SAMPLE TYPE	Cu (%)	Au (oz/T)
55490	1	grab	1.10	.067
15228	2	grab	3.08	.960
15229	3	grab	3.01	.197

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

GEOLOGY OF THE UNUK RIVER - SALMON RIVER - ANYOX MAP AREA

SCALE - 100 000

LEGEND

SEDIMENTARY AND VOLCANIC ROCKS

QUATERNARY

RECENT

20 — UNCONSOLIDATED DEPOSITS; RIVER FLOODPLAIN, ESTUARINE, RIVER CHANNEL AND TERRACES, ALLUVIAL FANS, DELTAS AND BEACHES, OUTWASH, GLACIAL LAKE SEDIMENTS, TILL, PEAT, LANDSLIDES, VOLCANIC ASH, HOTSPRING DEPOSITS

19 — BASALT FLOWS (a), CINDERS, ASH (b)

PLEISTOCENE AND RECENT

18 — BASALT FLOWS

JURASSIC

HAZELTON GROUP

UPPER JURASSIC

HAIG FORMATION

17 — SILTSTONE, GREYWACKE, SANDSTONE, SOME CALCARENITE, ARGILLITE, CONGLOMERATE, MINOR LIMESTONE, MINOR COAL INCLUDING EQUIVALENT SHALE, PHYLLITE, AND SCHIST

MIDDLE JURASSIC

SALMON RIVER FORMATION

16 — SILTSTONE, GREYWACKE, SANDSTONE, SOME CALCARENITE, MINOR LIMESTONE, ARGILLITE, CONGLOMERATE, LITTORAL DEPOSITS

15 — RHYOLITE, RHYOLITE BRECCIA, CRYSTAL AND LITHIC TUFF

BETTY CREEK FORMATION

14 — PILLOW LAVA, BROKEN PILLOW BRECCIA (a), ANDESITIC AND BASALTIC FLOWS (b)

13 — GREEN, RED, PURPLE, AND BLACK VOLCANIC BRECCIA, CONGLOMERATE, SANDSTONE, AND SILTSTONE (a), CRYSTAL AND LITHIC TUFF (b); SILTSTONE (c), MINOR CHERT AND LIMESTONE (d); CLOSE SOME LAVA (+14) (e)

LOWER JURASSIC

UNUK RIVER FORMATION

12 — GREEN, RED, AND PURPLE VOLCANIC BRECCIA, CONGLOMERATE, SANDSTONE, AND SILTSTONE (a), CRYSTAL AND LITHIC TUFF (b); SANDSTONE (c), CONGLOMERATE (d), LIMESTONE (e), CHERT (f), MINOR COAL (g)

11 — PILLOW LAVA (a); VOLCANIC FLOWS (b)

TRIASSIC

UPPER TRIASSIC

TAKLA GROUP (?)

10 — SILTSTONE, SANDSTONE, CONGLOMERATE (a); VOLCANIC SILTSTONE, SANDSTONE, CONGLOMERATE (b), AND SOME BRECCIA (c); CRYSTAL AND LITHIC TUFF (d); LIMESTONE (e)

PLUTONIC ROCKS

OLIGOCENE AND YOUNGER

12a — DYKES AND SILLS (BASALT), DIORITE (a), QUARTZ DIORITE (b), GRANODIORITE (c), BASALT (d)

EOCENE (STOCKS, ETC.) AND OLDER

9 — QUARTZ DIORITE (a), GRANODIORITE (b), MONZONITE (c), QUARTZ MONZONITE (d); AUGITE DIORITE (e), FELDSPAR PORPHYRY (f)

7 — COAST PLUTONIC COMPLEX: GRANODIORITE (a), QUARTZ DIORITE (b), QUARTZ MONZONITE, SOME GRANITE (c), MIGMATITE - AGMATITE (d)

JURASSIC

MIDDLE JURASSIC AND YOUNGER ?

6 — GRANODIORITE (a); DIORITE (b), SYENODIORITE (c), MONZONITE (d), ALASKITE (e)

LOWER JURASSIC AND YOUNGER ?

DIORITE (a), SYENOGABBRO (b), SYENITE (c)

TRIASSIC

UPPER TRIASSIC AND YOUNGER ?

DIORITE (a); QUARTZ DIORITE (b), GRANODIORITE (c)

HORNBLENDE PREDOMINANT ..... H
BIOTITE PREDOMINANT ..... B

METAMORPHIC ROCKS

TERTIARY

5 — HORNFELS (a), PHYLLITE, SCHIST (b), SOME GNEISS (c)

JURASSIC

3 — HORNFELS (a), PHYLLITE, BLUE SCHIST, SCHIST (b); GNEISS (c); CATACLASITE, MYLONITE (d), TACTITE (e)

TRIASSIC

1 — SCHIST (a), GNEISS (b), CATACLASITE, MYLONITE (c)

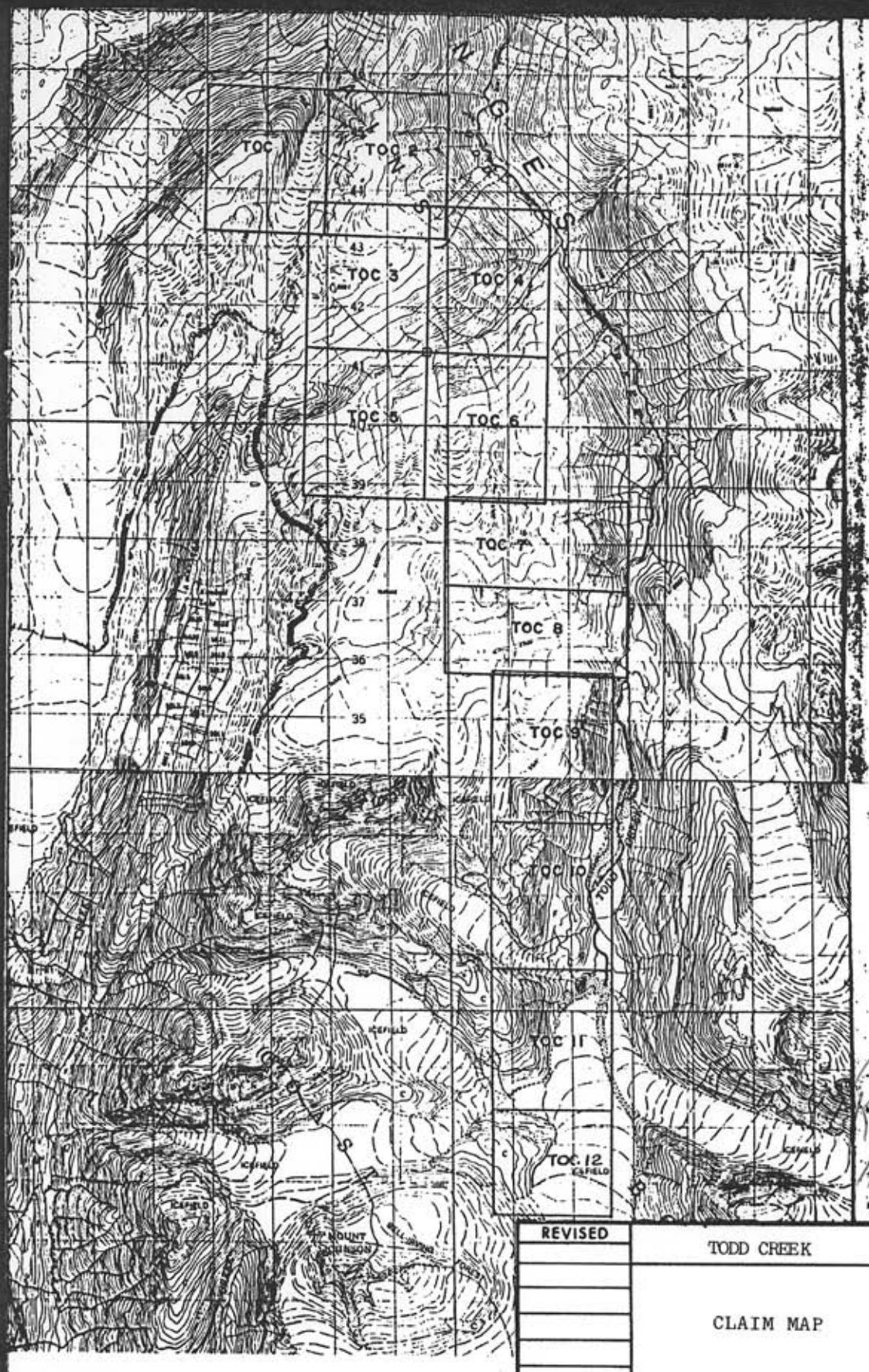
HORNBLENDE OR AMPHIBOLE DEVELOPED ..... H
BIOTITE DEVELOPED ..... B
POTASSIUM FELDSPAR DEVELOPED ..... K

AREA UNMAPPED

SYMBOLS

ADIT .....
ANTICLINE (NORMAL, OVERTURNED) .....
BEDDING (HORIZONTAL, INCLINED, VERTICAL, CONTORTED)
BOUNDARY MONUMENT .....
CONTOURS (INTERVAL 1,000 FEET) .....
FAULT (DEFINED, APPROXIMATE) .....
FAULT (THRUST) .....
FAULT MOVEMENT (APPARENT) .....
FOLD AXES, MINERAL LINEATION (HORIZONTAL, INCLINED)
FOSSIL LOCALITY .....
GEOLOGICAL CONTACT (DEFINED, APPROXIMATE)
GLACIAL STRIAE .....
GRAVEL, SAND, OR MUD .....
HEIGHT IN FEET ABOVE MEAN SEA LEVEL ..... 4232'
INTERNATIONAL BOUNDARY .....
JOINT SYSTEM (INCLINED, VERTICAL) .....
MARSH .....
MINING PROPERTY .....
RIDGE TOP .....
SCHISTOSITY (INCLINED, VERTICAL) .....
SYNCLINE (NORMAL, OVERTURNED) .....
TUNNEL .....
VOLCANIC CONE .....

