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**GEOCHEMICAL AND GEOLOGICAL
ASSESSMENT REPORT**

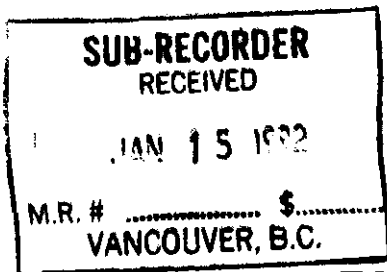
LISA - 1-4 CLAIMS

NELSON MINING DIVISION

NTS 82 F/3

49° 8'N 117° 17' E

SALMO, B.C.



FOR OWNER AND OPERATOR

NORANDA EXPLORATION CO. LTD.

VANCOUVER, B.C.

Date: January 7, 1992
Commodities: Cu, Au
Author: W.R. Epp

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

22,067

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SUMMARY

The Lisa 1-4 Claims were investigated to determine the economic potential of a shear hosted copper and gold bearing quartz vein which was drifted upon as early as 1922.

The quartz shear zone contains pyrite, chalcopyrite, malachite, gold and silver and was reported to contain up to 0.08 oz/ton Au, 12.4 oz/ton Ag, and 6.10 % Cu.

Exploration in 1991 consisted of preliminary underground channel sampling, and establishing a surface soil grid to determine the grade of the zone and to trace its extensions at surface.

Single point elevated gold values occur within the grid, however, copper values did not deviate from background geochemistry. The vein, footwall and hanging wall gouge zones were anomalous in copper but not particularly in gold.

1.0 Introduction

1.1 Location and Access

The Lisa 1-4 Claims are located approximately 7 km south of Salmo, B.C. within the Nelson Mining Division at 49 deg. 8' N and 117° 17' E and are accessed by an all weather road up Hellroaring Creek and subsequently by 1.5 km of 4 wheel drive road (Figure 1, 2a, 2b).

Elevations in the area range from 1250 m in the valley to 1700 m and slopes are densely forested by larch, white pine, hemlock, cedar, fir and poplar.

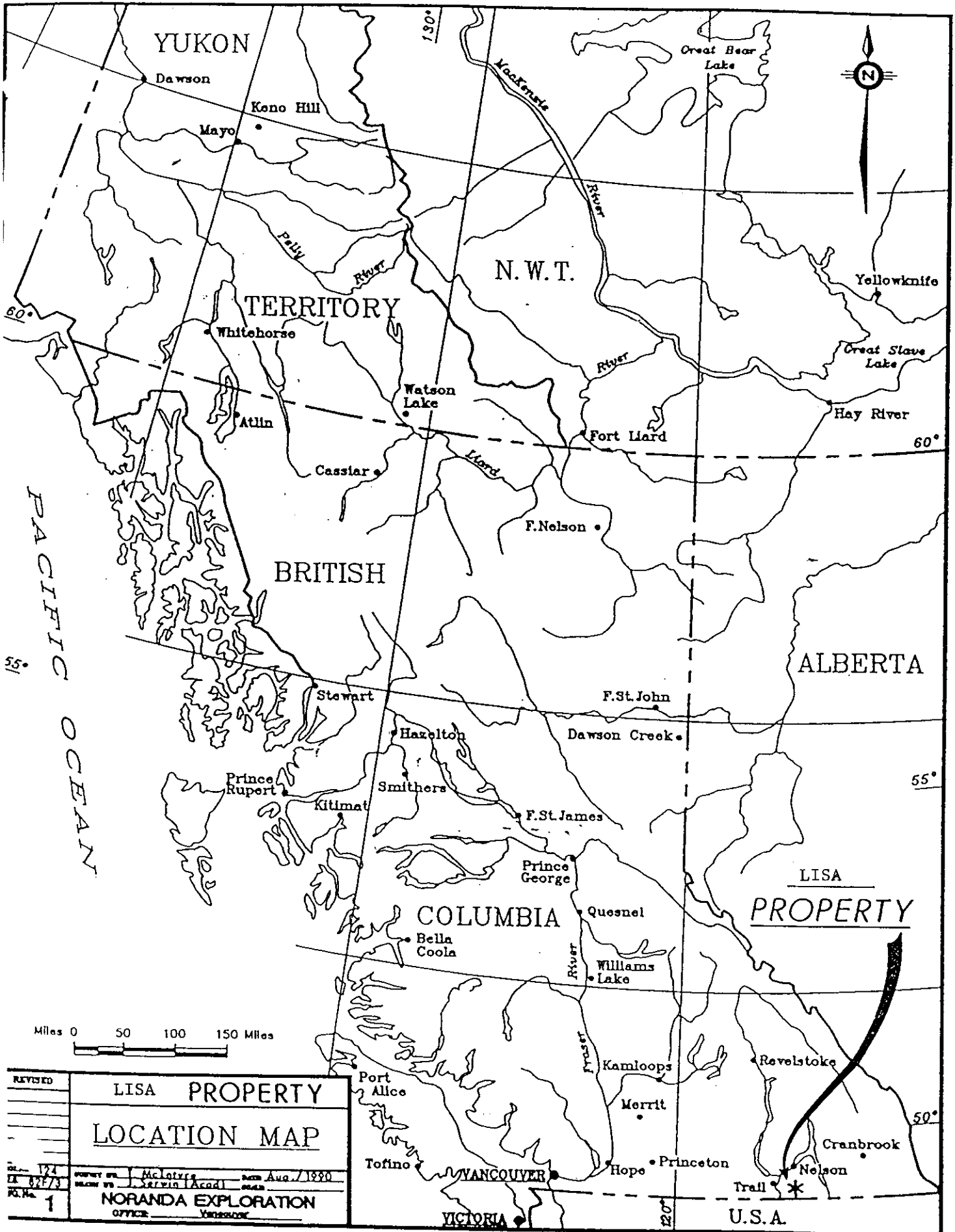
1.2 Claims and Ownership

The Lisa 1-4 is composed of the following claims (Figures 2a, 2b, 3):

TABLE 1

Name	Record No.	Units	Record Date	New Expiry Date
Lisa-1	233283	1	10/17/81	10/17/92
Lisa-2	233284	1	10/17/81	10/17/92
Lisa-3	233285	1	10/17/81	10/17/92
Lisa-4	233286	1	10/17/81	10/17/92

All interest in the Lisa group of claims have been transferred for administrative purposes to Noranda Exploration Company, Limited (no personal liability), as stated in an option agreement between the Murray's and Yellowjack Resources Ltd.



