

LOG NO.	1221	RD.
N.T.S. 82L		
FILE NO:		

FILMED

THONG CLAIMS

GEOCHEMICAL SOIL SAMPLING

VERNON MINING DIVISION

N.T.S. 82L/3E & 82L/6E

Latitude 50°16' Longitude 119°0'

UTM 35400 m E 5570000 m N

DEC 15 1988

by

L.R. ERDMAN

of

NORANDA EXPLORATION COMPANY, LIMITED
(no personal liability)

GEOLOGICAL ASSESSMENT REPORT
BRANCH

19/128

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Date Recorded</u>
Thong 1	3013	20	October 6, 1988
Thong 2	3014	20	October 7, 1988
Thong 3	3015	12	October 7, 1988

November, 1989

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INTRODUCTION

The Thong mineral claims were located by Noranda Exploration Company, Limited (no personal liability) in October 1988, to cover a Tertiary volcanic outlier, from which rock and soil samples returned anomalous levels of gold, silver, and arsenic. The claims are located in the Vernon Mining Division and are comprised of 3 modified grid claims totalling 52 units (Figure 1). Claim information is listed below.

TABLE 1: CLAIM STATUS

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Due Date Before Submission of This Report</u>
Thong 1	3013	20	October 6, 1989
Thong 2	3014	20	October 7, 1989
Thong 3	3015	12	October 7, 1989

LOCATION, ACCESS AND TOPOGRAPHY

The Thong claims are located 15 km east of Vernon on the north side of Highway 6 at Lavington. Access is via Coldstream logging road, an un-named logging road, and a roadcut beneath a major power line. Alternatively access is via a private gravel road adjacent to Spider Creek. Bardolph Lake, site of a forestry campground is located west of the centre of Thong 1.

Relief on the property is 910 m with the highest elevation at the northeast corner of the property (1080 m). Steep south and west facing slopes drain into the valley of Coldstream Creek, topography on the east side of the property is more subdued.

Vegetation ranges from mature timber in the west, to rangeland grass in the east.

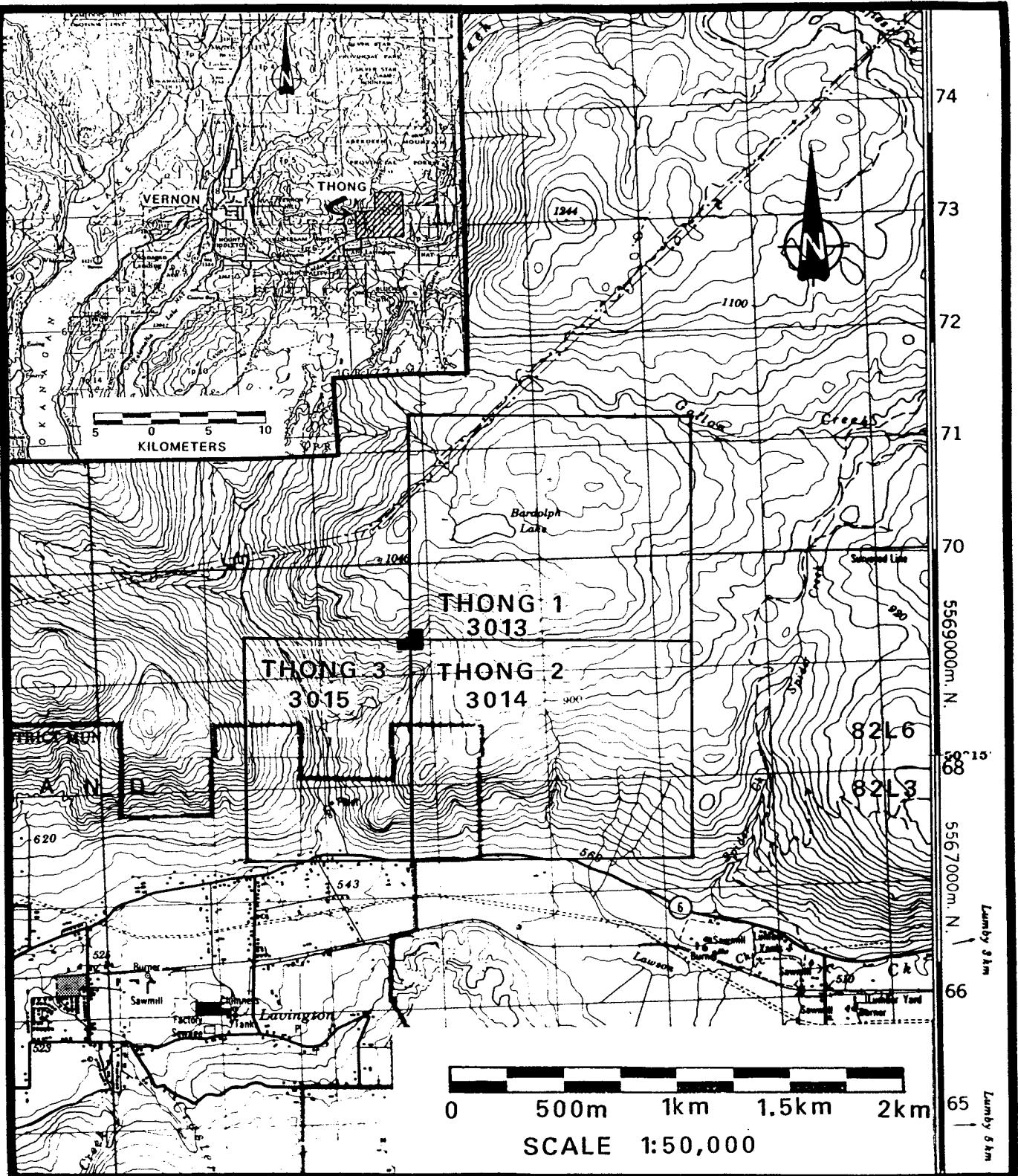


FIGURE 1

THONG PROPERTY
CLAIM LOCATION MAP

REV. 5/89	
127	DATE NOV. 1 1989
8213/6	DRAWN BY L. ERDMAN
DWG No.	SCALE 1:50,000

NORANDA EXPLORATION
OFFICE

HISTORY AND PREVIOUS WORK

Prior to 1983 the area covered by the Thong claims had not previously been explored. In 1983 Minequest Exploration Ltd. staked the Bar and Rod claims (48 units) based on anomalous gold and arsenic in heavy mineral samples from stream sediments.

Minequest's 1983 work programme consisted of silt sampling major creeks, contour soil sampling, prospecting, and rock sampling. The soils outlined several areas of anomalous arsenic, and one area of anomalous antimony. Additional soil sampling by Minequest in 1986 confirmed a distinct coincident As and Sb anomalous zone. Gold values were consistently low.

REGIONAL GEOLOGY

According to Jones (1952) the Thong claims are underlain by Archean Monashee gneiss in the east, in fault contact with Carboniferous and Permian Cache Creek Group argillite in the west. Both units are overlain by a cap of Tertiary Kamloops Group volcanic rocks. The fault trace does not extend through the Tertiary cap (Figure 2).

A more recent map by Okulitch (1978) shows the area to be underlain by a sequence of Triassic Slocan shale, argillite and siltstone, overlain by Triassic and Jurassic Nicola volcanics, intruded by Jurassic pegmatites and granites, and capped by small outliers of Tertiary Kamloops Group volcanics. The fault mapped by Jones does not exist in this interpretation (Figure 3).

PROPERTY GEOLOGY

Outcrop exposure within the claim boundaries is less than 1%. Immediately north of Highway 6, outcrops of granite and gneiss form cliffs along the southern claim boundary. To the north, exposed in a road cut beneath the power line are volcanic tuffs and breccias. The breccias have been altered by pervasive carbonate, and are commonly veined by calcite and quartz-calcite. In contrast, the tuffs are sericitic, are locally silicified, and contain from 2% to 4% disseminated pyrite. Rock fragments from soil holes are either hornblende-diorite, or silicified volcanic tuff.

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WORK OBJECTIVE

To determine if the fault trace (Jones, 1952) was a conduit for a hydrothermal mineralizing system, as suggested by low level gold, arsenic, and silver anomalies in recce soils collected in 1988, soils were collected on a grid located over the fault.

WORK COMPLETED

In August 1989 a grid totalling 6.0 line km was established on the Thong claims. A baseline extending 1.2 km and oriented at 315° was located above the trace of the fault. Crosslines extending east and west were located at 200 m intervals and intermediate crosslines at 100 m intervals were located southeast of the power line road. Samples were collected for a distance of 100 m east and west of the baseline at a sample spacing of 25 metres. Crosslines southeast of the power line road had additional samples collected at a spacing of 50 m from 100 m to 300 m. The one line northwest of the power line road had samples collected at 50 m spacings only. The baseline was also sampled at 25 m spacings. All sample locations were flagged and labelled (Figure 4).

A total of 168 soil samples were collected from the B horizon at a depth of 10 cm to 45 cm. Soil colour varied from light brown, to orange-brown, to yellow-orange, to red-brown, to dark brown. In general all of the soils were very dry, were comprised of silt and fine sand in varying proportions, and contained angular to rounded rock fragments (2% to 20%). Rock samples were collected from soil holes in which angular rock fragments comprised greater than 30% of the material in the hole. A total of 4 rock samples were collected.

All samples were sent to Acme Analytical Laboratory to be analyzed by 30 element ICP plus Au by AA (Appendix 1).

RESULTS

Results are given in Appendix 2. With a few exceptions samples were not anomalous in copper, lead, zinc, or antimony. Samples were anomalous in gold, silver, and arsenic. A total of 33% of the 168 soil samples had greater than 8 ppb gold, and of these 41% had greater than 16 ppb gold (the threshold value). Silver values greater or equal to 0.3 ppm were present in 32% of the samples and of these 50% were greater or equal to 0.4 ppm Ag. 41% of the 168 samples had greater than 17 ppm As, and of these 33% had greater than 31 ppm As.

TABLE 2: AVERAGE AND THRESHOLD VALUES FOR 168 SOIL SAMPLES

<u>Element</u>	<u>Average</u>	<u>Standard Deviation</u>	<u>Threshold</u>
Au	8 ppb	7.6 ppb	16 ppb
Ag	0.23 ppm	0.14 ppm	0.4 ppm
As	17.7 ppm	13 ppm	31 ppm

Arsenic levels greater than 30 ppm in soils generally lie southwest of the baseline and form linear trends sub-parallel to the baseline. One exception is a 2 station arsenic trend northeast of the baseline, which includes a high of 270 ppm As (Figure 5).

Silver values greater or equal to 0.4 ppm Ag are concentrated along the baseline between stations 2+00S and 5+00S. Scattered highs southwest of the baseline are coincident with arsenic anomalies (Figure 5).

In general, gold values greater than 16 ppb are located southwest of the baseline and upslope of arsenic anomalies. At a few locations anomalous gold is coincident with anomalous arsenic. Northeast of the baseline at Line 10+00S a coincident Au-As anomaly is open to the southeast. There does not appear to be any obvious relationship between Au and Ag (Figure 5).