Compilation and geology by E. W. Grove, 1964 to 1970, with assistance by N. M. Hamelin and R. V. Kirkham, 1966 and Aerial Photography 1967
Geology of the Alice Arm area by R. C. Carter, 1968 to 1969



Robert Barry
Apr-24/87

REVISED	TODD CREEK
	CLAIM MAP

Scale 1: 100,000

0 1 2 3 4Km

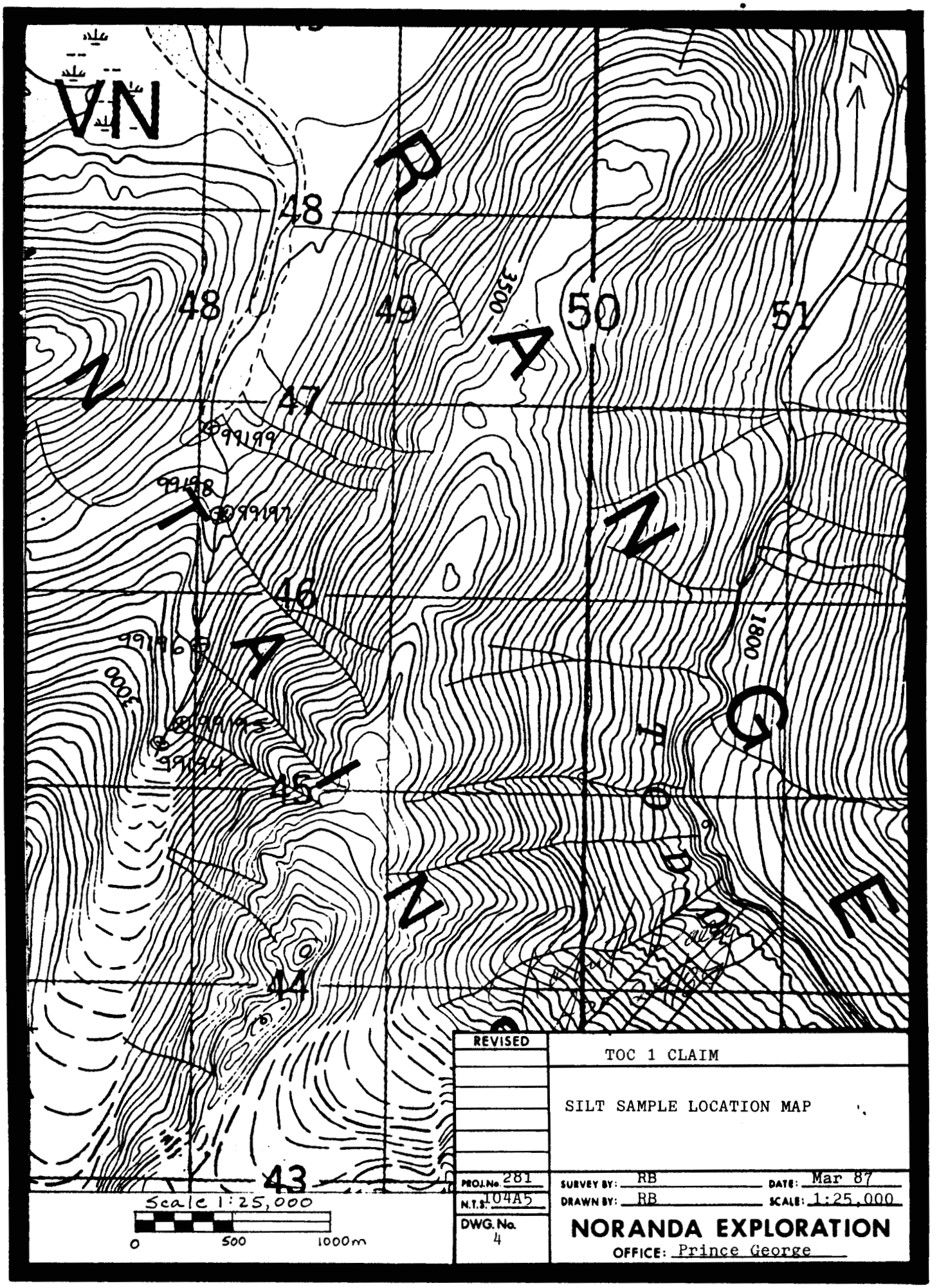
PROJ.No. 281 SURVEY BY: RB DATE: Feb/87

N.T.S. 104A/4 DRAWN BY: RB SCALE: 1:100,000

DWG. No. 2

NORANDA EXPLORATION

OFFICE: Prince George



REVISED	TOC 1 CLAIM
	SILT SAMPLE LOCATION MAP
PROJ. No. 281	SURVEY BY: RB DATE: Mar 87
N.T.S. 104A5	DRAWN BY: RB SCALE: 1:25,000
DWG. No. 4	**NORANDA EXPLORATION**
	OFFICE: Prince George

As well, silt samples were collected on all the creeks draining the area of alteration. Virtually all the silt samples proved to be anomalous in Cu, As, Au +/- Pb, Zn. Table IV lists the silt samples collected from this area.

TABLE IV - NORTH-MID ZONE SILT SAMPLES
ANOMALOUS ELEMENTS
(ppm unless otherwise noted)

SAMPLE #	Cu	Pb	Zn	Ag	As	Au (ppb)
15151	94	22	104	.4	32	24
15152	142	24	102	.3	54	37
15153	100	27	323	.4	51	25
15154	80	16	101	.2	37	34
15155	122	29	103	.3	42	32
15156	90	33	123	.3	48	129
15157	65	20	104	.4	45	14
15158	80	22	100	.5	43	37
15215	15	28	84	.2	8	1
15216	16	11	72	.1	2	32
55485	96	24	111	.3	48	68
55492	69	11	99	.3	51	18
55495	171	30	87	.4	89	47
55497	26	15	125	1.1	36	19
55498	123	24	86	.4	41	3

As well, a day was spent prospecting and silt sampling the main drainage on the TOC 1 claim. Silt samples were collected from the main stream as well as any tributaries. Table V lists the silt sample analyses and Figure #4 shows the sample locations. Prospecting of the area was conducted using a helicopter, due to the extremely rugged nature of the terrane.

The silt samples appear to indicate that there may be mineralization present beneath the glacier.

TABLE V - TOC 1 CLAIM SILT SAMPLES
(ppm unless otherwise noted)

SAMPLE #	Cu	Pb	Zn	Ag	As	Au (ppb)
99194	50	116	246	1.4	26	1
99195	8	14	119	0.1	12	3
99196	67	77	247	6.0	23	12
99197	29	13	111	0.1	11	4
99198	45	47	199	1.5	10	1
99199	34	34	180	1.0	14	1

coincident with a large alteration area on the south side of Fall Creek has opened up a new exploration target area. Float samples returned values as high as 26,400 ppb gold. As well, silt samples collected from this area were almost uniformly anomalous in Cu, As and Au. Three small copper showings in this area returned very anomalous gold values, up to 0.960 oz/T.

CONCLUSIONS & RECOMMENDATIONS:

To date, a significant zone of copper-gold mineralization has been outlined in the South Zone. It is recommended that this zone be mapped in detail and then diamond drilled to test the continuity of the zone to depth.

Work in the Mid Zone has outlined a favourable package of felsic volcanics and identified a large gossan which has yet to be explored. The creeks draining this area are locally anomalous in base and precious metals. It is recommended that the entire ridge on which the Mid Zone sits, be mapped and sampled. This would include the altered area southwest of the North Zone.

In the North Zone, the presence of copper-gold bearing veins was confirmed, but the values were generally quite low. It is recommended that the "A" zone trenches be resampled and that larger samples be collected.