REVISED	LISA PROPERTY	
	LOCATION MAP	
PL. No. 124	PROPERTY OF J. McIntyre	DATE Aug. 7, 1930
PL. No. 82773	HELD BY J. Servin Acad.	
PL. No. 1	NORANDA EXPLORATION	
	OFFICE VANCOUVER	

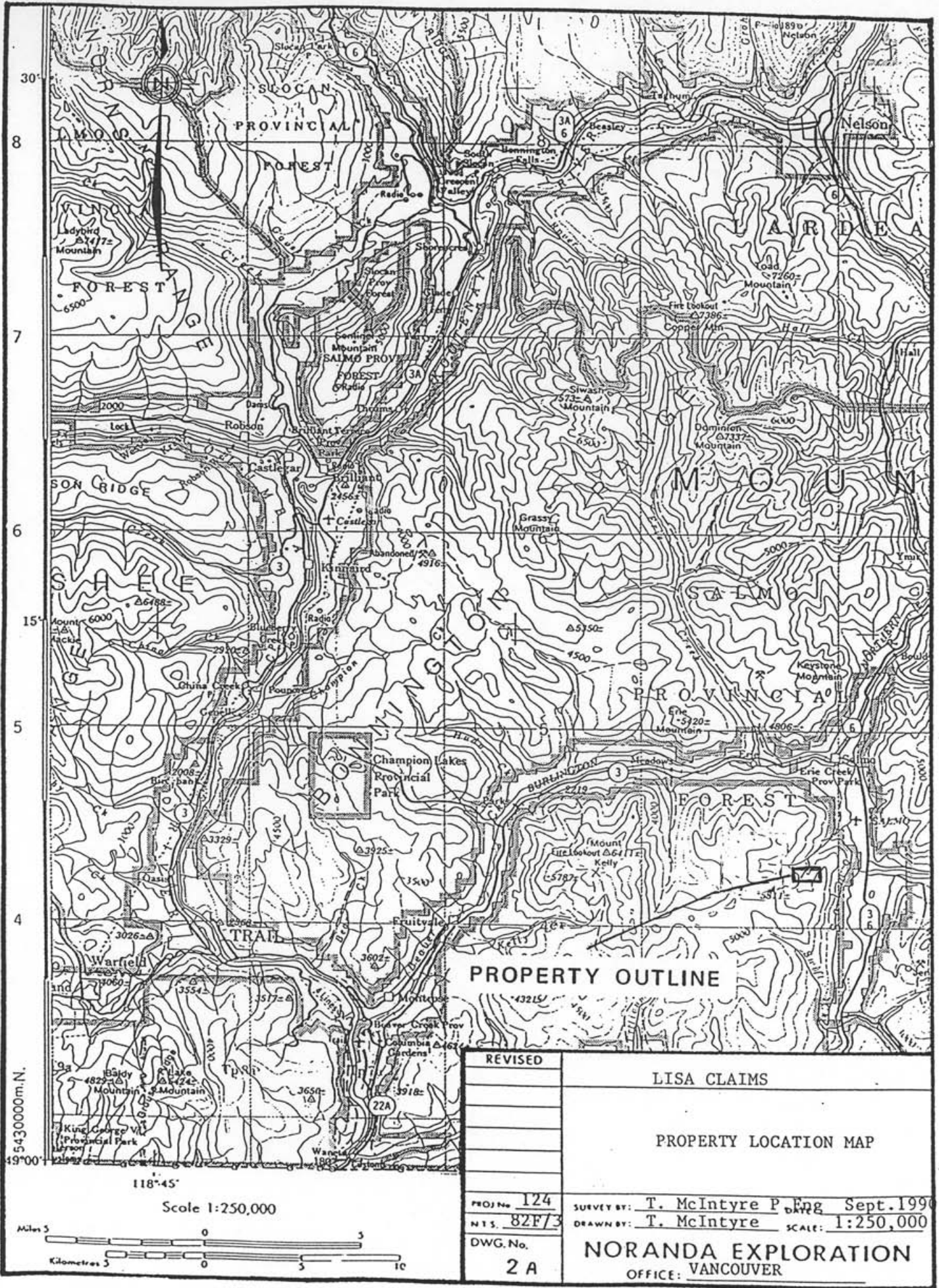
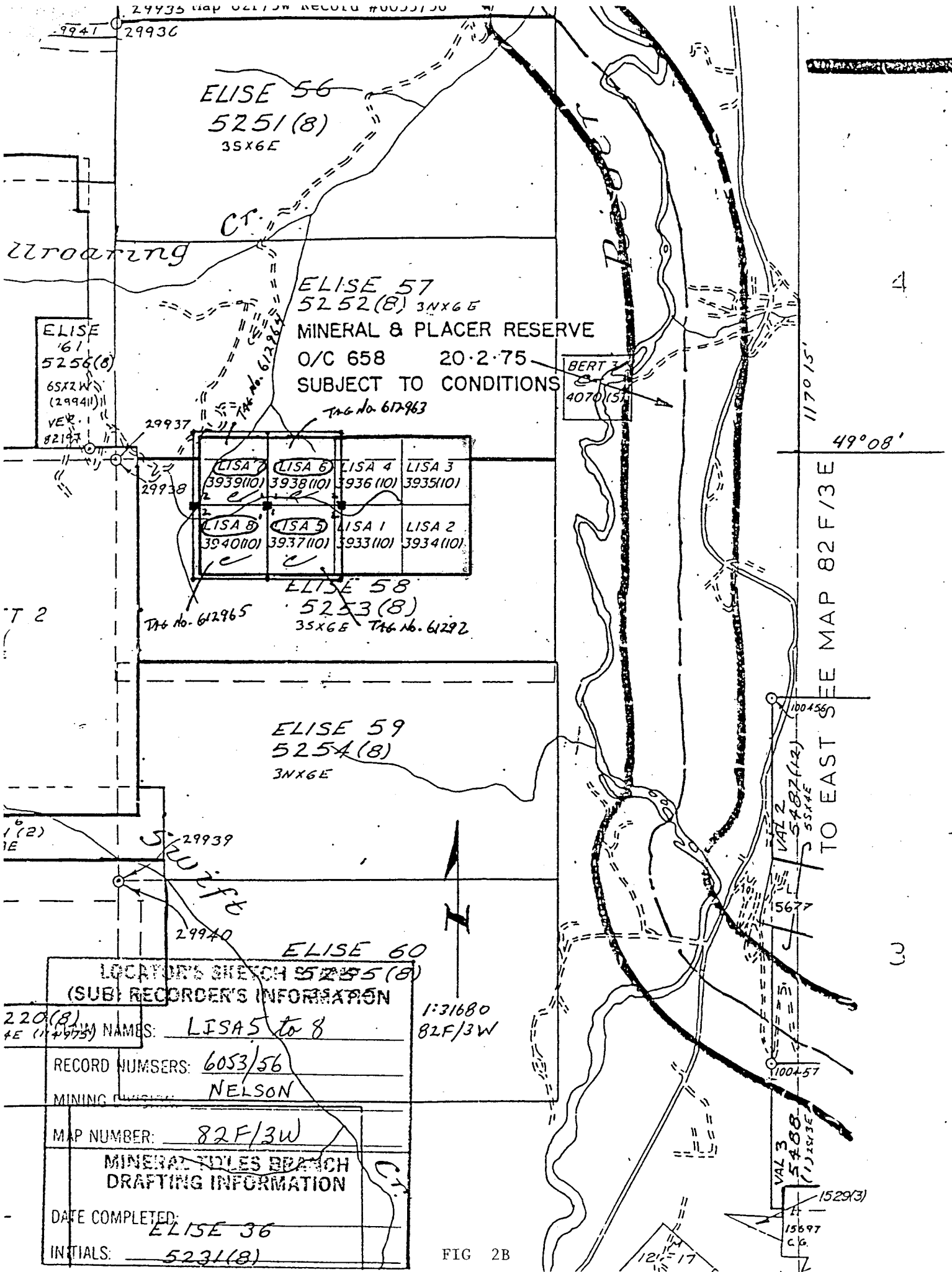