CONCLUSIONS

Sampling has confirmed the presence of anomalous Au-Ag-As in soils collected above the trace of a fault between Monashee gneiss and Cache Creek group sediments (Jones, 1952). Although the fault as mapped by Jones is pre-Tertiary, sheared Tertiary volcanic tuffs exposed in a power line road cut, suggest fault movement continued post volcanic deposition.

Late stage hydrothermal fluids enriched in Au-Ag-As may have been channelled by this fault and resulted in an epithermal type deposit, as suggested by elevated levels of Au and As in the soils.

Further soil sampling to the southwest, plus fill-in sampling on already established lines, combined with a VLF-EM survey are recommended in order to locate a favourable drill target.

REFERENCES

- Gourlay, A.W., 1986: BAR Claims - Geochemistry, Minequest Exploration Associates Ltd., Assessment Report 14,887.
- Jones, A.G., 1959 : Vernon Map Area, British Columbia G.S.C. Memoir 296, Map 1059A.
- Okulitch, A.V., and Campbell, R.B., 1979:
Thompson-Shuswap-Okanagan, British Columbia G.S.C. File 637, Maps A, B, C, and D.
- Ridley, S.L., 1984 : BAR Claims - Geochemistry, Minequest Exploration Associates Ltd., Assessment Report 12,344.

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APPENDIX 1
ANALYTICAL PROCEDURES

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ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone: 253-3158

GEOCHEMICAL LABORATORY METHODOLOGY & PRICES - 1989Sample Preparation

S80	Soils or silts up to 2 lbs drying at 60 deg.C and sieving 30 gms -80 mesh (other size on request)	\$.85
SJ	Saving part or all reject	.45
S20R	Soils or silts - drying at 60 deg.C and sieving -20 mesh & pulverizing (other mesh size on request.)	2.00
SP	Soils or silts - drying at 60 deg.C pulverizing (approx 100 gms)	1.50
RP100	Rocks or cores - crushing to -3/16" up to 10 lbs, then pulverizing 1/2 lb to -100 mesh (98%)	3.00
Cr	Surcharge crushing over 10 lbs	.25/lb
2PX	Surcharge for pulverizing over 1/2 lb	1.00/lb
RPS100	Same as RP100 except sieving to -100 mesh and saving +100 mesh (200gms)	3.75
RPS100 1/2	Same as above except pulverizing 1/2 the reject - additional	1.00/lb
RPS100 A	Same as above except pulverizing all the reject - additional	1.00/lb
OP	Compositing pulps - each pulp Mixing & pulverizing composite.	.50 1.50
HM	Heavy mineral separation - S.G.2.96 + wash -20 mesh	12.00
V1	Drying vegetation and pulverizing 50 gms to -80 mesh	3.00
V2	Ashing up to 1 lb wet vegetation at 475 deg.C	2.00
H1	Special Handling	17.00/hr

Sample Storage

Rejects - Approx. 2 lbs of rock or total core are stored for three months and discarded unless claimed.

Pulps are retained for one year and discarded unless claimed.

Additional storage - for 3 years \$10.00/1.2 cu.ft. box
 or 15 cents/sample pulp
 or 5 cents/sample soil

Supplies

Soil Envelopes	4" x 6"	\$125.00/thousand
Soil Envelopes	4" x 6" with gusset	\$140.00/thousand Plastic
Bags	7" x 13" 4 ml	\$10.00/hundred
Plastic Bags	12" x 20" 6 ml	\$20.00/hundred
Ties		\$2.00/hundred
Assay Tags		N/C
10% HCl		\$5.00/liter
Dropping bottles		\$1.00/each
Zn Test	A & B	\$12.00/each liter

Conversion Factors

$$\begin{aligned} 1 \text{ Troy oz} &= 31.10 \text{ g} \\ 1 \text{ oz/ton} &= 34.3 \text{ ppm} = 34.3 \text{ g/tonne} = 34,300 \text{ ppb} \\ 1 \text{ t} &= 10,000 \text{ ppm} \end{aligned}$$

ACME ANALYTICAL LABORATORIES LTD.

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GEOCHEMICAL ANALYSES - Rocks and SoilsGroup 1 Digestion

.50 gram sample is digested with 3 mls 3-1-2 HCl-HNO₃-H₂O at 95 deg.C for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements. Solubility limits Ag, Pb, Sb, Bi, W for high grade samples.

Group 1A - Analysis by Atomic Absorption.

<u>Element</u>	<u>Detection</u>	<u>Element</u>	<u>Detection</u>	<u>Element</u>	<u>Detection</u>
Antimony*	2 ppm	Copper	1 ppm	Molybdenum	1 ppm
Bismuth*	2 ppm	Iron	0.01 ‰	Nickel	1 ppm
Cadmium*	0.1 ppm	Lead	2 ppm	Silver	0.1 ppm
Chromium	1 ppm	Lithium	2 ppm	Vanadium	2 ppm
Cobalt	1 ppm	Manganese	5 ppm	Zinc	2 ppm

First Element \$2.25 Subsequent Element \$1.00

Group 1B - Hydride generation of volatile elements and analysis by ICP. This technique is unsuitable for sample grading over .5% Ni or Cu. Cu Massive Sulphide.

<u>Element</u>	<u>Detection</u>	First Element	All Elements
Arsenic	0.1 ppm		
Antimony	0.1 ppm		
Bismuth	0.1 ppm	\$4.75	\$5.50
Germanium	0.1 ppm		
Selenium	0.1 ppm		
Tellurium	0.1 ppm		

Group 1C - Hg Detection limit - 5 ppb Price \$2.50

Hg in the solutions are determined by cold vapour AA using a F & J scientific Hg assembly. The aliquots of the extract are added to a stannous chloride/hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Group 1D - ICP Analysis

<u>Element</u>	<u>Detection</u>
Ag	0.1 ppm
Cd, Co, Cr, Cu, Mn, Mo, Ni, Sr, Zn	1 ppm
As, Au, B, Ba, Bi, La, Pb, Sb, Th, V, W	2 ppm
U	5 ppm
Al, Ca, Fe, K, Mg, Na, P, Ti	0.01 ‰

Any 2 elements \$3.25

5 elements 4.50

10 elements 5.50

All 30 elements 6.25

Group 1E - Analysis by ICP/MS

<u>Element</u>	<u>Detection</u>
Ga, Ge	1 ppm

Au, Bi, Cd, Hg, In, Ir, Os, Re, Rh, Sb, Te, Th, Tl, U 0.1 ppm

All Elements 15.00 (minimum 20 samples per batch or \$15.00 surcharge)

Hydro Geochemical Analysis

Natural water for mineral exploration

26 element ICP - Mo, Cu, Pb, Zn, Ag, Co, Ni, Mn, Fe, As, Sr, Cd, V, Ca, P, Li, Cr, Mg, Ti, B, Al, Na, K, Ce, Be, Si \$8.00

F by Specific Ion Electrode	- detection	20 ppb	\$3.75
U by UAJ	- detection	.01 ppb	5.00
pH	- detection	.1 pH	1.50
Au	- detection	.001 ppb	4.00

* Minimum 20 samples or \$5.00 surcharge for ICP or AA and \$15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

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Telephone: 253-3158

Group 2 - Geochemical Analysis by Specific Extraction and Instrumental Techniques

<u>Element</u>	<u>Method</u>	<u>Detection</u>	<u>Price</u>
Barium	0.100 gram samples are fused with .6 gm LiBO ₂ dissolved in 50 mls 5% HNO ₃ and analysed by ICP. (other whole rock elements are also determined)	10 ppm	\$4.00
Boron	.5 g/Na ₂ O ₂ fusion - 50ml in 20% HCl	2 ppm	4.00
Carbon	LECO (total as C or CO ₂)	.01 %	5.75
Carbon+Sulfur	Both by LECO	.01 %	6.50
Carbon (Graphite)	HCl leach before LECO	.01 %	8.00
Chromium	0.50 gram samples are fused with 1 gm Na ₂ O ₂ dissolved in 50 ml 20% HCl, analysed ICP.	5 ppm	4.00
Fluorine	0.25 gram samples are fused with NaOH; leached solution is adjusted for pH and analysed by specific ion electrode.	10 ppm	4.50
Sulphur	LECO (Total as S)	.01 %	5.50
Sulphur insoluble	LECO (After 5% HCl leach)	.01 %	8.00
Tin	1.00 gram samples are fused with NH ₄ I. The sublimed Iodine is leached with 5 ml 10% HCl, and analysed by Atomic Absorption.	1 ppm	4.00
Tl	.50 gram digested with 50% HNO ₃ - Dilute to 10 ml - graphite AA	1 ppm	4.00
Tungsten	.50 gram samples are fused with Na ₂ O ₂ dissolved in 20 ml H ₂ O, analysed by ICP.	1 ppm	4.00

Group 3 - Geochemical Noble Metals

<u>Element</u>	<u>Method</u>	<u>Detection</u>	<u>Price</u>
Au*	10.0 gram samples are ignited at 600 deg.C, digested with hot aqua regia, extracted by MIBK, analysed by graphite furnace AA.	1 ppb	\$ 4.50
Au** Pd, Pt, Rh	10.0 gram samples are fused with a Ag inquart with fire assay fluxes. After cupulation, the dore bead is dissolved and analysed by AA or ICP/MS.	1 ppb 2 ppb	6.00 - first element 2.50 - per additional 10.00 - for All 4
	Larger samples - 20 gms add \$1.50 30 gms add \$2.50		

Group 4A - Geochemical Whole Rock Assay0.200 gram samples are fused with LiBO₂ and are dissolved in 100 mls 5% HNO₃.SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO, Na₂O, K₂O, MnO, TiO₂, P₂O₅, Cr₂O₅, LOI + Ba by ICP.

Price: \$3.75 first metal \$1.00 each additional \$9.00 for All.

Group 4B - Trace elements

<u>Element</u>	<u>Detection</u>	<u>Analysis</u>	<u>Price</u>
Co, Cu, Ni, Zn, Sr	10 ppm	ICP	\$3.75 first element or
Ce, Mb, Ta, Y, Zr	20 ppm	ICP	\$1.00 additional to 4A \$6.00 for All.

Group 4C - analysis by ICP/MS.

Be, Rb, Y, Zr, Nb, Sn, Cs, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Th, U

Detection: 1 to 5 ppm Price : \$20.00 for All.