For the remainder of the property, it is recommended that a program of silt sampling, prospecting and regional mapping be undertaken to evaluate the potential of the surrounding areas.

REFERENCES:

Alldrick, D. J., (1983) Salmon River Project, Stewart, B. C. B.C.D.M. Paper 83-1.

Gorc, D., (1982) Todd Creek Property, B.C.D.M. Ass. Rpt. 10404.

Grove, E. W., (1982) Geology of the Unuk River-Salmon River-Anyox Map Area.

Hodgson, A. G., (1971) Geological Report on Todd Group of Claims, B.C.D.M. Ass. Rpt. 3428.

Osborne, T. C., (1960) Todd Creek Project, Newmont Mining Corporation, Company Report.

APPENDIX I(a)

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT - TODD CREEK (TOC 1, 2, 3)
TYPE OF REPORT - Geological, Geochemical

a) **Wages:**

No. of Days - 2	
Rate per Day - $150	
Dates From - Aug 18, 1986	
Total Wages	$ 300.00

b) **Food and Accommodation:**

No. of Days - 2	
Rate per Day - $50.00	
Dates From - Aug 18, 1986	
Total Cost	$ 100.00

c) **Transportation:**

No. of Days - 1	
Rate per Day - $1,103.00	
Dates From - Aug 18, 1986	
Total Cost	$ 1,103.00

d) **Analysis:**

6 silt samples @ $13.85/sample (30 element geochem package and Au geochem)	
Total Cost	$ 83.10

e) **Cost of Preparation of Report:**

Author	$ 25	
Drafting	$ 25	
Total Cost		$ 50.00

TOTAL COST **$ 1,636.10**

APPENDIX I(b)

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT - TODD CREEK (TOC 4, 5, 6, 7, 8)
TYPE OF REPORT - Geological, Geochemical

a) **Wages:**

No. of Days - 21	
Rate per Day - $150	
Dates From - Aug 11 to Oct 4, 1986	
Total Wages	$ 3,150.00

b) **Food and Accommodation:**

No. of Days - 19	
Rate per Day - $50.00	
Dates From - Aug 11 to Oct 4, 1986	
Total Cost	$ 950.00

c) **Transportation:**

No. of Days - 5	
Rate per Day - $462.96	
Dates From - Aug 11 to Oct 4, 1986	
Total Cost	$ 2,314.80

d) **Analysis:**

41 rock samples @ $24.00/sample (Cu-Au Assay & 30 element geochem package)	$ 984.00	
34 rock samples @ $15.75/sample (30 element geochem package & Au geochem)	$ 535.50	
22 silt samples @ $13.85/sample (30 element geochem package & Au geochem)	$ 304.70	
Total Cost		$ 1,824.20

e) **Cost of Preparation of Report:**

Author	$ 200	
Drafting	$ 200	
Typing	$ 50	
Total Cost		$ 450.00

TOTAL COST **$ 8,689.00**

APPENDIX I(c)

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT - TODD CREEK (TOC 9, 10, 11, 12)
TYPE OF REPORT - Geological, Geochemical

a) **Wages:**

No. of Days - 20	
Rate per Day - $150.00	
Dates From - Aug 18 to Sept 30, 1986	
Total Wages	$ 3,000.00

b) **Food and Accommodation:**

No. of Days - 20	
Rate per Day - $50.00	
Dates From - Aug 18 to Sept 30, 1986	
Total Cost	$ 1,000.00

c) **Transportation:**

No. of Days - 5	
Rate per Day - $341.63	
Dates From - Aug 18 to Sept 30, 1986	
Total Cost	$ 1,708.15

d) **Analysis:**

80 rock samples @ $24.00/sample (Cu-Au Assay & 30 element geochem package)	$1,920.00	
63 rock samples @ $15.75/sample (Au geochem & 30 element geochem package)	$ 992.25	
10 silt samples @ $13.85/sample (Au geochem & 30 element geochem package)	$ 130.85	
Total Cost		$ 3,043.10

e) **Cost of Preparation of Report:**

Author	$ 175	
Drafting	$ 175	
Typing	$ 50	
Total Cost		$ 400.00

TOTAL COST **$ 9,151.25**

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, Robert J. Baerg of the City of Prince George, Province of British Columbia, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited since May, 1984.

2. I am a graduate of the University of British Columbia with a Bachelor of Science (Honors) in Geology (1984).

3. I supervised and assisted with the work described in this report.

Robert J. Baerg
Geologist
Noranda Exploration Company, Limited
(No Personal Liability)

APPENDIX III

ANALYTICAL PROCEDURES

The methods listed are presently applied to analyse geological materials by the Noranda Geochemical Laboratory at Vancouver. (March, 1984).

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 analysis.

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions (panned samples) 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 weighted out at 0.2 g or less depending on the matrix of the rock, and twice as much acid is used for decomposition that that is used for silt or soil.

The concentrations of Ag, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, V and Zn (all the group A elements of the fee schedule) can be determined directly from the digest (dissolution) with an atomic absorption spectrometer (AA). 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 attached with 3.3 ml of 6% tartaric aid, 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 acid solution with an AA-475, equipped with electrodeless discharge lamp (EDL).

Arsenic - As: 0.2 - 0.4 g sample is digested with 1.5 ml of 70% perchloric acid and 0.5 ml of conc. nitric acid. A Varian AA-475 equipped with an As-EDL measures the arsenic concentration of the digest.

Barium - Ba: 0.1 g sample is decomposed with conc. perchloric, nitric and hydrofluoric acid. 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 into the flame of the AA instrument c/w EDL.

Gold - Au: 10.0 g sample sample (Pan-concentrates see below) is digested with aqua regia (1 part nitric and 3 parts hydrochloric acid). Gold is extracted with Methyl iso-Butyl ketone (MIBK) from the aqueous solution. Gold is determined from the MIBK solution with flame AA.

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 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, taken from a perchloric-nitric (3:1) decomposition, usually from the multi-element digestion, is diluted with water and a phosphate buffer. This solution is exposed to laser light, and the luminescence of the uranyl ion is quantitatively measured on the UA-3 (Scintrex).

LOWEST VALUES REPORTED IN PPM

Ag - 0.2	Mn - 20	Zn - 1	Au - 0.01 (10 ppb)
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	

TOC 6

TOC 7

TOC 8

TOC 9

TODD CLAIMS

L.C.P

Rusty Zone

Sheared Rhyolite

Till

See Detailed Map

ZONE "A"

ZONE "B"

Trench 1

Trench 2

Trench 3

Trench 4

Old drill sites

local areas of q-sc-py alt < 10 m.

CAMP

CREEK

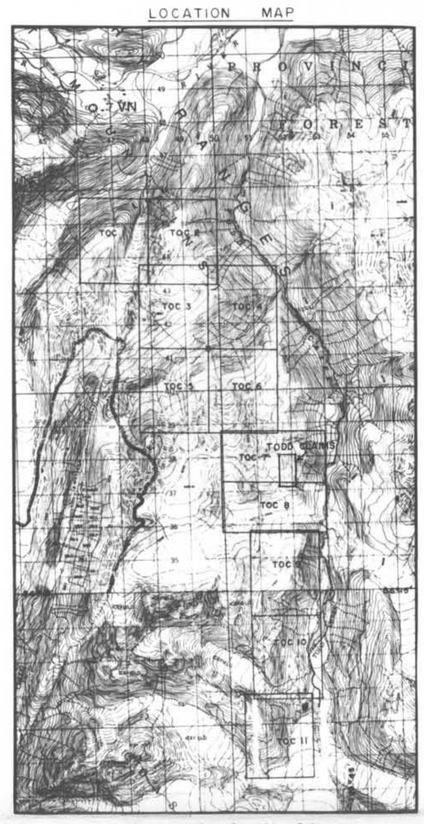
FALL

SNOW BRIDGE

TODD

ICE

LOCATION MAP



LEGEND

ROCK TYPES

1	Feldspar Porphyry, pale brown, 1a-quartz-pyrite altered, 1b-quartz-sericite pyrite altered, 1c-chlorite altered, 1d-iron-carbonate +/- quartz-sericite altered
2	Dark green, maroon grey andesite flows, agglomerate tuff, breccia
3	Light grey-green feldspar porphyry flows, tuff and tuff breccia
4	Rhyolite, massive, breccia, lapilli tuff, locally quartz-sericite-pyrite altered
5	Dark green hornblende porphyry intrusive
	Quartz-pyrite +/- sericite altered mineralized zone

ba	barite	q	quartz
bn	bornite	sc	sericite
cal	calcite	sp	sphalerite
chl	chlorite	stk.wk.	stock work
cpy	chalcopyrite	Tt	tetrahedrite
gn	galena		
hem	hematite		
mal	malachite		
py	pyrite		