Figure 2A



ELISE 56
5251(8)
35X6E

ELISE 57
5252(8) 3NX6E
MINERAL & PLACER RESERVE
O/C 658 20.275
SUBJECT TO CONDITIONS

LISA 7 3939(10)	LISA 6 3938(10)	LISA 4 3936(10)	LISA 3 3935(10)
LISA 8 3940(10)	LISA 5 3937(10)	LISA 1 3933(10)	LISA 2 3934(10)

ELISE 58
5253(8)
35X6E

ELISE 59
5254(8)
3NX6E

ELISE 60

LOCATOR'S SKETCH 5255(8)
(SUB) RECORDER'S INFORMATION

CLAIM NAMES: LISAS 5 to 8

RECORD NUMBERS: 6053/56

MINING DIVISION: NELSON

MAP NUMBER: 82F/3W

MINERAL TILES BRANCH
DRAFTING INFORMATION

DATE COMPLETED: ELISE 36

INITIALS: 5231(8)

FIG 2B

RECORD #0055150

4

49°08'

TO EAST SEE MAP 82 F/3E

10

117015'

100456

VAL 2
5482(12)
55X4E

15677

100457

VAL 3
5488
(1) 25X3E

1529(3)

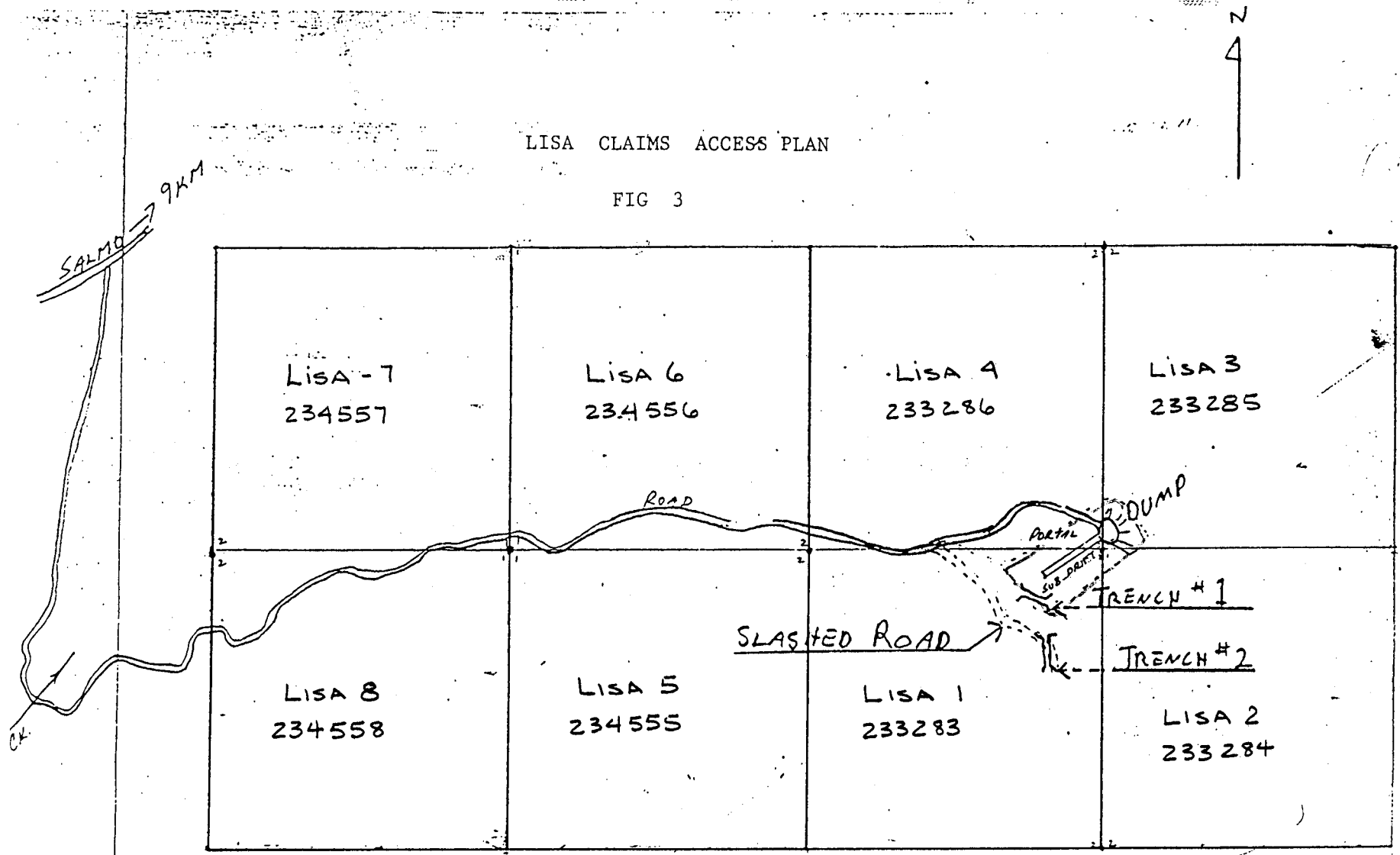
15697

C.G.

121 17

LISA CLAIMS ACCESS PLAN

FIG 3



SCALE 1:10,000

Area of 1991
Exploration

1.3 Previous Exploration

A deep trench 10 metres in length was dug over an exposed shear zone which contained malachite and azurite and narrow seams of chalcopyrite and quartz. A sample from this seam graded 0.08 oz/ton Au, 12.4 oz/ton Ag and 6.1% Cu (1922 Report of the Minister of Mines).

Seventy metres lower in elevation a 100 m long tunnel was driven along the shear and encountered small pockets of low grade copper and precious metals.

More recent work, between 1985 and the present study, consisted of rehabilitating the portal, preliminary mapping and surface trenching.

1.4 Present Exploration

Work in the fall, of 1991 (conducted October 15, 1991) consisted of establishing a 30 sample soil grid with the base line bearing 230 degrees and samples taken along six by one hundred metre lines. Lines were surveyed and flagged at 50 metre spaced crosslines with samples taken at 25 metre intervals.