* Minimum 20 samples or \$5.00 surcharge for ICP or AA and \$15.00 surcharge for ICP/MS. All prices are in Canadian Dollars

APPENDIX 2
GEOCHEMICAL RESULTS AND ROCK DESCRIPTIONS

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U L C

L L

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

8908-C

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR Mn Ti Sr Ca P La Cr Mg Ba Ti B V AND LIMITED FOR Na K AND AL. Au DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: PI-P5 SOIL PG ROCK Au* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: AUG 21 1989 DATE REPORT MAILED: Aug 29/89 SIGNED BY: C.L. CHONG, D.TOLE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

NORANDA EXPLORATION CO. LTD. PROJECT 8908-072 127 File # 89-3078 Page 1

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sc	Cr	Sb	Bi	V	Ca	F	La	Cr	Mg	Sr	Ti	B	Al	Na	K	Si	W	Au*	PPM																							
L2+00N 3-00W	3	.39	7	236	.2	.55	9	334	2.16	6	5	ND	2	40	2	3	2	37	.29	.055	11	.20	.34	157	.07	6	2.32	.01	.11	2	3																									
L2+00N 3-50W	1	.25	6	127	.1	.34	8	279	2.22	4	5	ND	2	40	1	3	2	31	.15	.113	3	.14	.41	159	.09	4	2.53	.01	.13	1	2																									
L2+00N 1-00W	1	.16	12	104	.1	.23	6	224	1.92	4	5	ND	1	30	1	2	2	29	.21	.045	9	.16	.24	159	.08	2	2.38	.01	.17	1	1																									
L2+00N 1-50W	1	.14	6	128	.4	.19	5	405	1.63	2	5	ND	1	27	1	2	2	23	.21	.055	7	.14	.32	147	.06	5	1.70	.01	.15	1	1																									
L2+00N 1-00W	1	.26	9	100	.2	.20	7	454	2.10	4	5	ND	3	30	1	2	2	39	.27	.053	14	.22	.19	120	.06	9	1.34	.01	.21	1	4																									
L2+00N 0-50W	1	.42	8	87	.1	.33	9	246	3.08	7	5	ND	2	23	1	2	2	47	.26	.035	11	.36	.56	192	.09	2	3.02	.01	.26	1	1																									
L2+00N 0+00W	1	.19	10	121	.2	.24	6	284	1.93	2	5	ND	2	26	1	2	2	29	.22	.054	9	.19	.40	193	.09	2	2.19	.01	.19	1	4																									
L2+00N 0+50W	1	.27	13	94	.1	.27	7	244	2.50	9	5	ND	2	24	1	2	2	38	.20	.041	8	.23	.46	120	.07	3	1.97	.01	.18	1	3																									
L2+00N 1-00W	1	.23	54	103	.2	.21	6	209	1.97	3	5	ND	2	26	1	2	2	30	.22	.042	11	.19	.42	155	.08	2	1.95	.01	.20	1	1																									
L2+00N 1-50W	1	.24	10	112	.3	.25	7	240	1.35	10	6	ND	3	26	1	2	2	28	.13	.103	10	.13	.40	173	.08	2	2.41	.01	.17	1	1																									
L2+00N 3+00E	1	.17	9	106	.2	.21	6	260	1.89	5	5	ND	2	27	1	2	2	26	.19	.058	3	.16	.37	169	.07	2	2.03	.01	.15	1	15																									
L2+00N 3+50E	1	.18	12	117	.3	.22	6	225	2.12	2	5	ND	2	26	1	2	2	31	.20	.049	9	.19	.50	133	.08	2	2.18	.01	.19	1	2																									
L2+00N 3-00E	1	.27	20	91	.2	.23	8	230	2.05	9	5	ND	3	23	1	2	2	31	.17	.071	10	.19	.43	153	.07	2	2.03	.01	.12	1	1																									
L1+50N 0+00	1	.23	10	91	.2	.26	7	192	2.07	4	5	ND	3	27	1	2	2	31	.23	.055	11	.15	.44	134	.07	2	2.06	.01	.16	1	1																									
L1+00N 0-00	1	.31	8	85	.4	.25	8	263	2.31	6	5	ND	3	25	1	2	2	35	.21	.044	13	.26	.50	112	.07	2	1.77	.01	.16	1	5																									
L0+50N 0+00	11	.111	.34	.35	.5	.29	9	384	4.01	10	5	ND	4	.50	1	2	3	25	.13	.069	9	.15	.28	190	.06	3	2.10	.01	.13	1	23																									
L0+00N 3+00W	2	.36	21	104	.3	.22	9	338	3.90	64	5	ND	3	.71	1	2	2	41	1.14	.057	22	.22	.40	84	.03	5	1.81	.01	.19	1	5																									
L0+00N 2+50W	1	.56	16	88	.2	.29	11	301	3.37	15	5	ND	1	.27	1	2	2	51	.23	.073	10	.29	.68	49	.04	2	1.59	.01	.11	1	3																									
L0+00N 2+00W	1	.15	5	121	.1	.21	6	336	1.83	21	5	ND	1	.38	1	2	2	23	.24	.124	8	.14	.28	147	.06	4	1.71	.01	.12	1	3																									
L0+00N 1+50W	1	.13	8	124	.2	.22	6	423	1.86	6	5	ND	2	.54	1	2	2	25	.25	.104	9	.17	.34	167	.07	2	2.05	.01	.14	1	6																									
L0+00N 1+00W	1	.13	6	113	.2	.22	5	286	1.50	4	5	ND	2	.31	1	2	2	27	.18	.078	8	.19	.35	196	.07	2	1.91	.01	.16	1	1																									
L0+00N 0+75W	1	.19	7	110	.2	.21	5	308	1.76	2	5	ND	2	.27	1	2	2	26	.17	.059	10	.19	.36	165	.06	4	1.78	.01	.13	1	62																									
L0+00N 0+50W	1	.21	13	75	.1	.19	7	237	2.13	4	5	ND	3	.21	1	2	3	36	.16	.035	12	.23	.48	99	.07	2	1.33	.01	.18	1	3																									
L0+00N 0+25W	1	.43	6	78	.2	.37	9	195	2.91	14	5	ND	2	.33	1	2	2	39	.20	.026	11	.30	.50	120	.07	2	1.85	.01	.12	1	12																									
L0+00N 0+00	1	.34	14	79	.2	.29	8	193	2.46	13	5	ND	3	.54	1	2	3	34	.33	.034	12	.24	.39	157	.08	2	2.26	.01	.16	1	2																									
L0+00N 0+50S	1	.41	8	82	.3	.29	8	182	2.33	44	5	ND	2	.39	1	2	2	28	.18	.053	9	.17	.30	131	.07	2	2.04	.01	.14	1	4																									
L0+00N 1+00E	1	.22	9	72	.1	.18	8	193	2.68	11	5	ND	3	.37	1	2	2	45	.25	.055	19	.30	.60	245	.12	2	2.24	.02	.23	1	3																									
L0+00N 1+50S	1	.18	18	115	.1	.18	9	629	3.30	14	5	ND	3	.42	1	2	3	53	.28	.130	11	.36	.55	363	.15	6	2.65	.01	.38	1	1																									
L0+00N 2+00E	1	.17	16	92	.1	.28	7	210	2.15	51	5	ND	3	.34	1	2	2	25	.23	.155	11	.15	.27	124	.09	2	2.03	.02	.07	1	111																									
L0+00N 2+50E	1	.26	11	126	.1	.25	8	389	2.51	15	5	ND	3	.29	1	2	2	30	.21	.120	16	.19	.37	154	.08	2	2.81	.01	.09	1	1																									
L0+00N 3+00E	1	.42	12	98	.1	.23	9	235	3.17	17	5	ND	2	.38	1	2	2	37	.20	.046	11	.21	.45	118	.07	2	2.05	.01	.17	1	2																									
L0+25S 0+00	1	.12	12	100	.1	.19	5	293	1.47	9	5	ND	1	.36	1	2	2	20	.18	.132	7	.13	.26	192	.06	2	1.73	.01	.11	1	3																									
L0+50S 0+00	1	.12	12	78	.1	.22	5	306	1.68	50	5	ND	1	.54	1	2	2	20	.23	.054	7	.11	.23	175	.07	2	2.33	.01	.09	1	1																									
L0+75S 0+00	1	.13	17	104	.1	.22	6	357	1.96	29	5	ND	3	.29	1	2	2	25	.19	.103	10	.14	.35	133	.05	2	2.27	.01	.09	1	1																									
L0+00S 0+75W	1	.30	11	97	.1	.31	8	268	2.21	9	5	ND	2	.47	1	2	2	32	.30	.059	9	.29	.42	157	.07	3	2.46	.01	.11	1	3																									
L0+00S 0+25W	1	.22	6	102	.1	.24	7	243	2.35	11	5	ND	2	.36	1	2	2	33	.26	.073	12	.20	.40	134	.07	2	2.54	.01	.11	1	1																									
STD C/R/V-S	19	50	42	132	6.0	56	31	1021	4.19	44	20	7	33	50	13	15	22	60	.50	.094	40	56	.96	180	.07	34	2.07	.06	.13	11	49																									