SYMBOLS

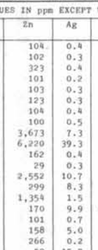
- Outcrop area
- Geologic contact defined, inferred
- Mineralized vein
- x, ⊗ Rock, float sample
- 41821 → Silt sample
- g Glacial till
- Icefield
- Trench or chip sample line
- Strike and dip

TABLE OF ROCK AND SILT SAMPLE ANALYSIS

ALL VALUES IN ppm EXCEPT WHERE NOTED

SAMPLE #	TYPE	Mo	Cu	Pb	Zn	Ag	As	Cd	Sb	Au (ppb)	Cu %	Au (oz/T)
15151	silt	1	94	22	104	0.4	32	1	2	24		
15152	silt	1	142	24	102	0.3	54	1	2	37		
15153	silt	1	100	27	323	0.4	51	3	2	25		
15154	silt	1	80	16	101	0.2	37	1	2	34		
15155	silt	1	122	29	103	0.3	42	1	2	32		
15156	silt	1	90	33	123	0.3	48	1	2	129		
15157	silt	1	65	20	104	0.4	45	1	2	14		
15158	silt	1	80	22	100	0.5	43	1	2	37		
55428	rock	53	270	5,153	3,673	7.3	75	67	41	1		
55429	rock	9	286	11,968	6,270	39.3	53	70	12	12		
55430	silt	1	70	30	162	0.4	26	1	2	9		
55431	rock	2	51	55	29	0.3	307	1	2	220		
55432	rock	28	146	544	2,552	10.7	141	17	2	6		
55433	rock	6	42,247	33	299	8.3	397	7	2	-	4.81	.016
55434	rock	6	1,159	164	1,354	1.5	200	15	3	-	.12	.027
55435	rock	8	35,197	65	170	9.9	2,183	6	11	-	3.94	.169
55436	rock	3	1,568	10	101	0.7	112	1	2	-	.16	.049
55437	rock	12	12,587	69	158	5.0	924	3	2	-	1.27	.023
55438	silt	2	43	39	266	0.2	29	2	2	6		
55439	rock	2	276	216	52	15.7	57	1	18	82		
55440	rock	7	628	278	29,353	5.0	34	389	14	39		
55441	rock	2	21	11	113	0.2	2	1	2	1		
55442	rock	2	15	13	62	0.2	6	1	2	1		
55443	rock	7	780	13	45	0.2	40	1	4	92		
55444	rock	83	23	20	8	0.9	186	1	8	37		
55445	silt	8	22	24	133	0.3	109	1	3	10		
55446	silt	2	20	25	115	0.5	42	1	2	4		
55447	rock	5	21	24	21	0.4	300	1	8	37		
55448	rock	7	9,849	22	194	2.2	246	3	2	1,490		
55449	rock	34	2,392	20	225	2.9	1,074	4	4	580		
55450	rock	15	16,572	67	2,992	13.3	2,626	58	5	-	1.88	.029
55451	rock	18	19,241	71	390	5.4	252	4	2	-	2.19	.032
55470	rock	13	134	218	78	1.9	1,066	1	19	1,480		
55472	rock	3	218	16	9	0.3	86	1	2	2,100		
55473	rock	4	200	23	70	0.7	477	1	2	69		
55474	rock	4	42	21	16	1.3	228	1	2	89		
55475	rock	3	34,611	26	141	0.1	78	4	2	-	4.03	.046
55476	rock	2	275	6	6	0.1	4	1	2	10		
55477	rock	4	311	55	29	1.9	686	1	7	580		
55478	rock	2	117	12	24	0.1	33	1	2	28		
55479	rock	4	18	9	72	0.1	12	1	2	15		
55480	rock	1	23	13	44	0.3	77	1	2	4		
55481	rock	2	682	33	63	2.4	347	1	2	830		
55482	rock	1	3,298	4	12	13.6	2	1	2	6		
55483	rock	4	126	26	44	0.7	326	1	2	50		
55484	rock	3	2,149	41	54	1.2	590	1	2	600		
55485	silt	2	96	24	111	0.3	48	1	2	68		
55486	rock	7	28	13	11	0.1	40	1	3	6		
55487	rock	3	19	20	13	0.2	70	1	2	3		
55488	rock	24	33,626	42	100	2.2	167	5	2	-	4.85	.648
55489	rock	2	64	15	15	0.2	53	1	2	46		
55490	rock	11	10,185	27	52	0.2	206	2	2	-	1.10	.067
55491	rock	2	1,387	12	35	1.2	17	1	2	26400	-	-
55492	silt	2	69	11	99	0.3	51	2	2	18		
55493	rock	3	165	14	22	2.3	14	1	2	46		
55494	rock	2	2,880	10	43	0.3	25	1	2	4,150		
55495	silt	2	171	30	87	0.4	89	3	2	47		
55496	rock	6	50,898	30	137	14.2	43	6	2	-	6.29	.001
55497	silt	1	26	15	125	1.1	36	1	2	19		
55498	silt	2	123	24	86	0.4	41	1	2	3		
55499	rock	5	1,329	45	122	1.5	804	2	2	109	-	-
15214	rock	4	783	12	8	0.8	62	1	5	122		
15215	silt	2	15	28	84	0.2	8	1	2	1		
15216	silt	2	16	11	72	0.1	2	1	4	32		
15217	rock	18	39	162	145	4.3	784	2	19	28	-	-
15218	rock	2	60	9	28	0.1	2	1	2	-	.01	.001
15219	rock	11	12,650	41	73	10.2	352	1	2	-	1.41	.008
15220	rock	2	754	7	127	0.3	183	1	2	-	.08	.016
15221	rock	3	152	13	49	0.2	7	1	2	-	.02	.128
15222	rock	3	6,073	19	47	0.7	110	1	2	-	.66	.009
15223	rock	7	105	39	44	0.2	997	1	2	72	-	-
15224	rock	4	15,912	28	41	0.2	96	2	2	-	1.70	.152
15225	rock	3	6,844	10	45	0.2	8	1	2	-	.74	.004
15226	rock	6	22	18	33	0.8	32	1	2	-	.01	.008
15227	talus	2	35	33	160	0.7	16	1	2	1		
15228	rock	14	26,381	55	512	5.2	25	5	2	-	3.08	.960
15229	rock	4	26,561	23	102	5.2	20	2	2	-	3.01	.197
15230	rock	4	6,859	8	49	0.1	8	1	2	-	.73	.001
15231	rock	41	42,285	45	135	18.2	206	5	2	-	5.76	.008
15232	silt	2	61	16	93	0.2	11	1	2	3		
15233	silt	2	94	23	99	0.4	44	1	2	26		
55471	rock	7	5208	230	852	7.8	49	4	2	-	0.59	.009

MAP SHEET INDEX



NOTE Topography based on photocopy enlargement of N T S 1 50,000 scale map 104A/5

0 100 200 300 400 500 m
SCALE 1:5,000

Robert Bourg Apr 24/87

15,988

GEOLOGICAL BRANCH
ASSESSMENT REPORT

REVISED
R.B. Oct., 1986

TOC CLAIMS

NORTH ZONE
GEOLOGY MAP AND
ROCK, SILT SAMPLE LOCATIONS

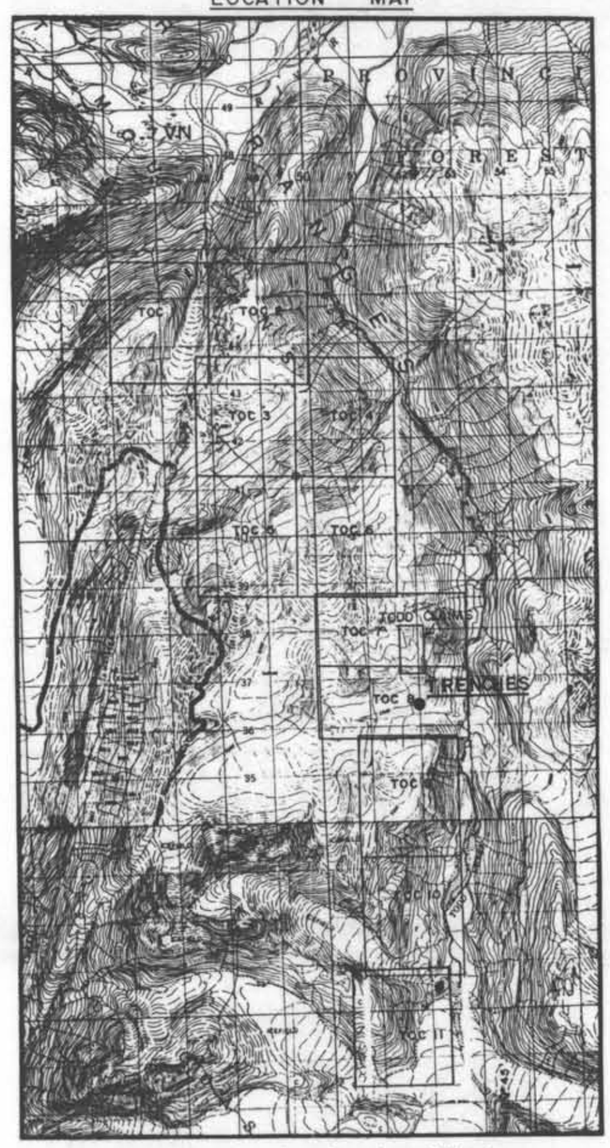
PROJ. No. 540
N.T.S. 104A/5
DWG. No. FIG. 5