Twelve underground samples were taken at the 5, 20, 40, and 70 metre point from the portal from the vein, hanging wall and footwall material.

2.0 GEOLOGY

2.1 Regional Geology

The Salmo area is underlain by Lower Jurassic Rossland Group volcanics and sedimentary rocks intruded by stocks and plugs of Lower Cretaceous Nelson granodiorite (Figure 4).

Argillites of the Archibald Formation overlie andesitic volcanics and volcanoclastics of the Elise Formation. Dioritic differentiates of the Nelson intrusives penetrate the above formations and have generated porphyry copper-gold cells in the region.

2.2 Local Geology

Outcrop is limited on the Lisa Claims, however, Archibald sediments and Elise Volcanics are both present.

The shear zone (Figure 6) which strikes at 230° and dips sub-vertically north and or south is within andesites and contains a quartz-carbonate vein varying between a few centimetres up to .75 m wide. Gouge zones are notable on the hangingwall and footwall of the vein and breccia zones within the shear are not uncommon. Chalcopyrite, malachite, azurite, and pyrite mineralization are observed to occur within the shear zone and within the quartz-carbonite vein.

Slickensides show 2 events of displacement both with a 230 degree strike and one with an 8 degree north dip, the other with a 10 degree south dip.

3.0 1991 EXPLORATION RESULTS

3.1 Soil Geochemistry (Figure 5)

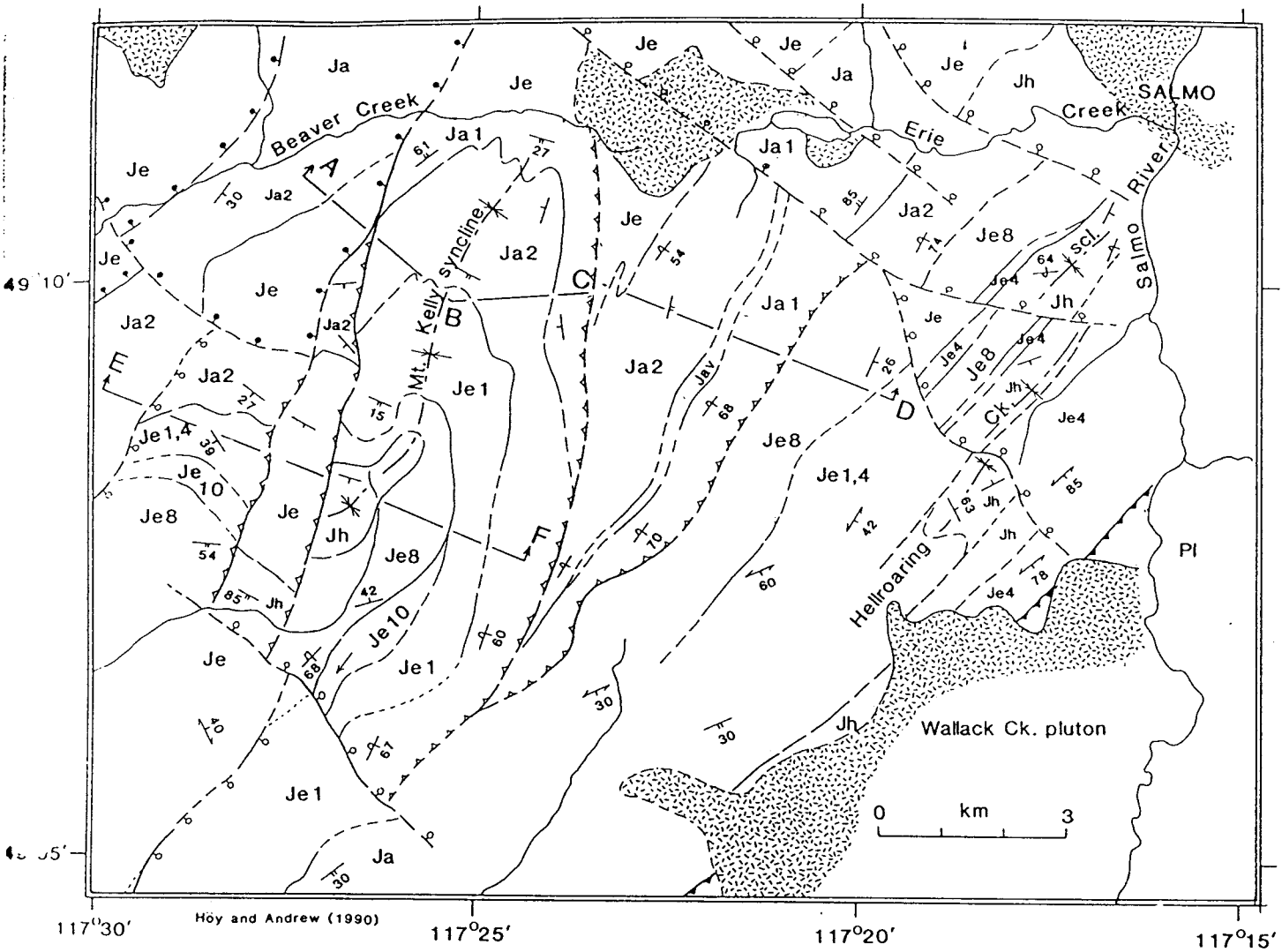
Copper geochemistry derived from 30 samples taken perpendicular to the strike of the vein revealed no anomalous values. The peak copper value was 82 ppm with most samples containing 50 - 60 ppm copper.