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SAMPLE#	No PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sc PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P PPM	La PPM	Cr PPM	Xg %	Ba PPM	Ti %	B PPM	Al %	Na %	S %	V PPM	As% PPM
L1+00S 0+00	1	12	13	106	.3	14	5	483	1.45	12	5	ND	2	32	1	2	2	19	.21	.145	7	11	.20	193	.07	8	1.10	.01	.06	3	;
L1+00S 0-353	1	10	10	107	.1	18	5	390	1.53	13	5	ND	1	31	1	2	2	19	.17	.095	3	12	.20	211	.06	5	2.00	.01	.08	1	;
L1+00S 0-363	1	24	7	69	.1	20	6	185	2.34	14	5	ND	3	30	1	2	2	27	.23	.031	13	20	.36	93	.06	2	1.79	.01	.09	2	;
L1+00S 0-753	1	15	8	23	.2	20	5	310	1.73	42	5	ND	3	44	1	2	2	21	.25	.255	11	15	.24	169	.08	4	2.58	.01	.09	1	;
L1+00S 1-00E	1	14	15	87	.2	24	6	239	2.19	29	5	ND	3	50	1	2	2	20	.41	.127	14	14	.19	126	.04	6	2.02	.01	.12	1	1
L1+25S 0+00	1	12	7	131	.1	23	5	287	2.05	16	5	ND	1	37	1	2	2	21	.19	.113	9	12	.18	191	.06	5	1.95	.01	.09	1	13
L1+00S C+00	1	15	7	81	.1	21	6	201	1.99	17	5	ND	3	32	1	2	2	22	.17	.221	8	12	.22	117	.08	3	2.77	.02	.06	2	;
L1+75S 0+00	1	10	11	107	.1	21	5	275	1.93	9	5	ND	2	30	1	2	2	22	.22	.107	9	12	.21	190	.07	8	2.16	.02	.09	1	2
L2+00S 2+01W	1	77	6	85	.2	43	26	302	6.93	74	5	ND	1	50	1	4	2	100	.65	.053	9	55	.96	184	.02	4	2.09	.01	.10	1	3
L2+00S 2+50W	1	62	7	69	.4	51	18	572	4.17	41	5	ND	1	49	1	2	2	54	.23	.068	10	40	.49	197	.01	5	1.69	.01	.07	1	3
L2+00S 2-0CW	1	11	9	208	.2	19	7	670	2.15	23	5	ND	2	41	1	2	2	21	.21	.183	11	13	.25	166	.06	3	1.75	.01	.10	2	3
L2+00S 1-75W	1	14	11	66	.2	12	6	298	4.52	16	5	ND	4	58	1	2	2	25	.17	.098	13	12	.23	171	.07	2	1.77	.02	.15	1	35
L2+00S 1+30W	1	9	15	58	.1	12	7	548	4.07	15	5	ND	3	35	1	2	2	34	.28	.080	13	16	.30	235	.07	5	1.75	.01	.10	1	31
L2+00S 1+00W	1	92	14	106	.2	60	15	270	6.02	60	5	ND	1	57	1	2	2	101	.23	.080	8	66	.28	110	.03	5	1.50	.01	.07	1	17
L2+00S 0-50W	2	50	14	162	.5	34	9	329	4.16	24	5	ND	2	64	1	3	3	23	.42	.055	11	12	.15	101	.04	5	1.93	.01	.11	2	35
L2+00S 0+25W	1	19	8	102	.1	35	9	219	3.11	20	5	ND	4	54	1	2	2	23	.39	.095	14	15	.23	130	.08	5	2.84	.02	.09	1	15
L2+00S 0+00	1	15	15	141	.1	26	7	314	3.07	21	5	ND	2	40	1	2	2	27	.24	.145	17	19	.23	137	.05	5	2.29	.01	.07	1	15
L2+00S 0+25E	1	13	7	77	.1	19	5	217	2.08	9	5	ND	2	51	1	2	2	24	.19	.038	9	17	.30	170	.06	2	1.95	.01	.07	1	15
L2+00S 0+50E	1	17	12	84	.1	22	6	230	2.23	17	5	ND	3	35	1	2	3	25	.16	.073	12	15	.30	145	.05	3	2.43	.01	.09	1	15
L2+00S 0+75E	1	16	5	93	.1	25	7	317	2.39	17	5	ND	2	55	1	2	2	24	.19	.057	9	17	.32	198	.06	2	2.37	.01	.11	1	15
L2+00S 1+00E	1	12	7	143	.1	21	6	494	2.05	15	5	ND	1	46	1	2	3	23	.29	.095	11	15	.28	226	.05	3	1.90	.01	.11	1	15
L2+00S 1-50Z	1	26	15	160	.2	39	12	824	3.76	270	5	ND	4	65	1	2	2	24	.36	.314	23	16	.18	271	.07	4	2.32	.02	.07	1	33
L2+00S 1+00E	1	12	12	84	.1	20	8	342	2.30	23	5	ND	2	43	1	2	2	28	.23	.085	8	18	.34	150	.08	2	2.53	.01	.10	1	6
L2+00S 1+50Z	1	21	8	97	.1	17	9	357	2.38	16	5	ND	1	51	1	2	2	24	.35	.113	10	16	.33	113	.06	7	2.04	.01	.10	2	3
L2+00S 3-00E	1	23	11	153	.3	27	8	371	2.29	5	5	ND	2	41	1	2	3	33	.24	.115	7	19	.47	144	.03	4	2.06	.01	.15	1	5
L2+25S 0+00	2	54	18	207	.5	34	8	193	3.65	23	5	ND	2	71	1	2	2	21	.24	.037	12	12	.18	100	.04	2	1.35	.01	.11	1	14
L2+00S 0+00	1	27	8	174	.3	30	7	136	2.10	10	5	ND	1	34	1	2	2	18	.18	.060	6	11	.21	128	.07	2	1.96	.02	.10	1	10
L2+75S 0+00	1	31	8	111	.1	24	6	163	2.04	11	5	ND	1	34	1	2	2	22	.19	.052	8	13	.27	108	.05	2	1.49	.01	.09	1	10
L3+00S 1-00W	2	51	24	92	.5	52	14	304	4.36	77	5	ND	3	50	1	2	2	31	.22	.091	9	28	.33	167	.06	6	2.44	.01	.09	1	14
L3+00S 0+75W	2	61	11	259	.2	42	11	277	3.49	52	5	ND	1	47	1	2	2	27	.16	.084	8	24	.31	147	.03	5	1.43	.01	.10	1	11
L3+00S 0+50W	1	12	4	234	.1	16	7	618	1.89	7	5	ND	1	29	1	2	2	25	.13	.162	7	18	.32	159	.05	10	1.37	.01	.08	1	13
L3+00S 0+25W	2	54	18	248	.3	40	11	349	4.37	29	5	ND	2	56	1	2	2	26	.27	.115	9	16	.28	128	.05	2	1.75	.01	.11	1	27
L3+00S 0+00	1	26	8	134	.3	26	9	401	2.55	19	5	ND	2	39	1	2	2	28	.23	.072	9	18	.33	128	.05	3	1.55	.01	.09	1	19
L3+00S 0+25Z	1	29	2	90	.3	15	5	194	1.37	3	5	ND	1	35	1	2	2	19	.50	.031	8	23	.55	119	.05	2	1.39	.02	.10	1	6
L3+00S 0+50Z	1	25	8	158	.3	17	8	826	1.92	6	5	ND	1	105	1	2	2	20	.92	.059	20	18	.53	113	.05	3	1.49	.03	.09	2	2
L3+00S 0+75E	1	40	8	128	.3	40	11	348	3.09	19	5	ND	1	59	1	2	2	36	.34	.070	12	28	.55	130	.07	2	2.08	.01	.11	2	11
STD C/AU-S	18	57	40	132	6.8	69	31	1024	4.29	42	17	7	38	30	18	15	22	60	.50	.095	40	57	.86	192	.07	32	2.08	.05	.13	13	49

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SAMPLE#	No	Cu	Pb	zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	F	La	Cr	Mg	Ba	Tl	B	Al	Na	K	V	As%	
		PPM	%	PPM	%	PPM	PPM	PPM	%	PPM	PPM	%	PPM	PPM	%	PPM	PPM	%														
L3+00S 1+00E	1	.46	9	.79	.7	32	9	218	2.28	7	5	ND	2	107	1	2	2	19	.67	.028	10	.03	.46	153	.04	7	1.33	.02	.03	1	1	
L3+25S 0+00	1	.13	6	.87	.4	32	5	239	1.63	10	5	ND	3	37	1	2	3	17	.19	.111	8	.12	.19	109	.06	3	1.79	.01	.07	1	4	
L3+50S 0+00	1	.19	5	104	.5	28	5	244	1.70	16	5	ND	2	28	1	2	2	18	.17	.194	7	.12	.18	125	.08	3	2.50	.02	.08	1	4	
L3+75S 0+00	1	.28	8	124	.6	33	7	166	2.26	16	5	ND	2	35	1	2	2	21	.14	.063	7	.13	.21	176	.06	3	2.20	.01	.09	1	5	
L4+00S 3+00W	1	.27	53	124	.2	24	11	408	4.22	95	5	ND	3	31	1	3	2	54	.22	.039	13	.29	.83	159	.10	11	1.96	.01	.05	1	4	
L4+00S 3+50W	1	.36	15	.96	.2	28	11	266	4.38	105	5	ND	3	35	1	2	2	40	.20	.051	12	.27	.51	112	.06	3	1.99	.01	.17	1	35	
L4+00S 2+00W	1	.24	6	124	.3	37	16	207	1.73	12	5	ND	2	50	1	2	2	17	.57	.063	54	.17	.33	122	.05	2	1.95	.01	.07	2	15	
L4+00S 1+50W	1	.13	9	.95	.3	30	10	488	3.33	23	5	ND	2	40	1	2	2	35	.24	.138	6	.13	.25	173	.07	2	1.62	.01	.10	2	10	
L4+00S 1+00W	1	.16	20	.92	.6	27	8	357	3.35	27	5	ND	2	53	1	2	2	20	.21	.157	9	.13	.13	243	.04	3	1.76	.01	.14	1	12	
L4+00S 0+75W	1	.20	4	103	.2	39	8	290	0.50	21	5	ND	2	34	1	2	2	26	.14	.100	6	.23	.30	139	.06	3	3.15	.21	.12	1	5	
L4+00S 0-50W	2	.30	7	113	.3	46	9	170	2.85	19	5	ND	2	49	1	2	2	26	.15	.075	6	.21	.31	234	.06	4	2.15	.01	.13	1	54	
L4+00S 0+25W	1	.18	10	102	.2	30	7	232	2.35	11	5	ND	2	40	1	2	2	25	.18	.050	6	.19	.31	195	.06	2	2.25	.01	.09	1	3	
L4+00S 0+00	1	.16	10	111	.2	29	6	236	2.17	11	5	ND	2	38	1	2	2	20	.15	.041	6	.13	.21	140	.05	2	1.87	.01	.06	1	7	
L4+00S 0+25E	1	.15	8	100	.5	29	6	330	1.93	7	5	ND	2	41	1	2	2	22	.13	.103	7	.15	.23	136	.06	2	1.80	.01	.09	1	3	
L4+00S 0+50E	1	.15	9	.93	.3	30	6	417	1.91	11	5	ND	2	45	1	2	3	24	.20	.143	7	.18	.28	167	.06	3	1.94	.01	.09	2	3	
L4+00S 0+75E	1	.15	5	.79	.3	25	7	219	2.33	10	5	ND	2	50	1	2	2	26	.27	.023	8	.17	.33	130	.06	3	1.73	.01	.07	1	4	
L4+00S 1-00E	1	.16	5	.86	.1	27	7	422	2.18	10	5	ND	2	44	1	2	2	25	.20	.089	7	.17	.31	145	.05	2	1.43	.01	.12	1	3	
L4+00S 1+50E	1	.24	11	113	.3	33	7	295	2.35	9	5	ND	2	49	1	2	2	25	.17	.093	8	.15	.30	136	.05	2	1.65	.01	.10	1	4	
L4+00S 2-00E	1	.17	14	.49	.3	22	7	338	1.79	9	5	ND	2	101	1	2	2	23	.26	.018	8	.15	.28	134	.05	2	1.53	.01	.10	2	-	
L4+25S 0+00	2	.39	10	125	.6	40	8	204	2.34	15	5	ND	2	39	1	2	2	23	.15	.076	8	.15	.26	156	.06	3	2.34	.01	.10	1	33	
L4+50S 0+00	1	.20	4	136	.6	35	7	399	2.29	10	5	ND	2	39	1	2	2	24	.22	.089	6	.17	.25	178	.06	5	1.91	.01	.11	2	11	
L4+75S 0+00	1	.24	7	125	.3	38	8	378	2.53	15	5	ND	2	26	1	2	2	26	.13	.195	7	.26	.29	194	.07	2	2.01	.01	.11	1	4	
L5+00S 1+00W	1	.15	14	117	.2	22	6	426	2.44	10	5	ND	2	36	1	2	2	25	.27	.033	8	.17	.23	198	.05	3	1.72	.01	.14	1	15	
L5+00S 0+75W	1	.19	14	.98	.3	26	7	361	2.53	16	5	ND	2	27	1	2	2	24	.17	.121	8	.15	.27	178	.06	2	1.39	.01	.11	1	7	
L5+00S 0+50W	1	.33	12	.89	.4	46	11	254	3.24	44	5	ND	3	45	1	2	2	39	.14	.098	7	.36	.44	210	.07	2	2.77	.01	.09	1	7	
L5+00S 0+25W	3	.39	7	134	.2	31	8	310	3.27	20	5	ND	1	33	1	2	2	29	.17	.113	8	.22	.36	122	.04	2	1.16	.01	.11	1	29	
L5+00S 0+00	2	.28	14	144	.5	34	8	488	2.45	16	5	ND	2	32	1	2	2	27	.19	.128	7	.22	.32	169	.06	2	1.76	.01	.09	1	14	
L5+00S 0+25E	2	.19	6	133	.5	31	6	401	2.02	7	5	ND	1	32	1	2	2	22	.16	.157	7	.14	.24	179	.07	2	2.13	.01	.08	1	3	
L5+00S 0+50E	1	.18	8	102	.2	27	7	218	2.12	9	5	ND	2	27	1	2	2	25	.15	.072	8	.18	.28	154	.06	2	1.88	.01	.07	1	3	
L5+00S 0+75E	1	.25	6	.81	.1	28	7	178	2.30	10	5	ND	2	26	1	2	2	29	.14	.055	8	.19	.35	105	.05	2	1.41	.01	.10	1	7	
L5+00S 1+00Z	1	.20	13	117	.2	26	8	315	2.62	10	5	ND	2	52	1	2	2	27	.30	.053	10	.18	.35	158	.08	4	2.49	.02	.11	2	7	
L5+25S 0+00	1	.14	12	133	.3	22	6	348	2.17	12	5	ND	1	27	1	2	2	25	.14	.104	7	.18	.27	113	.04	2	1.17	.01	.09	1	6	
L5+50S 0+00	1	.21	11	103	.2	38	6	209	2.09	16	5	ND	2	42	1	2	2	25	.33	.071	9	.18	.26	99	.08	2	2.52	.02	.09	1	1	
L5+75S 0+00	2	.34	9	103	.2	31	7	220	2.86	19	5	ND	2	30	1	2	2	32	.19	.047	11	.23	.42	106	.05	2	1.55	.01	.14	1	3	
L6+00S 3+00W	1	.32	26	156	.4	25	10	836	3.95	27	5	ND	2	54	1	2	2	45	.55	.035	20	.32	.63	201	.07	2	2.53	.01	.14	1	3	
L6+00S 3+50W	1	.31	20	132	.2	25	12	997	4.21	31	5	ND	3	64	1	2	2	53	.60	.086	26	.34	.71	265	.09	2	2.77	.01	.17	1	6	
STD Cu/Au-S	18	62	41	132	6.7	74	30	1021	4.35	41	17	7	37	49	19	19	22	59	.50	.094	39	55	.85	175	.07	33	2.34	.06	.14	13	49	