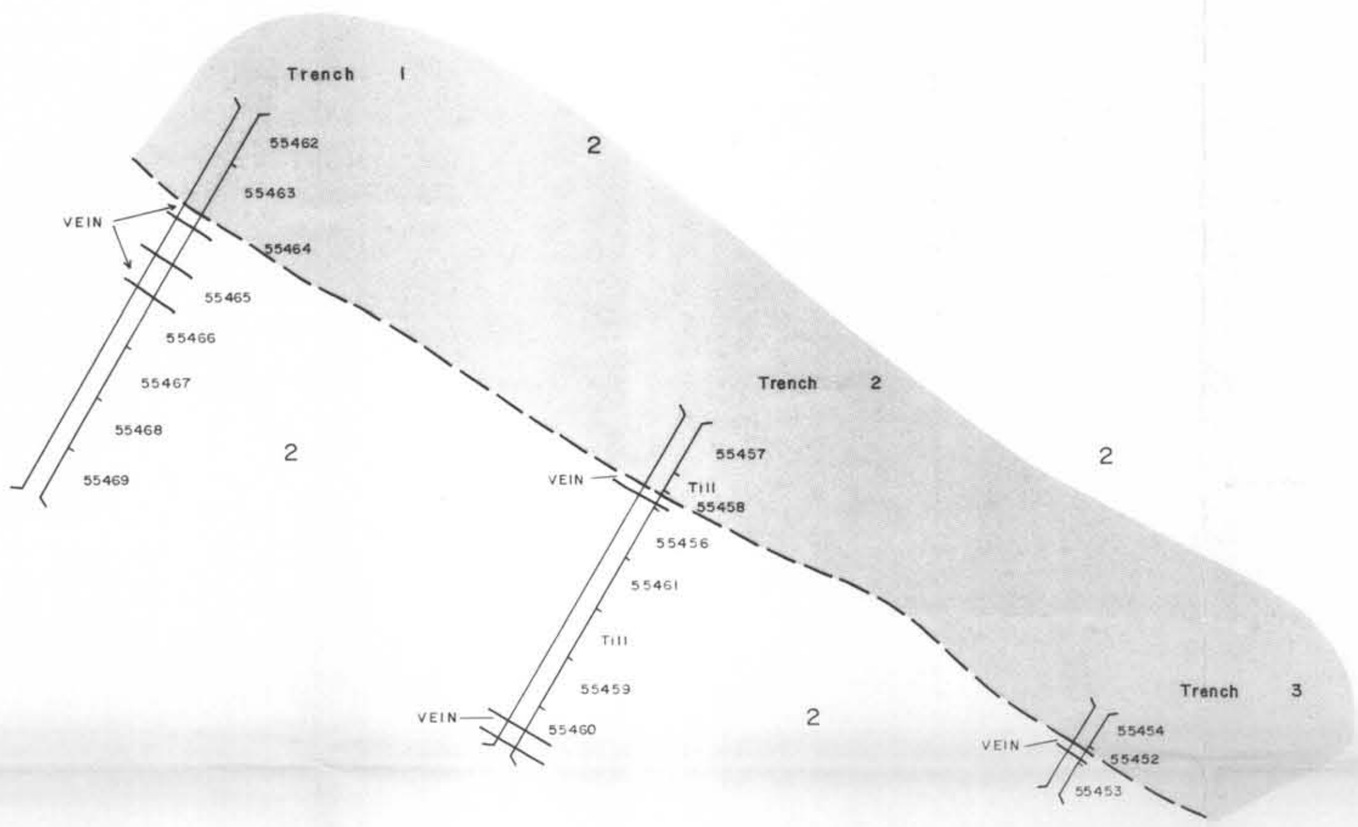
SURVEY BY: R.B. DATE: Aug. 1986
DRAWN BY: S.K.B. SCALE: 1:5000

NORANDA EXPLORATION
OFFICE PRINCE GEORGE, B.C.

VANCAL 11917

LOCATION MAP





LEGEND

ROCK TYPES

- 1 — Feldspar Porphyry, pale brown, 1a-quartz-pyrite altered, 1b-quartz-sericite pyrite altered
- 2 — Dark green, maroon grey andesite flows, agglomerate tuff, breccia
- Quartz - pyrite +/- sericite altered mineralized zone

SYMBOLS

- Outcrop area
- Geologic contact defined, inferred
- Mineralized vein
- x , ⊗ — Rock, float sample
- 41821 — Silt sample
- g — Glacial till
- Icefield
- Trench or chip sample line
- Strike and dip
- Fault

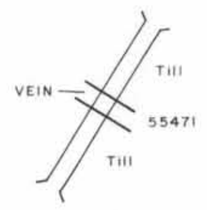


TABLE OF ROCK SAMPLE ANALYSIS

ALL VALUES IN ppm EXCEPT WHERE NOTED

SAMPLE #	TYPE	Mo	Cu	Pb	Zn	Ag	As	Cd	Sb	Au (ppb)	Cu %	Au (oz/T)
55452	rock	14	8,250	247	1,220	13.5	46	6	2	-	.92	.013
55453	rock	3	1,862	27	135	0.9	15	1	2	-	.20	.001
55454	rock	3	59	12	76	0.5	9	1	2	-	.01	.001
55455	silt	2	157	23	118	0.3	40	1	2	26		
55456	rock	5	6,240	73	406	2.7	72	4	2	-	.68	.001
55457	rock	7	30	121	687	0.8	12	4	7	-	.01	.001
55458	rock	19	6,668	1,172	3,130	20.2	37	23	5	-	.70	.016
55459	rock	6	186	43	265	0.4	21	1	2	-	.02	.001
55460	rock	11	1,711	53	398	4.4	35	3	2	-	.18	.153
55461	rock	8	319	22	150	0.3	21	1	2	-	.03	.001
55462	rock	7	26	22	99	0.3	49	1	2	-	.01	.001
55463	rock	6	17	19	92	0.3	25	1	2	-	.01	.001
55464	rock	26	6,227	80	969	3.0	167	11	2	-	.67	.011
55465	rock	9	917	102	713	1.2	28	6	2	-	.10	.003
55466	rock	26	41,484	51	398	14.1	109	7	2	-	5.39	.030
55467	rock	17	61	38	226	0.4	10	1	2	-	.01	.001
55468	rock	4	924	80	181	0.6	21	1	2	-	.10	.002
55469	rock	11	5,482	45	370	2.3	59	5	2	-	.63	.014
55471	rock	7	5,208	230	852	7.8	49	4	2	-	.59	.009