Gold values were generally less than 10 ppb. One sample contained 84 ppb Au and 4 samples contained between 10 and 20 ppb Au.

The survey failed to detect any real indications of the vein on surface.

3.2 Underground Sampling (Figure 6)

Table 2 outlines information from the underground sampling from across the vein, hangingwall and footwall:



LEGEND

JURASSIC - CRETACEOUS

granite, granodiorite

LOWER JURASSIC

ROSSLAND GROUP

HALL FORMATION: argillite, siltstone

ELISE FORMATION

siltstone, argillite

intermediate to mafic tuff

mafic flows, tuff

ARCHIBALD FORMATION

Siltstone, conglomerate

Argillite, siltstone

Lapilli tuff

PALEOZOIC

LAIB FORMATION (?)

Figure 1-1-2. Geological map of the Mount Kelly-Hellroaring Creek area, Salmo map sheet, southeastern British Columbia (after Höy and Andrew, 1990; Fitzpatrick, 1985 and Little, 1964).

Table 2

Distance from Portal	Sample #	Chip Width	Location	Geology	Mineralization
5 m	535	.85m	fw	Ax gouge	-
	536	.50m	vn	qtz	4 - 6% mal
	537	1.10m	hw	bx ax	2% py tr. mal
20 m	538	.60m	fw	gouge	geothite alt.
	539	.70m	vn	qtz bx	tr. py, cpy
	540	.60m	hw	ax gouge	2 - 4% mal
40 m	541	.25m	fw	gouge	tr. py
	542	.05m	vn	qtz gouge	tr. py, mal
	543	.32m	hw	ax	-
70 m	544	.08m	fw	qtz in ax	tr. py
	545	.10m	vn	bx qtz	3% py tr. cpy
	546	.65m	hw	qtz in ax	tr. py

Note: fw=footwall; hw=hangingwall; vn=vein; ax=andesite; qtz=quartz; bx=breccia; alt=alteration; tr=trace; mal=malac hite; cpy=chalcopyrite; py=pyrite; az=azurite

The peak gold value obtained was .078 g/tonne and the peak copper was 0.20 %. One sample contained 11.6 g/tonne Ag.

These values are of academic interest only.

4.0 CONCLUSIONS

The 1991 exploration of the Lisa 1-4 Claims was aimed at assessing the value and extent of a shear hosted copper and precious metal bearing quartz vein.

A 25 x 50 m soil grid attempted to trace the vein along strike however, no significant anomalies were detected.

Underground samples contained low levels of copper and gold and no further work is recommended on this portion of the vein. Since a reported 6.1% Cu value was obtained from a surface trench there may be shoots within untested portions of the vein (i.e. depth) which contain higher grade material.

Further mapping and sampling is recommended to locate the source of the reported high grade copper and to attempt to locate the vein along strike.

APPENDIX I
ANALYTICAL PROCEDURES

ANALYTICAL METHOD DESCRIPTIONS FOR GEOCHEMICAL ASSESSMENT REPORTS

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

Preparation of Samples:

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

Rock specimens are pulverized to -120 mesh (0.13 mm). Heavy mineral fractions are analyzed in its entirety, when it is to be determined for gold without further sample preparation.

Analysis of Samples:

ICP analyses for 28 elements is determined using a Leeman PS3000. For silts and soils a 0.2 g sample is digested with 3 ml of $\text{HClO}_4/\text{HNO}_3$ at a ratio of 4:1. This digestion occurs for 4 hours at a temperature of 203°C. The resulting liquid is diluted to 11 ml with water. Pulps of rock or core are weighed out at 0.4 g, and chemical quantities are doubled relative to the above noted method for digestion. Otherwise the procedure remains the same.

Gold (Au) content is determined by atomic absorption (AA), not ICP. A 10 g sample is weighed and ashed at 590°C for 3 to 5 hours. After cooling, 35 mls of aqua regia ($1\text{HNO}_3:3\text{HCl}$) is added and the samples are digested on a hot plate for 2 hours, or until 15 mls of aqueous solution is left. Dilute with water to 100 mls and add 5 mls MIBK. Addition of MIBK extracts and pre-concentrates the gold from the aqueous solution. Following this step the MIBK solution is analyzed on the AA.

Detection limits (D.L.) and low range sensitivities (L.R.S.)
for ICP and AA (Au only) analyses (Noranda Vancouver Laboratory).