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SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tl	Er	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	S	Al	Na	K	N	As%
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	
L6+00S 0+00W	1	.33	.23	.13	.1	.23	11	979	3.43	43	5	ND	3	54	1	2	2	36	.40	.077	20	22	.53	234	.06	2	2.40	.01	.38	1	3
L6+00S 1+50W	1	.25	.19	.89	.3	.20	10	604	3.65	29	5	ND	3	45	1	2	2	34	.38	.064	17	20	.48	161	.06	5	1.78	.01	.20	1	11
L6+00S 1+00W	1	.22	.13	.130	.2	.23	8	510	3.34	20	5	ND	3	50	1	2	3	36	.30	.099	14	20	.69	209	.09	6	2.81	.01	.43	1	1
L6+00S 0+75W	1	.31	.24	.222	.6	.26	10	985	3.34	19	5	ND	3	108	1	2	3	39	.80	.149	22	21	.76	261	.09	10	2.34	.01	.39	1	1
L6+00S 0+50W	1	.25	.16	.121	.2	.20	11	496	4.79	32	5	ND	5	51	1	2	12	53	.36	.070	20	22	1.11	160	.10	3	2.92	.01	.69	1	3
L6+00S 0+25W	1	.27	.22	.168	.3	.32	10	522	3.56	35	5	ND	3	47	1	2	2	38	.35	.115	19	25	.56	241	.07	3	2.63	.01	.22	1	35
L6+00S 0+00	1	.24	.8	.139	.3	.39	7	197	2.37	19	5	ND	3	32	1	2	2	26	.17	.059	9	19	.31	199	.06	2	2.03	.01	.13	1	14
L6+00S 0+25E	1	.28	.5	.123	.2	.28	7	349	2.35	9	5	ND	1	29	1	2	2	27	.14	.059	9	21	.35	166	.05	3	1.71	.01	.12	1	7
L6+00S 0+50E	1	.20	.12	.117	.1	.29	5	267	1.95	8	5	ND	2	36	1	2	2	23	.20	.056	8	15	.23	193	.06	5	2.67	.01	.13	1	37
L6+00S 0+75E	1	.16	.9	.92	.1	.24	6	179	1.35	9	5	ND	2	37	1	2	3	24	.14	.063	8	16	.33	113	.05	3	1.40	.01	.09	1	16
L6+00S 1+00E	1	.11	.9	.92	.2	.24	5	301	1.51	6	5	ND	2	28	1	2	3	21	.16	.115	8	14	.35	121	.06	3	1.60	.01	.08	1	4
L6+00S 1+50E	1	.12	.4	.98	.2	.20	6	316	1.64	5	5	ND	2	27	1	2	3	23	.16	.112	7	14	.26	123	.06	4	1.63	.01	.09	1	3
L6+25S 0+00	1	.24	.9	.105	.2	.27	8	408	2.65	19	5	ND	2	39	1	2	2	31	.24	.070	10	21	.46	172	.07	6	2.16	.01	.20	1	15
L6+50S 0+00	1	.22	.14	.155	.2	.32	7	341	2.73	15	5	ND	3	42	1	2	4	30	.24	.108	9	22	.44	209	.06	11	1.47	.01	.13	1	3
L6+75S 0+00	1	.21	.11	.120	.3	.26	6	211	2.62	10	5	ND	3	32	1	2	3	30	.18	.051	9	21	.41	131	.06	4	1.31	.01	.18	1	6
L7+00S 0+00	1	.28	.14	.115	.1	.29	9	494	3.47	25	5	ND	3	49	1	2	2	37	.23	.113	12	25	.55	181	.07	3	2.52	.01	.36	1	35
L7+25S 0+00	1	.20	.18	.163	.2	.26	9	706	3.91	20	5	ND	3	58	1	2	2	41	.33	.124	10	27	.66	259	.08	9	2.56	.01	.41	1	4
L7+50S 0+00	1	.30	.13	.111	.1	.28	10	426	3.30	23	5	ND	2	57	1	2	2	31	.34	.046	11	23	.40	192	.06	3	2.20	.01	.13	1	30
L7+75S 0+00	1	.30	.18	.128	.3	.29	10	506	3.95	29	5	ND	4	55	1	2	2	38	.35	.101	15	24	.55	212	.07	7	2.51	.01	.25	1	9
L8+00S 0+00W	1	.50	.20	.146	.4	.38	12	862	3.35	12	5	ND	3	53	1	2	2	54	.63	.097	21	34	.83	142	.05	3	1.39	.01	.47	1	7
L8+00S 0+50W	2	.51	.15	.154	.4	.40	12	895	3.18	14	5	ND	3	49	1	2	2	53	.59	.085	22	35	.79	153	.05	8	2.02	.01	.52	1	6
L8+00S 2+00W	1	.45	.26	.144	.3	.29	14	1053	4.24	40	5	ND	3	61	1	2	2	50	.68	.097	26	30	.71	240	.07	3	2.50	.01	.50	1	12
L8+00S 1+50W	1	.34	.21	.143	.1	.25	14	1206	4.16	51	5	ND	2	79	1	2	2	44	.72	.113	21	28	.63	260	.07	7	2.69	.01	.38	1	4
L8+00S 1+00W	1	.38	.66	.215	.5	.24	14	1636	4.38	44	5	ND	2	93	2	3	2	47	.77	.137	30	28	.73	310	.08	4	3.04	.01	.39	1	4
L8+00S 0+75W	1	.32	.19	.118	.4	.21	11	1003	3.63	23	5	ND	1	79	1	2	2	38	.72	.110	23	20	.56	231	.07	6	2.60	.01	.33	1	12
L8+00S 0+50W	1	.39	.27	.137	.2	.20	12	1220	3.87	27	5	ND	3	76	1	3	2	40	.70	.114	21	25	.53	277	.08	4	2.60	.01	.41	1	5
L8+00S 0+25W	1	.27	.9	.87	.1	.23	11	670	3.74	22	5	ND	2	52	1	2	2	32	.38	.082	15	19	.40	179	.06	2	2.17	.01	.20	1	16
L8+00S 0+00	1	.25	.13	.208	.4	.16	12	1576	4.41	19	5	ND	4	74	1	2	2	47	.56	.115	21	22	1.00	289	.08	4	2.54	.01	.62	1	7
L8+00S 0+25E	1	.32	.14	.123	.2	.29	11	759	3.92	33	5	ND	2	58	1	2	2	39	.35	.105	17	28	.63	229	.07	2	2.56	.01	.28	1	5
L8+00S 0+50E	1	.26	.9	.117	.1	.27	7	329	2.80	13	5	ND	2	42	1	2	2	32	.22	.061	11	22	.48	177	.07	4	2.22	.01	.23	1	5
L8+00S 0+75E	1	.23	.13	.127	.2	.22	6	381	2.54	9	5	ND	3	37	1	2	2	32	.26	.063	11	22	.50	179	.07	5	1.95	.01	.21	1	1
L8+00S 1+00E	1	.24	.13	.130	.1	.24	7	269	2.57	12	5	ND	3	41	1	2	2	30	.26	.084	10	20	.49	177	.07	2	2.39	.01	.18	1	69
L8+00S 1+50E	1	.19	.10	.113	.2	.25	7	246	2.38	6	5	ND	2	44	1	2	2	29	.27	.111	11	22	.41	214	.07	4	2.50	.01	.17	1	2
L8+00S 1+00E	1	.16	.8	.90	.2	.19	6	229	2.12	5	5	ND	3	33	1	2	2	25	.22	.078	3	18	.37	147	.07	3	2.50	.01	.15	1	1
L8+00S 1+50E	1	.17	.7	.83	.2	.18	6	233	2.15	3	5	ND	2	31	1	2	2	28	.20	.047	9	20	.43	100	.07	4	1.79	.01	.20	1	1
L8+00S 0+00E	1	.12	.9	.143	.2	.15	6	510	2.00	7	5	ND	1	31	1	2	2	25	.19	.198	6	17	.34	185	.06	3	1.34	.01	.14	2	3
STD C/AU-S	18	.56	.40	.132	6.7	65	30	1021	4.21	41	18	7	37	49	18	14	22	59	.49	.093	39	55	.95	176	.07	34	2.06	.06	.14	12	51