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,988

Robert Barry
Apr 24/87

0 5 10 15 20 metres
SCALE 1 : 250

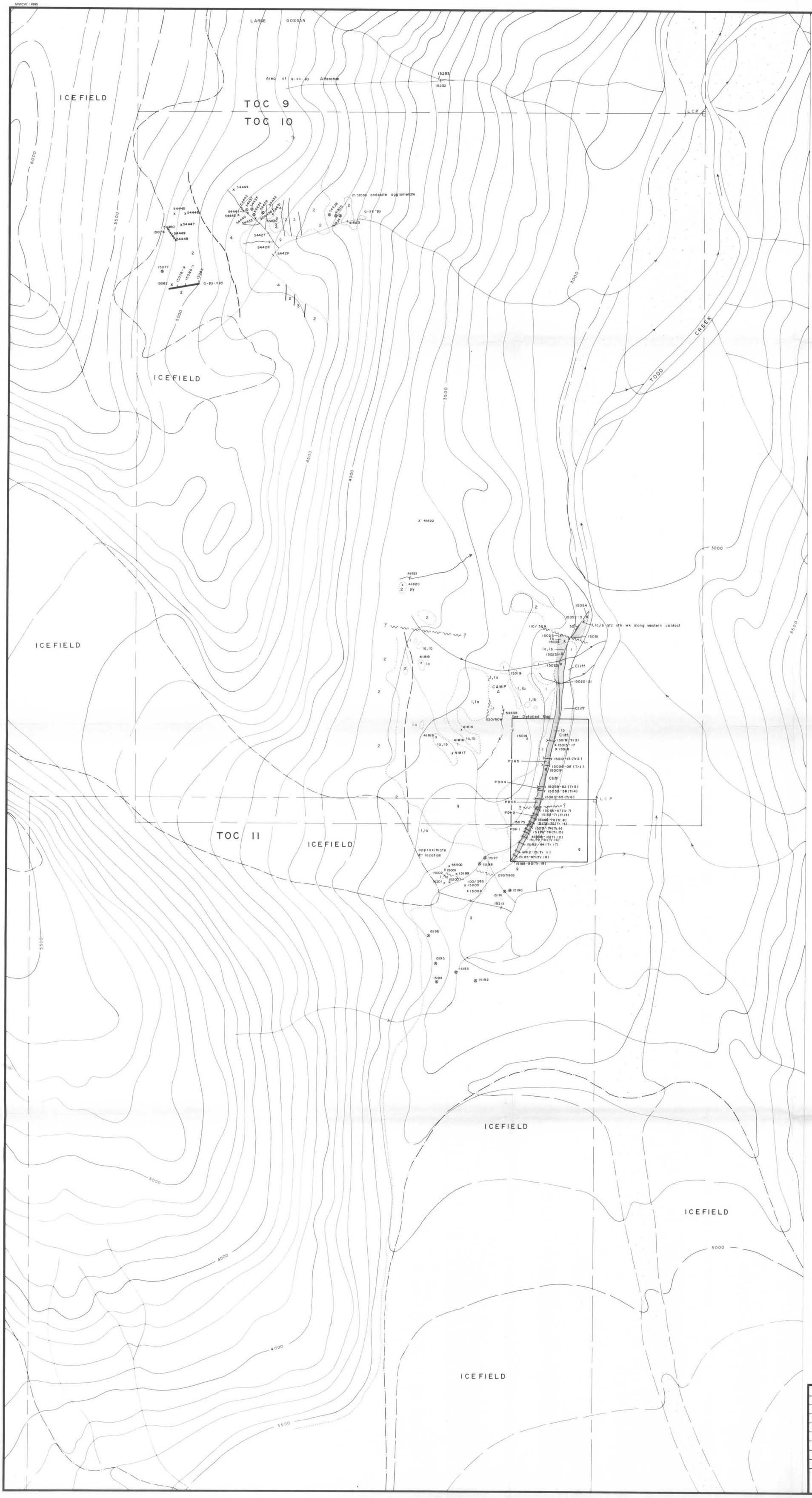
REVISED
,
PROJ. No. 240
N.T.S. 104A/5
DWG. No. FIG. 6

TOC CLAIMS

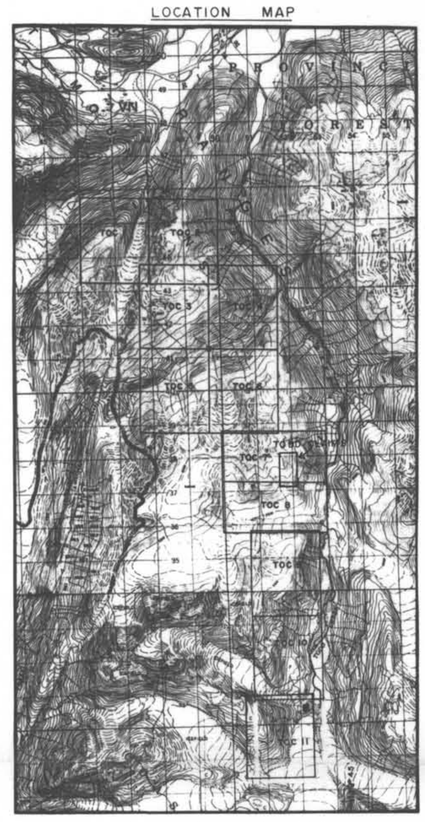
NORTH "A" ZONE
TRENCH LOCATIONS

SURVEY BY: R. B. DATE: Sept. / 1986
DRAWN BY: S.K.B. SCALE: 1 : 250

NORANDA EXPLORATION
OFFICE: PRINCE GEORGE, B.C.



LOCATION MAP



0 1 2 3 4 5 Kilometres
SCALE : 100,000

LEGEND

ROCK TYPES

1. Feldspar Porphyry, pale brown, 1a-quartz-pyrite altered, 1b-quartz-sericite pyrite altered, 1c-chlorite altered, 1d-iron-carbonate +/- quartz-sericite altered.
2. Dark green, maroon, grey andesite flows, agglomerate tuff, breccia
3. Light grey-green feldspar porphyry flows, tuff and tuff breccia
4. Rhyolite, massive, breccia, lapilli tuff, locally quartz-sericite-pyrite altered
5. Dark green hornblende porphyry intrusive

Quartz-pyrite +/- sericite altered mineralized zone

ba	barite	q	quartz
bn	bornite	sc	sericite
cal	calcite	sp	sphalerite
chl	chlorite	stk.wk.	stock work
cpy	chalcopyrite	Tt	tetrahedrite
gn	galena		
hem	hematite		
mal	malachite		
py	pyrite		

SYMBOLS

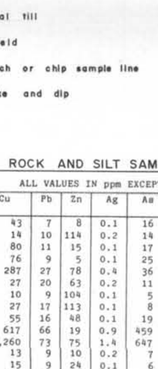
- Outcrop area
- Geologic contact defined, inferred
- Mineralized vein
- x, ⊗ Rock, float sample
- 41821 → Silt sample
- g Glacial till
- Icefield
- Trench or chip sample line
- Strike and dip

TABLE OF ROCK AND SILT SAMPLE ANALYSIS

ALL VALUES IN ppm EXCEPT WHERE NOTED

SAMPLE #	TYPE	Mo	Cu	Pb	Zn	Ag	As	Cd	Sb	Au (ppb)	Cu %	Au (oz/T)
41815	rock	3	43	7	8	0.1	16	1	10	8		
41816	silt	4	14	10	114	0.2	14	1	2	4		
41817	rock	4	80	11	15	0.1	17	1	9	24		
41818	rock	2	76	9	5	0.1	25	1	10	2		
41819	rock	2	287	27	78	0.4	36	1	2	13		
41820	rock	2	27	20	63	0.2	11	1	2	1		
41821	silt	1	10	9	104	0.1	5	1	2	8		
41822	rock	3	27	17	113	0.1	8	1	2	1		
41823	silt	3	55	16	48	0.1	19	1	2	1		
41824	rock	18	617	66	19	0.9	459	1	3	98		
41825	rock	13	5,260	73	75	1.4	647	1	2	21		
15001	rock	2	13	9	10	0.2	7	1	3	1		
15002	rock	1	15	9	24	0.1	6	1	6	2		
15003	rock	4	1,341	43	10	0.2	133	1	2	1		
15004	rock	1	32	13	84	0.3	9	1	2	1		
15005	rock	22	19,707	19	57	0.5	256	2	6	21		
15019	silt	5	77	19	185	0.4	28	1	2	1		
15020	rock	2	108	24	21	2.1	23	1	24	10		
15021	rock	2	54	18	22	0.1	14	1	6	4		
15022	rock	2	26	11	13	0.1	21	1	5	1		
15023	rock	1	18	10	14	0.1	16	1	2	1		
15024	rock	1	14	10	5	0.1	18	1	4	1		
15025	rock	3	244	23	31	0.5	19	1	4	5		
15051	rock	2	11	19	14	0.1	3	1	5	2		
15052	rock	481	1,820	67	22	4.2	210	1	10		.18	.005
15053	rock	21	726	33	36	1.3	187	1	7		.07	.001
15054	rock	16	11,054	41	82	1.6	152	2	4		1.17	.022
15076	rock	6	858	24	22	0.2	161	1	2	21		
15077	rock	23	660	92	45	0.3	192	1	2	1		
15078	rock	4	3,384	26	26	0.1	453	1	2	52		
15079	rock	5	1,706	27	23	0.2	277	1	2	66		
15080	rock	5	948	42	31	0.6	486	1	2	57		
15081	rock	6	331	14	15	0.1	117	1	2	13		
15082	rock	7	1,465	112	29	2.4	850	1	2	108		
15083	rock	3	67	75	77	0.8	561	1	2	74		
54426	rock	16	1,337	30	38	0.6	248	1	2	37		
54427	silt	7	99	23	59	0.2	58	1	2	6		
54428	silt	9	105	40	118	0.4	117	1	2	10		
54429	silt	3	58	24	48	0.3	29	1	2	3		
54430	rock	4	44	2	1	0.1	5	1	2	1		
54431	rock	8	28	12	1	0.2	10	1	2	4		
54432	rock	8	2,235	10	51	0.2	83	1	2	50		
54433	rock	92	5,376	24	69	1.4	185	1	2	380		
54434	rock	11	142	35	17	0.3	244	1	2	46		
54435	rock	10	192	33	16	0.4	250	1	5	55		
54436	rock	25	12,138	39	28	0.4	366	1	5	1,560		
54437	rock	3	54	18	20	0.3	81	1	2	4		
54438	silt	1	24	19	101	0.3	13	1	2	4		
54439	rock	8	786	29	8	1.3	228	1	5	210		
54440	rock	9	5,304	13	34	0.4	76	1	2	19		
54441	rock	11	460	33	19	0.9	180	1	2	31		
54442	rock	6	40	29	35	0.6	243	1	2	23		
54443	rock	4	9	15	25	0.4	30	1	2	7		
54444	rock	8	35	25	30	0.3	193	1	2	4		
54445	rock	9	593	31	61	0.5	129	1	2	1		
54446	rock	32	6,605	16	61	0.1	153	1	2	1		
54447	rock	9	105	61	36	0.6	295	1	2	49		
54448	rock	8	235	34	25	0.8	235	1	2	21		
54449	rock	11	16,838	103	69	5.9	260	2	2	25		
54450	rock	8	328	35	18	0.5	170	1	2	4		
55500	rock	2	207	6	2	0.1	8	1	2	5		
15190	rock	2	37	6	28	0.1	2	1	2	–	.01	.009
15191	rock	2	16	6	1	0.1	16	1	2	–	.01	.001
15192	rock	8	14	12	86	0.2	21	1	33	2	–	–
15193	rock	2	12	14	2	0.2	2	1	3	1	–	–
15194	rock	5	15	23	189	0.4	50	6	4	1	–	–
15195	rock	1	8	2	3	0.1	2	1	2	2	–	–
15196	rock	6	200	25	7	0.5	243	1	28	76	–	–
15197	rock	25	3,887	39	27	0.6	1,425	1	4	3,140	–	–
15198	rock	12	2,573	85	39	1.3	2,314	1	4	1,220	–	–
15199	rock	57	23,514	145	246	4.8	2,990	7	14	290	–	–
15200	rock	10	10,072	10	21	0.1	79	1	2	–	1.10	.001
15201	rock	13	15,453	11	50	0.1	22	2	2	–	1.86	.001
15213	silt	2	38	14	67	0.3	9	1	6	18	–	–
15232	silt	2	61	16	93	0.2	11	1	2	3	–	–
15233	silt	2	94	23	99	0.4	44	1	2	26	–	–