<u>Element</u>	<u>D.L.</u>	<u>L.R.S.</u>	<u>Element</u>	<u>D.L.</u>	<u>L.R.S.</u>
Au (ppb)	5		K (%)	0.01	
Ag (ppm)	0.2		La (ppm)	1	
Al (%)	0.02		Li (ppm)	1	
As (ppm)	2	5	Mg (%)	0.01	
Ba (ppm)	1		Mn (ppm)	1	
Be (ppm)	0.1		Mo (ppm)	1	3
Bi (ppm)	2	5	Na (%)	0.01	
Ca (%)	0.1		Ni (ppm)	1	
Cd (ppm)	0.2	0.5	P (%)	0.01	
Ce (ppm)	5		Pb (ppm)	2	5
Co (ppm)	1		Sr (ppm)	1	
Cr (ppm)	1		Ti (%)	0.01	
Cu (ppm)	1		V (ppm)	2	
Fe (%)	0.1		Zn (ppm)	1	

SAMPLE PREPARATION • STORAGE POLICY

2

Sample Preparation

Soils, Humus and Stream Sediments	\$Cdn	\$US
* Dry and sieve, - 80 Mesh	1.00	0.85
* Dry and sieve, - 80 Mesh/save reject	1.20	1.00
* Dry and sieve, - 25 Mesh/pulverize to - 100 Mesh	2.25	1.90
* Dry and pulverize entire sample (up to 200g)	2.50	2.15
* Overweight charge for samples > 5 lbs.	0.25/lb	0.20/lb
* Other mesh sizes available on request		
Rock & Drill Core		
* Multiple stage crushing (up to 10 lb), riffle splitting and pulverizing/250 g to - 150 Mesh	3.25	2.75
* Same as above, but sieve through 150 Mesh screen and save +150 Mesh portion	5.00	4.25
* Pulverization of additional portion of reject from same sample	2.50	2.15
* Dry & pulverize mill concentrate to - 150 Mesh	4.00	3.40
* Magnetic separation	2.50	2.15
* Overweight sample charge for crushing	0.25/lb	0.20/lb
* Dry excessively wet samples	1.00/5 lb	0.85/5 lb
* Special handling	20.00/hr	17.00/hr
Heavy Mineral Separation		
* Methylene Iodine (S.G. = 3.3) heavy liquid separation/5 kg	20.00	17.00
* Tetrabromoethane (S.G. = 2.95) heavy liquid separation/5 kg	12.00	10.20
Sample and Reject Storage Policy		
* Pulp storage — 1 year/discard at end of year	n/c	n/c
* Reject storage — 90 days/discard at end of term	n/c	n/c
* H ₂ O sample storage — 90 days/discard at end of term	n/c	n/c
* Soil pulp storage (per sample/per year)	0.05	0.05
* Rock pulp storage (per sample/per year)	0.15	0.15
* Reject storage (per sample/per year)	0.50	0.45

International Plasma Lab maintains the utmost of care and attention to the storage of pulps and rejects but cannot accept responsibility for lost or damaged samples.

Prices effective February 1, 1991
Volume discounts available

Canadian prices do not include G.S.T.



MULTI-ELEMENT PACKAGE (ICP) • WHOLE ROCK ANALYSIS 3

Multi-element Analysis

	\$Cdn	\$US
— 30-element ICP package (including Aqua-Regio digestion)	5.50	4.70
— Multi-acid digestion (HF-HClO ₄ -HNO ₃) surcharge	2.75	2.35

Element	Units	Minimum Detection	Maximum Detection	Increment	Element	Units	Minimum Detection	Maximum Detection	Increment
* Aluminum	%	0.01	5.00	0.01	Mercury	ppm	3	10000	1
Antimony	ppm	5	1000	1	Molybdenum	ppm	1	1000	1
Arsenic	ppm	5	10000	1	Nickel	ppm	1	10000	1
* Barium	ppm	2	10000	1	* Phosphorus	%	0.01	5.00	0.01
Bismuth	ppm	2	10000	1	* Potassium	%	0.01	10.00	0.01
Cadmium	ppm	0.1	10000	0.1	* Scandium	ppm	1	10000	1
* Calcium	%	0.01	10.00	0.01	Silver	ppm	0.1	100.0	0.1
* Chromium	ppm	1	10000	1	* Sodium	%	0.01	5.00	0.01
Cobalt	ppm	1	10000	1	Strontium	ppm	1	10000	1
Copper	ppm	1	20000	1	* Thallium	ppm	10	1000	1
Iron	%	0.01	5.00	0.01	* Titanium	%	0.01	2.00	0.01
* Lanthanum	ppm	2	10000	1	* Tungsten	ppm	5	1000	1
Lead	ppm	2	20000	1	Vanadium	ppm	5	10000	1
* Magnesium	%	0.01	10.00	0.01	Zinc	ppm	1	20000	1
Manganese	ppm	1	10000	1	* Zirconium	ppm	1	10000	1

* Element may not digest completely

— Other elements available; phone for current list.

— Larger sample sizes may be used to produce lower detection limits; please phone for quote.

Whole Rock Analysis	\$Cdn	\$US
This analysis utilizes a lithium metaborate fusion, nitric acid leach, and ICP scan. A separate LOI analysis is included in the package price. Al ₂ O ₃ , BaO, CaO, Fe ₂ O ₃ , K ₂ O, LOI, MgO, MnO, Na ₂ O, P ₂ O ₅ , SiO ₂ , TiO ₂ (all to 0.01%), plus Total	20.00	17.00
Additional analysis available: FeO, S, C, CO ₂ , H ₂ O ⁺ , H ₂ O	7.00 ea	5.95 ea

Trace element analysis by Vapor Generation Accessories

Element	Units	Minimum Detection	Maximum Detection
Sb Antimony	ppm	0.1	1000
As Arsenic	ppm	0.1	1000
Bi Bismuth	ppm	0.1	1000
Hg Mercury	ppb	5	10000
Se Selenium	ppm	0.1	1000
Te Tellurium	ppm	0.05	100

Price	\$Cdn	\$US
First element	4.50	3.85
Each additional element	2.50	2.15

Prices effective February 1, 1991
Volume discounts available

Canadian prices do not include G.S.T.