NORANDA EXPLORATION CO. LTD. PROJECT 8908-072 127 FILE # 89-3078

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SAMPLE#	No PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	B1 PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	S PPM	Al %	Na %	K %	V PPM	Au PPM
L8+25S 0+00	2	37	12	95	.4	24	12	422	3.74	25	5	ND	4	40	1	2	2	31	.25	.061	13	22	.40	170	.05	3	1.66	.01	.19	1	39
L8+50S 0+00	1	34	16	176	.1	23	12	1241	3.59	13	5	ND	1	53	2	3	2	35	.41	.142	16	23	.51	236	.06	3	3.23	.01	.23	1	12
L8+75S 0+00	1	32	12	90	.1	21	11	752	3.13	13	5	ND	1	53	1	2	2	33	.40	.070	16	20	.50	165	.06	2	1.99	.01	.20	1	5
L9+00S 0+00	2	36	14	92	.1	24	12	612	4.03	21	5	ND	1	36	1	2	2	42	.32	.080	13	25	.64	161	.06	2	2.45	.01	.22	1	9
L9+25S 0+00	1	35	12	84	.1	24	12	717	3.96	17	5	ND	1	42	1	2	2	37	.31	.061	20	22	.58	170	.06	2	2.10	.01	.28	1	11
L9+50S 0+00	1	42	19	113	.1	21	14	960	4.81	18	5	ND	2	52	1	2	2	52	.43	.103	25	25	1.03	178	.08	2	2.68	.01	.63	1	3
L9+75S 0+00	1	41	14	106	.2	24	13	1054	4.08	20	5	ND	3	70	1	2	2	38	.74	.104	20	22	.67	222	.05	4	1.95	.01	.43	1	4
L10+00S 3+00W	1	51	10	100	.4	31	12	672	2.99	7	5	ND	3	136	1	2	2	44	3.63	.064	19	30	.79	125	.06	10	1.62	.01	.57	1	5
L10+00S 2+50W	2	58	13	152	.1	34	13	789	3.50	17	5	ND	3	58	1	2	2	48	.66	.099	18	32	.93	179	.05	5	1.72	.01	.49	1	3
L10+00S 3+00W	2	50	14	123	.1	28	14	855	3.82	37	5	ND	1	52	1	2	2	49	.66	.097	23	33	.72	220	.06	4	1.91	.01	.36	1	5
L10+00S 1+50W	1	49	18	113	.1	28	14	918	3.94	46	5	ND	1	54	1	2	2	44	.68	.092	22	30	.66	203	.05	4	1.90	.01	.39	1	9
L10+00S 1+00W	1	43	16	113	.1	34	14	1067	3.77	22	5	ND	1	56	1	2	2	40	.56	.084	25	24	.66	211	.05	3	2.05	.01	.41	1	4
L10+00S 0+75W	1	45	13	125	.1	23	13	1103	3.98	19	5	ND	2	60	1	2	2	42	.55	.079	24	23	.67	212	.06	5	2.15	.01	.46	1	5
L10+00S 0+50W	1	44	16	133	.2	22	14	1158	3.99	20	5	ND	1	70	1	2	3	42	.66	.110	24	23	.73	226	.06	5	2.27	.01	.51	1	13
L10+00S 0+25W	1	36	18	106	.1	21	13	824	4.06	15	5	ND	2	43	1	3	2	38	.28	.090	20	21	.67	160	.06	4	1.93	.01	.39	1	13
L10+00S 0+00	1	37	14	95	.2	24	13	885	4.30	23	5	ND	3	43	1	3	2	35	.34	.075	19	22	.52	179	.05	2	1.67	.01	.30	1	11
L10+00S 0+25E	1	35	11	105	.1	25	12	889	4.15	28	5	ND	3	53	1	2	2	32	.42	.098	15	21	.42	218	.05	4	1.79	.01	.29	1	33
L10+00S 0+50S	2	45	10	110	.2	29	12	512	4.00	30	5	ND	4	40	1	3	2	33	.25	.066	14	25	.45	151	.05	4	1.61	.01	.31	1	10
L10+00S 0+75E	2	36	10	126	.2	25	9	615	3.06	21	5	ND	3	65	1	2	2	29	.50	.079	11	23	.40	196	.05	7	1.51	.01	.24	1	10
L10+00S 1+00E	1	27	6	125	.1	23	7	328	2.54	3	5	ND	1	39	1	2	2	38	.26	.066	10	22	.41	143	.05	7	1.42	.01	.20	1	6
L10+00S 1+50E	1	23	10	139	.1	26	8	320	2.45	6	5	ND	1	25	1	2	2	27	.16	.134	7	20	.43	141	.06	2	2.01	.01	.20	1	12
L10+00S 2+00E	1	19	13	104	.1	21	7	381	2.35	8	5	ND	2	26	1	2	2	29	.16	.089	7	19	.50	156	.07	2	2.12	.01	.20	1	2
L10+00S 2+50E	1	17	11	88	.1	20	7	225	2.09	6	5	ND	2	29	1	2	2	27	.19	.045	7	18	.41	161	.07	2	2.01	.01	.17	1	3
L10+00S 3+00E	1	24	11	144	.3	24	8	286	2.36	21	5	ND	3	30	1	2	2	27	.16	.225	6	20	.39	250	.06	3	2.03	.01	.13	1	3
STD C/AU-S	18	57	38	132	7.1	68	31	964	4.05	36	19	7	36	49	18	16	22	59	.48	.089	39	58	.91	180	.07	36	1.97	.06	.14	12	49

NORANDA EXPLORATION CO. LTD. PROJECT 8908-072 127 FILE # 89-3078

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SAHPD#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	B1	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	V	Au*
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM								
L1+00S 1+00V	1	117	2	108	.1	71	21	1148	7.79	27	5	ND	1	42	1	2	2	176	1.32	.114	4	164	3.17	79	.01	2	3.82	.01	.03	1	3
L1+00S 0+50V	1	39	15	65	.1	17	8	304	2.85	15	5	ND	5	22	1	2	3	18	.20	.089	16	17	.05	67	.01	17	.45	.02	.11	1	1
L0+00 0+13V	1	121	9	103	.3	69	20	746	6.39	90	5	ND	1	326	1	2	3	106	3.01	.107	3	103	1.87	43	.01	8	1.40	.02	.02	1	1
L1+00S 0+50S	1	18	11	63	.1	18	10	926	2.90	15	5	ND	5	10	1	2	2	12	.17	.078	18	9	.04	59	.01	15	.49	.02	.12	1	2
STD C/AU-R	17	64	38	133	6.7	74	31	1012	4.33	42	21	6	37	49	19	18	22	59	.50	.096	39	55	.87	177	.07	40	2.08	.06	.13	12	495

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 127-A4
LAB REPORT # _____N.T.S. 82L/6
DATE July 26/89PROJECT THONG PROPERTYROCK SAMPLE REPORT

SAMPLE NO.	LOCATION & DESCRIPTION	% Sulph.	TYPE	WIDTH (m)								SAMPLED BY
					Au ppb	Ag ppm	As ppm					
L1+00S 0+50W	Very silicified intrusive. Grabbed from soil hole 8" wide and 10" deep. Med grained creamy white rock with pitted iron weathering on fresh & weathered surface (20% of rock) no visible sulfides.		Grab		1	0.1	15					L. Anonby
L1+00S 1+00W	Fine grained med. grey silt-stone. Pitted iron weathering on fresh & weathered surfaces. V. soft porous sediment. Some evidence of folding.		Grab		3	0.1	27					L. Anonby
L1+00S 0+50E	Greenish coloured volcanic tuff Looks siliceous. Very weathered. Fractures coated with iron weathering (rust coloured). Fragments to 4 mm in size, angular. Content of fragments is 5% of total.		Grab		2	0.1	15					L. Erdman
L0+00 0+18W	Brecciated rock. Frags are angular 2 mm - 2 cm. Tightly packed fragments. Frags are slightly phyllitic. Locally there are thin (to 2 mm) brecciated milky quartz veins. Weakly carbonated, pervasive		Grab		1	0.3	90					L. Erdman

NORANDA EXPLORATION COMPANY, LIMITED

PROJECT # 127-A4

N.T.S. 82L/6

LAB REPORT # _____

DATE July 26/89

PROJECT THONG PROPERTY

ROCK SAMPLE REPORT

APPENDIX 3
STATEMENT OF COSTS

thong.le

NORANDA EXPLORATION COMPANY, LIMITED
STATEMENT OF COSTS

PROJECT: THONG

DATE: December 1, 1989

TYPE OF REPORT: GEOCHEMICAL

a) Wages:

No. of Days 6 mandays

Rate per Day \$ L. Erdman @ \$150, L. Anonby @ \$112.

Dates From: Aug. 22 - Aug. 24

Total Wages $3 \times \$150 + 3 \times \112 \$786.00

b) Food & Accomodations:

No. of Days 10 mandays

Rate per Day \$ 43.84

Dates From: Aug. 20 - 24, 1989

Total Costs $10 \times \$43.84$ \$438.40

c) Transportation: Truck Rental

No. of Days 5

Rate per Day \$ 68.49

Dates From: Aug. 20 - 24, 1989

Total Costs $5 \times \$68.49$ \$342.45

d) Instrument Rental:

Type of Instrument

No. of Days

Rate per Day \$

Dates From:

Total Costs $\times \$$

Type of Instrument

No. of Days

Rate per Day \$

Dates From:

Total Costs $\times \$$

e) Analysis: \$2,394.20
(See attached schedule)

f) Cost of preparation of Report
Author: \$ 300.00
Drafting:
Typing: \$ 150

g) Other: Linecutting
Contractor

No. of Days: 4 mandays
Rate per day: \$131.00
Dates from : Aug. 20 - 21, 1989
Total Wages : 4 x \$131.00 \$ 524.00

Total Cost \$4,935.05
=====

h) Unit costs for Linecutting

No. of Days 4
No. of Units 6 km
Unit costs 214.49/ km

Total Cost 6 x 214.49 \$1,286.94

Unit costs for Geochem

No. of days: 6
No of Units: 172 samples
Unit costs : \$21.21/sample
Total Cost : \$3,648.12

NORANDA EXPLORATION COMPANY, LIMITED
(WESTERN DIVISION)

DETAILS OF ANALYSES COSTS

PROJECT: THONG

<u>ELEMENT</u>	<u>NO. OF DETERMINATIONS</u>	<u>COST PER DETERMINATION</u>	<u>TOTAL COSTS</u>
30 element)	168 soils	\$13.85	\$2,326.80
ICP plus)	4 rocks	\$16.85	\$ 67.40
Au by AA)			<hr/>
			\$2,394.20
			<hr/>