MAP SHEET INDEX



NOTE Topography based on photocopy enlargement of N.T.S. 1:50,000 scale map 104A/4

Robert Bailey Apr 24/87

0 100 200 300 400 500 m
SCALE 1:5,000

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,988

REVISED
R.B. Oct., 1986

TOC CLAIMS

SOUTH ZONE
GEOLOGY MAP AND
ROCK, SILT SAMPLE LOCATIONS

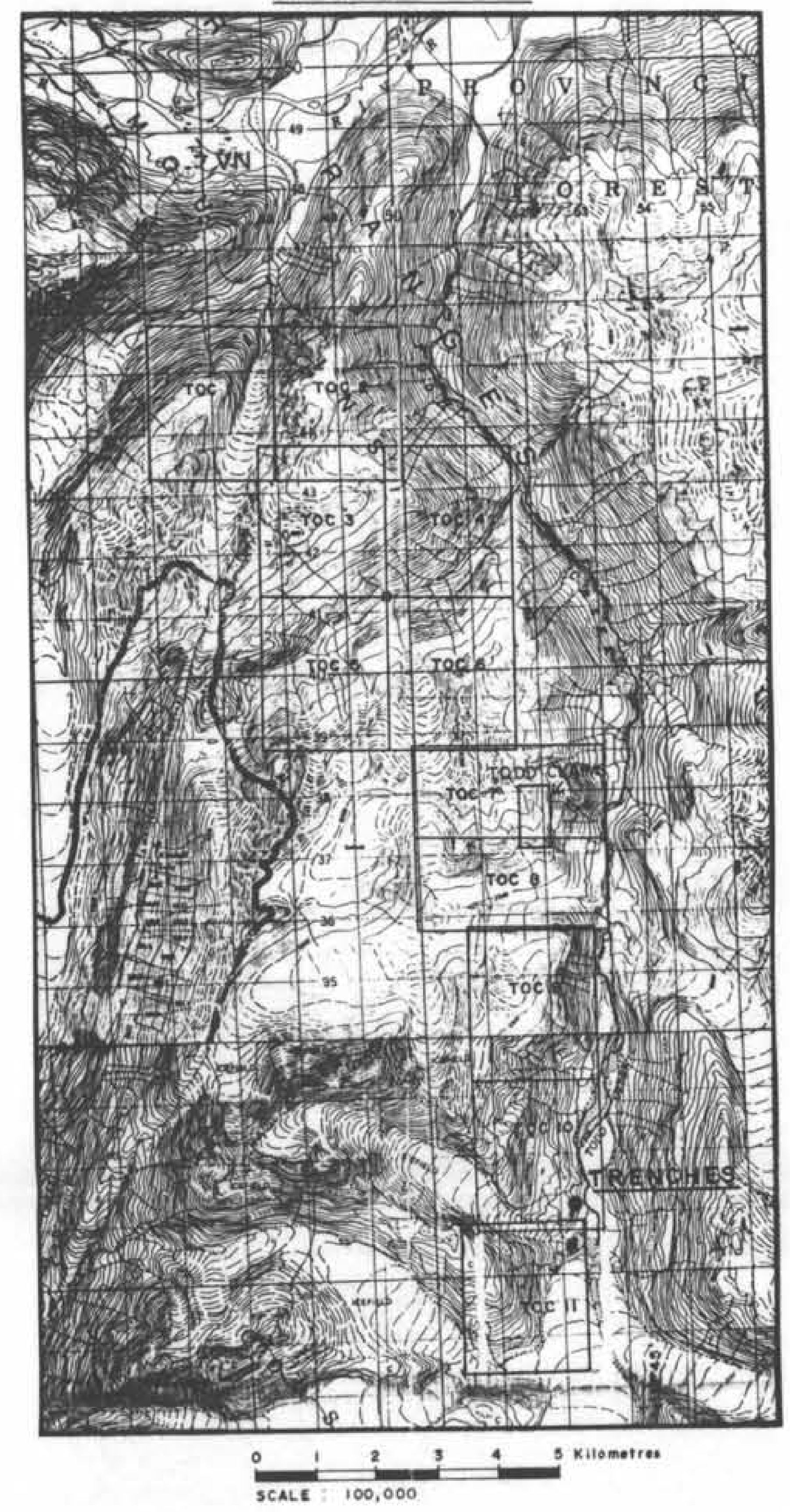
PROJ. No. 540
N.T.S. 104A/4
DWG. No. FIG. 7

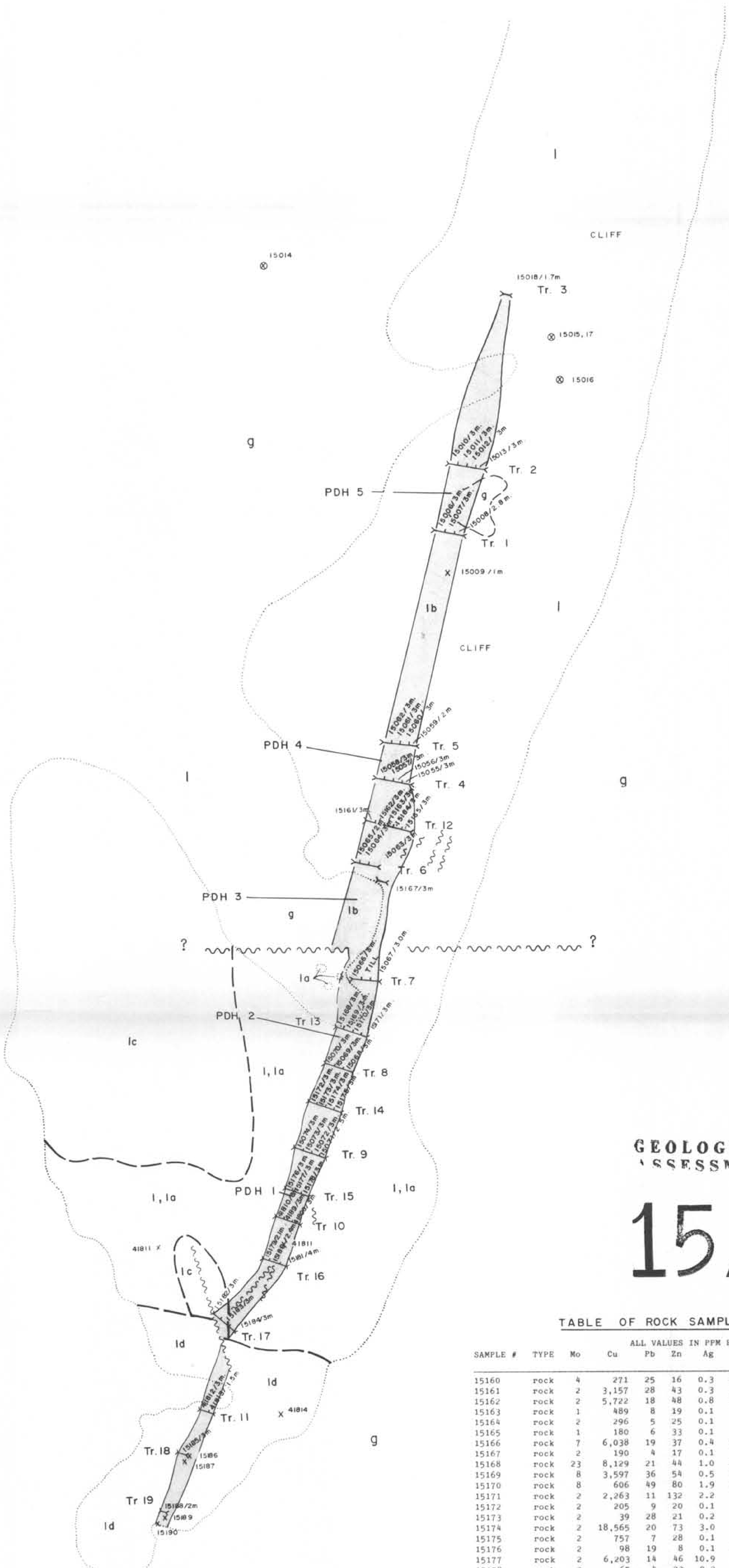
SURVEY BY: R.B. DATE: Aug. 1986
DRAWN BY: S.K.B. SCALE: 1:5000