Precious Metal Analysis

Trace Level Analysis

Element	Smpl Wt	Method	Detection Limit	Price \$Cdn	Price \$US
• Silver	0.5g	Aqua-Regia/AA finish	0.1 ppm	2.25	1.90
• Gold	10g	Ash/Extraction/AA finish	5 ppb	5.00	4.25
• Gold	10g	Fire Assay/AA finish	5 ppb	6.00	5.10
• Gold	20g	Fire Assay/AA finish	5 ppb	7.00	5.95
• Gold	30g	Fire Assay/AA finish	2 ppb	8.00	6.80
• Platinum } • Palladium }	30g	Fire Assay/AA finish	{ 5 ppb 5 ppb	10.00	8.50
• Gold } • Platinum } • Palladium }			{ 2 ppb 5 ppb 5 ppb		
• Graphite tube AA finish for Gold analysis to 1 ppb surcharge				1.50	1.30

Ore Grade Analysis

Element	Smpl Wt	Method	Detection Limit	Price \$Cdn	Price \$US
• Silver	1/2 AT	Fire Assay/Grav	0.01 OPT	8.00	6.80
• Silver	1 AT	Fire Assay/Grav	0.01 OPT	9.00	7.65
• Gold	1/2 AT	Fire Assay/Grav	0.005 OPT	8.00	6.80
• Gold	1 AT	Fire Assay/Grav	0.002 OPT	9.00	7.65
• Gold } • Silver }	1/2 AT	Fire Assay/Grav	{ 0.005 OPT 0.01 OPT	12.00	10.20
• Gold } • Silver }			{ 0.002 OPT 0.01 OPT		
• Platinum	1/2 AT	Fire Assay/AA	0.005 OPT	20.00	17.00
• Palladium	1/2 AT	Fire Assay/AA	0.005 OPT	20.00	17.00
• Platinum } • Palladium }	1/2 AT	Fire Assay/AA	{ 0.005 OPT 0.005 OPT	30.00	25.50

Results may be reported in any of the following units at no additional cost:
ppb, ppm, OPT, g/mt

Metallic Sieve Analysis

Up to 10 pounds of sample is crushed to -10 mesh and a 250g portion is taken using a riffle splitter. The split is then pulverized and is passed through a 150 mesh screen. The entire +150 fraction and a 1/2 AT of the -150 fraction are Fired Assayed. The results are reported both separately and as a calculated total. Larger sample splits may be analyzed at additional cost, please phone (604) 879-7878 for a quote.

Price (Including preparation)	\$Cdn	\$US
Gold only	21.00	17.85
Gold and Silver	29.00	24.65

Bullion Assay

Element	Method	\$Cdn	\$US
Silver (fineness)	Fire Assay/Grav	30.00	25.50
Silver (bullion, fineness)	Fire Assay/Grav	50.00	42.50
Gold (fineness)	Fire Assay/Grav	30.00	25.50
Gold (bullion, fineness)	Fire Assay/Grav	50.00	42.50

Prices effective February 1, 1991
Volume discounts available

Canadian prices do not include G.S.T.



APPENDIX II
GEOCHEMICAL RESULTS

Lisa Claims - Soil Grid Results

(C 138 LIS)