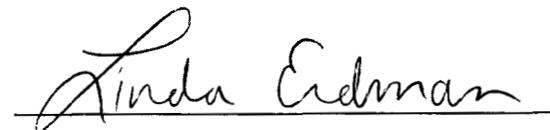
APPENDIX 4
STATEMENT OF QUALIFICATIONS

thong.le

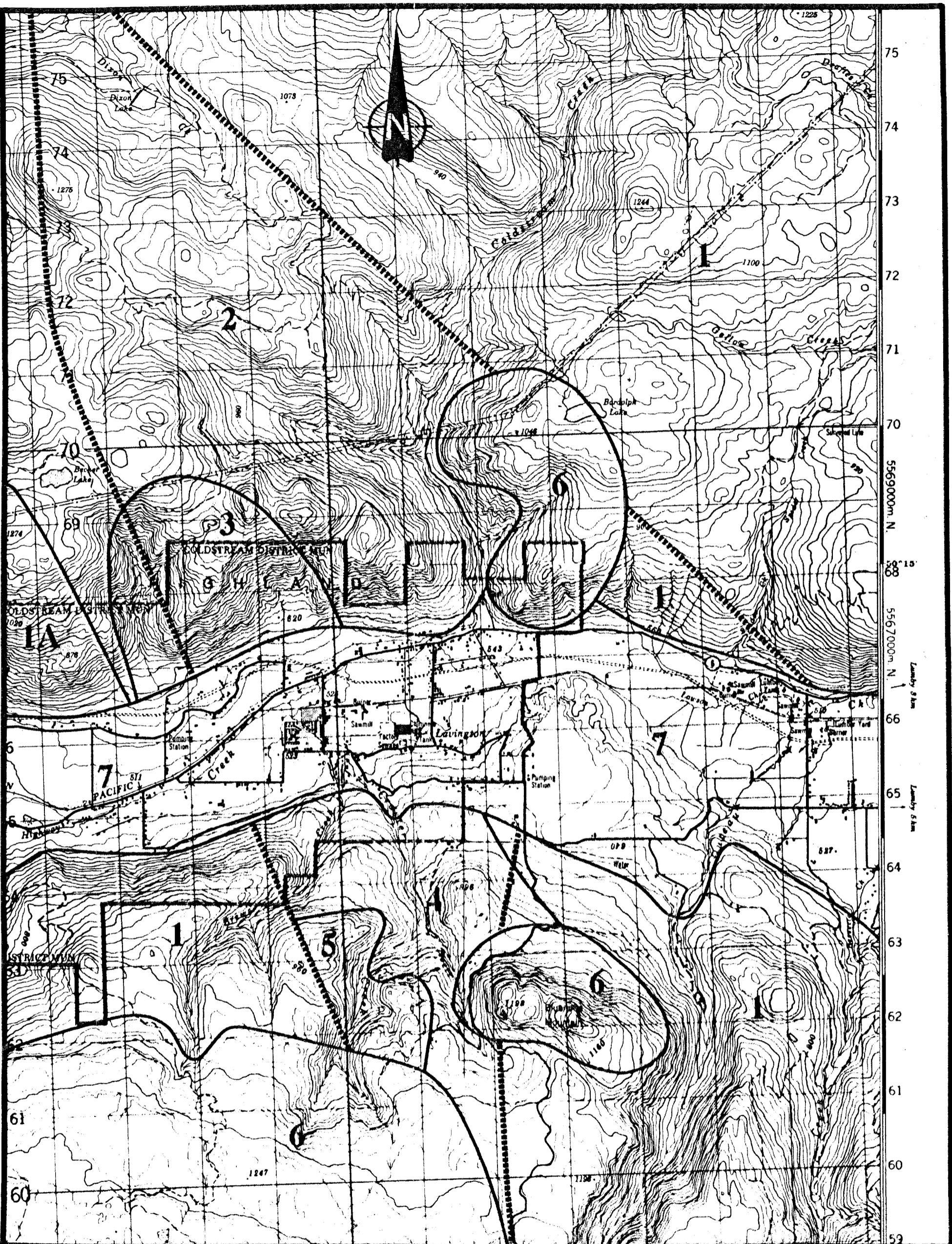
STATEMENT OF QUALIFICATIONS

I, Linda R. Erdman of the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am a resident of British Columbia, residing at 2-2291 West 1st. Avenue, Vancouver, B.C.
2. I am a graduate of the University of British Columbia, with a B.Sc. (Honours) in Geology (1978) and an M.Sc. in Geology (1985).
3. I am a Fellow of the Geological Association of Canada.
4. I have been engaged in mining exploration for 10 years.
5. I have been a temporary employee of Noranda Exploration Company, Limited (no personal liability) since May, 1986 and a permanent employee since November, 1987.



Linda R. Erdman, M.Sc.
Project Geologist



0 500m 1km 1.5km 2km
SCALE 1:50,000

LEGEND

QUATERNARY

7 Alluvium

TERTIARY

6 Kamloops Group

volcanic flows, breccias and minor sediments

JURASSIC and/or CRETACEOUS

5 Coast Intrusions granite and granodiorite

CARBONIFEROUS(?) and PERMIAN

Cache Creek Group

4 mainly limestone

3 mainly andesite lava and tuff

2 mainly argillite

ARCHEAN or LATER

Monashee Group

1 gneiss, schist, quartzite and phyllite

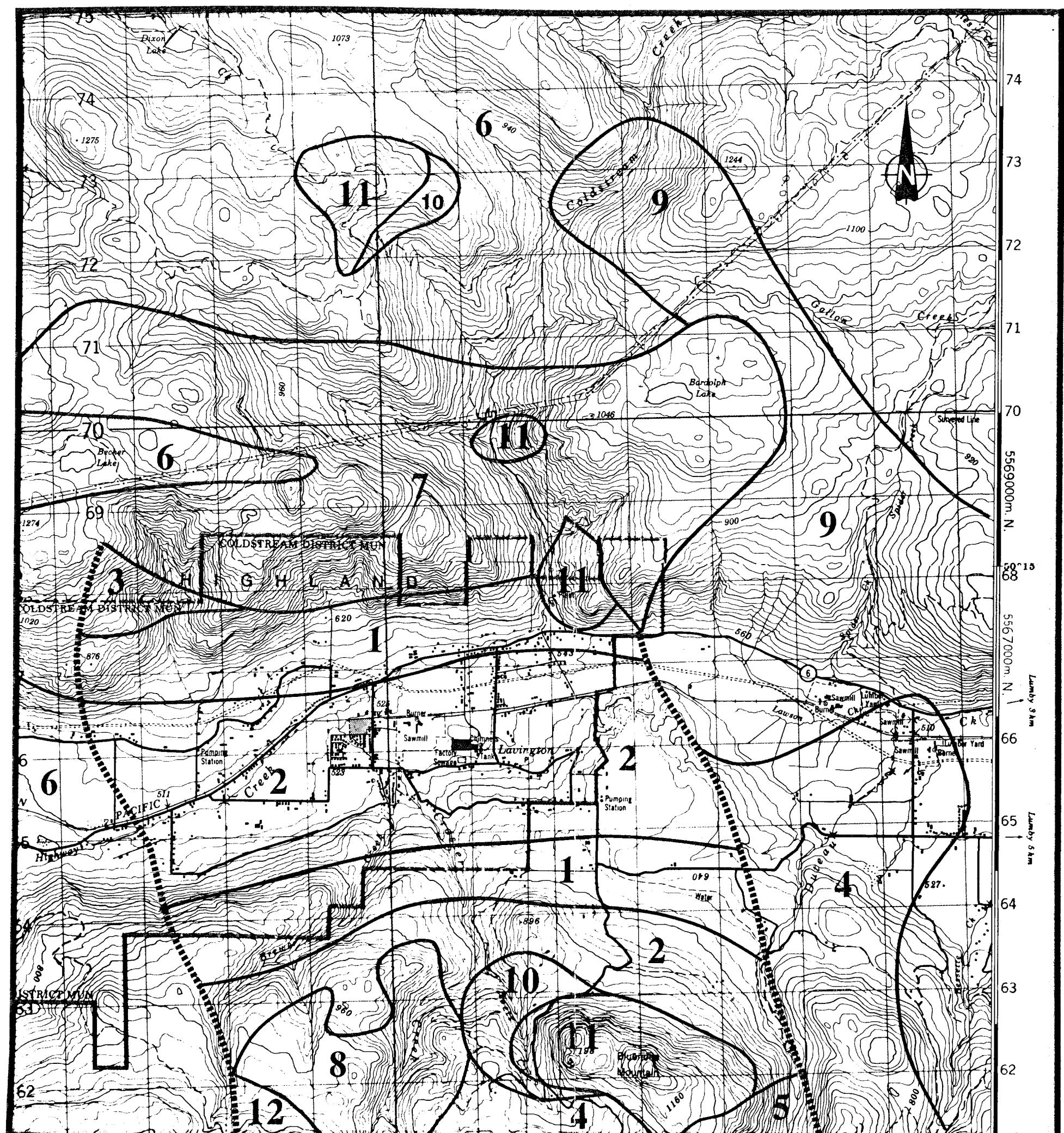
1A limestone

..... Fault(assumed)

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

19,428

REVISED	FIGURE 2	
	REGIONAL GEOLOGY	
PROJ. No. 127	SURVEY BY: DATE: NOV. 1, 1989	
N.T.S. 82L3/6	DRAWN BY: ERDMAN SCALE: 1:50,000	
DWG. No.		
NORANDA EXPLORATION		
OFFICE:		



0 500m 1km 1.5km 2km

SCALE 1:50,000

LEGEND	
MIOCENE	
12	Plateau lava, olivine basalt
EOCENE (?) and OLIGOCENE	
11	Kamloops Group volcanics
10	Kamloops Group sediments
JURASSIC	
9	massive and foliated pegmatite, aplite and granite
8	granodiorite, granite
TRIASSIC	
7	Nicola Group volcanics
6	Slocan Group shale, argillite, siltstone
PALEOZOIC and MESOZOIC	
5	hornblende and biotite gneiss
4	quartz Mica schist
CARBONIFEROUS and PERMIAN	
3	undivided
2	argillite, sandstone, minor limestone
1	massive, crystalline white and grey limestone
----- High angle faults (assumed)	