NORANDA EXPLORATION
OFFICE PRINCE GEORGE, B.C.

VANCAL 11917

LOCATION MAP





LEGEND

ROCK TYPES

1	Feldspar Porphyry, pale brown, Ia - quartz - pyrite altered, Ib - quartz - sericite pyrite altered, Ic - chlorite altered Id - iron, carbonate +/- quartz - sericite altered.
2	Dark green, maroon grey andesite flows, agglomerate tuff, breccia
	Quartz - pyrite +/- sericite altered mineralized zone

SYMBOLS

- Outcrop area
- Geologic contact defined, inferred
- Mineralized vein
- x, ⊗ Rock, float sample
- 41821 Silt sample
- Glacial till
- Icefield
- Trench or chip sample line
- Strike and dip
- Fault

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,988

TABLE OF ROCK SAMPLE ANALYSIS

ALL VALUES IN PPM EXCEPT WHERE NOTED

SAMPLE #	TYPE	Mo	Cu	Pb	Zn	Ag	As	Cd	Sb	Au (ppb)	Cu %	Au (oz/T)
15160	rock	4	271	25	16	0.3	257	1	2	-	.03	.013
15161	rock	2	3,157	28	43	0.3	134	1	4	-	.33	.012
15162	rock	2	5,722	18	48	0.8	310	1	2	-	.61	.062
15163	rock	1	489	8	19	0.1	19	1	2	-	.05	.019
15164	rock	2	296	5	25	0.1	13	1	2	-	.03	.033
15165	rock	1	180	6	33	0.1	7	1	2	-	.02	.011
15166	rock	7	6,038	19	37	0.4	289	1	2	-	.65	.064
15167	rock	2	190	4	17	0.1	2	1	2	-	.02	.001
15168	rock	23	8,129	21	44	1.0	245	1	4	-	.90	.003
15169	rock	8	3,597	36	54	0.5	450	1	2	-	.38	.008
15170	rock	8	606	49	80	1.9	269	1	23	-	.06	.017
15171	rock	2	2,263	11	132	2.2	63	4	176	-	.23	.128
15172	rock	2	205	9	20	0.1	39	1	2	-	.02	.001
15173	rock	2	39	28	21	0.2	66	1	2	-	.01	.001
15174	rock	2	18,565	20	73	3.0	62	2	18	-	2.05	.115
15175	rock	2	757	7	28	0.1	3	1	4	-	.08	.041
15176	rock	2	98	19	8	0.1	157	1	5	-	.01	.002
15177	rock	2	6,203	14	46	10.9	56	1	53	-	.66	.130
15178	rock	2	65	4	23	0.2	3	1	2	-	.01	.011
15179	rock	4	8,231	19	36	0.4	256	1	9	-	.87	.037
15180	rock	5	2,980	13	22	0.6	46	1	7	-	.30	.091
15181	rock	1	3,346	8	15	0.2	17	1	6	-	.35	.007
15182	rock	2	2,073	7	39	0.2	6	1	2	-	.21	.029
15183	rock	2	935	4	31	0.1	6	1	3	-	.09	.022
15184	rock	2	4,569	3	31	0.6	13	1	6	-	.48	.135
15185	rock	3	881	9	21	0.2	2	1	2	-	.09	.066
15186	rock	3	429	6	30	0.2	4	1	2	-	.04	.039
15187	rock	3	11,148	11	39	1.0	4	1	2	-	1.24	.191
15188	rock	2	820	8	27	0.3	2	1	2	-	.09	.087
15189	rock	2	371	15	3	0.3	112	1	2	-	.04	.001

TABLE OF ROCK SAMPLE ANALYSIS

ALL VALUES IN ppm EXCEPT WHERE NOTED

SAMPLE #	TYPE	Mo	Cu	Pb	Zn	Ag	As	Sb	Au (ppb)	Cu %	Au (oz/T)
41808	rock	2	2,835	7	35	0.8	16	13	-	.28	.162
41809	rock	2	25,526	35	73	2.9	273	23	-	2.76	.118
41810	rock	13	5,512	45	37	0.8	1,128	2	-	.55	.047
41811	rock	3	3,093	8	34	0.2	12	7	-	.30	.085
41812	rock	1	4,626	8	33	0.7	88	12	-	.48	.259
41813	rock	2	5,526	7	42	0.3	67	20	-	.59	.123
41814	rock	6	984	88	14	0.5	459	107	31	-	-
15006	rock	2	818	23	27	0.4	209	11	-	.08	.001
15007	rock	17	721	43	27	0.9	1,128	5	-	.07	.001
15008	rock	3	3,123	17	46	0.3	55	7	-	.35	.025
15009	rock	3	20,464	35	83	1.1	274	2	-	2.25	.062
15010	rock	1	106	20	24	0.7	23	14	-	.01	.001
15011	rock	1	370	10	24	0.3	14	7	-	.04	.001
15012	rock	5	1,096	28	41	0.4	144	12	-	.11	.001
15013	rock	2	1,187	19	56	0.3	124	7	-	.12	.012
15014	rock	1	1,048	5	14	0.2	40	4	-	.11	.001
15015	rock	6	16,871	33	82	1.3	328	4	-	1.85	.093
15016	rock	1	60,133	26	146	1.0	484	2	-	7.65	.216
15017	rock	13	17,546	69	85	2.7	2,163	13	-	1.87	.082
15018	rock	31	1,765	105	44	1.5	1,874	2	-	.18	.020
15055	rock	1	1,620	11	26	0.2	238	2	-	.16	.021
15056	rock	19	14,344	54	62	2.9	1,498	2	-	1.57	.043
15057	rock	5	5,319	41	57	0.9	514	2	-	.55	.004
15058	rock	2	258	14	14	0.1	83	4	-	.03	.001
15059	rock	1	391	4	16	0.1	25	3	-	.04	.003
15060	rock	5	13,503	26	64	1.0	469	2	-	1.41	.060
15061	rock	6	7,357	37	58	1.4	276	6	-	.76	.058
15062	rock	5	712	94	27	0.7	338	8	-	.07	.004
15063	rock	1	1,120	7	23	0.2	47	9	-	.11	.072
15064	rock	17	11,976	68	58	0.4	1,005	2	-	1.25	.088
15065	rock	15	3,969	28	66	0.1	269	3	-	.39	.013
15066	rock	23	2,848	106	83	1.2	2,265	2	-	.28	.031
15067	rock	1	4,182	10	27	0.2	25	4	-	.41	.158
15068	rock	1	2,518	12	32	0.8	36	14	-	.26	.283
15069	rock	11	6,936	30	59	0.4	578	2	-	.72	.064
15070	rock	6	598	24	45	0.3	228	2	-	.06	.004
15071	rock	1	1,612	6	14	0.1	16	7	-	.16	.044
15072	rock	1	1,031	5	14	0.1	20	5	-	.10	.022
15073	rock	8	294	49	51	0.6	720	2	-	.03	.008
15074	rock	2	140	14	36	0.3	82	4	-	.01	.001
15075	rock	3	36,917	27	183	18.4	291	104	-	4.16	.148

Robert Baug
Apr 24/87

0 10 20 30 40 50 60 70 metres
SCALE 1:1,000

REVISED	TOC CLAIMS
R. B. Oct., 1986	SOUTH ZONE TRENCH LOCATIONS
PROJ. No. 240	SURVEY BY: R. B. DATE: Sept 23/86
N.T.S. 104A/4	DRAWN BY: S.K.B. SCALE: 1:1000
DWG. No. FIG. 8	NORANDA EXPLORATION OFFICE: PRINCE GEORGE, B.C.