9111-007

1PL Report: 9100468 T Noranda Exploration Co. Ltd.
In: Oct 23, 1991

Project: 138
Out: Oct 28, 1991

Page 1 of 1 Section 1 of 1

Sample Name	Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Tl	Bi	Cd	Co	Ni	W	Ba	Cr	V	Mn	La	Sr	Zr	Sc	Ti	Al	Ca	Fe	Mg	K	Na	P
	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%	%	%
P 155576	S: 1	<	38	14	172	25	<	<	2	<	<	0.8	24	46	<	217	42	72	1367	8	39	6	4	0.18	3.87	0.34	3.70	0.78	0.13	0.03	0.23
P 155577	S: 1	<	62	10	205	19	5	<	2	<	<	1.7	32	63	<	285	56	91	1960	8	63	6	5	0.21	4.17	0.56	4.42	1.00	0.13	0.03	0.13
P 155578	S: 2	0.1	58	6	140	16	<	<	1	<	<	0.6	22	35	<	205	39	77	1333	9	27	12	4	0.20	3.86	0.24	3.76	0.74	0.10	0.03	0.24
P 155579	S: <	<	42	15	138	24	5	<	2	<	<	0.5	24	51	<	207	68	79	1127	7	30	7	4	0.17	3.86	0.24	3.75	0.89	0.11	0.02	0.26
P 155580	S: 5	<	45	4	146	19	<	<	2	<	<	0.2	25	55	<	192	69	83	915	7	28	7	4	0.18	4.26	0.24	4.04	0.92	0.08	0.02	0.23
P 155581	S: <	<	48	9	155	16	<	<	1	<	<	0.5	20	34	<	249	35	66	1287	8	24	11	3	0.19	4.99	0.20	3.28	0.58	0.09	0.03	0.34
P 155582	S: <	<	49	22	175	22	5	<	2	<	<	1.2	25	39	<	238	42	77	1729	9	33	4	4	0.15	3.67	0.27	3.84	0.89	0.11	0.02	0.24
P 155583	S: 84	0.4	36	11	240	20	6	<	2	<	<	1.3	23	44	<	416	41	73	3102	9	44	6	4	0.18	4.21	0.36	3.87	0.79	0.12	0.03	0.36
P 155584	S: <	0.2	42	10	139	23	<	<	2	<	<	0.4	22	43	<	252	43	73	1238	9	36	10	4	0.17	4.12	0.29	3.59	0.79	0.11	0.03	0.22
P 155585	S: 10	0.2	59	8	138	24	<	<	2	<	<	0.3	27	61	<	224	71	92	1120	9	42	5	4	0.17	3.98	0.35	4.28	1.18	0.11	0.02	0.18
P 155586	S: 13	0.2	56	12	123	19	5	<	3	<	<	0.4	22	40	<	156	52	87	1075	6	34	4	3	0.18	3.60	0.33	3.87	0.88	0.12	0.02	0.16
P 155587	S: 4	0.2	32	10	140	19	<	<	2	<	<	0.5	19	38	<	249	34	68	1370	7	39	10	3	0.19	4.67	0.31	3.41	0.63	0.11	0.03	0.24
P 155588	S: 1	0.2	42	10	160	25	<	<	1	<	<	0.5	21	54	<	226	47	76	1528	6	38	7	4	0.18	4.44	0.32	3.69	0.82	0.11	0.03	0.29
P 155589	S: 8	0.1	56	12	146	22	<	<	2	<	<	0.3	21	34	<	204	33	76	1496	10	30	7	4	0.17	4.36	0.27	3.63	0.80	0.10	0.03	0.28
P 155590	S: <	<	29	20	150	23	<	<	2	<	<	0.5	19	27	<	215	31	72	1562	7	31	5	3	0.16	3.54	0.26	3.57	0.74	0.10	0.03	0.33
P 155591	S: <	0.3	65	13	183	12	<	<	2	<	<	1.2	26	43	<	418	54	93	2751	8	40	4	3	0.18	3.97	0.36	4.20	0.97	0.15	0.02	0.30
P 155592	S: 1	<	61	19	155	24	<	<	2	<	<	0.8	21	38	<	235	45	74	1436	7	29	10	3	0.19	4.22	0.26	3.60	0.71	0.13	0.03	0.40
P 155593	S: <	0.7	58	11	163	21	<	<	1	<	<	0.6	23	79	<	168	46	66	1115	10	25	17	5	0.19	4.83	0.23	3.30	0.62	0.10	0.03	0.22
P 155594	S: 1	0.2	46	8	162	22	<	<	2	<	<	0.2	26	40	<	178	26	67	1440	7	32	10	3	0.19	4.93	0.27	3.52	0.51	0.10	0.03	0.29
P 155595	S: 1	0.1	35	12	156	18	<	<	2	<	<	0.4	19	26	<	199	29	68	1538	7	20	5	3	0.18	4.19	0.15	3.49	0.55	0.09	0.03	0.34
P 155596	S: 15	0.3	77	15	132	8	<	<	2	<	<	0.7	24	48	<	286	69	91	1929	7	36	3	3	0.18	3.74	0.35	3.87	0.99	0.20	0.02	0.20
P 155597	S: 4	0.3	70	14	120	10	<	<	2	<	<	0.5	23	49	<	197	75	80	1306	7	30	6	3	0.18	3.79	0.29	3.62	0.89	0.12	0.02	0.21
P 155598	S: 19	<	63	25	152	19	<	<	2	<	<	0.7	30	48	<	210	28	67	1711	7	25	10	3	0.19	3.85	0.20	3.47	0.55	0.09	0.03	0.17
P 155599	S: 5	<	63	14	137	9	<	<	2	<	<	0.5	31	45	<	162	44	83	1363	7	28	5	4	0.19	3.52	0.24	3.99	0.79	0.10	0.02	0.15
P 155600	S: 3	<	38	25	139	16	<	<	2	<	<	0.7	20	23	<	218	28	73	2198	7	23	3	3	0.17	2.82	0.22	3.68	0.53	0.09	0.02	0.27
P 155601	S: 2	<	66	13	122	10	<	<	1	<	<	0.7	26	56	<	320	63	92	1692	7	50	8	3	0.21	4.11	0.45	3.92	0.99	0.17	0.03	0.25
P 155602	S: 3	0.3	82	9	140	11	<	<	1	<	<	0.6	30	68	<	222	112	92	2001	6	36	3	3	0.20	3.72	0.39	4.08	1.24	0.15	0.02	0.18
P 155603	S: 4	0.3	61	16	143	10	<	<	2	<	<	0.6	28	61	<	189	71	76	1215	7	26	9	4	0.20	3.38	0.24	3.55	0.87	0.09	0.02	0.09
P 155604	S: 4	<	51	16	215	12	5	<	1	<	<	1.1	30	45	<	323	38	69	3700	7	33	3	3	0.17	3.41	0.29	3.68	0.64	0.12	0.02	0.34
P 155605	S: 1	0.6	53	15	133	16	5	<	2	<	<	0.4	23	30	<	139	29	72	696	8	24	11	3	0.19	3.98	0.19	3.64	0.61	0.09	0.02	0.24

Min Limit 1 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 5 2 1 2 1 2 1 1 1 1 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01
 Max Reported 9999 99.9 20000 20000 20000 9999 999 9999 999 999 999 99.9 999 999 999 999 9999 999 9999 999 999 999 999 999 999 1.00 5.00 9.99 5.00 9.99 9.99 5.00 5.00
 Method FAAA ICP
 ---Not Analysed ins=Insufficient Sample **=Overlimit <=Underlimit S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898 Certified BC Assayer  David Chiu

APPENDIX III
STATEMENT OF COSTS

APPENDIX 3

STATEMENT OF COSTS

1 man day @ \$200 per day (October 15/91) (T. Naciuk)	=	\$ 200.00
1 man day @ \$150 per day (October 15/91) (A. Berry)	=	\$ 150.00
30 soil samples @ \$ 15.00/sample	=	\$ 450.00
12 rock chip samples @ \$ 15.00/sample	=	\$ 180.00
truck 1 day @ \$ 60/day	=	\$ 60.00
report preparation 1 day @ \$ 250.00/day (W. Epp)	=	\$ 250.00
TOTAL	=	<u>\$1,290.00</u>

Personnel

T. Naciuk - Geologist
A. Berry - Field Technician
W. Epp - Project Geologist

All of the above were Noranda Exploration Ltd. employees when the work was conducted.

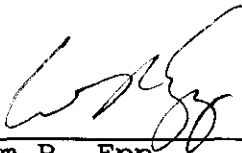
APPENDIX IV
STATEMENT OF QUALIFICATIONS

APPENDIX 4

STATEMENT OF QUALIFICATIONS

I, **William R. Epp**, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geologist, residing at 405 - 1666 Pendrell Street, Vancouver, B.C.
2. I hold a B.Sc degree from U. of Waterloo (1977) and a B. Ed. from U. of Toronto (1980).
3. I am a fellow in good standing of the Geological Association of Canada.
4. I have worked in mineral exploration in Canada and internationally since 1977 except for the year at U. of Toronto.
5. The work described in this report was conducted under my direct supervision. I have personally examined and sampled the vein underground and at surface.
6. I am presently employed by Noranda Exploration Company Ltd. and prepared this report on their behalf.
7. I have no interest in the property nor do I expect to receive any.



William R. Epp