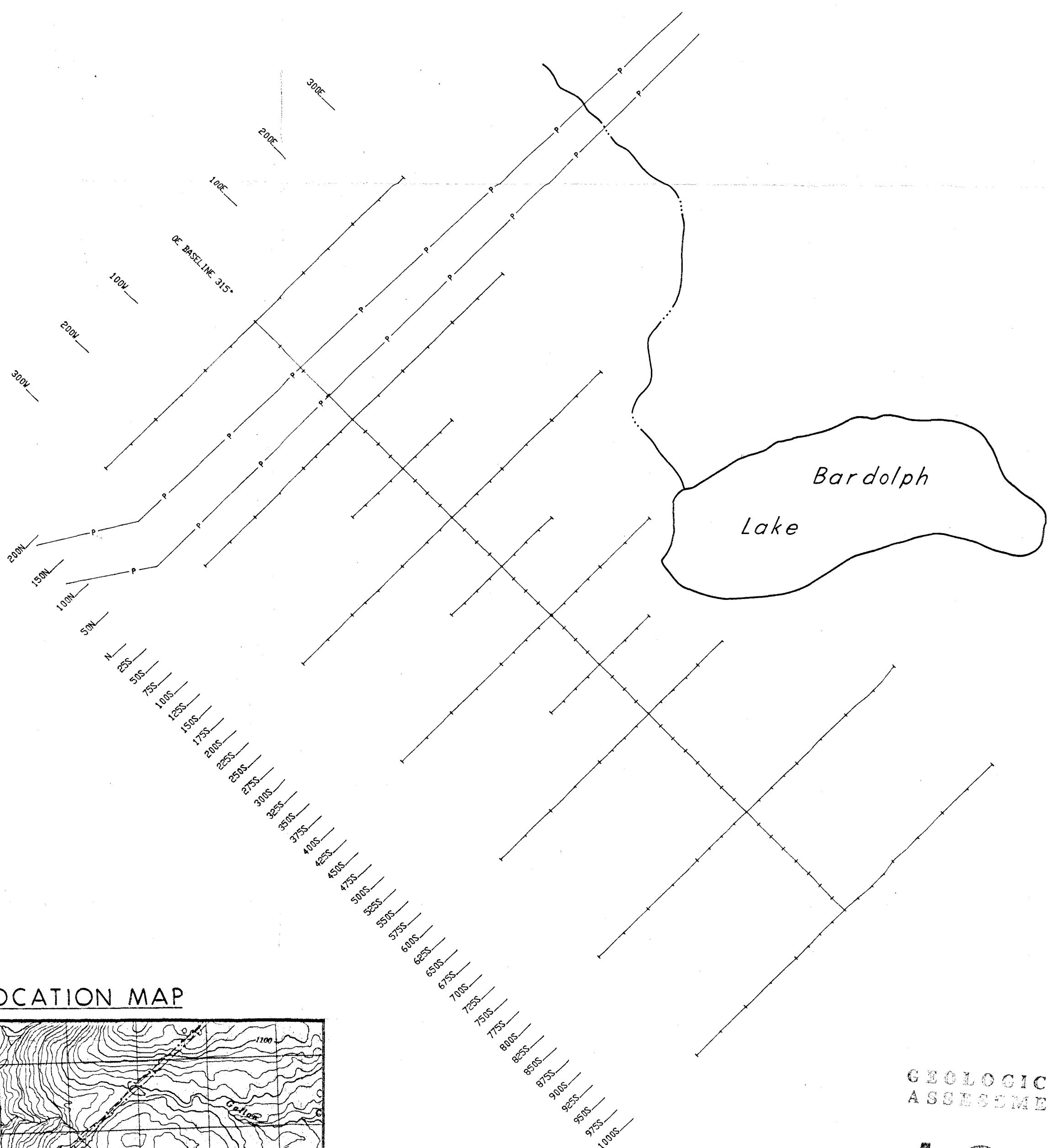
GEOLoGICAL ASSESSMENT REPORT

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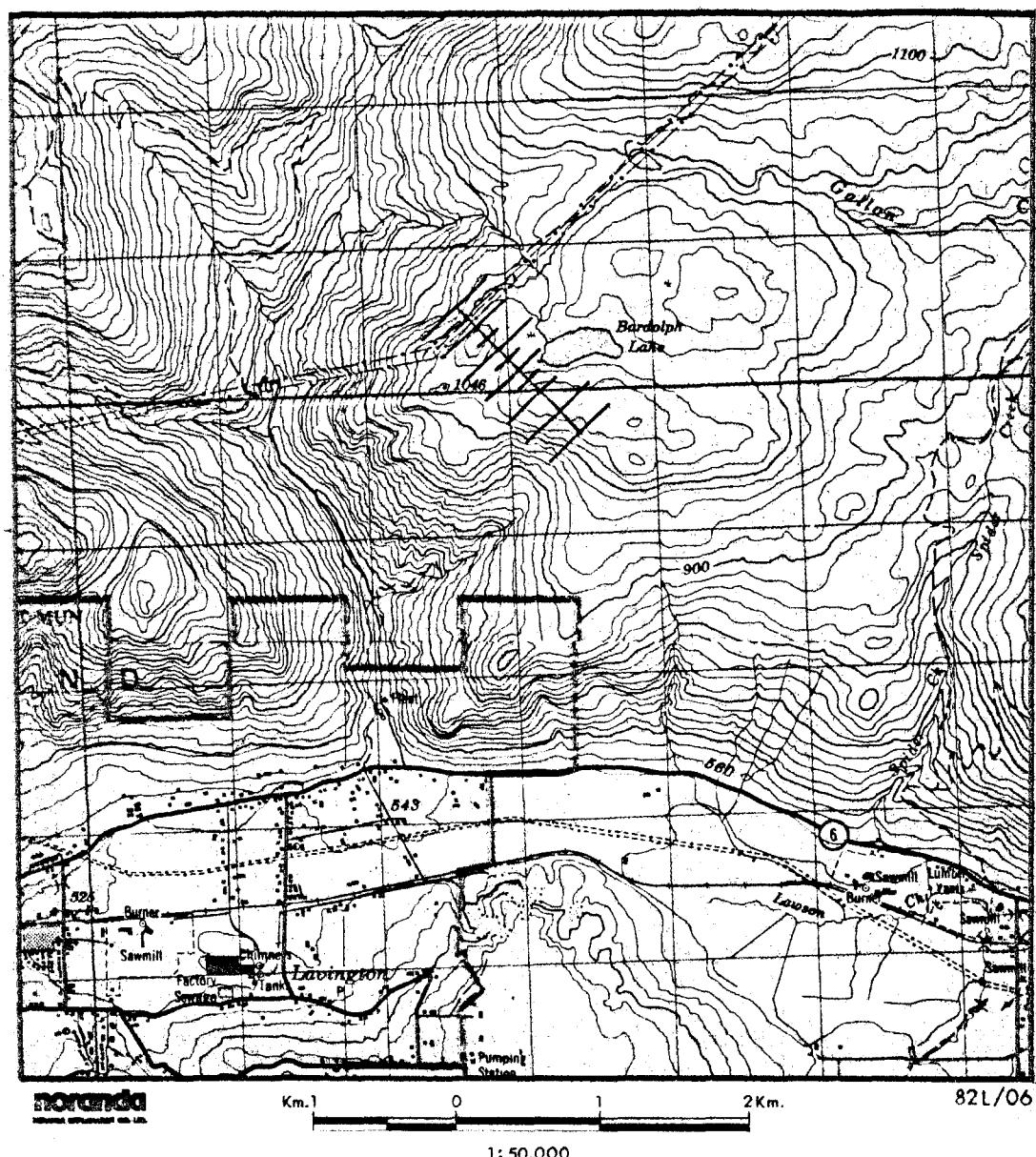
REVISED	FIGURE 3
	REGIONAL GEOLOGY
	FROM OKULITCH (1979)
PROJ. No. 127	SURVEY BY: L. Erdman DATE: Nov. 2, 1989
N.T.S. 82L 3/6	DRAWN BY: L. Erdman SCALE: 1:50,000
DWG. No.	OFFICE:

NORANDA EXPLORATION

N



LOCATION MAP



GEOLOGICAL BRANCH
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FIGURE 4

SAMPLE LOCATIONS

THONG CLAIMS	
SOIL GEOCHEMICAL SURVEY	
PROJECT: SBC GENERAL PROJECT #:	127
BASELINE AZIMUTH :	315 Deg.
SCALE = 1: 5000	DATE : 8/21/89
SURVEY BY : L ERDMANN	NTS : 082L06
FILE: C127THD	
NORANDA EXPLORATION	

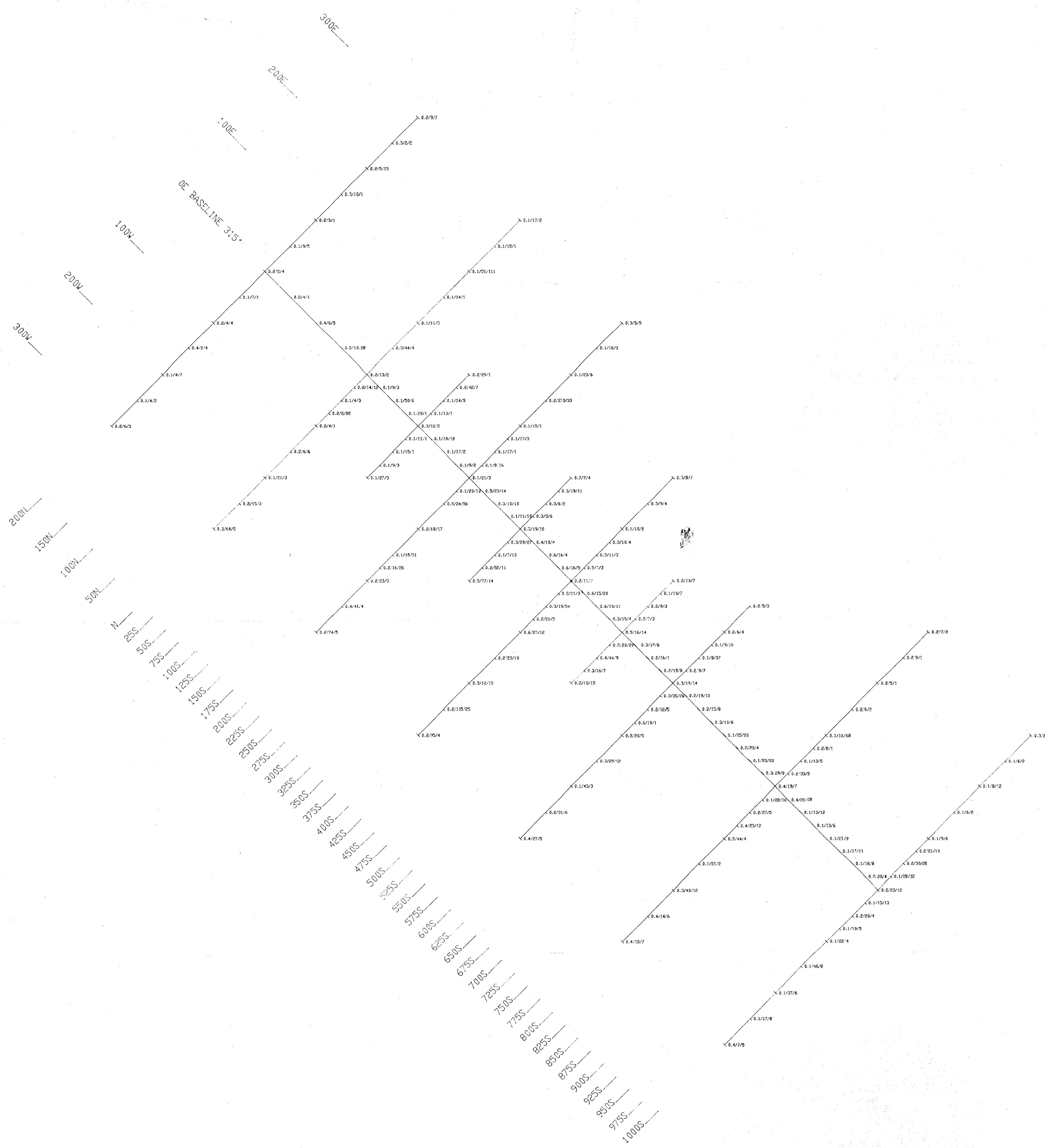


FIGURE 5
GEOLOGICAL BR ACAS-AU
ASSESSMENT REPORT

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THONG CLAIMS	
SOIL GEOCHEMICAL SURVEY	
PPM Ag / PPM As / PPB Au	
PROJECT: SBC GENERAL PROJECT # 127	
BASELINE AZIMUTH: 315 Deg.	
SCALE = 1: 2500	DATE = 8/21/89
SURVEY BY: L ERDMANN	NTS : 082L06
FILE: C127HD	
NORANDA EXPLORATION	